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Field Summary Report for the
Full-Scale In Situ Chemical Oxidation Removal Action
At Installation Restoration Site 9 Intermediate
Alameda Point, Alameda, California

Final Field Summary Report

FINAL

FIELD SUMMARY REPORT FOR THE FULL-SCALE IN SITU CHEMICAL OXIDATION REMOVAL ACTION AT INSTALLATION RESTORATION SITE 9 INTERMEDIATE

Alameda Point, Alameda, California

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Acronyms and Abbreviations

µg/L	micrograms per liter
bgs	below ground surface
BSU	Bay Sediment Unit
COC	contaminant of concern
DCA	dichloroethane
DCE	dichloroethene
EPA	U.S. Environmental Protection Agency
FWBZ	first water-bearing zone
IR	Installation Restoration
ISCO	in situ chemical oxidation
ISOTEC	In-Situ Oxidative Technologies, Inc.
IT	IT Corporation
MCL	Maximum Contaminant Level
MW	Montgomery Watson
ND	nondetect
PRC	PRC Environmental Management, Inc.
RI	remedial investigation
SOP	Standard Operating Procedure
SVOC	semivolatile organic compound
SWBZ	second water-bearing zone
TtEMI	Tetra Tech Environmental Management, Inc.
VOC	volatile organic compound
VC	vinyl chloride

Executive Summary

Shaw Environmental, Inc., conducted a removal action consisting of full-scale application of in situ chemical oxidation (ISCO) for the mass removal of contaminants in the saturated soil and groundwater at Installation Restoration (IR) Site 9 located at Alameda Point, Alameda, California (see Figure 1, "Facility Location Map"). The ISCO process used a modified Fenton's reagent-based oxidation chemistry. The removal action location is referenced as IR Site 9 Intermediate. The removal action was conducted within the second water-bearing zone between approximately 20 and 40 feet below ground surface (bgs), which consisted of the Upper Intermediate zone (approximately 20 to 30 feet bgs) and the Lower Intermediate zone (approximately 30 to 40 feet bgs). Three oxidant injection events were conducted at the site, with the first being conducted from May 3, 2005 through June 3, 2005. Additional oxidant injection events were conducted from July 12, 2005 through August 25, 2005; and between October 10, 2005 and December 9, 2005. The primary objective of the removal action was to achieve mass reduction within the saturated zone to reduce the volatile organic compound groundwater contaminant of concern concentrations to below their respective Maximum Contaminant Levels or to levels that are technically or economically practicable.

In the case of traditional Fenton's chemistry, the reaction is performed under low pH conditions to keep iron in solution. However, a modified Fenton's approach was used for the full-scale application. The modified approach used chelated iron as a catalyst, which did not require low pH conditions for the oxidation reactions allowing the approach to be effective in neutral conditions (pH approximately 7). The modified Fenton's approach also used a relatively dilute concentration of hydrogen peroxide (approximately 12 percent), which reduced or eliminated the potential for significant exothermic reactions (temperature increases).

Based on review of the baseline and post-injection analytical data (both increases and decreases), the ISCO removal action has had definitive impacts on total mass at IR Site 9 Intermediate. However, the groundwater conditions in the upper and lower treatment zones appear to be under non-equilibrium conditions. Over time the site conditions should return to equilibrium between soil mass and corresponding groundwater mass. Therefore, it is recommended to conduct several quarters of groundwater monitoring to allow the monitoring wells that exhibit elevated contaminant concentrations to decrease. The dissolved concentrations at the IR Site 9 Intermediate monitoring wells should decline over time. A decision regarding the need for additional ISCO treatment should not be made until at least three quarters of additional groundwater sampling is completed.

While further groundwater monitoring is recommended, the continued dissolved 1,1-Dichloroethane concentration increases observed in the upper intermediate zone monitoring

wells, even after multiple injection events, while the lower zone concentrations decrease, may indicate that this zone is being influenced by contamination present above this zone. It may be possible that concentrations in the upper intermediate zone are being affected by contamination in the shallow zone (5 to 15 foot bgs). The shallow zone was not a targeted interval of this removal action.

1.0 Introduction

This report discusses the implementation and results of the full-scale removal action conducted by Shaw Environmental, Inc., using in situ chemical oxidation (ISCO) technology at Installation Restoration (IR) Site 9, located at Alameda Point, Alameda, California (Figure 1, "Facility Location Map," and Figure 2, "Installation Restoration Site 9 Location Map"). The removal action location is herein referred to as IR Site 9 Intermediate (Figure 3, "IR Site 9 Intermediate Full-Scale ISCO Removal Action and Pilot Test Areas"). The removal action was conducted to achieve mass reduction within the saturated zone to reduce dissolved-phase chlorinated volatile organic compounds (VOCs) to levels below their respective Maximum Contaminant Levels (MCLs) or to levels that are technically and economically practicable. The removal action was performed in general accordance with the *Final Work Plan, Full-Scale In-Situ Chemical Oxidation Pilot Testing at Installation Restoration Sites 9 and 16, Alameda Point, Alameda, California*, herein referred to as the Work Plan (Shaw, 2003). As stated in the Work Plan, the full-scale ISCO system will be shutdown when concentrations of VOCs in the groundwater are reduced to levels that are technically and economically practicable, as will be determined by little or no continued reduction in VOC mass and indications that further oxidation is occurring.

The ISCO technology used Fenton's-based oxidation chemistry to determine the effectiveness of the reagents in reducing the contaminant mass. In the case of traditional Fenton's chemistry, the reaction is performed under low pH conditions to keep the reaction catalyst iron in solution. However, the modified Fenton's approach used chelated iron as a catalyst, which did not require low pH conditions; therefore, allowing the approach to be effective at neutral conditions (pH approximately 7). The modified Fenton's approach also used a relatively dilute concentration of hydrogen peroxide (approximately 12 percent), which reduced or eliminated the potential for significant temperature increases from exothermic reactions.

An ISCO pilot test was conducted at IR Site 9 Intermediate between November 2003 and May 2004 using the modified Fenton's approach. The results of the pilot test suggested that reductions in contaminant concentrations could be achieved. Shaw recommended, and the Navy agreed, to an expanded pilot test to assess the ability of two different injection methods (direct-push versus injection wells). The expanded pilot test was conducted between December 2004 and February 2005. Both the original and expanded pilot tests targeted the Upper Intermediate zone (approximately 20 to 30 feet below ground surface [bgs]) and Lower Intermediate zone (approximately 30 to 40 feet bgs) of the second water bearing zone (SWBZ). The locations of the Site 9 Intermediate pilot test and the Site 9 Intermediate expanded pilot test are presented in Figure 3.

It was determined from the pilot test and the expanded pilot test results, that introduction of the reagents into the subsurface through temporary injection points appeared to be effective for reagent distribution and reducing contaminant concentrations. Based on these results it was recommended that full-scale application be utilized at Site 9 Intermediate. The results of the pilot tests provided sufficient data for design for the full-scale application of the ISCO technology for the removal action.

The full-scale application of the ISCO technology was designed and the specifications listed in the Work Plan (Shaw, 2003). Also, additional sampling specifications were developed and described in the Sampling and Analysis portion of the Work Plan and the Sampling and Analysis Plan Addendum No. 2 (Shaw, 2005). The primary objective of the removal action was to achieve mass reduction of groundwater VOC contaminant of concern (COC) concentrations to below their respective MCLs or to levels that are technically or economically practicable. The main COCs at IR Site 9 Intermediate were 1,1-dichloroethane (DCA) and vinyl chloride (VC). Additionally, concentrations of 1,1-dichloroethene (DCE), cis-1,2-DCE, and methyl tertiary-butyl ether were detected above their respective MCLs.

The removal action consisted of the injection of catalyst (chelated iron) and oxidant (hydrogen peroxide) at a predetermined injection pattern through a series of temporary injection points. Each injection point consisted of a 3-foot section of screen set within a retractable rod attached to the bottom of push rods that were advanced into the subsurface using a direct-push drill rig. The entire screen length was positioned in the saturated zone. Injections were conducted in both the Upper Intermediate zone (approximately 20 to 30 feet bgs) and Lower Intermediate zone (approximately 30 to 40 feet bgs). Three field injection events were conducted for full-scale application. The first injection event was conducted between May 3, 2005 and June 3, 2005. The second injection event was conducted between July 12, 2005 and August 25, 2005. The third injection event was conducted between October 10, 2005 and December 9, 2005. Baseline and post-oxidant injection groundwater samples were collected, analyzed, and reviewed to evaluate the mass reduction of COC concentrations and relative success of the removal action.

1.1 Report Organization

This report has been prepared to describe the activities conducted for the full-scale removal action and also present the results and significant conclusions. This information is presented in subsequent sections as follows:

- **Section 2.0:** Presents site background, including site description and history, and a summary of previous investigations.
- **Section 3.0:** Outlines the activities performed in support of the field activities.

- **Section 4.0:** Describes the ISCO full-scale removal action activities and results of the baseline and post-oxidant injection soil and groundwater sampling.
- **Section 5.0:** Evaluates the results from the removal action and presents conclusions and recommendations.
- **Section 6.0:** Lists the references cited in the report.
- **Appendix A - Boring Logs and Well Construction Diagrams:** presents Boring Logs and Well Construction Diagrams (On Compact Disc).
- **Appendix B - Analytical Results:** provides detailed Analytical Results (On Compact Disc).
- **Appendix C - In-Situ Oxidative Technologies, Inc. Draft Full-Scale In-Situ Chemical Oxidation Report for Installation Restoration Site 9 Intermediate:** presents the *In-Situ Oxidative Technologies, Inc.* (ISOTEC) *Draft Full-Scale In-Situ Chemical Oxidation Report for Installation Restoration Site 9 Intermediate, Alameda Point, Alameda, California.*
- **Appendix D - Data Quality Assessment Report:** contains the Data Quality Assessment Report.

2.0 Site Background

The following provides a brief overview of IR Site 9. Alameda Point is located on the western tip of Alameda Island, along the eastern margin of the San Francisco Bay (see Figure 1). The northern portion of Alameda Island was formerly comprised of tidelands, marshlands, and sloughs located adjacent to the historical San Antonio Channel, now known as the Oakland Inner Harbor. Filling of subtidal areas, natural tidelands, marshlands, and sloughs with dredge spoils from the surrounding San Francisco Bay, Seaplane Lagoon, and Oakland Inner Harbor from the late 1800s to the 1960s created most of the land that is now Alameda Point.

Installation Restoration Site 9 (see Figure 2) consists of 2.9 acres located in the southwestern corner of Alameda Point, and includes Buildings 351, 410, and 588 (demolished), as well as the adjacent paved open space. Building 351 was used as a corrosion control facility until 1990, and is currently abandoned. Building 410 is the largest building at IR Site 9 and was used as an aircraft paint stripping facility between 1958 and 1990. Building 410 was then used between 1990 and 1996 by a garbage contractor and for stockpiling soil from drilling activities. The Building 410 floor drain lines were directly connected to the storm sewer lines east of the building. The floor drain lines were suspected to have been flow pathways for chlorinated hydrocarbons. Building 588 was formerly located adjacent to the northeastern edge of Building 410 and served as an industrial wastewater treatment plant. Building 588 was used to treat wastewater generated during paint stripping at Building 410. Two oil/water separators were associated with a wash rack area along the southern edge of Building 410.

Four hydrogeologic units are present at IR Site 9. These include the following:

- First water-bearing zone (FWBZ)
- Bay Sediment Unit (BSU)
- SWBZ
- Yerba Buena Mud aquitard

The FWBZ is composed of artificial fill, which consists of silty fine-grained sands. The FWBZ is approximately 5 to 10 feet thick. The depth to water is approximately 5 feet bgs or approximately 9.5 feet above mean sea level elevation. Groundwater levels in the FWBZ are potentially affected by tidal influences from the nearby Seaplane Lagoon, located 1,200 feet to the northwest (PRC Environmental Management, Inc [PRC], 1997). Underground utility corridors and leaking sewer and water pipes may also affect groundwater levels. The general groundwater flow direction is towards the west and the Seaplane Lagoon.

The BSU may act as an impediment to vertical groundwater flow between the FWBZ and SWBZ. However, insufficient data exist to confirm this at Site 9. The BSU consists of silts and clays. The thickness has been observed between 5 and 10 feet in the IR Site 9 vicinity. Northeast of the site, the BSU is absent along the former Alameda Island shoreline (present before the tidal flats were filled).

The SWBZ, beneath the site, consists of the Merritt Sand and the upper unit of the San Antonio Formation. Consequently, the SWBZ is composed of fine-grained sands and silts of the Merritt Sand, and interbedded sands, silts, and clays of the upper unit of the San Antonio Formation. The BSU separates the SWBZ from the FWBZ. In areas to the north and east of IR Site 9, where the BSU is absent, the FWBZ and SWBZ are in direct contact and the upper portion of the SWBZ and FWBZ act as one zone. The total thickness of the SWBZ is estimated to be between 80 and 100 feet.

The original pilot test, expanded pilot test, and full-scale removal action targeted the Upper Intermediate Zone (approximately 20 to 30 feet bgs) and the Lower Intermediate Zone (approximately 30 to 40 feet bgs) both of which are located in the SWBZ.

The Yerba Buena Mud aquitard underlies the SWBZ, but has not been encountered by investigations in the IR Site 9 vicinity. Borings at Alameda Point show that the Yerba Buena Mud aquitard consists of silty clay to clay, and is approximately 35 feet thick. In the southeastern portion of Alameda Point, the Yerba Buena Mud is encountered at approximately 100 feet bgs, as discussed in Basewide Groundwater Monitoring Work Plan (IT Corporation [IT], 2002).

Multiple investigations have been conducted at IR Site 9. These include remedial investigations (RIs), nature and extent investigations, plume delineation investigations, and pilot-scale testing of ISCO. Descriptions, results, and pertinent conclusions for these investigations are presented in the following:

- Draft Operable Unit-1 and Operable Unit-2 RI reports (Tetra Tech Environmental Management, Inc. [TtEMI], 1999a and 1999b)
- Engineering Evaluation/Cost Analysis (TtEMI, 2001a), the Data Gap Sampling Field Sampling Plan (TtEMI, 2001b)
- RI by James M. Montgomery in 1991 (PRC & James M. Montgomery, 1993)
- RIs by PRC and Montgomery Watson (MW) in 1994 (PRC & MW, 1994a and 1994b)
- RI by TtEMI in 1997 and 1998 (TtEMI, 1999c)
- Environmental Baseline Study in 1995 by IT (IT, 1998)

- Data Gap Sampling Investigation in 2001 and 2002 by TtEMI (TtEMI, 2002)
- Plume delineation investigation to obtain full-scale design-phase data in the Field Summary Report (Shaw, 2003)

Contaminants of concern in the groundwater included chlorinated and petroleum VOCs, semivolatile organic compounds (SVOCs), and fuel components. Dissolved-phase chlorinated hydrocarbon plumes (shallow and intermediate) and some petroleum-related compounds have been reported beneath Building 410. Contaminants of concern in groundwater at Site 9 Intermediate include mainly 1,1-DCA and vinyl chloride. However, Cis-1,2-DCE, 1,1-DCE and methyl tertiary-butyl ether have also been detected.

3.0 Field Support Activities

Certain field support activities were conducted to implement and complete the full-scale ISCO application. The field support activities included the following:

- Submitting plans and notifications
- Drilling permitting
- Boring/well location staking
- Underground utility clearance
- Decontamination
- Field documentation
- Surveying
- Investigation-derived waste disposal

The field support activities are described in the following sections.

3.1 Submitting Plans and Notifications

Planning and agency notifications were key phases required to prepare for field activities. The Alameda County Public Works Agency, Water Resources Section, was notified of all planned drilling activities. The City of Alameda Fire Department Rescue Services and Hazardous Materials Storage divisions were also notified of the application activities and associated potential hazards.

3.2 Drilling Permitting

Drilling permits were obtained from the Alameda County Public Works Agency, Water Resources Section, and drilling and well construction activities were completed in substantive compliance with the requirements of the permits and the State of California, in accordance with the Work Plan (Shaw, 2003).

3.3 Boring/Well Location Staking

All proposed well borings and temporary direct-push injection point boring were marked by white paint. The ground markings also identified the locations by number for subsequent utility clearance.

3.4 Underground Utility Clearance

Underground Service Alert was notified of the drilling activities and responding service subscribers marked the locations of known utilities within the removal action area prior to intrusive activities being conducted. Additionally, each well and temporary injection point

location was cleared as appropriate following Shaw Health and Safety Procedure HS308. Each location was cleared by hand or using an air knife to a minimum of 5 feet bgs. If any obstructions were located, an alternate location was identified and cleared in the same manner. All suspected underground utilities, conduits, and structures were marked with appropriately colored marking paint. The subcontractor cleared a minimum 20-foot radius around each location.

3.5 Decontamination

Decontamination of non-disposable sampling equipment contacting samples or subsurface media was performed according to Standard Operating Procedure (SOP) 6.1, "Sampling Equipment and Well Material Decontamination" (IT, 2000). The decontamination was conducted to prevent the introduction of extraneous material into samples and to maintain sample integrity. All non-disposable sampling equipment that did not come into direct contact with the samples was decontaminated by washing with a non-phosphate detergent, rinsing with distilled water, and air-drying as per the Sampling and Analysis Plan.

Decontamination water and rinsate were collected in truck-mounted polyurethane containers. When the containers were full, the contents were transferred to a Baker tank located at Building 112 where it was stored pending sample collection for waste profiling and subsequent disposal.

3.6 Field Documentation

Field documentation was prepared daily and maintained on-site. Field documentation consisted of completing Daily Remedial Action Contract Contractor Reports, Field Activity Daily Logs, Daily Quality Control Reports, Equipment Calibration Logs, Request for Analysis and Chain of Custody Forms, Sample Collection Forms, and Equipment Inspection Logs.

Boring logs were prepared for each well boring. Borings were logged in accordance with ASTM International *Method D2488-00 Description and Identification of Soils, Visual-Manual Procedure* (ASTM International, 2000) and the Unified Soil Classification System. Boring logs and well construction diagrams are presented as Appendix A.

3.7 Surveying

Each monitoring well and temporary injection point location was surveyed under the supervision or direction of a State of California-Registered Land Surveyor. Ground surface elevations for each point were surveyed to the nearest 0.01-foot. The horizontal coordinates of each survey point were also surveyed to the nearest 0.1-foot and referenced to the North American Datum 1983, California State Plane Coordinate System Zone 3. Vertical elevations were based on the National Geodetic Vertical Datum of 1929, as adjusted by the National Geodetic Survey in June

1991, and converted to National Geodetic Vertical Datum of 1929. The horizontal and vertical measurements were referenced to establish permanent control monuments. The survey data are stored in the project files.

3.8 Investigation-Derived Waste Disposal

The project investigation-derived waste streams consisted of soil cuttings, purge and development water, decontamination rinsate water, and personnel protective equipment generated during drilling and sampling activities. All investigation-derived waste was contained pending collection of samples for waste profiling and disposal.

Soil cuttings were contained in a roll-off bin. One discrete soil sample was collected from the roll-off bin, using an EnCore™ sampler, and used to profile the soil waste for VOCs using U.S. Environmental Protection Agency (EPA) Method 8260B for analysis. Additionally, one 4-point composite soil sample was collected from the bin to represent the waste stream. The composite sample was analyzed for the following:

- Total petroleum hydrocarbons measured as diesel and motor oil by EPA Method 8015B Modified
- SVOCs by EPA Method 8270C
- California Code of Regulations, Title 22 (CCR, 2002) Metals by EPA Methods 6010B/7000A

The analytical results were evaluated by the Shaw Transportation and Disposal Coordinator for waste profiling and disposal. The soil was transported and disposed at Forward Landfill in Manteca, California, a non-hazardous waste facility. Results can be found in Appendix B.

Equipment decontamination fluids and purge and development water were combined and stored in a 2,100-gallon Baker tank located behind Building 112 (Shaw field office). A sample was collected and analyzed for the following:

- Total petroleum hydrocarbons measured as diesel and motor oil by EPA Method 8015B Modified
- Semivolatile organic compounds by EPA Method 8270C
- Volatile organic compounds by EPA Method 8260B

The analytical results were evaluated by the Shaw Transportation and Disposal Coordinator for waste profiling and disposal. Results can be found in Appendix B.

Personal protective equipment was bagged and disposed of as municipal refuse. No personal protective equipment disposal sampling was required.

4.0 In Situ Chemical Oxidation Full-Scale Treatment Activities

This section describes the main ISCO full-scale treatment activities conducted at the IR Site 9 Intermediate removal action area, including monitoring well installation and development, baseline groundwater sampling, chemical oxidant reagent injection (through temporary injection points), and post-oxidant injection groundwater sampling. The ISCO application used a chelated iron as a catalyst and a hydrogen peroxide solution as the oxidant. The ISCO process did not require low pH conditions for the oxidation reactions, allowing the approach to be effective in neutral conditions (pH approximately 7). The modified Fenton's approach also used a relatively dilute concentration of hydrogen peroxide (approximately 12 percent), which reduced or eliminated the potential for significant increases through exothermic reactions (i.e., heat generation and temperature increases).

The ISCO full-scale injection activities were conducted between May 3, 2005 and December 9, 2005. ISOTEC was subcontracted to perform the ISCO full-scale injections with oversight provided by Shaw personnel. The main objective of the oxidant injections was to achieve mass reduction of groundwater contaminant concentrations to below their respective MCLs or to levels that are technically or economically practicable. The main COCs at IR Site 9 Intermediate were 1,1-DCA and VC. Cis-1,2-DCE, 1,1-DCE, and methyl tertiary-butyl ether were also detected.

The IR Site 9 Intermediate full-scale removal action application was conducted in an area roughly bound by West Oriskany Avenue to the north, the eastern side of Building 410 to the east, West Ticonderoga Avenue to the south, and Building 166 to the west (see Figure 3).

The removal action consisted of the injection of catalyst (chelated iron complex) and oxidant (hydrogen peroxide) at a pre-determined injection pattern through a series of temporary injection points, which were within the interpreted plume area (Figure 4, "IR Site 9 Upper Intermediate Zone Temporary Injection Point Locations" an Figure 5, "IR Site 9 Lower Intermediate Zone Temporary Injection Point Locations"). The injection points consisted of an 8-foot long specially designed screen deployed through a 1.25-inch diameter direct-push rod. Two separate direct-push rods were installed at each location (targeting the upper and lower intermediate zones). This method of selective vertical injection allowed for delivery of reagent across the entire targeted treatment interval. The full-scale application consisted of three field injection events. The first injection event was conducted between May 3, 2005 and June 3, 2005. The second injection event was conducted July 12, 2005 and August 25, 2005. The third injection event was conducted between October 10, 2005 and December 9, 2005. Over the three injection events, 972 injection locations were planned. Of these, 918 temporary injection points were used for injection of a total of 114,406 gallons of reagent (catalyst plus oxidant) into the subsurface

(see Figure 4). ISOTEC was unable to inject reagent in 40 locations due to refusal while drilling and in 14 locations due to an inability to establish an injection flow rate. Following use, the open hole from each temporary injection point was abandoned by grouting. The injection point locations were based upon a 15-foot radius of influence for the upper zone and a 20-foot radius of influence for the lower zone, which was determined from the results of the expanded pilot test. However, closer spacing was used in some areas where concentrations significantly exceeded their respective MCLs.

The removal action targeted the SWBZ or intermediate zone between 20 and 40 feet bgs. The removal action application consisted of sampling 23 new monitoring wells (9IF-MW01U through 9IF-MW12U [upper zone approximately 20 to 30 feet bgs], 9IF-MW01L through 9IF-MW10L [lower zone approximately 30 to 40 feet bgs], and 9IF-MW01S [shallow zone approximately 10 to 15 feet bgs]) and a set of existing monitoring wells (P-9-MWI03, P-9-MWI05, P-9-MWI06, 9EMW01, 9EMW03, and 9EMW04) used during the original pilot test and expanded pilot test (Figure 6, "IR Site 9 Upper Intermediate Zone Monitoring Well Network" and Figure 7, "IR Site 9 Lower Intermediate Zone Monitoring Well Network").

Baseline groundwater samples were collected prior to conducting the ISCO application and analyzed for VOCs, SVOCs, total and/or dissolved metals, and hexavalent chromium.

During the removal action, performance monitoring and safety monitoring (using a photoionization detector and explosimeter) was conducted. Performance monitoring consisted of field measurements and analytical sample analysis to obtain information related to subsurface characteristics, reagent distribution, and contaminant reduction. Field monitoring consisted of sampling the groundwater for hydrogen peroxide levels, ferrous iron levels, and general water quality parameters. Safety monitoring consisted of periodic air monitoring using a photoionization detector and explosimeter prior to, during, and following the injection activities.

Groundwater samples which were collected during baseline sampling and 1 to 2 weeks following each injection event (post-oxidant injection samples) were analyzed at an offsite analytical laboratory for VOCs, SVOCs, total and/or dissolved metals, and hexavalent chromium. The data collected following each of the oxidant injection events was compared to the baseline results to determine the amount of mass reduction of COCs.

4.1 Full-Scale Removal Action Well Installation and Development

Twenty-three monitoring wells were constructed at the Site 9 Intermediate full-scale removal action area from March 21 to March 24, 2005 (see Figures 6 and 7). The monitoring well locations were selected based on the results of previous sampling efforts (IT, 2002), cone penetrometer testing, hydropunch groundwater sampling, and ISCO pilot and expanded pilot tests. The 12 upper zone monitoring wells were screened at the approximate 20 to 30 foot depth

interval, the 10 lower zone wells were screened at the approximate 30 to 40 foot depth interval, and the one shallow zone well was screened at the approximate 5 to 15 foot depth interval. The screen intervals were selected in relation to the IR Site 9 Intermediate lithology and hydrogeology. This included evaluation of the site-specific cone penetrometer logs.

The monitoring wells were installed using hollow-stem auger drilling techniques per SOP 8.1, "Monitoring Well Installation" (IT, 2000). During drilling activities, 8-inch inside diameter hollow-stem augers were used to drill the well borings. Soil cuttings were collected from the auger flights and lithologic information was recorded. Prior to drilling, the bottom auger was plugged with a wooden plug to prevent heaving sands from entering the interior of the augers. Once the total depth was reached, the augers were flooded with potable water to prevent heaving sands from entering the interior of the augers once the wooden plug was knocked out. Upon knocking out the wooden plug, the well screen, sand pack, bentonite seal, and concrete surface seal were installed in general accordance with the specifications and procedures identified in the Work Plan (Shaw, 2003) and SOP 8.1.

The wells were constructed of 2-inch-diameter, Schedule 40, polyvinyl chloride casing. Each well had 10 feet of 0.020-inch machine slotted polyvinyl chloride screen. Blank well casing was attached to screen sections by flush-jointed threads. The annular space outside of each well screen was filled with #2/12 grade silica sand. The sand pack extended from the bottom of the borehole to approximately 2 feet above the top of the screen. A seal consisting of 3/8-inch-diameter coated bentonite chips was placed above the top of the sand pack to approximately 6 feet bgs. The bentonite above the water table was hydrated with potable water. The bentonite was allowed to set for a minimum of 1 hour to allow for hydration. The remainder of the borehole was filled to the surface with concrete. The surface completion consisted of a 12-inch diameter traffic-rated street box set in the concrete. Boring and well construction diagrams were generated during field activities and are presented as Appendix A.

The monitoring wells were developed between March 28, 2005 and April 1, 2005. All 23 monitoring wells were developed in accordance with Section 4.3.2 of the Work Plan (Shaw, 2003). Well development was performed to remove formation and filter pack materials from the wells and to increase hydraulic communication between the wells and the formation. Wells were developed using a bailer, vented surge block, and submersible pump. During well development, pH, specific conductance, turbidity, dissolved oxygen, and temperature readings were periodically recorded. Development was considered complete when these indicator parameters stabilized to within 10 percent of the previous two readings and the extracted water appeared clear. All equipment (i.e., surge block, bailer, submersible pump) was decontaminated prior to developing each well. Well development logs generated during field activities are contained in the project files.

Water generated during well development activities was contained in a holding tank located at Building 112 and then treated in the Building 397 treatment system. The purge water was sampled and analyzed for subsequent disposal as discussed in Section 3.8.

4.2 Baseline Groundwater Sampling

Prior to initiating the ISCO injection event, groundwater samples for analysis of baseline conditions were collected on April 5, 2005 using low-flow sampling methods in accordance with SOP 9.1, "Groundwater Sampling" (IT, 2000). Groundwater samples for analysis of baseline conditions were collected from three existing monitoring wells from the 2002 pilot test (P-9-MWI03, P-9-MWI05, and P-9-MWI06); from three existing monitoring wells from the expanded pilot test (9EIW01, 9EIW03, and 9EIW04); and from each of the 23 newly installed and developed monitoring wells (10 lower zone, 12 upper zone, and 1 shallow zone) (see Figures 6 and 7). The baseline samples were analyzed for VOCs by EPA Method 8260B, SVOCs by EPA Method 8270C, hexavalent chromium by EPA Method 7196A, and total and dissolved metals by EPA Method 6010B (Table 1, "Collected Full-Scale Removal Action Groundwater Samples and Analytical Program"). For monitoring purpose, groundwater samples were collected with a disposable bailer and tested for the following parameters:

- pH
- Temperature
- Specific conductivity
- Oxidation-reduction potential
- Dissolved oxygen
- Hydrogen peroxide (colorimetric field test kit)
- Ferrous iron (colorimetric field test kit)

Field data collected during purging and groundwater sampling activities is summarized in Table 2, "Full-Scale Removal Action Field-Measured Parameters." Detected VOC results for the baseline groundwater sample analyses are presented in Table 3, "Detected Baseline and Post-Injection Groundwater Results, Volatile Organic Compounds, Full-Scale Removal Action," Figure 8, "IR Site 9 Upper Intermediate Zone Detected Volatile Groundwater Baseline Sampling Results," and Figure 9, "IR Site 9 Lower Intermediate Zone Detected Volatile Groundwater Baseline Sampling Results." A complete listing of all the analytical results is provided in Appendix B.

4.3 Chemical Oxidant Reagent Injection

The Site 9 Intermediate full-scale injection targeted the SWBZ between approximately 20 and 40 feet bgs (upper intermediate zone approximately 20 to 30 feet bgs and lower intermediate zone approximately 30 to 40 feet bgs). The full-scale application consisted of three field

injection events. The first injection event was conducted between May 3, 2005 and June 3, 2005. The second injection event was conducted between July 12, 2005 and August 25, 2005. The third injection event was conducted between October 10, 2005 and December 9, 2005. Details of the chemical oxidant injection equipment methods, results, and conclusions are provided in ISOTEC's *Full-Scale In-Situ Chemical Oxidation Report for Installation Restoration Site 9 Intermediate* (Appendix C).

4.4 Post-Oxidant Injection Sampling

Post-oxidant injection groundwater samples were collected 1 to 2 weeks following completion of each injection event. Post-oxidant injection groundwater sampling was performed following each injection event as follows:

- Post-Oxidant Injection I – initiated June 8, 2005 (following the first injection event)
- Post-Oxidant Injection II – initiated September 6, 2005 (following the second injection event)
- Post-Oxidant Injection III – initiated January 4, 2006 (following the third injection event)

The groundwater samples were collected and analyzed using the same procedures and analytical methods used for the baseline groundwater sampling (Appendix A, Section 4.2.1 [Shaw, 2003]). These sample results were used to evaluate contaminant concentration changes and evaluate the effect of the oxidant injection. Post-oxidant injection groundwater samples were collected from select pilot test and expanded pilot test monitoring wells (P-9-MWI03, P-9-MWI05, P-9-MWI06, 9EMW01, 9EMW03, and 9EMW04) and from each of the newly constructed monitoring wells (9IF-MW01U through 9IF-MW12U, 9IF-MW01L through 9EWM10L, and 9IF-MW01S). Table 3 compares the baseline and post-oxidant injection detected volatile analytical results for groundwater. Figure 10, "IR Site 9 Upper Intermediate Zone Detected Volatile Groundwater Sampling Results" and Figure 11, "IR Site 9 Lower Intermediate Zone Detected Volatile Groundwater Sampling Results" presents box plots of the detected groundwater volatile analytical results. Appendix B contains a complete listing of all analytical results.

5.0 Conclusions and Recommendations

The objective of the full-scale ISCO application at Site 9 Intermediate was to achieve mass reduction of contaminants within the saturated zone in order to reduce dissolved-phase contaminant concentrations in the groundwater below their MCLs or to levels that are technically or economically practicable. The effectiveness of the removal action to reduce the contaminant mass was evaluated by observing the dissolved-phase contaminant concentrations within the treatment area. This is because the total mass reduction is reflected in reduced dissolved-phase concentrations. The primary COCs were 1,1-DCA and VC; therefore, the subsequent discussions will focus on these two COCs. Additional detailed discussion can be found in Appendix C.

5.1 Upper Intermediate Zone – 1,1-Dichloroethane

The average baseline 1,1-DCA concentration in the upper intermediate zone wells was 23.2 micrograms per liter (µg/L). Baseline 1,1-DCA concentrations ranged from nondetect (ND) in wells 9IF-MW07U and 9IF-MW11U to 120 µg/L in well P-9-MWI05.

Following the first injection event, the average 1,1-DCA groundwater concentration was 64.8 µg/L, an increase compared to baseline. Post-first injection concentrations ranged from ND in well 9IF-MW07U to 660 µg/L in well P-9-MWI05. The most significant concentration increase was observed in well 9IF-MW06U, which increased from a baseline concentration of 4.4 µg/L to 31 µg/L. The most significant reduction was observed in well 9IF-MW02U, which was reduced from a baseline concentration of 46 µg/L to 21 µg/L, a 54 percent reduction.

Following the second injection event, the average 1,1-DCA groundwater concentration was 31.3 µg/L, an increase from the baseline of 23.2 µg/L; however, a decrease from a post first average concentration of 64.8 µg/L. Post-second injection concentrations ranged from ND in wells 9IF-MW07U and 9IF-MW11U to 270 µg/L in well P-9-MWI05. The most significant concentration increase was observed in well P-9-MWI05, which increased from a baseline concentration of 120 µg/L to 270 µg/L. However, the concentration was reduced from the first event concentration of 660 µg/L. The most significant reduction was observed in well 9IF-MW12U, which was reduced from a baseline concentration of 3.8 µg/L to 0.29 µg/L, a 92 percent reduction.

Following the third injection event, the average 1,1-DCA groundwater concentration was 45.3 µg/L, an increase compared to baseline and the post second injection event. Post-third injection concentrations ranged from ND in wells 9IF-MW01U and 9IF-MW07U to 320 µg/L in well P-9-MWI05. The most significant concentration increase was observed in well 9IF-MW11U, which increased from a baseline, post first, and post second concentration of

ND to a post third concentration of 1.3 µg/L. The most significant reduction was observed in well 9IF-MW10U, which was reduced from a baseline concentration of 16 µg/L to 2.6 µg/L, an 84 percent reduction.

5.2 Lower Intermediate Zone – 1,1-Dichloroethane

The average baseline 1,1-DCA concentration in the lower intermediate zone wells was 110.7 µg/L. Baseline 1,1-DCA concentrations in the lower intermediate wells ranged from ND in well 9IF-MW02L to 730 µg/L in well P-9-MWI06.

Following the first injection event, the average 1,1-DCA groundwater concentration was 46.6 µg/L, a reduction of 58 percent compared to baseline. Post-first injection concentrations ranged from ND in well 9IF-MW02L to 180 µg/L in well 9IF-MW09L. The most significant concentration reduction was observed in monitoring well P-9-MWI06, which decreased from a baseline concentration of 730 µg/L to 75 µg/L, a 90 percent reduction. The most significant concentration increase was observed in well 9IF-MW09L, which increased from a baseline concentration of 92 µg/L to 180 µg/L.

Following the second injection event, the average 1,1-DCA groundwater concentration was 74.6 µg/L, a reduction of 33 percent compared to baseline; however, an increase compared to the post first average. Post-second injection concentrations ranged from ND in wells 9IF-MW02L and 9IF-MW04L to 370 µg/L in well P-9-MWI06. The most significant reduction was observed in well 9IF-MW06L, which decreased from a baseline concentration of 9.7 µg/L to 3.7 µg/L, a 62 percent reduction. The most significant increase was observed in well 9IF-MW10L, which increased from a baseline concentration of 15 µg/L to 27 µg/L.

Following the third injection event, the average 1,1-DCA groundwater concentration was 64.9 µg/L, a reduction of 41 percent compared to baseline. Post-third injection concentrations ranged from ND in wells 9IF-MW02L, 9IF-MW04L and 9IF-MW05L to 340 µg/L in well 9EMW04. The most significant reduction was observed in well P-9-MWI06, which decreased from a baseline concentration of 730 µg/L to 71 µg/L, a 90 percent reduction. The most significant increase was observed in well 9IF-MW09L, which increased from a baseline concentration of 92 µg/L to 160 µg/L.

5.3 Upper Intermediate Zone - Vinyl Chloride

The average baseline VC concentration in the upper intermediate wells was 2.4 µg/L. Baseline VC concentrations ranged from ND in wells 9EMW01, 9IF-MW01U, 9IF-MW07U, 9IF-MW09U, 9IF-MW11U, and 9IF-MW12U to 23 µg/L in well 9IF-MW 02U.

Following the first injection event, the average groundwater VC concentration was 1.7 µg/L, a 29 percent reduction from baseline. Post-first injection concentrations ranged from ND in

wells 9IF-MW01U, 9IF-MW02U, 9IF-MW05U, 9IF-MW07U, 9IF-MW09U, 9IF-MW11U, and 9IF-MW12U to 6.7 µg/L in well 9EMW03. The most significant concentration reduction was observed in well 9IF-MW02U, which decreased from a baseline concentration of 23 µg/L to ND, a 99 percent reduction. The most significant concentration increase was observed in well P-9-MWI05, which increased from a baseline concentration of 0.47 µg/L to 6.2 µg/L.

Following the second injection event, the average groundwater VC concentration was 1.2 µg/L, a 52 percent reduction from baseline. Post-second injection concentrations ranged from ND in wells 9EMW01, 9EMW03, 9IF-MW01U, 9IF-MW05U, 9IF-MW07U, 9IF-MW08U, 9IF-MW09U, 9IF-MW11U, and 9IF-MW12U to 8 µg/L in well 9IF-MW02U. The most significant concentration reduction was observed in well 9IF-MW06U, which decreased from a baseline concentration of 2.4 µg/L to 0.39 µg/L, a 84 percent reduction. The most significant concentration increase was observed in well P-9-MWI05, which increased from a baseline concentration of 0.47 µg/L to 1.5 µg/L.

Following the third injection event, the average groundwater VC concentration was 1.7 µg/L, a 29 percent reduction from baseline. Post-third injection concentrations ranged from ND in wells 9EMW01, 9IF-MW01U, 9IF-MW07U, 9IF-MW08U, 9IF-MW09U, 9IF-MW10U, 9IF-MW11U, and 9IF-MW12U to 10 µg/L in well 9IF-MW02U. The most significant concentration reduction was observed in well 9IF-MW10U, which decreased from a baseline concentration of 1.7 µg/L to ND, a 85 percent reduction. The most significant concentration increase was observed in well P-9-MWI05, which increased from a baseline concentration of 0.47 µg/L to 4.4 µg/L.

5.4 Lower Intermediate Zone – Vinyl Chloride

The average baseline VC concentration in the lower intermediate wells was 2.0 µg/L. Baseline VC concentrations ranged from ND in wells 9IF-MW01L, 9IF-MW02L, 9IF-MW04L, 9IF-MW05L, and 9IF-MW06L to 10 µg/L in well P-9-MWI06.

Following the first injection event, the average groundwater VC concentration was 1.2 µg/L, a reduction of 41 percent compared to baseline. Post-first injection concentrations ranged from ND in wells P-9-MWI06, 9IF-MW02L, 9IF-MW04L, 9IF-MW05L, 9IF-MW06L, and 9IF-MW10L to 4.9 µg/L in well 9IF-MW01L. The most significant concentration reduction was observed in well P-9-MWI06, which decreased from a baseline concentration of 10 µg/L to ND, a 98 percent reduction. The most significant concentration increase was observed in well 9IF-MW01L, which increased from a baseline concentration of ND to 4.9 µg/L.

Following the second injection event, the average groundwater VC concentration was 0.8 µg/L, a reduction of 60 percent compared to baseline. Post-second injection concentrations ranged from ND in wells 9IF-MW01L through 9IF-MW10L to 4.4 µg/L in well 9EMW04. The most

significant concentration reduction was observed in well 9IF-MW08L, which decreased from a baseline concentration of 4.6 µg/L to ND, a 95 percent reduction. The most significant concentration increase was observed in well 9EMW04, which increased from a baseline concentration of 3.9 µg/L to 4.4 µg/L.

Following the third injection event, the average groundwater VC concentration was 1.4 µg/L, a reduction of 33 percent compared to baseline. Post-third injection concentrations ranged from ND in wells P-9-MWI06, 9IF-MW01L, 9IF-MW02L, 9IF-MW04L through 9IF-MW07L, and 9IF-MW10L to 8.4 µg/L in well 9EMW04. The most significant concentration reduction was observed in well P-9-MWI06, which decreased from a baseline concentration of 10 µg/L to ND, a 98 percent reduction. The most significant concentration increase was observed in well 9EMW04, which increased from a baseline concentration of 3.9 µg/L to 8.4 µg/L.

5.5 Mass Reduction Effectiveness

The effectiveness of the ISOTEC process to reduce contaminant mass can be evaluated by observing the dissolved phase contaminant concentrations within treatment area monitoring wells during the remediation program. This is because total mass reduction is reflected in reduced dissolved phase concentrations. However, the ISOTEC process promotes contaminant desorption as well as dissolved phase oxidation. Therefore, if sufficient contaminant mass is present in the adsorbed phase prior to treatment, more mass may be transferred to the dissolved phase than can be treated during one injection event. This can result in a temporary increase in dissolved-phase contaminant concentrations following injection activities. This does not, however, reflect an increase in total mass. The post-injection groundwater concentrations should decrease over time, as groundwater flow, re-sorption to soil, dispersion and dilution produce equilibration between total mass and dissolved mass within the saturated zone. Therefore, even an increase in dissolved contaminant concentrations can indicate an effective application of modified Fenton's reagent.

Due to the fact that dissolved contaminant concentrations in individual monitoring wells (both upper intermediate and lower intermediate zones) have fluctuated from sampling event to sampling event, calculating an average dissolved concentration for the monitoring wells is an effective tool in evaluating the remediation effectiveness. The average 1,1-DCA concentration in the upper intermediate zone showed a significant increase relative to baseline. The concentration increased from 23.2 µg/L at baseline to 45.3 µg/L following the third injection event, a 95 percent increase. An average VC concentration decrease of 29 percent was observed in the upper intermediate zone following the third injection event. More significant reductions were observed in the lower intermediate zone analytical data. Average reductions in 1,1-DCA and VC concentrations compared to baseline were 41 percent and 33 percent, respectively, following the third injection event .

The analytical data shows that 1,1-DCA and VC groundwater concentrations fluctuated considerably in several upper and lower zone monitoring wells. This indicates that the 1,1-DCA and VC groundwater concentrations have not reached a state of equilibrium, with groundwater concentrations increasing and decreasing based on desorption, oxidation, proximity to injection locations, and state of equilibrium.

5.6 Recommendations

Based on review of the baseline and post-injection analytical data (both increases and decreases), the remediation program has had definitive impacts on total mass at IR Site 9 Intermediate. However, the groundwater conditions in the upper and lower treatment zones appear to be under non-equilibrium conditions. Over time the site conditions should return to equilibrium between soil mass and corresponding groundwater mass. Therefore, it is recommended that several quarters of groundwater monitoring be conducted to allow the monitoring wells that exhibit elevated contaminant concentrations to decrease. The dissolved concentrations at the IR Site 9 Intermediate monitoring wells should decline over time. A decision regarding the need for a fourth injection event should not be made until at least three quarters of additional groundwater sampling is completed.

While further groundwater monitoring is recommended, the continued dissolved 1,1-DCA concentration increases observed in the upper intermediate zone monitoring wells, even after multiple injection events, while the lower zone concentrations decrease, may indicate that this zone is being influenced by contamination present above this zone. It may be possible that concentrations in the upper intermediate zone are being affected by contamination in the 5 to 15 foot bgs shallow zone.

6.0 References

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Figures

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER	844918-A21
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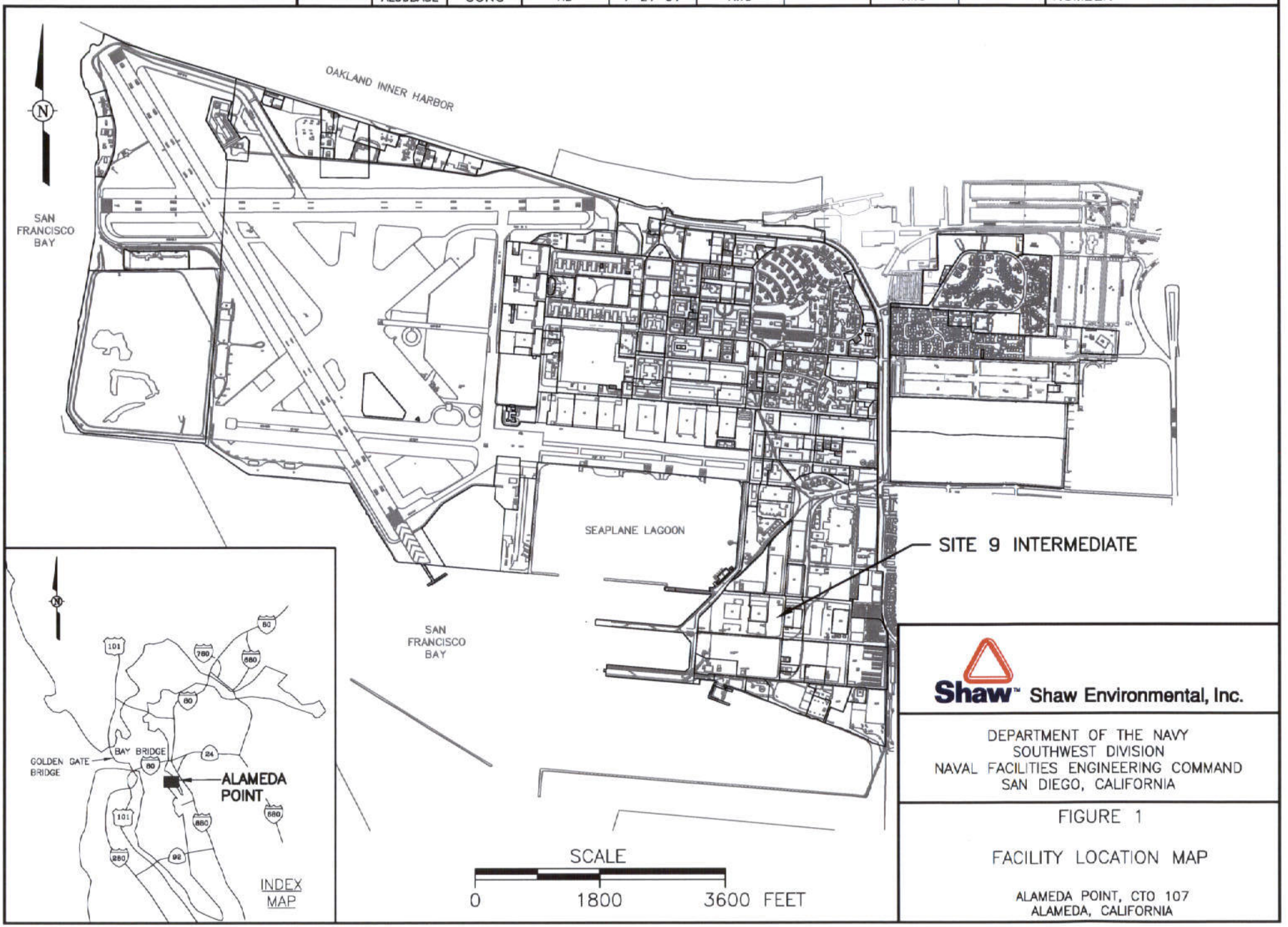

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DEPARTMENT OF THE NAVY
SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 1

FACILITY LOCATION MAP

ALAMEDA POINT, CTO 107
ALAMEDA, CALIFORNIA

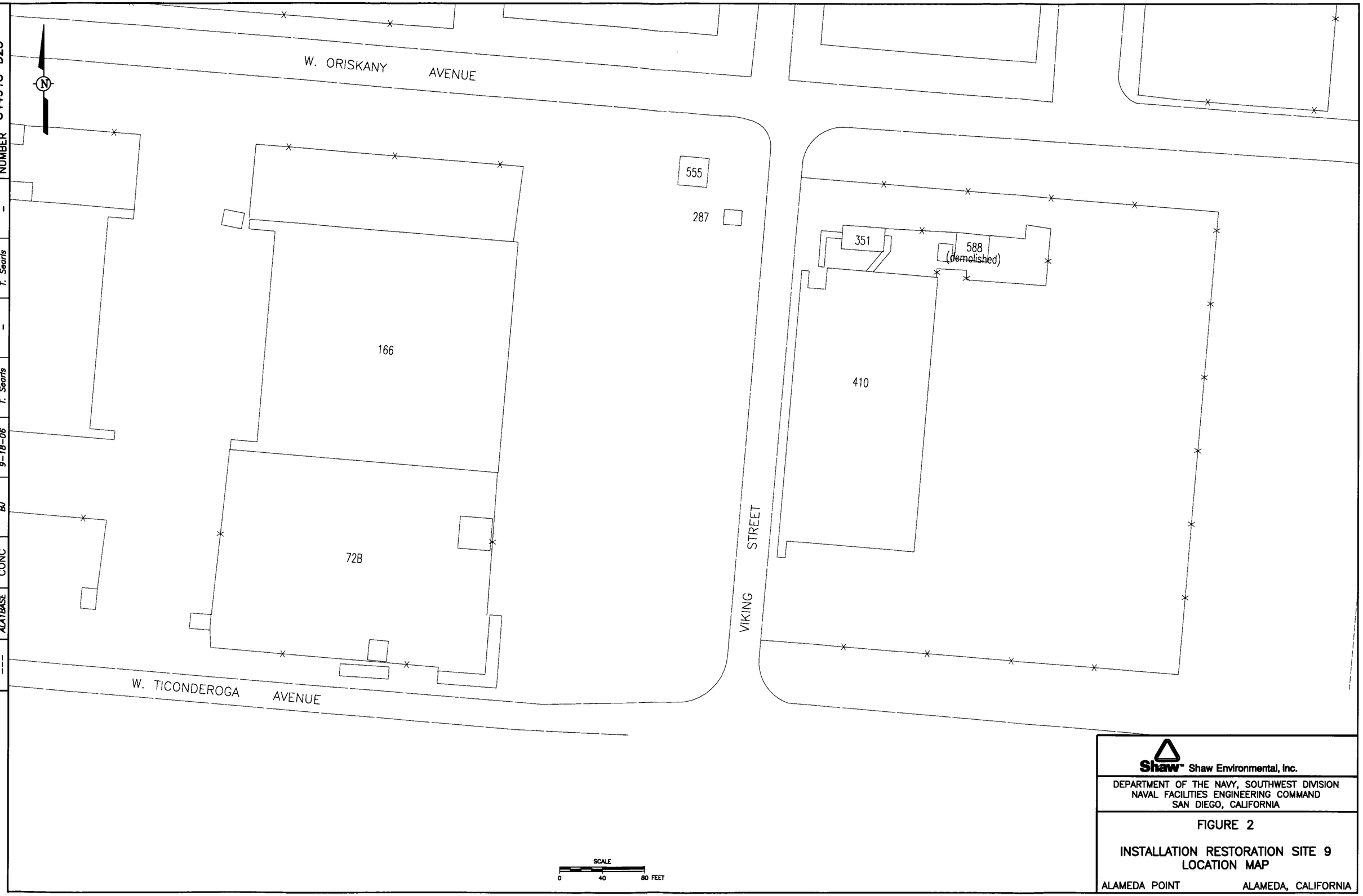

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	ALA1BASE	CONC	BJ 9-18-06	T. Searls -	T. Searls -	844918-D23

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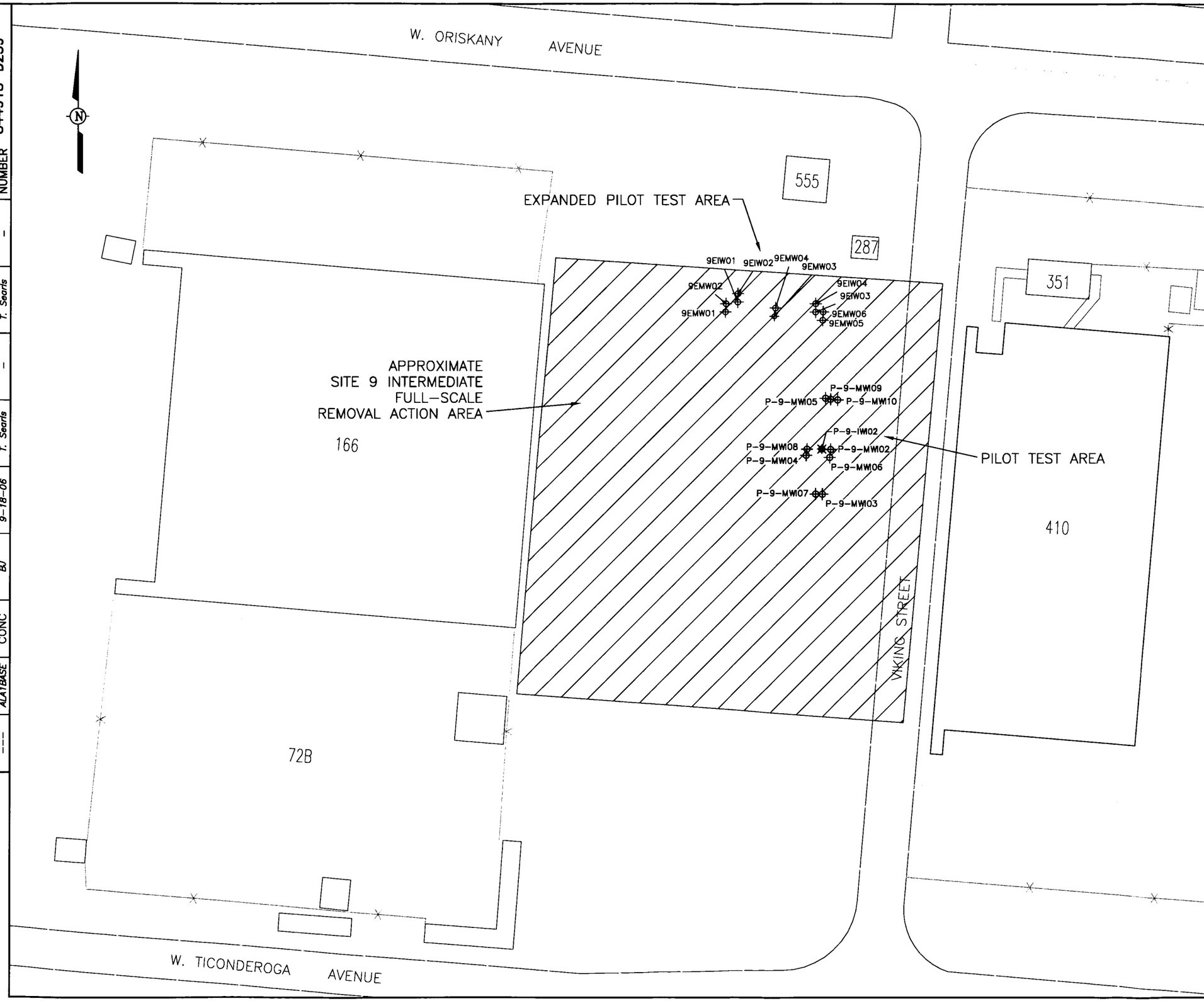
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 2

INSTALLATION RESTORATION SITE 9
LOCATION MAP

ALAMEDA POINT ALAMEDA, CALIFORNIA



LEGEND

PILOT TEST MONITORING OR INJECTION WELL LOCATION

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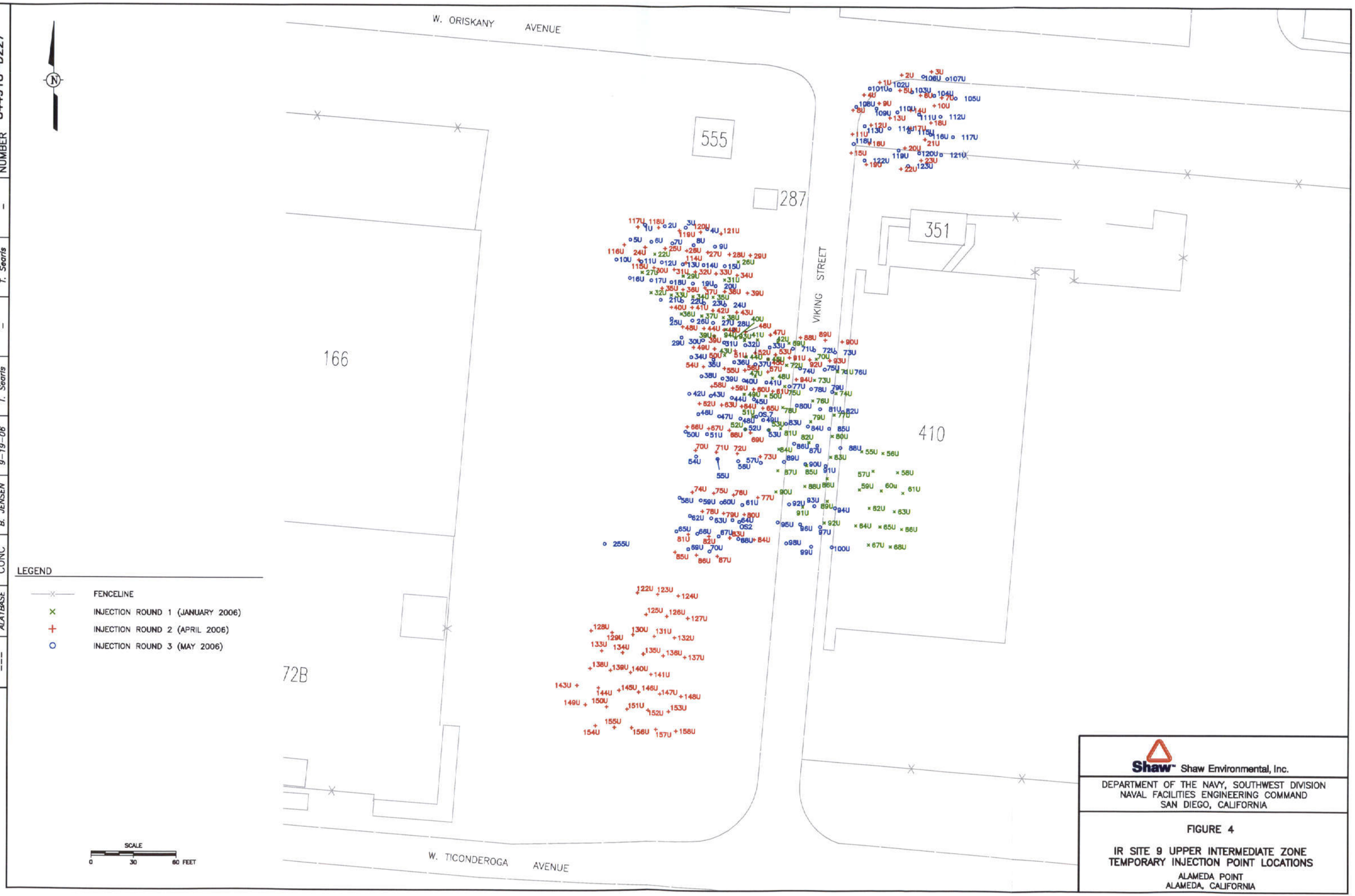
FIGURE 3
IR SITE 9 INTERMEDIATE ZONE
FULL-SCALE ISCO REMOVAL
ACTION AND PILOT TEST AREAS
ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	ALA1BASE	CONC	BJ 9-18-06	T. Searls	T. Searls	844918-D239


W. ORISKANY AVENUE
W. TICONDEROGA AVENUE
VIKING STREET
555
287
351
166
410
72B
LEGEND
FENCELINE
INJECTION ROUND 1 (JANUARY 2006)
INJECTION ROUND 2 (APRIL 2006)
INJECTION ROUND 3 (MAY 2006)
SCALE
0 30 60 FEET
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NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA
FIGURE 4
IR SITE 9 UPPER INTERMEDIATE ZONE
TEMPORARY INJECTION POINT LOCATIONS
ALAMEDA POINT
ALAMEDA, CALIFORNIA
DRAWING NUMBER 844918-D227
APPROVED BY T. Searls
CHECKED BY T. Searls
DRAWN BY B. JENSEN 9-19-06
OFFICE CONC
X-REF ALA1BASE
IMAGE ---

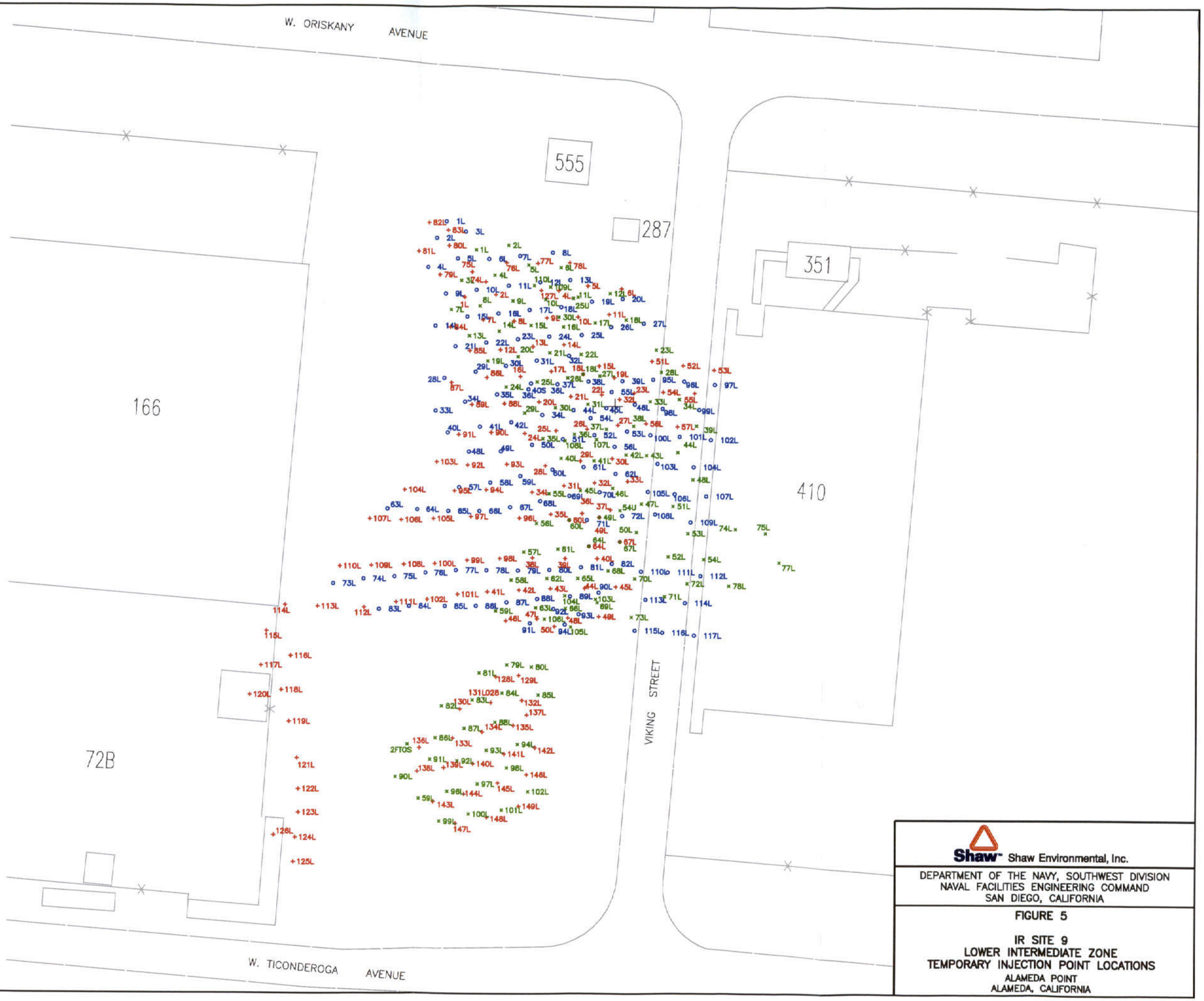

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	ALATBASE	CONC	B. JENSEN 9-19-06	T. Searls	T. Searls	844918-D228

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FIGURE 5

IR SITE 9
LOWER INTERMEDIATE ZONE
TEMPORARY INJECTION POINT LOCATIONS

ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	ALA1BASE	CONC	BJ 9-18-06	T. Searls -	T. Searls -	844918-D231

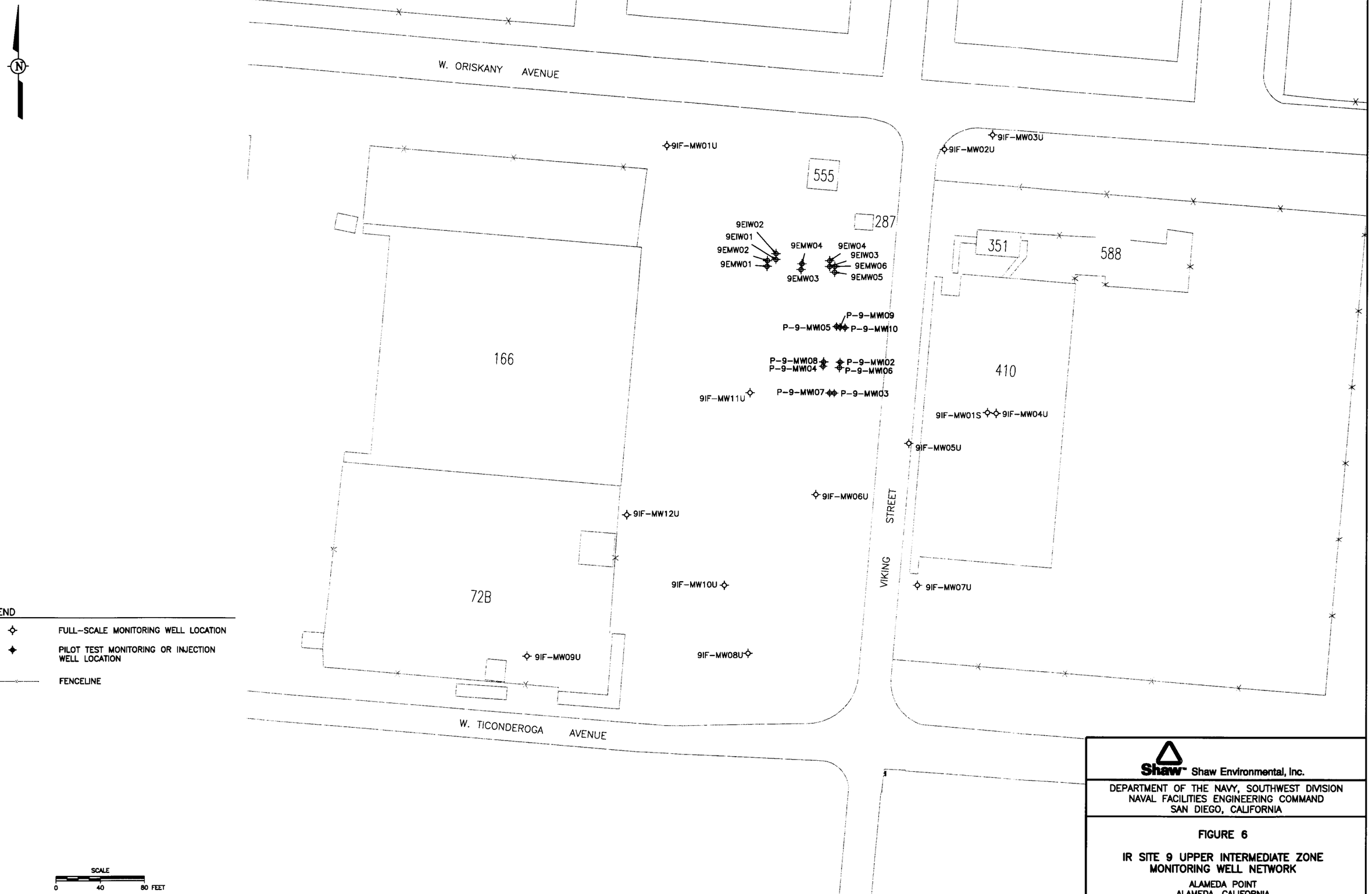

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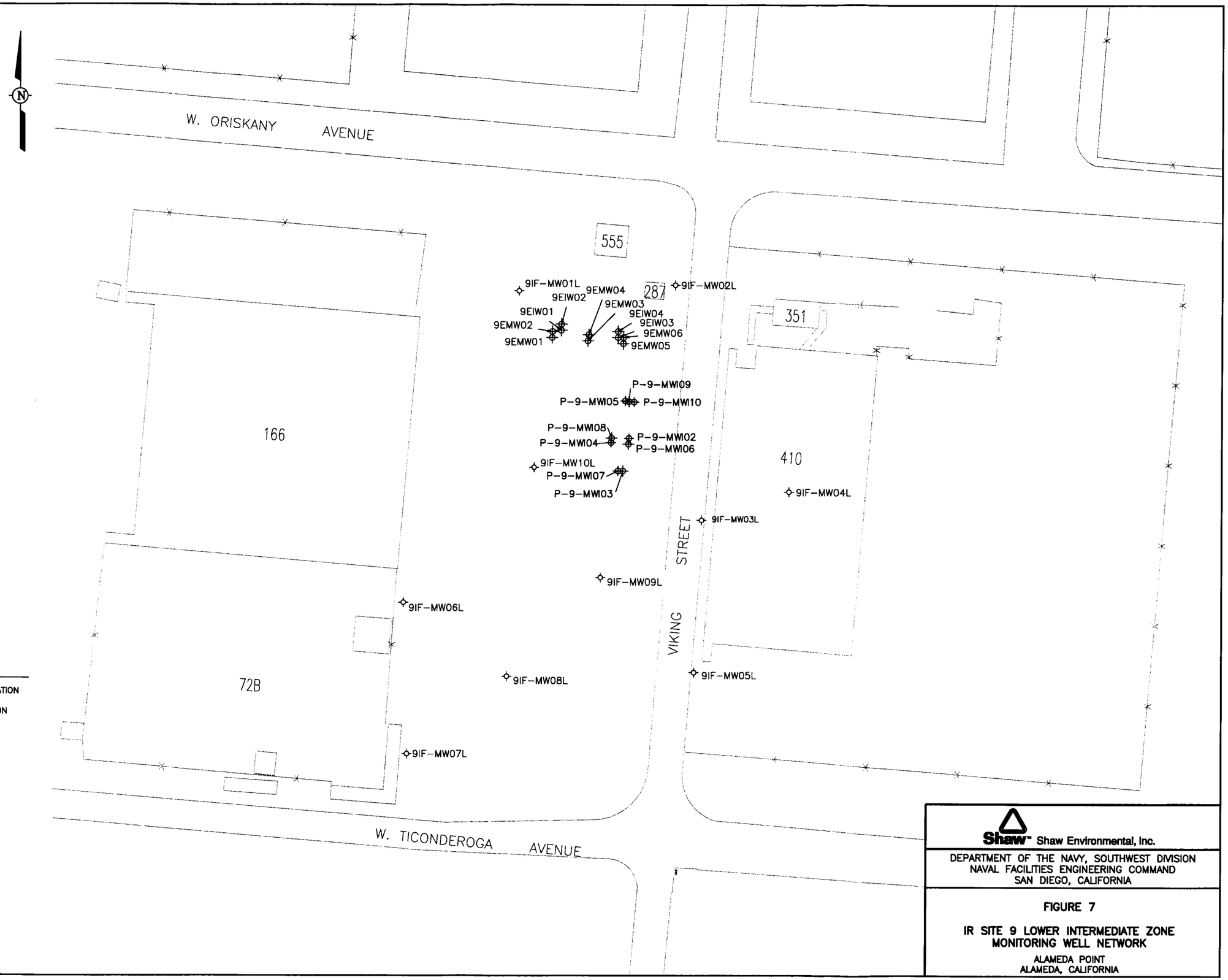
FIGURE 6

IR SITE 9 UPPER INTERMEDIATE ZONE MONITORING WELL NETWORK

ALAMEDA POINT
ALAMEDA, CALIFORNIA



LEGEND

- FULL-SCALE MONITORING WELL LOCATION
- PILOT TEST MONITORING OR INJECTION WELL LOCATION
- FENCELINE

SCALE
0 40 80 FEET

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
---	ALA1BASE	CONC	B. JENSEN	9/19/06	T. Searls	9/19/06	T. Searls	9/19/06	844918-D230

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FIGURE 7

IR SITE 9 LOWER INTERMEDIATE ZONE MONITORING WELL NETWORK

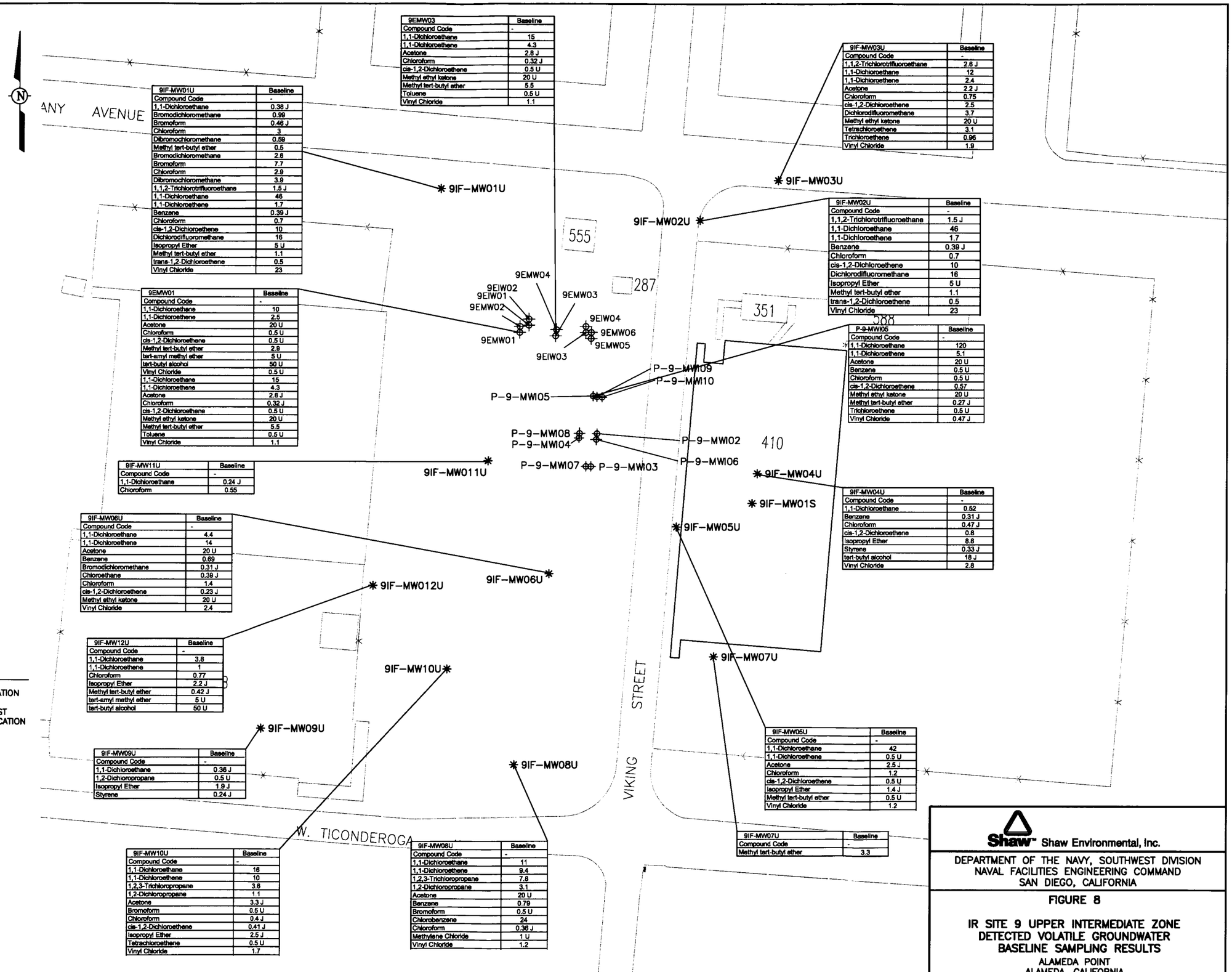
ALAMEDA POINT
ALAMEDA, CALIFORNIA

Compound Name	MCL (ug/L)
Acetone	
Bromodichloromethane	
Bromomethane	
tert-butyl alcohol	
N-butylbenzene	
sec-butylbenzene	
Benzene	1
Toluene	150
Chlorobenzene	70
Chloroethane	
Chloromethane	
Dibromochloromethane	
1,1-Dichloroethane	5
1,2-Dichloroethane	0.5
1,2-Dichlorobenzene	600
1,3-Dichlorobenzene	
1,1-Dichloroethene	6
cis-1,2-Dichloroethene	6
trans-1,2-Dichloroethene	10
1,2-Dichloropropane	5
Ethylbenzene	300
1,1,2-Trichlorotrifluoroethane	
Dichlorodifluoromethane	
Isopropylbenzene	
Isopropyl Ether	
Methyl ethyl ketone	
Methylene Chloride	5
Naphthalene	
N-propylbenzene	
Tetrachloroethene	5
Styrene	100
tert-amyl methyl ether	
Bromoform	
Methyl tert-butyl ether	13
Trichloroethene	5
Chloroform	
1,2,3-Trichloropropane	
Vinyl Chloride	0.5
Xylenes, total	1750
Chromium VI	50

NOTES:
1. ALL UNITS ARE IN $\mu g/L$.
2. IF NO DATA BOX ASSOCIATED WITH A WELL LOCATION, THEN RESULTS WERE NON-DETECT FOR ALL APPLICABLE EVENTS.

LEGEND

- FULL-SCALE MONITORING WELL LOCATION
- PILOT TEST OR EXPANDED PILOT TEST MONITORING OR INJECTION WELL LOCATION
- FENCELINE
- BASELINE (APRIL 2005)



9EMW03	Baseline
Compound Code	-
1,1-Dichloroethane	15
1,1-Dichloroethene	4.3
Acetone	2.8 J
Chloroform	0.32 J
cis-1,2-Dichloroethene	0.5 U
Methyl ethyl ketone	20 U
Methyl tert-butyl ether	5.5
Toluene	0.5 U
Vinyl Chloride	1.1

9IF-MW01U	Baseline
Compound Code	-
1,1-Dichloroethane	0.38 J
Bromodichloromethane	0.99
Bromoform	0.46 J
Chloroform	3
Dibromochloromethane	0.59
Methyl tert-butyl ether	0.5
Bromodichloromethane	2.8
Bromoform	7.7
Chloroform	2.9
Dibromochloromethane	3.9
1,1,2-Trichlorotrifluoroethane	1.5 J
1,1-Dichloroethane	46
1,1-Dichloroethene	1.7
Benzene	0.39 J
Chloroform	0.7
cis-1,2-Dichloroethene	10
Dichlorodifluoromethane	16
Isopropyl Ether	5 U
Methyl tert-butyl ether	1.1
trans-1,2-Dichloroethene	0.5
Vinyl Chloride	23

9IF-MW03U	Baseline
Compound Code	-
1,1,2-Trichlorotrifluoroethane	2.6 J
1,1-Dichloroethane	12
1,1-Dichloroethene	2.4
Acetone	2.2 J
Chloroform	0.75
cis-1,2-Dichloroethene	2.5
Dichlorodifluoromethane	3.7
Methyl ethyl ketone	20 U
Tetrachloroethene	3.1
Trichloroethene	0.96
Vinyl Chloride	1.9

9IF-MW02U	Baseline
Compound Code	-
1,1,2-Trichlorotrifluoroethane	1.5 J
1,1-Dichloroethane	46
1,1-Dichloroethene	1.7
Benzene	0.39 J
Chloroform	0.7
cis-1,2-Dichloroethene	10
Dichlorodifluoromethane	16
Isopropyl Ether	5 U
Methyl tert-butyl ether	1.1
trans-1,2-Dichloroethene	0.5
Vinyl Chloride	23

9EMW01	Baseline
Compound Code	-
1,1-Dichloroethane	10
1,1-Dichloroethene	2.5
Acetone	20 U
Chloroform	0.5 U
cis-1,2-Dichloroethene	0.5 U
Methyl tert-butyl ether	2.9
tert-amyl methyl ether	5 U
tert-butyl alcohol	50 U
Vinyl Chloride	0.5 U
1,1-Dichloroethane	15
1,1-Dichloroethene	4.3
Acetone	2.8 J
Chloroform	0.32 J
cis-1,2-Dichloroethene	0.5 U
Methyl ethyl ketone	20 U
Methyl tert-butyl ether	5.5
Toluene	0.5 U
Vinyl Chloride	1.1

P-9-MWI05	Baseline
Compound Code	-
1,1-Dichloroethane	120
1,1-Dichloroethene	5.1
Acetone	20 U
Benzene	0.5 U
Chloroform	0.5 U
cis-1,2-Dichloroethene	0.57
Methyl ethyl ketone	20 U
Methyl tert-butyl ether	0.27 J
Trichloroethene	0.5 U
Vinyl Chloride	0.47 J

9IF-MW11U	Baseline
Compound Code	-
1,1-Dichloroethane	0.24 J
Chloroform	0.55

9IF-MW04U	Baseline
Compound Code	-
1,1-Dichloroethane	0.52
Benzene	0.31 J
Chloroform	0.47 J
cis-1,2-Dichloroethene	0.8
Isopropyl Ether	8.8
Styrene	0.33 J
tert-butyl alcohol	18 J
Vinyl Chloride	2.8

9IF-MW06U	Baseline
Compound Code	-
1,1-Dichloroethane	4.4
1,1-Dichloroethene	14
Acetone	20 U
Benzene	0.69
Bromodichloromethane	0.31 J
Chloroethane	0.39 J
Chloroform	1.4
cis-1,2-Dichloroethene	0.23 J
Methyl ethyl ketone	20 U
Vinyl Chloride	2.4

9IF-MW12U	Baseline
Compound Code	-
1,1-Dichloroethane	3.8
1,1-Dichloroethene	1
Chloroform	0.77
Isopropyl Ether	2.2 J
Methyl tert-butyl ether	0.42 J
tert-amyl methyl ether	5 U
tert-butyl alcohol	50 U

9IF-MW05U	Baseline
Compound Code	-
1,1-Dichloroethane	42
1,1-Dichloroethene	0.5 U
Acetone	2.5 J
Chloroform	1.2
cis-1,2-Dichloroethene	0.5 U
Isopropyl Ether	1.4 J
Methyl tert-butyl ether	0.5 U
Vinyl Chloride	1.2

9IF-MW09U	Baseline
Compound Code	-
1,1-Dichloroethane	0.36 J
1,2-Dichloropropane	0.5 U
Isopropyl Ether	1.9 J
Styrene	0.24 J

9IF-MW07U	Baseline
Compound Code	-
Methyl tert-butyl ether	3.3

9IF-MW10U	Baseline
Compound Code	-
1,1-Dichloroethane	16
1,1-Dichloroethene	10
1,2,3-Trichloropropane	3.6
1,2-Dichloropropane	1.1
Acetone	3.3 J
Bromoform	0.5 U
Chloroform	0.4 J
cis-1,2-Dichloroethene	0.41 J
Isopropyl Ether	2.5 J
Tetrachloroethene	0.5 U
Vinyl Chloride	1.7

9IF-MW08U	Baseline
Compound Code	-
1,1-Dichloroethane	11
1,1-Dichloroethene	9.4
1,2,3-Trichloropropane	7.8
1,2-Dichloropropane	3.1
Acetone	20 U
Benzene	0.79
Bromoform	0.5 U
Chlorobenzene	24
Chloroform	0.36 J
Methylene Chloride	1 U
Vinyl Chloride	1.2

Shaw Environmental, Inc.

DEPARTMENT OF THE NAVY, SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 8

IR SITE 9 UPPER INTERMEDIATE ZONE
DETECTED VOLATILE GROUNDWATER
BASELINE SAMPLING RESULTS

ALAMEDA POINT
ALAMEDA, CALIFORNIA

DRAWING NUMBER	APPROVED BY		CHECKED BY		DRAWN BY		OFFICE		X-REF	IMAGE
844918-D225	T. Searls	9/19/06	T. Searls	9/19/06	B. JENSEN	9/19/06	CONC		ALA1BASE	---

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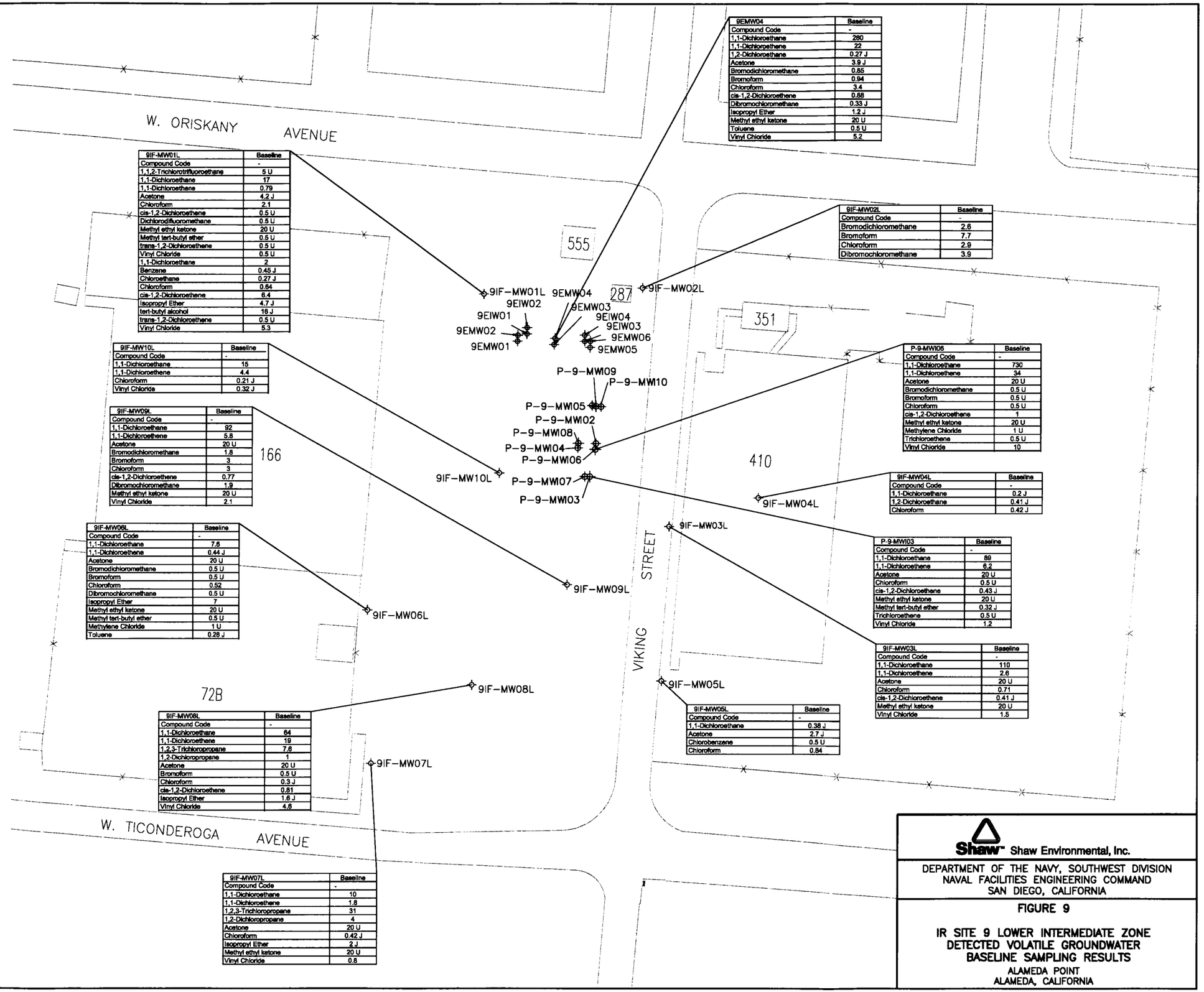
Compound Name	MCL (ug/L)
Acetone	
Bromodichloromethane	
Bromomethane	
tert-butyl alcohol	
N-butylbenzene	
sec-butylbenzene	
Benzene	1
Toluene	150
Chlorobenzene	70
Chloroethane	
Chloromethane	
Dibromochloromethane	
1,1-Dichloroethane	5
1,2-Dichloroethane	0.5
1,2-Dichlorobenzene	600
1,3-Dichlorobenzene	
1,1-Dichloroethene	6
cis-1,2-Dichloroethene	6
trans-1,2-Dichloroethene	10
1,2-Dichloropropane	5
Ethylbenzene	300
1,1,2-Trichlorotrifluoroethane	
Dichlorodifluoromethane	
Isopropylbenzene	
Isopropyl Ether	
Methyl ethyl ketone	
Methylene Chloride	5
Naphthalene	
N-propylbenzene	
Tetrachloroethene	5
Styrene	100
tert-amyl methyl ether	
Bromoform	
Methyl tert-butyl ether	13
Trichloroethene	5
Chloroform	
1,2,3-Trichloropropane	
Vinyl Chloride	0.5
Xylenes, total	1750
Chromium VI	50

NOTES:
1. ALL UNITS ARE IN $\mu g/L$.
2. IF NO DATA BOX ASSOCIATED WITH A WELL LOCATION, THEN RESULTS WERE NON-DETECT FOR ALL APPLICABLE EVENTS.

LEGEND

- FULL-SCALE MONITORING WELL LOCATION
- PILOT TEST MONITORING OR INJECTION WELL LOCATION
- FENCELINE
- BASELINE (APRIL 2005)



9EMW04	Baseline
Compound Code	-
1,1-Dichloroethane	280
1,1-Dichloroethane	22
1,2-Dichloroethane	0.27 J
Acetone	3.9 J
Bromodichloromethane	0.85
Bromoform	0.94
Chloroform	3.4
cis-1,2-Dichloroethene	0.88
Dibromochloromethane	0.33 J
Isopropyl Ether	1.2 J
Methyl ethyl ketone	20 U
Toluene	0.5 U
Vinyl Chloride	5.2

9IF-MW01L	Baseline
Compound Code	-
1,1,2-Trichlorotrifluoroethane	5 U
1,1-Dichloroethane	17
1,1-Dichloroethene	0.79
Acetone	4.2 J
Chloroform	2.1
cis-1,2-Dichloroethene	0.5 U
Dichlorodifluoromethane	0.5 U
Methyl ethyl ketone	20 U
Methyl tert-butyl ether	0.5 U
trans-1,2-Dichloroethene	0.5 U
Vinyl Chloride	0.5 U
1,1-Dichloroethane	2
Benzene	0.45 J
Chloroethane	0.27 J
Chloroform	0.64
cis-1,2-Dichloroethene	6.4
Isopropyl Ether	4.7 J
tert-butyl alcohol	16 J
trans-1,2-Dichloroethene	0.5 U
Vinyl Chloride	5.3

9IF-MW02L	Baseline
Compound Code	-
Bromodichloromethane	2.6
Bromoform	7.7
Chloroform	2.9
Dibromochloromethane	3.9

9IF-MW10L	Baseline
Compound Code	-
1,1-Dichloroethane	15
1,1-Dichloroethene	4.4
Chloroform	0.21 J
Vinyl Chloride	0.32 J

P-9-MW108	Baseline
Compound Code	-
1,1-Dichloroethane	730
1,1-Dichloroethene	34
Acetone	20 U
Bromodichloromethane	0.5 U
Bromoform	0.5 U
Chloroform	0.5 U
cis-1,2-Dichloroethene	1
Methyl ethyl ketone	20 U
Methylene Chloride	1 U
Trichloroethene	0.5 U
Vinyl Chloride	10

9IF-MW09L	Baseline
Compound Code	-
1,1-Dichloroethane	92
1,1-Dichloroethene	5.8
Acetone	20 U
Bromodichloromethane	1.8
Bromoform	3
Chloroform	3
cis-1,2-Dichloroethene	0.77
Dibromochloromethane	1.9
Methyl ethyl ketone	20 U
Vinyl Chloride	2.1

9IF-MW04L	Baseline
Compound Code	-
1,1-Dichloroethane	0.2 J
1,2-Dichloroethane	0.41 J
Chloroform	0.42 J

9IF-MW06L	Baseline
Compound Code	-
1,1-Dichloroethane	7.6
1,1-Dichloroethene	0.44 J
Acetone	20 U
Bromodichloromethane	0.5 U
Bromoform	0.5 U
Chloroform	0.52
Dibromochloromethane	0.5 U
Isopropyl Ether	7
Methyl ethyl ketone	20 U
Methyl tert-butyl ether	0.5 U
Methylene Chloride	1 U
Toluene	0.28 J

P-9-MW103	Baseline
Compound Code	-
1,1-Dichloroethane	89
1,1-Dichloroethene	6.2
Acetone	20 U
Chloroform	0.5 U
cis-1,2-Dichloroethene	0.43 J
Methyl ethyl ketone	20 U
Methyl tert-butyl ether	0.32 J
Trichloroethene	0.5 U
Vinyl Chloride	1.2

9IF-MW03L	Baseline
Compound Code	-
1,1-Dichloroethane	110
1,1-Dichloroethene	2.6
Acetone	20 U
Chloroform	0.71
cis-1,2-Dichloroethene	0.41 J
Methyl ethyl ketone	20 U
Vinyl Chloride	1.5

9IF-MW08L	Baseline
Compound Code	-
1,1-Dichloroethane	64
1,1-Dichloroethene	19
1,2,3-Trichloropropane	7.6
1,2-Dichloropropane	1
Acetone	20 U
Bromoform	0.5 U
Chloroform	0.3 J
cis-1,2-Dichloroethene	0.81
Isopropyl Ether	1.6 J
Vinyl Chloride	4.6

9IF-MW05L	Baseline
Compound Code	-
1,1-Dichloroethane	0.38 J
Acetone	2.7 J
Chlorobenzene	0.5 U
Chloroform	0.84

9IF-MW07L	Baseline
Compound Code	-
1,1-Dichloroethane	10
1,1-Dichloroethene	1.8
1,2,3-Trichloropropane	31
1,2-Dichloropropane	4
Acetone	20 U
Chloroform	0.42 J
Isopropyl Ether	2 J
Methyl ethyl ketone	20 U
Vinyl Chloride	0.8

SCALE
0 40 80 FEET

Shaw Environmental, Inc.

DEPARTMENT OF THE NAVY, SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 9

IR SITE 9 LOWER INTERMEDIATE ZONE
DETECTED VOLATILE GROUNDWATER
BASELINE SAMPLING RESULTS

ALAMEDA POINT
ALAMEDA, CALIFORNIA

DRAWN BY	B. JENSEN	9-19-06
CHECKED BY	T. Searls	-
APPROVED BY	T. Searls	-
DRAWING NUMBER	844918-D224	
OFFICE	CONC	
X-REF	ALA1BASE	
IMAGE	---	

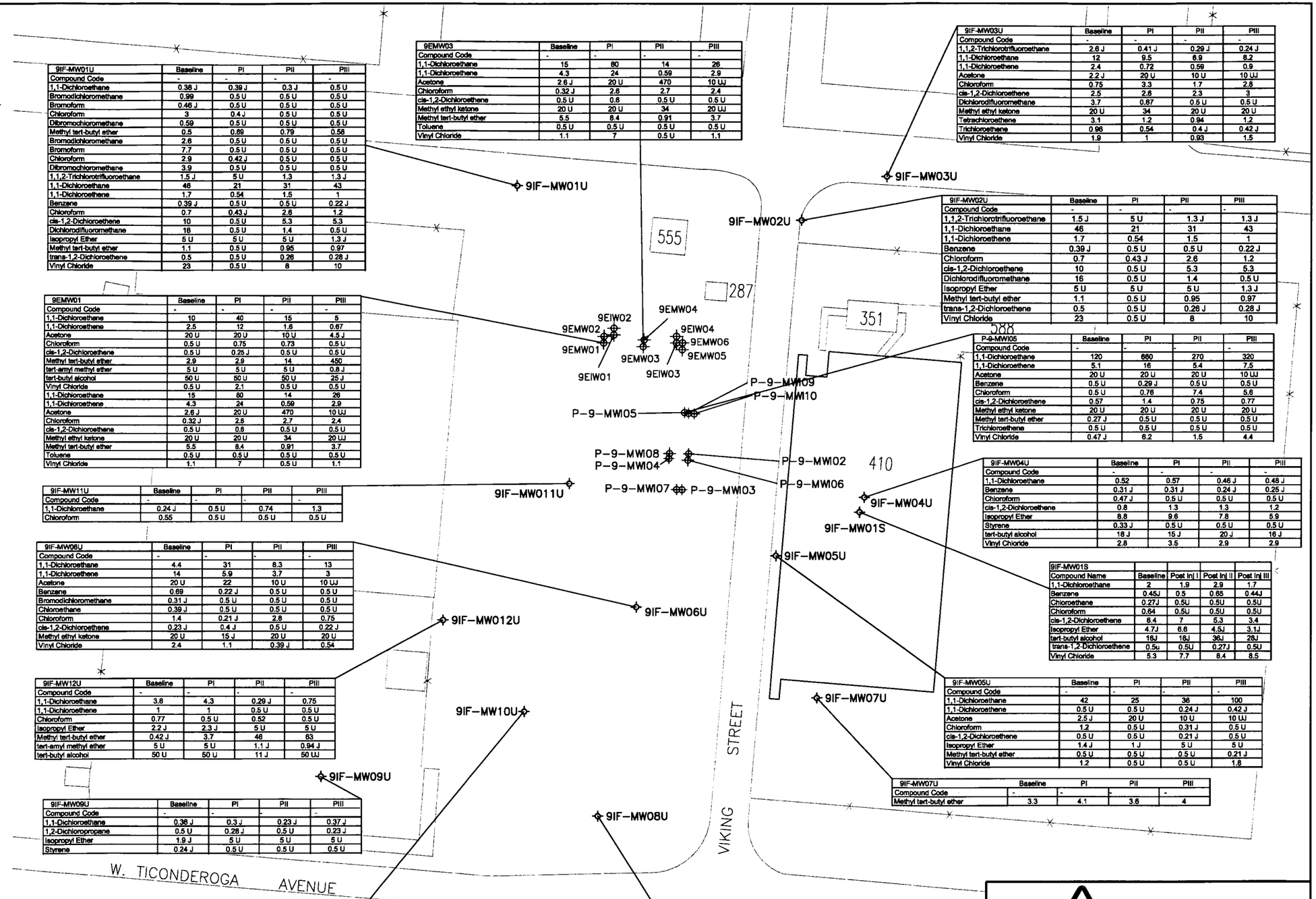
Compound Name	MCL (ug/L)
Acetone	
Bromodichloromethane	
Bromomethane	
tert-butyl alcohol	
N-butylbenzene	
sec-butylbenzene	
Benzene	1
Toluene	150
Chlorobenzene	70
Chloroethane	
Chloromethane	
Dibromochloromethane	
1,1-Dichloroethane	5
1,2-Dichloroethane	0.5
1,2-Dichlorobenzene	600
1,3-Dichlorobenzene	
1,1-Dichloroethene	6
cis-1,2-Dichloroethene	6
trans-1,2-Dichloroethene	10
1,2-Dichloropropane	5
Ethylbenzene	300
1,1,2-Trichlorotrifluoroethane	
Dichlorodifluoromethane	
Isopropylbenzene	
Isopropyl Ether	
Methyl ethyl ketone	
Methylene Chloride	5
Naphthalene	
N-propylbenzene	
Tetrachloroethene	5
Styrene	100
tert-amyl methyl ether	
Bromoform	
Methyl tert-butyl ether	13
Trichloroethene	5
Chloroform	
1,2,3-Trichloropropane	
Vinyl Chloride	0.5
Xylenes, total	1750
Chromium VI	50

NOTES:
1. ALL UNITS ARE IN $\mu g/L$.
2. IF NO DATA BOX ASSOCIATED WITH A WELL LOCATION, THEN RESULTS WERE NON-DETECT FOR ALL APPLICABLE EVENTS.

LEGEND

- FULL-SCALE MONITORING WELL LOCATION
- PILOT TEST MONITORING OR INJECTION WELL LOCATION
- FENCELINE
- BASELINE (APRIL 2005)
- PI — POST INJECTION I (JUNE 2005)
- PII — POST INJECTION II (SEPTEMBER 2005)
- PIII — POST INJECTION III (DECEMBER 2005)

SCALE 0 40 80 FEET



9IF-MW01U	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	0.36 J	0.39 J	0.3 J	0.5 U
Bromodichloromethane	0.99	0.5 U	0.5 U	0.5 U
Bromoform	0.46 J	0.5 U	0.5 U	0.5 U
Chloroform	3	0.4 J	0.5 U	0.5 U
Dibromochloromethane	0.59	0.5 U	0.5 U	0.5 U
Methyl tert-butyl ether	0.5	0.69	0.79	0.58
Bromodichloromethane	2.6	0.5 U	0.5 U	0.5 U
Bromoform	7.7	0.5 U	0.5 U	0.5 U
Chloroform	2.9	0.42 J	0.5 U	0.5 U
Dibromochloromethane	3.9	0.5 U	0.5 U	0.5 U
1,1,2-Trichlorotrifluoroethane	1.5 J	5 U	1.3	1.3 J
1,1-Dichloroethane	46	21	31	43
1,1-Dichloroethene	1.7	0.54	1.5	1
Benzene	0.39 J	0.5 U	0.5 U	0.22 J
Chloroform	0.7	0.43 J	2.6	1.2
cis-1,2-Dichloroethene	10	0.5 U	5.3	5.3
Dichlorodifluoromethane	16	0.5 U	1.4	0.5 U
Isopropyl Ether	5 U	5 U	5 U	1.3 J
Methyl tert-butyl ether	1.1	0.5 U	0.95	0.97
trans-1,2-Dichloroethene	0.5	0.5 U	0.26	0.28 J
Vinyl Chloride	23	0.5 U	8	10

9EMW03	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	15	80	14	26
1,1-Dichloroethene	4.3	24	0.59	2.9
Acetone	2.6 J	20 U	470	10 UJ
Chloroform	0.32 J	2.6	2.7	2.4
cis-1,2-Dichloroethene	0.5 U	0.6	0.5 U	0.5 U
Methyl ethyl ketone	20 U	20 U	34	20 UJ
Methyl tert-butyl ether	5.5	8.4	0.91	3.7
Toluene	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	1.1	7	0.5 U	1.1

9IF-MW03U	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1,2-Trichlorotrifluoroethane	2.6 J	0.41 J	0.29 J	0.24 J
1,1-Dichloroethane	12	9.5	6.9	8.2
1,1-Dichloroethene	2.4	0.72	0.59	0.9
Acetone	2.2 J	20 U	10 U	10 UJ
Chloroform	0.75	3.3	1.7	2.8
cis-1,2-Dichloroethene	2.5	2.6	2.3	3
Dichlorodifluoromethane	3.7	0.87	0.5 U	0.5 U
Methyl ethyl ketone	20 U	34	20 U	20 U
Tetrachloroethene	3.1	1.2	0.94	1.2
Trichloroethene	0.96	0.54	0.4 J	0.42 J
Vinyl Chloride	1.9	1	0.93	1.5

9IF-MW02U	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1,2-Trichlorotrifluoroethane	1.5 J	5 U	1.3 J	1.3 J
1,1-Dichloroethane	46	21	31	43
1,1-Dichloroethene	1.7	0.54	1.5	1
Benzene	0.39 J	0.5 U	0.5 U	0.22 J
Chloroform	0.7	0.43 J	2.6	1.2
cis-1,2-Dichloroethene	10	0.5 U	5.3	5.3
Dichlorodifluoromethane	16	0.5 U	1.4	0.5 U
Isopropyl Ether	5 U	5 U	5 U	1.3 J
Methyl tert-butyl ether	1.1	0.5 U	0.95	0.97
trans-1,2-Dichloroethene	0.5	0.5 U	0.26 J	0.28 J
Vinyl Chloride	23	0.5 U	8	10

9EMW01	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	10	40	15	5
1,1-Dichloroethene	2.5	12	1.6	0.67
Acetone	20 U	20 U	10 U	4.5 J
Chloroform	0.5 U	0.75	0.73	0.5 U
cis-1,2-Dichloroethene	0.5 U	0.25 J	0.5 U	0.5 U
Methyl tert-butyl ether	2.9	2.9	14	450
tert-amyl methyl ether	5 U	5 U	5 U	0.8 J
tert-butyl alcohol	50 U	50 U	50 U	25 J
Vinyl Chloride	0.5 U	2.1	0.5 U	0.5 U
1,1-Dichloroethane	15	80	14	26
1,1-Dichloroethene	4.3	24	0.59	2.9
Acetone	2.6 J	20 U	470	10 UJ
Chloroform	0.32 J	2.6	2.7	2.4
cis-1,2-Dichloroethene	0.5 U	0.6	0.5 U	0.5 U
Methyl ethyl ketone	20 U	20 U	34	20 UJ
Methyl tert-butyl ether	5.5	8.4	0.91	3.7
Toluene	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	1.1	7	0.5 U	1.1

P-9-MW05	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	120	660	270	320
1,1-Dichloroethene	5.1	16	5.4	7.5
Acetone	20 U	20 U	20 U	10 UJ
Benzene	0.5 U	0.29 J	0.5 U	0.5 U
Chloroform	0.5 U	0.76	7.4	5.8
cis-1,2-Dichloroethene	0.57	1.4	0.75	0.77
Methyl ethyl ketone	20 U	20 U	20 U	20 U
Methyl tert-butyl ether	0.27 J	0.5 U	0.5 U	0.5 U
Trichloroethene	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	0.47 J	6.2	1.5	4.4

9IF-MW11U	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	0.24 J	0.5 U	0.74	1.3
Chloroform	0.55	0.5 U	0.5 U	0.5 U

9IF-MW04U	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	0.52	0.57	0.46 J	0.48 J
Benzene	0.31 J	0.31 J	0.24 J	0.25 J
Chloroform	0.47 J	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	0.8	1.3	1.3	1.2
Isopropyl Ether	8.8	9.6	7.8	5.9
Styrene	0.33 J	0.5 U	0.5 U	0.5 U
tert-butyl alcohol	18 J	15 J	20 J	16 J
Vinyl Chloride	2.8	3.5	2.9	2.9

9IF-MW06U	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	4.4	31	8.3	13
1,1-Dichloroethene	14	5.9	3.7	3
Acetone	20 U	22	10 U	10 UJ
Benzene	0.69	0.22 J	0.5 U	0.5 U
Bromodichloromethane	0.31 J	0.5 U	0.5 U	0.5 U
Chloroethane	0.39 J	0.5 U	0.5 U	0.5 U
Chloroform	1.4	0.21 J	2.8	0.75
cis-1,2-Dichloroethene	0.23 J	0.4 J	0.5 U	0.22 J
Methyl ethyl ketone	20 U	15 J	20 U	20 U
Vinyl Chloride	2.4	1.1	0.39 J	0.54

9IF-MW01S				
Compound Name	Baseline	Post Inj I	Post Inj II	Post Inj III
1,1-Dichloroethane	2	1.9	2.9	1.7
Benzene	0.45J	0.5	0.65	0.44J
Chloroethane	0.27J	0.5U	0.5U	0.5U
Chloroform	0.64	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	6.4	7	5.3	3.4
Isopropyl Ether	4.7J	6.6	4.5J	3.1J
tert-butyl alcohol	16J	18J	36J	28J
trans-1,2-Dichloroethene	0.5u	0.5U	0.27J	0.5U
Vinyl Chloride	5.3	7.7	8.4	8.5

9IF-MW12U	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	3.8	4.3	0.29 J	0.75
1,1-Dichloroethene	1	1	0.5 U	0.5 U
Chloroform	0.77	0.5 U	0.52	0.5 U
Isopropyl Ether	2.2 J	2.3 J	5 U	5 U
Methyl tert-butyl ether	0.42 J	3.7	46	63
tert-amyl methyl ether	5 U	5 U	1.1 J	0.94 J
tert-butyl alcohol	50 U	50 U	11 J	50 UJ

9IF-MW05U	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	42	25	36	100
1,1-Dichloroethene	0.5 U	0.5 U	0.24 J	0.42 J
Acetone	2.5 J	20 U	10 U	10 UJ
Chloroform	1.2	0.5 U	0.31 J	0.5 U
cis-1,2-Dichloroethene	0.5 U	0.5 U	0.21 J	0.5 U
Isopropyl Ether	1.4 J	1 J	5 U	5 U
Methyl tert-butyl ether	0.5 U	0.5 U	0.5 U	0.21 J
Vinyl Chloride	1.2	0.5 U	0.5 U	1.8

9IF-MW09U	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	0.36 J	0.3 J	0.23 J	0.37 J
1,2-Dichloropropane	0.5 U	0.26 J	0.5 U	0.23 J
Isopropyl Ether	1.9 J	5 U	5 U	5 U
Styrene	0.24 J	0.5 U	0.5 U	0.5 U

9IF-MW07U	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
Methyl tert-butyl ether	3.3	4.1	3.6	4

9IF-MW10U	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	16	9.1	6.9	2.6
1,1-Dichloroethene	10	4.9	2.5	1.5
1,2,3-Trichloropropane	3.6	3.7	0.5 U	1.6
1,2-Dichloropropane	1.1	1.5	0.76	0.81
Acetone	3.3 J	20 U	10 U	2.3 J
Bromoform	0.5 U	0.5 U	0.38 J	0.5 U
Chloroform	0.4 J	0.85	1	3
cis-1,2-Dichloroethene	0.41 J	0.27 J	0.5 U	0.5 U
Isopropyl Ether	2.5 J	2.5 J	5 U	5 U
Tetrachloroethene	0.5 U	0.5 U	0.5 U	0.21 J
Vinyl Chloride	1.7	0.54	0.5 U	0.5 U

9IF-MW08U	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	11	9.8	8.1	2
1,1-Dichloroethene	9.4	7.7	6.1	0.99
1,2,3-Trichloropropane	7.8	9.2	11	15
1,2-Dichloropropane	3.1	3.7	3.1	2.1
Acetone	20 U	20 U	10 U	8 J
Benzene	0.79	1.3	0.86	0.54
Bromoform	0.5 U	0.5 U	0.5 U	0.41 J
Chlorobenzene	24	44	37	35
Chloroform	0.36 J	0.5 U	0.5 U	5.3
Methylene Chloride	1 U	1 U	1 U	0.77 J
Vinyl Chloride	1.2	0.88	0.56	0.5 U

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DEPARTMENT OF THE NAVY, SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 10

IR SITE 9 UPPER INTERMEDIATE ZONE
DETECTED VOLATILE GROUNDWATER
SAMPLING RESULTS

ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	ALA1BASE	CONC	B. JENSEN 9/19/06	T. Searls 9/19/06	T. Searls 9/19/06	844918-D223

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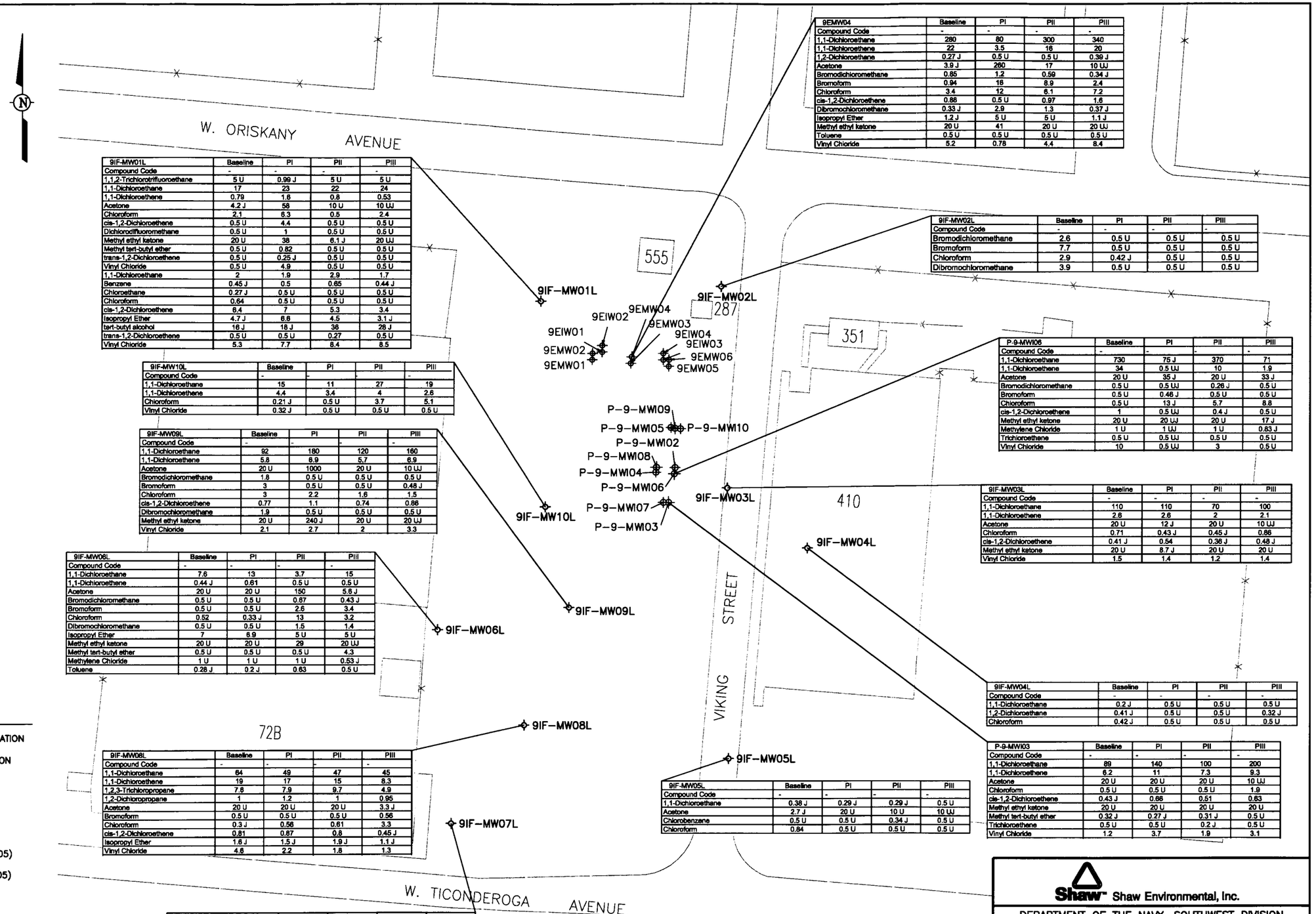
Compound Name	MCL (ug/L)
Acetone	
Bromodichloromethane	
Bromomethane	
tert-butyl alcohol	
N-butylbenzene	
sec-butylbenzene	
Benzene	1
Toluene	150
Chlorobenzene	70
Chloroethane	
Chloromethane	
Dibromochloromethane	
1,1-Dichloroethane	5
1,2-Dichloroethane	0.5
1,2-Dichlorobenzene	600
1,3-Dichlorobenzene	
1,1-Dichloroethene	6
cis-1,2-Dichloroethene	6
trans-1,2-Dichloroethene	10
1,2-Dichloropropane	5
Ethylbenzene	300
1,1,2-Trichlorotrifluoroethane	
Dichlorodifluoromethane	
Isopropylbenzene	
Isopropyl Ether	
Methyl ethyl ketone	
Methylene Chloride	5
Naphthalene	
N-propylbenzene	
Tetrachloroethene	5
Styrene	100
tert-amyl methyl ether	
Bromoform	
Methyl tert-butyl ether	13
Trichloroethene	5
Chloroform	
1,2,3-Trichloropropane	
Vinyl Chloride	0.5
Xylenes, total	1750
Chromium VI	50

NOTES:
1. ALL UNITS ARE IN $\mu g/L$.
2. IF NO DATA BOX ASSOCIATED WITH A WELL LOCATION, THEN RESULTS WERE NON-DETECT FOR ALL APPLICABLE EVENTS.

LEGEND

- FULL-SCALE MONITORING WELL LOCATION
- PILOT TEST MONITORING OR INJECTION WELL LOCATION
- FENCELINE
- BASELINE (APRIL 2005)
- POST INJECTION I (JUNE 2005)
- POST INJECTION II (SEPTEMBER 2005)
- POST INJECTION III (DECEMBER 2005)

SCALE
0 40 80 FEET



9EMW04	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	280	80	300	340
1,1-Dichloroethene	22	3.5	16	20
1,2-Dichloroethane	0.27 J	0.5 U	0.5 U	0.39 J
Acetone	3.9 J	260	17	10 UJ
Bromodichloromethane	0.85	1.2	0.59	0.34 J
Bromoform	0.94	16	8.9	2.4
Chloroform	3.4	12	6.1	7.2
cis-1,2-Dichloroethene	0.88	0.5 U	0.97	1.6
Dibromochloromethane	0.33 J	2.9	1.3	0.37 J
Isopropyl Ether	1.2 J	5 U	5 U	1.1 J
Methyl ethyl ketone	20 U	41	20 U	20 UJ
Toluene	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	5.2	0.78	4.4	8.4

9IF-MW01L	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1,2-Trichlorotrifluoroethane	5 U	0.99 J	5 U	5 U
1,1-Dichloroethane	17	23	22	24
1,1-Dichloroethene	0.79	1.6	0.8	0.53
Acetone	4.2 J	58	10 U	10 UJ
Chloroform	2.1	6.3	0.5	2.4
cis-1,2-Dichloroethene	0.5 U	4.4	0.5 U	0.5 U
Dichlorodifluoromethane	0.5 U	1	0.5 U	0.5 U
Methyl ethyl ketone	20 U	38	6.1 J	20 UJ
Methyl tert-butyl ether	0.5 U	0.82	0.5 U	0.5 U
trans-1,2-Dichloroethene	0.5 U	0.25 J	0.5 U	0.5 U
Vinyl Chloride	0.5 U	4.9	0.5 U	0.5 U
1,1-Dichloroethane	2	1.9	2.9	1.7
Benzene	0.45 J	0.5	0.65	0.44 J
Chloroethane	0.27 J	0.5 U	0.5 U	0.5 U
Chloroform	0.64	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	6.4	7	5.3	3.4
Isopropyl Ether	4.7 J	6.6	4.5	3.1 J
tert-butyl alcohol	16 J	18 J	36	26 J
trans-1,2-Dichloroethene	0.5 U	0.5 U	0.27	0.5 U
Vinyl Chloride	5.3	7.7	8.4	8.5

9IF-MW02L	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
Bromodichloromethane	2.6	0.5 U	0.5 U	0.5 U
Bromoform	7.7	0.5 U	0.5 U	0.5 U
Chloroform	2.9	0.42 J	0.5 U	0.5 U
Dibromochloromethane	3.9	0.5 U	0.5 U	0.5 U

9IF-MW10L	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	15	11	27	19
1,1-Dichloroethene	4.4	3.4	4	2.6
Chloroform	0.21 J	0.5 U	3.7	5.1
Vinyl Chloride	0.32 J	0.5 U	0.5 U	0.5 U

P-9-MWI06	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	730	75 J	370	71
1,1-Dichloroethene	34	0.5 UJ	10	1.9
Acetone	20 U	35 J	20 U	33 J
Bromodichloromethane	0.5 U	0.5 UJ	0.26 J	0.5 U
Bromoform	0.5 U	0.46 J	0.5 U	0.5 U
Chloroform	0.5 U	13 J	5.7	8.8
cis-1,2-Dichloroethene	1	0.5 UJ	0.4 J	0.5 U
Methyl ethyl ketone	20 U	20 UJ	20 U	17 J
Methylene Chloride	1 U	1 UJ	1 U	0.83 J
Trichloroethene	0.5 U	0.5 UJ	0.5 U	0.5 U
Vinyl Chloride	10	0.5 UJ	3	0.5 U

9IF-MW09L	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	92	180	120	160
1,1-Dichloroethene	5.8	6.9	5.7	6.9
Acetone	20 U	1000	20 U	10 UJ
Bromodichloromethane	1.8	0.5 U	0.5 U	0.5 U
Bromoform	3	0.5 U	0.5 U	0.48 J
Chloroform	3	2.2	1.6	1.5
cis-1,2-Dichloroethene	0.77	1.1	0.74	0.86
Dibromochloromethane	1.9	0.5 U	0.5 U	0.5 U
Methyl ethyl ketone	20 U	240 J	20 U	20 UJ
Vinyl Chloride	2.1	2.7	2	3.3

9IF-MW03L	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	110	110	70	100
1,1-Dichloroethene	2.6	2.6	2	2.1
Acetone	20 U	12 J	20 U	10 UJ
Chloroform	0.71	0.43 J	0.45 J	0.86
cis-1,2-Dichloroethene	0.41 J	0.54	0.36 J	0.48 J
Methyl ethyl ketone	20 U	8.7 J	20 U	20 U
Vinyl Chloride	1.5	1.4	1.2	1.4

9IF-MW06L	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	7.6	13	3.7	15
1,1-Dichloroethene	0.44 J	0.61	0.5 U	0.5 U
Acetone	20 U	20 U	150	5.6 J
Bromodichloromethane	0.5 U	0.5 U	0.67	0.43 J
Bromoform	0.5 U	0.5 U	2.6	3.4
Chloroform	0.52	0.33 J	13	3.2
Dibromochloromethane	0.5 U	0.5 U	1.5	1.4
Isopropyl Ether	7	6.9	5 U	5 U
Methyl ethyl ketone	20 U	20 U	29	20 UJ
Methyl tert-butyl ether	0.5 U	0.5 U	0.5 U	4.3
Methylene Chloride	1 U	1 U	1 U	0.53 J
Toluene	0.28 J	0.2 J	0.63	0.5 U

9IF-MW04L	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	0.2 J	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	0.41 J	0.5 U	0.5 U	0.32 J
Chloroform	0.42 J	0.5 U	0.5 U	0.5 U

9IF-MW08L	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	64	49	47	45
1,1-Dichloroethene	19	17	15	8.3
1,2,3-Trichloropropane	7.6	7.9	9.7	4.9
1,2-Dichloropropane	1	1.2	1	0.95
Acetone	20 U	20 U	20 U	3.3 J
Bromoform	0.5 U	0.5 U	0.5 U	0.56
Chloroform	0.3 J	0.56	0.61	3.3
cis-1,2-Dichloroethene	0.81	0.87	0.8	0.45 J
Isopropyl Ether	1.6 J	1.5 J	1.9 J	1.1 J
Vinyl Chloride	4.6	2.2	1.8	1.3

P-9-MWI03	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	89	140	100	200
1,1-Dichloroethene	6.2	11	7.3	9.3
Acetone	20 U	20 U	20 U	10 UJ
Chloroform	0.5 U	0.5 U	0.5 U	1.9
cis-1,2-Dichloroethene	0.43 J	0.66	0.51	0.63
Methyl ethyl ketone	20 U	20 U	20 U	20 U
Methyl tert-butyl ether	0.32 J	0.27 J	0.31 J	0.5 U
Trichloroethene	0.5 U	0.5 U	0.2 J	0.5 U
Vinyl Chloride	1.2	3.7	1.9	3.1

9IF-MW05L	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	0.38 J	0.29 J	0.29 J	0.5 U
Acetone	2.7 J	20 U	10 U	10 UJ
Chlorobenzene	0.5 U	0.5 U	0.34 J	0.5 U
Chloroform	0.84	0.5 U	0.5 U	0.5 U

9IF-MW07L	Baseline	PI	PII	PIII
Compound Code	-	-	-	-
1,1-Dichloroethane	10	18	5.3	4.1
1,1-Dichloroethene	1.8	3.9	0.5 U	0.37 J
1,2,3-Trichloropropane	31	53	5.8	11
1,2-Dichloropropane	4	7.1	0.68	1.4
Acetone	20 U	20 U	50	10 UJ
Chloroform	0.42 J	0.5 U	6	7.1
Isopropyl Ether	2 J	5 U	1.8 J	5 U
Methyl ethyl ketone	20 U	20 U	81	20 U
Vinyl Chloride	0.8	0.97	0.5 U	0.5 U

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DEPARTMENT OF THE NAVY, SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 11

IR SITE 9 LOWER INTERMEDIATE ZONE
DETECTED VOLATILE GROUNDWATER
SAMPLING RESULTS

ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	ALA1BASE	CONC	B. JENSEN 9-19-06	T. Searls	T. Searls	844918-D222

Tables

Table 1: Collected Full-Scale Removal Action Groundwater Samples and Analytical Program
Alameda Point, Alameda, California

Sample Location	Sample Identification	Sample Date	Sample Type	Sample Matrix	Sample Depth (feet bgs)	Phase	VOCs (8260B)	SVOCs (8270C)	Total Metals (6010B, 7196A)	Dissolved Metals (6010B)
9EMW01	9EMW01-1003	04/05/05	NS	WG	20 - 30	Full Scale Baseline	X	X	X	X
9EMW01	9EMW01-1035	06/06/05	NS	WG	20 - 30	Full Scale Post Inj I	X	X	X	X
9EMW01	9EMW01-1068	09/07/05	NS	WG	20 - 30	Full Scale Post Inj II	X	X	X	X
9EMW01	9EMW01-1099	12/29/05	NS	WG	20 - 30	Full Scale Post Inj III	X	X	X	X
9EMW03	9EMW03-1004	04/04/05	NS	WG	20 - 30	Full Scale Baseline	X	X	X	X
9EMW03	9EMW03-1036	06/06/05	NS1	WG	20 - 30	Full Scale Post Inj I	X	X	X	X
9EMW03	9EMW03-1037	06/06/05	FD	WG	20 - 30	Full Scale Post Inj I	X			
9EMW03	9EMW03-1069	09/07/05	NS	WG	20 - 30	Full Scale Post Inj II	X	X	X	X
9EMW03	9EMW03-1100	12/28/05	NS1	WG	20 - 30	Full Scale Post Inj III	X	X	X	X
9EMW03	9EMW03-1101	12/28/05	FD	WG	20 - 30	Full Scale Post Inj III	X			
9EMW04	9EMW04-1005	04/05/05	NS1	WG	30 - 40	Full Scale Baseline	X	X	X	X
9EMW04	9EMW04-1006	04/05/05	FD	WG	30 - 40	Full Scale Baseline	X			
9EMW04	9EMW04-1038	06/07/05	NS	WG	30 - 40	Full Scale Post Inj I	X	X	X	X
9EMW04	9EMW04-1070	09/07/05	NS	WG	30 - 40	Full Scale Post Inj II	X	X	X	X
9EMW04	9EMW04-1102	12/29/05	NS	WG	30 - 40	Full Scale Post Inj III	X	X	X	X
9IF-MW01L	9IF-MW01L-1020	04/06/05	NS	WG	29 - 39	Full Scale Baseline	X	X	X	X
9IF-MW01L	9IF-MW01L-1052	06/07/05	NS	WG	29 - 39	Full Scale Post Inj I	X	X	X	X
9IF-MW01L	9IF-MW01L-1084	09/09/05	NS	WG	29 - 39	Full Scale Post Inj II	X	X	X	X
9IF-MW01L	9IF-MW01L-1116	12/29/05	NS	WG	29 - 39	Full Scale Post Inj III	X	X	X	X
9IF-MW01S	9IF-MW01S-1031	04/07/05	NS	WG	5 - 15	Full Scale Baseline	X	X	X	X
9IF-MW01S	9IF-MW01S-1063	06/08/05	NS	WG	5 - 15	Full Scale Post Inj I	X	X	X	X
9IF-MW01S	9IF-MW01S-1095	09/09/05	NS	WG	5 - 15	Full Scale Post Inj II	X	X	X	X
9IF-MW01S	9IF-MW01S-1152	12/27/05	NS	WG	5 - 15	Full Scale Baseline	X	X	X	X
9IF-MW01S	9IF-MW01S-1177	02/07/06	NS	WG	5 - 15	Full Scale Post Inj I	X	X	X	X
9IF-MW01S	9IF-MW01S-1201	04/20/06	NS1	WG	5 - 15	Full Scale Post Inj II	X	X	X	X
9IF-MW01S	9IF-MW01S-1202	04/20/06	FD	WG	5 - 15	Full Scale Post Inj II	X			

Table 1: Collected Full-Scale Removal Action Groundwater Samples and Analytical Program
Alameda Point, Alameda, California

Sample Location	Sample Identification	Sample Date	Sample Type	Sample Matrix	Sample Depth (feet bgs)	Phase	VOCs (8260B)	SVOCs (8270C)	Total Metals (6010B, 7196A)	Dissolved Metals (6010B)
9IF-MW01S	9IF-MW01S-1229	06/09/06	NS1	WG	5 - 15	Full Scale Post Inj III	X	X	X	X
9IF-MW01S	9IF-MW01S-1230	06/09/06	FD	WG	5 - 15	Full Scale Post Inj III	X			
9IF-MW01U	9IF-MW01U-1007	04/05/05	NS	WG	21 - 31	Full Scale Baseline	X	X	X	X
9IF-MW01U	9IF-MW01U-1039	06/06/05	NS	WG	21 - 31	Full Scale Post Inj I	X	X	X	X
9IF-MW01U	9IF-MW01U-1071	09/08/05	NS	WG	21 - 31	Full Scale Post Inj II	X	X	X	
9IF-MW01U	9IF-MW01U-1103	12/22/05	NS	WG	21 - 31	Full Scale Post Inj III	X	X	X	X
9IF-MW02L	9IF-MW02L-1021	04/06/05	NS	WG	30 - 40	Full Scale Baseline	X	X	X	X
9IF-MW02L	9IF-MW02L-1053	06/07/05	NS	WG	30 - 40	Full Scale Post Inj I	X	X	X	X
9IF-MW02L	9IF-MW02L-1085	09/09/05	NS	WG	30 - 40	Full Scale Post Inj II	X	X	X	X
9IF-MW02L	9IF-MW02L-1117	12/29/05	NS	WG	30 - 40	Full Scale Post Inj III	X	X	X	X
9IF-MW02U	9IF-MW02U-1008	04/05/05	NS	WG	20 - 30	Full Scale Baseline	X	X	X	X
9IF-MW02U	9IF-MW02U-1040	06/07/05	NS	WG	20 - 30	Full Scale Post Inj I	X	X	X	X
9IF-MW02U	9IF-MW02U-1072	09/07/05	NS	WG	20 - 30	Full Scale Post Inj II	X	X	X	X
9IF-MW02U	9IF-MW02U-1104	12/22/05	NS	WG	20 - 30	Full Scale Post Inj III	X	X	X	X
9IF-MW03L	9IF-MW03L-1022	04/06/05	NS	WG	32 - 42	Full Scale Baseline	X	X	X	X
9IF-MW03L	9IF-MW03L-1054	06/08/05	NS	WG	32 - 42	Full Scale Post Inj I	X	X	X	X
9IF-MW03L	9IF-MW03L-1086	09/12/05	NS	WG	32 - 42	Full Scale Post Inj II	X	X	X	X
9IF-MW03L	9IF-MW03L-1118	12/22/05	NS	WG	32 - 42	Full Scale Post Inj III	X	X	X	X
9IF-MW03U	9IF-MW03U-1009	04/05/05	NS	WG	20 - 30	Full Scale Baseline	X	X	X	X
9IF-MW03U	9IF-MW03U-1041	06/07/05	NS	WG	20 - 30	Full Scale Post Inj I	X	X	X	X
9IF-MW03U	9IF-MW03U-1073	09/08/05	NS	WG	20 - 30	Full Scale Post Inj II	X	X	X	
9IF-MW03U	9IF-MW03U-1105	01/04/06	NS	WG	20 - 30	Full Scale Post Inj III	X	X	X	X
9IF-MW04L	9IF-MW04L-1023	04/06/05	NS	WG	32.7 - 42.7	Full Scale Baseline	X	X	X	X
9IF-MW04L	9IF-MW04L-1055	06/08/05	NS	WG	32.7 - 42.7	Full Scale Post Inj I	X	X	X	X
9IF-MW04L	9IF-MW04L-1087	09/09/05	NS	WG	32.7 - 42.7	Full Scale Post Inj II	X	X	X	X
9IF-MW04L	9IF-MW04L-1119	12/28/05	NS	WG	32.7 - 42.7	Full Scale Post Inj III	X	X	X	X

Table 1: Collected Full-Scale Removal Action Groundwater Samples and Analytical Program
Alameda Point, Alameda, California

Sample Location	Sample Identification	Sample Date	Sample Type	Sample Matrix	Sample Depth (feet bgs)	Phase	VOCs (8260B)	SVOCs (8270C)	Total Metals (6010B, 7196A)	Dissolved Metals (6010B)
9IF-MW04U	9IF-MW04U-1010	04/06/05	NS	WG	19.5 - 29.5	Full Scale Baseline	X	X	X	X
9IF-MW04U	9IF-MW04U-1042	06/08/05	NS	WG	19.5 - 29.5	Full Scale Post Inj I	X	X	X	X
9IF-MW04U	9IF-MW04U-1074	09/09/05	NS1	WG	19.5 - 29.5	Full Scale Post Inj II	X	X	X	X
9IF-MW04U	9IF-MW04U-1075	09/09/05	FD	WG	19.5 - 29.5	Full Scale Post Inj II	X			
9IF-MW04U	9IF-MW04U-1106	12/22/05	NS	WG	19.5 - 29.5	Full Scale Post Inj III	X	X	X	X
9IF-MW05L	9IF-MW05L-1024	04/06/05	NS	WG	33 - 43	Full Scale Baseline	X	X	X	X
9IF-MW05L	9IF-MW05L-1056	06/09/05	NS	WG	33 - 43	Full Scale Post Inj I	X	X	X	X
9IF-MW05L	9IF-MW05L-1088	09/12/05	NS1	WG	33 - 43	Full Scale Post Inj II	X	X	X	X
9IF-MW05L	9IF-MW05L-1089	09/12/05	FD	WG	33 - 43	Full Scale Post Inj II	X			
9IF-MW05L	9IF-MW05L-1120	01/03/06	NS	WG	33 - 43	Full Scale Post Inj III	X	X	X	X
9IF-MW05U	9IF-MW05U-1011	04/05/05	NS	WG	20 - 30	Full Scale Baseline	X	X	X	X
9IF-MW05U	9IF-MW05U-1043	06/07/05	NS	WG	20 - 30	Full Scale Post Inj I	X	X	X	X
9IF-MW05U	9IF-MW05U-1076	09/07/05	NS	WG	20 - 30	Full Scale Post Inj II	X	X	X	X
9IF-MW05U	9IF-MW05U-1107	12/28/05	NS1	WG	20 - 30	Full Scale Post Inj III	X	X	X	X
9IF-MW05U	9IF-MW05U-1108	12/28/05	FD	WG	20 - 30	Full Scale Post Inj III	X			
9IF-MW06L	9IF-MW06L-1025	04/07/05	NS1	WG	31 - 41	Full Scale Baseline	X	X	X	X
9IF-MW06L	9IF-MW06L-1026	04/07/05	FD	WG	31 - 41	Full Scale Baseline	X			
9IF-MW06L	9IF-MW06L-1057	06/09/05	NS	WG	31 - 41	Full Scale Post Inj I	X	X	X	X
9IF-MW06L	9IF-MW06L-1090	09/13/05	NS	WG	31 - 41	Full Scale Post Inj II	X	X	X	X
9IF-MW06L	9IF-MW06L-1121	12/29/05	NS	WG	31 - 41	Full Scale Post Inj III	X	X	X	X
9IF-MW06U	9IF-MW06U-1012	04/06/05	NS1	WG	21 - 31	Full Scale Baseline	X	X	X	X
9IF-MW06U	9IF-MW06U-1013	04/06/05	FD	WG	21 - 31	Full Scale Baseline	X			
9IF-MW06U	9IF-MW06U-1044	06/08/05	NS	WG	21 - 31	Full Scale Post Inj I	X	X	X	X
9IF-MW06U	9IF-MW06U-1077	09/09/05	NS	WG	21 - 31	Full Scale Post Inj II	X	X	X	X
9IF-MW06U	9IF-MW06U-1109	12/22/05	NS	WG	21 - 31	Full Scale Post Inj III	X	X	X	X
9IF-MW07L	9IF-MW07L-1027	04/07/05	NS	WG	31 - 41	Full Scale Baseline	X	X	X	X

Table 1: Collected Full-Scale Removal Action Groundwater Samples and Analytical Program
Alameda Point, Alameda, California

Sample Location	Sample Identification	Sample Date	Sample Type	Sample Matrix	Sample Depth (feet bgs)	Phase	VOCs (8260B)	SVOCs (8270C)	Total Metals (6010B, 7196A)	Dissolved Metals (6010B)
9IF-MW07L	9IF-MW07L-1058	06/09/05	NS	WG	31 - 41	Full Scale Post Inj I	X	X	X	X
9IF-MW07L	9IF-MW07L-1091	09/13/05	NS	WG	31 - 41	Full Scale Post Inj II	X	X	X	X
9IF-MW07L	9IF-MW07L-1122	01/04/06	NS	WG	31 - 41	Full Scale Post Inj III	X	X	X	X
9IF-MW07U	9IF-MW07U-1014	04/05/05	NS	WG	21 - 31	Full Scale Baseline	X	X	X	X
9IF-MW07U	9IF-MW07U-1045	06/09/05	NS	WG	21 - 31	Full Scale Post Inj I	X	X	X	X
9IF-MW07U	9IF-MW07U-1078	09/08/05	NS	WG	21 - 31	Full Scale Post Inj II	X	X	X	
9IF-MW07U	9IF-MW07U-1110	12/27/05	NS	WG	21 - 31	Full Scale Post Inj III	X	X	X	X
9IF-MW08L	9IF-MW08L-1028	04/07/05	NS	WG	31 - 41	Full Scale Baseline	X	X	X	X
9IF-MW08L	9IF-MW08L-1059	06/07/05	NS	WG	31 - 41	Full Scale Post Inj I	X	X	X	X
9IF-MW08L	9IF-MW08L-1092	09/12/05	NS	WG	31 - 41	Full Scale Post Inj II	X	X	X	X
9IF-MW08L	9IF-MW08L-1123	01/03/06	NS1	WG	31 - 41	Full Scale Post Inj III	X	X	X	X
9IF-MW08L	9IF-MW08L-1124	01/03/06	FD	WG	31 - 41	Full Scale Post Inj III	X			
9IF-MW08U	9IF-MW08U-1015	04/05/05	NS	WG	21 - 31	Full Scale Baseline	X	X	X	X
9IF-MW08U	9IF-MW08U-1046	06/07/05	NS1	WG	21 - 31	Full Scale Post Inj I	X	X	X	X
9IF-MW08U	9IF-MW08U-1047	06/07/05	FD	WG	21 - 31	Full Scale Post Inj I	X			
9IF-MW08U	9IF-MW08U-1079	09/12/05	NS	WG	21 - 31	Full Scale Post Inj II	X	X	X	X
9IF-MW08U	9IF-MW08U-1111	01/03/06	NS	WG	21 - 31	Full Scale Post Inj III	X	X	X	X
9IF-MW09L	9IF-MW09L-1029	04/07/05	NS	WG	31 - 41	Full Scale Baseline	X	X	X	X
9IF-MW09L	9IF-MW09L-1060	06/08/05	NS1	WG	31 - 41	Full Scale Post Inj I	X	X	X	X
9IF-MW09L	9IF-MW09L-1061	06/08/05	FD	WG	31 - 41	Full Scale Post Inj I	X			
9IF-MW09L	9IF-MW09L-1093	09/12/05	NS	WG	31 - 41	Full Scale Post Inj II	X	X	X	X
9IF-MW09L	9IF-MW09L-1125	12/28/05	NS	WG	31 - 41	Full Scale Post Inj III	X	X	X	X
9IF-MW09U	9IF-MW09U-1016	04/05/05	NS	WG	22 - 32	Full Scale Baseline	X	X	X	X
9IF-MW09U	9IF-MW09U-1048	06/08/05	NS	WG	22 - 32	Full Scale Post Inj I	X	X	X	X
9IF-MW09U	9IF-MW09U-1080	09/13/05	NS	WG	22 - 32	Full Scale Post Inj II	X	X	X	X
9IF-MW09U	9IF-MW09U-1112	12/27/05	NS	WG	22 - 32	Full Scale Post Inj III	X	X	X	X

Table 1: Collected Full-Scale Removal Action Groundwater Samples and Analytical Program
Alameda Point, Alameda, California

Sample Location	Sample Identification	Sample Date	Sample Type	Sample Matrix	Sample Depth (feet bgs)	Phase	VOCs (8260B)	SVOCs (8270C)	Total Metals (6010B, 7196A)	Dissolved Metals (6010B)
9IF-MW10L	9IF-MW10L-1030	04/07/05	NS	WG	31 - 41	Full Scale Baseline	X	X	X	X
9IF-MW10L	9IF-MW10L-1062	06/09/05	NS	WG	31 - 41	Full Scale Post Inj I	X	X	X	X
9IF-MW10L	9IF-MW10L-1094	09/12/05	NS	WG	31 - 41	Full Scale Post Inj II	X	X	X	X
9IF-MW10L	9IF-MW10L-1126	12/28/05	NS	WG	31 - 41	Full Scale Post Inj III	X	X	X	X
9IF-MW10U	9IF-MW10U-1017	04/06/05	NS	WG	22 - 32	Full Scale Baseline	X	X	X	X
9IF-MW10U	9IF-MW10U-1049	06/07/05	NS	WG	22 - 32	Full Scale Post Inj I	X	X	X	X
9IF-MW10U	9IF-MW10U-1081	09/12/05	NS	WG	22 - 32	Full Scale Post Inj II	X	X	X	X
9IF-MW10U	9IF-MW10U-1113	01/03/06	NS	WG	22 - 32	Full Scale Post Inj III	X	X	X	X
9IF-MW11U	9IF-MW11U-1018	04/06/05	NS	WG	20 - 30	Full Scale Baseline	X	X	X	X
9IF-MW11U	9IF-MW11U-1050	06/08/05	NS	WG	20 - 30	Full Scale Post Inj I	X	X	X	X
9IF-MW11U	9IF-MW11U-1082	09/09/05	NS	WG	20 - 30	Full Scale Post Inj II	X	X	X	X
9IF-MW11U	9IF-MW11U-1114	12/28/05	NS	WG	20 - 30	Full Scale Post Inj III	X	X	X	X
9IF-MW12U	9IF-MW12U-1019	04/06/05	NS	WG	20 - 30	Full Scale Baseline	X	X	X	X
9IF-MW12U	9IF-MW12U-1051	06/08/05	NS	WG	20 - 30	Full Scale Post Inj I	X	X	X	X
9IF-MW12U	9IF-MW12U-1083	09/08/05	NS	WG	20 - 30	Full Scale Post Inj II	X	X	X	
9IF-MW12U	9IF-MW12U-1115	12/29/05	NS	WG	20 - 30	Full Scale Post Inj III	X	X	X	X
P-9-MWI03	P-9-MWI03-1000	04/05/05	NS	WG	33 - 43	Full Scale Baseline	X	X	X	X
P-9-MWI03	P-9-MW103-1032	06/06/05	NS	WG	33 - 43	Full Scale Post Inj I	X	X	X	X
P-9-MWI03	P-9-MWI03-1064	09/08/05	NS1	WG	33 - 43	Full Scale Post Inj II	X	X	X	
P-9-MWI03	P-9-MWI03-1065	09/08/05	FD	WG	33 - 43	Full Scale Post Inj II	X			
P-9-MWI03	P9MWI03-1096	12/22/05	NS	WG	33 - 43	Full Scale Post Inj III	X	X	X	X
P-9-MWI05	P9MWI05-1001	04/04/05	NS	WG	23 - 33	Full Scale Baseline	X	X	X	X
P-9-MWI05	P-9-MWI05-1033	06/07/05	NS	WG	23 - 33	Full Scale Post Inj I	X	X	X	X
P-9-MWI05	P-9-MWI05-1066	09/08/05	NS	WG	23 - 33	Full Scale Post Inj II	X	X	X	
P-9-MWI05	P9MWI05-1097	12/22/05	NS	WG	23 - 33	Full Scale Post Inj III	X	X	X	X
P-9-MWI06	P-9-MWI06-1002	04/05/05	NS	WG	33 - 43	Full Scale Baseline	X	X	X	X

Table 1: Collected Full-Scale Removal Action Groundwater Samples and Analytical Program
Alameda Point, Alameda, California

Sample Location	Sample Identification	Sample Date	Sample Type	Sample Matrix	Sample Depth (feet bgs)	Phase	VOCs (8260B)	SVOCs (8270C)	Total Metals (6010B, 7196A)	Dissolved Metals (6010B)
P-9-MWI06	P-9-MWI06-1034	06/07/05	NS	WG	33 - 43	Full Scale Post Inj I	X	X	X	X
P-9-MWI06	P-9-MWI06-1067	09/08/05	NS	WG	33 - 43	Full Scale Post Inj II	X	X	X	
P-9-MWI06	P-9-MWI06-1098	01/03/06	NS	WG	33 - 43	Full Scale Post Inj III	X	X	X	X

Notes:

X = analysis performed on sample. Blank indicates analysis not performed.

bgs	below ground surface
VOC	volatile organic compound
SVOC	semivolatile organic compound
NS	Normal Sample
NSI	Normal Sample with Field Duplicate
FD	Field Duplicate
WG	groundwater
Post Inj	post injection event

Table 2: Full-Scale Removal Action Field-Measured Parameters
Alameda Point, Alameda, California

Well Name	Date	Phase	Temperature (°C)	Specific Conductivity (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm)	ORP (mV)	Ferrous Iron (mg/L)	Hydrogen peroxide (mg/L)
9EMW01	04/05/05	Full Scale Baseline	19.05	2.98	7.71	-1.9	10.89	218.00	0.00	0.00
9EMW01	09/07/05	Full Scale Post Inj II	21.60	3.34	6.95	0	19.99	166.00	0.00	0.00
9EMW01	12/29/05	Full Scale Post Inj III	20.55	3.02	7.26	1.3	0.45	-120.70	4.00	0.00
9EMW03	04/04/05	Full Scale Baseline	19.69	1.33	7.91	50.2	19.99	220.00	0.15	0.00
9EMW03	09/07/05	Full Scale Post Inj II	21.38	1.39	7.12	875	19.99	220.00	0.00	1.00
9EMW03	12/28/05	Full Scale Post Inj III	20.78	1.81	7.31	21.1	30.89	274.70	0.00	0.00
9EMW04	04/05/05	Full Scale Baseline	19.30	5.52	6.72	31.0	19.99	145.00	1.50	0.00
9EMW04	09/07/05	Full Scale Post Inj II	21.19	5.33	6.93	72.8	19.99	151.00	0.60	0.00
9EMW04	12/29/05	Full Scale Post Inj III	20.13	5.79	7.19	21.6	26.33	332.50	0.00	0.00
9IF-MW01L	04/06/05	Full Scale Baseline	19.72	6.86	7.98	26.3	0.00	45.00	0.00	0.15
9IF-MW01L	09/09/05	Full Scale Post Inj II	20.25	11.40	7.00	7.6	19.99	163.00	0.00	0.00
9IF-MW01L	12/29/05	Full Scale Post Inj III	19.47	11.33	7.18	27.4	22.75	252.90	0.00	0.00
9IF-MW01S	04/07/05	Full Scale Baseline	15.75	2.69	7.51	3.8	0.00	-156.00	2.00	0.00
9IF-MW01S	09/09/05	Full Scale Post Inj II	17.59	2.49	7.00	27.3	1.87	-216.00	1.00	0.00
9IF-MW01S	12/27/05	Full Scale Baseline	16.78	1.99	7.41	5.2	0.34	-165.10	0.00	0.00
9IF-MW01U	04/05/05	Full Scale Baseline	18.82	1.57	7.62	6.9	0.00	39.00	0.00	0.00
9IF-MW01U	09/08/05	Full Scale Post Inj II	19.21	1.54	7.60	0	2.08	-121.00	0.00	0.00
9IF-MW01U	12/22/05	Full Scale Post Inj III	18.52	1.37	7.75	4.1	0.37	132.30	0.00	0.00
9IF-MW02L	04/06/05	Full Scale Baseline	18.17	12.50	7.63	27.5	0.18	160.00	0.10	0.00
9IF-MW02L	09/09/05	Full Scale Post Inj II	19.53	21.50	6.77	3.8	1.78	40.00	0.00	0.00
9IF-MW02L	12/29/05	Full Scale Post Inj III	18.89	17.88	7.01	2.4	0.39	54.60	0.00	0.00
9IF-MW02U	04/05/05	Full Scale Baseline	19.61	7.77	7.20	4.3	0.34	40.00	0.20	0.00
9IF-MW02U	09/07/05	Full Scale Post Inj II	21.25	6.41	6.94	64.9	19.99	195.00	0.03	0.00
9IF-MW02U	12/22/05	Full Scale Post Inj III	20.32	6.48	7.25	12.1	33.88	265.70	0.00	0.00
9IF-MW03L	04/06/05	Full Scale Baseline	17.89	7.76	7.88	8.5	0.00	115.00	0.00	1.15
9IF-MW03L	09/12/05	Full Scale Post Inj II	19.29	11.10	6.96	552	19.99	218.00	0.00	0.00

Table 2: Full-Scale Removal Action Field-Measured Parameters
Alameda Point, Alameda, California

Well Name	Date	Phase	Temperature (°C)	Specific Conductivity (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm)	ORP (mV)	Ferrous Iron (mg/L)	Hydrogen peroxide (mg/L)
9IF-MW03L	12/22/05	Full Scale Post Inj III	18.45	10.63	7.22	60.3	35.34	294.20	0.00	0.00
9IF-MW03U	04/05/05	Full Scale Baseline	20.31	12.80	7.53	0.9	0.00	115.00	0.00	0.00
9IF-MW03U	09/08/05	Full Scale Post Inj II	21.06	14.20	6.81	161	19.99	283.00	0.00	0.00
9IF-MW03U	01/04/06	Full Scale Post Inj III	20.42	10.91	7.09	3.9	14.10	308.50	0.00	0.00
9IF-MW04L	04/06/05	Full Scale Baseline	17.36	14.70	7.71	44.4	0.00	4.00	0.05	0.00
9IF-MW04L	09/09/05	Full Scale Post Inj II	17.42	14.00	7.12	5.4	1.89	-82.00	0.00	0.00
9IF-MW04L	12/28/05	Full Scale Post Inj III	17.17	13.32	7.30	0.6	0.61	-4.10	0.00	0.00
9IF-MW04U	04/06/05	Full Scale Baseline	17.04	4.43	7.73	44.0	0.00	2.00	0.10	0.00
9IF-MW04U	12/22/05	Full Scale Post Inj III	17.19	3.72	7.35	NM	0.17	-113.10	0.00	0.00
9IF-MW05L	04/06/05	Full Scale Baseline	19.08	5.73	7.26	4.7	0.00	30.00	0.00	0.00
9IF-MW05L	09/12/05	Full Scale Post Inj II	19.76	4.78	7.40	0	1.50	-126.00	0.00	0.00
9IF-MW05L	01/03/06	Full Scale Post Inj III	18.06	3.81	7.64	0.6	0.42	99.80	0.00	0.00
9IF-MW05U	04/05/05	Full Scale Baseline	18.72	1.74	7.60	36.2	0.00	75.00	0.00	0.00
9IF-MW05U	09/07/05	Full Scale Post Inj II	18.93	1.19	6.68	316	19.99	210.00	0.00	0.00
9IF-MW05U	12/28/05	Full Scale Post Inj III	18.84	1.22	6.83	19.7	24.48	271.80	0.00	0.00
9IF-MW06L	04/07/05	Full Scale Baseline	18.71	18.40	7.18	69.5	0.00	-20.00	0.00	0.00
9IF-MW06L	09/13/05	Full Scale Post Inj II	20.02	5.97	6.25	178	19.99	118.00	6.00	1.00
9IF-MW06L	12/29/05	Full Scale Post Inj III	19.54	6.59	6.61	23.8	1.56	-74.40	2.00	0.00
9IF-MW06U	04/06/05	Full Scale Baseline	18.08	1.26	8.02	10.6	0.00	-16.00	0.00	0.00
9IF-MW06U	09/09/05	Full Scale Post Inj II	19.56	2.75	7.03	80.7	19.99	147.00	0.20	0.00
9IF-MW06U	12/22/05	Full Scale Post Inj III	19.14	2.29	7.32	79.1	39.71	287.70	0.00	0.00
9IF-MW07L	04/07/05	Full Scale Baseline	18.48	5.81	7.14	58.9	0.00	42.00	0.15	0.00
9IF-MW07L	09/13/05	Full Scale Post Inj II	19.71	5.06	6.63	5	19.99	165.00	6.00	0.00
9IF-MW07L	01/04/06	Full Scale Post Inj III	18.98	4.61	6.97	56.2	16.84	259.90	0.00	0.00
9IF-MW07U	04/05/05	Full Scale Baseline	19.14	2.66	7.55	-3.2	0.00	56.00	0.00	0.00

Table 2: Full-Scale Removal Action Field-Measured Parameters
Alameda Point, Alameda, California

Well Name	Date	Phase	Temperature (°C)	Specific Conductivity (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm)	ORP (mV)	Ferrous Iron (mg/L)	Hydrogen peroxide (mg/L)
9IF-MW07U	09/08/05	Full Scale Post Inj II	19.71	2.74	7.66	0	1.71	-78.00	0.00	0.00
9IF-MW07U	12/27/05	Full Scale Post Inj III	19.10	2.38	7.87	-0.8	0.36	-53.00	0.00	0.00
9IF-MW08L	04/07/05	Full Scale Baseline	18.79	4.00	7.31	2.2	0.00	56.00	0.00	0.00
9IF-MW08L	09/12/05	Full Scale Post Inj II	20.40	3.14	7.30	420	19.99	229.00	0.00	0.00
9IF-MW08L	01/03/06	Full Scale Post Inj III	19.47	3.41	7.32	29.7	19.90	317.10	0.00	0.00
9IF-MW08U	04/05/05	Full Scale Baseline	18.17	4.06	7.17	14.6	0.00	24.00	0.20	0.00
9IF-MW08U	09/12/05	Full Scale Post Inj II	19.20	4.16	7.15	174	19.99	237.00	0.00	0.00
9IF-MW08U	01/03/06	Full Scale Post Inj III	19.05	5.38	6.69	9.1	15.44	321.90	0.00	0.00
9IF-MW09L	09/12/05	Full Scale Post Inj II	19.53	2.35	7.42	360	19.99	198.00	0.00	0.00
9IF-MW09L	12/28/05	Full Scale Post Inj III	19.00	2.65	7.53	30.9	31.50	306.50	0.00	0.00
9IF-MW09U	04/05/05	Full Scale Baseline	19.63	6.42	7.12	29.3	1.20	10.00	0.40	0.00
9IF-MW09U	09/13/05	Full Scale Post Inj II	20.23	4.66	7.24	33.5	1.64	13.50	0.10	0.00
9IF-MW09U	12/27/05	Full Scale Post Inj III	19.53	4.82	7.37	0.3	0.96	-59.60	0.00	0.00
9IF-MW10L	04/07/05	Full Scale Baseline	19.96	2.05	8.24	3.2	0.00	-61.00	0.00	0.05
9IF-MW10L	09/12/05	Full Scale Post Inj II	20.49	5.01	7.05	1.8	17.53	85.00	0.40	0.00
9IF-MW10L	12/28/05	Full Scale Post Inj III	19.92	3.95	6.99	3.6	26.58	259.90	0.00	0.00
9IF-MW10U	04/06/05	Full Scale Baseline	18.96	3.83	7.16	-6.3	0.37	-132.00	0.00	0.00
9IF-MW10U	09/12/05	Full Scale Post Inj II	20.46	3.93	7.32	193	19.99	218.00	0.00	0.00
9IF-MW10U	01/03/06	Full Scale Post Inj III	19.71	4.28	7.12	5.5	15.79	343.90	0.00	0.00
9IF-MW11U	04/06/05	Full Scale Baseline	19.38	2.80	7.38	250	0.00	-14.00	0.00	0.00
9IF-MW11U	09/09/05	Full Scale Post Inj II	20.63	2.24	7.46	130	9.99	102.00	0.00	0.00
9IF-MW11U	12/28/05	Full Scale Post Inj III	20.32	2.60	7.45	14.2	9.25	252.50	0.00	0.00
9IF-MW12U	04/06/05	Full Scale Baseline	19.19	2.76	7.29	7.2	0.00	-105.00	0.00	0.00
9IF-MW12U	09/08/05	Full Scale Post Inj II	20.45	2.59	7.05	2.3	1.96	-79.00	0.80	0.00
9IF-MW12U	12/29/05	Full Scale Post Inj III	19.74	2.45	7.32	8.4	0.67	-102.30	0.00	0.00

Table 2: Full-Scale Removal Action Field-Measured Parameters
Alameda Point, Alameda, California

Well Name	Date	Phase	Temperature (°C)	Specific Conductivity (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm)	ORP (mV)	Ferrous Iron (mg/L)	Hydrogen peroxide (mg/L)
P-9-MWI03	04/05/05	Full Scale Baseline	19.24	1.46	8.40	-1.3	19.99	194.00	0.00	0.80
P-9-MWI03	09/08/05	Full Scale Post Inj II	20.28	1.44	7.52	135	19.99	188.00	0.00	0.00
P-9-MWI05	04/04/05	Full Scale Baseline	19.15	1.31	7.67	NM	3.03	NM	NM	NM
P-9-MWI05	09/08/05	Full Scale Post Inj II	20.33	2.32	7.25	216	19.99	219.00	0.00	0.00
P-9-MWI06	04/05/05	Full Scale Baseline	18.84	10.90	7.66	148.0	19.99	216.00	0.00	0.00
P-9-MWI06	09/08/05	Full Scale Post Inj II	20.57	11.50	6.67	577	19.99	217.00	0.00	0.00
P-9-MWI06	01/03/06	Full Scale Post Inj III	19.48	5.98	6.22	48.8	0.08	-182.50	0.00	0.00

Notes: Field parameter measurements were taken during well purging prior to collection of the groundwater sample.
Bolded results are outside expected range of parameter. Baseline dissolved oxygen levels should be below approximately 9 ppm.

°C	Degree Celcius
mS/cm	milliSiemens per centimeter
NTU	Nephelometric Turbidity Unit
ppm	parts per million
ORP	oxidation-reduction potential
mV	millivolts
mg/L	milligrams per liter
Post Inj	post injection event
NM	not measured

Table 3: Detected Baseline and Post-Injection Groundwater Sample Results, Volatile Organic Compounds, Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9EMW01		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	10 U	4.5 J
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	25 J
	SW8260B	Chloroform		µg/L	0.5 U	0.75	0.73	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	10	40	15	5
	SW8260B	1,1-Dichloroethene	6	µg/L	2.5	12	1.6	0.67
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.25 J	0.5 U	0.5 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	2.9	2.9	14	450
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	0.8 J
	SW8260B	Vinyl Chloride	0.5	µg/L	0.5 U	2.1	0.5 U	0.5 U
Location: 9EMW03		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	2.6 J	20 U	470	10 UJ
	SW8260B	Chloroform		µg/L	0.32 J	2.6	2.7	2.4
	SW8260B	1,1-Dichloroethane	5	µg/L	15	80	14	26
	SW8260B	1,1-Dichloroethene	6	µg/L	4.3	24	0.59	2.9
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.6	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	34	20 UJ
	SW8260B	Methyl tert-butyl ether	13	µg/L	5.5	8.4	0.91	3.7
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	1.1	7	0.5 U	1.1
Location: 9EMW04		**Depth: 30 - 40 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	3.9 J	260	17	10 UJ
	SW8260B	Bromodichloromethane		µg/L	0.85	1.2	0.59	0.34 J
	SW8260B	Bromoform		µg/L	0.94	16	8.9	2.4
	SW8260B	Chloroform		µg/L	3.4	12	6.1	7.2
	SW8260B	Dibromochloromethane		µg/L	0.33 J	2.9	1.3	0.37 J
	SW8260B	1,1-Dichloroethane	5	µg/L	280	80	300	340
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.27 J	0.5 U	0.5 U	0.39 J
	SW8260B	1,1-Dichloroethene	6	µg/L	22	3.5	16	20
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.88	0.5 U	0.97	1.6
	SW8260B	Isopropyl Ether		µg/L	1.2 J	5 U	5 U	1.1 J
	SW8260B	Methyl ethyl ketone		µg/L	20 U	41	20 U	20 UJ
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	5.2	0.78	4.4	8.4
Location: 9IF-MW01L		**Depth: 29 - 39 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	4.2 J	58	10 U	10 UJ
	SW8260B	Chloroform		µg/L	2.1	6.3	0.5	2.4
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	1	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	17	23	22	24
	SW8260B	1,1-Dichloroethene	6	µg/L	0.79	1.6	0.8	0.53
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	4.4	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.25 J	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	38	6.1 J	20 UJ
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.82	0.5 U	0.5 U

Table 3: Detected Baseline and Post-Injection Groundwater Sample Results, Volatile Organic Compounds, Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW01L		**Depth: 29 - 39 feet bgs**						
VOCs	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	0.99 J	5 U	5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.5 U	4.9	0.5 U	0.5 U
Location: 9IF-MW01S		**Depth: 5 - 15 feet bgs**						
VOCs	SW8260B	Benzene	1	µg/L	0.45 J	0.5	0.65	0.44 J
	SW8260B	tert-butyl alcohol		µg/L	16 J	18 J	36 J	28 J
	SW8260B	Chloroethane		µg/L	0.27 J	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.64	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	2	1.9	2.9	1.7
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	6.4	7	5.3	3.4
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.27 J	0.5 U
	SW8260B	Isopropyl Ether		µg/L	4.7 J	6.6	4.5 J	3.1 J
	SW8260B	Vinyl Chloride	0.5	µg/L	5.3	7.7	8.4	8.5
Location: 9IF-MW01U		**Depth: 21 - 31 feet bgs**						
VOCs	SW8260B	Bromodichloromethane		µg/L	0.99	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.46 J	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	3	0.4 J	0.5 U	0.5 U
	SW8260B	Dibromochloromethane		µg/L	0.59	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	0.38 J	0.39 J	0.3 J	0.5 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5	0.69	0.79	0.58
Location: 9IF-MW02L		**Depth: 30 - 40 feet bgs**						
VOCs	SW8260B	Bromodichloromethane		µg/L	2.6	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	7.7	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	2.9	0.42 J	0.5 U	0.5 U
	SW8260B	Dibromochloromethane		µg/L	3.9	0.5 U	0.5 U	0.5 U
Location: 9IF-MW02U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	Benzene	1	µg/L	0.39 J	0.5 U	0.5 U	0.22 J
	SW8260B	Chloroform		µg/L	0.7	0.43 J	2.6	1.2
	SW8260B	Dichlorodifluoromethane		µg/L	16	0.5 U	1.4	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	46	21	31	43
	SW8260B	1,1-Dichloroethene	6	µg/L	1.7	0.54	1.5	1
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	10	0.5 U	5.3	5.3
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5	0.5 U	0.26 J	0.28 J
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	1.3 J
	SW8260B	Methyl tert-butyl ether	13	µg/L	1.1	0.5 U	0.95	0.97
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	1.5 J	5 U	1.3 J	1.3 J
	SW8260B	Vinyl Chloride	0.5	µg/L	23	0.5 U	8	10
Location: 9IF-MW03L		**Depth: 32 - 42 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	12 J	20 U	10 UJ
	SW8260B	Chloroform		µg/L	0.71	0.43 J	0.45 J	0.86
	SW8260B	1,1-Dichloroethane	5	µg/L	110	110	70	100
	SW8260B	1,1-Dichloroethene	6	µg/L	2.6	2.6	2	2.1
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.41 J	0.54	0.36 J	0.48 J
	SW8260B	Methyl ethyl ketone		µg/L	20 U	8.7 J	20 U	20 U

Table 3: Detected Baseline and Post-Injection Groundwater Sample Results, Volatile Organic Compounds, Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW03L		**Depth: 32 - 42 feet bgs**						
VOCs	SW8260B	Vinyl Chloride	0.5	µg/L	1.5	1.4	1.2	1.4
Location: 9IF-MW03U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	2.2 J	20 U	10 U	10 UJ
	SW8260B	Chloroform		µg/L	0.75	3.3	1.7	2.8
	SW8260B	Dichlorodifluoromethane		µg/L	3.7	0.87	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	12	9.5	6.9	8.2
	SW8260B	1,1-Dichloroethene	6	µg/L	2.4	0.72	0.59	0.9
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	2.5	2.6	2.3	3
	SW8260B	Methyl ethyl ketone		µg/L	20 U	34	20 U	20 U
	SW8260B	Tetrachloroethene	5	µg/L	3.1	1.2	0.94	1.2
	SW8260B	Trichloroethene	5	µg/L	0.96	0.54	0.4 J	0.42 J
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	2.6 J	0.41 J	0.29 J	0.24 J
	SW8260B	Vinyl Chloride	0.5	µg/L	1.9	1	0.93	1.5
Location: 9IF-MW04L		**Depth: 32.7 - 42.7 feet bgs**						
VOCs	SW8260B	Chloroform		µg/L	0.42 J	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	0.2 J	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.41 J	0.5 U	0.5 U	0.32 J
Location: 9IF-MW04U		**Depth: 19.5 - 29.5 feet bgs**						
VOCs	SW8260B	Benzene	1	µg/L	0.31 J	0.31 J	0.24 J	0.25 J
	SW8260B	tert-butyl alcohol		µg/L	18 J	15 J	20 J	16 J
	SW8260B	Chloroform		µg/L	0.47 J	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	0.52	0.57	0.46 J	0.48 J
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.8	1.3	1.3	1.2
	SW8260B	Isopropyl Ether		µg/L	8.8	9.6	7.8	5.9
	SW8260B	Styrene	100	µg/L	0.33 J	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	2.8	3.5	2.9	2.9
Location: 9IF-MW05L		**Depth: 33 - 43 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	2.7 J	20 U	10 U	10 UJ
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.34 J	0.5 U
	SW8260B	Chloroform		µg/L	0.84	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	0.38 J	0.29 J	0.29 J	0.5 U
Location: 9IF-MW05U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	2.5 J	20 U	10 U	10 UJ
	SW8260B	Chloroform		µg/L	1.2	0.5 U	0.31 J	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	42	25	36	100
	SW8260B	1,1-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.24 J	0.42 J
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.21 J	0.5 U
	SW8260B	Isopropyl Ether		µg/L	1.4 J	1 J	5 U	5 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.21 J
	SW8260B	Vinyl Chloride	0.5	µg/L	1.2	0.5 U	0.5 U	1.8
Location: 9IF-MW06L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	150	5.6 J
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.67	0.43 J

Table 3: Detected Baseline and Post-Injection Groundwater Sample Results, Volatile Organic Compounds, Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW06L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	2.6	3.4
	SW8260B	Chloroform		µg/L	0.52	0.33 J	13	3.2
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	1.5	1.4
	SW8260B	1,1-Dichloroethane	5	µg/L	7.6	13	3.7	15
	SW8260B	1,1-Dichloroethene	6	µg/L	0.44 J	0.61	0.5 U	0.5 U
	SW8260B	Isopropyl Ether		µg/L	7	6.9	5 U	5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	29	20 UJ
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	4.3
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	0.53 J
	SW8260B	Toluene	150	µg/L	0.28 J	0.2 J	0.63	0.5 U
Location: 9IF-MW06U		**Depth: 21 - 31 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	22	10 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.69	0.22 J	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.31 J	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.39 J	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	1.4	0.21 J	2.8	0.75
	SW8260B	1,1-Dichloroethane	5	µg/L	4.4	31	8.3	13
	SW8260B	1,1-Dichloroethene	6	µg/L	14	5.9	3.7	3
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.23 J	0.4 J	0.5 U	0.22 J
	SW8260B	Methyl ethyl ketone		µg/L	20 U	15 J	20 U	20 U
	SW8260B	Vinyl Chloride	0.5	µg/L	2.4	1.1	0.39 J	0.54
Location: 9IF-MW07L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	50	10 UJ
	SW8260B	Chloroform		µg/L	0.42 J	0.5 U	6	7.1
	SW8260B	1,1-Dichloroethane	5	µg/L	10	18	5.3	4.1
	SW8260B	1,1-Dichloroethene	6	µg/L	1.8	3.9	0.5 U	0.37 J
	SW8260B	1,2-Dichloropropane	5	µg/L	4	7.1	0.68	1.4
	SW8260B	Isopropyl Ether		µg/L	2 J	5 U	1.8 J	5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	81	20 U
	SW8260B	1,2,3-Trichloropropane		µg/L	31	53	5.8	11
	SW8260B	Vinyl Chloride	0.5	µg/L	0.8	0.97	0.5 U	0.5 U
Location: 9IF-MW07U		**Depth: 21 - 31 feet bgs**						
VOCs	SW8260B	Methyl tert-butyl ether	13	µg/L	3.3	4.1	3.6	4
Location: 9IF-MW08L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	20 U	3.3 J
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.56
	SW8260B	Chloroform		µg/L	0.3 J	0.56	0.61	3.3
	SW8260B	1,1-Dichloroethane	5	µg/L	64	49	47	45
	SW8260B	1,1-Dichloroethene	6	µg/L	19	17	15	8.3
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.81	0.87	0.8	0.45 J
	SW8260B	1,2-Dichloropropane	5	µg/L	1	1.2	1	0.95
	SW8260B	Isopropyl Ether		µg/L	1.6 J	1.5 J	1.9 J	1.1 J
	SW8260B	1,2,3-Trichloropropane		µg/L	7.6	7.9	9.7	4.9

Table 3: Detected Baseline and Post-Injection Groundwater Sample Results, Volatile Organic Compounds, Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW08L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Vinyl Chloride	0.5	µg/L	4.6	2.2	1.8	1.3
Location: 9IF-MW08U		**Depth: 21 - 31 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	10 U	8 J
	SW8260B	Benzene	1	µg/L	0.79	1.3	0.86	0.54
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.41 J
	SW8260B	Chlorobenzene	70	µg/L	24	44	37	35
	SW8260B	Chloroform		µg/L	0.36 J	0.5 U	0.5 U	5.3
	SW8260B	1,1-Dichloroethane	5	µg/L	11	9.8	8.1	2
	SW8260B	1,1-Dichloroethene	6	µg/L	9.4	7.7	6.1	0.99
	SW8260B	1,2-Dichloropropane	5	µg/L	3.1	3.7	3.1	2.1
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	0.77 J
	SW8260B	1,2,3-Trichloropropane		µg/L	7.8	9.2	11	15
	SW8260B	Vinyl Chloride	0.5	µg/L	1.2	0.88	0.56	0.5 U
Location: 9IF-MW09L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	1000	20 U	10 UJ
	SW8260B	Bromodichloromethane		µg/L	1.8	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	3	0.5 U	0.5 U	0.48 J
	SW8260B	Chloroform		µg/L	3	2.2	1.6	1.5
	SW8260B	Dibromochloromethane		µg/L	1.9	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	92	180	120	160
	SW8260B	1,1-Dichloroethene	6	µg/L	5.8	6.9	5.7	6.9
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.77	1.1	0.74	0.86
	SW8260B	Methyl ethyl ketone		µg/L	20 U	240 J	20 U	20 UJ
	SW8260B	Vinyl Chloride	0.5	µg/L	2.1	2.7	2	3.3
Location: 9IF-MW09U		**Depth: 22 - 32 feet bgs**						
VOCs	SW8260B	1,1-Dichloroethane	5	µg/L	0.36 J	0.3 J	0.23 J	0.37 J
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.28 J	0.5 U	0.23 J
	SW8260B	Isopropyl Ether		µg/L	1.9 J	5 U	5 U	5 U
	SW8260B	Styrene	100	µg/L	0.24 J	0.5 U	0.5 U	0.5 U
Location: 9IF-MW10L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Chloroform		µg/L	0.21 J	0.5 U	3.7	5.1
	SW8260B	1,1-Dichloroethane	5	µg/L	15	11	27	19
	SW8260B	1,1-Dichloroethene	6	µg/L	4.4	3.4	4	2.6
	SW8260B	Vinyl Chloride	0.5	µg/L	0.32 J	0.5 U	0.5 U	0.5 U
Location: 9IF-MW10U		**Depth: 22 - 32 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	3.3 J	20 U	10 U	2.3 J
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.36 J	0.5 U
	SW8260B	Chloroform		µg/L	0.4 J	0.85	1	3
	SW8260B	1,1-Dichloroethane	5	µg/L	16	9.1	6.9	2.6
	SW8260B	1,1-Dichloroethene	6	µg/L	10	4.9	2.5	1.5
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.41 J	0.27 J	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	1.1	1.5	0.76	0.81
	SW8260B	Isopropyl Ether		µg/L	2.5 J	2.5 J	5 U	5 U

Table 3: Detected Baseline and Post-Injection Groundwater Sample Results, Volatile Organic Compounds, Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW10U		**Depth: 22 - 32 feet bgs**						
VOCs	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.21 J
	SW8260B	1,2,3-Trichloropropane		µg/L	3.6	3.7	0.5 U	1.6
	SW8260B	Vinyl Chloride	0.5	µg/L	1.7	0.54	0.5 U	0.5 U
Location: 9IF-MW11U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	Chloroform		µg/L	0.55	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	0.24 J	0.5 U	0.74	1.3
Location: 9IF-MW12U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	11 J	50 UJ
	SW8260B	Chloroform		µg/L	0.77	0.5 U	0.52	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	3.8	4.3	0.29 J	0.75
	SW8260B	1,1-Dichloroethene	6	µg/L	1	1	0.5 U	0.5 U
	SW8260B	Isopropyl Ether		µg/L	2.2 J	2.3 J	5 U	5 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.42 J	3.7	46	63
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	1.1 J	0.94 J
Location: P-9-MWI03		**Depth: 33 - 43 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	20 U	10 UJ
	SW8260B	Chloroform		µg/L	0.5 U	0.5 U	0.5 U	1.9
	SW8260B	1,1-Dichloroethane	5	µg/L	89	140	100	200
	SW8260B	1,1-Dichloroethene	6	µg/L	6.2	11	7.3	9.3
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.43 J	0.66	0.51	0.63
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.32 J	0.27 J	0.31 J	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.2 J	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	1.2	3.7	1.9	3.1
Location: P-9-MWI05		**Depth: 23 - 33 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	20 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.29 J	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.5 U	0.76	7.4	5.6
	SW8260B	1,1-Dichloroethane	5	µg/L	120	660	270	320
	SW8260B	1,1-Dichloroethene	6	µg/L	5.1	16	5.4	7.5
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.57	1.4	0.75	0.77
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.27 J	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.47 J	6.2	1.5	4.4
Location: P-9-MWI06		**Depth: 33 - 43 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	35 J	20 U	33 J
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 UJ	0.26 J	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.46 J	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.5 U	13 J	5.7	8.8
	SW8260B	1,1-Dichloroethane	5	µg/L	730	75 J	370	71
	SW8260B	1,1-Dichloroethene	6	µg/L	34	0.5 UJ	10	1.9
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	1	0.5 UJ	0.4 J	0.5 U

Table 3: Detected Baseline and Post-Injection Groundwater Sample Results, Volatile Organic Compounds, Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: P-9-MWI06		**Depth: 33 - 43 feet bgs**						
VOCs	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 UJ	20 U	17 J
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 UJ	1 U	0.83 J
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	10	0.5 UJ	3	0.5 U

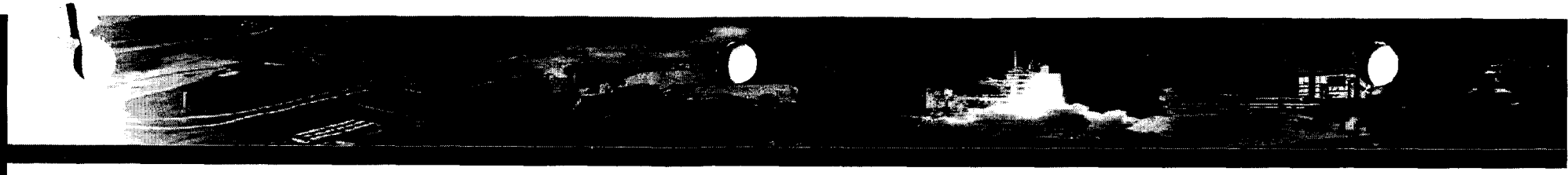
Notes:

Circled result indicates detected result exceeds associated MCL.

bgs below ground surface
MCL California maximum contaminant level (Title 22, California Code of Regulations, effective June 2003)
µg/L micrograms per liter
VOCs volatile organic compounds
U Not detected at or above the indicated reporting limit
J Estimated value
Post Inj post injection event

Appendices A and B
(On Compact Disc)

- Appendix A - Boring Logs and Well Construction Diagrams
- Appendix B - Analytical Results



FINAL

Contract Information
Environmental Remedial Action
Contract Number N62474-98-D-2076
Contract Task Order 0107

FIELD SUMMARY REPORT FOR THE FULL-SCALE IN SITU CHEMICAL OXIDATION REMOVAL ACTION AT INSTALLATION RESTORATION SITE 9 INTERMEDIATE

Alameda Point, Alameda, California

Document Control Number: 10079
Publishing Date: September 29, 2006

➢ Table of Contents:

- Appendix A – Boring Logs and Well Construction Diagrams
- Appendix B – Analytical Results

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ALAMEDA POINT
SSIC NO. 5090.3

APPENDIX A – BORING LOGS AND WELL CONSTRUCTION DIAGRAMS

FINAL
FIELD SUMMARY REPORT FOR THE FULL-SCALE IN SITU CHEMICAL OXIDATION REMOVAL ACTION AT INSTALLATION RESTORATION SITE 9 INTERMEDIATE

DATED 29 SEPTEMBER 2006

Monitoring Well Construction Form

Project:	Alameda Pt CTO 107 84491B	Well Number:	9IF-MW015
Location:	Alameda Point	Site Location:	9 Intermediate
Client:	U S Navy	Installation Date:	3-22-05
Subcontractor:	Cascade Drilling	Northing:	
Driller:		Easting:	
IT Field Representative:	EMullenmeister	NAD:	NGVD:

Protective Cover Elevation (ft):

Top of Casing Elv. (ft):

Top of Casing Stickup (ft):

Land Surface Elv. (ft):

Approximate Diameter of Borehole (in): 8 in

Well Casing Diameter (in): 2 in

Depth to Water (ft):

During Drilling

Date:

Post Development TOC

Date

Top of Bentonite Seal (ft): 3 ft

Top of Filter Pack (ft): 4 ft

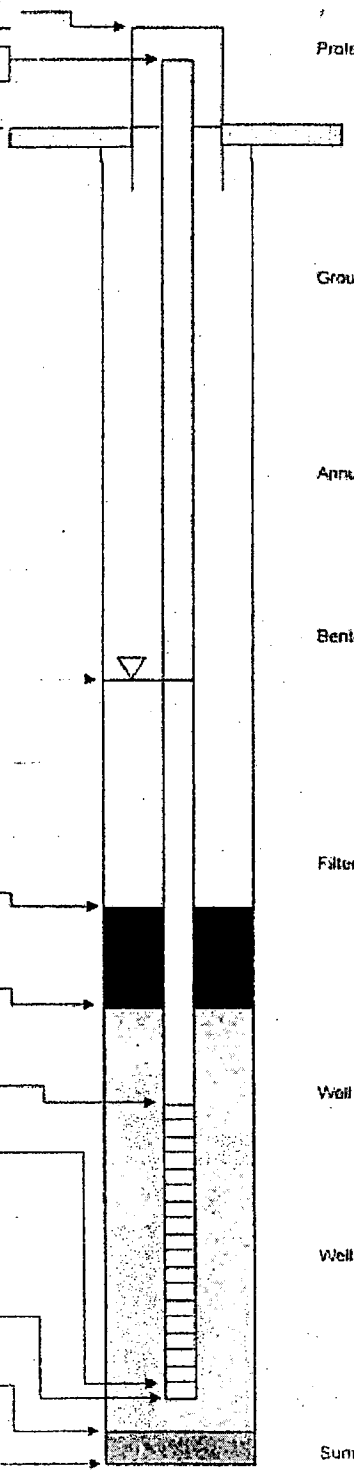
Top of Screen Interval (ft): ~~15~~ 5

Bottom of Screen Interval (ft): 15

Bottom of Well (ft): 15

Bottom of Filter Pack (ft): 15

Bottom of Borehole (ft): 15



Protective Casing:
- Type: Emco Flush Mount
- Dimensions (in): 8 in dia
- Length (ft): 12 in
- Guard Post: N/A

Ground Seal (Surface Pad)
- Dimensions: N/A
- Type: Concrete

Annular Space Seal: Rapid Set Concrete
- Type: ~~Bentonite Cement Grout~~
- Installation: Gravity Tremie Pumped

Bentonite Seal: Wyo-Ben Inc.
- Manufacturer: Enviroplug
- Type: 3/8" Pellets chips Slurry
- Installation: 6-in lifts (One Section) (Gravity) Tremie Pumped
- Hydration time (hrs): 1/2, 50-Lb bgs

Filter Pack Material:
- Manufacturer: RMC Pacific
- Product Name: Lapis Lustre
- Size: 2/12
- Volume Added (ft³): 8, 50-Lb bags
- Installation: (Gravity) Tremie

Well Casing:
- Manufacturer: Boart Longyear
- Type: PVC Sch 40
- Diameter (in): 2 in

Well Screen Casing:
- Manufacturer: Boart Longyear
- Type: Sch 40 PVC
- Slot Size (in): 0.020 %Open
- Slot Type: Continuous (Factory slot) wrap

Sump/End Cap: Flush Threaded

Backfill Material: None

Volume Water Added: 5 gal

Shaw
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VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 844918	PROJECT NAME: Alameda Pt CTO 107	
BORING NUMBER: 9IF-MW01S	COORDINATES:	DATE: 3-22-05
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: 3-22-05
ENGINEER/GEOLOGIST: Mullenmeister	Depth Date/Time	DATE COMPLETED: 3-22-05
DRILLING METHODS: 8 in OD HSA		PAGE: 1 OF 1

DEPTH (ft)	SAMPLE TYPE & NO.	~~BLOWS ON SAMPLER PER ( )~~	~~RECOVERY ( )~~	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
	Auger Vein Grab Samples			Concrete 0-8"				
				Poorly graded sand, lt ol brn (2.5Y 5/4) moist, 95% fine to med grnd sand 5% silt.				PID = 0.0
5				@ ~6ft color change to dark gray (N 4/0), clay silt & sand nodules present	SP			PID = 0.6
10								PID = 0.1
				14.5'				
15				@ 14.5ft, silt, DK gry (N 4/0), moist to wet, 60% silt, 40% clay 15'	ML			
				TD 15ft				
20								
25								
30								

NOTES:

Drilling Contractor: Cascade Drilling

Drilling Equipment: CME 75

Driller: Paul Snelgrove

243C-3-00

Shaw Environmental & Infrastructure, Inc.

VISUAL CLASSIFICATION OF SOILS & Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 91F-MW-01U	COORDINATES:	DATE: MAR 21 2005
ELEVATION: GROUND	GWL: Depth Date/Time	DATE STARTED: MAR 21 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR " '05
DRILLING METHODS: HSA		PAGE: 1 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
					CONC			concrete ~ 6"
	sli moist	N/A	1335 NPO	POORLY GRADED SAND – olive brown (2.5Y 4/3); loose; fine grained; trace silt; trace pea grav to 1/4 inch; sli moist; NPO.	SP			Pulled out by airknife & re-packed, to ~5 ft
5	▼ approx							contact approximate
	wet		155 MPO	POORLY GRADED SAND – Dark greenish gray (Gley1 4/10Y) Trace silt; very loose; wet; light-mod petrol. odor	SP			
10	wet				SP			water @ ~5' to 6'
	wet		VL-NPO 136	POORLY GRADED SAND – Dark grayish brown (2.5Y 4/2); Very loose; fine grained. Trace-10% silt; saturated; VLPO	SP			
15								
20	wet		>2k VH/NPO	AT ~20 FT: CLAYEY SILT WITH SAND — Very dark greenish gray (Gley1 3/); loose; 10% clay; 30% fine sand; saturated; NPO	ML			Contact unknown 21'
25	wet		— NPO	SILTY CLAY – Very dark gray (Gley1 3/N) Soft; plastic; wet; v slight sulfide odor; NPO clay pods throughout.	CL			
30								

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller: JAMES, STEY, AARON

TOTAL H_2O ADDED: 12 gallons

CONC: 6 to 19 FT
2" Sched. 40 PVC
BENT: 3/8" COATED Chips @ 2 to 19 FT
2/12 SAND @ 19 to 31.5 FT
TOC @ 21 to 31 FT
0.020" screen: 21 to 31 FT
T.D.: 31.5 FT

STEY DRLR HELPER

Shaw Environmental & Infrastructure, Inc.

VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 9IF-MW-01M	COORDINATES:	DATE: MAR 21 2005
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: MAR '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR '05
DRILLING METHODS: HSA		PAGE: 2 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
	wet		NPO	SILTY CLAY	CL			
35				TD = 31.5 FT				
40								
45								
50								

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller:

TOTAL H_2O ADDED:

COVER: to FT

2" Sched. 40 PVC

BENT: 3/8" COATED @ to FT

3/12 SAND @ to FT

TOC @ to FT

0.020" Screen: to FT

T.D.:

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VISUAL CLASSIFICATION OF SOILS and well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 91F-MW-02U	COORDINATES:	DATE: MAR 22 2005
ELEVATION: GROUND	GWL: Depth Date/Time	DATE STARTED: MAR 22 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 22 '05
DRILLING METHODS: HSA		PAGE: 1 OF 1

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL	WELL CONSTRUCTION	REMARKS
				Asphalt surface	Asph	COVER, BLANK PVC Schedule 40	ASPHALT SURF ~3" RAINY ALL DAY MOISTURE AFFECTING PID
	wet		>2K NPO	POORLY GRADED SAND — Dark grayish brown (2.5Y 4/2); loose; fine grained; wet; NPO	SP		
5	wet		>900 NPO	At 5-10 ft: POORLY GRADED SAND — Olive brown (2.5Y 4/3); loose, fine grained; wet-NPO	SP		
10	wet		NPO 635	AT 10 FT: POORLY GRADED SAND Light olive brown (2.5Y 5/3) very loose; fine grained; wet; NPO Trace silt ~5%.	SP		PID creeping upwards in headspace -- moisture?
15	wet		NPO 435	AT ~15 FT: Interbedded CLAY w/ SILT WITH SAND — Dark gray, 30% sand. Clay — very dark gray (GLEY 1 3/1); very soft, plastic; wet; NPO	ML CL		
20	wet		NPO 245	AT ~20 FT: CLAY — Dark gray (GLEY 1 4/N); soft; plastic; wet — NPO Thicker unit (~several inches?)	ML CL CL		PID AFFECTED BY MOISTURE
25	wet		NPO 171	AT 25-30 FT: SILTY CLAY WITH LESSER SILTS — Greenish black (GLEY 1 2.5/1); very soft; plastic; trace to 20% localized sand. fine gr. wet. NPO	CL		
30				TOTAL DEPTH: 30 FT			

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller: JAMES, STEY, AARON

TOTAL H_2O ADDED: 12 Gallons

COVER: 6" to 6 FT
2" Sched. 40 PVC
BENT: 3/8" COATED @ 6 to 8 FT
2/12 SAND @ 18 to 30 FT
TOC @ to FT
0.020" screen: 20 to 30 FT
T.D.: 30 FT

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VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 91F-MW-034	COORDINATES:	DATE: MAR 22 2005
ELEVATION: Ground	GWL: Depth Date/Time	DATE STARTED: MAR 22 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 22 '05
DRILLING METHODS: HSA		PAGE: 1 OF 1

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL	WELL CONSTRUCTION	REMARKS
				Asphalt Surface	Asp		
				AT 3 FT – POORLY GRADED SAND – Brown (10YR 4/3); very loose; fine grained; moist/sli. mst; NPO	Sp	Blank PVC Schedule 40	cement backfill
	sli mst / mst		NPO 569				PID READINGS AFFECTED BY BAG (HEADSPACE) MOISTURE
5	wet		>2K NPO	AT 5 FT: Rare pea gravel. AT 10 FT: POORLY GRADED SAND Light olive brown (2.5Y 5/3) fine gr; v loose; wet; NPO			
	wet		1396 NPO		Sp		
10	wet		NPO	AT ~10 FT – POORLY GRADED SAND – olive brown (2.5Y 5/3) wet: NPO	Sp		
	Sat'd		747	AT ~15 FT: SANDY SILT (GLEY 1 4/10) Dark greenish gray; very loose; 30% fine sand; 60-70% silt; trace clay(?): Saturated N/ VLPO			
15	Sat'd		NPO/ VLPO 366		Sp		
					ML		
20	wet		NPO 285	AT 20-25 FT – CLAY – very dark gray (GLEY 1 3/N); very soft; plastic; wet: NPO	CL		
25	wet		NPO 454	AT 25 FT – SANDY SILT – Dark greenish gray (GLEY 1 4/5GY): very loose; 20-30% fine sand; saturated; NPO	ML		
	Sat'd		NPO				
30				TOTAL DEPTH: 30 FT			

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller: James, Stey, Aaron

TOTAL H_2O ADDED: 12 gallons

COVER: 6" to 6' FT
2" Sched. 40 PVC
BENT: 3/8" COATED Chips @ 6 to 30 FT
3/12 SAND @ 18 to 30 FT
TOC @ to FT
0.020" screen: 20 to 30 FT
T.D.: 30 FT

Shaw Environmental & Infrastructure, Inc.

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 844918	PROJECT NAME: Alameda Pt CTO 107	
BORING NUMBER: 9IF-MW04U	COORDINATES:	DATE: 3-22-05
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: 3-22-05
ENGINEER/GEOLOGIST: Mullenmeister	Depth Date/Time	DATE COMPLETED: 3-22-05
DRILLING METHODS: 8 in OD HSA		PAGE: 1 OF 1

DEPTH (ft)	SAMPLE TYPE & NO.	~~BLOWS ON SAMPLER PER ( )~~	~~RECOVERY ( )~~	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
	Auger Vein Grab Samples			Concrete 6-8"				
5				Poorly graded sand, dk grayish brn (2.5Y 4/2), moist, 95% fine to med grnd sand, 5% silt, w/ clayey silt & sand nodules color change to gray (N 4/0) @ ~ 6ft wet	SP			
10								
15				@ ~15ft Silty sand dark gray (N 4/0), wet, 60% v. fine to med grained sand 40% silt,				
20				@ ~ 20ft Silty sand, olive gray (5Y 4/2), wet, 80% fine to med grnd sand, 20% silt.	SM			PID = 0.6
25				@ ~ 25ft Silty Sand, lt olbrown, (2.5Y 5/6), wet 80% v. fine to med grnd sand, 20% silt,				
30								

NOTES: TD = 30ft

Drilling Contractor: Cascade Drilling

Drilling Equipment: CME 75

Driller: Paul Snelgrove

Monitoring Well Construction Form

Project	Alameda Pt CTO 107 844918	Well Number:	9IF-MW04U
Location	Alameda Point	Site Location:	9 Intermediate
Client	U.S Navy	Installation Date	3-22-05
Subcontractor	Cascade Drilling	Northing:	
Driller	Paul Snelgrove	Easting:	
IT Field Representative	E Mullenmeister	NAD:	NGVD:

Protective Cover Elevation (ft):

Top of Casing Elv. (ft):

Top of Casing Stickup (ft):

Land Surface Elv. (ft)

Approximate Diameter of Borehole (in): 8 in

Well Casing Diameter (in): 2 in

Depth to Water (ft)

During Drilling

Date:

Post Development TOC

Date

Top of Bentonite Seal (ft): 6 ft

Top of Filter Pack (ft): 18 ft

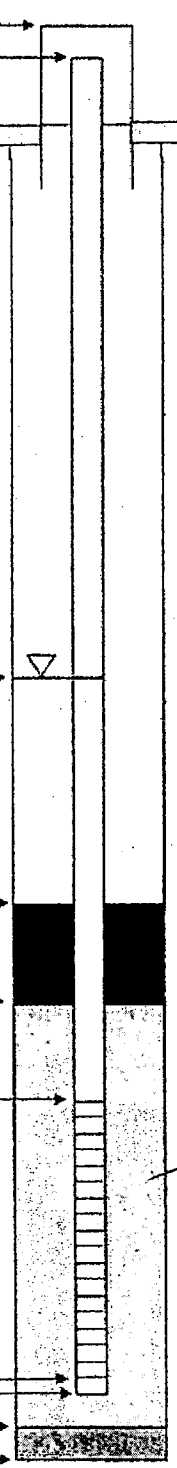
Top of Screen Interval (ft): 19.5

Bottom of Screen Interval (ft): 29.5

Bottom of Well (ft): 29.5

Bottom of Filter Pack (ft): 30 ft

Bottom of Borehole (ft): 30 ft



Protective Casing:
- Type: Emco Flush Mount
- Dimensions (in): 8 in dia
- Length (ft): 12 in
- Guard Post: NA

Ground Seal (Surface Pad)
- Dimensions: NA
- Type: Concrete

Annular Space Seal:
- Type: Rapid Set Concrete ~~Bentonite Cement Grout~~
- Installation: Gravity Tremie Pumped

Bentonite Seal:
- Manufacturer: Wyo-Ben Inc.
- Type: 3/8" Pellets (chips) Slurry
- Installation: 6-in lifts (One Section) (Gravity) Tremie Pumped
- Hydration time (hrs): 4.5, 50-Lb bgs

Filter Pack Material:
- Manufacturer: RMC Pacific
- Product Name: Lapis Lustre
- Size: 2/12
- Volume Added (ft³): 6, 50-Lb bags
- Installation: (Gravity) Tremie

Well Casing:
- Manufacturer: Boart Longyear
- Type: PVC Sch 40
- Diameter (in): 2 in

Well Screen Casing:
- Manufacturer: Boart Longyear
- Type: Sch 40 PVC
- Slot Size (in): 0.020 %Open
- Slot Type: Continuous wrap (Factory slot)

Sump/End Cap: Flush Threaded

Backfill Material: None

Volume Water Added: 25 gal

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VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 9IF-MW05u	COORDINATES:	DATE: MAR 24 2005
ELEVATION: GROUND - street	GWL: Depth Date/Time	DATE STARTED: MAR 24 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 24 '05
DRILLING METHODS: HSA		PAGE: 1 OF 1

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL	WELL CONSTRUCTION	REMARKS
					Asph Conc		Asphalt ~3" over 10" concrete. Cleared to 7 ft.
				POORLY GRADED SAND - lig NT olive brown (2.5Y 5/); fine grained; trace white shell fragments (1-2 mm); moist NPO	SP	BLANK PVC - Schedule 40	
	moist		463 NPO				
5				At 5 to 10 ft: moist, - NPO angular rock/concrete fragments to 2" (~10%)			
					SP		Concrete (?) obstruction at 7-8 FT drilled past.
	mst		212 NPO	At 10 to 15 ft: concrete fragment (3"x1"x2") from hole. Moist/wet, NPO			
10							
	mst						
			272 NPO		SP		
	mst wet			At 15 to 20 ft: POORLY GRADED SAND to surface, poor returns. 4"x4"x6" concrete "rock" to surface			
15							
	wet		NPO 44.7	wet sand. NPO			15 to 20 ft: Sample with v poor cuttings returns; 6"x4"x4" concrete cobble and little cttgs.
				At 20 to 25 ft: No cuttings to surface -	SP		
20							20 to 25 ft: No cuttings returned. Wood plug pushed up 2-3'.
25					SP		Smooth drilling below 10 ft ± No obstructions of note.
30					SP		

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller: JAMES, STEY, AARON

wood plug pushed up 2-3 ft at ~20 ft.

TOTAL H_2O ADDED: 15

COVER: 6" to 6 FT

2" Sched. 40 PVC

BENT: 3/8" COATED chips @ 6 to 18 FT

2/12 SAND @ 18 to 30 FT

~~TOC~~ @ to FT

0.020" screen: 20 to 30 FT

T.D.: 30

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VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 91F-MW064	COORDINATES:	DATE: MAR 21 2005
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: MAR '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR '05
DRILLING METHODS: HSA		PAGE: 1 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
	MST		1361 NPO	POORLY GRADED SAND – Brown (10YR 4/3); loose; fine grained; moist; NPO	SP			AIR KNIFED TO ~6'; CONCRETE SURF: ~6"
	MST							
	wet	▽						
5	wet		1198 NPO	At 5-10 FT: Trace white 1 to 3 mm shell fragments NPO; sat'd.	SP		SCHED 40	
	sat'd			At ~10 FT: POORLY GRADED SAND; light olive brown (2.5Y 5/3); fine grained; very loose; sat'd; NPO				
10			1258	At ~15 FT – POORLY GRADED SAND (2.5Y 5/2) grayish brown; fine grained; v loose; wet/sat'd; NPO; Rare 1mm white shell fragment.	SP		BLANK	
15			1245	At ~20 FT – POORLY GRADED SILTY SAND TO SAND w/ SILT – Dark greenish gray (GLEY1 4/10Y) very loose; saturated; NPO	SP			
20			1360		SP			
25			>2K	At ~25 FT – POORLY GRADED SILTY SAND. Very dark greenish gray (GLEY1 3/10Y); trace clay pods; ~30-40% silt; sat'd; NPO	SP			
	wet				SM			
30								

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller:

CONCR: 6" to 6 FT
2" Sched. 40 PVC
BENT: 3/8" COATED CHIPS @ 6 to 19 FT
2/12 SAND @ 19 to 31 FT
CONCRETE @ 6" to 6 FT
0.020" screen: 21 to 31 FT

TOTAL H_2O ADDED: 129 gallons T.D.: 31 FT

8 Bags Sd #50
8 Bags Chips

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VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 91F-MW06	COORDINATES:	DATE: MAR 21 2005
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: MAR '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR '05
DRILLING METHODS: HSA		PAGE: 2 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
					SM			← SANDPACK 2/12
35								
40								
45								
50								

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller:

TOTAL H_2O ADDED:

GOWER: to FT

2" Sched. 40 PVC

BENT: 3/8" COATED @ to FT

2/12 SAND @ to FT

TOC @ to FT

0.020" screen: to FT

T.D.:

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VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 844918	PROJECT NAME: Alameda Pt CTO 107	
BORING NUMBER: 9IF-MW07U	COORDINATES:	DATE: 3-23-05
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: 3-23-05
ENGINEER/GEOLOGIST: Mullenmeister	Depth Date/Time	DATE COMPLETED:
DRILLING METHODS: 8 in OD HSA		PAGE: 1 OF 1

DEPTH (ft)	SAMPLE TYPE & NO.	~~BLOWS ON SAMPLER PER ( )~~	~~RECOVERY ( )~~	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
	Auger Vein Grab Samples			Asphalt 0-6"				
5				Poorly graded sand, lt ol brn (2.5Y 5/4), 95% fine to med grained sand 5% silt, color change to dk gray (N 4/0) at ~ 6ft, wet	SP			PID = 0.0
10								
15				15' @ ~ 15 ft, silty sand, v. dk gray (N 3/0), 65% v. fn grnd sand, 35% silt, liquifies when brought to sfc by rotating augers, wet 18'				PID = 0.0
20				~~Silt~~ at ~ 18ft, silty sand, dk gray (N 3/0), 80% fine to med grained sand, 20% silt.	SM			
25				@ ~ 25ft dk gray (5Y 4/2)				PID = 0.0
				@ ~ 28ft lt ol brn, (2.5Y 5/4)				PID = 0.0
30				@ ~ 29ft dk yellowish brn (10YR 4/4)				

NOTES: TD 32 ft

Drilling Contractor: Cascade Drilling

Drilling Equipment: CME 75

Driller: Paul Snelgrove

243C-3-00

Monitoring Well Construction Form

Project:	Alameda Pt CTO 107 84491B	Well Number:	9IF-MW07U
Location:	Alameda Point	Site Location:	9 Intermediate
Client:	U.S Navy	Installation Date:	3-23-05
Subcontractor:	Cascade Drilling	Northing:	
Driller:	Paul Snelgrove	Easting:	
IT Field Representative:	E Mullenmeister	NAD: / NGVD:	

Protective Cover Elevation (ft):

Top of Casing Elv. (ft):

Top of Casing Stickup (ft):

Land Surface Elv. (ft):

Approximate Diameter of Borehole (in): 8 in

Well Casing Diameter (in): 2 in

Depth to Water (ft)

During Drilling

Date:

Post Development TOC

Date

Top of Bentonite Seal (ft): 6ft

Top of Filter Pack (ft): 19.4

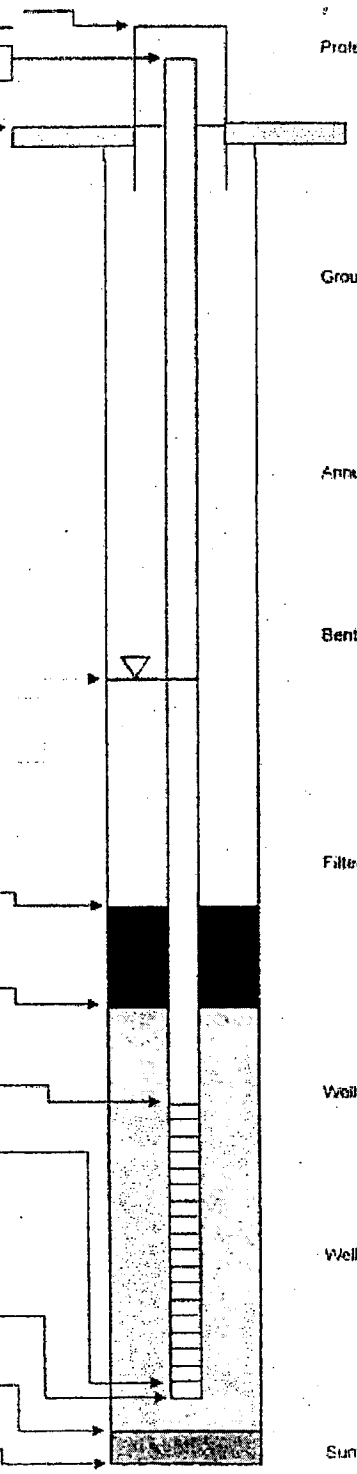
Top of Screen Interval (ft): 21

Bottom of Screen Interval (ft): 31

Bottom of Well (ft): 31

Bottom of Filter Pack (ft): 31

Bottom of Borehole (ft): 32ft



Protective Casing:
- Type: Flush Mount
- Dimensions (in): 12 in
- Length (ft): 12 in
- Guard Post: NA

Ground Seal (Surface Pad)
- Dimensions: NA
- Type: Concrete

Annular Space Seal: Rapid Set Concrete
- Type: ~~Bentonite Cement Grout~~
- Installation: Gravity Tremie Pumped

Bentonite Seal: CETCO PureGold Medium ~~Wyo-Ben Inc.~~
- Manufacturer: ~~Enviroplug~~
- Type: ~~3/8"~~ Pellets (chips) Slurry
- Installation: 6-in lifts (One Section) (Gravity) Tremie Pumped
- Hydration time (hrs): 6.5, 50-Lb bgs

Filter Pack Material
- Manufacturer: RMC Pacific
- Product Name: Lapis Lustre
- Size: 2/12
- Volume Added (ft³): 4, 100-Lb bags
- Installation: (Gravity) Tremie

Well Casing:
- Manufacturer: Boart Longyear
- Type: PVC Sch 40
- Diameter (in): 2 in

Well Screen Casing:
- Manufacturer: Boart Longyear
- Type: Sch 40 PVC
- Slot Size (in): 0.020 %Open
- Slot Type: Continuous wrap (Factory slot)

Sump/End Cap: Flush Threaded

Backfill Material: Native

Volume Water Added: 25 gal

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VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 844918	PROJECT NAME: Alameda Pt CTO 107		
BORING NUMBER: 9IF-MW08U	COORDINATES:	DATE: 3-23-05	
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: 3-23-05	
ENGINEER/GEOLOGIST: Mullenmeister	Depth Date/Time	DATE COMPLETED: 3-23-05	
DRILLING METHODS: 8 in OD HSA		PAGE: 1 OF ~~2~~ 1	

DEPTH (ft)	SAMPLE TYPE & NO.	~~BLOWS ON SAMPLER PER ( )~~	~~RECOVERY ( )~~	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
	Auger Vein Grab Samples			Concrete 0-6"				
5				Poorly graded sand, yellowish brn (10YR 5/4), moist, 95% fine to med grnd sand, 5% silt. Color change to dk gry (N 4/0) at ~6 ft	SP			
10				10' @~10ft silty Sand, DK gry (N 4/0), wet, 65% vfine to fn grnd sand, 35% silt, fluid when brought to sfc by rotating augers				
15				15' @~15ft Silty Sand, olive gray (5Y 5/2), wet, 85% V.fn to fn grnd sand, 15% silt, wet	SM			PID = 0.5 ppm
20								
25				@~25ft sand is fine to med grained				
30				30ft @~30ft silty sand, yellowish brn (10YR 5/6), wet 65% vfine to fine grained sand, 35% silt.				PID = 0.7

NOTES: TD 32 ft

Drilling Contractor: Cascade Drilling

Drilling Equipment: CME 75

Driller: Paul Snelgrove

Monitoring Well Construction Form

Project:	Alameda Pt CTO 107 84491B	Well Number:	9IF-MW08U
Location:	Alameda Point	Site Location:	9 Intermediate
Client:	U S Navy	Installation Date:	3-23-05
Subcontractor:	Cascade Drilling	Northing:	
Driller:	Paul Snelgrove	Easting:	
IT Field Representative:	E Mullenmeister	NAD:	NGVD:

Protective Cover Elevation (ft):

Top of Casing Elv. (ft):

Top of Casing Stickup (ft):

Land Surface Elv. (ft):

Approximate Diameter of Borehole (in): 8 in

Well Casing Diameter (in): 2 in

Depth to Water (ft)

During Drilling

Date

Post Development TOC

Date

Top of Bentonite Seal (ft): 5.90 ft

Top of Filter Pack (ft): 18.9 ft

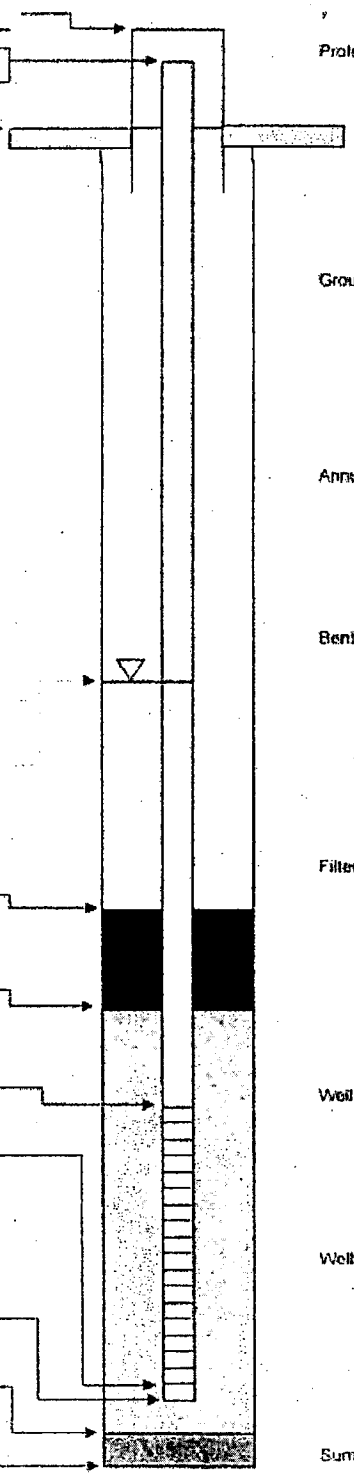
Top of Screen Interval (ft): 21 ft

Bottom of Screen Interval (ft): 31 ft

Bottom of Well (ft): 31 ft

Bottom of Filter Pack (ft): 31 ft

Bottom of Borehole (ft): 32 ft



Protective Casing:
- Type: Emco Flush Mount
- Dimensions (in): 12 in dia
- Length (ft): 12 in
- Guard Post: NA

Ground Seal (Surface Pad)
- Dimensions: NA
- Type: Concrete

Annular Space Seal: Rapid Set Concrete
- Type: ~~Bentonite Cement Grout~~
- Installation: Gravity Tremie Pumped

Bentonite Seal: Cetco Pure Gold Medium chips
- Manufacturer: ~~Wyo Ben Inc~~ ~~Enviroplug~~
- Type: ~~3/8"~~ Pellets (chips) Slurry
- Installation: 6-in lifts (One Section) (Gravity) Tremie Pumped
- Hydration time (hrs): 8.5, 50-Lb bags

Filter Pack Material:
- Manufacturer: RMC Pacific
- Product Name: Lapis Lustre
- Size: 2/12
- Volume Added (ft³): 8, 50-Lb bags
- Installation: (Gravity) Tremie

Well Casing:
- Manufacturer: Boart Longyear
- Type: PVC Sch 40
- Diameter (in): 2 in

Well Screen Casing:
- Manufacturer: Boart Longyear
- Type: Sch 40 PVC
- Slot Size (in): 0.020 %Open
- Slot Type: Continuous wrap (Factory slot)

Sump/End Cap: Flush Threaded

Backfill Material: Native

Volume Water Added: 35 gal

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VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 844918	PROJECT NAME: Alameda Pt CTO 107		
BORING NUMBER: 9TF-MW094	COORDINATES:	DATE: 3-23-05	
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: 3-23-05	
ENGINEER/GEOLOGIST: Mullenmeister	Depth Date/Time	DATE COMPLETED: 3-23-05	
DRILLING METHODS: 8 in OD HSA		PAGE: 1 OF 1	

DEPTH (ft)	SAMPLE TYPE & NO.	~~BLOWS ON SAMPLER PER ( )~~	~~RECOVERY ( )~~	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
5, 10, 15, 20, 25, 30	Auger Vein Grab Samples			Concrete 0-6"				
				Poorly graded sand, olive gray (5Y 5/2), moist, 95% fine to med grained sand, 5% silt, Color change to dk gray (N 4/0) at ~6ft	SP			PID = 0.5
				15'				
				@ ~15ft, silty sand, dk gry (N 4/0), wet, 65% v. fine to fine grained sand, 35% silt				PID = 0.0
				@ ~20ft, silty sand, ol gray (5Y 4/2), wet, 80% fine to med grained sand, 20% silt.	SM			
				@ ~25ft color change to light olive brown (2.5Y 5/4)				

NOTES: TD 33 ft

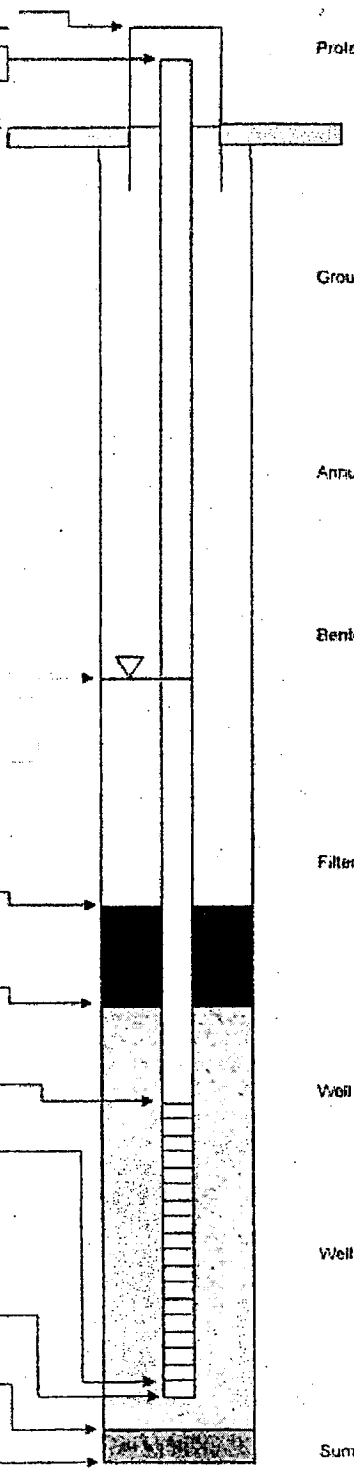
Drilling Contractor: Cascade Drilling

Drilling Equipment: CME 75

Driller: Paul Snelgrove

Monitoring Well Construction Form

Project:	Alameda Pt CTO 107 84491B	Well Number:	9IF-MW09U
Location:	Alameda Point	Site Location:	9 Intermediate
Client:	U.S Navy	Installation Date:	3-23-05
Subcontractor:	Cascade Drilling	Northing:	
Driller:	Paul Snelgrove	Easting:	
IT Field Representative:	E Mullenmeister	NAD:	NGVD:



Protective Cover Elevation (ft):

Top of Casing Elv. (ft):

Top of Casing Stickup (ft):

Land Surface Elv. (ft):

Approximate Diameter of Borehole (in): 8 in

Well Casing Diameter (in): 2 in

Depth to Water (ft)

During Drilling

Date

Post Development TOC

Date

Top of Bentonite Seal (ft): 6 ft

Top of Filter Pack (ft): 19 ft

Top of Screen Interval (ft): 32 ft

Bottom of Screen Interval (ft): 32 ft

Bottom of Well (ft):

Bottom of Filter Pack (ft): 32 ft

Bottom of Borehole (ft): 33 ft

Protective Casing:

Type: Flush Mount

Dimensions (in): 12 in

Length (ft): 12 in

Guard Post: NA

Ground Seal (Surface Pad)

Dimensions: NA

Type: Concrete

Annular Space Seal: Rapid Set Concrete

Type: ~~Bentonite Cement Grout~~

Installation: Gravity Tremie Pumped

Bentonite Seal: CETCO Pure Gold Medium ~~Wyo-Ben Inc.~~

Manufacturer: ~~Envirosplug~~

Type: ~~3/8"~~ Pellets (chips) Slurry

Installation: 6-in lifts (One Section)

(Gravity) Tremie Pumped

Hydration time (hrs): 6.0, 50-Lb bgs

Filter Pack Material:

Manufacturer: RMC Pacific

Product Name: Lapis Lustre

Size: 2/12

Volume Added (ft³): 4, 100-Lb bags

Installation: (Gravity) Tremie

Well Casing:

Manufacturer: Boart Longyear

Type: PVC Sch 40

Diameter (in): 2 in

Well Screen Casing

Manufacturer: Boart Longyear

Type: Sch 40 PVC

Slot Size (in): 0.020 %Open

Slot Type: Continuous (Factory slot) wrap

Sump/End Cap: Flush Threaded

Backfill Material: Native

Volume Water Added: 25 gal

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VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 91F-MW10U	COORDINATES:	DATE: MAR 23 2005
ELEVATION: GROUND	GWL: Depth Date/Time	DATE STARTED: MAR 23 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 23 '05
DRILLING METHODS: HSA		PAGE: 1 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL	WELL CONSTRUCTION	REMARKS
	wet		26.4 NPO	POORLY GRADED SAND — light olive brown (2.5Y 5/3); very loose; fine grained; wet; NPO	SP	Concrete; Bent; PVC; Screen	Asphalt surf. pre cored & cleared
5	wet / sat'd	▽ approx	NPO 71.4	At ~5 FT: 2.5Y 5/3; saturated; NPO.	SP		
				At ~10 FT: darkens slightly to light olive brown to olive brown; wet, NPO			
10	wet / sat'd		NPO 78.2		SP		at ~10 FT — slightly darkens
15	wet / sat'd		NPO 64.6 NPO	At ~15 FT: POORLY GRADED SAND olive brown (2.5Y 4/3) — trace silt; very loose; fine grained; trace 1mm white shell frags (<1%); wet; NPO	SP		
	wet						
20			61 NPO	At ~20 to 25 FT — POORLY GRADED SAND WITH SILT Dark greenish-gray (5GY 4/10Y) loose; 10% silt; wet; NPO	SP		Approx. Contact (averaged) Darkens at ~20+ FT
25	wet		57 NPO	At ~25 to 30 FT: Color contact (darkens). POORLY GRADED SAND WITH SILT with very dark greenish gray (25%) discriminated color — silts? wet; NPO	SP / SM		Darkens at 25-30 FT
30							

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller: JAMES, STEY, ARRON

TOTAL H_2O ADDED: 15 gallon

COVER: 6" to 6 FT
2" Sched. 40 PVC
BENT: 3/8" COATED Chip @ 6 to 22 FT
2/12 SAND @ 20 to 32 FT
~~[illegible]~~ @ to FT
0.020" Screen: 22 to 32 FT
T.D.: 32 FT

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VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 91F-MW10M	COORDINATES:	DATE: MAR 23 2005
ELEVATION: GROUND	GWL: Depth Date/Time	DATE STARTED: MAR 23 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 23 '05
DRILLING METHODS: HSA 8"		PAGE: 2 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL		WELL CONSTRUCTION	REMARKS
				POORLY GRADED SAND WITH SILT Dk greenish gray w/ dissem darker	SP/SM			
				TD 32 FT				
35								
40								
45								
50								

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller: James, Stev, Aaron

TOTAL H_2O ADDED: 15 gallons

COVER: 6" to 6 FT

2" Sched. 40 PVC

BENT: 3/8" COATED chips @ 6' to 22 FT

2/12 SAND @ 20 to 32 FT

~~TOC~~ @ to FT

0.020" screen: 22 to 32 FT

T.D.: 32 FT

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VISUAL CLASSIFICATION OF SOILS

9IF-MW11U

PROJECT NUMBER: 844918	PROJECT NAME: Alameda Pt CTO 107	
BORING NUMBER: 9IF-MW11U	COORDINATES:	DATE: 3-21-05
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: 3-21-05
ENGINEER/GEOLOGIST: Mullenmeister	Depth Date/Time	DATE COMPLETED: 3-21-05
DRILLING METHODS: 8 in OD HSA		PAGE: 1 OF 1

DEPTH (ft)	SAMPLE TYPE & NO.	~~BLOWS ON SAMPLER PER ( )~~	~~RECOVERY ( )~~	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
	Auger Vein Grab Samples			Concrete 0-6"				
				Poorly graded sand, lt olbrn (2.5Y 5/4), moist, 100% fine to med grnd sand,				PID=0.0
5				@ ~6ft wet, color change to olive gray (5Y 5/2).	SP			
10								
15				@ ~15ft Silty sand, Dark gray (N 4/0), wet 70% vfine to med grnd sand, 30% silt, fluid at surface	SM			
20				Poorly graded sand, dk gry (5Y 4/1), wet 95% fine to med grnd sand, 5% silt	SP			
25				@ ~25ft Silty Sand Yellowish brn (10YR 5/4) wet 80% vfine to med sand 20% silt	SM			
30								

NOTES: TD 30 ft

Drilling Contractor: Cascade Drilling

Drilling Equipment: CME 75

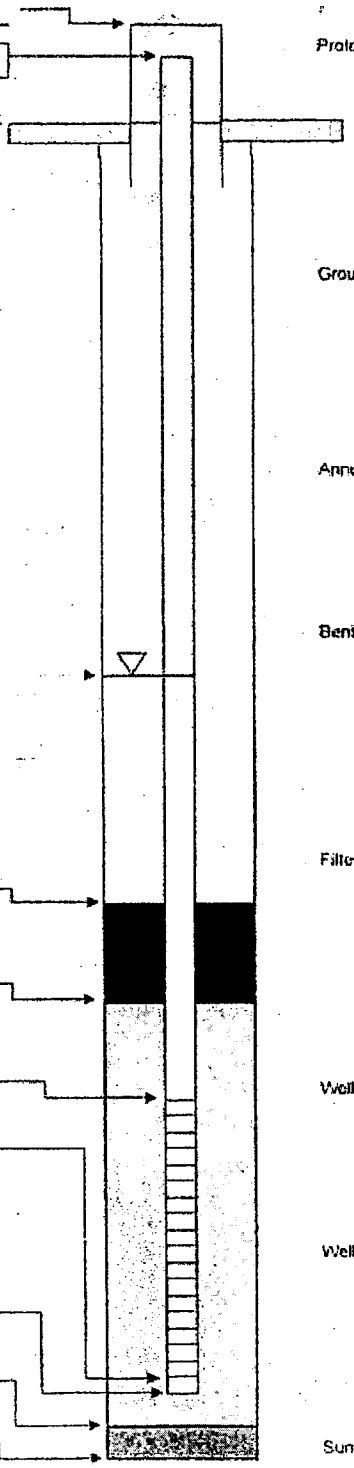
Driller: Paul Snelgrove

243C-3-00

Monitoring Well Construction Form

9IF-MW11U

Project:	Alameda Pt CTO 107 844918	Well Number:	9IF-MW11U
Location:	Alameda Point	Site Location:	9 Intermediate
Client:	U.S Navy	Installation Date	3-21-05
Subcontractor:	Cascade Drilling	Northing:	
Driller:	Paul Snelgrove	Easting:	
IT Field Representative:	E Mullenmeister	NAD:	NGVD:



Protective Cover Elevation (ft):

Top of Casing Elv. (ft):

Top of Casing Stickup (ft):

Land Surface Elv. (ft):

Approximate Diameter of Borehole (in): 8 in

Well Casing Diameter (in): 2 in

Depth to Water (ft)
- During Drilling: ~6 ft
- Date: 3-21-05
- Post Development: TOC
- Date:

Top of Bentonite Seal (ft):

Top of Filter Pack (ft): 16.5

Top of Screen Interval (ft): 20

Bottom of Screen Interval (ft): 30

Bottom of Well (ft): 30

Bottom of Filter Pack (ft): 30

Bottom of Borehole (ft): 30

Protective Casing: Emco
- Type: Flush Mount
- Dimensions (in): 12 in dia
- Length (ft): 12 in
- Guard Post: NA

Ground Seal (Surface Pad)
- Dimensions:
- Type: Concrete

Annular Space Seal: Rapid Set Concrete
- Type: ~~Bentonite Cement Grout~~
- Installation: Gravity Tremie Pumped

Bentonite Seal: Wyo-Ben Inc.
- Manufacturer: Enviroplug
- Type: 3/8" Pellets (chips) Slurry
- Installation: 6-in lifts (One Section) (Gravity) Tremie Pumped
- Hydration time (hrs):
- 3, 50-Lb bags

Filter Pack Material
- Manufacturer: RMC Pacific
- Product Name: Lapis Lustre
- Size: 2/12
- Volume Added (ft³): 7 50-Lb bags
- Installation: Gravity Tremie

Well Casing:
- Manufacturer: Boart Longyear
- Type: PVC Sch 40
- Diameter (in): 2 in

Well Screen Casing:
- Manufacturer: Boart Longyear
- Type: Sch 40 PVC
- Slot Size (in): 0.020 %Open
- Slot Type: Continuous wrap (Factory slot)

Sump/End Cap: Flush Threaded

Backfill Material: None

Volume Water Added: 50 gal

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VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 9IF-MW12U	COORDINATES:	DATE: MAR 23 2005
ELEVATION: GROUND	GWL: Depth Date/Time	DATE STARTED: MAR 23 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 23 '05
DRILLING METHODS: HSA 8"		PAGE: 1 OF 1

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL	WELL CONSTRUCTION	REMARKS
							Concrete surf.
	MOIST		NPO 206	POORLY GRADED SAND - Light olive brown (2.5Y 5/3); very loose; fine grained, moist	SP		
5							
	MOIST/WET		NPO 88		SP		
10							
	Sat'd/Soupy		NPO 89	AT ~12 FT (est'd) — SANDY SILT WITH CLAY - Dark greenish gray (GLEY1 4/10Y); very loose; 30% fine sand; trace pods of dark greenish gray clay; soupy (saturated); NPO	SP / ML		Contact between 10 to 15 FT. Soupy below
15							
	Sat'd		61 NPO	SILTY SAND/SANDY SILT - Dark greenish gray (GLEY1 4/10Y); 30% silt, 70% fine sand; saturated (soupy); NPO	ML		
20							
	Sat'd		93 VL/NPO	SILTY SAND - Dark greenish gray (GLEY1 4/10Y); wet (soupy); NPO. 40% silt, fine grained sand.	SM		
25							
	Sat'd/wet		NPO 82	SANDY SILT at 25-30 FT; — Very dark greenish gray (GLEY1 3/10Y); wet/soupy; NPO fine grained sand (35%);	ML		
30							

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller: James, Stey, AARON

CONCR: 6" to 6 FT
2" Sched. 40 PVC
BENT: 3/8" COATED Chips @ 6 to 18 FT
2/12 SAND @ 18 to 30 FT
~~FOG~~ @ to FT
0.020" screen: 20 to 30 FT

TOTAL H_2O ADDED: 12 gallons T.D.: 30

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VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 844918	PROJECT NAME: Alameda Pt CTO 107	
BORING NUMBER: 9IF-MW01L	COORDINATES:	DATE: 3-21-05
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: 3-21-05
ENGINEER/GEOLOGIST: Mullenmeister	Depth Date/Time	DATE COMPLETED: 3-21-05
DRILLING METHODS: 8 in OD HSA		PAGE: 1 OF 2

DEPTH (ft)	SAMPLE TYPE & NO.	~~BLOWS ON SAMPLER PER ( )~~	~~RECOVERY ( )~~	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
	Auger Vein Grab Samples			Concrete 0-6"				
				Poorly graded sand, dk yllwsh brn (10YR 4/4), moist, 100% fn grd sand,				
5					SP			PID=0.0
				wet at ~6ft color change to olive gray (5Y 4/2)				
10								
				15'				
15				@~15ft Silty sand v.dk gry (N3/0), wet 65% fine to v.fine grnd sand 35% silt fluid when brought to sfc by rotating augers 20'				
20								
				Silty Sand ltolive brown (2.5Y 5/4), wet, 80% fine to med grnd sand, 20% silt	SM			
25								PID=0.0
30								

NOTES:

Drilling Contractor: Cascade Drilling

Drilling Equipment: CME 75 C57 717510

Driller: Paul Snelgrove

243C-3-00

Shaw Environmental & Infrastructure, Inc.

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 844918	PROJECT NAME: Alameda Pt CTO 107	
BORING NUMBER: 9IF-MW01L	COORDINATES:	DATE: 3-21-05
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: 3-21-05
ENGINEER/GEOLOGIST: Mullenmeister	Depth Date/Time	DATE COMPLETED: 3-21-05
DRILLING METHODS: 8in OD HSA		PAGE: 2 OF 2

DEPTH (ft)	SAMPLE TYPE & NO.	~~BLOWS ON SAMPLER PER ( )~~	~~RECOVERY ( )~~	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
30	Argon Vein Grab Samples			Silty sand, as above	SM			
35								
40				TD 39 ft				

NOTES:

Drilling Contractor: Cascade Drilling

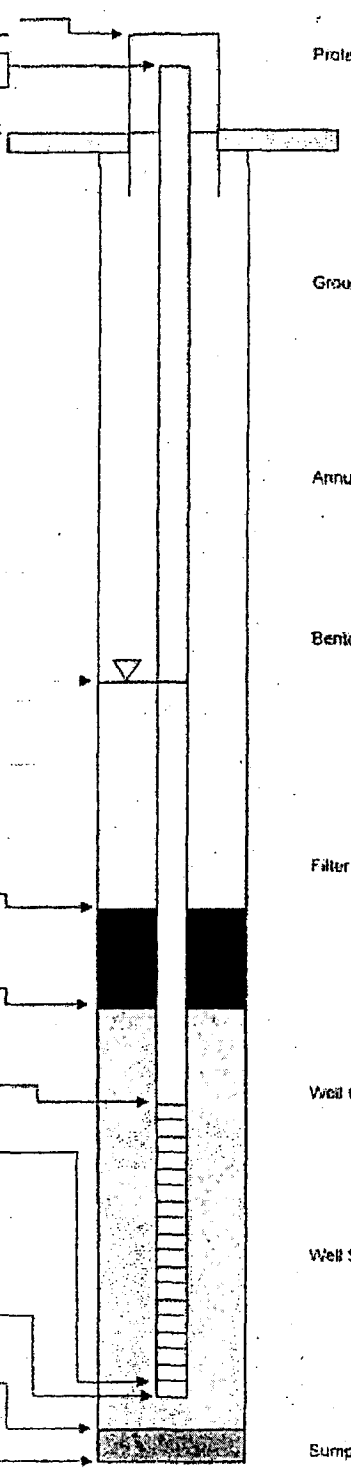
Drilling Equipment: CME 75

Driller: Paul Snelgrove

243C-3-00

Monitoring Well Construction Form

Project	Alameda Pt CTO 107 844918	Well Number	9IF-MW01L
Location	Alameda Point	Site Location	9 Intermediate
Client	U.S Navy	Installation Date	3-21-05
Subcontractor	Cascade Drilling	Northing	
Driller	Paul Snelgrove	Easting	
IT Field Representative	E Mullehmeister	NAD / NGVD	



Protective Cover Elevation (ft):

Top of Casing Elv. (ft):

Top of Casing Stickup (ft):

Land Surface Elv. (ft):

Approximate Diameter of Borehole (in): 8 in

Well Casing Diameter (in): 2 in

Depth to Water (ft)
- During Drilling: ~6ft
- Date: 3-21-05
- Post Development: TOC
- Date:

Top of Bentonite Seal (ft): 4 ft

Top of Filter Pack (ft): 26.8 ft

Top of Screen Interval (ft): 29

Bottom of Screen Interval (ft): 39

Bottom of Well (ft): 39

Bottom of Filter Pack (ft): 39

Bottom of Borehole (ft): 39 ft

Protective Casing
- Type: Emco Flush Mount
- Dimensions (in): 12 in dia
- Length (ft): 12 in
- Guard Post: NA

Ground Seal (Surface Pad)
- Dimensions: NA
- Type: Concrete

Annular Space Seal
- Type: Rapid Set Concrete ~~Bentonite Cement Grout~~
- Installation: (Gravity) Tremie Pumped

Bentonite Seal
- Manufacturer: Wyo-Ben Inc. Enviroplug
- Type: 3/8" Pellets (Chips) Slurry
- Installation: 8-lb bags One Section (Gravity) Tremie Pumped
- Hydration time (hrs):
- 7, 50-Lb bags

Filter Pack Material
- Manufacturer: RMC Pacific
- Product Name: Lapis Lustre
- Size: 2/12
- Volume Added (ft³): 8 - 50-Lb bags
- Installation: (Gravity) Tremie

Well Casing
- Manufacturer: Boart Longyear
- Type: Sch 40 PVC
- Diameter (in): 2 in

Well Screen Casing
- Manufacturer: Boart Longyear
- Type: Sch 40 PVC
- Slot Size (in): 0.020 %Open
- Slot Type: Continuous wrap (Factory slot)

Sump/End Cap: Flush Thread

Backfill Material: None

Volume Water Added: ~50 gal

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VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 91F-MW-02L	COORDINATES:	DATE: MAR 21 2005
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: MAR 21 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 21 '05
DRILLING METHODS: HSA		PAGE: 1 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
								6" concrete airknifed 6 ft. "Clayey" in part at upper.
	mst		116 NPO	POORLY GRADED SAND – olive brown (2.5Y 4/3); loose; fine grained; moist; NPO	SP			
5				AT 5 FT – Dark grayish brown (2.5Y 4/2) loose; fine grained; moist/wet; NPO	SP			
	mst/wet	▽ ±	358					
10	wet/sat'd			AT 10 FT (approx): POORLY GRADED SAND; trace silt; olive brown (2.5Y 4/3);	SP			
	sat'd		297 NPO					
15				AT 15 FT: POORLY GRADED SAND – LT olive brown (2.5Y 5/3); 1 cm shell frags. sat'd; NPO	SP			
			1765					
20					SP			
	sat'd		1340	AT 21 FT: Color change to slightly darker and shells: POORLY GRADED SAND w/ SILT – Dark grayish brown (2.5Y 4/2); v loose; 10-20% SILT; 3% shell frags (to 1 cm); sat'd NPO	SP			
25			> 2K		SP			
30								change at 30 to 35 FT.

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller: JAMES w/ STEY & AARON

TOTAL H_2O ADDED: 15

CONCR: 6" to 6 FT
2" Sched. 40 PVC
BENT: 3/8" COATED @ 6 to 28 FT
2/12 SAND @ 28 to 40 FT
TOC @ to FT
0.020" screen: 30 to 40 FT
T.D.: 40

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VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS. CTO-107	
BORING NUMBER: 91F-MW-02L	COORDINATES:	DATE: MAR 21 2005
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: MAR 21 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 21 '05
DRILLING METHODS: HSA		PAGE: 2 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
	Sat'd		LPO >2K	At ~30 FT: CLAYEY SILT to SILT w/ CLAY — Greenish black (GLEY1 2.5/1) Sat'd; LPO	ML			
35	Sat'd		NPO 458	AT 35 FT — CLAYEY SILT w/ SAND — clay pods increased; Sat'd; VL-NPO 10% fine sand.	ML			
40								
45								
50								

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller:

TOTAL H_2O ADDED:

CONCR: to FT

2" Sched. 40 PVC

BENT: 3/8" COATED @ to FT

2/12 SAND @ to FT

TOC @ to FT

0.020" screen: to FT

T.D.:

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VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 9IF-MW03L	COORDINATES:	DATE: MAR 24 200
ELEVATION: GROUND-STREET	GWL: Depth Date/Time	DATE STARTED: MAR 24 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 24 '05
DRILLING METHODS: HSA		PAGE: 1 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL		WELL CONSTRUCTION	REMARKS
				Concrete surf				Asphalt surf w/ underdying 10 inches Concrete. Cleared by HA to
	sl. ~~moist~~ moist		NPO 28.9	Poorly graded sand with silt — very loose; fine grained; trace coarse to medium gr.; sl. moist/moist; Dark yellowish brown (10YR 4/4);	SP			
5	wet	▽	NPO 53 58 NPO	Becomes wet at ~5 ft;	SP			Concrete obstr at ft - Drilled past.
			NPO	At 5 ft: light olive brown (2.5Y 5/3); loose; fine grained; trace shell fragments (<1/2");				At 5 ft — ground up concrete/rock to 2".
	sat'd		75 LPO	wet; NPO	SM			Contact at 7-8 ft Color change
10				Silty sand (~8 ft) Dark greenish gray (5GY 4/1) loose; ground up concrete rock fragments (to 1"); 30% silt; wet/sat'd; LPO.				
	sat'd		102 LPO	At ~15 ft: sandy silt with gravel — Dark grayish brown (2.5Y 4/2); gravel likely crushed concrete.	SM			Cuttings thicken at ~15'
15	sat'd		NPO 59.1	Flat chips to 1/2" dia.; wet; NPO	ML			Soupy cuttings below 20-25 ft.
	sat'd		NPO	At ~20 ft: gravel-sand-silt mixture — Dark gray (5Y 4/1); loose/fluid; 40% gravel (pea to 1/2"); 30% fine to coarse sand w/ 30% silt in liquid. NPO	ML			liquid below ~20 ft
20	sat'd		68.7 NPO	At ~25 ft gravel to 40%.				
25					ML			
			89					
30								

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller: JAMES, STEY, ARRON

TOTAL H_2O ADDED: 15 gallons

COVER: 6" to 6 ft
2" Sched. 40 PVC
BENT: 3/8" COATED chips @ 6 to 30 ft
3/12 SAND @ 30 to 42 ft
~~TOC~~ @ to ft
0.020" screen: 32 to 42 ft
T.D.: 42 ft

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VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 9IF-MW032	COORDINATES:	DATE: MAR 24 2005
ELEVATION: GROUND - STREET	GWL: Depth Date/Time	DATE STARTED: MAR 24 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 24 '05
DRILLING METHODS: HSA		PAGE: 2 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL		WELL CONSTRUCTION	REMARKS
	liquid		NPO 49.9	At 30 FT: SANDY SILT WITH GRAVEL - Dark olive gray (5Y 3/2); 10% gravel; 30% fine to v coarse sand. liquid NPO	ML		BLANK	Top 2/12 SAND @ 30 FT
35				At 35 FT: 5Y 4/2; sand & gravel drop outs; liquid; NPO				
	liquid		74 NPO		ML			
40								
				TD: 42 FT				
45								
50								

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller: James, Stey, AARON

TOTAL H_2O ADDED: 15 gallons

CONCR: 6" to 6 FT

2" Sched. 40 PVC

BENT: 3/8" COATED CHIPS @ 6 to 30 FT

2/12 SAND @ 30 to 42 FT

~~FOG~~ @ to FT

0.020" screen: 32 to 42 FT

T.D.: 42 FT

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VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 844918	PROJECT NAME: Alameda Pt CTO 107	
BORING NUMBER: 9IF-MW04L	COORDINATES:	DATE: 3-22-05
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: 3-22-05
ENGINEER/GEOLOGIST: Mullermeister	Depth Date/Time	DATE COMPLETED: 3-22-05
DRILLING METHODS: 8 in OD HSA		PAGE: 1 OF 2

DEPTH (ft)	SAMPLE TYPE & NO.	~~BLOWS ON SAMPLER PER ( )~~	~~RECOVERY ( )~~	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
	Auger Vein Grab Sample			Concrete 0-8"				
				Poorly graded sand, ltol brn (2.5Y 5/6) moist 95% fn to med sand 50% silt. 3.0				PID = 1.5
5				silt, dk gry (N 4/0), moist 60% silt, 40% clay	ML			
					SM			
10								
				15'				
15				@ ~ 15 ft Silty sand dk gray (N4/0) wet, 60% v.fn to med grnd sand, 40% silt.				out of silt @ ~15 ft per driller PID = 0.7
				20'				
20				@ ~ 20 ft silty sand, 85% fine to med grnd sand, 15% silt, olive gray (5Y 4/2), wet	SM			PID = 1.0
				25				
25				@ ~ 25 ft, Silty sand, ltol brn (2.5Y 5/6), wet, 80% v.fine to med grnd sand, 20% silt				PID = 0.0
30								

NOTES:

Drilling Contractor: Cascade Drilling

Drilling Equipment: CME 75

Driller: Paul Snelgrove

Shaw Environmental & Infrastructure, Inc.

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 844918	PROJECT NAME: Alameda Pt CTO 107	
BORING NUMBER: 9IF-MW04L	COORDINATES:	DATE: 3-22-05
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: 3-22-05
ENGINEER/GEOLOGIST: Mullenmeister	Depth Date/Time	DATE COMPLETED: 3-22-05
DRILLING METHODS: 8in OD HSA		PAGE: 2 OF 2

DEPTH (ft)	SAMPLE TYPE & NO.	~~BLOWS ON SAMPLER PER ( )~~	~~RECOVERY ( )~~	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
30	Auger Vein Grab Samples			Silty sand, as above				PID = 0.0
35								
40								
				TD 43.5 ft				

NOTES:

Drilling Contractor: Cascade Drilling

Drilling Equipment: CME 75

Driller: Paul Snelgrove

Monitoring Well Construction Form

Project	Alameda Pt CTO 107 844918	Well Number	9IF-MW04L
Location	Alameda Point	Site Location	9 Intermediate
Client	U.S Navy	Installation Date	3-22-05
Subcontractor	Cascade Drilling	Northing	
Driller	Paul Snelgrove	Easting	
IT Field Representative	E Mullenmeister	NAD / NGVD	

Protective Cover Elevation (ft)

Top of Casing Elv. (ft)

Top of Casing Stickup (ft)

Land Surface Elv. (ft)

Approximate Diameter of Borehole (in): 8 in

Well Casing Diameter (in): 2 in

Depth to Water (ft)

During Drilling

Date

Post Development TOC

Date

Top of Bentonite Seal (ft): 6 ft

Top of Filter Pack (ft): 30 ft

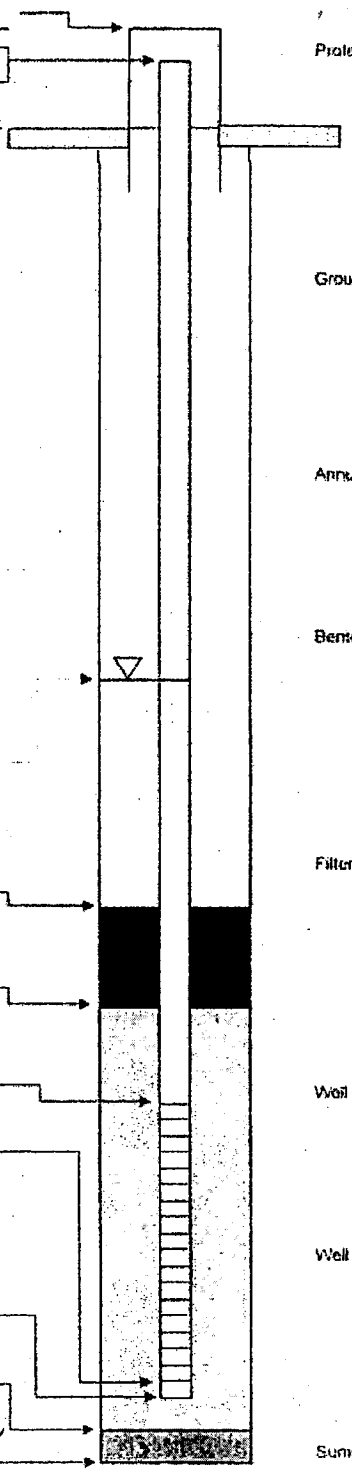
Top of Screen Interval (ft): 32.7 ft

Bottom of Screen Interval (ft): 42.7 ft

Bottom of Well (ft): 42.7 ft

Bottom of Filter Pack (ft): 42.7 ft

Bottom of Borehole (ft): 43.5 ft



Protective Casing
- Type: Emco Flush Mount
- Dimensions (in): 8 in dia
- Length (ft): 12 in
- Guard Post: NA

Ground Seal (Surface Pad)
- Dimensions: NA
- Type: Concrete

Annular Space Seal
- Type: Rapid Set Concrete ~~Bentonite Cement Grout~~
- Installation: Gravity Tremie Pumped

Bentonite Seal
- Manufacturer: Cetco PureGold Medium and Wyo-Ben Inc. Enviroplug
- Type: 3/8" Pellets chips Slurry
- Installation: 6-in lifts (One Section) (Gravity) Tremie Pumped
- Hydration time (hrs): 12, 50-Lb bags

Filter Pack Material
- Manufacturer: RMC Pacific
- Product Name: Lapis Lustre
- Size: 2/12
- Volume Added (ft³): 7.5, 50-Lb bags
- Installation: (Gravity) Tremie

Well Casing
- Manufacturer: Boart Longyear
- Type: PVC Sch 40
- Diameter (in): 2 in

Well Screen Casing
- Manufacturer: Boart Longyear
- Type: Sch 40 PVC
- Slot Size (in): 0.020 %Open
- Slot Type: Continuous wrap (Factory slot)

Sump/End Cap: Flush Threaded

Backfill Material: Native

Volume Water Added: 25 gal

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VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 91F-MW05L	COORDINATES:	DATE: MAR 22 2005
ELEVATION: GROUND	GWL: Depth Date/Time	DATE STARTED: MAR 22 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 23 '05
DRILLING METHODS: HSA		PAGE: 1 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL		WELL CONSTRUCTION	REMARKS
	wet		NPO	POORLY GRADED SAND - Dark grayish brown (2.5Y 4/1); fine gr w/10% medium gr; trace shell frags (2%); wet NPO	SP		2" PVC Sch. 40	PID AFFECTED BY AIR MOISTURE/ HEADSPACE OF MOISTURE OF SAMPLE BAGS, RAINING ALL DAY. (PID NOT FUNCTIONING AT >2K)
5	wet		NPO	AT 5 FT: POORLY GRADED SAND - Light olive brown (2.5Y 5/3); fine grained; loose; trace medium grained; tr pebbles 1/4-1/2"; wet; NPO	SP			
10	wet/Sat		NPO	AT 10 FT: POORLY GRADED SAND WITH SILT/SILTY SAND - Gray (5Y 5/1); Loose; fine grained. 20-30% silt - wet/saturated; NPO/VLPO shell fragments <1/2" (TR).	SP/SM			Interbedded fine sands w/ silty sands (?)
15	Sat'd		NPO		SP/SM			
20	sat'd		NPO	AT 20 FT - POORLY GRADED SAND WITH SILT - Gray (5Y 5/1); fine grained, loose, sat'd; NPO trace shell frags	SP			
25	sat'd		VLPO NPO	AT 25 FT FINE GRAINED SAND/SILT - Dark gray (5Y 4/1); loose; 40% sand; 60% silt. Trace pebbles; sat'd; NPO Trace clay.	ML			Cuttings thicken at 25+ ft.
30				AT 30 FT: SANDY SILT WITH CLAY - Dark gray (5Y 4/1);				

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller: James, Stay, AARON

TOTAL H_2O ADDED: 16 gallons

CONCR: 6" to 6 FT
2" Sched. 40 PVC
BENT: 3/8" COATED Chips @ 6 to 31 FT.
2/12 SAND @ 31 to 43 FT
TOC @ to FT
0.020" screen: 33 to 43 FT
T.D.: 43

Shaw® Shaw Environmental & Infrastructure, Inc.

VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: PIF-MW05L	COORDINATES:	DATE: MAR 22 2005
ELEVATION: GROUND	GWL: Depth Date/Time	DATE STARTED: MAR 22 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 22 '05
DRILLING METHODS: HSA		PAGE: 2 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL		WELL CONSTRUCTION		REMARKS
	Sat'd		NPO	(cont'd) 30% Fine sand; 50-60% silt; 10-20% clay: saturated; NPO	ML			Blank PVC	cuttings thickened - trace - 15% clay
35	Sat'd		NPO	~35 FT SILTY SAND - fine grained, loose, 30-40% silt; sat'd. trace clay (thickening)	SM				little evidence of clays
40	Sat'd		NPO		SM				
45				TD @ 43 FT					
50									

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller: JAMES, STEY, AARON

TOTAL H_2O ADDED: 16 gallons

COVER: 6" to 6 FT
2" Sched. 40 PVC
BENT: 3/8" COATED Chips @ 6 to 31 FT
2/12 SAND @ 31 to 43 FT
TOC @ to FT
0.020" screen: 33 to 43 FT
T.D.: 43 FT

Shaw® Shaw Environmental & Infrastructure, Inc.

VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 9I-MW-06L	COORDINATES:	DATE: MAR 23 2005
ELEVATION: GROUND	GWL: Depth Date/Time	DATE STARTED: MAR 23 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 23 '05
DRILLING METHODS: HSA		PAGE: 1 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	P.I.D (PPM)	DESCRIPTION	USCS SYMBOL	WELL CONSTRUCTION	REMARKS
	Vmst wet		62.9 NPO	POORLY GRADED SAND – olive brown (2.5Y 4/3); fine grained; loose; trace 1-2 mm white shell frags; very moist/wet; NPO	SP	2" Schedule 40 PVC Blank	Concrete surface previously cored and cleared.
5		▽	NPO 19	SILTY SAND – Dark grayish brown (2.5Y 4/2); loose; fine grained; ~30% silt; occas. shell frags ~8mm; wet; NPO	SM		Color change
10	wet		NPO 22	15 to 20 FT SAMPLE: POORLY GRADED SAND WITH SILT – olive gray (5Y 4/2); very loose; fine grained; trace (≤1%) shell frags (1-2 mm); 10% silt; wet; NPO	SM		
15	wet		NPO 87	AT 20-25 FT SILTY SAND – Very dark greenish gray (GLEY1 3/10Y); ~30% silt; 70% fine grained sand; wet, very loose; NPO	SP		Estimated contact
20	wet		69 NPO		SM		Soupy below ~15 ft
25				AT 25-30 ft: wet, NPO			
30	wet		31.8 NPO		SM		

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller: JAMES, STEY, AARON

TOTAL H_2O ADDED: 15 gallons

COVER: 6" to 6 FT
2" Sched. 40 PVC
BENT: 3/8" COATED CHIPS @ 6 to 29 FT
2/12 SAND @ 29 to 41 FT
~~FOG~~ @ to FT
0.020" screen: 31 to 41 FT
T.D.: 41 FT

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VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 9I-MW-06L	COORDINATES:	DATE: MAR 23 200
ELEVATION: GROUND	GWL: Depth Date/Time	DATE STARTED: MAR 23 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 23 '05
DRILLING METHODS: HSA		PAGE: 2 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL		WELL CONSTRUCTION	REMARKS
	wet soupy		NPO 78.3	At ~30 to 35 ft: SANDY SILT / SILTY SAND – greenish black (GLEY1 3/10Y); very loose; 40-45% silt; wet; soupy; NPO	ML		Blank pvc	Darkens slightly
35								
	wet soupy		28.4 NPO	Below ~35 ft: Very SANDY SILT – Dark greenish gray (GLEY1 4/10Y); Very loose, soupy; fine grained sand; wet; NPO	ML			
40								
				Total Depth: 41 feet				
45								
50								

NOTES:

Drilling Contractor: CASCADE DRILLING Co.

Drilling Equipment: 8" HSA

Driller: James, Stey, AARON

TOTAL H_2O ADDED:

COVER: 6" to 6 FT
2" Sched. 40 PVC
BENT: 3/8" COATED Chips @ 6 to FT
2/12 SAND @ to FT
~~TOC~~ @ to FT
0.020" screen: 31 to 41 FT
T.D.: 41 feet

Shaw Environmental & Infrastructure, Inc.

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 844918	PROJECT NAME: Alameda Pt CTO 107	
BORING NUMBER: 9IF-MW07L	COORDINATES:	DATE: 3-23-05
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: 3-23-05
ENGINEER/GEOLOGIST: Mullenmeister	Depth Date/Time	DATE COMPLETED: 3-23-05
DRILLING METHODS: 8 in OD HSA		PAGE: 1 OF 2

DEPTH (ft)	SAMPLE TYPE & NO.	~~BLOWS ON SAMPLER PER ( )~~	~~RECOVERY ( )~~	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
	Auger Vein Grab Samples			Concrete 0-6"				
				Poorly graded sand, Hol brn (2.5Y 5/4), moist, 95% fine to med grnd sand, 5% silt. Color change to dk gray (N 4/0) at ~6ft wet				PID = 1.5
5								PID = 3.6
10					SP			
15				@ ~15ft color change to olive gray (5Y 5/2)				PID = 1.2
20				20' @ ~20ft silty sand, dk gry (N4/0) 70% v fine to fine grained sand, 30% silt, fluid when brought to sfc by rotating augers.	SM			
25				25' @ ~25ft silty sand, ~~dk~~ olive gray ~~(N 4/0)~~ 80% v fine to med grnd sand, 20% silt, ~~wet~~ (5Y 4/2) wet				
30				@ ~30ft sand is fine to med grnd				PID = 1.1

NOTES:

Drilling Contractor: Cascade Drilling

Drilling Equipment: CME 75

Driller: Paul Snelgrove

Shaw Environmental & Infrastructure, Inc.

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 844918	PROJECT NAME: Alameda Pt CTO 107	
BORING NUMBER: PIF-MW07L	COORDINATES:	DATE: 3-23-05
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: 3-23-05
ENGINEER/GEOLOGIST: Mullenmeister	Depth Date/Time	DATE COMPLETED: 3-23-05
DRILLING METHODS: 8in OD HSA		PAGE: 2 OF 2

DEPTH (ft)	SAMPLE TYPE & NO.	~~BLOWS ON SAMPLER PER ( )~~	~~RECOVERY ( )~~	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
30	Auger Vein Grab Sample			@~30ft color change to olive ~~gray (5Y 4/2)~~ (2.5Y 5/4) brn silty sand, as above				
35					SM			
40				@~40ft 75% vfine to fine grained sand, 25% silt				PID=0.9
				TD 42ft				

NOTES:

Drilling Contractor: Cascade Drilling

Drilling Equipment: CME 75

Driller: Paul Snelgrove

Monitoring Well Construction Form

Project:	Alameda Pt CTO 107 844918	Well Number:	9IF-MW07L
Location:	Alameda Point	Site Location:	9 Intermediate
Client:	U S Navy	Installation Date:	3-23-05
Subcontractor:	Cascade Drilling	Northing:	
Driller:	Paul Snelgrove	Easting:	
IT Field Representative:	EMullenmeister	NAD:	NGVD:

Protective Cover Elevation (ft):

Top of Casing Elv. (ft):

Top of Casing Stickup (ft):

Land Surface Elv. (ft)

Approximate Diameter of Borehole (in): 8 in

Well Casing Diameter (in): 2 in

Depth to Water (ft)

During Drilling

Date

Post Development TOC

Date

Top of Bentonite Seal (ft): 6 ft

Top of Filter Pack (ft): 28.5

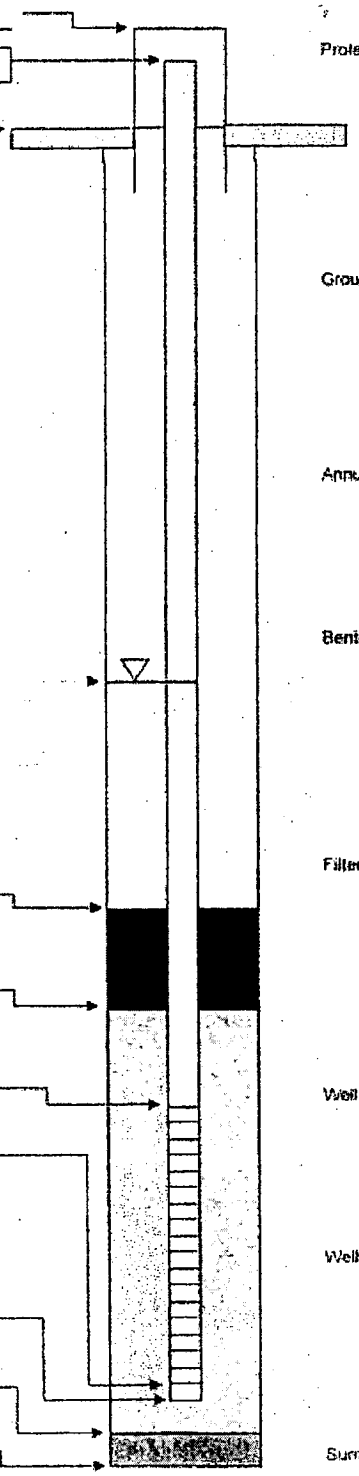
Top of Screen Interval (ft): 31

Bottom of Screen Interval (ft): 41

Bottom of Well (ft): 41

Bottom of Filter Pack (ft): 41

Bottom of Borehole (ft): 42



Protective Casing:

Type: Flush Mount

Dimensions (in): 12 india

Length (ft): 12 in

Guard Post: NA

Ground Seal (Surface Pad)

Dimensions: NA

Type: Concrete

Annular Space Seal: Rapid Set Concrete

Type: ~~Bentonite Cement Grout~~

Installation: Gravity Tremie Pumped

Bentonite Seal: CETCO PureGold Medium ~~Wyo-Ben Inc.~~

Manufacturer: ~~Enviroplug~~

Type: ~~3/8"~~ Pellets (chips) Slurry

Installation: 6-in lifts (One Section)

(Gravity) Tremie Pumped

Hydration time (hrs) 8.5, 50-Lb bgs

Filter Pack Material

Manufacturer: RMC Pacific

Product Name: Lapis Lustre

Size: 2/12

Volume Added (ft³) 4, 100-Lb bags

Installation: (Gravity) Tremie

Well Casing:

Manufacturer: Boart Longyear

Type: PVC Sch 40

Diameter (in): 2 in

Well Screen Casing

Manufacturer: Boart Longyear

Type: Sch 40 PVC

Slot Size (in): 0.020 %Open

Slot Type: Continuous (Factory slot) wrap

Sump/End Cap: Flush Threaded

Backfill Material: Native

Volume Water Added: 50 gal

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VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 91F-MW08L	COORDINATES:	DATE: MAR 23 200
ELEVATION: GROUND	GWL: Depth Date/Time	DATE STARTED: MAR 23 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 23 '05
DRILLING METHODS: HSA 8"		PAGE: 1 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	HS PID (PPM)	DESCRIPTION	USCS SYMBOL		WELL CONSTRUCTION	REMARKS
					Asph			Asphalt Surface Cleared to 5 FT w/ AIRKNIFE/VAC
	wet		NPO 84.5	POORLY GRADED SAND — Olive brn (2.5Y 4/4); 60-70% fine grained w/ ~30% medium, trace pea gravel. loose; wet; NPO	SP			PID READINGS AFFECTED BY HEADSPACE (BAG) MOISTURE — RAINING
5	wet		NPO 107	AT 5± POORLY GRADED SAND WITH SILT — Light olive brown (2.5Y 5/3); loose; 15% silt; wet; NPO	SP			
10	wet		NPO	AT ~10 FT: light olive brown (5/3); silt ~ 10-15%	SP			
			67.	AT ~15 FT: SANDY SILT w/ SAND Dark greenish gray (GLEY 1 4/10Y); 10-15% very fine sand; 75-80% silt; 10% dissem-inated black clay; wet; NPO				"Soupy" cuttings below ~15 FT.
15	wet sat'd		NPO 157	Sand decreases to <10% @ 20 FT.	ML			Contact approx only
20	sat'd		81	AT 25 FT: SILT w/ SAND: Dark greenish gray - 10% vf sand Soupy; NPO	ML			cuttings thicken at ~15 FT
25			125					
30				Becomes SANDY SILT at ~30 FT				AT 30 FT: cuttings wet NOT "soupy"

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller: James, Stey, AARON

TOTAL H_2O ADDED: 15 gallons

COVER: 6" to 6 FT
2" Sched. 40 PVC
BENT: 3/8" COATED chips @ 6 to 29 FT
2/12 SAND @ 29 to 41 FT
~~TOC @~~ to FT
0.020" screen: 31 to 41 FT
T.D.: 41 FT

Shaw® Shaw Environmental & Infrastructure, Inc.

VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 91F-MW08L	COORDINATES:	DATE: MAR 23 2005
ELEVATION: GROUND	GWL: Depth Date/Time	DATE STARTED: MAR 23 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 23 '05
DRILLING METHODS: HSA 8"		PAGE: 2 OF 2

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL		WELL CONSTRUCTION	REMARKS
			218	AT ~30 FT: SANDY SILT Dark greenish gray (GLEY1 4/10Y) Loose; fine grained sand, (~25-35%); very loose; trace (1%) 1mm white shell frags; wet; NPO	ML			cuttings wet Sandy Contact at 30 FT
35			231	At ~35 FT: POORLY GRADED SAND W/SILT olive brn (2.5Y 4/3); very loose; fine grained; trace rare pebble; trace 1mm white shell frags; silt ~10-15%; wet "sloppy"; NPO	SP			contact approx. only. Color change
40					SP			
45				T.D. 41 FT				
50								

NOTES:

Drilling Contractor: CASCADE DRILLING Co.

Drilling Equipment: 8" HSA

Driller: James, Stag, AARON

TOTAL H_2O ADDED: 15 gallons

COVER: 6" to 6 FT
2" Sched. 40 PVC
BENT: 3/8" COATED Chips @ 6 to 29 FT
2/12 SAND @ 29 to 41 FT
~~TOC @~~ to FT
0.020" screen: 31 to 41 FT
T.D.: 41 FT

Shaw Environmental & Infrastructure, Inc.

VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 91F-MW-09L	COORDINATES:	DATE: MAR 21 2005
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: MAR 21 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 21 '05
DRILLING METHODS: HSA		PAGE: 1 OF

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
				CONCRETE	Conc			6" CONCRETE
					SP			
5	wet	▽	NPO 0	POORLY GRADED SAND light olive brown (2.5Y 5/3); very loose; fine grained; v.mst/wet. NPO	SP			
			60.3	olive brown (2.5Y 4/3) wet				
10	wet				SP			
			496					
15	wet			AT 15-20 FT (Approx.) — POORLY GRADED SAND — (2.5Y 5/2) grayish brown; Very loose; saturated; NPO	SP			color change
			193 NPO					
20	wet/sat		NPO 116	At ~ 20 ft: POORLY GRADED SILTY SAND: Dark gray (5Y 4/1); Very loose; 20-30% silt; wet; NPO.	SM			
25	wet/sat		VL/NPO 367	AT ~ 25 FT: VERY FINE SAND WITH SILT — Very dark greenish gray (GLEY1 3/5GY); 20% silt;	SP			
30								

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller: JAMES, w/ AARON & STEM

TOTAL H_2O ADDED: 15 Gallons

8 bags 50# SAND
11 bags 60# chips

CONCR: 0 to 0.75 FT
2" Sched. 40 PVC
BENT: 3/8" COATED 6' @ 6 to 29 FT
2/12 SAND @ 29 to 41 FT
(Concrete) 0 Cmt @ 6" to 6' FT
0.020" screen: 31 to 41 FT
T.D.: 41 FT

Shaw® Shaw Environmental & Infrastructure, Inc.

VISUAL CLASSIFICATION OF SOILS and Well Construction

PROJECT NUMBER: 844918	PROJECT NAME: ALAMEDA PT. NAS, CTO-107	
BORING NUMBER: 91F-MW-09L	COORDINATES:	DATE: MAR 21 2005
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: MAR 21 '05
GEOLOGIST: GARRICK ANDERSON	Depth Date/Time	DATE COMPLETED: MAR 21 '05
DRILLING METHODS: HSA		PAGE: 1 OF

DEPTH (FT)	MOISTURE	BLOWS ON SAMPLER PER ( )	PID (PPM)	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
	v mst	N/A	190	POORLY GRADED SAND (30-35') Dark olive gray (5Y 3/2); trace silt; Fine grained sand; very moist; NPO	SP			
35	Sat'd		NPO 381	POORLY GRADED SAND WITH SILT - olive gray (5Y 4/2); v loose, Saturated; NPO	SP			
40								
45				TD: 41 FT				
50								

NOTES:

Drilling Contractor: CASCADE DRILLING CO.

Drilling Equipment: 8" HSA

Driller:

TOTAL H_2O ADDED:

CONCR: to FT

2" Sched. 40 PVC

BENT: 3/8" COATED @ 6 to 29 FT

2/12 SAND @ 29 to 41 FT

(Cement) 0 Cmt @ 0 to 6 FT

0.020" screen: 31 to 41 FT

T.D.:

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VISUAL CLASSIFICATION OF SOILS

9IF-MW10L

PROJECT NUMBER: 844918	PROJECT NAME: Alameda Pt CTO 107	
BORING NUMBER: 9IF-MW10L	COORDINATES:	DATE: 3-21-05
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: 3-21-05
ENGINEER/GEOLOGIST: Mullenmeister	Depth Date/Time	DATE COMPLETED: 3-21-05
DRILLING METHODS: 8in OD HSA		PAGE: 2 OF 2

DEPTH (ft)	SAMPLE TYPE & NO.	~~BLOWS ON SAMPLER PER ( )~~	~~RECOVERY ( )~~	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
30	Auger Vein Grab Samples			Silty sand, as above	SM			
35								
40								
				TD 41ft				

NOTES:

Drilling Contractor: Cascade Drilling

Drilling Equipment: CME 75

Driller: Paul Snelgrove

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VISUAL CLASSIFICATION OF SOILS

9IF-MW10L

PROJECT NUMBER: 844918	PROJECT NAME: Alameda Pt CTO 107	
BORING NUMBER: 9IF-MW10L	COORDINATES:	DATE: 3-21-05
ELEVATION:	GWL: Depth Date/Time	DATE STARTED: 3-21-05
ENGINEER/GEOLOGIST: Mullenmeister	Depth Date/Time	DATE COMPLETED: 3-21-05
DRILLING METHODS: 8 in OD HSA		PAGE: 1 OF 2

DEPTH (ft)	SAMPLE TYPE & NO.	~~BLOWS ON SAMPLER PER ( )~~	~~RECOVERY ( )~~	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
	Auger Vein Grab Samples			Concrete Poorly graded sand, Ht olbrn (2.5Y 5/4), moist, 100% fine to med grnd sand, 5'	SP			
5				Dk gray (N/3/0) moist, 60% silt, 40% clay, very 8'	ML			
10				Silty sand, dk gray (N 4/0) wet 70% fine to med grnd sand, 30% silt	SM			
15								
20				@ ~18ft Poorly graded sand, dk gry (5Y 4/1), wet, 95% fine to med grnd sand, 5% silt.	SP			
25				@ ~25ft Silty sand, yellowish brn (10YR 5/4), wet, 95% v fine to med grnd sand, 20% silt	SM			
30								

NOTES:

Drilling Contractor: Cascade Drilling

Drilling Equipment: CME 75

Driller: Paul Snelgrove

243C-3-00

Monitoring Well Construction Form

9IF-MW10L

Project	Alameda Pt CTO 107 84491B	Well Number	9IF-MW10L
Location	Alameda Point	Site Location	9 Intermediate
Client	U S Navy	Installation Date	3-21-05
Subcontractor	Cascade Drilling	Northing	
Driller	Paul Snelgrove	Easting	
IT Field Representative	E Mullenmeister	NAD:	NGVD:

Protective Cover Elevation (ft):

Top of Casing Elv. (ft):

Top of Casing Stickup (ft):

Land Surface Elv. (ft)

Approximate Diameter of Borehole (in): 8 in

Well Casing Diameter (in): 2 in

Depth to Water (ft)

During Drilling

Date

Post Development TOC

Date

Top of Bentonite Seal (ft): 6

Top of Filter Pack (ft): 29

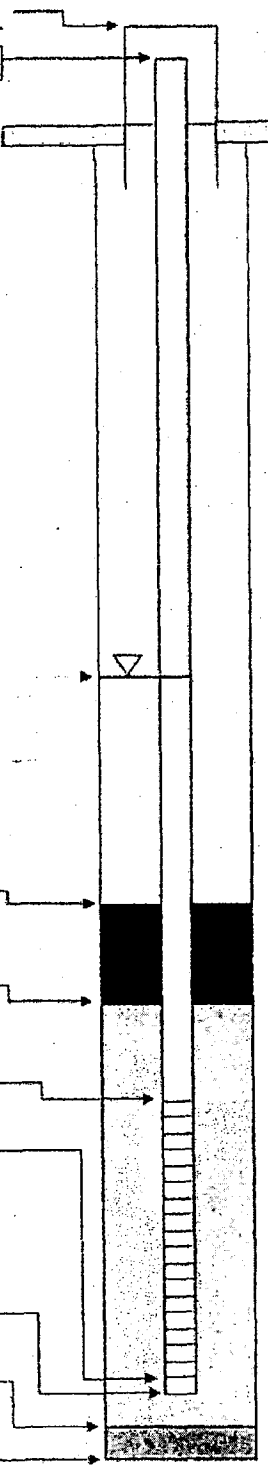
Top of Screen Interval (ft): 31

Bottom of Screen Interval (ft): 41

Bottom of Well (ft): 41

Bottom of Filter Pack (ft): 41

Bottom of Borehole (ft): 41



Protective Casing: Emco
- Type: Flush Mount
- Dimensions (in): 12 in dia
- Length (ft): 12 in
- Guard Post: NA

Ground Seal (Surface Pad)
- Dimensions: NA
- Type: Concrete

Annular Space Seal: Rapid Set Concrete
- Type: ~~Bentonite Cement Grout~~
- Installation: Gravity Tremie Pumped

Bentonite Seal: Wyo-Ben Inc.
- Manufacturer: Enviroplug
- Type: 3/8" Pellets Chips Slurry
- Installation: 6-in lifts One Section Gravity Tremie Pumped
- Hydration time (hrs): 7; 50-Lb bags

Filter Pack Material
- Manufacturer: RMC Pacific
- Product Name: Lapis Lustre
- Size: 2/12
- Volume Added (ft³) 7.5 50-Lb bags
- Installation: Gravity Tremie

Well Casing:
- Manufacturer: Boart Longyear
- Type: PVC Sch 40
- Diameter (in): 2 in

Well Screen Casing:
- Manufacturer: Boart Longyear
- Type: Sch 40 PVC
- Slot Size (in): 0.020 %Open
- Slot Type: Continuous wrap Factory slot

Sump/End Cap: Flush Threaded

Backfill Material: None

Volume Water Added: ~ 50 gal

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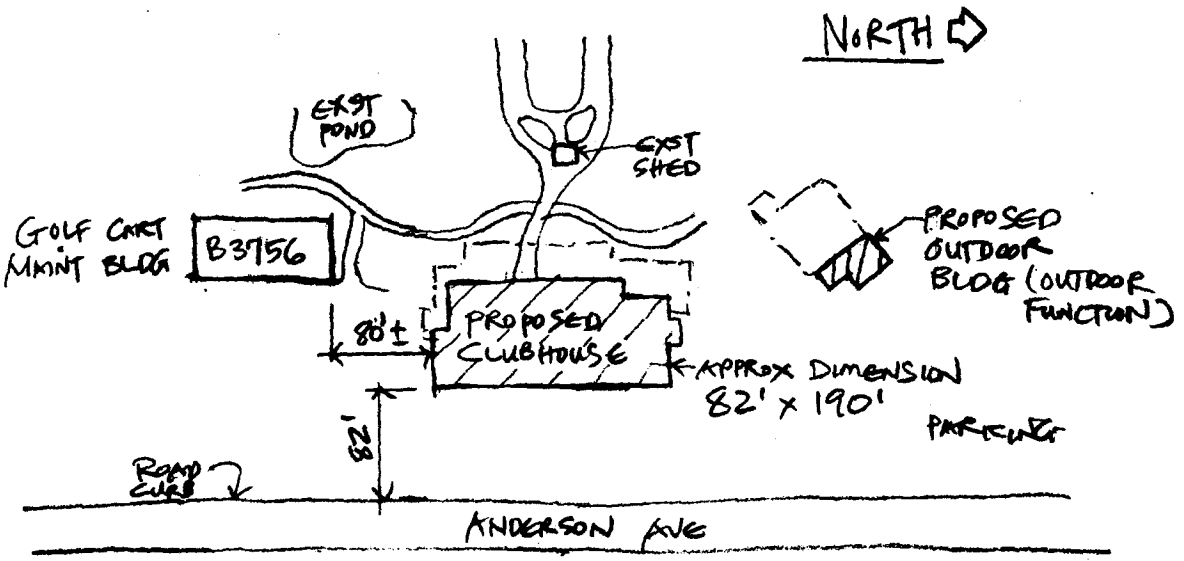

CONCEPT SITE PLAN
NOT TO SCALE

PROJECT N717, GOLF COURSE CLUBHOUSE
MCAS MIRAMAR

N00236.002573
ALAMEDA POINT
SSIC NO. 5090.3

APPENDIX B – ANALYTICAL RESULTS

FINAL
FIELD SUMMARY REPORT FOR THE FULL-SCALE IN SITU CHEMICAL OXIDATION REMOVAL ACTION AT INSTALLATION RESTORATION SITE 9 INTERMEDIATE

DATED 29 SEPTEMBER 2006

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9EMW01		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	10 U	4.5 J
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	25 J
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.5 U	0.75	0.73	0.5 U
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	10	40	15	5
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	2.5	12	1.6	0.67
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.25 J	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 UJ
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	2.9	2.9	14	450
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	0.8 J
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9EMW01		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.5 U	2.1	0.5 U	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Acenaphthylene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Anthracene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Benzo(a)anthracene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Benzoic acid		µg/L	48 U	49 U	47 U	48 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	20 U	19 U	19 U
	SW8270C	4-Chloroaniline		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	2-Chloronaphthalene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	2-Chlorophenol		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Chrysene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Dibenzofuran		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	20 U	19 U	19 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Diethylphthalate		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.6 U	9.8 U	9.5 U	9.7 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9EMW01		**Depth: 20 - 30 feet bgs**						
SVOCs	SW8270C	Dimethylphthalate		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	2,4-Dinitrophenol		µg/L	48 U	49 U	47 U	48 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Fluoranthene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Fluorene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Hexachlorobutadiene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Hexachloroethane		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Isophorone		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	2-Methylnaphthalene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	2-Methylphenol		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	4-Methylphenol		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	48 U	49 U	47 U	48 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Naphthalene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	2-Nitroaniline		µg/L	48 U	49 U	47 U	48 U
	SW8270C	3-Nitroaniline		µg/L	48 U	49 U	47 U	48 U
	SW8270C	4-Nitroaniline		µg/L	48 U	49 U	47 U	48 U
	SW8270C	Nitrobenzene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	2-Nitrophenol		µg/L	9.6 U	9.8 U	9.5 U	9.7 UJ
	SW8270C	4-Nitrophenol		µg/L	48 U	49 U	47 U	48 U
	SW8270C	Pentachlorophenol	1	µg/L	48 U	49 U	47 U	48 U
	SW8270C	Phenanthrene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Phenol		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	Pyrene		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.6 U	9.8 U	9.5 U	9.7 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	48 U	49 U	47 U	48 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.6 U	9.8 U	9.5 U	9.7 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	200 U	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	14.9	10 U	14.8	22.2
	SW6010B	Barium - Filtered	1000	µg/L	73.1	93.6	181	115
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	5.54	4.03	2.28
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Cobalt - Filtered		µg/L	18.3	143	167	90.5 J

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9EMW01		**Depth: 20 - 30 feet bgs**						
Metals	SW6010B	Copper - Filtered	1000	µg/L	14.4	194	268	39.8
	SW6010B	Iron - Filtered	300	µg/L	34.4 J	4270	1810	25300
	SW6010B	Lead - Filtered	15	µg/L	5 U	52.3	15.1	70.2
	SW6010B	Manganese - Filtered	50	µg/L	10.2	503	169	2460
	SW6010B	Molybdenum - Filtered		µg/L	25.9 J	16.2 J	88.6	48.5
	SW6010B	Nickel - Filtered	100	µg/L	47.1	335	429	392 J
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Silver - Filtered	100	µg/L	7.5 J	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	8.89 J	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	21.9	22.6	50.9	132
	SW6010B	Zinc - Filtered	5000	µg/L	22.1 U	244	97.1	158
	SW6010B	Calcium - Filtered		µg/L	14900	23000	40500	36800 J
	SW6010B	Magnesium - Filtered		µg/L	17900	23100	32800	27200
	SW6010B	Potassium - Filtered		µg/L	19000	30700	63000	34100 J
	SW6010B	Sodium - Filtered		µg/L	598000	595000	640000	582000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 UJ	0.02 U	0.02 U	0.02 UJ
Location: 9EMW03		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	2.6 J	20 U	470	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.32 J	2.6	2.7	2.4
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	15	80	14	26
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	4.3	24	0.59	2.9

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9EMW03		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.6	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	34	20 UJ
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	5.5	8.4	0.91	3.7
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	1.1	7	0.5 U	1.1
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Acenaphthylene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Anthracene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Benzo(a)anthracene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Benzoic acid		µg/L	47 U	50 U	47 U	47 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.4 U	10 U	9.5 U	9.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc[illegible] Post Inj III Dec 2005
Location: 9EMW03		**Depth: 20 - 30 feet bgs**						
SVOCs	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	20 U	19 U	19 U
	SW8270C	4-Chloroaniline		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	2-Chloronaphthalene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	2-Chlorophenol		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Chrysene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Dibenzofuran		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	20 U	19 U	19 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Diethylphthalate		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Dimethylphthalate		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	2,4-Dinitrophenol		µg/L	47 U	50 U	47 U	47 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Fluoranthene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Fluorene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Hexachlorobutadiene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Hexachloroethane		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Isophorone		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	2-Methylnaphthalene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	2-Methylphenol		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	4-Methylphenol		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	47 U	50 U	47 U	47 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Naphthalene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	2-Nitroaniline		µg/L	47 U	50 U	47 U	47 U
	SW8270C	3-Nitroaniline		µg/L	47 U	50 U	47 U	47 U
	SW8270C	4-Nitroaniline		µg/L	47 U	50 U	47 U	47 U
	SW8270C	Nitrobenzene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	2-Nitrophenol		µg/L	9.4 U	10 U	9.5 U	9.5 UJ

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9EMW03		**Depth: 20 - 30 feet bgs**						
SVOCs	SW8270C	4-Nitrophenol		µg/L	47 U	50 U	47 U	47 U
	SW8270C	Pentachlorophenol	1	µg/L	47 U	50 U	47 U	47 U
	SW8270C	Phenanthrene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Phenol		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	Pyrene		µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.4 U	10 U	9.5 U	9.5 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	47 U	50 U	47 U	47 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.4 U	10 U	9.5 U	9.5 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	170 J	200 U	200 U	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	19.1	13	89.7	25.5
	SW6010B	Barium - Filtered	1000	µg/L	13.2	13.2	26.1	16.7
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	3.69	2 U	4.93
	SW6010B	Chromium - Filtered	50	µg/L	5.6	26.8	609	151
	SW6010B	Cobalt - Filtered		µg/L	10.7	85.8	184	345
	SW6010B	Copper - Filtered	1000	µg/L	15.3	72.2	30.5	137
	SW6010B	Iron - Filtered	300	µg/L	324	1880	153	3290
	SW6010B	Lead - Filtered	15	µg/L	5 U	12	5 U	13.7
	SW6010B	Manganese - Filtered	50	µg/L	4.37 J	256	312	131
	SW6010B	Molybdenum - Filtered		µg/L	19.8 J	15.9 J	17.2 J	10.2 J
	SW6010B	Nickel - Filtered	100	µg/L	32.4	98.4	109	338
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	5.1 J	10 U
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	28.6	26.1	894	127
	SW6010B	Zinc - Filtered	5000	µg/L	14	101	11.9	96
	SW6010B	Calcium - Filtered		µg/L	4480	4180	6920	7100
	SW6010B	Magnesium - Filtered		µg/L	2900	2730	6170	5170
	SW6010B	Potassium - Filtered		µg/L	6410	9300	54800	25500 J
	SW6010B	Sodium - Filtered		µg/L	306000	257000	290000	376000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 U	0.277	0.02 U
Location: 9EMW04		**Depth: 30 - 40 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	3.9 J	260	17	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.85	1.2	0.59	0.34 J
	SW8260B	Bromoform		µg/L	0.94	16	8.9	2.4
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9EMW04		**Depth: 30 - 40 feet bgs**						
VOCs	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	3.4	12	6.1	7.2
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.33 J	2.9	1.3	0.37 J
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	280	80	300	340
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.27 J	0.5 U	0.5 U	0.39 J
	SW8260B	1,1-Dichloroethene	6	µg/L	22	3.5	16	20
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.88	0.5 U	0.97	1.6
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	1.2 J	5 U	5 U	1.1 J
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	41	20 U	20 UJ
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9EMW04		**Depth: 30 - 40 feet bgs**						
VOCs	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	5.2	0.78	4.4	8.4
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Acenaphthylene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Anthracene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Benzo(a)anthracene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Benzoic acid		µg/L	47 U	47 U	47 U	48 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	19 U	19 U	19 U
	SW8270C	4-Chloroaniline		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	2-Chloronaphthalene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	2-Chlorophenol		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Chrysene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Dibenzofuran		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	19 U	19 U	19 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Diethylphthalate		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Dimethylphthalate		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	2,4-Dinitrophenol		µg/L	47 U	47 U	47 U	48 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Fluoranthene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Fluorene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Hexachlorobutadiene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9EMW04		**Depth: 30 - 40 feet bgs**						
SVOCs	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Hexachloroethane		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Isophorone		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	2-Methylnaphthalene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	2-Methylphenol		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	4-Methylphenol		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	47 U	47 U	47 U	48 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Naphthalene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	2-Nitroaniline		µg/L	47 U	47 U	47 U	48 U
	SW8270C	3-Nitroaniline		µg/L	47 U	47 U	47 U	48 U
	SW8270C	4-Nitroaniline		µg/L	47 U	47 U	47 U	48 U
	SW8270C	Nitrobenzene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	2-Nitrophenol		µg/L	9.4 U	9.4 U	9.4 U	9.6 UJ
	SW8270C	4-Nitrophenol		µg/L	47 U	47 U	47 U	48 U
	SW8270C	Pentachlorophenol	1	µg/L	47 U	47 U	47 U	48 U
	SW8270C	Phenanthrene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Phenol		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	Pyrene		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.4 U	9.4 U	9.4 U	9.6 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	47 U	47 U	47 U	48 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.4 U	9.4 U	9.4 U	9.6 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	200 U	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	4.55 J	10 U	10 U	10 U
	SW6010B	Barium - Filtered	1000	µg/L	55.1	61.6	68.1	39.9
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2.27	2.46	9.58	16.9
	SW6010B	Chromium - Filtered	50	µg/L	15	276	27.9	13.5
	SW6010B	Cobalt - Filtered		µg/L	350	245	526	1070 J
	SW6010B	Copper - Filtered	1000	µg/L	100	47	182	322
	SW6010B	Iron - Filtered	300	µg/L	13700	3120	18300	31500
	SW6010B	Lead - Filtered	15	µg/L	33.6	5 U	120	158
	SW6010B	Manganese - Filtered	50	µg/L	2200	2000	7810	11200
	SW6010B	Molybdenum - Filtered		µg/L	16.7 J	10 J	7.53 J	11.3 J
	SW6010B	Nickel - Filtered	100	µg/L	399	210	609	1310 J
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9EMW04		**Depth: 30 - 40 feet bgs**						
Metals	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	28.6	376	56	29.3
	SW6010B	Zinc - Filtered	5000	µg/L	128	90.5	378	647
	SW6010B	Calcium - Filtered		µg/L	43600	51100	52600	21800 J
	SW6010B	Magnesium - Filtered		µg/L	61800	94000	85400	18400
	SW6010B	Potassium - Filtered		µg/L	17100	33300 J	32300	21900 J
	SW6010B	Sodium - Filtered		µg/L	1120000	1180000	1330000	755000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 UJ	0.159	0.013 J	0.02 UJ
Location: 9IF-MW01L		**Depth: 29 - 39 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	4.2 J	58	10 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	2.1	6.3	0.5	2.4
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	1	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	17	23	22	24
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	0.79	1.6	0.8	0.53
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	4.4	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.25 J	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 UJ
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW01L		**Depth: 29 - 39 feet bgs**						
VOCs	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	38	6.1 J	20 UJ
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.82	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	0.99 J	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.5 U	4.9	0.5 U	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Acenaphthylene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Anthracene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Benzo(a)anthracene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Benzoic acid		µg/L	49 U	50 U	47 U	49 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	20 U	20 U	19 U	20 U
	SW8270C	4-Chloroaniline		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	2-Chloronaphthalene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	2-Chlorophenol		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Chrysene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.8 U	10 U	9.5 U	9.8 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW01L		**Depth: 29 - 39 feet bgs**						
SVOCs	SW8270C	Di-n-octyl phthalate		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Dibenzofuran		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	20 U	20 U	19 U	20 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Diethylphthalate		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Dimethylphthalate		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	2,4-Dinitrophenol		µg/L	49 U	50 U	47 U	49 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Fluoranthene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Fluorene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Hexachlorobutadiene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Hexachloroethane		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Isophorone		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	2-Methylnaphthalene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	2-Methylphenol		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	4-Methylphenol		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	49 U	50 U	47 U	49 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Naphthalene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	2-Nitroaniline		µg/L	49 U	50 U	47 U	49 U
	SW8270C	3-Nitroaniline		µg/L	49 U	50 U	47 U	49 U
	SW8270C	4-Nitroaniline		µg/L	49 U	50 U	47 U	49 U
	SW8270C	Nitrobenzene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	2-Nitrophenol		µg/L	9.8 U	10 U	9.5 U	9.8 UJ
	SW8270C	4-Nitrophenol		µg/L	49 U	50 U	47 U	49 U
	SW8270C	Pentachlorophenol	1	µg/L	49 U	50 U	47 U	49 U
	SW8270C	Phenanthrene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Phenol		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	Pyrene		µg/L	9.8 U	10 U	9.5 U	9.8 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.8 U	10 U	9.5 U	9.8 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW01L		**Depth: 29 - 39 feet bgs**						
SVOCs	SW8270C	2,4,5-Trichlorophenol		µg/L	49 U	50 U	47 U	49 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.8 U	10 U	9.5 U	9.8 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	200 U	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	7.7 J	6.68 J	7.23 J	7.57 J
	SW6010B	Barium - Filtered	1000	µg/L	76.8	70.7	111	113
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U	2 U	9.92
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U	5 U	8.81
	SW6010B	Cobalt - Filtered		µg/L	5 U	2.77 J	5 U	311 J
	SW6010B	Copper - Filtered	1000	µg/L	5 U	2.51 J	5.55	180
	SW6010B	Iron - Filtered	300	µg/L	72 J	82.4 J	100 U	761
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	5 U	27.3
	SW6010B	Manganese - Filtered	50	µg/L	659	1230	1530	3130
	SW6010B	Molybdenum - Filtered		µg/L	18.3 J	7.54 J	12.7 J	5.42 J
	SW6010B	Nickel - Filtered	100	µg/L	82.5	114	85.9	321 J
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	6.15 J
	SW6010B	Vanadium - Filtered		µg/L	7.52 J	10 U	17.8	10.6
	SW6010B	Zinc - Filtered	5000	µg/L	13.8	9.39 J	5.43 J	184
	SW6010B	Calcium - Filtered		µg/L	65900	83000	111000	145000 J
	SW6010B	Magnesium - Filtered		µg/L	111000	174000	207000	271000
	SW6010B	Potassium - Filtered		µg/L	22100	66700 J	46800 J	35500 J
	SW6010B	Sodium - Filtered		µg/L	1370000	1890000	1670000	2210000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 UJ	0.02 U	0.02 UJ	0.02 U
Location: 9IF-MW01S		**Depth: 5 - 15 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	10 U	
	SW8260B	Benzene	1	µg/L	0.45 J	0.5	0.65	
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	tert-butyl alcohol		µg/L	28 J	18 J	36 J	
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Chloroform		µg/L	0.64	0.5 U	0.5 U	
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW01S		**Depth: 5 - 15 feet bgs**						
VOCs	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	1,1-Dichloroethane	5	µg/L	2	1.9	2.9	
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	1,1-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	6.4	7	5.3	
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.27 J	
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	
	SW8260B	Isopropyl Ether		µg/L	4.7 J	6.6	4.5 J	
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	
	SW8260B	Vinyl Chloride	0.5	µg/L	8.5	7.7	8.4	
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	
SVOCs	SW8270C	Acenaphthene		µg/L	9.7 U	9.4 U	9.7 U	

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW01S		**Depth: 5 - 15 feet bgs**						
SVOCs	SW8270C	Acenaphthylene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Anthracene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Benzo(a)anthracene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Benzo(b)fluoranthene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Benzo(k)fluoranthene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Benzoic acid		µg/L	50 U	47 U	48 U	
	SW8270C	Benzyl butyl phthalate		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	20 U	19 U	19 U	
	SW8270C	4-Chloroaniline		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	2-Chloronaphthalene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	2-Chlorophenol		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Chrysene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Di-n-butyl phthalate		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Di-n-octyl phthalate		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Dibenzofuran		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	1,3-Dichlorobenzene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	3,3'-Dichlorobenzidine		µg/L	20 U	19 U	19 U	
	SW8270C	2,4-Dichlorophenol		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Diethylphthalate		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	2,4-Dimethylphenol		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Dimethylphthalate		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	2,4-Dinitrophenol		µg/L	50 U	47 U	48 U	
	SW8270C	2,4-Dinitrotoluene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	2,6-Dinitrotoluene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Fluoranthene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Fluorene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Hexachlorobenzene	1	µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Hexachlorobutadiene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Hexachloroethane		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Isophorone		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	2-Methylnaphthalene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	2-Methylphenol		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	4-Methylphenol		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	50 U	47 U	48 U	

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW01S		**Depth: 5 - 15 feet bgs**						
SVOCs	SW8270C	4-Chloro-3-methylphenol		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	N-Nitrosodimethylamine		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Naphthalene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	2-Nitroaniline		µg/L	50 U	47 U	48 U	
	SW8270C	3-Nitroaniline		µg/L	50 U	47 U	48 U	
	SW8270C	4-Nitroaniline		µg/L	50 U	47 U	48 U	
	SW8270C	Nitrobenzene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	2-Nitrophenol		µg/L	9.7 UJ	9.4 U	9.7 U	
	SW8270C	4-Nitrophenol		µg/L	50 U	47 U	48 U	
	SW8270C	Pentachlorophenol	1	µg/L	50 U	47 U	48 U	
	SW8270C	Phenanthrene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Phenol		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	Pyrene		µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.7 U	9.4 U	9.7 U	
	SW8270C	2,4,5-Trichlorophenol		µg/L	50 U	47 U	48 U	
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.7 U	9.4 U	9.7 U	
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	200 U	
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	
	SW6010B	Arsenic - Filtered	50	µg/L	25.1	24.4	29.7	
	SW6010B	Barium - Filtered	1000	µg/L	83.1	108	119	
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U	2 U	
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U	5 U	
	SW6010B	Cobalt - Filtered		µg/L	5 U	5 U	5 U	
	SW6010B	Copper - Filtered	1000	µg/L	5 U	5 U	5 U	
	SW6010B	Iron - Filtered	300	µg/L	1980	3630	4510	
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	5 U	
	SW6010B	Manganese - Filtered	50	µg/L	473	1210	1170	
	SW6010B	Molybdenum - Filtered		µg/L	40 U	40 U	5.88 J	
	SW6010B	Nickel - Filtered	100	µg/L	56.5	82.9	70.7	
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	10 U	
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	6.07 J	
	SW6010B	Vanadium - Filtered		µg/L	10 U	10 U	10 U	
	SW6010B	Zinc - Filtered	5000	µg/L	6.95 J	10 U	5.81 J	
	SW6010B	Calcium - Filtered		µg/L	59200	52200	47700	
	SW6010B	Magnesium - Filtered		µg/L	41000	38000	30500	
	SW6010B	Potassium - Filtered		µg/L	26800	43300 J	36000 J	
	SW6010B	Sodium - Filtered		µg/L	510000	523000	440000	
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 UJ	0.02 U	0.02 U	

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sca Post Inj III Dec 2005
Location: 9IF-MW01S		**Depth: 5 - 15 feet bgs**						
Location: 9IF-MW01U		**Depth: 21 - 31 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	10 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.99	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.46 J	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	3	0.4 J	0.5 U	0.5 U
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.59	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	0.38 J	0.39 J	0.3 J	0.5 U
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5	0.69	0.79	0.58
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW01U		**Depth: 21 - 31 feet bgs**						
VOCs	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Acenaphthylene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Anthracene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Benzo(a)anthracene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Benzoic acid		µg/L	47 U	47 U	47 U	48 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	19 U	19 U	11 J
	SW8270C	4-Chloroaniline		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	2-Chloronaphthalene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	2-Chlorophenol		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Chrysene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Dibenzofuran		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	19 U	19 U	19 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.4 U	9.4 U	9.5 U	9.7 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW01U		**Depth: 21 - 31 feet bgs**						
SVOCs	SW8270C	Diethylphthalate		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Dimethylphthalate		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	2,4-Dinitrophenol		µg/L	47 U	47 U	47 U	48 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Fluoranthene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Fluorene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Hexachlorobutadiene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Hexachloroethane		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Isophorone		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	2-Methylnaphthalene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	2-Methylphenol		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	4-Methylphenol		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	47 U	47 U	47 U	48 U
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Naphthalene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	2-Nitroaniline		µg/L	47 U	47 U	47 U	48 U
	SW8270C	3-Nitroaniline		µg/L	47 U	47 U	47 U	48 U
	SW8270C	4-Nitroaniline		µg/L	47 U	47 U	47 U	48 U
	SW8270C	Nitrobenzene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	2-Nitrophenol		µg/L	9.4 U	9.4 U	9.5 U	9.7 UJ
	SW8270C	4-Nitrophenol		µg/L	47 U	47 U	47 U	48 U
	SW8270C	Pentachlorophenol	1	µg/L	47 U	47 U	47 U	48 U
	SW8270C	Phenanthrene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Phenol		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	Pyrene		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.4 U	9.4 U	9.5 U	9.7 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	47 U	47 U	47 U	48 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.4 U	9.4 U	9.5 U	9.7 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U		200 U
	SW6010B	Aluminum	1000	µg/L			200 U	
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U		100 U
	SW6010B	Antimony	6	µg/L			100 U	
	SW6010B	Arsenic - Filtered	50	µg/L	8.14 J	11.4		10 U
	SW6010B	Arsenic	50	µg/L			7.34 J	

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW01U		**Depth: 21 - 31 feet bgs**						
Metals	SW6010B	Barium - Filtered	1000	µg/L	14.8	11.7		10.4
	SW6010B	Barium	1000	µg/L			9.11 J	
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U		2 U
	SW6010B	Beryllium	4	µg/L			2 U	
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U		2 U
	SW6010B	Cadmium	5	µg/L			2 U	
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U		5 U
	SW6010B	Chromium	50	µg/L			5 U	
	SW6010B	Cobalt - Filtered		µg/L	7.47	5 U		5 U
	SW6010B	Cobalt		µg/L			5 U	
	SW6010B	Copper - Filtered	1000	µg/L	5 U	3.38 J		5 U
	SW6010B	Copper	1000	µg/L			5 U	
	SW6010B	Iron - Filtered	300	µg/L	100 U	100 U		100 U
	SW6010B	Iron	300	µg/L			61.1 J	
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U		5 U
	SW6010B	Lead	15	µg/L			5 U	
	SW6010B	Manganese - Filtered	50	µg/L	18.8	35.3		31.3
	SW6010B	Manganese	50	µg/L			31	
	SW6010B	Molybdenum - Filtered		µg/L	25.9 J	29.1 J		19.9 J
	SW6010B	Molybdenum		µg/L			23.2 J	
	SW6010B	Nickel - Filtered	100	µg/L	10 U	10.5		6.56 J
	SW6010B	Nickel	100	µg/L			6.91 J	
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U		10 U
	SW6010B	Selenium	50	µg/L			10 U	
	SW6010B	Silver - Filtered	100	µg/L	6.47 J	10 U		10 U
	SW6010B	Silver	100	µg/L			10 U	
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U		10 U
	SW6010B	Thallium	2	µg/L			10 U	
	SW6010B	Vanadium - Filtered		µg/L	13.2	10 U		10 U
	SW6010B	Vanadium		µg/L			10 U	
	SW6010B	Zinc - Filtered	5000	µg/L	12.4 U	7.85 J		8.54 J
	SW6010B	Zinc	5000	µg/L			8.71 J	
	SW6010B	Calcium - Filtered		µg/L	6430	7110		5830
	SW6010B	Calcium		µg/L			5580	
	SW6010B	Magnesium - Filtered		µg/L	6060	6440		4460 J
	SW6010B	Magnesium		µg/L			4690	
	SW6010B	Potassium - Filtered		µg/L	6640	9370		7650
	SW6010B	Potassium		µg/L			7330 J	
	SW6010B	Sodium - Filtered		µg/L	316000	315000		248000
	SW6010B	Sodium		µg/L			228000	
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 U	0.02 U	0.02 U
Location: 9IF-MW02L		**Depth: 30 - 40 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	10 U	10 UJ

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW02L		**Depth: 30 - 40 feet bgs**						
VOCs	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	2.6	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	7.7	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	2.9	0.42 J	0.5 U	0.5 U
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	3.9	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 UJ
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW02L		**Depth: 30 - 40 feet bgs**						
VOCs	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Acenaphthylene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Anthracene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Benzo(a)anthracene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Benzo(b)fluoranthene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Benzo(k)fluoranthene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Benzoic acid		µg/L	50 U	47 U	47 U	49 U
	SW8270C	Benzyl butyl phthalate		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	20 U	19 U	19 U	20 U
	SW8270C	4-Chloroaniline		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	2-Chloronaphthalene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	2-Chlorophenol		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Chrysene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Di-n-butyl phthalate		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Di-n-octyl phthalate		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Dibenzofuran		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	1,3-Dichlorobenzene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	20 U	19 U	19 U	20 U
	SW8270C	2,4-Dichlorophenol		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Diethylphthalate		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	2,4-Dimethylphenol		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Dimethylphthalate		µg/L	10 U	9.4 U	9.4 U	9.8 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW02L		**Depth: 30 - 40 feet bgs**						
SVOCs	SW8270C	2,4-Dinitrophenol		µg/L	50 U	47 U	47 U	49 U
	SW8270C	2,4-Dinitrotoluene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	2,6-Dinitrotoluene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Fluoranthene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Fluorene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Hexachlorobenzene	1	µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Hexachlorobutadiene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Hexachloroethane		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Isophorone		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	2-Methylnaphthalene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	2-Methylphenol		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	4-Methylphenol		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	50 U	47 U	47 U	49 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	N-Nitrosodimethylamine		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Naphthalene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	2-Nitroaniline		µg/L	50 U	47 U	47 U	49 U
	SW8270C	3-Nitroaniline		µg/L	50 U	47 U	47 U	49 U
	SW8270C	4-Nitroaniline		µg/L	50 U	47 U	47 U	49 U
	SW8270C	Nitrobenzene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	2-Nitrophenol		µg/L	10 U	9.4 U	9.4 U	9.8 UJ
	SW8270C	4-Nitrophenol		µg/L	50 U	47 U	47 U	49 U
	SW8270C	Pentachlorophenol	1	µg/L	50 U	47 U	47 U	49 U
	SW8270C	Phenanthrene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Phenol		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	Pyrene		µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	10 U	9.4 U	9.4 U	9.8 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	50 U	47 U	47 U	49 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	10 U	9.4 U	9.4 U	9.8 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	200 U	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	7.97 J	13.5	15.7	11.6
	SW6010B	Barium - Filtered	1000	µg/L	89.9	56.4	40.8	40.8
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2.17	2 U	2 U	1.14 J
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Cobalt - Filtered		µg/L	5 U	7.4	6.32	8.63 J
	SW6010B	Copper - Filtered	1000	µg/L	5 U	5 U	7.52	5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW02L		**Depth: 30 - 40 feet bgs**						
Metals	SW6010B	Iron - Filtered	300	µg/L	100 U	105	100 U	100 U
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Manganese - Filtered	50	µg/L	5670	7660	6650	7370
	SW6010B	Molybdenum - Filtered		µg/L	25.9 J	40 U	40 U	40 U
	SW6010B	Nickel - Filtered	100	µg/L	10 U	10.3	7.97 J	9.13 J
	SW6010B	Selenium - Filtered	50	µg/L	10 U	5.9 J	10 U	10 U
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	13.7	5.33 J	5.92 J	6.74 J
	SW6010B	Zinc - Filtered	5000	µg/L	31.3	10 U	6.35 J	10 U
	SW6010B	Calcium - Filtered		µg/L	403000	470000	393000	518000 J
	SW6010B	Magnesium - Filtered		µg/L	535000	707000	548000	644000
	SW6010B	Potassium - Filtered		µg/L	14000	28000 J	18100 J	21600 J
	SW6010B	Sodium - Filtered		µg/L	3140000	3140000	2700000	2990000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 UJ	0.02 U	0.02 U	0.02 U
Location: 9IF-MW02U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	10 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.39 J	0.5 U	0.5 U	0.22 J
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.7	0.43 J	2.6	1.2
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	16	0.5 U	1.4	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	46	21	31	43
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	1.7	0.54	1.5	1
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	10	0.5 U	5.3	5.3

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW02U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5	0.5 U	0.26 J	0.28 J
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	1.3 J
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	1.1	0.5 U	0.95	0.97
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	1.5 J	5 U	1.3 J	1.3 J
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	23	0.5 U	8	10
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Acenaphthylene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Anthracene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Benzo(a)anthracene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Benzoic acid		µg/L	11 J	47 U	47 U	47 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.6 U	9.4 U	9.4 U	9.4 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW02U		**Depth: 20 - 30 feet bgs**						
SVOCs	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	19 U	19 U	19 U
	SW8270C	4-Chloroaniline		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	2-Chloronaphthalene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	2-Chlorophenol		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Chrysene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Dibenzofuran		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	19 U	19 U	19 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Diethylphthalate		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Dimethylphthalate		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	2,4-Dinitrophenol		µg/L	48 U	47 U	47 U	47 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Fluoranthene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Fluorene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Hexachlorobutadiene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Hexachloroethane		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Isophorone		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	2-Methylnaphthalene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	2-Methylphenol		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	4-Methylphenol		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	48 U	47 U	47 U	47 U
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Naphthalene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	2-Nitroaniline		µg/L	48 U	47 U	47 U	47 U
	SW8270C	3-Nitroaniline		µg/L	48 U	47 U	47 U	47 U
	SW8270C	4-Nitroaniline		µg/L	48 U	47 U	47 U	47 U
	SW8270C	Nitrobenzene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	2-Nitrophenol		µg/L	9.6 U	9.4 U	9.4 U	9.4 UJ
	SW8270C	4-Nitrophenol		µg/L	48 U	47 U	47 U	47 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW02U		**Depth: 20 - 30 feet bgs**						
SVOCs	SW8270C	Pentachlorophenol	1	µg/L	48 U	47 U	47 U	47 U
	SW8270C	Phenanthrene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Phenol		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	Pyrene		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.6 U	9.4 U	9.4 U	9.4 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	48 U	47 U	47 U	47 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.6 U	9.4 U	9.4 U	9.4 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	200 U	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	6.31 J	10 U	10 U	10 U
	SW6010B	Barium - Filtered	1000	µg/L	52.8	68.5	60.1	92.7
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	3.71	14.6	4.46
	SW6010B	Chromium - Filtered	50	µg/L	5 U	47.4	5 U	9.59
	SW6010B	Cobalt - Filtered		µg/L	9.15	350	555	283
	SW6010B	Copper - Filtered	1000	µg/L	5 U	78.2	282	108
	SW6010B	Iron - Filtered	300	µg/L	100 U	6640	6580	799
	SW6010B	Lead - Filtered	15	µg/L	5 U	2.91 J	11.5	3.51 J
	SW6010B	Manganese - Filtered	50	µg/L	429	2010	5020	1250
	SW6010B	Molybdenum - Filtered		µg/L	40 U	40 U	5.65 J	9.03 J
	SW6010B	Nickel - Filtered	100	µg/L	171	624	784	475
	SW6010B	Selenium - Filtered	50	µg/L	10 U	6.96 J	10 U	10 U
	SW6010B	Silver - Filtered	100	µg/L	7.28 J	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	6.15 J	7.13 J	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	6.62 J	10 U	10 U	10 U
	SW6010B	Zinc - Filtered	5000	µg/L	7.2 J	206	308	85.7
	SW6010B	Calcium - Filtered		µg/L	34200	61400	40300	30700
	SW6010B	Magnesium - Filtered		µg/L	56800	73800	64300	55700 J
	SW6010B	Potassium - Filtered		µg/L	29200	62500 J	55000	25500
	SW6010B	Sodium - Filtered		µg/L	1420000	4460000	1440000	1360000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 UJ	0.036 J	0.02 U	0.02 U
Location: 9IF-MW03L		**Depth: 32 - 42 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	12 J	20 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW03L		**Depth: 32 - 42 feet bgs**						
VOCs	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.71	0.43 J	0.45 J	0.86
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	110	110	70	100
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	2.6	2.6	2	2.1
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.41 J	0.54	0.36 J	0.48 J
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	8.7 J	20 U	20 U
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sca Post Inj III Dec 2005
Location: 9IF-MW03L		**Depth: 32 - 42 feet bgs**						
VOCs	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	1.5	1.4	1.2	1.4
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Acenaphthylene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Anthracene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Benzo(a)anthracene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Benzoic acid		µg/L	48 U	47 U	47 U	54 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	19 U	19 U	33
	SW8270C	4-Chloroaniline		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	2-Chloronaphthalene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	2-Chlorophenol		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Chrysene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Dibenzofuran		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	19 U	19 U	22 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Diethylphthalate		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Dimethylphthalate		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	2,4-Dinitrophenol		µg/L	48 U	47 U	47 U	54 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Fluoranthene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Fluorene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Hexachlorobutadiene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.6 U	9.5 U	9.5 U	11 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW03L		**Depth: 32 - 42 feet bgs**						
SVOCs	SW8270C	Hexachloroethane		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Isophorone		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	2-Methylnaphthalene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	2-Methylphenol		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	4-Methylphenol		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	48 U	47 U	47 U	54 U
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Naphthalene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	2-Nitroaniline		µg/L	48 U	47 U	47 U	54 U
	SW8270C	3-Nitroaniline		µg/L	48 U	47 U	47 U	54 U
	SW8270C	4-Nitroaniline		µg/L	48 U	47 U	47 U	54 U
	SW8270C	Nitrobenzene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	2-Nitrophenol		µg/L	9.6 U	9.5 U	9.5 U	11 UJ
	SW8270C	4-Nitrophenol		µg/L	48 U	47 U	47 U	54 U
	SW8270C	Pentachlorophenol	1	µg/L	48 U	47 U	47 U	54 U
	SW8270C	Phenanthrene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Phenol		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	Pyrene		µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.6 U	9.5 U	9.5 U	11 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	48 U	47 U	47 U	54 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.6 U	9.5 U	9.5 U	11 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	200 U	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	6.56 J	8.87 J	10 U	10 U
	SW6010B	Barium - Filtered	1000	µg/L	41.4	104	65	51.6
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	1.3 J	2 U	2 U
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5.01	10.5	11.6
	SW6010B	Cobalt - Filtered		µg/L	8.4	8.9	12.3	28.1
	SW6010B	Copper - Filtered	1000	µg/L	5 U	4.06 J	2.5 J	2.14 J
	SW6010B	Iron - Filtered	300	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Manganese - Filtered	50	µg/L	795	1710	1480	1760
	SW6010B	Molybdenum - Filtered		µg/L	40 U	40 U	40 U	40 U
	SW6010B	Nickel - Filtered	100	µg/L	214	159	161	140
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sca Post Inj III Dec 2005
Location: 9IF-MW03L		**Depth: 32 - 42 feet bgs**						
Metals	SW6010B	Vanadium - Filtered		µg/L	8.85 J	7.08 J	5.17 J	5.95 J
	SW6010B	Zinc - Filtered	5000	µg/L	17.7	10 U	10 U	10 U
	SW6010B	Calcium - Filtered		µg/L	74000	169000	174000	193000
	SW6010B	Magnesium - Filtered		µg/L	106000	248000	251000	273000 J
	SW6010B	Potassium - Filtered		µg/L	12300	15500 J	22100	22100
	SW6010B	Sodium - Filtered		µg/L	1410000	1780000	1760000	1740000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 U	0.02 U	0.02 U
Location: 9IF-MW03U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	2.2 J	20 U	10 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.75	3.3	1.7	2.8
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	3.7	0.87	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	12	9.5	6.9	8.2
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	2.4	0.72	0.59	0.9
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	2.5	2.6	2.3	3
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW03U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	Methyl ethyl ketone		µg/L	20 U	34	20 U	20 U
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	3.1	1.2	0.94	1.2
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.96	0.54	0.4 J	0.42 J
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	2.6 J	0.41 J	0.29 J	0.24 J
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	1.9	1	0.93	1.5
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Acenaphthylene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Anthracene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Benzo(a)anthracene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Benzoic acid		µg/L	48 U	47 U	47 U	49 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	19 U	19 U	20 U
	SW8270C	4-Chloroaniline		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	2-Chloronaphthalene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	2-Chlorophenol		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Chrysene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.6 U	9.5 U	9.4 U	9.8 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW03U		**Depth: 20 - 30 feet bgs**						
SVOCs	SW8270C	Dibenz(a,h)anthracene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Dibenzofuran		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	19 U	19 U	20 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Diethylphthalate		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Dimethylphthalate		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	2,4-Dinitrophenol		µg/L	48 U	47 U	47 U	49 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Fluoranthene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Fluorene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Hexachlorobutadiene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Hexachloroethane		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Isophorone		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	2-Methylnaphthalene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	2-Methylphenol		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	4-Methylphenol		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	48 U	47 U	47 U	49 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Naphthalene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	2-Nitroaniline		µg/L	48 U	47 U	47 U	49 U
	SW8270C	3-Nitroaniline		µg/L	48 U	47 U	47 U	49 U
	SW8270C	4-Nitroaniline		µg/L	48 U	47 U	47 U	49 U
	SW8270C	Nitrobenzene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	2-Nitrophenol		µg/L	9.6 U	9.5 U	9.4 U	9.8 UJ
	SW8270C	4-Nitrophenol		µg/L	48 U	47 U	47 U	49 U
	SW8270C	Pentachlorophenol	1	µg/L	48 U	47 U	47 U	49 U
	SW8270C	Phenanthrene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Phenol		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	Pyrene		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.6 U	9.5 U	9.4 U	9.8 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	48 U	47 U	47 U	49 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW03U		**Depth: 20 - 30 feet bgs**						
SVOCs	SW8270C	2,4,6-Trichlorophenol		µg/L	9.6 U	9.5 U	9.4 U	9.8 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U		200 U
	SW6010B	Aluminum	1000	µg/L			200 U	
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U		100 U
	SW6010B	Antimony	6	µg/L			100 U	
	SW6010B	Arsenic - Filtered	50	µg/L	4.63 J	10 U		10 U
	SW6010B	Arsenic	50	µg/L			6.71 J	
	SW6010B	Barium - Filtered	1000	µg/L	72.7	92.5		88.9
	SW6010B	Barium	1000	µg/L			90.9	
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U		2 U
	SW6010B	Beryllium	4	µg/L			2 U	
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	9.64		12.4
	SW6010B	Cadmium	5	µg/L			5.51	
	SW6010B	Chromium - Filtered	50	µg/L	5 U	4.66 J		5 U
	SW6010B	Chromium	50	µg/L			3.32 J	
	SW6010B	Cobalt - Filtered		µg/L	5 U	348		439
	SW6010B	Cobalt		µg/L			310	
	SW6010B	Copper - Filtered	1000	µg/L	5 U	130		193
	SW6010B	Copper	1000	µg/L			102	
	SW6010B	Iron - Filtered	300	µg/L	100 U	3650		3750
	SW6010B	Iron	300	µg/L			1650	
	SW6010B	Lead - Filtered	15	µg/L	5 U	12.7		20.9
	SW6010B	Lead	15	µg/L			9.69	
	SW6010B	Manganese - Filtered	50	µg/L	694	4880		8660
	SW6010B	Manganese	50	µg/L			3510	
	SW6010B	Molybdenum - Filtered		µg/L	40 U	40 U		7.66 J
	SW6010B	Molybdenum		µg/L			8.38 J	
	SW6010B	Nickel - Filtered	100	µg/L	34.7	327		730
	SW6010B	Nickel	100	µg/L			344	
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U		10 U
	SW6010B	Selenium	50	µg/L			10 U	
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U		10 U
	SW6010B	Silver	100	µg/L			10 U	
	SW6010B	Thallium - Filtered	2	µg/L	7.03 J	8.18 J		10 U
	SW6010B	Thallium	2	µg/L			6.17 J	
	SW6010B	Vanadium - Filtered		µg/L	5.55 J	6.59 J		5.5 J
	SW6010B	Vanadium		µg/L			5.63 J	
	SW6010B	Zinc - Filtered	5000	µg/L	11.4 U	210		290
	SW6010B	Zinc	5000	µg/L			143	
	SW6010B	Calcium - Filtered		µg/L	59900	94300		88800
	SW6010B	Calcium		µg/L			98200	
	SW6010B	Magnesium - Filtered		µg/L	109000	177000		161000
	SW6010B	Magnesium		µg/L			183000	
	SW6010B	Potassium - Filtered		µg/L	40600	80300 J		35500

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW03U		**Depth: 20 - 30 feet bgs**						
Metals	SW6010B	Potassium		µg/L			70500 J	
	SW6010B	Sodium - Filtered		µg/L	2060000	2440000		2390000
	SW6010B	Sodium		µg/L			2340000	
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 U	0.006 J	0.02 UJ
Location: 9IF-MW04L		**Depth: 32.7 - 42.7 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	10 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.42 J	0.5 U	0.5 U	0.5 U
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	0.2 J	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.41 J	0.5 U	0.5 U	0.32 J
	SW8260B	1,1-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 UJ
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW04L		**Depth: 32.7 - 42.7 feet bgs**						
VOCs	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Acenaphthylene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Anthracene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Benzo(a)anthracene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Benzoic acid		µg/L	48 U	48 U	47 U	49 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	19 U	19 U	20 U
	SW8270C	4-Chloroaniline		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	2-Chloronaphthalene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	2-Chlorophenol		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Chrysene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Dibenzofuran		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.6 U	9.6 U	9.4 U	9.8 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW04L		**Depth: 32.7 - 42.7 feet bgs**						
SVOCs	SW8270C	1,3-Dichlorobenzene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	19 U	19 U	20 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Diethylphthalate		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Dimethylphthalate		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	2,4-Dinitrophenol		µg/L	48 U	48 U	47 U	49 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Fluoranthene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Fluorene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Hexachlorobutadiene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Hexachloroethane		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Isophorone		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	2-Methylnaphthalene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	2-Methylphenol		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	4-Methylphenol		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	48 U	48 U	47 U	49 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Naphthalene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	2-Nitroaniline		µg/L	48 U	48 U	47 U	49 U
	SW8270C	3-Nitroaniline		µg/L	48 U	48 U	47 U	49 U
	SW8270C	4-Nitroaniline		µg/L	48 U	48 U	47 U	49 U
	SW8270C	Nitrobenzene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	2-Nitrophenol		µg/L	9.6 U	9.6 U	9.4 U	9.8 UJ
	SW8270C	4-Nitrophenol		µg/L	48 U	48 U	47 U	49 U
	SW8270C	Pentachlorophenol	1	µg/L	48 U	48 U	47 U	49 U
	SW8270C	Phenanthrene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Phenol		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	Pyrene		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.6 U	9.6 U	9.4 U	9.8 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	48 U	48 U	47 U	49 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.6 U	9.6 U	9.4 U	9.8 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	200 U	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW04L		**Depth: 32.7 - 42.7 feet bgs**						
Metals	SW6010B	Arsenic - Filtered	50	µg/L	4.25 J	9.7 J	11.3	10 U
	SW6010B	Barium - Filtered	1000	µg/L	48.2	36.8	31.5	35.9
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Cobalt - Filtered		µg/L	18.1	23.9	23.5	20.1
	SW6010B	Copper - Filtered	1000	µg/L	5 U	3.08 J	3.05 J	5 U
	SW6010B	Iron - Filtered	300	µg/L	54.7 J	100 U	100 U	100 U
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Manganese - Filtered	50	µg/L	3920	4230	3950	4420
	SW6010B	Molybdenum - Filtered		µg/L	13.7 J	10.3 J	14.2 J	10.4 J
	SW6010B	Nickel - Filtered	100	µg/L	222	253	246	250
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	6.65 J	10 U	10 U	10 U
	SW6010B	Zinc - Filtered	5000	µg/L	23.6	10 U	10 U	10 U
	SW6010B	Calcium - Filtered		µg/L	268000	280000	253000	285000
	SW6010B	Magnesium - Filtered		µg/L	368000	406000	369000	409000
	SW6010B	Potassium - Filtered		µg/L	13200	34300 J	31400 J	33500 J
	SW6010B	Sodium - Filtered		µg/L	2390000	2010000	1940000	2090000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 U	0.02 U	0.02 U
Location: 9IF-MW04U		**Depth: 19.5 - 29.5 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	10 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.31 J	0.31 J	0.24 J	0.25 J
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	18 J	15 J	20 J	16 J
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.47 J	0.5 U	0.5 U	0.5 U
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW04U		**Depth: 19.5 - 29.5 feet bgs**						
VOCs	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	0.52	0.57	0.46 J	0.48 J
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.8	1.3	1.3	1.2
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	8.8	9.6	7.8	5.9
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.33 J	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	2.8	3.5	2.9	2.9
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Acenaphthylene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Anthracene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Benzo(a)anthracene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.8 U	9.6 U	9.6 U	9.7 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW04U		**Depth: 19.5 - 29.5 feet bgs**						
SVOCs	SW8270C	Benzo(b)fluoranthene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Benzoic acid		µg/L	49 U	48 U	48 U	48 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	20 U	19 U	19 U	19 U
	SW8270C	4-Chloroaniline		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	2-Chloronaphthalene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	2-Chlorophenol		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Chrysene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Dibenzofuran		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	20 U	19 U	19 U	19 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Diethylphthalate		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Dimethylphthalate		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	2,4-Dinitrophenol		µg/L	49 U	48 U	48 U	48 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Fluoranthene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Fluorene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Hexachlorobutadiene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Hexachloroethane		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Isophorone		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	2-Methylnaphthalene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	2-Methylphenol		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	4-Methylphenol		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	49 U	48 U	48 U	48 U
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.8 U	9.6 U	9.6 U	9.7 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW04U		**Depth: 19.5 - 29.5 feet bgs**						
SVOCs	SW8270C	Naphthalene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	2-Nitroaniline		µg/L	49 U	48 U	48 U	48 U
	SW8270C	3-Nitroaniline		µg/L	49 U	48 U	48 U	48 U
	SW8270C	4-Nitroaniline		µg/L	49 U	48 U	48 U	48 U
	SW8270C	Nitrobenzene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	2-Nitrophenol		µg/L	9.8 U	9.6 U	9.6 U	9.7 UJ
	SW8270C	4-Nitrophenol		µg/L	49 U	48 U	48 U	48 U
	SW8270C	Pentachlorophenol	1	µg/L	49 U	48 U	48 U	48 U
	SW8270C	Phenanthrene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Phenol		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	Pyrene		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.8 U	9.6 U	9.6 U	9.7 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	49 U	48 U	48 U	48 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.8 U	9.6 U	9.6 U	9.7 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	200 U	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	5.18 J	6.1 J	10.6	10 U
	SW6010B	Barium - Filtered	1000	µg/L	252	227	187	185
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Cobalt - Filtered		µg/L	83.1	89.2	71.9	84.4
	SW6010B	Copper - Filtered	1000	µg/L	5 U	4.69 J	3.34 J	5 U
	SW6010B	Iron - Filtered	300	µg/L	122	183	226	230
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Manganese - Filtered	50	µg/L	1200	1320	1170	1130
	SW6010B	Molybdenum - Filtered		µg/L	13.7 J	12.1 J	12.7 J	8.98 J
	SW6010B	Nickel - Filtered	100	µg/L	199	219	209	221
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	6.14 J	10 U	10 U	10 U
	SW6010B	Zinc - Filtered	5000	µg/L	16.2	16.4	17.6	12.7
	SW6010B	Calcium - Filtered		µg/L	28100	27300	22500	20800
	SW6010B	Magnesium - Filtered		µg/L	42100	44300	36700	33800 J
	SW6010B	Potassium - Filtered		µg/L	37200	70300 J	51800 J	28900
	SW6010B	Sodium - Filtered		µg/L	883000	839000	798000	770000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 UJ	0.02 U	0.02 U
Location: 9IF-MW05L		**Depth: 33 - 43 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	2.7 J	20 U	10 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW05L		**Depth: 33 - 43 feet bgs**						
VOCs	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.34 J	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.84	0.5 U	0.5 U	0.5 U
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	0.38 J	0.29 J	0.29 J	0.5 U
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW05L		**Depth: 33 - 43 feet bgs**						
VOCs	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Acenaphthylene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Anthracene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Benzo(a)anthracene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Benzoic acid		µg/L	47 U	47 U	47 U	48 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	19 U	19 U	19 U
	SW8270C	4-Chloroaniline		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	2-Chloronaphthalene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	2-Chlorophenol		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Chrysene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Dibenzofuran		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	19 U	19 U	19 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Diethylphthalate		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Dimethylphthalate		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	2,4-Dinitrophenol		µg/L	47 U	47 U	47 U	48 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW05L		**Depth: 33 - 43 feet bgs**						
SVOCs	SW8270C	2,4-Dinitrotoluene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Fluoranthene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Fluorene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Hexachlorobutadiene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Hexachloroethane		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Isophorone		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	2-Methylnaphthalene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	2-Methylphenol		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	4-Methylphenol		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	47 U	47 U	47 U	48 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Naphthalene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	2-Nitroaniline		µg/L	47 U	47 U	47 U	48 U
	SW8270C	3-Nitroaniline		µg/L	47 U	47 U	47 U	48 U
	SW8270C	4-Nitroaniline		µg/L	47 U	47 U	47 U	48 U
	SW8270C	Nitrobenzene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	2-Nitrophenol		µg/L	9.5 U	9.4 U	9.5 U	9.7 UJ
	SW8270C	4-Nitrophenol		µg/L	47 U	47 U	47 U	48 U
	SW8270C	Pentachlorophenol	1	µg/L	47 U	47 U	47 U	48 U
	SW8270C	Phenanthrene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Phenol		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	Pyrene		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.5 U	9.4 U	9.5 U	9.7 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	47 U	47 U	47 U	48 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.5 U	9.4 U	9.5 U	9.7 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	63.7 J	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	6.37 J	8.57 J	10 U	9.85 J
	SW6010B	Barium - Filtered	1000	µg/L	34.8	18.1	21.8	28.8
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Cobalt - Filtered		µg/L	14.4	8.34	10.2	6.84
	SW6010B	Copper - Filtered	1000	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Iron - Filtered	300	µg/L	93.6 J	61.2 J	100 U	117

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW05L		**Depth: 33 - 43 feet bgs**						
Metals	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Manganese - Filtered	50	µg/L	386	240	406	384
	SW6010B	Molybdenum - Filtered		µg/L	18.3 J	6.94 J	9.85 J	6.59 J
	SW6010B	Nickel - Filtered	100	µg/L	555	536	507	506
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	10.1	10 U	10 U	10 U
	SW6010B	Zinc - Filtered	5000	µg/L	37.1	8.78 J	5.1 J	9.97 J
	SW6010B	Calcium - Filtered		µg/L	47700	26200	36100	36300
	SW6010B	Magnesium - Filtered		µg/L	55000	31500	43300	43500
	SW6010B	Potassium - Filtered		µg/L	7390	6990	5450	63300
	SW6010B	Sodium - Filtered		µg/L	1250000	895000	939000	959000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 U	0.02 U	0.02 U
Location: 9IF-MW05U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	2.5 J	20 U	10 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	1.2	0.5 U	0.31 J	0.5 U
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	42	25	36	100
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.24 J	0.42 J
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.21 J	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW05U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	1.4 J	1 J	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 UJ
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.21 J
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	1.2	0.5 U	0.5 U	1.8
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Acenaphthylene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Anthracene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Benzo(a)anthracene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Benzoic acid		µg/L	48 U	47 U	47 U	49 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.7 U	9.4 U	9.5 U	9.8 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW05U		**Depth: 20 - 30 feet bgs**						
SVOCs	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	19 U	19 U	20 U
	SW8270C	4-Chloroaniline		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	2-Chloronaphthalene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	2-Chlorophenol		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Chrysene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Dibenzofuran		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	19 U	19 U	20 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Diethylphthalate		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Dimethylphthalate		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	2,4-Dinitrophenol		µg/L	48 U	47 U	47 U	49 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Fluoranthene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Fluorene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Hexachlorobutadiene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Hexachloroethane		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Isophorone		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	2-Methylnaphthalene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	2-Methylphenol		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	4-Methylphenol		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	48 U	47 U	47 U	49 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Naphthalene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	2-Nitroaniline		µg/L	48 U	47 U	47 U	49 U
	SW8270C	3-Nitroaniline		µg/L	48 U	47 U	47 U	49 U
	SW8270C	4-Nitroaniline		µg/L	48 U	47 U	47 U	49 U
	SW8270C	Nitrobenzene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	2-Nitrophenol		µg/L	9.7 U	9.4 U	9.5 U	9.8 UJ
	SW8270C	4-Nitrophenol		µg/L	48 U	47 U	47 U	49 U
	SW8270C	Pentachlorophenol	1	µg/L	48 U	47 U	47 U	49 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW05U		**Depth: 20 - 30 feet bgs**						
SVOCs	SW8270C	Phenanthrene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Phenol		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	Pyrene		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.7 U	9.4 U	9.5 U	9.8 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	48 U	47 U	47 U	49 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.7 U	9.4 U	9.5 U	9.8 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	200 U	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	4.41 J	10 U	10 U	10 U
	SW6010B	Barium - Filtered	1000	µg/L	80.1	150	135	150
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Cobalt - Filtered		µg/L	27.3	18.6	9.75	15.3
	SW6010B	Copper - Filtered	1000	µg/L	5 U	3.98 J	3.69 J	5 U
	SW6010B	Iron - Filtered	300	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Manganese - Filtered	50	µg/L	551	485	5.8 J	10 U
	SW6010B	Molybdenum - Filtered		µg/L	40 U	40 U	40 U	40 U
	SW6010B	Nickel - Filtered	100	µg/L	101	66.7	33.5	41.9
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Silver - Filtered	100	µg/L	7.6 J	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	7.33 J	5.56 J	10 U	10 U
	SW6010B	Zinc - Filtered	5000	µg/L	10 U	9.53 J	10 U	5.09 J
	SW6010B	Calcium - Filtered		µg/L	11900	21200	27500	28100
	SW6010B	Magnesium - Filtered		µg/L	16900	30200	26700	25800
	SW6010B	Potassium - Filtered		µg/L	22000	40900 J	27600	29600 J
	SW6010B	Sodium - Filtered		µg/L	381000	223000	184000	184000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 U	0.02 U	0.02 U
Location: 9IF-MW06L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	150	5.6 J
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.67	0.43 J
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	2.6	3.4
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW06L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.52	0.33 J	13	3.2
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	1.5	1.4
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	7.6	13	3.7	15
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	0.44 J	0.61	0.5 U	0.5 U
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 UJ	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	7	6.9	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	29	20 UJ
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	4.3
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	0.53 J
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.28 J	0.2 J	0.63	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW06L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Acenaphthylene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Anthracene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Benzo(a)anthracene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Benzoic acid		µg/L	47 U	50 U	47 U	48 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	12 J	19 U	19 U
	SW8270C	4-Chloroaniline		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	2-Chloronaphthalene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	2-Chlorophenol		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Chrysene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Dibenzofuran		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	20 U	19 U	19 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Diethylphthalate		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Dimethylphthalate		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	2,4-Dinitrophenol		µg/L	47 U	50 U	47 U	48 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Fluoranthene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Fluorene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Hexachlorobutadiene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Hexachloroethane		µg/L	9.5 U	10 U	9.4 U	9.6 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW06L		**Depth: 31 - 41 feet bgs**						
SVOCs	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Isophorone		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	2-Methylnaphthalene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	2-Methylphenol		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	4-Methylphenol		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	47 U	50 U	47 U	48 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Naphthalene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	2-Nitroaniline		µg/L	47 U	50 U	47 U	48 U
	SW8270C	3-Nitroaniline		µg/L	47 U	50 U	47 U	48 U
	SW8270C	4-Nitroaniline		µg/L	47 U	50 U	47 U	48 U
	SW8270C	Nitrobenzene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	2-Nitrophenol		µg/L	9.5 U	10 U	9.4 U	9.6 UJ
	SW8270C	4-Nitrophenol		µg/L	47 U	50 U	47 U	48 U
	SW8270C	Pentachlorophenol	1	µg/L	47 U	50 U	47 U	48 U
	SW8270C	Phenanthrene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Phenol		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	Pyrene		µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.5 U	10 U	9.4 U	9.6 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	47 U	50 U	47 U	48 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.5 U	10 U	9.4 U	9.6 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	338	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	10 U	8.33 J	10 U	16.9
	SW6010B	Barium - Filtered	1000	µg/L	23	25.4	2.2 J	3.09 J
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U	7.13	1.2 J
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U	22.4	2.93 J
	SW6010B	Cobalt - Filtered		µg/L	5 U	3.05 J	397	316 J
	SW6010B	Copper - Filtered	1000	µg/L	5 U	2.4 J	581	34.6
	SW6010B	Iron - Filtered	300	µg/L	100 U	369	138000	25300
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	10.1	5 U
	SW6010B	Manganese - Filtered	50	µg/L	842	1180	2280	1770
	SW6010B	Molybdenum - Filtered		µg/L	40 U	40 U	40 U	5.53 J
	SW6010B	Nickel - Filtered	100	µg/L	38.2	48.5	860	673 J
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	11.5	10 U
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	9.5 J	6.48 J
	SW6010B	Vanadium - Filtered		µg/L	6.47 J	10 U	36.5	159

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW06L		**Depth: 31 - 41 feet bgs**						
Metals	SW6010B	Zinc - Filtered	5000	µg/L	12	6.65 J	476	168
	SW6010B	Calcium - Filtered		µg/L	146000	177000	49500	84600 J
	SW6010B	Magnesium - Filtered		µg/L	219000	280000	55900	126000
	SW6010B	Potassium - Filtered		µg/L	11500	22400	108000	59200 J
	SW6010B	Sodium - Filtered		µg/L	2360000	2340000	1090000	1300000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 UJ	0.02 U	0.02 U	0.02 U
Location: 9IF-MW06U		**Depth: 21 - 31 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	22	10 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.69	0.22 J	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.31 J	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.39 J	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	1.4	0.21 J	2.8	0.75
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	4.4	31	8.3	13
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	14	5.9	3.7	3
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.23 J	0.4 J	0.5 U	0.22 J
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	15 J	20 U	20 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW06U		**Depth: 21 - 31 feet bgs**						
VOCs	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	2.4	1.1	0.39 J	0.54
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Acenaphthylene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Anthracene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Benzo(a)anthracene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Benzoic acid		µg/L	47 U	48 U	47 U	48 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	19 U	19 U	19 U
	SW8270C	4-Chloroaniline		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	2-Chloronaphthalene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	2-Chlorophenol		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Chrysene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW06U		**Depth: 21 - 31 feet bgs**						
SVOCs	SW8270C	Dibenzofuran		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	19 U	19 U	19 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Diethylphthalate		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Dimethylphthalate		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	2,4-Dinitrophenol		µg/L	47 U	48 U	47 U	48 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Fluoranthene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Fluorene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Hexachlorobutadiene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Hexachloroethane		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Isophorone		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	2-Methylnaphthalene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	2-Methylphenol		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	4-Methylphenol		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	47 U	48 U	47 U	48 U
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Naphthalene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	2-Nitroaniline		µg/L	47 U	48 U	47 U	48 U
	SW8270C	3-Nitroaniline		µg/L	47 U	48 U	47 U	48 U
	SW8270C	4-Nitroaniline		µg/L	47 U	48 U	47 U	48 U
	SW8270C	Nitrobenzene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	2-Nitrophenol		µg/L	9.5 U	9.7 U	9.5 U	9.6 UJ
	SW8270C	4-Nitrophenol		µg/L	47 U	48 U	47 U	48 U
	SW8270C	Pentachlorophenol	1	µg/L	47 U	48 U	47 U	48 U
	SW8270C	Phenanthrene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Phenol		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	Pyrene		µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.5 U	9.7 U	9.5 U	9.6 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	47 U	48 U	47 U	48 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.5 U	9.7 U	9.5 U	9.6 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW06U		**Depth: 21 - 31 feet bgs**						
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	82.8 J	396	200 U	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	14.8	12.2	10 U	10 U
	SW6010B	Barium - Filtered	1000	µg/L	12.6	24.7	114	107
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U	18	6.36
	SW6010B	Chromium - Filtered	50	µg/L	5 U	3.27 J	6.17	3.73 J
	SW6010B	Cobalt - Filtered		µg/L	6.61	5 U	413	443
	SW6010B	Copper - Filtered	1000	µg/L	5 U	6.96	726	481
	SW6010B	Iron - Filtered	300	µg/L	93.3 J	621	16100	4730
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	120	21.7
	SW6010B	Manganese - Filtered	50	µg/L	9.92 J	10.5	4030	639
	SW6010B	Molybdenum - Filtered		µg/L	13.7 J	37.6 J	27.8 J	11.1 J
	SW6010B	Nickel - Filtered	100	µg/L	10 U	13.7	969	786
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	26.5	23.9	19	15.9
	SW6010B	Zinc - Filtered	5000	µg/L	10 U	13.2	548	136
	SW6010B	Calcium - Filtered		µg/L	3100	4550	24200	25800
	SW6010B	Magnesium - Filtered		µg/L	3220	4770	20400	19900 J
	SW6010B	Potassium - Filtered		µg/L	5560	8590 J	24600 J	22800
	SW6010B	Sodium - Filtered		µg/L	268000	280000	529000	428000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 UJ	0.02 UJ	0.02 U	0.02 U
Location: 9IF-MW07L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	50	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.42 J	0.5 U	6	7.1
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

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Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW07L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	10	18	5.3	4.1
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	1.8	3.9	0.5 U	0.37 J
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	4	7.1	0.68	1.4
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	2 J	5 U	1.8 J	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	81	20 U
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	31	53	5.8	11
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.8	0.97	0.5 U	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Acenaphthylene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Anthracene		µg/L	9.4 U	9.9 U	9.5 U	10 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW07L		**Depth: 31 - 41 feet bgs**						
SVOCs	SW8270C	Benzo(a)anthracene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Benzoic acid		µg/L	47 U	50 U	47 U	50 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	20 U	19 U	20 U
	SW8270C	4-Chloroaniline		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	2-Chloronaphthalene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	2-Chlorophenol		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Chrysene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Dibenzofuran		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	20 U	19 U	20 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Diethylphthalate		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Dimethylphthalate		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	2,4-Dinitrophenol		µg/L	47 U	50 U	47 U	50 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Fluoranthene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Fluorene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Hexachlorobutadiene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Hexachloroethane		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Isophorone		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	2-Methylnaphthalene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	2-Methylphenol		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	4-Methylphenol		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	47 U	50 U	47 U	50 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.4 U	9.9 U	9.5 U	10 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW07L		**Depth: 31 - 41 feet bgs**						
SVOCs	SW8270C	N-Nitrosodimethylamine		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Naphthalene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	2-Nitroaniline		µg/L	47 U	50 U	47 U	50 U
	SW8270C	3-Nitroaniline		µg/L	47 U	50 U	47 U	50 U
	SW8270C	4-Nitroaniline		µg/L	47 U	50 U	47 U	50 U
	SW8270C	Nitrobenzene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	2-Nitrophenol		µg/L	9.4 U	9.9 U	9.5 U	10 UJ
	SW8270C	4-Nitrophenol		µg/L	47 U	50 U	47 U	50 U
	SW8270C	Pentachlorophenol	1	µg/L	47 U	50 U	47 U	50 U
	SW8270C	Phenanthrene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Phenol		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	Pyrene		µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.4 U	9.9 U	9.5 U	10 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	47 U	50 U	47 U	50 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.4 U	9.9 U	9.5 U	10 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	223	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	6.5 J	6.02 J	33.3	51.5
	SW6010B	Barium - Filtered	1000	µg/L	38.4	31.7	14.4	11.9
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U	6.06	12.9
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U	12.3	9.26
	SW6010B	Cobalt - Filtered		µg/L	5 U	5 U	216	349
	SW6010B	Copper - Filtered	1000	µg/L	5 U	5 U	184	288
	SW6010B	Iron - Filtered	300	µg/L	100 U	100 U	36200	9430
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	7.84	19
	SW6010B	Manganese - Filtered	50	µg/L	330	205	1280	3190
	SW6010B	Molybdenum - Filtered		µg/L	13.7 J	5.68 J	8.65 J	10.5 J
	SW6010B	Nickel - Filtered	100	µg/L	74.7	41.8	623	706
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	7.23 J	6.61 J
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	10.2	10 U	77.9	68.2
	SW6010B	Zinc - Filtered	5000	µg/L	13.2	8.9 J	149	258
	SW6010B	Calcium - Filtered		µg/L	30500	20600	30300	27300
	SW6010B	Magnesium - Filtered		µg/L	43700	30000	45000	40200
	SW6010B	Potassium - Filtered		µg/L	5030	9310	56900	42400
	SW6010B	Sodium - Filtered		µg/L	1170000	893000	1000000	903000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 UJ	0.02 U	0.02 U	0.02 UJ

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW07U		**Depth: 21 - 31 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	10 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	3.3	4.1	3.6	4
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW07U		**Depth: 21 - 31 feet bgs**						
VOCs	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Acenaphthylene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Anthracene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Benzo(a)anthracene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Benzoic acid		µg/L	47 U	47 U	48 U	51 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	19 U	19 U	20 U
	SW8270C	4-Chloroaniline		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	2-Chloronaphthalene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	2-Chlorophenol		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Chrysene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Dibenzofuran		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	19 U	19 U	20 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Diethylphthalate		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.5 U	9.4 U	9.6 U	10 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW07U		**Depth: 21 - 31 feet bgs**						
SVOCs	SW8270C	Dimethylphthalate		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	2,4-Dinitrophenol		µg/L	47 U	47 U	48 U	51 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Fluoranthene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Fluorene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Hexachlorobutadiene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Hexachloroethane		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Isophorone		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	2-Methylnaphthalene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	2-Methylphenol		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	4-Methylphenol		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	47 U	47 U	48 U	51 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Naphthalene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	2-Nitroaniline		µg/L	47 U	47 U	48 U	51 U
	SW8270C	3-Nitroaniline		µg/L	47 U	47 U	48 U	51 U
	SW8270C	4-Nitroaniline		µg/L	47 U	47 U	48 U	51 U
	SW8270C	Nitrobenzene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	2-Nitrophenol		µg/L	9.5 U	9.4 U	9.6 U	10 UJ
	SW8270C	4-Nitrophenol		µg/L	47 U	47 U	48 U	51 U
	SW8270C	Pentachlorophenol	1	µg/L	47 U	47 U	48 U	51 U
	SW8270C	Phenanthrene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Phenol		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	Pyrene		µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.5 U	9.4 U	9.6 U	10 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	47 U	47 U	48 U	51 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.5 U	9.4 U	9.6 U	10 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U		200 U
	SW6010B	Aluminum	1000	µg/L			200 U	
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U		100 U
	SW6010B	Antimony	6	µg/L			100 U	
	SW6010B	Arsenic - Filtered	50	µg/L	11.3	10.3		8.52 J
	SW6010B	Arsenic	50	µg/L			11.1	
	SW6010B	Barium - Filtered	1000	µg/L	24.5	14.6		15.2
	SW6010B	Barium	1000	µg/L			13.3	

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW07U		**Depth: 21 - 31 feet bgs**						
Metals	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U		2 U
	SW6010B	Beryllium	4	µg/L			2 U	
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U		2 U
	SW6010B	Cadmium	5	µg/L			2 U	
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U		5 U
	SW6010B	Chromium	50	µg/L			5 U	
	SW6010B	Cobalt - Filtered		µg/L	63	71.1		88.2
	SW6010B	Cobalt		µg/L			72.2	
	SW6010B	Copper - Filtered	1000	µg/L	9.16	3.75 J		5 U
	SW6010B	Copper	1000	µg/L			3.11 J	
	SW6010B	Iron - Filtered	300	µg/L	100 U	100 U		100 U
	SW6010B	Iron	300	µg/L			100 U	
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U		5 U
	SW6010B	Lead	15	µg/L			5 U	
	SW6010B	Manganese - Filtered	50	µg/L	74.5	83.8		124
	SW6010B	Manganese	50	µg/L			99	
	SW6010B	Molybdenum - Filtered		µg/L	19.8 J	18.7 J		16.8 J
	SW6010B	Molybdenum		µg/L			12.5 J	
	SW6010B	Nickel - Filtered	100	µg/L	309	344		363
	SW6010B	Nickel	100	µg/L			325	
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U		10 U
	SW6010B	Selenium	50	µg/L			10 U	
	SW6010B	Silver - Filtered	100	µg/L	6.13 J	10 U		10 U
	SW6010B	Silver	100	µg/L			10 U	
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U		10 U
	SW6010B	Thallium	2	µg/L			10 U	
	SW6010B	Vanadium - Filtered		µg/L	16.3	11.6		7.88 J
	SW6010B	Vanadium		µg/L			12	
	SW6010B	Zinc - Filtered	5000	µg/L	14.2 U	8.52 J		5.28 J
	SW6010B	Zinc	5000	µg/L			11.2	
	SW6010B	Calcium - Filtered		µg/L	7610	5940		4700
	SW6010B	Calcium		µg/L			4810	
	SW6010B	Magnesium - Filtered		µg/L	8360	7280		5770
	SW6010B	Magnesium		µg/L			6140	
	SW6010B	Potassium - Filtered		µg/L	6360	6750		6130 J
	SW6010B	Potassium		µg/L			4170 J	
	SW6010B	Sodium - Filtered		µg/L	638000	635000		535000
	SW6010B	Sodium		µg/L			482000	
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 U	0.02 U	0.02 U
Location: 9IF-MW08L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	20 U	3.3 J
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW08L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.56
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.3 J	0.56	0.61	3.3
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	64	49	47	45
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	19	17	15	8.3
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.81	0.87	0.8	0.45 J
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	1	1.2	1	0.95
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	1.6 J	1.5 J	1.9 J	1.1 J
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW08L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	7.6	7.9	9.7	4.9
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	4.6	2.2	1.8	1.3
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Acenaphthylene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Anthracene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Benzo(a)anthracene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Benzoic acid		µg/L	47 U	55 U	47 U	50 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	22 U	19 U	20 U
	SW8270C	4-Chloroaniline		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	2-Chloronaphthalene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	2-Chlorophenol		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Chrysene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Dibenzofuran		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	22 U	19 U	20 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Diethylphthalate		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Dimethylphthalate		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	2,4-Dinitrophenol		µg/L	47 U	55 U	47 U	50 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.4 U	11 U	9.5 U	10 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW08L		**Depth: 31 - 41 feet bgs**						
SVOCs	SW8270C	2,6-Dinitrotoluene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Fluoranthene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Fluorene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Hexachlorobutadiene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Hexachloroethane		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Isophorone		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	2-Methylnaphthalene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	2-Methylphenol		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	4-Methylphenol		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	47 U	55 U	47 U	50 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Naphthalene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	2-Nitroaniline		µg/L	47 U	55 U	47 U	50 U
	SW8270C	3-Nitroaniline		µg/L	47 U	55 U	47 U	50 U
	SW8270C	4-Nitroaniline		µg/L	47 U	55 U	47 U	50 U
	SW8270C	Nitrobenzene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	2-Nitrophenol		µg/L	9.4 U	11 U	9.5 U	10 UJ
	SW8270C	4-Nitrophenol		µg/L	47 U	55 U	47 U	50 U
	SW8270C	Pentachlorophenol	1	µg/L	47 U	55 U	47 U	50 U
	SW8270C	Phenanthrene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Phenol		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	Pyrene		µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.4 U	11 U	9.5 U	10 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	47 U	55 U	47 U	50 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.4 U	11 U	9.5 U	10 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	86.2 J	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	6.28 J	8.05 J	10 U	28.8
	SW6010B	Barium - Filtered	1000	µg/L	25.8	21.2	23	24.9
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	6.64	2.65	25.4
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U	5 U	80.8
	SW6010B	Cobalt - Filtered		µg/L	5 U	193	198	461
	SW6010B	Copper - Filtered	1000	µg/L	5 U	111	52.5	305
	SW6010B	Iron - Filtered	300	µg/L	100 U	1550	237	3120
	SW6010B	Lead - Filtered	15	µg/L	5 U	29.7	5.28 J	17.4

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW08L		**Depth: 31 - 41 feet bgs**						
Metals	SW6010B	Manganese - Filtered	50	µg/L	114	1420	393	3100
	SW6010B	Molybdenum - Filtered		µg/L	12.2 J	16 J	14.3 J	22 J
	SW6010B	Nickel - Filtered	100	µg/L	54.5	157	142	636
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	8.07 J	15.2	12.5	41.3
	SW6010B	Zinc - Filtered	5000	µg/L	6.5 J	156	52	327
	SW6010B	Calcium - Filtered		µg/L	17900	14000	14000	18100
	SW6010B	Magnesium - Filtered		µg/L	22300	17300	17400	23000
	SW6010B	Potassium - Filtered		µg/L	4510	5690 J	5120	20400
	SW6010B	Sodium - Filtered		µg/L	793000	639000	628000	664000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 U	0.02 UJ	0.028
Location: 9IF-MW08U		**Depth: 21 - 31 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	10 U	8 J
	SW8260B	Benzene	1	µg/L	0.79	1.3	0.86	0.54
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.41 J
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	24	44	37	35
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.36 J	0.5 U	0.5 U	5.3
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	11	9.8	8.1	2
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	9.4	7.7	6.1	0.99
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	3.1	3.7	3.1	2.1

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW08U		**Depth: 21 - 31 feet bgs**						
VOCs	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	0.77 J
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	7.8	9.2	11	15
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	1.2	0.88	0.56	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Acenaphthylene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Anthracene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Benzo(a)anthracene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Benzoic acid		µg/L	47 U	47 U	47 U	50 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	19 U	19 U	20 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW08U		**Depth: 21 - 31 feet bgs**						
SVOCs	SW8270C	4-Chloroaniline		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	2-Chloronaphthalene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	2-Chlorophenol		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Chrysene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Dibenzofuran		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	19 U	19 U	20 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Diethylphthalate		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Dimethylphthalate		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	2,4-Dinitrophenol		µg/L	47 U	47 U	47 U	50 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Fluoranthene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Fluorene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Hexachlorobutadiene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Hexachloroethane		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Isophorone		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	2-Methylnaphthalene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	2-Methylphenol		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	4-Methylphenol		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	47 U	47 U	47 U	50 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Naphthalene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	2-Nitroaniline		µg/L	47 U	47 U	47 U	50 U
	SW8270C	3-Nitroaniline		µg/L	47 U	47 U	47 U	50 U
	SW8270C	4-Nitroaniline		µg/L	47 U	47 U	47 U	50 U
	SW8270C	Nitrobenzene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	2-Nitrophenol		µg/L	9.5 U	9.4 U	9.4 U	9.9 UJ
	SW8270C	4-Nitrophenol		µg/L	47 U	47 U	47 U	50 U
	SW8270C	Pentachlorophenol	1	µg/L	47 U	47 U	47 U	50 U
	SW8270C	Phenanthrene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW08U		**Depth: 21 - 31 feet bgs**						
SVOCs	SW8270C	Phenol		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	Pyrene		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.5 U	9.4 U	9.4 U	9.9 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	47 U	47 U	47 U	50 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.5 U	9.4 U	9.4 U	9.9 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	87.7 J	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	6.45 J	10 U	10 U	10.2
	SW6010B	Barium - Filtered	1000	µg/L	40.2	40.2	36.8	4.99 J
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U	2 U	36.4
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U	5 U	7.25
	SW6010B	Cobalt - Filtered		µg/L	5 U	5 U	5 U	587
	SW6010B	Copper - Filtered	1000	µg/L	5 U	2.25 J	6.83	614
	SW6010B	Iron - Filtered	300	µg/L	100 U	100 U	100 U	18200
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	2.98 J	4.43 J
	SW6010B	Manganese - Filtered	50	µg/L	208	323	109	2510
	SW6010B	Molybdenum - Filtered		µg/L	16.7 J	13.9 J	20.6 J	18 J
	SW6010B	Nickel - Filtered	100	µg/L	23.3	19.9	18.9	1450
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	5.14 J	10 U
	SW6010B	Silver - Filtered	100	µg/L	6.45 J	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	6.83 J	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	8.93 J	6.99 J	29.2	52.7
	SW6010B	Zinc - Filtered	5000	µg/L	11.7 U	10 U	72.2	894
	SW6010B	Calcium - Filtered		µg/L	15100	17900	16600	69800
	SW6010B	Magnesium - Filtered		µg/L	22500	28000	24000	57200
	SW6010B	Potassium - Filtered		µg/L	7400	6900 J	12200	136000
	SW6010B	Sodium - Filtered		µg/L	816000	871000	832000	1010000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 U	0.02 U	0.02 U
Location: 9IF-MW09L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	1000	20 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	1.8	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	3	0.5 U	0.5 U	0.48 J
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW09L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	3	2.2	1.6	1.5
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	1.9	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	92	180	120	160
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	5.8	6.9	5.7	6.9
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.77	1.1	0.74	0.86
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	240 J	20 U	20 UJ
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW09L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	2.1	2.7	2	3.3
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Acenaphthylene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Anthracene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Benzo(a)anthracene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Benzoic acid		µg/L	48 U	50 U	47 U	49 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	20 U	19 U	20 U
	SW8270C	4-Chloroaniline		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	2-Chloronaphthalene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	2-Chlorophenol		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Chrysene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Dibenzofuran		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	20 U	19 U	20 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Diethylphthalate		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Dimethylphthalate		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	2,4-Dinitrophenol		µg/L	48 U	50 U	47 U	49 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Fluoranthene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Fluorene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Hexachlorobutadiene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Hexachloroethane		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.7 U	10 U	9.4 U	9.8 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW09L		**Depth: 31 - 41 feet bgs**						
SVOCs	SW8270C	Isophorone		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	2-Methylnaphthalene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	2-Methylphenol		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	4-Methylphenol		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	48 U	50 U	47 U	49 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Naphthalene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	2-Nitroaniline		µg/L	48 U	50 U	47 U	49 U
	SW8270C	3-Nitroaniline		µg/L	48 U	50 U	47 U	49 U
	SW8270C	4-Nitroaniline		µg/L	48 U	50 U	47 U	49 U
	SW8270C	Nitrobenzene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	2-Nitrophenol		µg/L	9.7 U	10 U	9.4 U	9.8 UJ
	SW8270C	4-Nitrophenol		µg/L	48 U	50 U	47 U	49 U
	SW8270C	Pentachlorophenol	1	µg/L	48 U	50 U	47 U	49 U
	SW8270C	Phenanthrene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Phenol		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	Pyrene		µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.7 U	10 U	9.4 U	9.8 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	48 U	50 U	47 U	49 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.7 U	10 U	9.4 U	9.8 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	61.2 J	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	11.5	6.62 J	10 U	6.56 J
	SW6010B	Barium - Filtered	1000	µg/L	21.5	16.8	18	25.4
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	1.79 J	1.48 J	5.15
	SW6010B	Chromium - Filtered	50	µg/L	5 U	4.4 J	7.77	4.39 J
	SW6010B	Cobalt - Filtered		µg/L	5 U	112	128	363
	SW6010B	Copper - Filtered	1000	µg/L	5 U	35.7	23.2	80.3
	SW6010B	Iron - Filtered	300	µg/L	100 U	1310	61.8 J	238
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Manganese - Filtered	50	µg/L	61.7	145	215	645
	SW6010B	Molybdenum - Filtered		µg/L	40 U	40 U	40 U	40 U
	SW6010B	Nickel - Filtered	100	µg/L	23.9	89.8	96.2	191
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	13.9	14.6	17.7	11.2
	SW6010B	Zinc - Filtered	5000	µg/L	9.4 J	105	40.8	82.7

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW09L		**Depth: 31 - 41 feet bgs**						
Metals	SW6010B	Calcium - Filtered		µg/L	16600	12400	16800	21000
	SW6010B	Magnesium - Filtered		µg/L	20100	14100	19400	23800
	SW6010B	Potassium - Filtered		µg/L	5340	5270 J	4910	4900 J
	SW6010B	Sodium - Filtered		µg/L	466000	418000	457000	497000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 UJ	0.02 U	0.02 UJ	0.02 UJ
Location: 9IF-MW09U		**Depth: 22 - 32 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	10 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	0.36 J	0.3 J	0.23 J	0.37 J
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.28 J	0.5 U	0.23 J
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	1.9 J	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW09U		**Depth: 22 - 32 feet bgs**						
VOCs	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.24 J	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Acenaphthylene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Anthracene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Benzo(a)anthracene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Benzoic acid		µg/L	49 U	50 U	47 U	47 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	20 U	20 U	19 U	19 U
	SW8270C	4-Chloroaniline		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	2-Chloronaphthalene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	2-Chlorophenol		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Chrysene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Dibenzofuran		µg/L	9.8 U	9.9 U	9.4 U	9.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW09U		**Depth: 22 - 32 feet bgs**						
SVOCs	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	20 U	20 U	19 U	19 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Diethylphthalate		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Dimethylphthalate		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	2,4-Dinitrophenol		µg/L	49 U	50 U	47 U	47 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Fluoranthene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Fluorene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Hexachlorobutadiene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Hexachloroethane		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Isophorone		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	2-Methylnaphthalene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	2-Methylphenol		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	4-Methylphenol		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	49 U	50 U	47 U	47 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Naphthalene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	2-Nitroaniline		µg/L	49 U	50 U	47 U	47 U
	SW8270C	3-Nitroaniline		µg/L	49 U	50 U	47 U	47 U
	SW8270C	4-Nitroaniline		µg/L	49 U	50 U	47 U	47 U
	SW8270C	Nitrobenzene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	2-Nitrophenol		µg/L	9.8 U	9.9 U	9.4 U	9.5 UJ
	SW8270C	4-Nitrophenol		µg/L	49 U	50 U	47 U	47 U
	SW8270C	Pentachlorophenol	1	µg/L	49 U	50 U	47 U	47 U
	SW8270C	Phenanthrene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Phenol		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	Pyrene		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.8 U	9.9 U	9.4 U	9.5 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	49 U	50 U	47 U	47 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.8 U	9.9 U	9.4 U	9.5 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	200 U	200 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW09U		**Depth: 22 - 32 feet bgs**						
Metals	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	7.04 J	7.56 J	9.63 J	8.87 J
	SW6010B	Barium - Filtered	1000	µg/L	58.3	42.8	36.6	40.2
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Cobalt - Filtered		µg/L	9.36	2.66 J	2.54 J	5 U
	SW6010B	Copper - Filtered	1000	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Iron - Filtered	300	µg/L	100 U	100 U	97.6 J	75.5 J
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Manganese - Filtered	50	µg/L	369	202	211	215
	SW6010B	Molybdenum - Filtered		µg/L	22.8 J	26.3 J	27.7 J	25.7 J
	SW6010B	Nickel - Filtered	100	µg/L	46.2	33.4	27.7	28.6
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Silver - Filtered	100	µg/L	6.94 J	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	9.39 J	6.52 J	10 U	10 U
	SW6010B	Zinc - Filtered	5000	µg/L	11.7 U	7.24 J	10 U	5.43 J
	SW6010B	Calcium - Filtered		µg/L	32500	18600	17100	19000
	SW6010B	Magnesium - Filtered		µg/L	58000	28900	25200	26400
	SW6010B	Potassium - Filtered		µg/L	12200	21900 J	18700	10600
	SW6010B	Sodium - Filtered		µg/L	1540000	1010000	982000	990000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 UJ	0.02 U	0.02 U	0.02 U
Location: 9IF-MW10L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	10 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.21 J	0.5 U	3.7	5.1
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW10L		**Depth: 31 - 41 feet bgs**						
VOCs	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	15	11	27	19
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	4.4	3.4	4	2.6
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 UJ
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.32 J	0.5 U	0.5 U	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Acenaphthylene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Anthracene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Benzo(a)anthracene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW10L		**Depth: 31 - 41 feet bgs**						
SVOCs	SW8270C	Benzo(a)pyrene	0.2	µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Benzo(b)fluoranthene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Benzo(k)fluoranthene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Benzoic acid		µg/L	50 U	47 U	47 UJ	50 U
	SW8270C	Benzyl butyl phthalate		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	20 UJ	19 U	19 UJ	20 U
	SW8270C	4-Chloroaniline		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	2-Chloronaphthalene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	2-Chlorophenol		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Chrysene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Di-n-butyl phthalate		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Di-n-octyl phthalate		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Dibenzofuran		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	1,3-Dichlorobenzene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	20 U	19 U	19 UJ	20 U
	SW8270C	2,4-Dichlorophenol		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Diethylphthalate		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	2,4-Dimethylphenol		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Dimethylphthalate		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	2,4-Dinitrophenol		µg/L	50 U	47 U	47 UJ	50 U
	SW8270C	2,4-Dinitrotoluene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	2,6-Dinitrotoluene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Fluoranthene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Fluorene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Hexachlorobenzene	1	µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Hexachlorobutadiene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Hexachloroethane		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Isophorone		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	2-Methylnaphthalene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	2-Methylphenol		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	4-Methylphenol		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	50 U	47 U	47 UJ	50 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	N-Nitrosodimethylamine		µg/L	10 U	9.5 U	9.4 UJ	9.9 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sca Post Inj III Dec 2005
Location: 9IF-MW10L		**Depth: 31 - 41 feet bgs**						
SVOCs	SW8270C	N-Nitrosodiphenylamine		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Naphthalene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	2-Nitroaniline		µg/L	50 U	47 U	47 UJ	50 U
	SW8270C	3-Nitroaniline		µg/L	50 U	47 U	47 UJ	50 U
	SW8270C	4-Nitroaniline		µg/L	50 U	47 U	47 UJ	50 U
	SW8270C	Nitrobenzene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	2-Nitrophenol		µg/L	10 U	9.5 U	9.4 UJ	9.9 UJ
	SW8270C	4-Nitrophenol		µg/L	50 U	47 U	47 UJ	50 U
	SW8270C	Pentachlorophenol	1	µg/L	50 U	47 U	47 UJ	50 U
	SW8270C	Phenanthrene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Phenol		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	Pyrene		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	10 U	9.5 U	9.4 UJ	9.9 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	50 U	47 U	47 UJ	50 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	10 U	9.5 U	9.4 UJ	9.9 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U	200 U	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	9.78 J	10 U	10 U	10 U
	SW6010B	Barium - Filtered	1000	µg/L	14.9	19.6	56.8	52.1
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U	5.7	8.55
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U	4.63 J	5 U
	SW6010B	Cobalt - Filtered		µg/L	5 U	5 U	333	783
	SW6010B	Copper - Filtered	1000	µg/L	5 U	5 U	156	281
	SW6010B	Iron - Filtered	300	µg/L	100 U	65 J	2010	12300
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	17.3 J	70.9
	SW6010B	Manganese - Filtered	50	µg/L	58.1	304	2120	4850
	SW6010B	Molybdenum - Filtered		µg/L	40 U	8.45 J	5.46 J	40 U
	SW6010B	Nickel - Filtered	100	µg/L	10 U	6.84 J	386	1010
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	5.71 J	10 U
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	10 U	8.72 J	28.6	58.4
	SW6010B	Zinc - Filtered	5000	µg/L	10 U	11.3	129	406
	SW6010B	Calcium - Filtered		µg/L	9690	32800	54600	34900
	SW6010B	Magnesium - Filtered		µg/L	12900	46400	76200	44800
	SW6010B	Potassium - Filtered		µg/L	5050	8650	8770	11200 J
	SW6010B	Sodium - Filtered		µg/L	423000	530000	804000	749000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 UJ	0.02 UJ	0.02 UJ
Location: 9IF-MW10U		**Depth: 22 - 32 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	3.3 J	20 U	10 U	2.3 J

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW10U		**Depth: 22 - 32 feet bgs**						
VOCs	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.36 J	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.4 J	0.85	1	3
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	16	9.1	6.9	2.6
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	10	4.9	2.5	1.5
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.41 J	0.27 J	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	1.1	1.5	0.76	0.81
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	2.5 J	2.5 J	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW10U		**Depth: 22 - 32 feet bgs**						
VOCs	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.21 J
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	3.6	3.7	0.5 U	1.6
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	1.7	0.54	0.5 U	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Acenaphthylene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Anthracene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Benzo(a)anthracene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Benzoic acid		µg/L	47 U	48 U	47 U	48 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	19 U	19 U	19 U
	SW8270C	4-Chloroaniline		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	2-Chloronaphthalene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	2-Chlorophenol		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Chrysene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Dibenzofuran		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	19 U	19 U	19 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Diethylphthalate		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Dimethylphthalate		µg/L	9.5 U	9.6 U	9.5 U	9.6 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW10U		**Depth: 22 - 32 feet bgs**						
SVOCs	SW8270C	2,4-Dinitrophenol		µg/L	47 U	48 U	47 U	48 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Fluoranthene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Fluorene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Hexachlorobutadiene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Hexachloroethane		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Isophorone		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	2-Methylnaphthalene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	2-Methylphenol		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	4-Methylphenol		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	47 U	48 U	47 U	48 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Naphthalene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	2-Nitroaniline		µg/L	47 U	48 U	47 U	48 U
	SW8270C	3-Nitroaniline		µg/L	47 U	48 U	47 U	48 U
	SW8270C	4-Nitroaniline		µg/L	47 U	48 U	47 U	48 U
	SW8270C	Nitrobenzene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	2-Nitrophenol		µg/L	9.5 U	9.6 U	9.5 U	9.6 UJ
	SW8270C	4-Nitrophenol		µg/L	47 U	48 U	47 U	48 U
	SW8270C	Pentachlorophenol	1	µg/L	47 U	48 U	47 U	48 U
	SW8270C	Phenanthrene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Phenol		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	Pyrene		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.5 U	9.6 U	9.5 U	9.6 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	47 U	48 U	47 U	48 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	60.5 J	200 U	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	12.8	25.9	14.2	11.5
	SW6010B	Barium - Filtered	1000	µg/L	35.3	26.8	33.5	10.8
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	9.08	43.7	125
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U	9.31	17.5
	SW6010B	Cobalt - Filtered		µg/L	5 U	164	220	814
	SW6010B	Copper - Filtered	1000	µg/L	5 U	197	665	885

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW10U		**Depth: 22 - 32 feet bgs**						
Metals	SW6010B	Iron - Filtered	300	µg/L	40.9 J	1420	4650	40300
	SW6010B	Lead - Filtered	15	µg/L	5 U	8.25	32.5 J	115
	SW6010B	Manganese - Filtered	50	µg/L	172	1190	4250	10300
	SW6010B	Molybdenum - Filtered		µg/L	16.7 J	23.5 J	26.5 J	15.3 J
	SW6010B	Nickel - Filtered	100	µg/L	36.7	234	279	1890
	SW6010B	Selenium - Filtered	50	µg/L	10 U	7.84 J	5.71 J	10 U
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	7.91 J	58.1	31.9	69.4
	SW6010B	Zinc - Filtered	5000	µg/L	13.5	118	141	824
	SW6010B	Calcium - Filtered		µg/L	20000	15600	16600	25500
	SW6010B	Magnesium - Filtered		µg/L	23300	19100	22800	33000
	SW6010B	Potassium - Filtered		µg/L	8300	13100 J	15200	21700
	SW6010B	Sodium - Filtered		µg/L	774000	704000	806000	887000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 U	0.02 UJ	0.02 UJ
Location: 9IF-MW11U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	10 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.55	0.5 U	0.5 U	0.5 U
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	0.24 J	0.5 U	0.74	1.3
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW11U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 UJ
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Acenaphthylene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Anthracene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Benzo(a)anthracene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Benzoic acid		µg/L	47 U	47 U	47 U	48 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.5 U	9.5 U	9.5 U	9.6 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW11U		**Depth: 20 - 30 feet bgs**						
SVOCs	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	19 U	19 U	19 U
	SW8270C	4-Chloroaniline		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	2-Chloronaphthalene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	2-Chlorophenol		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Chrysene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Dibenzofuran		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	19 U	19 U	19 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Diethylphthalate		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Dimethylphthalate		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	2,4-Dinitrophenol		µg/L	47 U	47 U	47 U	48 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Fluoranthene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Fluorene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Hexachlorobutadiene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Hexachloroethane		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Isophorone		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	2-Methylnaphthalene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	2-Methylphenol		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	4-Methylphenol		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	47 U	47 U	47 U	48 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Naphthalene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	2-Nitroaniline		µg/L	47 U	47 U	47 U	48 U
	SW8270C	3-Nitroaniline		µg/L	47 U	47 U	47 U	48 U
	SW8270C	4-Nitroaniline		µg/L	47 U	47 U	47 U	48 U
	SW8270C	Nitrobenzene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	2-Nitrophenol		µg/L	9.5 U	9.5 U	9.5 U	9.6 UJ
	SW8270C	4-Nitrophenol		µg/L	47 U	47 U	47 U	48 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW11U		**Depth: 20 - 30 feet bgs**						
SVOCs	SW8270C	Pentachlorophenol	1	µg/L	47 U	47 U	47 U	48 U
	SW8270C	Phenanthrene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Phenol		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	Pyrene		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.5 U	9.5 U	9.5 U	9.6 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	47 U	47 U	47 U	48 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.5 U	9.5 U	9.5 U	9.6 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	529	63.7 J	200 U
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U	100 U	100 U
	SW6010B	Arsenic - Filtered	50	µg/L	8.49 J	15	30	14.5
	SW6010B	Barium - Filtered	1000	µg/L	38.4	27.1	41.8	81.6
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U	2 U	2 U
	SW6010B	Chromium - Filtered	50	µg/L	5 U	3.47 J	5 U	5 U
	SW6010B	Cobalt - Filtered		µg/L	5 U	5 U	5 U	5 U
	SW6010B	Copper - Filtered	1000	µg/L	5 U	5.53	12.4	13.5
	SW6010B	Iron - Filtered	300	µg/L	100 U	708	71.3 J	100 U
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U	5 U	5 U
	SW6010B	Manganese - Filtered	50	µg/L	45.8	52.8	17.8	18.1
	SW6010B	Molybdenum - Filtered		µg/L	12.2 J	10.3 J	48.8	47.8
	SW6010B	Nickel - Filtered	100	µg/L	10 U	11	9.9 J	6.54 J
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U	10 U	10 U
	SW6010B	Vanadium - Filtered		µg/L	12.1	11.5	64.6	44.3
	SW6010B	Zinc - Filtered	5000	µg/L	10.4	9.51 J	9.86 J	10 U
	SW6010B	Calcium - Filtered		µg/L	7650	6190	12100	22300
	SW6010B	Magnesium - Filtered		µg/L	9030	6240	10800	19700
	SW6010B	Potassium - Filtered		µg/L	10900	14400 J	14700 J	38400 J
	SW6010B	Sodium - Filtered		µg/L	562000	366000	420000	502000
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 UJ	0.02 U	0.02 U	0.02 UJ
Location: 9IF-MW12U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	20 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	11 J	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: 9IF-MW12U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.77	0.5 U	0.52	0.5 U
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	3.8	4.3	0.29 J	0.75
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	1	1	0.5 U	0.5 U
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	2.2 J	2.3 J	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 UJ
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.42 J	3.7	46	63
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	1.1 J	0.94 J
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW12U		**Depth: 20 - 30 feet bgs**						
VOCs	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Acenaphthylene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Anthracene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Benzo(a)anthracene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Benzoic acid		µg/L	47 U	50 U	47 U	50 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	20 U	13 J	20 U
	SW8270C	4-Chloroaniline		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	2-Chloronaphthalene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	2-Chlorophenol		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Chrysene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Dibenzofuran		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	20 U	19 U	20 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Diethylphthalate		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Dimethylphthalate		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	2,4-Dinitrophenol		µg/L	47 U	50 U	47 U	50 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Fluoranthene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Fluorene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Hexachlorobutadiene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.5 U	9.9 U	9.5 U	10 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj Dec 2005
Location: 9IF-MW12U		**Depth: 20 - 30 feet bgs**						
SVOCs	SW8270C	Hexachloroethane		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Isophorone		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	2-Methylnaphthalene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	2-Methylphenol		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	4-Methylphenol		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	47 U	50 U	47 U	50 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Naphthalene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	2-Nitroaniline		µg/L	47 U	50 U	47 U	50 U
	SW8270C	3-Nitroaniline		µg/L	47 U	50 U	47 U	50 U
	SW8270C	4-Nitroaniline		µg/L	47 U	50 U	47 U	50 U
	SW8270C	Nitrobenzene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	2-Nitrophenol		µg/L	9.5 U	9.9 U	9.5 U	10 UJ
	SW8270C	4-Nitrophenol		µg/L	47 U	50 U	47 U	50 U
	SW8270C	Pentachlorophenol	1	µg/L	47 U	50 U	47 U	50 U
	SW8270C	Phenanthrene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Phenol		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	Pyrene		µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.5 U	9.9 U	9.5 U	10 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	47 U	50 U	47 U	50 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.5 U	9.9 U	9.5 U	10 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	133 J		200 U
	SW6010B	Aluminum	1000	µg/L			200 U	
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U		100 U
	SW6010B	Antimony	6	µg/L			100 U	
	SW6010B	Arsenic - Filtered	50	µg/L	16.1	13.5		31.7
	SW6010B	Arsenic	50	µg/L			29.7	
	SW6010B	Barium - Filtered	1000	µg/L	13.8	8 J		36.8
	SW6010B	Barium	1000	µg/L			10 U	
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U		2 U
	SW6010B	Beryllium	4	µg/L			2 U	
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U		2 U
	SW6010B	Cadmium	5	µg/L			1.67 J	
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5 U		5 U
	SW6010B	Chromium	50	µg/L			5 U	
	SW6010B	Cobalt - Filtered		µg/L	5 U	5 U		22.2 J
	SW6010B	Cobalt		µg/L			72.5	
	SW6010B	Copper - Filtered	1000	µg/L	5 U	5 U		5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: 9IF-MW12U			**Depth: 20 - 30 feet bgs**					
Metals	SW6010B	Copper	1000	µg/L			24.5	
	SW6010B	Iron - Filtered	300	µg/L	100 U	239		1460
	SW6010B	Iron	300	µg/L			8950	
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U		13.3
	SW6010B	Lead	15	µg/L			51.7	
	SW6010B	Manganese - Filtered	50	µg/L	53.8	65.6		917
	SW6010B	Manganese	50	µg/L			1800	
	SW6010B	Molybdenum - Filtered		µg/L	10.7 J	8.46 J		37.6 J
	SW6010B	Molybdenum		µg/L			79.9	
	SW6010B	Nickel - Filtered	100	µg/L	11.5	17.8		155 J
	SW6010B	Nickel	100	µg/L			300	
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U		10 U
	SW6010B	Selenium	50	µg/L			10 U	
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U		10 U
	SW6010B	Silver	100	µg/L			10 U	
	SW6010B	Thallium - Filtered	2	µg/L	10 U	5.61 J		10 U
	SW6010B	Thallium	2	µg/L			10 U	
	SW6010B	Vanadium - Filtered		µg/L	10 U	5.23 J		45.8
	SW6010B	Vanadium		µg/L			101	
	SW6010B	Zinc - Filtered	5000	µg/L	6.47 J	15.1		68.1
	SW6010B	Zinc	5000	µg/L			273	
	SW6010B	Calcium - Filtered		µg/L	11100	8080		42500 J
	SW6010B	Calcium		µg/L			26900	
	SW6010B	Magnesium - Filtered		µg/L	13200	10100		35200
	SW6010B	Magnesium		µg/L			19300	
	SW6010B	Potassium - Filtered		µg/L	6240	6670 J		34900 J
	SW6010B	Potassium		µg/L			55600 J	
	SW6010B	Sodium - Filtered		µg/L	592000	463000		444000
	SW6010B	Sodium		µg/L			459000	
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 U	0.02 U	0.02 U
Location: P-9-MWI03			**Depth: 33 - 43 feet bgs**					
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	20 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: P-9-MWI03		**Depth: 33 - 43 feet bgs**						
VOCs	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.5 U	0.5 U	0.5 U	1.9
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	89	140	100	200
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	6.2	11	7.3	9.3
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.43 J	0.66	0.51	0.63
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.32 J	0.27 J	0.31 J	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.2 J	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: P-9-MWI03		**Depth: 33 - 43 feet bgs**						
VOCs	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	1.2	3.7	1.9	3.1
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Acenaphthylene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Anthracene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Benzo(a)anthracene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Benzoic acid		µg/L	49 U	50 U	47 U	48 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	20 U	20 U	19 U	19 U
	SW8270C	4-Chloroaniline		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	2-Chloronaphthalene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	2-Chlorophenol		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Chrysene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Dibenzofuran		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	20 U	20 U	19 U	19 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Diethylphthalate		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Dimethylphthalate		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	2,4-Dinitrophenol		µg/L	49 U	50 U	47 U	48 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Fluoranthene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Fluorene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Hexachlorobutadiene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Hexachloroethane		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Isophorone		µg/L	9.8 U	10 U	9.4 U	9.6 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: P-9-MWI03		**Depth: 33 - 43 feet bgs**						
SVOCs	SW8270C	2-Methylnaphthalene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	2-Methylphenol		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	4-Methylphenol		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	49 U	50 U	47 U	48 U
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Naphthalene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	2-Nitroaniline		µg/L	49 U	50 U	47 U	48 U
	SW8270C	3-Nitroaniline		µg/L	49 U	50 U	47 U	48 U
	SW8270C	4-Nitroaniline		µg/L	49 U	50 U	47 U	48 U
	SW8270C	Nitrobenzene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	2-Nitrophenol		µg/L	9.8 U	10 U	9.4 U	9.6 UJ
	SW8270C	4-Nitrophenol		µg/L	49 U	50 U	47 U	48 U
	SW8270C	Pentachlorophenol	1	µg/L	49 U	50 U	47 U	48 U
	SW8270C	Phenanthrene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Phenol		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	Pyrene		µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.8 U	10 U	9.4 U	9.6 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	49 U	50 U	47 U	48 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.8 U	10 U	9.4 U	9.6 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U		200 U
	SW6010B	Aluminum	1000	µg/L			200 U	
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U		100 U
	SW6010B	Antimony	6	µg/L			100 U	
	SW6010B	Arsenic - Filtered	50	µg/L	8.89 J	8.02 J		10 U
	SW6010B	Arsenic	50	µg/L			5.93 J	
	SW6010B	Barium - Filtered	1000	µg/L	14.3	13.1		16.9
	SW6010B	Barium	1000	µg/L			12.4	
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U		2 U
	SW6010B	Beryllium	4	µg/L			2 U	
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U		4.09
	SW6010B	Cadmium	5	µg/L			2 U	
	SW6010B	Chromium - Filtered	50	µg/L	7.69	10.8		13.8
	SW6010B	Chromium	50	µg/L			12.8	
	SW6010B	Cobalt - Filtered		µg/L	7.6	6.03		95.4
	SW6010B	Cobalt		µg/L			8.67	
	SW6010B	Copper - Filtered	1000	µg/L	5 U	5 U		76.6
	SW6010B	Copper	1000	µg/L			5 U	
	SW6010B	Iron - Filtered	300	µg/L	100 U	100 U		9380
	SW6010B	Iron	300	µg/L			100 U	

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: P-9-MWI03		**Depth: 33 - 43 feet bgs**						
Metals	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U		9.77
	SW6010B	Lead	15	µg/L			5 U	
	SW6010B	Manganese - Filtered	50	µg/L	10 U	10 U		264
	SW6010B	Manganese	50	µg/L			10 U	
	SW6010B	Molybdenum - Filtered		µg/L	40 U	40 U		40 U
	SW6010B	Molybdenum		µg/L			40 U	
	SW6010B	Nickel - Filtered	100	µg/L	56	54.5		174
	SW6010B	Nickel	100	µg/L			59.9	
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U		10 U
	SW6010B	Selenium	50	µg/L			10 U	
	SW6010B	Silver - Filtered	100	µg/L	6.82 J	10 U		10 U
	SW6010B	Silver	100	µg/L			10 U	
	SW6010B	Thallium - Filtered	2	µg/L	10 U	10 U		10 U
	SW6010B	Thallium	2	µg/L			10 U	
	SW6010B	Vanadium - Filtered		µg/L	17.5	16.8		17.6
	SW6010B	Vanadium		µg/L			16.7	
	SW6010B	Zinc - Filtered	5000	µg/L	13.8 U	12.9		120
	SW6010B	Zinc	5000	µg/L			10.2	
	SW6010B	Calcium - Filtered		µg/L	5460	4590		8380
	SW6010B	Calcium		µg/L			4010	
	SW6010B	Magnesium - Filtered		µg/L	4470	3640		8610 J
	SW6010B	Magnesium		µg/L			3370	
	SW6010B	Potassium - Filtered		µg/L	3520	3370		4390
	SW6010B	Potassium		µg/L			3550 J	
	SW6010B	Sodium - Filtered		µg/L	307000	262000		353000
	SW6010B	Sodium		µg/L			219000	
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 U	0.006 J	0.02 UJ
Location: P-9-MWI05		**Depth: 23 - 33 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	20 U	20 U	10 UJ
	SW8260B	Benzene	1	µg/L	0.5 U	0.29 J	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 U	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.5 U	0.76	7.4	5.6
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: P-9-MWI05		**Depth: 23 - 33 feet bgs**						
VOCs	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 U	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	120	660	270	320
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	5.1	16	5.4	7.5
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	0.57	1.4	0.75	0.77
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 U	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.27 J	0.5 U	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 U	1 U	1 U
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 U	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	0.47 J	6.2	1.5	4.4
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 U	2 U	2 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: P-9-MWI05		**Depth: 23 - 33 feet bgs**						
SVOCs	SW8270C	Acenaphthene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Acenaphthylene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Anthracene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Benzo(a)anthracene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Benzoic acid		µg/L	47 U	50 U	47 U	48 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	19 U	20 U	19 U	27
	SW8270C	4-Chloroaniline		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	2-Chloronaphthalene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	2-Chlorophenol		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Chrysene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Dibenzofuran		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	19 U	20 U	19 U	19 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Diethylphthalate		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Dimethylphthalate		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	2,4-Dinitrophenol		µg/L	47 U	50 U	47 U	48 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Fluoranthene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Fluorene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Hexachlorobutadiene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Hexachloroethane		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Isophorone		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	2-Methylnaphthalene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	2-Methylphenol		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	4-Methylphenol		µg/L	9.5 U	10 U	9.4 U	9.7 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: P-9-MWI05		**Depth: 23 - 33 feet bgs**						
SVOCs	SW8270C	4,6-dinitro-2-methylphenol		µg/L	47 U	50 U	47 U	48 U
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	N-Nitrosodimethylamine		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Naphthalene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	2-Nitroaniline		µg/L	47 U	50 U	47 U	48 U
	SW8270C	3-Nitroaniline		µg/L	47 U	50 U	47 U	48 U
	SW8270C	4-Nitroaniline		µg/L	47 U	50 U	47 U	48 U
	SW8270C	Nitrobenzene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	2-Nitrophenol		µg/L	9.5 U	10 U	9.4 U	9.7 UJ
	SW8270C	4-Nitrophenol		µg/L	47 U	50 U	47 U	48 U
	SW8270C	Pentachlorophenol	1	µg/L	47 U	50 U	47 U	48 U
	SW8270C	Phenanthrene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Phenol		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	Pyrene		µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.5 U	10 U	9.4 U	9.7 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	47 U	50 U	47 U	48 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.5 U	10 U	9.4 U	9.7 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	200 U		200 U
	SW6010B	Aluminum	1000	µg/L			200 U	
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U		100 U
	SW6010B	Antimony	6	µg/L			100 U	
	SW6010B	Arsenic - Filtered	50	µg/L	18.4	12.7		10 U
	SW6010B	Arsenic	50	µg/L			10 U	
	SW6010B	Barium - Filtered	1000	µg/L	10.9	14.7		39.5
	SW6010B	Barium	1000	µg/L			29	
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U		2 U
	SW6010B	Beryllium	4	µg/L			2 U	
	SW6010B	Cadmium - Filtered	5	µg/L	6.55	12		12.6
	SW6010B	Cadmium	5	µg/L			20.6	
	SW6010B	Chromium - Filtered	50	µg/L	5 U	5.48		56.5
	SW6010B	Chromium	50	µg/L			31.8	
	SW6010B	Cobalt - Filtered		µg/L	111	168		857
	SW6010B	Cobalt		µg/L			545	
	SW6010B	Copper - Filtered	1000	µg/L	56.3	85.2		339
	SW6010B	Copper	1000	µg/L			276	
	SW6010B	Iron - Filtered	300	µg/L	48.7 J	654		8780
	SW6010B	Iron	300	µg/L			27800	
	SW6010B	Lead - Filtered	15	µg/L	5 U	3.85 J		39.3
	SW6010B	Lead	15	µg/L			95.9	
	SW6010B	Manganese - Filtered	50	µg/L	28	13.6		1930

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: P-9-MWI05		**Depth: 23 - 33 feet bgs**						
Metals	SW6010B	Manganese	50	µg/L			5320	
	SW6010B	Molybdenum - Filtered		µg/L	25.9 J	17.8 J		10.5 J
	SW6010B	Molybdenum		µg/L			9.25 J	
	SW6010B	Nickel - Filtered	100	µg/L	184	268		1490
	SW6010B	Nickel	100	µg/L			810	
	SW6010B	Selenium - Filtered	50	µg/L	10 U	10 U		10 U
	SW6010B	Selenium	50	µg/L			10 U	
	SW6010B	Silver - Filtered	100	µg/L	10 U	10 U		10 U
	SW6010B	Silver	100	µg/L			10 U	
	SW6010B	Thallium - Filtered	2	µg/L	7.79 J	10 U		10 U
	SW6010B	Thallium	2	µg/L			10 U	
	SW6010B	Vanadium - Filtered		µg/L	38.7	37		37.9
	SW6010B	Vanadium		µg/L			37.6	
	SW6010B	Zinc - Filtered	5000	µg/L	31.9	72.4		331
	SW6010B	Zinc	5000	µg/L			423	
	SW6010B	Calcium - Filtered		µg/L	2030	2710		6380
	SW6010B	Calcium		µg/L			7910	
	SW6010B	Magnesium - Filtered		µg/L	1740	2400		5630 J
	SW6010B	Magnesium		µg/L			4640	
	SW6010B	Potassium - Filtered		µg/L	9240	13700 J		21900
	SW6010B	Potassium		µg/L			15000 J	
	SW6010B	Sodium - Filtered		µg/L	308000	288000		417000
	SW6010B	Sodium		µg/L			432000	
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 U	0.02 UJ	0.02 UJ	0.02 UJ
Location: P-9-MWI06		**Depth: 33 - 43 feet bgs**						
VOCs	SW8260B	Acetone		µg/L	20 U	35 J	20 U	33 J
	SW8260B	Benzene	1	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Bromobenzene		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Bromodichloromethane		µg/L	0.5 U	0.5 UJ	0.26 J	0.5 U
	SW8260B	Bromoform		µg/L	0.5 U	0.46 J	0.5 U	0.5 U
	SW8260B	Bromomethane		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	tert-butyl alcohol		µg/L	50 U	50 UJ	50 U	50 UJ
	SW8260B	N-butylbenzene		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	sec-butylbenzene		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	tert-butylbenzene		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Carbon Tetrachloride	0.5	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Chlorobenzene	70	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Chloroethane		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Chloroform		µg/L	0.5 U	13 J	5.7	8.8
	SW8260B	Chloromethane		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	4-Chlorotoluene		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	1,2-Dibromo-3-chloropropane	0.2	µg/L	2 U	2 UJ	2 U	2 U
	SW8260B	Dibromochloromethane		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: P-9-MWI06			**Depth: 33 - 43 feet bgs**					
VOCs	SW8260B	1,2-Dibromoethane	0.05	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	1,2-Dichlorobenzene	600	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	1,3-Dichlorobenzene		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	1,4-Dichlorobenzene	5	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Dichlorodifluoromethane		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethane	5	µg/L	730	75 J	370	71
	SW8260B	1,2-Dichloroethane	0.5	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	1,1-Dichloroethene	6	µg/L	34	0.5 UJ	10	1.9
	SW8260B	cis-1,2-Dichloroethene	6	µg/L	1	0.5 UJ	0.4 J	0.5 U
	SW8260B	trans-1,2-Dichloroethene	10	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	1,2-Dichloropropane	5	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	1,3-Dichloropropene	0.5	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Ethylbenzene	300	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Hexachlorobutadiene		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	2-Hexanone		µg/L	20 U	20 UJ	20 U	20 U
	SW8260B	Isopropyl Ether		µg/L	5 U	5 UJ	5 U	5 U
	SW8260B	Isopropylbenzene		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Methyl ethyl ketone		µg/L	20 U	20 UJ	20 U	17 J
	SW8260B	Methyl isobutyl ketone		µg/L	20 U	20 UJ	20 U	20 U
	SW8260B	Methyl tert-butyl ether	13	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Methylene Chloride	5	µg/L	1 U	1 UJ	1 U	0.83 J
	SW8260B	N-propylbenzene		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Naphthalene		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Styrene	100	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	tert-amyl methyl ether		µg/L	5 U	5 UJ	5 U	5 U
	SW8260B	tert-butyl ethyl ether		µg/L	5 U	5 UJ	5 U	5 U
	SW8260B	1,1,1,2-Tetrachloroethane		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	1,1,2,2-Tetrachloroethane	1	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Tetrachloroethene	5	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Toluene	150	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	1,2,4-Trichlorobenzene	5	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	1,1,1-Trichloroethane	200	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	1,1,2-Trichloroethane	5	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Trichloroethene	5	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Trichlorofluoromethane	150	µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	1,2,3-Trichloropropane		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	1,1,2-Trichlorotrifluoroethane		µg/L	5 U	5 UJ	5 U	5 U
	SW8260B	1,2,4-Trimethylbenzene		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	1,3,5-Trimethylbenzene		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
	SW8260B	Vinyl Chloride	0.5	µg/L	10	0.5 UJ	3	0.5 U
	SW8260B	Xylenes, total	1750	µg/L	2 U	2 UJ	2 U	2 U
SVOCs	SW8270C	Acenaphthene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Acenaphthylene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Anthracene		µg/L	9.8 U	9.6 U	9.4 U	10 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: P-9-MWI06		**Depth: 33 - 43 feet bgs**						
SVOCs	SW8270C	Benzo(a)anthracene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Benzo(a)pyrene	0.2	µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Benzo(b)fluoranthene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Benzo(g,h,i)perylene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Benzo(k)fluoranthene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Benzoic acid		µg/L	49 U	48 U	47 U	52 U
	SW8270C	Benzyl butyl phthalate		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	bis(2-Chloroethoxy)methane		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	bis(2-Chloroethyl)ether		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	bis(2-chloroisopropyl) ether		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	bis(2-Ethylhexyl)phthalate	4	µg/L	20 U	19 U	19 U	21 U
	SW8270C	4-Chloroaniline		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	2-Chloronaphthalene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	2-Chlorophenol		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Chrysene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Di-n-butyl phthalate		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Di-n-octyl phthalate		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Dibenz(a,h)anthracene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Dibenzofuran		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	1,2-Dichlorobenzene	600	µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	1,3-Dichlorobenzene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	1,4-Dichlorobenzene	5	µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	3,3'-Dichlorobenzidine		µg/L	20 U	19 U	19 U	21 U
	SW8270C	2,4-Dichlorophenol		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Diethylphthalate		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	2,4-Dimethylphenol		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Dimethylphthalate		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	2,4-Dinitrophenol		µg/L	49 U	48 U	47 U	52 U
	SW8270C	2,4-Dinitrotoluene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	2,6-Dinitrotoluene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Fluoranthene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Fluorene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Hexachlorobenzene	1	µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Hexachlorobutadiene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Hexachlorocyclopentadiene	50	µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Hexachloroethane		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Indeno(1,2,3-c,d)pyrene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Isophorone		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	2-Methylnaphthalene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	2-Methylphenol		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	4-Methylphenol		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	4,6-dinitro-2-methylphenol		µg/L	49 U	48 U	47 U	52 UJ
	SW8270C	4-Chloro-3-methylphenol		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	N-Nitrosodi-n-propylamine		µg/L	9.8 U	9.6 U	9.4 U	10 U

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Sc Post Inj III Dec 2005
Location: P-9-MWI06		**Depth: 33 - 43 feet bgs**						
SVOCs	SW8270C	N-Nitrosodimethylamine		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	N-Nitrosodiphenylamine		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Naphthalene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	2-Nitroaniline		µg/L	49 U	48 U	47 U	52 U
	SW8270C	3-Nitroaniline		µg/L	49 U	48 U	47 U	52 U
	SW8270C	4-Nitroaniline		µg/L	49 U	48 U	47 U	52 U
	SW8270C	Nitrobenzene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	2-Nitrophenol		µg/L	9.8 U	9.6 U	9.4 U	10 UJ
	SW8270C	4-Nitrophenol		µg/L	49 U	48 U	47 U	52 U
	SW8270C	Pentachlorophenol	1	µg/L	49 U	48 U	47 U	52 U
	SW8270C	Phenanthrene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Phenol		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	4-Bromophenylphenyl ether		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	4-Chlorophenylphenyl ether		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	Pyrene		µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	1,2,4-Trichlorobenzene	5	µg/L	9.8 U	9.6 U	9.4 U	10 U
	SW8270C	2,4,5-Trichlorophenol		µg/L	49 U	48 U	47 U	52 U
	SW8270C	2,4,6-Trichlorophenol		µg/L	9.8 U	9.6 U	9.4 U	10 U
Metals	SW6010B	Aluminum - Filtered	1000	µg/L	200 U	922		320 U
	SW6010B	Aluminum	1000	µg/L			200 U	
	SW6010B	Antimony - Filtered	6	µg/L	100 U	100 U		100 U
	SW6010B	Antimony	6	µg/L			100 U	
	SW6010B	Arsenic - Filtered	50	µg/L	6.99 J	10 U		10 U
	SW6010B	Arsenic	50	µg/L			10 U	
	SW6010B	Barium - Filtered	1000	µg/L	45.2	65.4		39.9
	SW6010B	Barium	1000	µg/L			58.6	
	SW6010B	Beryllium - Filtered	4	µg/L	2 U	2 U		2 U
	SW6010B	Beryllium	4	µg/L			2 U	
	SW6010B	Cadmium - Filtered	5	µg/L	2 U	2 U		2 U
	SW6010B	Cadmium	5	µg/L			10.5	
	SW6010B	Chromium - Filtered	50	µg/L	5 U	36.4		28.6
	SW6010B	Chromium	50	µg/L			4.82 J	
	SW6010B	Cobalt - Filtered		µg/L	39.4	160		997
	SW6010B	Cobalt		µg/L			357	
	SW6010B	Copper - Filtered	1000	µg/L	5.18	41.4		5 U
	SW6010B	Copper	1000	µg/L			99.9	
	SW6010B	Iron - Filtered	300	µg/L	100 U	9280		267000
	SW6010B	Iron	300	µg/L			5150	
	SW6010B	Lead - Filtered	15	µg/L	5 U	5 U		5 U
	SW6010B	Lead	15	µg/L			4.01 J	
	SW6010B	Manganese - Filtered	50	µg/L	927	11900		7870
	SW6010B	Manganese	50	µg/L			6120	
	SW6010B	Molybdenum - Filtered		µg/L	40 U	40 U		40 U
	SW6010B	Molybdenum		µg/L			40 U	

Appendix B - Table 1: Baseline and Post-Injection Groundwater Sample Results
Full-Scale Removal Action, Alameda Point, Alameda, California

Analytical Method Group	Analytical Method	Analyte	MCL	Units	Full Scale Baseline Apr 2005	Full Scale Post Inj I Jun 2005	Full Scale Post Inj II Sep 2005	Full Scale Post Inj III Dec 2005
Location: P-9-MWI06		**Depth: 33 - 43 feet bgs**						
Metals	SW6010B	Nickel - Filtered	100	µg/L	44.7	121		1690
	SW6010B	Nickel	100	µg/L			416	
	SW6010B	Selenium - Filtered	50	µg/L	10 U	5.62 J		10 U
	SW6010B	Selenium	50	µg/L			10 U	
	SW6010B	Silver - Filtered	100	µg/L	5.17 J	10 U		10 U
	SW6010B	Silver	100	µg/L			10 U	
	SW6010B	Thallium - Filtered	2	µg/L	6.39 J	10 U		10 U
	SW6010B	Thallium	2	µg/L			10 U	
	SW6010B	Vanadium - Filtered		µg/L	8.92 J	182		201
	SW6010B	Vanadium		µg/L			10 U	
	SW6010B	Zinc - Filtered	5000	µg/L	10 U	378		925
	SW6010B	Zinc	5000	µg/L			323	
	SW6010B	Calcium - Filtered		µg/L	120000	45100		63600
	SW6010B	Calcium		µg/L			183000	
	SW6010B	Magnesium - Filtered		µg/L	161000	49700		80500
	SW6010B	Magnesium		µg/L			232000	
	SW6010B	Potassium - Filtered		µg/L	7920	16600 J		64600
	SW6010B	Potassium		µg/L			25400 J	
	SW6010B	Sodium - Filtered		µg/L	1570000	519000		1060000
	SW6010B	Sodium		µg/L			1700000	
Metals	SW7196A	Chromium VI	0.05	mg/L	0.02 UJ	0.02 UJ	0.016 J	0.02 U

Notes:

bgs	below ground surface
MCL	California maximum contaminant level (Title 22, California Code of Regulations, effective June 2003)
µg/L	micrograms per liter
mg/L	milligrams per liter
VOCs	volatile organic compounds
SVOCs	semivolatile organic compounds
U	Not detected at or above the indicated reporting limit
J	Estimated value
Post Inj	post injection event

Appendix C
In-Situ Oxidative Technologies, Inc.
Draft Full-Scale In-Situ Chemical Oxidation Report for Installation Restoration Site 9 Intermediate

FULL-SCALE IN-SITU CHEMICAL OXIDATION REPORT

INSTALLATION RESTORATION SITE 9 SHALLOW
ALAMEDA POINT
ALAMEDA, CALIFORNIA

AUGUST 2006

PREPARED FOR

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ISOTEC PROJECT NO. 900087

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1.0 INTRODUCTION

In-Situ Oxidative Technologies, Inc. (ISOTEC) was retained by Shaw Environmental & Infrastructure, Inc. (Shaw) to conduct a full-scale in-situ chemical oxidation remediation program associated with soil and groundwater contamination at Installation Restoration (IR) Site 9 Shallow, Alameda Point, Alameda, California (**Figure 1**). The primary contaminants of concern (COCs) at IR Site 9 Shallow are cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride (VC).

This remediation program report contains details of ISOTEC's field activities associated with the injection of ISOTEC reagents. Reagents were injected in order to treat contaminants through the use of in-situ chemical oxidation. The field activities occurred during three full-scale injection events over a period of four months: January 24, 2006, to January 28, 2006; April 3, 2006, to April 7, 2006; May 23, 2006, to May 26, 2006.

1.1 FULL-SCALE REMEDIATION PROGRAM OBJECTIVES

The primary objective of the remediation program at IR Site 9 Shallow was to achieve mass reduction within the saturated zone in order to reduce groundwater contaminant concentrations to below their respective State Maximum Contaminant Levels (MCLs) through in-situ chemical oxidation. The MCLs for the primary COCs are 6 micrograms per liter (µg/l) for cis-1,2-DCE and 0.5 µg/l for VC. The specific objective of the program was chlorinated solvent mass reduction (**Figure 2**).

1.2 REMEDIATION PROGRAM DESIGN

The target treatment zone at IR Site 9 Shallow was the first water-bearing (shallow) zone (FWBZ) present at depths from 8 to 15 feet below ground surface (bgs).

Direct-push injection screens installed at specific injection locations across the treatment area were to be utilized to introduce ISOTEC reagents into the subsurface at IR Site 9 Shallow over the course of three injection events. The direct-push injection screens were to target the FWBZ. The number and spacing of the injection locations was based upon a 20-foot radius of influence (ROI) for the FWBZ.

ISOTEC planned on conducting three separate full-scale injection events to effectively conduct full-scale treatment at the site. The injection locations were to be shifted laterally from event to event to ensure complete reagent coverage across the site.

2.0 TECHNOLOGY OVERVIEW

The ISOTEC process is an in-situ remedial technology that destroys organic contamination using Fenton's reagent-based oxidation chemistry. Fenton's chemistry was first documented by H.J.H. Fenton in 1894. It is characterized by the combination of soluble iron with low concentrations of hydrogen peroxide to produce hydroxyl radicals ($OH^{\bullet}$). These hydroxyl radicals are very powerful and short-lived oxidizers. Similar to the reaction of other oxidizers, the hydroxyl radicals attack the carbon double bonds of the chlorinated hydrocarbon molecule. Under certain conditions reductive species can also be formed by Fenton's chemistry. This gives Fenton's reagent two separate pathways to attack a wide range of contaminants. The summary equation for Fenton's chemistry is shown below.

$$Fe^{+2} + H_2O_2 \rightarrow Fe^{+3} + OH^- + OH^{\bullet}$$

Where H_2O_2 is hydrogen peroxide, Fe^{+2} is ferrous iron, Fe^{+3} is ferric iron, $OH^{\bullet}$ is hydroxyl free radical and OH^- is hydroxide ion.

Iron is used to catalyze the reaction. Maintaining iron in solution is important for the process to be successful in an in-situ application. To eliminate the necessity of performing the reaction under low pH conditions, as is the case with traditional Fenton's chemistry, complexed iron is used in in-situ applications via the ISOTEC process. The hydrogen peroxide and dissolved iron solutions are injected through a site-specific delivery system providing sufficient distribution to selectively treat the area of concern. Reaction time is very fast, with oxidation capacity of the reagent being used up in a matter of a few days. Hydrogen peroxide breaks down into water and oxygen and the iron catalyst is oxidized and precipitates out of solution. It is important to note that the concentration of hydrogen peroxide will be relatively dilute, generally less than 17%, which eliminates the potential for significant exothermic reactions that are associated with higher concentrations of hydrogen peroxide. Experience with this process using low hydrogen peroxide concentrations and complexed iron has resulted in less than a 25° F temperature increase in field applications.

Fenton-based oxidation processes have been shown to effectively treat a wide range of contaminants including hard-to-treat compounds such as chlorinated solvents, petroleum hydrocarbons, gasoline additives including benzene, toluene, ethylbenzene and xylene (BTEX), and pesticides. Hydroxyl radicals and reductive species generated by the Fenton-based reagent will treat nearly all contaminants with carbon/carbon double bonds (i.e., dichloroethene and tetrachloroethene) and single bonded contaminants with extractable hydrogen (i.e., trichloroethane).

The stoichiometric relationship between trichloroethene (TCE) oxidation and hydrogen peroxide consumption can be predicted from the oxidative reaction:

$$C_2Cl_3H + 3H_2O_2 \rightarrow 2CO_2 + 2H_2O + 3Cl^- + 3H^+$$

Where C_2Cl_3H is TCE, H_2O_2 is hydrogen peroxide, CO_2 is carbon dioxide, Cl^- is chloride ion, and H^+ is hydrogen ion. Hydrogen peroxide not consumed in the above reaction will continue to oxidize the groundwater contaminants and will naturally degrade along with the contaminant to oxygen and water.

The ISOTEC process consists of injecting stabilized hydrogen peroxide and complexed iron catalysts into contaminated aquifers or vadose zones. As compared to conventional Fenton's Reagent which requires acidic conditions (pH $\leq$ 3) the ISOTEC process is effective at neutral (pH = 7) conditions. This is an important consideration in full-scale application since acidifying an aquifer is typically impractical. ISOTEC's oxidation method utilizes a site-specific delivery system(s) designed to treat organic contaminants within an area of concern. ISOTEC oxidants and catalysts generate hydroxyl radicals, which react with the organic contaminants within the subsurface producing innocuous by-products such as carbon dioxide and water (and chloride ions if chlorinated compounds are being treated).

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3.0 ISOTEC FULL-SCALE REMEDIATION PROGRAM

The full-scale remediation program consisted of injecting ISOTEC reagents into the subsurface in order to treat chlorinated solvent contaminated soil and groundwater. ISOTEC utilized 150 direct-push injection screens to introduce reagent into the subsurface over three field injection events. The injection activities were completed over a four-month period from January 24, 2006 through May 26, 2006.

3.1 ISOTEC PROCESS FIELD METHODS

ISOTEC technicians prepared stabilized 12% hydrogen peroxide from 50% hydrogen peroxide. The 50% hydrogen peroxide was delivered to a staging area and stored on-site in a 2,100-gallon double-walled polyethylene tank. The 50% hydrogen peroxide was transferred into 300-gallon polyethylene tanks with an air-operated diaphragm pump and diluted with on-site city water to the desired concentration. The technicians wore proper personal protective equipment and used appropriate safety procedures during the transfer. Iron catalyst was also mixed in 300-gallon polyethylene tanks using on-site city water, dry ISOTEC chemicals, and an electric mixing motor with attached mixing blade.

The injections were accomplished using air-operated diaphragm pumps, flow meters, polyvinyl chloride (PVC) flexible tubing and steel wellhead assemblies. The wellhead assemblies, with pressure gauges and relief valves, were attached to the direct-push injection rods. The wellhead assemblies were attached with PVC tubing to an air-operated diaphragm pump and from the pump to either the peroxide, catalyst or water tanks with PVC tubing. The peroxide, catalyst and water were injected through the PVC tubing using the pump.

The injection process was similar for each location. First, water was injected, followed by 12% stabilized hydrogen peroxide (oxidizer), a water flush, ISOTEC's patented chelated iron catalyst (catalyst), and a final water flush. The injection pressures and rates varied slightly on a location-by-location basis.

3.2 FIELD MONITORING

Field monitoring was conducted at the IR Site 9 Shallow monitoring wells during each injection event. Groundwater measurements were obtained from these monitoring wells prior to the first injection event (baseline) and after the completion of each injection event. The groundwater in the monitoring wells was measured for temperature, conductivity, dissolved oxygen (DO), pH and oxidation-reduction potential (ORP), iron, and hydrogen peroxide. Temperature, conductivity, DO, pH and ORP were measured using a down-hole YSI 556 multiprobe system. Hydrogen peroxide and iron were measured in the field using colorimetric test kits. Baseline field monitoring data is presented in **Table 1**. Field monitoring data for the first, second and third injection events are presented in **Tables 3, 5,** and **7** and discussed in **Sections 3.3.1.1, 3.3.2.1** and **3.3.3.1** below.

3.3 ISOTEC FIELD ACTIVITIES

Reagents were injected into the subsurface using temporary direct-push injection screens installed at specific injection locations across the treatment area. The remediation program consisted of three separate injection events: January 24, 2006, to January 28, 2006; April 3, 2006, to April 7, 2006; May 23, 2006, to May 26, 2006.

The direct-push injection screens targeted the FWBZ. The number and spacing of the injection screen locations was based upon a 20-foot ROI, with the exception of several locations in the immediate vicinity of monitoring wells F9SMW04 and P-9-MWS04. The spacing of these locations varied due to surface impediments associated with a product recovery system during in place during the first injection event. The product recovery system was removed during the second injection event. The injection location spacing was reduced to a 12.5-foot ROI for the third injection event in an attempt to address the presence of TPH in the adsorbed phase as well as continue to reduce dissolved cis-1,2-DCE concentrations.

Injection volumes, pressures and rates varied on a location-by-location basis during each injection event due to elevated injection pressure, direct-push refusal and/or surfacing and annular surfacing. Surfacing is described as the escape of ISOTEC reagents, groundwater and/or gas to the ground surface. Annular surfacing is the escape of ISOTEC reagents, groundwater and/or gas along the annulus of a monitoring well. Several injection locations did not receive reagents due to elevated injection pressure, refusal and/or surfacing during each of the three injection events. The injected reagent volumes, pressures and rates are discussed below and presented in **Tables 2, 4,** and **6**.

It is important to note that the injection pumps were immediately shut off once surfacing or annular surfacing was identified. This resulted in only minor amounts of liquid escaping to the surface. The small amount of liquid that surfaced was easily contained on-site using absorbent and removed.

3.3.1 First Injection Event

The initial round of ISOTEC's Fenton-based reagent injections was conducted at IR Site 9 Shallow from January 24, 2006, through January 28, 2006. The injected reagent volumes are discussed below and presented in **Table 2.**

During the first injection event, ISOTEC setup at 48 injection locations across the treatment area (**Figure 3**). Between 15 and 400 gallons of reagent were injected at each of 44 injection locations. The remaining four injection locations did not received reagent due to refusal or elevated injection pressure. Pressures at the injection locations ranged from 0 to 30 pounds per square inch (psi) and the injection rates ranged from 2 to 4 gallons per minute (gpm) during injection activities. Total injected reagent volume, pressures and rates varied slightly on a location-by-location basis due to subsurface conditions, annular surfacing and surfacing.

ISOTEC injected a total of 8,742 gallons of reagents at 44 injection locations during the first injection event.

3.3.1.1 First Event Field Monitoring Data

ISOTEC conducted field monitoring activities during the first injection event at IR Site 9 Shallow wells F9SMW01, F9SMW02, F9SMW04, P-9-MWS02, MW410-4, DVE-10, DVE-12, DVE-18 and DVE-26. The field monitoring parameters included temperature, conductivity, DO, pH, ORP, iron and hydrogen peroxide. Baseline and post-first event field monitoring data are presented in **Tables 1** and **3,** respectively.

A comparison of the baseline field monitoring data and the first event field monitoring data indicates groundwater pH remained relatively stable while changes in groundwater temperature, conductivity, DO and ORP were observed in several of the monitoring wells. A groundwater temperature increase was observed in DVE-26 which increased from 16.89 degrees Celcius (degrees C) during the baseline monitoring to 27.89 degrees C following the first injection event. The largest groundwater conductivity change was observed in monitoring well F9SMW02, which decreased from 14.400 microsiemens per centimeter (µS/cm) to 9.252 µS/cm. The maximum groundwater DO concentration increase was observed in DVE-26, which increased from 0.25 milligrams per liter (mg/l) to 35.15 mg/l. The largest groundwater ORP concentrations changes were observed in monitoring wells DVE-26, which increased from -119.5 millivolts (mV) to 331.8 mV, and F9SMW02, which increased from -135.6 mV to 296.3 mV.

Iron concentrations during the baseline field monitoring ranged from 0.0 mg/l to >10 mg/l. Following the first injection event iron concentrations were at 0.0 mg/l in the sampled wells. Hydrogen peroxide concentrations ranged from 0.0 mg/l to 1.0 mg/l in the monitoring wells during the baseline monitoring. Following the first injection event, hydrogen peroxide concentrations ranged from 0.0 mg/l to >10 mg/l (DVE-26).

3.3.2 Second Injection Event

The second round of ISOTEC's Fenton-based reagent injections was conducted at IR Site 9 Shallow from April 3, 2006, through April 7, 2006. The injected reagent volumes are discussed below and presented in **Table 4.**

During the second injection event, ISOTEC setup at 52 injection locations (**Figure 3**). Between 115 and 235 gallons of reagent were injected at each of 47 injection locations. The remaining five injection locations did not received reagent due to refusal or elevated injection pressure. Pressures at the injection locations ranged from 0 to 30 psi and the injection rates ranged from 2 to 4 gpm during injection activities. Total injected reagent volume, pressures and rates varied slightly on a location-by-location basis due to subsurface conditions, annular surfacing and surfacing.

ISOTEC injected a total of 9,045 gallons of reagents at 47 injection locations during the second injection event.

3.3.2.1 Second Event Field Monitoring Data

ISOTEC conducted field monitoring activities following the second injection event at IR Site 9 Shallow wells F9SMW01, F9SMW02, F9SMW04, P-9-MWS02, MW410-4, DVE-10, DVE-12, DVE-18 and DVE-26. The field monitoring parameters included temperature, conductivity, DO, pH, ORP, iron and hydrogen peroxide. Baseline and post-second event field monitoring data are presented in **Tables 1** and **5,** respectively.

A comparison of the baseline field monitoring data and the second event field monitoring data indicates groundwater temperature and pH remained relatively stable while changes in groundwater conductivity, DO and ORP were observed in several of the monitoring wells. The maximum groundwater conductivity change was observed in monitoring well F9SMW02, which decreased from 14.400 µS/cm to 7.353 µS/cm. A groundwater DO concentration increase was observed in DVE-26, which increased from 0.25 mg/l to 44.53 mg/l. The largest groundwater ORP concentration change was observed in monitoring well DVE-26, which increased from -119.5 mV to 323.3 mV.

Iron concentrations in the monitoring wells were 0.0 mg/l following the second injection event, while hydrogen peroxide concentrations ranged from 0.0 mg/l to >10,000 mg/l (DVE-26).

3.3.3 Third Injection Event

The third round of ISOTEC's Fenton-based reagent injections was conducted at IR Site 9 Shallow from May 23, 2006, through May 26, 2006. The injected reagent volumes are discussed below and presented in **Table 6.**

During the third injection event, ISOTEC setup at 50 injection locations (**Figure 3**). Between 30 and 300 gallons of reagent were injected into each of 47 injection locations within the treatment area during the third injection event. The remaining three injection locations did not receive reagent due refusal or elevated injection pressure. Pressures at the injection locations ranged from 0 to 30 psi and the injection rates ranged from 2 to 4 gpm during injection activities. Total injected reagent volume, pressures and rates varied slightly on a location-by-location basis due to subsurface conditions, annular surfacing and surfacing.

ISOTEC injected a total of 8,490 gallons of reagents through 47 injection point locations during the third injection event.

3.3.3.1 Third Event Field Monitoring Data

ISOTEC conducted field monitoring activities following the third injection event at IR Site 9 Shallow wells F9SMW01, F9SMW02, F9SMW04, P-9-MWS02, MW410-4, DVE-10, DVE-12, DVE-18 and DVE-26. The field monitoring parameters included

temperature, conductivity, DO, pH, ORP, iron and hydrogen peroxide. Baseline and post-third event field monitoring data is presented in **Tables 1** and **7,** respectively.

A comparison of the baseline field monitoring data and the third event field monitoring data indicates groundwater temperature, conductivity and pH remained relatively stable while changes in DO and ORP were observed in several of the monitoring wells. The largest DO concentration increase was observed in DVE-18, which increased from 0.27 mg/l to 45.34 mg/l. A groundwater ORP concentration change was observed in monitoring well DVE-18, which increased from -149.9 mV to 350.5 mV.

Iron concentrations in the monitoring wells were 0.0 mg/l following the third injection event. Hydrogen peroxide concentrations ranged from 0.0 mg/l to >1,000 mg/l (F9SMW04).

3.4 ISOTEC PROCESS FIELD ACTIVITIES SUMMARY

The full-scale remediation program consisted of injecting ISOTEC reagents into the subsurface using direct-push injection screens at multiple locations across the treatment area to treat the entire groundwater plume. ISOTEC reagents targeted the FWBZ at the site.

ISOTEC utilized 138 injection locations to inject reagent into the subsurface over three injection events. A total of 26,277 gallons of reagents were injected into the subsurface across the treatment area. ISOTEC was unable to inject reagents into 12 injection screens due to refusal or elevated injection pressure.

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4.0 ANALYTICAL RESULTS

Shaw collected groundwater samples from IR Site 9 Shallow monitoring wells prior to injection (baseline), after the first injection event (post-first), after the second injection event (post-second) and after the third injection event (post-third). Sample events, wells sampled and the sample collection dates are shown below:

TABLE ~~8~~ 7
RECORD OF GROUNDWATER SAMPLING

Sample Event	Monitoring Wells Sampled	Collection Dates
Baseline	F9SMW01 through F9SMW06, P-9-MWS01, P-9-MWS02, P-9-MWS04, MW410-1 through MW410-4, DVE-3, DVE-9, DVE-10, DVE-15A, DVE-17, DVE-19, DVE-20, DVE-23	December 2005
Post-first	F9SMW01 through F9SMW06, P-9-MWS01, P-9-MWS02, P-9-MWS04, MW410-1 through MW410-4, DVE-3, DVE-9, DVE-10, DVE-15A, DVE-17, DVE-19, DVE-20, DVE-23	February 2006
Post-second	F9SMW01 through F9SMW06, P-9-MWS01, P-9-MWS02, P-9-MWS04, MW410-1 through MW410-4, DVE-3, DVE-9, DVE-10, DVE-15A, DVE-17, DVE-19, DVE-20, DVE-23	April 2006
Post-third	F9SMW01 through F9SMW06, P-9-MWS01, P-9-MWS02, P-9-MWS04, MW410-1 through MW410-4, DVE-3, DVE-9, DVE-10, DVE-15A, DVE-17, DVE-19, DVE-20, DVE-23	June 2006

The groundwater samples were analyzed for volatile organic compounds (VOCs) by EPA method 8260b. The primary COCs at IR Site 9 Shallow are cis-1,2-DCE and VC. Therefore, the subsequent discussions are focused on these two compounds.

The groundwater analytical data is presented in **Section 4.1** and compares baseline cis-1,2-DCE and VC analytical results to subsequent sampling event analytical data.

4.1 GROUNDWATER

Shaw collected groundwater samples from 21 monitoring wells during each of the four sampling events; baseline, post-first, post-second and post-third. The wells sampled and collection dates are listed in **Table ~~8~~ 7**

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In the subsequent sections, when discussing analytical data, ISOTEC will refer to a groundwater sample collected from an individual well by the well name. The cis-1,2-DCE monitoring well groundwater analytical data are presented in **Table 9**, with percent reduction calculations for each injection event. Groundwater cis-1,2-DCE concentration maps are also included in **Figures 4** through **Figure 7**. The VC monitoring well groundwater analytical data are presented in **Table 10,** with percent reduction calculations for each injection event. Groundwater VC concentration maps are also included in **Figures 8** through **Figure 11**.

4.1.1 Cis-1,2-Dichloroethene

Baseline, post-first, post-second and post-third injection groundwater samples were collected from the IR Site 9 Shallow monitoring wells and analyzed for cis-1,2-DCE by EPA method 8260b.

Baseline cis-1,2-DCE concentrations ranged from non-detect (ND) in seven wells to 60 micrograms per liter (µg/l) in DVE-17 (**Table 9** and **Figure 4**).

Post-first injection concentrations ranged from ND in nine wells to 23 µg/l in F9SMW04. The most significant concentration reduction was observed in monitoring well DVE-19, which was reduced from a baseline concentration of 19 µg/l to ND, a 99% reduction. The most significant concentration increase was observed in DVE-23, which increased from a baseline concentration of 5.9 µg/l to 7.8 µg/l (**Figure 5**).

Post-second injection concentrations ranged from ND in eight wells to 32 µg/l in F9SMW04. The most significant reduction was observed in DVE-17, which decreased from a baseline concentration of 60 µg/l to 0.53 µg/l, a 99% reduction. The most significant increase was observed in DVE-23, which increased from a baseline concentration of 5.9 µg/l to 16 µg/l (**Figure 6**).

Post-third injection concentrations ranged from ND in seven wells to 15 µg/l in P-9-MWS04. The most significant reduction was observed in DVE-17, which decreased from a baseline concentration of 60 µg/l to 0.86 µg/l, a 99% reduction. The most significant increase was observed in well DVE-10, which increased from a baseline concentration of ND to 0.64 µg/l (**Figure 7**).

4.1.2 Vinyl Chloride

Baseline, post-first, post-second and post-third injection groundwater samples were collected from IR Site 9 Shallow wells and analyzed for VC by EPA method 8260b.

Baseline VC concentrations ranged from ND in 11 wells to 14 µg/l in DVE-19 (**Table 10** and **Figure 8**).

Post-first injection concentrations ranged from ND in 13 wells to 7.8 µg/l in P-9-MWS04. The most significant concentration reduction was observed in DVE-17, which decreased from a baseline concentration of 11 µg/l to ND, a 98% reduction. The most

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significant concentration increase was observed in F9SMW05, which increased from a baseline concentration of ND to 3.8 µg/l (**Figure 9**).

Post-second injection concentrations ranged from ND in 14 wells to 5.2 µg/l in F9SMW03. The most significant concentration reduction was observed in DVE-17, which decreased from a baseline concentration of 11 µg/l to ND, a 98% reduction. The most significant concentration increase was observed in well F9SMW05, which increased from a baseline concentration of ND to 1.8 µg/l (**Figure 10**).

Post-third injection concentrations ranged from ND in 16 wells to 6.9 µg/l in F9SMW03. The most significant concentration reduction was observed in DVE-17, which decreased from a baseline concentration of 11 µg/l to ND, a 98% reduction. The most significant concentration increase was observed in well F9SMW03, which increased from a baseline concentration of 3.9 µg/l to 6.9 µg/l (**Figure 11**).

4.2 Analytical Results Summary

During the baseline sampling event, seven monitoring wells had cis-1,2-DCE concentrations above the MCL of 6 µg/l. Following the third injection event, only three of the sampled monitoring wells had cis-1,2-DCE concentrations above the MCL. The maximum baseline cis-1,2-DCE was 60 µg/l. Following the third injection event, the maximum concentration was 15 µg/l, a 75% reduction.

During the baseline sampling event, nine monitoring wells had VC concentrations above the MCL of 0.5 µg/l. Following the third injection event, only five of the sampled monitoring wells had VC concentrations above the MCL. The maximum reported VC concentration was reduced from 14 µg/l at baseline to 6.9 µg/l following the third injection event, a 51% reduction in the maximum concentration.

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5.0 CONCLUSIONS

The objective of the full-scale in-situ chemical oxidation remediation program was to achieve contaminant mass reduction within the target treatment interval for the FWBZ at IR Site 9 Shallow in order to reduce chlorinated solvent concentrations in groundwater to below their respective State Maximum Contaminant Levels. The treatment interval at IR Site 9 Shallow was from 9 to 15 feet bgs.

5.1 MASS REDUCTION EFFECTIVENESS

The effectiveness of the ISOTEC process to reduce contaminant mass can be evaluated by observing the dissolved phase contaminant concentrations within treatment area monitoring wells during the remediation program. This is because total mass reduction is reflected in reduced dissolved phase concentrations. However, the ISOTEC process promotes contaminant desorption as well as dissolved phase oxidation. Therefore, if sufficient contaminant mass is present in the adsorbed phase prior to treatment, more mass may be transferred to the dissolved phase than can be treated during one injection event. This can result in a temporary increase in dissolved-phase contaminant concentrations following injection activities. Increases in dissolved phase contaminant concentrations were observed in several of the sampled monitoring wells at various periods during the pilot test (**Tables 9** and **10**). This does not, however, reflect an increase in total mass. The post-injection groundwater concentrations should decrease over time, as groundwater flow, re-sorption to soil, dispersion and dilution produce equilibration between total mass and dissolved mass within the saturated zone.

Due to the fact that dissolved contaminant concentrations in individual monitoring wells have fluctuated from sampling event to sampling event, calculating an average dissolved concentration for the monitoring wells is an effective tool in evaluating the remediation effectiveness. The average post-third cis-1,2-DCE concentration at the site showed a marked decrease relative to baseline. The average concentration decreased from 8.9 µg/l at baseline to 2.8 µg/l following the third injection event, a 68% decrease (**Table 9**). The average VC concentration at the site also showed a decrease relative to the average baseline concentration. The concentration decreased from 2.6 µg/l at baseline to 0.8 µg/l following the third injection event, a 68% reduction (**Table 10**). These average reductions and reductions observed in individual monitoring wells indicate significant mass reduction.

Of the seven monitoring wells with baseline cis-1,2-DCE groundwater concentrations above the MCL of 6 µg/l, four were reduced to below the MCL following the third injection event (DVE-15A, DVE-17, DVE-19 and DVE-20). Four of the nine wells with baseline VC concentrations above the MCL of 0.5 µg/l were also reduced to below the MCL following injection activities (P-9-MWS04, DVE-3, DVE-15A and DVE-17).

A summary of cis-1,2-DCE and VC groundwater concentration reductions is shown below:

TABLE 11
CIS-1,2-DCE AND VC GROUNDWATER CONCENTRATION REDUCTION SUMMARY

Sample Event	Cis-1,2-DCE		VC	
	No. of Wells Above MCL (MCL - 6 µg/l)	Maximum Concentration (µg/l)	No. of Wells Above MCL (MCL - 0.5 µg/l)	Maximum Concentration (µg/l)
Baseline	7	60	9	14
Post-Third	4	15	5	6.9

5.2 RECOMMENDATIONS

Post-injection cis-1,2-DCE groundwater concentrations may decrease over time, as groundwater flow, re-sorption to soil, dispersion and dilution produce equilibration between total mass and dissolved mass within the saturated zone. ISOTEC recommends that additional groundwater sampling be conducted over the next several quarters to monitor for equilibration of dissolved phase contaminant concentrations. A fourth injection event could be initiated, if deemed necessary, after reviewing the additional sampling data.

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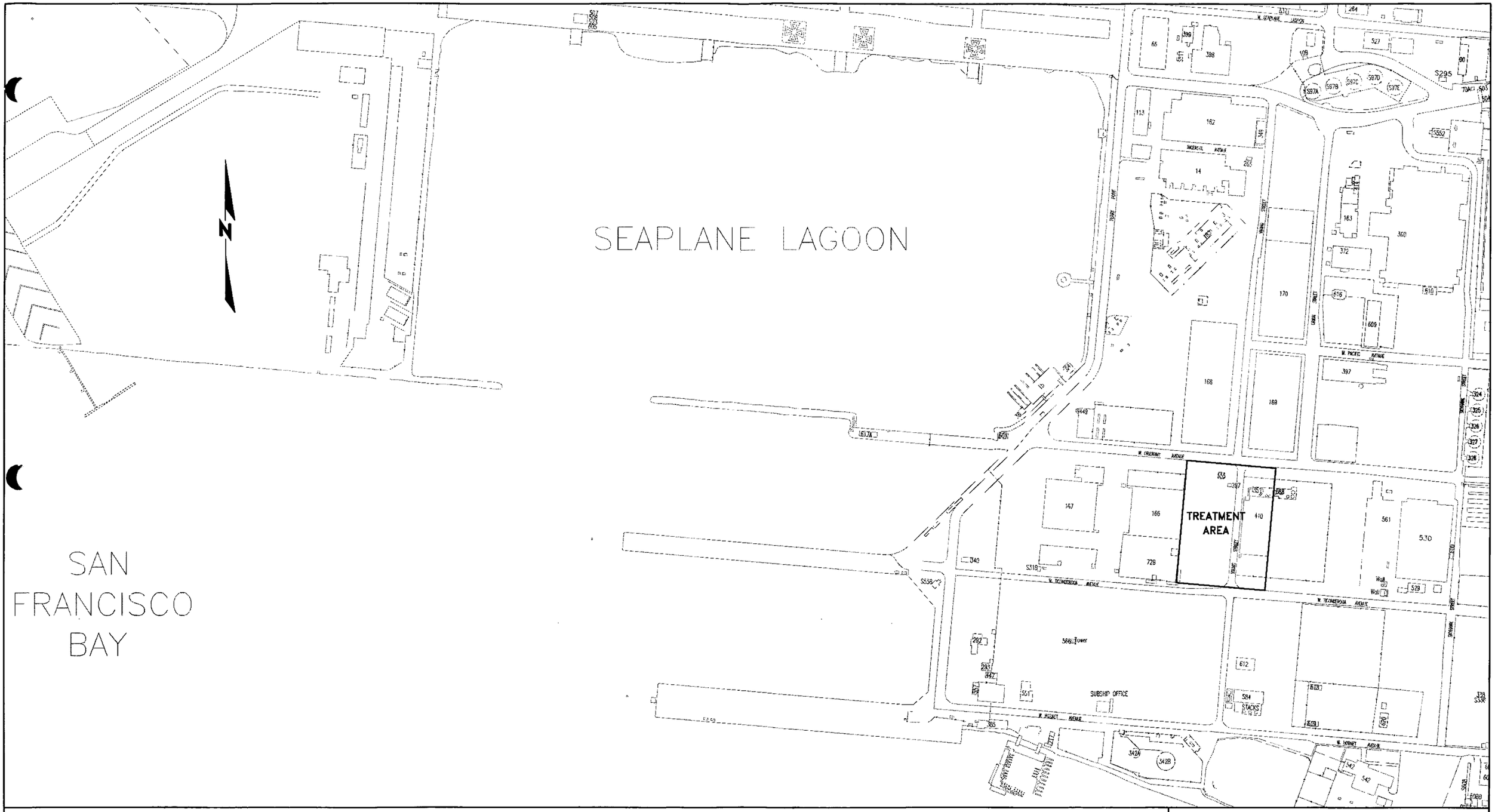

SCALE

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Site Location Map Alameda Point Alameda, California		FIGURE 1
DATE: 2/13/06	SCALE: 1" = 400'	PROJECT 900743
DRAWN BY: KH	CHECKED BY: TE	

LEGEND

- ✱ Fullscale Monitoring Well Location
- ⌖ Pilot Test Monitoring Well Location

SCALE

0 40 80 FEET

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Site Plan
Installation Restoration Site 9
Alameda Point
Alameda, California

FIGURE 2

DATE: 2/13/06	SCALE: 1" = 80'	PROJECT
DRAWN BY: KH	CHECKED BY: TE	900743

LEGEND

- ✱ Fullscale Monitoring Well Location
- ⊕ Pilot Test Monitoring Well Location
- × First Event Injection Location

SCALE

0 40 80 FEET

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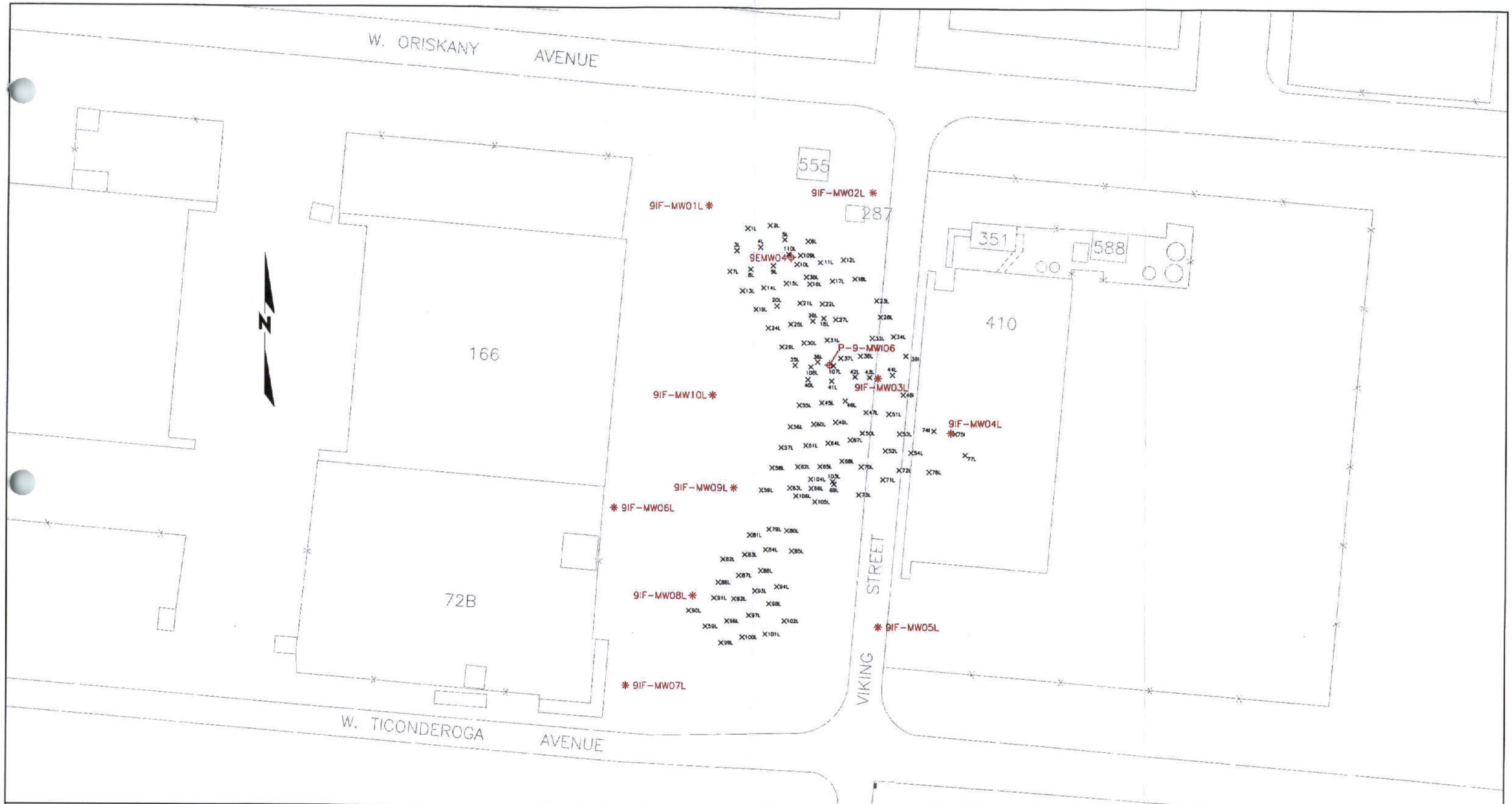
First Event Injection Location Map Upper Intermediate Zone Alameda Point Alameda, California		FIGURE 3
DATE: 2/13/06	SCALE: 1" = 80'	PROJECT
DRAWN BY: KH	CHECKED BY: TE	900743



LEGEND

- ✱ Fullscale Monitoring Well Location
- ⊕ Pilot Test Monitoring Well Location
- × First Event Injection Location

SCALE

0 40 80 FEET

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First Event Injection Location Map
Lower Intermediate Zone
Alameda Point
Alameda, California

FIGURE 4

DATE: 2/13/06	SCALE: 1" = 80'	PROJECT 900743
DRAWN BY: KH	CHECKED BY: TE	

LEGEND

✱ Fullscale Monitoring Well Location

⌖ Pilot Test Monitoring Well Location

SCALE

0 40 80 FEET

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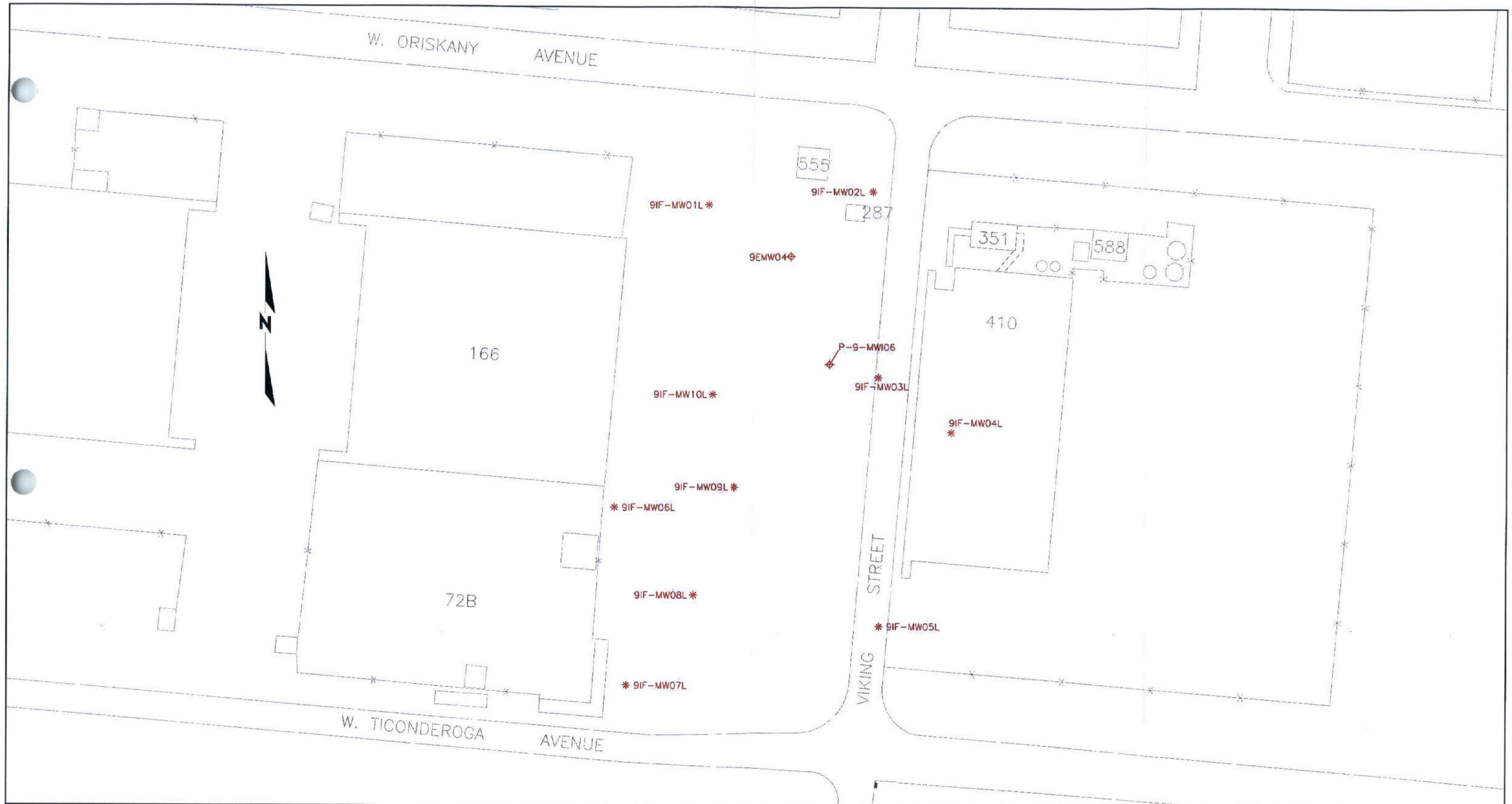
Second Event Injection Location Map Upper Intermediate Zone Alameda Point Alameda, California		FIGURE 5
DATE: 2/13/06	SCALE: 1" = 80'	PROJECT 900743
DRAWN BY: KH	CHECKED BY: TE	



LEGEND

- ✱ Fullscale Monitoring Well Location
- ⌖ Pilot Test Monitoring Well Location

SCALE

0 40 80 FEET

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Second Event Injection Location Map Lower Intermediate Zone Alameda Point Alameda, California		FIGURE 6
DATE: 2/13/06	SCALE: 1" = 80'	PROJECT
DRAWN BY: KH	CHECKED BY: TE	900743

LEGEND

- ✱ Fullscale Monitoring Well Location
- ⌖ Pilot Test Monitoring Well Location

SCALE

0 40 80 FEET

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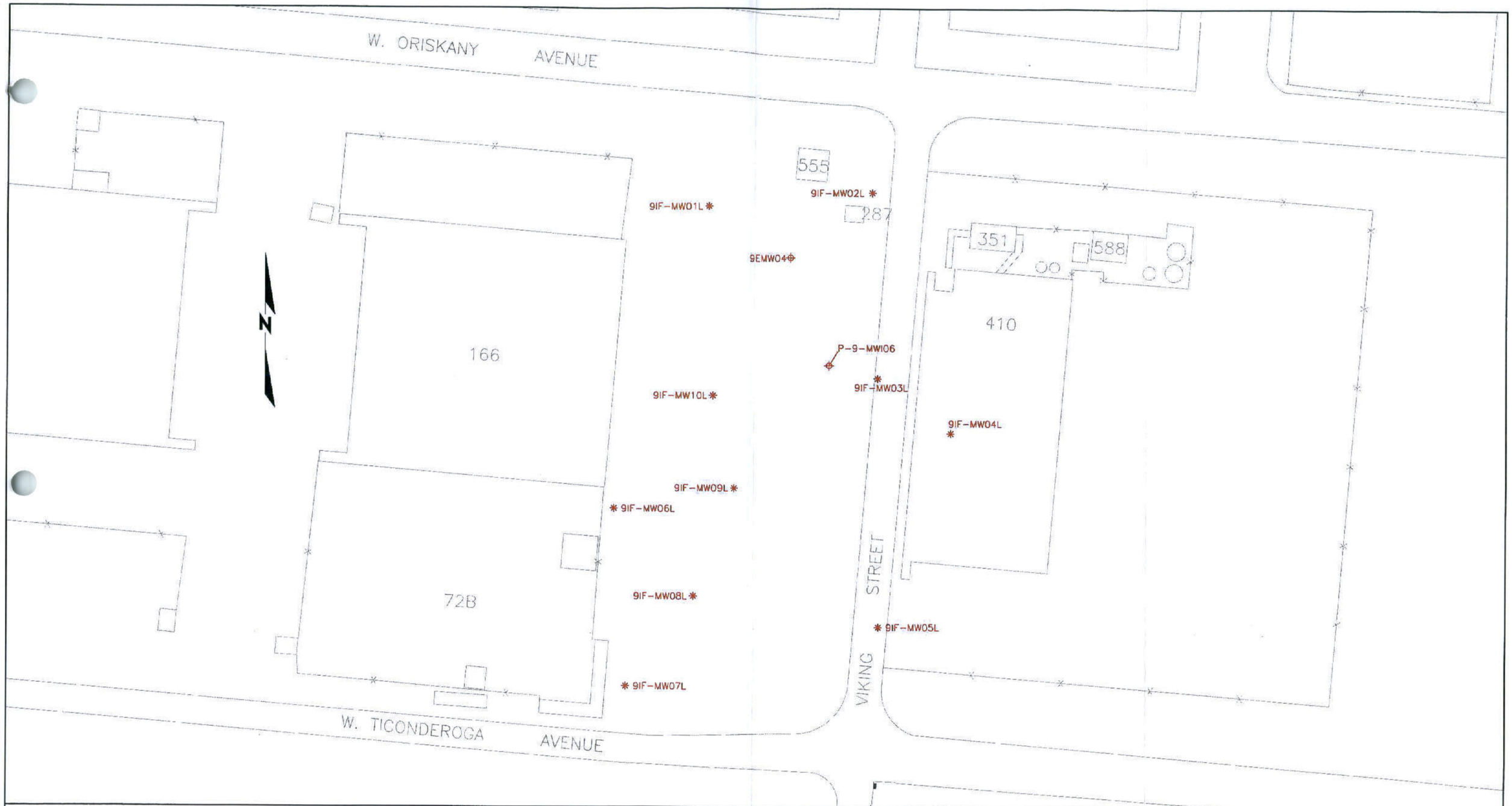
Third Event Injection Location Map Upper Intermediate Zone Alameda Point Alameda, California		FIGURE 7
DATE: 2/13/06	SCALE: 1" = 80'	PROJECT
DRAWN BY: KH	CHECKED BY: TE	900743



LEGEND

- Fullscale Monitoring Well Location
- Pilot Test Monitoring Well Location

SCALE

0 40 80 FEET

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Third Event Injection Location Map Lower Intermediate Zone Alameda Point Alameda, California		FIGURE 8
DATE: 2/13/06	SCALE: 1" = 80'	PROJECT 900743
DRAWN BY: KH	CHECKED BY: TE	

COMPOUND	BL	1ST	2ND	3RD
DCA	0.38	0.39	0.3	ND
VC	ND	ND	ND	ND

COMPOUND	BL	1ST	2ND	3RD
DCA	12	9.5	6.9	8.2
VC	1.9	1	0.93	1.5

COMPOUND	BL	1ST	2ND	3RD
DCA	46	21	31	43
VC	23	ND	8	10

COMPOUND	BL	1ST	2ND	3RD
DCA	10	40	15	5
VC	ND	2.1	ND	ND

COMPOUND	BL	1ST	2ND	3RD
DCA	15	85	14	27
VC	1.1	6.7	ND	1.1

COMPOUND	BL	1ST	2ND	3RD
DCA	120	660	270	320
VC	0.47	6.2	1.5	4.4

COMPOUND	BL	1ST	2ND	3RD
DCA	0.24	ND	ND	1.3
VC	ND	ND	ND	ND

COMPOUND	BL	1ST	2ND	3RD
DCA	89	140	100	200
VC	1.2	3.7	2	3.1

COMPOUND	BL	1ST	2ND	3RD
DCA	0.52	0.57	0.46	0.48
VC	2.8	3.5	2.9	2.9

COMPOUND	BL	1ST	2ND	3RD
DCA	4.4	31	8.3	13
VC	2.4	1.1	0.39	0.54

COMPOUND	BL	1ST	2ND	3RD
DCA	42	25	36	100
VC	1.2	ND	ND	1.8

COMPOUND	BL	1ST	2ND	3RD
DCA	3.8	4.3	0.29	0.75
VC	ND	ND	ND	ND

COMPOUND	BL	1ST	2ND	3RD
DCA	ND	ND	ND	ND
VC	ND	ND	ND	ND

COMPOUND	BL	1ST	2ND	3RD
DCA	16	9.1	6.9	2.6
VC	1.7	0.54	0.56	ND

COMPOUND	BL	1ST	2ND	3RD
DCA	0.36	0.3	0.23	0.37
VC	ND	ND	ND	ND

COMPOUND	BL	1ST	2ND	3RD
DCA	11	10	8.1	2
VC	1.2	0.88	ND	ND

COMPOUND	BL	1ST	2ND	3RD
DCA	0.8	0.97	ND	ND
VC	10	18	5.3	4.1

LEGEND

✱ Fullscale Monitoring Well Location

⌖ Pilot Test Monitoring Well Location

DCA 1,1-Dichloroethane

VC Vinyl Chloride

BL Baseline Fullscale (4/5/05)

1ST Post-First Fullscale (6/8/05)

2ND Post-Second Fullscale (9/6/05)

3RD Post-Third Fullscale (1/4/06)

1,1-Dichloroethane
MCL = 5 ug/L

Vinyl Chloride
MCL = 0.5 ug/L

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Groundwater Concentration Map
Upper Intermediate Zone
Alameda Point
Alameda, California

FIGURE 9

DATE: 2/13/06 | SCALE: 1" = 80' | PROJECT 900743

DRAWN BY: KH | CHECKED BY: TE

COMPOUND	BL	1ST	2ND	3RD
DCA	17	23	22	24
VC	ND	4.9	ND	ND

COMPOUND	BL	1ST	2ND	3RD
DCA	ND	ND	ND	ND
VC	ND	ND	ND	ND

COMPOUND	BL	1ST	2ND	3RD
DCA	280	80	230	340
VC	3.9	0.78	4.4	8.4

COMPOUND	BL	1ST	2ND	3RD
DCA	730	75	370	71
VC	10	ND	3	ND

COMPOUND	BL	1ST	2ND	3RD
DCA	110	110	70	100
VC	1.5	1.4	ND	1.4

COMPOUND	BL	1ST	2ND	3RD
DCA	15	11	27	19
VC	0.32	ND	ND	ND

COMPOUND	BL	1ST	2ND	3RD
DCA	0.2	ND	ND	ND
VC	ND	ND	ND	ND

COMPOUND	BL	1ST	2ND	3RD
DCA	92	180	120	160
VC	2.1	2.7	ND	3.3

COMPOUND	BL	1ST	2ND	3RD
DCA	9.7	13	3.7	15
VC	ND	ND	ND	ND

COMPOUND	BL	1ST	2ND	3RD
DCA	54	49	47	45
VC	4.6	2.2	ND	1.3

COMPOUND	BL	1ST	2ND	3RD
DCA	0.38	0.29	0.29	ND
VC	ND	ND	ND	ND

COMPOUND	BL	1ST	2ND	3RD
DCA	18	18	5.3	4.1
VC	0.8	0.97	ND	ND

LEGEND

✱ Fullscale Monitoring Well Location

⌖ Pilot Test Monitoring Well Location

COMPOUND	BL	1ST	2ND	3RD
DCA	0.8	0.97	ND	ND
VC	10	18	5.3	4.1

DCA 1,1-Dichloroethane

VC Vinyl Chloride

BL Baseline Fullscale (4/5/05)

1ST Post-First Fullscale (6/8/05)

2ND Post-Second Fullscale (9/6/05)

3RD Post-Third Fullscale (1/4/06)

1,1-Dichloroethane
MCL = 5 ug/L

Vinyl Chloride
MCL = 0.5 ug/L

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Groundwater Concentration Map
Lower Intermediate Zone
Alameda Point
Alameda, California

FIGURE 10

DATE: 2/13/06 | SCALE: 1" = 80' | PROJECT 900743

DRAWN BY: KH | CHECKED BY: TE

Table 1
FIRST INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
May 3	57L	25	25	50	107	125	232
	63L	32	50	82			
	66L	50	50	100			
	69L	0	0	0			
May 4	8U	5	25	30	210	350	560
	9U	30	50	80			
	16U	5	25	30			
	19U	30	50	80			
	31U	5	25	30			
	34U	0	0	0			
	45U	25	25	50			
	25L	10	25	35			
	27L	100	125	225			
	31L	0	0	0			
May 5	5U	28	50	78	282	350	632
	6U	34	50	84			
	7U	30	50	80			
	11U	50	50	100			
	14U	6	25	31			
	35U	28	25	53			
	36U	50	50	100			
	32L	28	25	53			
	36L	28	25	53			
May 6	1U	0	0	0	275	325	600
	2U	4	25	29			
	3U	31	25	56			
	4U	57	50	107			
	18U	29	25	54			
	49U	28	25	53			
	58L	7	25	32			
	62L	7	25	32			
	65L	62	75	137			
	68L	50	50	100			
May 7	10U	100	100	200	458	500	958
	12U	59	50	109			
	15U	29	25	54			
	17U	6	25	31			
	24U	0	0	0			
	25U	12	25	37			
	26U	12	25	37			
	10L	100	100	200			
	11L	75	75	150			
	12L	65	75	140			

Table 1
FIRST INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
May 8	21U	40	50	90	410	450	860
	22U	0	0	0			
	23U	14	25	39			
	27U	50	50	100			
	1L	50	50	100			
	2L	50	50	100			
	3L	33	25	58			
	4L	100	100	200			
	5L	10	25	35			
	6L	13	25	38			
	9L	50	50	100			
May 10	39U	50	50	100	478	475	953
	40U	75	75	150			
	41U	58	50	108			
	42U	60	50	110			
	30L	56	50	106			
	35L	5	25	30			
	37L	75	75	150			
	38L	35	25	60			
	55L	59	50	109			
	56L	0	0	0			
	60L	5	25	30			
May 11	23L	28	25	53	154	175	329
	28L	20	25	45			
	33L	100	100	200			
	43L	6	25	31			
May 16	32U	0	0	0	279	250	529
	33U	35	25	60			
	43U	0	0	0			
	44U	0	0	0			
	46U	100	100	200			
	47U	15	25	40			
	15L	33	25	58			
	16L	30	25	55			
	19L	33	25	58			
	26L	33	25	58			
May 17	81L	100	100	200	700	675	1,375
	82L	75	75	150			
	83L	100	100	200			
	84L	100	100	200			
	86L	0	0	0			
	88L	100	100	200			
	89L	25	25	50			
	91L	75	75	150			
	95L	50	25	75			
	99L	75	75	150			

Table 1
FIRST INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
May 18	59U	0	0	0	140	150	290
	61U	0	0	0			
	83U	15	25	40			
	86U	0	0	0			
	89U	0	0	0			
	92U	75	75	150			
	53L	50	50	100			
May 19	55U	5	25	30	342	365	707
	56U	25	25	50			
	57U	100	90	190			
	58U	0	0	0			
	60U	0	0	0			
	63U	80	50	130			
	66U	7	25	32			
	67U	16	25	41			
	68U	25	25	50			
	74L	59	75	134			
	75L	25	25	50			
	76L	0	0	0			
	77L	0	0	0			
May 20	69U	5	25	30	155	265	420
	72U	5	25	30			
	75U	5	25	30			
	78U	5	25	30			
	81U	5	25	30			
	87U	0	0	0			
	90U	0	0	0			
	18L	30	40	70			
	50L	0	0	0			
	70L	35	50	85			
	73L	65	50	115			
May 21	70U	35	30	65	427	480	907
	73U	30	50	80			
	76U	15	25	40			
	79U	17	25	42			
	82U	10	0	10			
	85U	100	100	200			
	88U	0	0	0			
	91U	15	25	40			
	34L	35	50	85			
	44L	75	75	150			
	51L	50	50	100			
	52L	0	0	0			
	71L	45	50	95			

Table 1
FIRST INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
May 22	71U	50	50	100	403	400	803
	74U	45	25	70			
	77U	35	50	85			
	80U	35	25	60			
	7L	25	25	50			
	8L	40	50	90			
	13L	50	50	100			
	39L	65	75	140			
	48L	58	50	108			
	72L	0	0	0			
May 23	48U	33	50	83	251	360	611
	50U	31	50	81			
	51U	3	25	28			
	52U	10	25	35			
	40L	33	50	83			
	41L	13	25	38			
	42L	5	10	15			
	45L	33	50	83			
	46L	55	50	105			
	49L	35	25	60			
May 24	79L	75	75	150	510	525	1,035
	80L	52	50	102			
	85L	75	75	150			
	87L	50	50	100			
	92L	25	25	50			
	93L	8	25	33			
	94L	75	75	150			
	98L	75	75	150			
	101L	75	75	150			
	102L	0	0	0			
May 25	90L	5	25	30	35	75	110
	96L	25	25	50			
	97L	0	0	0			
	100L	5	25	30			
May 31	38U	0	0	0	123	150	273
	14L	33	25	58			
	21L	58	75	133			
	29L	32	50	82			
Jun 1	37U	5	25	30	284	300	584
	53U	56	50	106			
	54U	32	25	57			
	20L	75	75	150			
	22L	83	100	183			
	54L	0	0	0			
	59L	33	25	58			

Table 1
FIRST INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Jun 2	28U	75	75	150	627	700	1,327
	29U	100	100	200			
	30U	32	50	82			
	17L	64	100	164			
	103L	56	75	131			
	104L	75	75	150			
	105L	125	125	250			
	106L	100	100	200			
Jun 3	84U	31	50	81	531	625	1,156
	93U	31	50	81			
	94U	59	75	134			
	47L	54	75	129			
	107L	100	100	200			
	108L	100	100	200			
	109L	31	50	81			
	110L	125	125	250			

FIRST EVENT TOTALS

Reagent	Upper Zone	Lower Zone	Total
12% H_2O_2	2,448	4,733	7,181
Catalyst	2,945	5,125	8,070
Total	**5,393**	**9,858**	**15,251**

Table 2
FIRST INJECTION EVENT FIELD MONITORING DATA

IR Site 9 Intermediate
Alameda Point
Alameda, California

Monitoring Well	Date	Sample Time	Temperature (deg C)	Conductivity (us/cm)	DO (mg/l)	pH	ORP (mV)	[illegible] (mg/l)	Hydrogen Peroxide (mg/l)
9EMW01	5/3/2005	8:12	19.31	0.493	4.44	7.20	-18.9	0.0	0.0
	5/11/2005	9:33	19.61	2.025	35.01	7.34	73.0	0.0	0.0
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	12:48	21.56	3.195	27.97	7.40	-5.7	0.4	0.0
9EMW02	5/3/2005	7:52	21.38	2.352	21.50	6.75	29.8	0.0	0.0
	5/11/2005	9:35	19.39	2.317	44.56	7.16	44.1	3.0	3.0
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	12:44	19.66	2.479	34.82	7.34	3.0	2.0	0.0
P9MWI05	5/3/2005	10:33	18.56	1.117	1.67	8.96	-59.0	0.0	0.0
	5/11/2005	9:41	18.73	1.490	47.26	7.85	4.9	0.0	0.0
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	12:31	19.11	1.672	35.66	8.01	-27.2	0.1	0.0
9IFMW01U	5/3/2005	8:47	17.84	1.412	0.13	7.83	-62.4	0.0	0.0
	5/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	NS	NS	NS	NS	NS	NS	NS	NS
9IFMW01L	5/3/2005	8:24	18.19	1.879	0.52	7.85	-46.3	0.0	0.0
	5/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	12:36	19.12	1.535	1.50	7.73	-54.4	0.0	0.0
9IFMW02U	5/3/2005	9:08	19.28	4.904	0.48	7.62	-57.4	0.0	0.0
	5/11/2005	9:30	22.14	3.097	34.41	6.57	128.3	0.0	>5000
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	10:50	20.24	4.855	36.00	7.03	30.9	0.8	0.0
9IFMW02L	5/3/2005	9:01	17.48	1.156	0.47	8.45	-53.0	0.0	0.0
	5/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	10:55	18.94	0.975	4.96	7.76	13.3	0.1	0.1
9IFMW03U	5/3/2005	9:14	19.40	5.340	0.45	7.71	-64.0	0.0	0.0
	5/11/2005	9:23	20.00	8.848	29.76	7.22	23.2	0.0	0.0
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	10:35	21.27	7.821	36.60	7.16	35.7	0.3	0.0
9IFMW03L	5/3/2005	9:45	17.17	2.105	0.53	7.83	-76.4	0.0	0.0
	5/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/25/2005	9:43	17.86	12.180	42.85	7.19	2.8	0.0	0.0
	6/4/2005	11:05	17.71	8.160	39.10	6.93	33.0	0.0	0.0
9IFMW04U	5/3/2005	9:36	17.25	3.655	0.43	7.40	-94.0	0.0	0.0
	5/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	11:42	17.65	4.130	1.52	7.48	-109.8	0.2	0.0
9IFMW04L	5/3/2005	9:31	16.61	4.072	0.40	7.64	-121.6	0.0	0.0
	5/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	11:34	17.42	4.609	0.46	7.55	-119.6	0.0	0.0
9IFMW05U	5/3/2005	9:49	17.55	1.350	0.45	7.29	-72.0	0.0	0.0
	5/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/25/2005	9:43	17.79	1.357	33.54	7.16	7.6	0.0	0.0
	6/4/2005	11:09	18.13	1.330	9.04	7.13	-1.7	0.0	0.0

Table 2
FIRST INJECTION EVENT FIELD MONITORING DATA

IR Site 9 Intermediate
Alameda Point
Alameda, California

Monitoring Well	[illegible]	Sample Time	Temperature (deg C)	Conductivity (mS/cm)	DO (mg/l)	pH	[illegible]	Iron (mg/l)	Hydrogen Peroxide (mg/l)
9IFMW05L	5/3/2005	9:57	18.16	4.257	0.43	7.76	-69.8	0.0	0.0
	5/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	11:51	18.95	4.777	0.60	7.80	-94.5	0.1	0.0
9IFMW06U	5/3/2005	10:59	17.56	1.007	0.47	8.63	-60.5	0.0	0.0
	5/11/2005	9:43	17.86	1.028	41.21	8.17	9.6	0.0	0.0
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	12:54	18.37	1.430	40.87	7.99	-11.6	0.3	0.3
9IFMW07U	5/3/2005	10:05	21.09	2.381	0.32	8.20	-80.9	0.0	0.0
	5/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	11:57	18.76	2.857	1.35	8.20	-100.1	0.1	0.0
9IFMW08U	5/3/2005	10:12	17.66	4.057	0.50	7.77	-33.0	0.0	0.0
	5/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/25/2005	9:34	18.59	3.516	0.92	7.47	-33.3	0.0	0.0
	6/4/2005	1:25	19.07	4.020	7.50	7.62	-30.8	0.0	0.0
9IFMW08L	5/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/25/2005	9:22	21.25	2.468	33.39	7.58	2.2	0.0	0.0
	6/4/2005	1:22	18.93	3.057	33.47	7.79	-0.9	0.4	0.0
9IFMW09L	5/3/2005	10:51	17.54	0.894	0.52	8.51	-12.2	0.0	0.0
	5/11/2005	9:47	17.87	2.247	45.61	7.77	10.1	0.0	0.0
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	12:52	18.20	2.034	42.69	7.68	10.2	0.4	0.0
9IFMW10U	5/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/25/2005	9:22	21.00	2.826	28.36	7.70	-10.7	0.0	0.0
	6/4/2005	1:19	20.73	3.369	20.34	7.85	-14.7	0.4	0.0
9IFMW10L	5/3/2005	10:42	19.02	1.436	0.50	8.37	-31.9	0.0	0.0
	5/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	1:34	19.45	1.634	1.27	8.15	-103.5	0.0	0.0
9IFMW11U	5/3/2005	10:46	18.97	1.490	0.19	8.29	-67.4	0.0	0.0
	5/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	1:32	19.53	1.843	3.12	8.20	-23.6	0.0	0.0
9IFMW11S	5/3/2005	9:28	15.95	1.958	11.50	7.15	-109.6	0.0	0.0
	5/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	5/25/2005	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2005	11:29	16.37	3.133	0.34	7.11	-144.3	3.0	0.0

Table 3
SECOND INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Jul 12	42U	30	25	55	629	600	1,229
	46U	75	75	150			
	57U	80	75	155			
	62U	22	25	47			
	65U	6	25	31			
	35L	87	75	162			
	37L	83	75	158			
	38L	84	75	159			
	45L	81	75	156			
	50L	81	75	156			
Jul 13	1U	150	150	300	397	450	847
	3U	0	0	0			
	8U	150	150	300			
	13U	35	50	85			
	15U	32	50	82			
	20U	30	50	80			
Jul 14	32U	0	0	0	546	745	1,291
	37U	64	100	164			
	46U	75	75	150			
	50U	50	75	125			
	60U	25	45	70			
	70U	100	100	200			
	72U	4	25	29			
	76U	0	0	0			
	84U	31	50	81			
	16L	58	100	158			
	24L	26	50	76			
	42L	38	50	88			
	50L	75	75	150			
Jul 15	2U	16	25	41	366	525	891
	4U	20	75	95			
	6U	26	50	76			
	7U	80	75	155			
	11U	5	25	30			
	16U	32	50	82			
	18U	56	75	131			
	19U	0	0	0			
	22U	100	100	200			
	23U	31	50	81			

Table 3
SECOND INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Jul 16	5U	25	5	30	321	305	626
	9U	29	25	54			
	10U	0	0	0			
	12U	30	25	55			
	14U	4	25	29			
	17U	32	25	57			
	21U	8	25	33			
	28U	28	25	53			
	1L	0	0	0			
	2L	83	75	158			
	3L	50	50	100			
	4L	32	25	57			
Jul 17	24U	55	25	80	525	490	1,015
	25U	21	25	46			
	26U	75	65	140			
	27U	55	75	130			
	29U	0	0	0			
	33U	75	75	150			
	35U	0	0	0			
	36U	75	75	150			
	2L	85	50	135			
	5L	43	50	93			
	6L	41	50	91			
Jul 18	34U	30	25	55	364	375	739
	38U	25	25	50			
	39U	5	25	30			
	40U	36	25	61			
	41U	31	25	56			
	43U	19	25	44			
	45U	75	75	150			
	48U	100	100	200			
	52U	16	25	41			
	15L	27	25	52			
Jul 19	45U	100	100	200	338	400	738
	58U	53	25	78			
	63U	12	25	37			
	66U	5	25	30			
	67U	33	50	83			
	68U	47	50	97			
	71U	31	50	81			
	75U	0	0	0			
	79U	18	25	43			
	82U	39	50	89			
	83U	0	0	0			

Table 3
SECOND INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Jul 20	44U	16	25	41	342	425	767
	45U	75	75	150			
	49U	22	25	47			
	54U	50	50	100			
	69U	4	25	29			
	13L	54	50	104			
	14L	34	50	84			
	19L	39	50	89			
	23L	13	25	38			
	27L	30	25	55			
	30L	5	25	30			
Jul 25	74U	3	25	28	413	450	863
	77U	29	25	54			
	78U	50	50	100			
	80U	21	25	46			
	85U	50	50	100			
	86U	50	50	100			
	87U	50	50	100			
	44L	75	75	150			
	46L	75	75	150			
	47L	10	25	35			
Jul 26	91U	50	50	100	425	500	925
	94U	25	25	50			
	97U	25	25	50			
	103U	25	25	50			
	106U	50	50	100			
	109U	5	25	30			
	44L	15	50	65			
	46L	50	50	100			
	47L	25	25	50			
	54L	25	25	50			
	61L	25	25	50			
	68L	5	25	30			
	71L	100	100	200			
Jul 27	88U	15	25	40	485	525	1,010
	8L	75	75	150			
	9L	50	50	100			
	10L	75	75	150			
	11L	25	25	50			
	12L	25	25	50			
	17L	75	75	150			
	18L	35	50	85			
	46L	50	50	100			
	47L	25	25	50			
	51L	10	25	35			
	56L	25	25	50			

Table 3
SECOND INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Jul 28	47U	25	25	50	360	410	770
	51U	50	50	100			
	53U	75	75	150			
	55U	25	25	50			
	56U	25	25	50			
	64U	25	25	50			
	73U	25	25	50			
	81U	6	25	31			
	18L	85	85	170			
	48L	8	25	33			
	49L	11	25	36			
Jul 29	28L	50	50	100	600	575	1,175
	29L	50	50	100			
	31L	75	75	150			
	32L	50	50	100			
	33L	25	25	50			
	34L	50	50	100			
	36L	25	25	50			
	39L	125	125	250			
	40L	50	50	100			
	43L	100	75	175			
Jul 30	98U	50	50	100	547	599	1,146
	100U	75	75	150			
	104U	125	125	250			
	110U	0	0	0			
	112U	14	25	39			
	39L	50	50	100			
	57L	25	25	50			
	59L	75	75	150			
	62L	100	100	200			
	64L	21	25	46			
	66L	6	25	31			
	69L	6	24	30			
Jul 31	89U	75	75	150	753	725	1,478
	92U	50	50	100			
	93U	13	25	38			
	95U	50	50	100			
	101U	75	75	150			
	107U	75	75	150			
	113U	65	50	115			
	52L	50	50	100			
	55L	100	100	200			
	60L	25	25	50			
	65L	75	75	150			
	67L	100	75	175			

Table 3
SECOND INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Aug 1	61U	25	25	50	682	680	1,362
	7L	100	100	200			
	20L	7	25	32			
	21L	0	0	0			
	22L	75	75	150			
	25L	75	55	130			
	26L	125	125	250			
	85L	75	75	150			
	86L	125	125	250			
	88L	75	75	150			
Aug 2	59U	50	50	100	832	850	1,682
	87L	100	100	200			
	89L	125	125	250			
	90L	7	25	32			
	91L	100	100	200			
	92L	125	125	250			
	93L	50	50	100			
	94L	125	125	250			
	96L	50	50	100			
	103L	100	100	200			
Aug 3	41L	150	150	300	300	300	600
	101L	150	150	300			
Aug 15	119L	100	100	200	566	575	1,141
	121L	100	100	200			
	122L	50	50	100			
	123L	75	75	150			
	124L	59	75	134			
	125L	125	125	250			
	126L	57	50	107			
Aug 17	99L	0	0	0	823	825	1,648
	102L	65	50	115			
	104L	0	0	0			
	106L	0	0	0			
	107L	0	0	0			
	108L	0	0	0			
	109L	75	75	150			
	110L	50	50	100			
	111L	59	50	109			
	112L	50	50	100			
	113L	84	75	159			
	114L	0	0	0			
	115L	59	75	134			
	116L	125	125	250			
	117L	125	125	250			
	118L	6	25	31			
	120L	125	125	250			

Table 3
SECOND INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Aug 18	135U	31	25	56	607	575	1,182
	143U	25	25	50			
	144U	31	25	56			
	148U	56	50	106			
	154U	75	75	150			
	158U	58	50	108			
	130L	31	25	56			
	144L	100	100	200			
	147L	100	100	200			
	148L	100	100	200			
Aug 19	122U	5	25	30	820	875	1,695
	128U	50	50	100			
	138U	100	100	200			
	141U	0	0	0			
	142U	50	50	100			
	150U	60	75	135			
	153U	30	50	80			
	97L	0	0	0			
	105L	0	0	0			
	129L	100	100	200			
	131L	100	100	200			
	133L	125	125	250			
	134L	100	100	200			
	135L	100	100	200			
Aug 20	30U	100	60	160	839	785	1,624
	118U	30	50	80			
	121U	25	25	50			
	74L	120	50	170			
	77L	75	75	150			
	79L	7	50	57			
	81L	32	25	57			
	82L	125	125	250			
	84L	100	100	200			
	95L	75	75	150			
	98L	75	75	150			
	100L	75	75	150			
Aug 21	124U	55	75	130	661	675	1,336
	130U	19	25	44			
	132U	75	75	150			
	133U	75	75	150			
	137U	75	75	150			
	140U	50	50	100			
	145U	50	50	100			
	147U	50	50	100			
	149U	75	75	150			
	151U	37	25	62			
	155U	75	75	150			
	157U	25	25	50			

Table 3
SECOND INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Aug 22	31U	50	50	100	730	750	1,480
	90U	30	50	80			
	99U	50	50	100			
	102U	50	50	100			
	105U	50	50	100			
	114U	50	50	100			
	117U	25	25	50			
	119U	50	50	100			
	120U	25	25	50			
	58L	100	100	200			
	63L	100	100	200			
	73L	150	150	300			
Aug 23	123U	25	25	50	915	895	1,810
	126U	25	25	50			
	129U	40	20	60			
	134U	0	0	0			
	152U	50	50	100			
	156U	75	75	150			
	137L	125	125	250			
	138L	150	150	300			
	139L	125	125	250			
	141L	100	100	200			
	142L	100	100	200			
	143L	100	100	200			
Aug 24	96U	50	50	100	785	785	1,570
	108U	50	50	100			
	111U	75	75	150			
	115U	50	50	100			
	53L	75	75	150			
	70L	75	75	150			
	75L	50	50	100			
	76L	100	100	200			
	78L	25	25	50			
	80L	100	100	200			
	83L	100	100	200			
	127L	35	35	70			

Table 3
SECOND INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Aug 25	125U	7	0	7	832	825	1,657
	127U	25	25	50			
	131U	50	50	100			
	136U	25	25	50			
	139U	50	50	100			
	146U	50	50	100			
	128L	100	100	200			
	132L	25	25	50			
	136L	200	200	400			
	140L	100	100	200			
	145L	100	100	200			
	146L	0	0	0			
	149L	100	100	200			

SECOND EVENT TOTALS

Reagent	Upper Zone	Lower Zone	Total
12% H_2O_2	6,539	10,264	16,803
Catalyst	7,070	10,424	17,494
Total	**13,609**	**20,688**	**34,297**

Table 4
SECOND INJECTION EVENT FIELD MONITORING DATA

IR Site 9 Intermediate
Alameda Point
Alameda, California

Monitoring Well	Date	Sample Time	Temperature (deg C)	Conductivity (us/cm)	DO (mg/l)	pH	ORP (mV)	Iron (mg/l)	Nitrogen (mg/l)
9EMW01	7/11/2005	9:16	23.11	3.151	19.21	7.11	27.6	0.0	0.0
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2005	10:24	23.01	2.108	36.36	8.41	-17.2	0.0	0.0
9EMW02	7/11/2005	9:12	20.07	2.196	31.94	6.94	64.8	1.0	0.0
	7/20/2005	11:40	21.07	2.245	32.65	6.91	20.4	0.0	0.0
	8/3/2005	1:34	20.33	4.770	39.30	6.63	-4.0	2.0	0.0
	8/26/2005	10:20	22.89	2.089	39.71	8.17	-8.4	0.0	0.0
P9MWI05	7/11/2005	10:18	20.17	1.671	22.59	7.65	-8.1	0.0	0.0
	7/20/2005	11:17	22.82	2.753	21.71	6.82	33.9	0.0	0.0
	8/3/2005	1:20	20.53	2.356	38.70	6.80	17.5	8.0	0.0
	8/26/2005	10:27	20.05	2.115	43.32	8.28	13.7	2.0	0.0
9IFMW01U	7/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2005	11:19	18.95	1.227	0.45	8.51	-30.3	0.0	0.0
9IFMW01L	7/11/2005	10:41	19.18	1.365	3.46	7.66	-25.5	0.0	0.0
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2005	10:11	20.11	4.550	33.27	8.38	-14.5	0.0	0.0
9IFMW02U	7/11/2005	8:28	20.68	5.035	10.39	6.68	61.5	0.0	0.0
	7/20/2005	11:50	20.56	12.510	35.06	6.80	23.7	0.0	0.0
	8/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2005	9:22	20.92	4.726	33.75	8.15	-1.1	2.0	0.0
9IFMW02L	7/11/2005	11:21	20.30	0.914	0.21	7.80	9.2	0.0	0.0
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2005	9:32	20.82	0.653	0.84	9.08	-19.7	0.0	0.0
9IFMW03U	7/11/2005	8:30	20.76	6.429	19.07	7.21	69.5	0.0	0.0
	7/20/2005	11:46	20.64	6.416	34.20	6.85	14.4	0.0	0.0
	8/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2005	9:18	21.60	5.403	30.25	8.36	-18.2	0.0	0.0
9IFMW03L	7/11/2005	9:06	20.94	3.435	21.67	7.36	7.1	0.0	0.0
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	1:53	20.41	2.740	37.03	7.17	-16.5	0.0	0.0
	8/26/2005	9:46	19.26	5.512	48.45	8.18	-12.4	0.0	0.0
9IFMW04U	7/11/2005	8:52	18.46	3.625	0.87	6.95	0.5	0.0	0.0
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2005	10:01	18.62	2.733	0.54	8.33	-128.7	0.0	0.0
9IFMW04L	7/11/2005	8:49	17.17	4.555	1.32	6.99	42.5	0.0	0.0
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2005	9:58	17.25	3.495	0.59	8.35	-52.6	0.0	0.0
9IFMW05U	7/11/2005	9:03	18.39	0.928	1.36	7.11	-9.4	0.0	0.0
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	1:47	20.47	1.213	29.83	6.93	41.5	0.2	0.0
	8/26/2005	9:43	18.71	1.206	38.81	8.10	-2.7	0.0	0.0

Table 4
SECOND INJECTION EVENT FIELD MONITORING DATA

IR Site 9 Intermediate
Alameda Point
Alameda, California

Monitoring Well	Date	Sample Time	Temperature (deg C)	Conductivity (mS/cm)	DO (mg/l)	pH	ORP (mV)	Iron (mg/l)	Hydrogen Peroxide (mg/l)
9IFMW05L	7/11/2005	10:55	19.33	4.907	0.82	7.27	-30.4	0.0	0.0
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2005	11:35	19.85	3.501	0.23	8.56	-52.0	0.0	0.0
9IFMW06U	7/11/2005	10:30	19.88	1.540	19.88	7.14	1.6	0.0	0.0
	7/20/2005	11:31	19.83	1.805	36.54	7.10	-22.3	0.0	0.0
	8/3/2005	10:50	19.22	1.509	34.30	7.36	-59.5	0.0	0.0
	8/26/2005	10:37	19.76	1.323	35.53	8.48	-14.6	1.0	0.0
9IFMW07U	7/11/2005	10:50	20.31	2.703	3.61	7.74	-3.6	0.0	0.0
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2005	11:31	19.67	1.964	0.38	8.84	-33.0	0.0	0.0
9IFMW08U	7/11/2005	11:19	21.27	3.429	1.28	7.30	-38.3	0.0	0.0
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2005	8:32	19.00	3.576	28.33	8.30	-21.9	0.0	0.0
9IFMW08L	7/11/2005	11:10	23.22	2.886	17.15	7.61	6.1	0.0	0.0
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2005	8:41	21.65	2.199	35.69	8.40	-16.5	0.0	0.0
9IFMW09L	7/11/2005	10:24	18.98	1.700	32.04	7.16	14.9	0.0	0.0
	7/20/2005	11:31	18.96	2.792	34.67	6.70	-17.9	0.0	0.0
	8/3/2005	10:53	19.20	1.983	41.70	7.18	-51.4	0.0	0.0
	8/26/2005	10:33	19.18	1.437	40.90	8.46	-8.8	0.0	0.0
9IFMW10U	7/11/2005	11:15	21.89	2.762	4.56	7.63	-38.7	0.0	0.0
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2005	8:36	22.82	3.827	30.78	8.45	-9.2	3.0	0.0
9IFMW10L	7/11/2005	10:37	21.20	1.704	2.14	7.53	-51.3	0.0	0.0
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	9:00	21.03	2.544	33.07	7.08	-31.2	0.3	7.0
	8/26/2005	11:13	20.21	2.188	32.45	8.31	-18.8	0.0	0.0
9IFMW11U	7/11/2005	10:33	20.65	1.581	3.98	7.74	-3.6	0.0	0.0
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2005	NS	NS	NS	NS	NS	NS	NS	NS
9IFMW11S	7/11/2005	NS	NS	NS	NS	NS	NS	NS	NS
	7/20/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/3/2005	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2005	9:55	17.07	2.078	3.04	8.13	-78.8	0.0	0.0

Table 5
THIRD INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Oct 10	40U	0	0	0	0	0	0
	56U	0	0	0			
	60L	0	0	0			
	82L	0	0	0			
Oct 11	22U	10	0	10	925	930	1,855
	27U	75	75	150			
	33U	60	75	135			
	34U	75	75	150			
	37U	55	55	110			
	42U	75	75	150			
	45U	25	25	50			
	30L	100	100	200			
	42L	100	100	200			
	59L	125	125	250			
	61L	100	100	200			
	70L	125	125	250			
Oct 12	102U	50	50	100	600	600	1,200
	104U	50	50	100			
	105U	50	50	100			
	109U	50	50	100			
	111U	50	50	100			
	112U	50	50	100			
	114U	50	50	100			
	116U	50	50	100			
	119U	50	50	100			
	121U	50	50	100			
	122U	50	50	100			
	123U	50	50	100			
Oct 13	55U	75	75	150	830	810	1,640
	57U	75	75	150			
	60U	75	75	150			
	61U	0	0	0			
	67U	60	60	120			
	69U	150	150	300			
	67L	20	0	20			
	80L	75	75	150			
	87L	100	100	200			
	90L	100	100	200			
	94L	100	100	200			

Table 5
THIRD INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Oct 14	32U	60	0	60	655	575	1,230
	39U	20	0	20			
	49U	75	75	150			
	51U	50	50	100			
	54U	50	50	100			
	64U	25	25	50			
	66U	75	75	150			
	31L	100	100	200			
	43L	75	75	150			
	56L	50	50	100			
	72L	75	75	150			
Oct 15	79U	75	75	150	795	775	1,570
	85U	75	75	150			
	88U	100	100	200			
	91U	75	75	150			
	94U	100	100	200			
	97U	75	75	150			
	100U	50	50	100			
	97L	100	100	200			
	99L	75	75	150			
	104L	50	50	100			
	107L	20	0	20			
	114L	0	0	0			
Oct 16	10U	0	0	0	1,000	1,000	2,000
	12U	50	50	100			
	14U	100	100	200			
	16U	100	100	200			
	17U	100	100	200			
	25U	100	100	200			
	29U	100	100	200			
	10L	50	50	100			
	14L	100	100	200			
	17L	100	100	200			
	19L	100	100	200			
	35L	100	100	200			
Oct 17	101U	100	100	200	1,100	1,100	2,200
	103U	100	100	200			
	106U	100	100	200			
	107U	100	100	200			
	108U	100	100	200			
	110U	100	100	200			
	113U	100	100	200			
	115U	100	100	200			
	117U	100	100	200			
	118U	100	100	200			
	120U	100	100	200			

Table 5
THIRD INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Oct 18	1U	50	50	100	758	750	1,508
	3U	8	0	8			
	4U	75	75	150			
	5U	75	75	150			
	6U	100	100	200			
	7U	75	75	150			
	8U	75	75	150			
	7L	100	100	200			
	9L	100	100	200			
	13L	100	100	200			
Oct 19	41U	10	0	10	820	745	1,565
	47U	75	20	95			
	53U	75	75	150			
	63U	0	0	0			
	32L	100	100	200			
	51L	125	125	250			
	52L	100	100	200			
	55L	100	100	200			
	58L	125	125	250			
	71L	100	100	200			
	91L	10	0	10			
Oct 24	46U	100	100	200	750	750	1,500
	52U	100	100	200			
	58U	100	100	200			
	65U	50	50	100			
	70U	0	0	0			
	50L	100	100	200			
	68L	100	100	200			
	81L	100	100	200			
	92L	100	100	200			
Oct 25	124U	75	75	150	825	825	1,650
	127U	75	75	150			
	128U	50	50	100			
	134U	50	50	100			
	139U	25	25	50			
	147U	50	50	100			
	149U	50	50	100			
	175U	50	50	100			
	122L	100	100	200			
	124L	100	100	200			
	133L	100	100	200			
	139L	100	100	200			

Table 5
THIRD INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Oct 26	2U	50	50	100	950	950	1,900
	9U	50	50	100			
	11U	50	50	100			
	1L	100	100	200			
	2L	100	100	200			
	3L	100	100	200			
	4L	100	100	200			
	5L	100	100	200			
	6L	100	100	200			
	11L	100	100	200			
	12L	100	100	200			
	63L	0	0	0			
	64L	0	0	0			
	66L	0	0	0			
	121L	0	0	0			
Oct 27	125U	50	50	100	900	900	1,800
	129U	50	50	100			
	131U	50	50	100			
	132U	50	50	100			
	146U	50	50	100			
	152U	50	50	100			
	153U	50	50	100			
	156U	50	50	100			
	158U	50	50	100			
	160U	50	50	100			
	118L	100	100	200			
	127L	100	100	200			
	128L	100	100	200			
	130L	100	100	200			
Oct 28	137U	50	50	100	900	900	1,800
	143U	50	50	100			
	155U	50	50	100			
	165U	50	50	100			
	171U	50	50	100			
	174U	50	50	100			
	181U	50	50	100			
	187U	50	50	100			
	191U	50	50	100			
	199U	50	50	100			
	140L	100	100	200			
	143L	100	100	200			
	149L	100	100	200			
	151L	100	100	200			
Oct 29	21U	100	100	200	400	400	800
	15L	100	100	200			
	16L	100	100	200			
	21L	100	100	200			

Table 5
THIRD INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Oct 30	13U	100	100	200	750	725	1,475
	15U	50	50	100			
	18U	50	50	100			
	23U	50	50	100			
	28U	25	0	25			
	30U	50	50	100			
	38U	50	50	100			
	18L	100	100	200			
	22L	100	100	200			
	29L	100	100	200			
	54L	75	75	150			
Oct 31	126U	50	50	100	800	800	1,600
	136U	50	50	100			
	140U	50	50	100			
	142U	75	75	150			
	154U	75	75	150			
	159U	75	75	150			
	162U	50	50	100			
	167U	25	25	50			
	119L	50	50	100			
	123L	100	100	200			
	132L	100	100	200			
	150L	100	100	200			
Nov 1	164U	50	50	100	750	750	1,500
	166U	50	50	100			
	177U	50	50	100			
	180U	50	50	100			
	189U	50	50	100			
	197U	50	50	100			
	200U	50	50	100			
	205U	50	50	100			
	207U	50	50	100			
	153L	100	100	200			
	158L	100	100	200			
	164L	100	100	200			
Nov 2	20U	100	100	200	750	750	1,500
	24U	0	0	0			
	26U	100	100	200			
	31U	50	50	100			
	36U	50	50	100			
	43U	125	125	250			
	24L	125	125	250			
	36L	100	100	200			
	37L	100	100	200			

Table 5
THIRD INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Nov 7	130U	50	50	100	800	800	1,600
	133U	50	50	100			
	135U	50	50	100			
	145U	0	0	0			
	161U	50	50	100			
	125L	100	100	200			
	126L	100	100	200			
	131L	100	100	200			
	134L	100	100	200			
	135L	100	100	200			
	136L	100	100	200			
Nov 8	71U	50	50	100	900	900	1,800
	74U	50	50	100			
	77U	50	50	100			
	80U	50	50	100			
	86U	50	50	100			
	20L	100	100	200			
	26L	100	100	200			
	27L	50	50	100			
	95L	100	100	200			
	98L	100	100	200			
	105L	100	100	200			
	108L	100	100	200			
Nov 9	163U	50	50	100	900	900	1,800
	170U	50	50	100			
	172U	50	50	100			
	173U	50	50	100			
	176U	50	50	100			
	179U	50	50	100			
	182U	50	50	100			
	184U	50	50	100			
	190U	50	50	100			
	196U	50	50	100			
	198U	50	50	100			
	202U	50	50	100			
	203U	0	0	0			
	214U	50	50	100			
	223U	50	50	100			
	235U	50	50	100			
	237U	50	50	100			
	185L	100	100	200			

Table 5
THIRD INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Nov 10	73U	0	0	0	750	750	1,500
	75U	50	50	100			
	76U	50	50	100			
	81U	50	50	100			
	82U	50	50	100			
	87U	50	50	100			
	93U	50	50	100			
	99U	50	50	100			
	102L	100	100	200			
	109L	100	100	200			
	112L	100	100	200			
	117L	100	100	200			
Nov 11	83U	50	50	100	750	750	1,500
	89U	50	50	100			
	92U	50	50	100			
	95U	50	50	100			
	98U	50	50	100			
	100L	100	100	200			
	103L	100	100	200			
	110L	100	100	200			
	113L	100	100	200			
	115L	100	100	200			
Nov 12	19U	75	75	150	950	950	1,900
	35U	75	75	150			
	44U	75	75	150			
	48U	75	75	150			
	23L	0	0	0			
	25L	100	100	200			
	38L	50	50	100			
	39L	100	100	200			
	44L	100	100	200			
	46L	100	100	200			
	53L	100	100	200			
	62L	100	100	200			
Nov 13	72U	75	75	150	600	600	1,200
	78U	0	0	0			
	84U	75	75	150			
	90U	75	75	150			
	96U	75	75	150			
	96L	0	0	0			
	101L	100	100	200			
	106L	100	100	200			
	111L	100	100	200			
	116L	0	0	0			

Table 5
THIRD INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Nov 14	138U	50	50	100	825	825	1,650
	148U	50	50	100			
	213U	75	75	150			
	216U	25	25	50			
	218U	50	50	100			
	221U	50	50	100			
	222U	50	50	100			
	230U	50	50	100			
	231U	75	75	150			
	129L	100	100	200			
	175L	100	100	200			
	176L	50	50	100			
	177L	100	100	200			
Nov 15	168U	50	50	100	785	775	1,560
	169U	50	50	100			
	178U	75	75	150			
	183U	75	75	150			
	186U	75	75	150			
	192U	50	50	100			
	210U	50	50	100			
	226U	0	0	0			
	227U	10	0	10			
	141L	100	100	200			
	145L	100	100	200			
	146L	100	100	200			
	170L	0	0	0			
	171L	50	50	100			
Nov 16	50U	50	50	100	425	425	850
	59U	100	100	200			
	68U	100	100	200			
	45L	75	75	150			
	49L	25	25	50			
	69L	75	75	150			
Nov 29	241U	50	50	100	900	900	1,800
	245U	50	50	100			
	251U	50	50	100			
	252U	0	0	0			
	254U	50	50	100			
	48L	100	100	200			
	52L	100	100	200			
	57L	100	100	200			
	65L	100	100	200			
	88L	100	100	200			
	89L	100	100	200			
	93L	100	100	200			

Table 5
THIRD INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Nov 30	150U	50	50	100	825	800	1,625
	157U	50	50	100			
	212U	50	50	100			
	217U	50	50	100			
	220U	50	50	100			
	225U	50	50	100			
	228U	25	0	25			
	120L	100	100	200			
	173L	100	100	200			
	174L	100	100	200			
	181L	100	100	200			
	183L	100	100	200			
Dec 1	144U	50	50	100	900	900	1,800
	151U	50	50	100			
	215U	50	50	100			
	219U	50	50	100			
	224U	50	50	100			
	229U	50	50	100			
	172L	100	100	200			
	179L	100	100	200			
	180L	100	100	200			
	182L	100	100	200			
	184L	100	100	200			
	186L	100	100	200			
Dec 2	141U	50	50	100	1,000	1,000	2,000
	206U	50	50	100			
	232U	50	50	100			
	234U	50	50	100			
	162L	100	100	200			
	165L	100	100	200			
	166L	100	100	200			
	167L	100	100	200			
	168L	100	100	200			
	169L	100	100	200			
	193L	100	100	200			
	194L	100	100	200			
Dec 3	62U	50	50	100	925	905	1,830
	242U	25	5	30			
	244U	50	50	100			
	248U	50	50	100			
	255U	50	50	100			
	28L	100	100	200			
	33L	100	100	200			
	34L	100	100	200			
	40L	100	100	200			
	41L	100	100	200			
	47L	100	100	200			
	79L	100	100	200			

Table 5
THIRD INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Dec 4	195U	50	50	100	800	800	1,600
	201U	50	50	100			
	204U	50	50	100			
	208U	50	50	100			
	137L	100	100	200			
	144L	200	200	400			
	159L	100	100	200			
	178L	100	100	200			
	190L	100	100	200			
Dec 5	185U	50	50	100	1,025	1,025	2,050
	211U	50	50	100			
	236U	50	50	100			
	138L	100	100	200			
	148L	100	100	200			
	155L	100	100	200			
	157L	100	100	200			
	160L	100	100	200			
	161L	100	100	200			
	163L	100	100	200			
	187L	75	75	150			
	188L	100	100	200			
Dec 6	243U	50	50	100	850	850	1,700
	247U	0	0	0			
	250U	50	50	100			
	253U	50	50	100			
	75L	100	100	200			
	76L	100	100	200			
	77L	100	100	200			
	78L	100	100	200			
	83L	100	100	200			
	84L	100	100	200			
	85L	100	100	200			
Dec 7	249U	50	50	100	750	750	1,500
	74L	100	100	200			
	86L	100	100	200			
	196L	100	100	200			
	197L	100	100	200			
	198L	100	100	200			
	199L	100	100	200			
	200L	100	100	200			

Table 5
THIRD INJECTION EVENT REAGENT INJECTION LOG

IR Site 9 Intermediate
Alameda Point
Alameda, California

DATE	INJECTION POINT	REAGENT TOTAL PER POINT			REAGENT TOTAL PER DAY		
		12% H_2O_2	Catalyst	Total	12% H_2O_2	Catalyst	Total
Dec 8	193U	50	50	100	950	950	1,900
	194U	50	50	100			
	238U	50	50	100			
	239U	50	50	100			
	240U	50	50	100			
	142L	100	100	200			
	147L	100	100	200			
	152L	100	100	200			
	156L	100	100	200			
	189L	100	100	200			
	191L	100	100	200			
	192L	100	100	200			
Dec 9	73L	100	100	200	700	700	1,400
	195L	100	100	200			
	201L	100	100	200			
	202L	100	100	200			
	203L	100	100	200			
	204L	100	100	200			
	205L	100	100	200			
	206L	0	0	0			

THIRD EVENT TOTALS

Reagent	Upper Zone	Lower Zone	Total
12% H_2O_2	13,968	18,600	32,568
Catalyst	13,740	18,550	32,290
Total	**27,708**	**37,150**	**64,858**

Table 6
THIRD INJECTION EVENT FIELD MONITORING DATA

IR Site 9 Intermediate
Alameda Point
Alameda, California

Monitoring Well	Date	Sample Time	Temperature (deg C)	Conductivity (us/cm)	DO (mg/l)	pH	ORP (mv)	Iron (mg/l)	Hydrogen Peroxide (mg/l)
9EMW01	12/9/2005	3:09	21.65	3.265	0.60	7.67	-110.6	2.0	0.0
9EMW02	12/9/2005	3:04	22.00	2.830	39.56	6.79	-34.9	0.4	0.0
P9MWI05	12/9/2005	2:51	20.23	2.175	35.09	7.73	64.4	0.3	0.0
9IFMW01U	12/9/2005	3:23	19.27	1.441	0.65	7.52	-81.3	0.0	0.0
9IFMW01L	12/9/2005	3:18	21.70	2.825	37.40	7.48	-60.0	0.2	0.0
9IFMW02U	12/9/2005	4:48	21.01	6.154	40.87	7.14	-58.5	0.0	0.0
9IFMW02L	12/9/2005	4:51	19.70	0.659	5.41	7.17	-65.1	0.0	0.0
9IFMW03U	12/9/2005	4:44	21.12	6.988	36.77	6.98	-50.5	0.0	0.0
9IFMW03L	12/9/2005	4:35	20.83	2.177	31.68	7.03	-60.2	0.0	0.0
9IFMW04U	12/9/2005	NS	NS	NS	NS	NS	NS	NS	NS
9IFMW04L	12/9/2005	NS	NS	NS	NS	NS	NS	NS	NS
9IFMW05U	12/9/2005	4:35	19.04	1.323	32.08	6.83	-54.4	0.0	0.0
9IFMW05L	12/9/2005	4:30	19.71	3.550	0.82	7.42	-80.5	0.0	0.0
9IFMW06U	12/9/2005	NS	NS	NS	NS	NS	NS	NS	NS
9IFMW07U	12/9/2005	NS	NS	NS	NS	NS	NS	NS	NS
9IFMW08U	12/9/2005	3:57	19.88	4.044	56.18	6.42	-6.5	0.0	8.0
9IFMW08L	12/9/2005	NS	NS	NS	NS	NS	NS	NS	NS
9IFMW09L	12/9/2005	4:56	19.66	1.702	47.62	6.80	-51.2	0.0	0.0
9IFMW10U	12/9/2005	3:51	20.67	3.997	48.10	6.89	-42.9	0.2	0.0
9IFMW10L	12/9/2005	3:33	20.28	2.076	41.57	7.26	-56.4	0.0	0.0
IFMW11U	12/9/2005	NS	NS	NS	NS	NS	NS	NS	NS
9IFMW11S	12/9/2005	NS	NS	NS	NS	NS	NS	NS	NS

Table 8
DCA GROUNDWATER CONCENTRATIONS WITH PERCENTAGE REDUCTIONS
UPPER INTERMEDIATE ZONE (20-30 FT. BGS)

IR Site 9
Alameda Point
Alameda, California

MONITORING WELLS	FULLSCALE						
	Baseline 04/05/05	Post 1st 06/08/05	Baseline vs Post 1st (% Reduction)	Post 2nd 09/06/05	Baseline vs Post 2nd (% Reduction)	Post 3rd 01/04/06	Baseline vs Post 3rd (% Reduction)
P-9-MWI03	89	140	-57%	100	-12%	200	-125%
P-9-MWI05	120	660	-450%	270	-125%	320	-167%
9EMW01	10	40	-300%	15	-50%	5	50%
9EMW03	15	85	-467%	14	7%	27	-80%
9IF-MW01U	0.38	0.39	-3%	0.3	21%	0.25	34%
9IF-MW02U	46	21	54%	31	33%	43	7%
9IF-MW03U	12	9.5	21%	6.9	43%	8.2	32%
9IF-MW04U	0.52	0.57	-10%	0.46	12%	0.48	8%
9IF-MW05U	42	25	40%	36	14%	100	-138%
9IF-MW06U	4.4	31	-605%	8.3	-89%	13	-195%
9IF-MW07U	0.25	0.25	0%	0.25	0%	0.25	0%
9IF-MW08U	11	10	9%	8.1	26%	2	82%
9IF-MW09U	0.36	0.3	17%	0.23	36%	0.37	-3%
9IF-MW10U	16	9.1	43%	6.9	57%	2.6	84%
9IF-MW11U	0.24	0.25	-4%	0.25	-4%	1.3	-442%
9IF-MW12U	3.8	4.3	-13%	0.29	92%	0.75	80%
AVERAGE	**23.2**	**64.8**	**-179%**	**31.1**	**-34%**	**45.3**	**-95%**

NOTES

NS	Not Sampled
0.25	Non-Detect - value shown in blue is 1/2 of reporting limit
25	Concentration above California Maximum Contaminant Level (MCL)

Concentrations are in micrograms per liter (µg/L)
1,1-Dichloroethane MCL = 5 µg/L

Table 9
DCA GROUNDWATER CONCENTRATIONS WITH PERCENTAGE REDUCTIONS
LOWER INTERMEDIATE ZONE (30-40 FT. BGS)

IR Site 9
Alameda Point
Alameda, California

MONITORING WELLS	FULLSCALE						
	Baseline 04/05/05	Post 1st 06/08/05	Baseline vs Post 1st (% Reduction)	Post 2nd 09/06/05	Baseline vs Post 2nd (% Reduction)	Post 3rd 01/04/06	Baseline vs Post 3rd (% Reduction)
P-9-MWI06	730	75	90%	370	49%	71	90%
9EMW04	280	80	71%	230	18%	340	-21%
9IF-MW01L	17	23	-35%	22	-29%	24	-41%
9IF-MW02L	0.25	0.25	0%	0.25	0%	0.25	0%
9IF-MW03L	110	110	0%	70	36%	100	9%
9IF-MW04L	0.2	0.25	-25%	0.25	-25%	0.25	-25%
9IF-MW05L	0.38	0.29	24%	0.29	24%	0.25	34%
9IF-MW06L	9.7	13	-34%	3.7	62%	15	-55%
9IF-MW07L	10	18	-80%	5.3	47%	4.1	59%
9IF-MW08L	64	49	23%	47	27%	45	30%
9IF-MW09L	92	180	-96%	120	-30%	160	-74%
9IF-MW10L	15	11	27%	27	-80%	19	-27%
AVERAGE	**110.7**	**46.6**	**58%**	**74.6**	**33%**	**64.9**	**41%**

NOTES

NS	Not Sampled
0.25	Non-Detect - value shown in blue is 1/2 of reporting limit
25	Concentration above California Maximum Contaminant Level (MCL)

Concentrations are in micrograms per liter (µg/L)
1,1-Dichloroethane MCL = 5 µg/L

Table 10
VC GROUNDWATER CONCENTRATIONS WITH PERCENTAGE REDUCTIONS
UPPER INTERMEDIATE ZONE (20-30 FT. BGS)

IR Site 9
Alameda Point
Alameda, California

MONITORING WELLS	FULLSCALE						
	Baseline 04/05/05	Post 1st 06/08/05	Baseline vs Post 1st (% Reduction)	Post 2nd 09/06/05	Baseline vs Post 2nd (% Reduction)	Post 3rd 01/04/06	Baseline vs Post 3rd (% Reduction)
P-9-MWI03	1.2	3.7	-208%	2	-67%	3.1	-158%
P-9-MWI05	0.47	6.2	-1219%	1.5	-219%	4.4	-836%
9EMW01	0.25	2.1	-740%	0.25	0%	0.25	0%
9EMW03	1.1	6.7	-509%	0.25	77%	1.1	0%
9IF-MW01U	0.25	0.25	0%	0.25	0%	0.25	0%
9IF-MW02U	23	0.25	99%	8	65%	10	57%
9IF-MW03U	1.9	1	47%	0.93	51%	1.5	21%
9IF-MW04U	2.8	3.5	-25%	2.9	-4%	2.9	-4%
9IF-MW05U	1.2	0.25	79%	0.25	79%	1.8	-50%
9IF-MW06U	2.4	1.1	54%	0.39	84%	0.54	78%
9IF-MW07U	0.25	0.25	0%	0.25	0%	0.25	0%
9IF-MW08U	1.2	0.88	27%	0.25	79%	0.25	79%
9IF-MW09U	0.25	0.25	0%	0.25	0%	0.25	0%
9IF-MW10U	1.7	0.54	68%	0.56	67%	0.25	85%
9IF-MW11U	0.25	0.25	0%	0.25	0%	0.25	0%
9IF-MW12U	0.25	0.25	0%	0.25	0%	0.25	0%
AVERAGE	**2.4**	**1.7**	**29%**	**1.2**	**52%**	**1.7**	**29%**

NOTES

NS	Not Sampled
0.25	Non-Detect - value shown in blue is 1/2 of reporting limit
25	Concentration above California Maximum Contaminant Level (MCL)

Concentrations are in micrograms per liter (µg/L)
Vinyl Chloride MCL = 0.5 µg/L

Table 11
VC GROUNDWATER CONCENTRATIONS WITH PERCENTAGE REDUCTIONS
LOWER INTERMEDIATE ZONE (30-40 FT. BGS)

IR Site 9
Alameda Point
Alameda, California

MONITORING WELLS	FULLSCALE						
	Baseline 04/05/05	Post 1st 06/08/05	Baseline vs Post 1st (% Reduction)	Post 2nd 09/06/05	Baseline vs Post 2nd (% Reduction)	Post 3rd 01/04/06	Baseline vs Post 3rd (% Reduction)
P-9-MWI06	10	0.25	98%	3	70%	0.25	98%
9EMW04	3.9	0.78	80%	4.4	-13%	8.4	-115%
9IF-MW01L	0.25	4.9	-1860%	0.25	0%	0.25	0%
9IF-MW02L	0.25	0.25	0%	0.25	0%	0.25	0%
9IF-MW03L	1.5	1.4	7%	0.25	83%	1.4	7%
9IF-MW04L	0.25	0.25	0%	0.25	0%	0.25	0%
9IF-MW05L	0.25	0.25	0%	0.25	0%	0.25	0%
9IF-MW06L	0.25	0.25	0%	0.25	0%	0.25	0%
9IF-MW07L	0.8	0.97	-21%	0.25	69%	0.25	69%
9IF-MW08L	4.6	2.2	52%	0.25	95%	1.3	72%
9IF-MW09L	2.1	2.7	-29%	0.25	88%	3.3	-57%
9IF-MW10L	0.32	0.25	22%	0.25	22%	0.25	22%
AVERAGE	**2.0**	**1.2**	**41%**	**0.8**	**60%**	**1.4**	**33%**

NOTES

NS	Not Sampled
0.25	Non-Detect - value shown in blue is 1/2 of reporting limit
25	Concentration above California Maximum Contaminant Level (MCL)

Concentrations are in micrograms per liter (µg/L)
Vinyl Chloride MCL = 0.5 µg/L

Appendix D
Laboratory Data Quality Assessment

Laboratory Data Quality Assessment

The data quality assessment for the full-scale in situ chemical oxidation removal action describes the findings of the data review and validation and is provided to document the quality of the data used in the *Draft Field Summary Report for the Full-Scale In Situ Chemical Oxidation Removal Action at Installation Restoration Site 9 Intermediate*.

Sampling and analysis activities for Installation Restoration Site 9 intermediate are presented in Appendix A of *Draft Final Work Plan, Chemical Oxidation Pilot Testing for Removal Actions at Installation Restoration Sites 9, 11/21, and 16, Alameda Point, Alameda, California* (Revision 1, June 7, 2002):

- *Draft Final Sampling and Analysis Plan (Field Sampling Plan/Quality Assurance Project Plan), Chemical Oxidation Pilot Testing for Removal Actions at Installation Restoration Sites 9, 11/21, and 16, Alameda Point, Alameda, California* (SAP/QAPP, Revision 1, June 2, 2002)

The overall quality control and quality assurance protocols are also presented in the above SAP/QAPP.

All groundwater samples collected for the full scale baseline, full scale post injection I, II and III sampling events were shipped to EMAX Laboratories, Inc. located in Torrance, California for analyses. EMAX laboratory is State of California-certified and has successfully completed the Naval Facilities Engineering Service Center's Laboratory Evaluation Program.

Shaw project chemists performed Level III data review for the full scale baseline, and the post injection I and II sampling events, while Laboratory Data Consultants, Inc. located in Carlsbad California manually performed Level III data review for the full scale post injection III sampling event. Table 1 summarizes sample delivery groups (SDG), sample numbers, sampling dates, extraction and analytical methods, data review level and reviewers for these sampling events. The review was performed in accordance with the guidelines and control criteria specified in the following documents:

- *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, 1999).
- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, 2002).
- *USEPA Test Methods for Evaluating Solid Waste, SW-846 Physical/Chemical Methods* (USEPA, 1996).

- Project specific QAPP and SAP.

The following quality control (QC) elements were included in the Level III data review:

- Laboratory Method Blanks
- Continuing Calibration Blanks (metals only)
- Sample Holding Times
- Surrogate Recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate Recoveries (LCS/LCSD)
- Matrix Spike/Matrix Spike Duplicate Recoveries (MS/MSD)
- Relative Percent Differences (RPD)
- Initial Calibrations
- Continuing Calibrations
- ICP Serial Dilution (metals only)
- Field Blanks
- Field Duplicate

Two full data packages (Level IV) were submitted for samples collected for the full scale post injection III sampling event. Laboratory Data Consultants performed Level IV data validation on these results presented on Table 1. In addition to the above Level III reviewed elements, the Level IV data validation includes an inspection of the following QC elements:

- Internal Standard Recoveries;
- Instrument Tuning and System Performance;
- Analyte Identification; and
- Analyte Quantitation

The following sections present a discussion of the third party and Shaw data review findings. Data were reviewed in terms of precision, accuracy, representativeness, comparability, and completeness (PARCC). The PARCC parameters were evaluated for the analytical data as follows:

- Accuracy is demonstrated by recovery of target analytes from fortified blank and sample matrices, LCS/LCSD and MS/MSD, respectively. The recovery of target

analytes from fortified samples is compared to acceptance criteria. When these criteria are not met, the data are flagged as appropriate.

- Precision is expressed as RPD between the results of replicate sample analyses: sample duplicates, LCSDs and MSDs. When analyte RPDs exceed the acceptance criteria, the data are flagged as appropriate.
- Representativeness of the samples submitted for analysis is ensured by adherence to standard sampling techniques and protocols.
- Comparability of sample results is ensured through the use of approved sampling and analysis methods.
- Completeness is expressed as a ratio of number of usable data to all analytical data.

The following sections provide a discussion of the data review and validation. Table 2 presents definition of data qualification flags and reason codes applied to the sample results. Table 3 summarizes qualified data.

Laboratory Method Blank (Reason Code B1): All field sample results were evaluated with respect to the laboratory method blank prepared and analyzed for each analytical batch. Based on the review, aluminum, arsenic and zinc were observed at a trace level in three separate laboratory method blanks. As a result of the blank contamination, one sample result for aluminum, five sample results for arsenic and nine sample results for zinc were qualified as not detected (U) at their reported values. The data usability was not affected due to the laboratory blank contamination.

Continuing Calibration Blank (Reason Code B2): After an initial calibration and before a continuing calibration for metals analyses, a continuing calibration blank is analyzed to ensure that the instrument is free of target analytes. Antimony, selenium, sodium and thallium were detected in continuing calibration blanks. Because these analytes in samples were either not detected or their concentrations in samples exceeded five times their corresponding levels in the blanks, the blank contamination had no impact on the associated sample results. No data qualification was necessary.

Sample Holding Time (Reason Code H): Sample holding times were evaluated by comparing the sample collection dates to the sample extraction and analysis dates. Extraction and analysis holding times were reviewed for all samples to determine the validity of analytical results. Holding time violations were noted for two methods. For EPA Method 7196A, hexavalent chromium in 36 samples was analyzed one to three hours outside the 24-hour holding time requirement. One SVOC sample (9IF-MW10L-1094) was extracted two days after the 7-day extraction holding time had expired. In all cases, the holding time exceedance was minor and resulted in detected and non-detected results in the affected samples qualified as estimated

(J/UJ). For sample 9IF-MW10L-1030, SVOC re-extraction was performed to verify bis(2-ethylhexyl)phthalate result. The re-extraction was performed two days outside the 7-day extraction holding time requirement. Qualification was applied to bis(2-ethylhexyl)phthalate result as estimated (UJ) in the second run. The remaining SVOC results were reported from the original run and the results were not qualified. With the exceptions noted above for EPA Method 7196A and 8270C, holding time requirements were met for all other analyses.

Surrogate Recovery (Reason Code S): Surrogate standards are organic compounds added to field and laboratory QC samples for organic analysis to evaluate matrix effect and method performance on an individual sample basis. Surrogate standard toluene-d8 was recovered below the 70 percent lower control limit in one VOC sample. Surrogate recoveries for all other standards for the same sample were within control. The low surrogate recovery led to qualification of detected and non-detected results as estimated (J/UJ) in the affected sample. Because the recovery did not significantly deviate from the acceptance criteria, there is no impact on the data usability.

Laboratory Control Sample/Laboratory Control Sample Duplicate (Reason Code L): The LCS is an aliquot of analyte-free sample matrix spiked with target analytes and is prepared with each analytical batch for each analysis. The recovery of target analytes from the LCS analysis is a measurement of method performance in an interference-free sample matrix. The review indicated that LCS/LCSD analyses were performed for every laboratory QC batch. All of the LCS and LCSD recoveries, and RPDs between LCS and LCSD recoveries met the established control criteria.

Matrix Spike/Matrix Spike Duplicate (Reason Code M): The MS and MSD samples are a portion of a field sample spiked with target analytes, and are prepared with each analytical batch. The MS/MSD results are used to evaluate any bias introduced to the method due to matrix interference, and to measure accuracy and precision for each analytical batch. MS/MSD recovery outliers were noted for potassium in six analytical QC batches. The reported MS/MSD recoveries for potassium ranged from 157 percent to 235 percent, exceeding the 130 percent upper control limit. As a result of the elevated recoveries, detected potassium results in all samples associated with these six batches were qualified as estimated (J). The data usability was not affected because of the MS/MSD recovery outliers. LCS and LCSD recoveries for the analyte in these six batches met the accuracy requirement.

Initial Calibrations (Reason Code G2): Instrument calibration is performed for each analysis according to the USEPA method requirements. The linear analytical range is established for each method by analysis of standards prepared at increasing concentrations that cover the expected sample concentrations. The acceptability of the initial calibration is determined by calculation of a percent relative standard deviation (RSD) or correlation coefficient. For data

review purposes, the acceptable relative response factor (RRF) for all analytes is greater than or equal to 0.05. The observed RRFs for acetone, methyl ethyl ketone and tert-butyl alcohol were between 0.011 and 0.045. These analytes were not detected and their PQLs in all samples associated with the non-compliant initial calibrations were qualified as estimated (UJ). The data usability was not affected because of the initial calibration outlier. Except where noted above for USEPA Method 8260B, initial calibration requirements were met for all other methods.

Continuing Calibrations (Reason Code C1 and Reason Code G3): Following initial calibrations and routinely during sample analysis, the stability of analytical systems is monitored by analysis of continuing calibration standards at concentrations near the mid-point of the linear range. Based on the review, non-compliant continuing calibrations were noted for USEPA Methods 8260B, 8270C and 6010B. The reported RRFs for methyl ethyl ketone, acetone, tert butyl alcohol were less than the 0.05 acceptable limit. Percent recoveries for hexachlorobutadiene, 2-hexanone, 2-nitrophenyl, 4,6-dinitro-2-methylphenol and potassium fell below their respective lower control limits. Results for these analytes in all associated samples were qualified as estimated (J/UJ). In all cases, the deviations from the acceptance criteria were small and the data usability was not affected.

ICP Serial Dilution (Reason Code A): When an analyte concentration is greater than 50 times the Instrument Detection Limit (IDL), a serial dilution is performed at a five fold dilution. Results of the ICP serial dilution are used to determine if interference is present due to sample matrix. The review indicated that percent differences for calcium, cobalt, lead, magnesium and nickel were reported between 11 percent and 48 percent, exceeding the 10 percent control limit. Detected results for these analytes in the affected samples were qualified as estimated (J). The data usability is not affected because of the ICP serial dilution outliers.

Internal Standard Recoveries (Reason Code I): Internal standard recoveries are checked to ensure that GC/MS sensitivity and response are stable. As indicated in the Level IV data validation, all internal standard recoveries and retention times met the established control requirements.

Instrument Tuning and System Performance: Gas chromatograph/mass spectrometer (GC/MS) instrument performance checks are conducted to ensure mass resolution, identification. The ion abundance criteria were met for bromofluorobenzene for all VOC analyses and for decafluorotriphenylphosphine for SVOC analyses. The samples were also evaluated for reconstructed ion chromatogram baseline shifts, extraneous peaks and peak tailing. No system degradation was noted.

Sample Identification: Quantitation reports and chromatograms were examined to minimize the number of erroneous identification of compounds, either false positives or false negatives.

The Level IV data validation indicated that all peaks were correctly identified as target analytes or QC analytes. Target compound retention times were compared to the daily standard and were found to be acceptable.

Sample Quantitation: Quantitaion reports, chromatograms and sample preparation/extraction logs were reviewed to confirm the reported values. Recalculations were performed on samples and QC samples to verify that the laboratory reported results were reproducible. Based on the Level IV data validation, no calculation errors or discrepancies were identified.

Trip Blank (Reason Code K1): A total of 28 trip blanks were collected for the full scale baseline, and full scale post injection I through III sampling events. All trip blanks were shipped with VOC samples. Table 4 summarizes detected trip blank results and associated groundwater sample results. As shown on the Table, trichlorofluromethane was detected at a trace level in one blank (TB1-2066). Because the analyte was not detected in any associated groundwater samples, the blank detection had no impact on the data quality of the associated sample results. No VOCs were detected in the remaining 27 trip blanks. The trip blank results indicated acceptable sample shipping and storage procedures.

Field Duplicate: Field duplicate samples are collected at a minimum rate of 10 percent of the total number of groundwater samples. Field duplicate samples are evaluated by calculating the RPD between the sample and its duplicate. The RPD is calculated using the following equation.

$$RPD = |(S-D)/[(S+D)/2]| * 100$$

where:

S = sample result

D = duplicate result

Acceptable precision control criteria are established at less than 35 percent for water samples. The RPD is calculated between pairs of field duplicate samples when both results are reported above the PQL.

The following duplicate samples were collected for the full scale baseline, and full scale post injection I through III sampling events:

Sampling Event	SDG	Primary Sample ID	Duplicate ID

Sampling Event	SDG	Primary Sample ID	Duplicate ID

All above primary and duplicate samples were analyzed for VOCs. Results of the primary and the duplicate results are presented on Table 5. As shown on the table, RPDs for all analytes met the acceptance criteria, indicating acceptable sampling and analytical precision.

Based on the above third party review and Shaw's internal data review, there were no significant, systematic problems identified with the performance of the USEPA Method 8260B, 8270C, 8015E, 6010B and 7196A. Although some results were flagged as not detected or estimated due to laboratory blank contamination, holding time violations, surrogate, matrix spike, calibration and ICP serial dilution deficiencies, the data usability was not affected. All data are usable for project decisions. Overall, the data are of good technical quality and meet project objectives.

Tables

Table 1: Summary of Samples Collected, Sample Date, Preparation Method, Analysis Method, and Data Review Level
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

SDG	Field Sample ID	Sample Date	Lab	Sample Type	Analytical Method	Extraction Method	Review Level	Reviewer
05D012	9EMW03-1004	4/4/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D012	9EMW03-1004	4/4/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D012	9EMW03-1004	4/4/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D012	9EMW03-1004	4/4/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D012	P9MWI05-1001	4/4/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D012	P9MWI05-1001	4/4/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D012	P9MWI05-1001	4/4/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D012	P9MWI05-1001	4/4/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D012	TB1-2048	4/4/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05D012	TB2-2049	4/4/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05D013	9EMW01-1003	4/5/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D013	9EMW01-1003	4/5/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D013	9EMW01-1003	4/5/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D013	9EMW01-1003	4/5/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D013	9EMW04-1005	4/5/2005	EMXT	NS1	SW6010B	FLDFLT	III	SHAW
05D013	9EMW04-1005	4/5/2005	EMXT	NS1	SW7196A	NONE	III	SHAW
05D013	9EMW04-1005	4/5/2005	EMXT	NS1	SW8260B	SW5030B	III	SHAW
05D013	9EMW04-1005	4/5/2005	EMXT	NS1	SW8270C	SW3520C	III	SHAW
05D013	9EMW04-1006	4/5/2005	EMXT	FD	SW8260B	SW5030B	III	SHAW
05D013	9IF-MW01U-1007	4/5/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D013	9IF-MW01U-1007	4/5/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D013	9IF-MW01U-1007	4/5/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D013	9IF-MW01U-1007	4/5/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D013	9IF-MW02U-1008	4/5/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D013	9IF-MW02U-1008	4/5/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D013	9IF-MW02U-1008	4/5/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D013	9IF-MW02U-1008	4/5/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D013	9IF-MW03U-1009	4/5/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D013	9IF-MW03U-1009	4/5/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D013	9IF-MW03U-1009	4/5/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D013	9IF-MW03U-1009	4/5/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D013	9IF-MW05U-1011	4/5/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D013	9IF-MW05U-1011	4/5/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D013	9IF-MW05U-1011	4/5/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D013	9IF-MW05U-1011	4/5/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D013	9IF-MW07U-1014	4/5/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D013	9IF-MW07U-1014	4/5/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D013	9IF-MW07U-1014	4/5/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D013	9IF-MW07U-1014	4/5/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D013	9IF-MW08U-1015	4/5/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D013	9IF-MW08U-1015	4/5/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D013	9IF-MW08U-1015	4/5/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D013	9IF-MW08U-1015	4/5/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D013	9IF-MW09U-1016	4/5/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D013	9IF-MW09U-1016	4/5/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D013	9IF-MW09U-1016	4/5/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D013	9IF-MW09U-1016	4/5/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D013	P-9-MWI03-1000	4/5/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D013	P-9-MWI03-1000	4/5/2005	EMXT	NS	SW7196A	NONE	III	SHAW

Table 1: Summary of Samples Collected, Sample Date, Preparation Method, Analysis Method, and Data Review Level
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

SDG	Field Sample ID	Sample Date	Lab	Sample Type	Analytical Method	Extraction Method	Review Level	Reviewer
05D013	P-9-MWI03-1000	4/5/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D013	P-9-MWI03-1000	4/5/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D013	P-9-MWI06-1002	4/5/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D013	P-9-MWI06-1002	4/5/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D013	P-9-MWI06-1002	4/5/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D013	P-9-MWI06-1002	4/5/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D013	TB1-2050	4/5/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05D013	TB2-2051	4/5/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05D025	9IF-MW01L-1020	4/6/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D025	9IF-MW01L-1020	4/6/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D025	9IF-MW01L-1020	4/6/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D025	9IF-MW01L-1020	4/6/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D025	9IF-MW02L-1021	4/6/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D025	9IF-MW02L-1021	4/6/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D025	9IF-MW02L-1021	4/6/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D025	9IF-MW02L-1021	4/6/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D025	9IF-MW03L-1022	4/6/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D025	9IF-MW03L-1022	4/6/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D025	9IF-MW03L-1022	4/6/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D025	9IF-MW03L-1022	4/6/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D025	9IF-MW04L-1023	4/6/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D025	9IF-MW04L-1023	4/6/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D025	9IF-MW04L-1023	4/6/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D025	9IF-MW04L-1023	4/6/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D025	9IF-MW04U-1010	4/6/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D025	9IF-MW04U-1010	4/6/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D025	9IF-MW04U-1010	4/6/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D025	9IF-MW04U-1010	4/6/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D025	9IF-MW05L-1024	4/6/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D025	9IF-MW05L-1024	4/6/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D025	9IF-MW05L-1024	4/6/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D025	9IF-MW05L-1024	4/6/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D025	9IF-MW06U-1012	4/6/2005	EMXT	NS1	SW6010B	FLDFLT	III	SHAW
05D025	9IF-MW06U-1012	4/6/2005	EMXT	NS1	SW7196A	NONE	III	SHAW
05D025	9IF-MW06U-1012	4/6/2005	EMXT	NS1	SW8260B	SW5030B	III	SHAW
05D025	9IF-MW06U-1012	4/6/2005	EMXT	NS1	SW8270C	SW3520C	III	SHAW
05D025	9IF-MW06U-1013	4/6/2005	EMXT	FD	SW8260B	SW5030B	III	SHAW
05D025	9IF-MW10U-1017	4/6/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D025	9IF-MW10U-1017	4/6/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D025	9IF-MW10U-1017	4/6/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D025	9IF-MW10U-1017	4/6/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D025	9IF-MW11U-1018	4/6/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D025	9IF-MW11U-1018	4/6/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D025	9IF-MW11U-1018	4/6/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D025	9IF-MW11U-1018	4/6/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D025	9IF-MW12U-1019	4/6/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D025	9IF-MW12U-1019	4/6/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D025	9IF-MW12U-1019	4/6/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D025	9IF-MW12U-1019	4/6/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW

Table 1: Summary of Samples Collected, Sample Date, Preparation Method, Analysis Method, and Data Review Level
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

SDG	Field Sample ID	Sample Date	Lab	Sample Type	Analytical Method	Extraction Method	Review Level	Reviewer
05D025	TB1-2052	4/6/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05D025	TB2-2053	4/6/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05D039	9IF-MW01S-1031	4/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D039	9IF-MW01S-1031	4/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D039	9IF-MW01S-1031	4/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D039	9IF-MW01S-1031	4/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D039	9IF-MW06L-1025	4/7/2005	EMXT	NS1	SW6010B	FLDFLT	III	SHAW
05D039	9IF-MW06L-1025	4/7/2005	EMXT	NS1	SW7196A	NONE	III	SHAW
05D039	9IF-MW06L-1025	4/7/2005	EMXT	NS1	SW8260B	SW5030B	III	SHAW
05D039	9IF-MW06L-1025	4/7/2005	EMXT	NS1	SW8270C	SW3520C	III	SHAW
05D039	9IF-MW06L-1026	4/7/2005	EMXT	FD	SW8260B	SW5030B	III	SHAW
05D039	9IF-MW07L-1027	4/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D039	9IF-MW07L-1027	4/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D039	9IF-MW07L-1027	4/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D039	9IF-MW07L-1027	4/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D039	9IF-MW08L-1028	4/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D039	9IF-MW08L-1028	4/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D039	9IF-MW08L-1028	4/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D039	9IF-MW08L-1028	4/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D039	9IF-MW09L-1029	4/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D039	9IF-MW09L-1029	4/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D039	9IF-MW09L-1029	4/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D039	9IF-MW09L-1029	4/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D039	9IF-MW10L-1030	4/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05D039	9IF-MW10L-1030	4/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05D039	9IF-MW10L-1030	4/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05D039	9IF-MW10L-1030	4/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05D039	TB1-2054	4/7/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05D039	TB2-2055	4/7/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05F062	9EMW01-1035	6/6/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F062	9EMW01-1035	6/6/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F062	9EMW01-1035	6/6/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F062	9EMW01-1035	6/6/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F062	9EMW03-1036	6/6/2005	EMXT	NS1	SW6010B	FLDFLT	III	SHAW
05F062	9EMW03-1036	6/6/2005	EMXT	NS1	SW7196A	NONE	III	SHAW
05F062	9EMW03-1036	6/6/2005	EMXT	NS1	SW8260B	SW5030B	III	SHAW
05F062	9EMW03-1036	6/6/2005	EMXT	NS1	SW8270C	SW3520C	III	SHAW
05F062	9EMW03-1037	6/6/2005	EMXT	FD	SW8260B	SW5030B	III	SHAW
05F062	9IF-MW01U-1039	6/6/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F062	9IF-MW01U-1039	6/6/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F062	9IF-MW01U-1039	6/6/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F062	9IF-MW01U-1039	6/6/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F062	P-9-MW103-1032	6/6/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F062	P-9-MW103-1032	6/6/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F062	P-9-MW103-1032	6/6/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F062	P-9-MW103-1032	6/6/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F062	TB1-2056	6/6/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05F062	TB2-2057	6/6/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05F080	9EMW04-1038	6/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW

Table 1: Summary of Samples Collected, Sample Date, Preparation Method, Analysis Method, and Data Review Level
Site 9 Intermediate
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SDG	Field Sample ID	Sample Date	Lab	Sample Type	Analytical Method	Extraction Method	Review Level	Reviewer
05F080	9EMW04-1038	6/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F080	9EMW04-1038	6/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F080	9EMW04-1038	6/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F080	9IF-MW01L-1052	6/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F080	9IF-MW01L-1052	6/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F080	9IF-MW01L-1052	6/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F080	9IF-MW01L-1052	6/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F080	9IF-MW02L-1053	6/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F080	9IF-MW02L-1053	6/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F080	9IF-MW02L-1053	6/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F080	9IF-MW02L-1053	6/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F080	9IF-MW02U-1040	6/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F080	9IF-MW02U-1040	6/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F080	9IF-MW02U-1040	6/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F080	9IF-MW02U-1040	6/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F080	9IF-MW03U-1041	6/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F080	9IF-MW03U-1041	6/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F080	9IF-MW03U-1041	6/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F080	9IF-MW03U-1041	6/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F080	9IF-MW05U-1043	6/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F080	9IF-MW05U-1043	6/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F080	9IF-MW05U-1043	6/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F080	9IF-MW05U-1043	6/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F080	9IF-MW08L-1059	6/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F080	9IF-MW08L-1059	6/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F080	9IF-MW08L-1059	6/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F080	9IF-MW08L-1059	6/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F080	9IF-MW08U-1046	6/7/2005	EMXT	NS1	SW6010B	FLDFLT	III	SHAW
05F080	9IF-MW08U-1046	6/7/2005	EMXT	NS1	SW7196A	NONE	III	SHAW
05F080	9IF-MW08U-1046	6/7/2005	EMXT	NS1	SW8260B	SW5030B	III	SHAW
05F080	9IF-MW08U-1046	6/7/2005	EMXT	NS1	SW8270C	SW3520C	III	SHAW
05F080	9IF-MW08U-1047	6/7/2005	EMXT	FD	SW8260B	SW5030B	III	SHAW
05F080	9IF-MW10U-1049	6/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F080	9IF-MW10U-1049	6/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F080	9IF-MW10U-1049	6/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F080	9IF-MW10U-1049	6/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F080	P-9-MWI05-1033	6/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F080	P-9-MWI05-1033	6/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F080	P-9-MWI05-1033	6/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F080	P-9-MWI05-1033	6/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F080	P-9-MWI06-1034	6/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F080	P-9-MWI06-1034	6/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F080	P-9-MWI06-1034	6/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F080	P-9-MWI06-1034	6/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F080	TB1-2058	6/7/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05F080	TB2-2059	6/7/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05F102	9IF-MW01S-1063	6/8/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F102	9IF-MW01S-1063	6/8/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F102	9IF-MW01S-1063	6/8/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW

Table 1: Summary of Samples Collected, Sample Date, Preparation Method, Analysis Method, and Data Review Level
Site 9 Intermediate
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SDG	Field Sample ID	Sample Date	Lab	Sample Type	Analytical Method	Extraction Method	Review Level	Reviewer
05F102	9IF-MW01S-1063	6/8/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F102	9IF-MW03L-1054	6/8/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F102	9IF-MW03L-1054	6/8/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F102	9IF-MW03L-1054	6/8/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F102	9IF-MW03L-1054	6/8/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F102	9IF-MW04L-1055	6/8/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F102	9IF-MW04L-1055	6/8/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F102	9IF-MW04L-1055	6/8/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F102	9IF-MW04L-1055	6/8/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F102	9IF-MW04U-1042	6/8/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F102	9IF-MW04U-1042	6/8/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F102	9IF-MW04U-1042	6/8/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F102	9IF-MW04U-1042	6/8/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F102	9IF-MW06U-1044	6/8/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F102	9IF-MW06U-1044	6/8/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F102	9IF-MW06U-1044	6/8/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F102	9IF-MW06U-1044	6/8/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F102	9IF-MW09L-1060	6/8/2005	EMXT	NS1	SW6010B	FLDFLT	III	SHAW
05F102	9IF-MW09L-1060	6/8/2005	EMXT	NS1	SW7196A	NONE	III	SHAW
05F102	9IF-MW09L-1060	6/8/2005	EMXT	NS1	SW8260B	SW5030B	III	SHAW
05F102	9IF-MW09L-1060	6/8/2005	EMXT	NS1	SW8270C	SW3520C	III	SHAW
05F102	9IF-MW09L-1061	6/8/2005	EMXT	FD	SW8260B	SW5030B	III	SHAW
05F102	9IF-MW09U-1048	6/8/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F102	9IF-MW09U-1048	6/8/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F102	9IF-MW09U-1048	6/8/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F102	9IF-MW09U-1048	6/8/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F102	9IF-MW11U-1050	6/8/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F102	9IF-MW11U-1050	6/8/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F102	9IF-MW11U-1050	6/8/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F102	9IF-MW11U-1050	6/8/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F102	9IF-MW12U-1051	6/8/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F102	9IF-MW12U-1051	6/8/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F102	9IF-MW12U-1051	6/8/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F102	9IF-MW12U-1051	6/8/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F102	TB1-2060	6/8/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05F102	TB2-2061	6/8/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05F113	9IF-MW05L-1056	6/9/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F113	9IF-MW05L-1056	6/9/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F113	9IF-MW05L-1056	6/9/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F113	9IF-MW05L-1056	6/9/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F113	9IF-MW06L-1057	6/9/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F113	9IF-MW06L-1057	6/9/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F113	9IF-MW06L-1057	6/9/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F113	9IF-MW06L-1057	6/9/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F113	9IF-MW07L-1058	6/9/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F113	9IF-MW07L-1058	6/9/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F113	9IF-MW07L-1058	6/9/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F113	9IF-MW07L-1058	6/9/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F113	9IF-MW07U-1045	6/9/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW

Table 1: Summary of Samples Collected, Sample Date, Preparation Method, Analysis Method, and Data Review Level
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SDG	Field Sample ID	Sample Date	Lab	Sample Type	Analytical Method	Extraction Method	Review Level	Reviewer
05F113	9IF-MW07U-1045	6/9/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F113	9IF-MW07U-1045	6/9/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F113	9IF-MW07U-1045	6/9/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F113	9IF-MW10L-1062	6/9/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05F113	9IF-MW10L-1062	6/9/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05F113	9IF-MW10L-1062	6/9/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05F113	9IF-MW10L-1062	6/9/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05F113	TB1-2062	6/9/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05F113	TB2-2063	6/9/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05I041	9EMW01-1068	9/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I041	9EMW01-1068	9/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I041	9EMW01-1068	9/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I041	9EMW01-1068	9/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I041	9EMW03-1069	9/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I041	9EMW03-1069	9/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I041	9EMW03-1069	9/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I041	9EMW03-1069	9/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I041	9EMW04-1070	9/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I041	9EMW04-1070	9/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I041	9EMW04-1070	9/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I041	9EMW04-1070	9/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I041	9IF-MW02U-1072	9/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I041	9IF-MW02U-1072	9/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I041	9IF-MW02U-1072	9/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I041	9IF-MW02U-1072	9/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I041	9IF-MW05U-1076	9/7/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I041	9IF-MW05U-1076	9/7/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I041	9IF-MW05U-1076	9/7/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I041	9IF-MW05U-1076	9/7/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I041	TB1-2064	9/7/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05I051	9IF-MW01U-1071	9/8/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I051	9IF-MW01U-1071	9/8/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I051	9IF-MW01U-1071	9/8/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I051	9IF-MW01U-1071	9/8/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I051	9IF-MW03U-1073	9/8/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I051	9IF-MW03U-1073	9/8/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I051	9IF-MW03U-1073	9/8/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I051	9IF-MW03U-1073	9/8/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I051	9IF-MW07U-1078	9/8/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I051	9IF-MW07U-1078	9/8/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I051	9IF-MW07U-1078	9/8/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I051	9IF-MW07U-1078	9/8/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I051	9IF-MW12U-1083	9/8/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I051	9IF-MW12U-1083	9/8/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I051	9IF-MW12U-1083	9/8/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I051	9IF-MW12U-1083	9/8/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I051	P-9-MWI03-1064	9/8/2005	EMXT	NS1	SW6010B	FLDFLT	III	SHAW
05I051	P-9-MWI03-1064	9/8/2005	EMXT	NS1	SW7196A	NONE	III	SHAW
05I051	P-9-MWI03-1064	9/8/2005	EMXT	NS1	SW8260B	SW5030B	III	SHAW

Table 1: Summary of Samples Collected, Sample Date, Preparation Method, Analysis Method, and Data Review Level
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

SDG	Field Sample ID	Sample Date	Lab	Sample Type	Analytical Method	Extraction Method	Review Level	Reviewer
05I051	P-9-MWI03-1064	9/8/2005	EMXT	NS1	SW8270C	SW3520C	III	SHAW
05I051	P-9-MWI03-1065	9/8/2005	EMXT	FD	SW8260B	SW5030B	III	SHAW
05I051	P-9-MWI05-1066	9/8/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I051	P-9-MWI05-1066	9/8/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I051	P-9-MWI05-1066	9/8/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I051	P-9-MWI05-1066	9/8/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I051	P-9-MWI06-1067	9/8/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I051	P-9-MWI06-1067	9/8/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I051	P-9-MWI06-1067	9/8/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I051	P-9-MWI06-1067	9/8/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I051	TB1-2066	9/8/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05I070	9IF-MW01L-1084	9/9/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I070	9IF-MW01L-1084	9/9/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I070	9IF-MW01L-1084	9/9/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I070	9IF-MW01L-1084	9/9/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I070	9IF-MW01S-1095	9/9/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I070	9IF-MW01S-1095	9/9/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I070	9IF-MW01S-1095	9/9/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I070	9IF-MW01S-1095	9/9/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I070	9IF-MW02L-1085	9/9/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I070	9IF-MW02L-1085	9/9/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I070	9IF-MW02L-1085	9/9/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I070	9IF-MW02L-1085	9/9/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I070	9IF-MW04L-1087	9/9/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I070	9IF-MW04L-1087	9/9/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I070	9IF-MW04L-1087	9/9/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I070	9IF-MW04L-1087	9/9/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I070	9IF-MW04U-1074	9/9/2005	EMXT	NS1	SW6010B	FLDFLT	III	SHAW
05I070	9IF-MW04U-1074	9/9/2005	EMXT	NS1	SW7196A	NONE	III	SHAW
05I070	9IF-MW04U-1074	9/9/2005	EMXT	NS1	SW8260B	SW5030B	III	SHAW
05I070	9IF-MW04U-1074	9/9/2005	EMXT	NS1	SW8270C	SW3520C	III	SHAW
05I070	9IF-MW04U-1075	9/9/2005	EMXT	FD	SW8260B	SW5030B	III	SHAW
05I070	9IF-MW06U-1077	9/9/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I070	9IF-MW06U-1077	9/9/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I070	9IF-MW06U-1077	9/9/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I070	9IF-MW06U-1077	9/9/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I070	9IF-MW11U-1082	9/9/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I070	9IF-MW11U-1082	9/9/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I070	9IF-MW11U-1082	9/9/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I070	9IF-MW11U-1082	9/9/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I070	TB1-2068	9/9/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05I083	9IF-MW03L-1086	9/12/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I083	9IF-MW03L-1086	9/12/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I083	9IF-MW03L-1086	9/12/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I083	9IF-MW03L-1086	9/12/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I083	9IF-MW05L-1088	9/12/2005	EMXT	NS1	SW6010B	FLDFLT	III	SHAW
05I083	9IF-MW05L-1088	9/12/2005	EMXT	NS1	SW7196A	NONE	III	SHAW
05I083	9IF-MW05L-1088	9/12/2005	EMXT	NS1	SW8260B	SW5030B	III	SHAW
05I083	9IF-MW05L-1088	9/12/2005	EMXT	NS1	SW8270C	SW3520C	III	SHAW

Table 1: Summary of Samples Collected, Sample Date, Preparation Method, Analysis Method, and Data Review Level
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

SDG	Field Sample ID	Sample Date	Lab	Sample Type	Analytical Method	Extraction Method	Review Level	Reviewer
05I083	9IF-MW05L-1089	9/12/2005	EMXT	FD	SW8260B	SW5030B	III	SHAW
05I083	9IF-MW08L-1092	9/12/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I083	9IF-MW08L-1092	9/12/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I083	9IF-MW08L-1092	9/12/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I083	9IF-MW08L-1092	9/12/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I083	9IF-MW08U-1079	9/12/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I083	9IF-MW08U-1079	9/12/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I083	9IF-MW08U-1079	9/12/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I083	9IF-MW08U-1079	9/12/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I083	9IF-MW09L-1093	9/12/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I083	9IF-MW09L-1093	9/12/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I083	9IF-MW09L-1093	9/12/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I083	9IF-MW09L-1093	9/12/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I083	9IF-MW10L-1094	9/12/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I083	9IF-MW10L-1094	9/12/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I083	9IF-MW10L-1094	9/12/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I083	9IF-MW10L-1094	9/12/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I083	9IF-MW10U-1081	9/12/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I083	9IF-MW10U-1081	9/12/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I083	9IF-MW10U-1081	9/12/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I083	9IF-MW10U-1081	9/12/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I083	TB1-2070	9/12/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05I084	9IF-MW06L-1090	9/13/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I084	9IF-MW06L-1090	9/13/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I084	9IF-MW06L-1090	9/13/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I084	9IF-MW06L-1090	9/13/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I084	9IF-MW07L-1091	9/13/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I084	9IF-MW07L-1091	9/13/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I084	9IF-MW07L-1091	9/13/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I084	9IF-MW07L-1091	9/13/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I084	9IF-MW09U-1080	9/13/2005	EMXT	NS	SW6010B	FLDFLT	III	SHAW
05I084	9IF-MW09U-1080	9/13/2005	EMXT	NS	SW7196A	NONE	III	SHAW
05I084	9IF-MW09U-1080	9/13/2005	EMXT	NS	SW8260B	SW5030B	III	SHAW
05I084	9IF-MW09U-1080	9/13/2005	EMXT	NS	SW8270C	SW3520C	III	SHAW
05I084	TB1-2071	9/13/2005	EMXT	TB	SW8260B	SW5030B	III	SHAW
05L183	9IF-MW01U-1103	12/22/2005	EMXT	NS	SW6010B	FLDFLT	III	LDC
05L183	9IF-MW01U-1103	12/22/2005	EMXT	NS	SW7196A	NONE	III	LDC
05L183	9IF-MW01U-1103	12/22/2005	EMXT	NS	SW8260B	SW5030B	III	LDC
05L183	9IF-MW01U-1103	12/22/2005	EMXT	NS	SW8270C	SW3520C	III	LDC
05L183	9IF-MW02U-1104	12/22/2005	EMXT	NS	SW6010B	FLDFLT	III	LDC
05L183	9IF-MW02U-1104	12/22/2005	EMXT	NS	SW7196A	NONE	III	LDC
05L183	9IF-MW02U-1104	12/22/2005	EMXT	NS	SW8260B	SW5030B	III	LDC
05L183	9IF-MW02U-1104	12/22/2005	EMXT	NS	SW8270C	SW3520C	III	LDC
05L183	9IF-MW03L-1118	12/22/2005	EMXT	NS	SW6010B	FLDFLT	III	LDC
05L183	9IF-MW03L-1118	12/22/2005	EMXT	NS	SW7196A	NONE	III	LDC
05L183	9IF-MW03L-1118	12/22/2005	EMXT	NS	SW8260B	SW5030B	III	LDC
05L183	9IF-MW03L-1118	12/22/2005	EMXT	NS	SW8270C	SW3520C	III	LDC
05L183	9IF-MW04U-1106	12/22/2005	EMXT	NS	SW6010B	FLDFLT	III	LDC
05L183	9IF-MW04U-1106	12/22/2005	EMXT	NS	SW7196A	NONE	III	LDC

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Site 9 Intermediate
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SDG	Field Sample ID	Sample Date	Lab	Sample Type	Analytical Method	Extraction Method	Review Level	Reviewer
05L183	9IF-MW04U-1106	12/22/2005	EMXT	NS	SW8260B	SW5030B	III	LDC
05L183	9IF-MW04U-1106	12/22/2005	EMXT	NS	SW8270C	SW3520C	III	LDC
05L183	9IF-MW06U-1109	12/22/2005	EMXT	NS	SW6010B	FLDFLT	III	LDC
05L183	9IF-MW06U-1109	12/22/2005	EMXT	NS	SW7196A	NONE	III	LDC
05L183	9IF-MW06U-1109	12/22/2005	EMXT	NS	SW8260B	SW5030B	III	LDC
05L183	9IF-MW06U-1109	12/22/2005	EMXT	NS	SW8270C	SW3520C	III	LDC
05L183	P9MWI03-1096	12/22/2005	EMXT	NS	SW6010B	FLDFLT	III	LDC
05L183	P9MWI03-1096	12/22/2005	EMXT	NS	SW7196A	NONE	III	LDC
05L183	P9MWI03-1096	12/22/2005	EMXT	NS	SW8260B	SW5030B	III	LDC
05L183	P9MWI03-1096	12/22/2005	EMXT	NS	SW8270C	SW3520C	III	LDC
05L183	P9MWI05-1097	12/22/2005	EMXT	NS	SW6010B	FLDFLT	III	LDC
05L183	P9MWI05-1097	12/22/2005	EMXT	NS	SW7196A	NONE	III	LDC
05L183	P9MWI05-1097	12/22/2005	EMXT	NS	SW8260B	SW5030B	III	LDC
05L183	P9MWI05-1097	12/22/2005	EMXT	NS	SW8270C	SW3520C	III	LDC
05L183	TB1-2075	12/22/2005	EMXT	TB	SW8260B	SW5030B	III	LDC
05L183	TB2-2076	12/22/2005	EMXT	TB	SW8260B	SW5030B	III	LDC
05L191	9IF-MW07U-1110	12/27/2005	EMXT	NS	SW6010B	FLDFLT	IV	LDC
05L191	9IF-MW07U-1110	12/27/2005	EMXT	NS	SW7196A	NONE	IV	LDC
05L191	9IF-MW07U-1110	12/27/2005	EMXT	NS	SW8260B	SW5030B	IV	LDC
05L191	9IF-MW07U-1110	12/27/2005	EMXT	NS	SW8270C	SW3520C	IV	LDC
05L191	9IF-MW09U-1112	12/27/2005	EMXT	NS	SW6010B	FLDFLT	IV	LDC
05L191	9IF-MW09U-1112	12/27/2005	EMXT	NS	SW7196A	NONE	IV	LDC
05L191	9IF-MW09U-1112	12/27/2005	EMXT	NS	SW8260B	SW5030B	IV	LDC
05L191	9IF-MW09U-1112	12/27/2005	EMXT	NS	SW8270C	SW3520C	IV	LDC
05L191	TB1-2077	12/27/2005	EMXT	TB	SW8260B	SW5030B	IV	LDC
05L196	9EMW03-1100	12/28/2005	EMXT	NS1	SW6010B	FLDFLT	IV	LDC
05L196	9EMW03-1100	12/28/2005	EMXT	NS1	SW7196A	NONE	IV	LDC
05L196	9EMW03-1100	12/28/2005	EMXT	NS1	SW8260B	SW5030B	IV	LDC
05L196	9EMW03-1100	12/28/2005	EMXT	NS1	SW8270C	SW3520C	IV	LDC
05L196	9EMW03-1101	12/28/2005	EMXT	FD	SW8260B	SW5030B	IV	LDC
05L196	9IF-MW04L-1119	12/28/2005	EMXT	NS	SW6010B	FLDFLT	IV	LDC
05L196	9IF-MW04L-1119	12/28/2005	EMXT	NS	SW7196A	NONE	IV	LDC
05L196	9IF-MW04L-1119	12/28/2005	EMXT	NS	SW8260B	SW5030B	IV	LDC
05L196	9IF-MW04L-1119	12/28/2005	EMXT	NS	SW8270C	SW3520C	IV	LDC
05L196	9IF-MW05U-1107	12/28/2005	EMXT	NS1	SW6010B	FLDFLT	IV	LDC
05L196	9IF-MW05U-1107	12/28/2005	EMXT	NS1	SW7196A	NONE	IV	LDC
05L196	9IF-MW05U-1107	12/28/2005	EMXT	NS1	SW8260B	SW5030B	IV	LDC
05L196	9IF-MW05U-1107	12/28/2005	EMXT	NS1	SW8270C	SW3520C	IV	LDC
05L196	9IF-MW05U-1108	12/28/2005	EMXT	FD	SW8260B	SW5030B	IV	LDC
05L196	9IF-MW09L-1125	12/28/2005	EMXT	NS	SW6010B	FLDFLT	IV	LDC
05L196	9IF-MW09L-1125	12/28/2005	EMXT	NS	SW7196A	NONE	IV	LDC
05L196	9IF-MW09L-1125	12/28/2005	EMXT	NS	SW8260B	SW5030B	IV	LDC
05L196	9IF-MW09L-1125	12/28/2005	EMXT	NS	SW8270C	SW3520C	IV	LDC
05L196	9IF-MW10L-1126	12/28/2005	EMXT	NS	SW6010B	FLDFLT	IV	LDC
05L196	9IF-MW10L-1126	12/28/2005	EMXT	NS	SW7196A	NONE	IV	LDC
05L196	9IF-MW10L-1126	12/28/2005	EMXT	NS	SW8260B	SW5030B	IV	LDC
05L196	9IF-MW10L-1126	12/28/2005	EMXT	NS	SW8270C	SW3520C	IV	LDC
05L196	9IF-MW11U-1114	12/28/2005	EMXT	NS	SW6010B	FLDFLT	IV	LDC
05L196	9IF-MW11U-1114	12/28/2005	EMXT	NS	SW7196A	NONE	IV	LDC

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SDG	Field Sample ID	Sample Date	Lab	Sample Type	Analytical Method	Extraction Method	Review Level	Reviewer
05L196	9IF-MW11U-1114	12/28/2005	EMXT	NS	SW8260B	SW5030B	IV	LDC
05L196	9IF-MW11U-1114	12/28/2005	EMXT	NS	SW8270C	SW3520C	IV	LDC
05L196	TB1-2089	12/28/2005	EMXT	TB	SW8260B	SW5030B	IV	LDC
05L201	9EMW01-1099	12/29/2005	EMXT	NS	SW6010B	FLDFLT	III	LDC
05L201	9EMW01-1099	12/29/2005	EMXT	NS	SW7196A	NONE	III	LDC
05L201	9EMW01-1099	12/29/2005	EMXT	NS	SW8260B	SW5030B	III	LDC
05L201	9EMW01-1099	12/29/2005	EMXT	NS	SW8270C	SW3520C	III	LDC
05L201	9EMW04-1102	12/29/2005	EMXT	NS	SW6010B	FLDFLT	III	LDC
05L201	9EMW04-1102	12/29/2005	EMXT	NS	SW7196A	NONE	III	LDC
05L201	9EMW04-1102	12/29/2005	EMXT	NS	SW8260B	SW5030B	III	LDC
05L201	9EMW04-1102	12/29/2005	EMXT	NS	SW8270C	SW3520C	III	LDC
05L201	9IF-MW01L-1116	12/29/2005	EMXT	NS	SW6010B	FLDFLT	III	LDC
05L201	9IF-MW01L-1116	12/29/2005	EMXT	NS	SW7196A	NONE	III	LDC
05L201	9IF-MW01L-1116	12/29/2005	EMXT	NS	SW8260B	SW5030B	III	LDC
05L201	9IF-MW01L-1116	12/29/2005	EMXT	NS	SW8270C	SW3520C	III	LDC
05L201	9IF-MW02L-1117	12/29/2005	EMXT	NS	SW6010B	FLDFLT	III	LDC
05L201	9IF-MW02L-1117	12/29/2005	EMXT	NS	SW7196A	NONE	III	LDC
05L201	9IF-MW02L-1117	12/29/2005	EMXT	NS	SW8260B	SW5030B	III	LDC
05L201	9IF-MW02L-1117	12/29/2005	EMXT	NS	SW8270C	SW3520C	III	LDC
05L201	9IF-MW06L-1121	12/29/2005	EMXT	NS	SW6010B	FLDFLT	III	LDC
05L201	9IF-MW06L-1121	12/29/2005	EMXT	NS	SW7196A	NONE	III	LDC
05L201	9IF-MW06L-1121	12/29/2005	EMXT	NS	SW8260B	SW5030B	III	LDC
05L201	9IF-MW06L-1121	12/29/2005	EMXT	NS	SW8270C	SW3520C	III	LDC
05L201	9IF-MW12U-1115	12/29/2005	EMXT	NS	SW6010B	FLDFLT	III	LDC
05L201	9IF-MW12U-1115	12/29/2005	EMXT	NS	SW7196A	NONE	III	LDC
05L201	9IF-MW12U-1115	12/29/2005	EMXT	NS	SW8260B	SW5030B	III	LDC
05L201	9IF-MW12U-1115	12/29/2005	EMXT	NS	SW8270C	SW3520C	III	LDC
05L201	TB1-2081	12/29/2005	EMXT	TB	SW8260B	SW5030B	III	LDC
06A004	9IF-MW05L-1120	1/3/2006	EMXT	NS	SW6010B	FLDFLT	III	LDC
06A004	9IF-MW05L-1120	1/3/2006	EMXT	NS	SW7196A	NONE	III	LDC
06A004	9IF-MW05L-1120	1/3/2006	EMXT	NS	SW8260B	SW5030B	III	LDC
06A004	9IF-MW05L-1120	1/3/2006	EMXT	NS	SW8270C	SW3520C	III	LDC
06A004	9IF-MW08L-1123	1/3/2006	EMXT	NS1	SW6010B	FLDFLT	III	LDC
06A004	9IF-MW08L-1123	1/3/2006	EMXT	NS1	SW7196A	NONE	III	LDC
06A004	9IF-MW08L-1123	1/3/2006	EMXT	NS1	SW8260B	SW5030B	III	LDC
06A004	9IF-MW08L-1123	1/3/2006	EMXT	NS1	SW8270C	SW3520C	III	LDC
06A004	9IF-MW08L-1124	1/3/2006	EMXT	FD	SW8260B	SW5030B	III	LDC
06A004	9IF-MW08U-1111	1/3/2006	EMXT	NS	SW6010B	FLDFLT	III	LDC
06A004	9IF-MW08U-1111	1/3/2006	EMXT	NS	SW7196A	NONE	III	LDC
06A004	9IF-MW08U-1111	1/3/2006	EMXT	NS	SW8260B	SW5030B	III	LDC
06A004	9IF-MW08U-1111	1/3/2006	EMXT	NS	SW8270C	SW3520C	III	LDC
06A004	9IF-MW10U-1113	1/3/2006	EMXT	NS	SW6010B	FLDFLT	III	LDC
06A004	9IF-MW10U-1113	1/3/2006	EMXT	NS	SW7196A	NONE	III	LDC
06A004	9IF-MW10U-1113	1/3/2006	EMXT	NS	SW8260B	SW5030B	III	LDC
06A004	9IF-MW10U-1113	1/3/2006	EMXT	NS	SW8270C	SW3520C	III	LDC
06A004	P-9-MWI06-1098	1/3/2006	EMXT	NS	SW6010B	FLDFLT	III	LDC
06A004	P-9-MWI06-1098	1/3/2006	EMXT	NS	SW7196A	NONE	III	LDC
06A004	P-9-MWI06-1098	1/3/2006	EMXT	NS	SW8260B	SW5030B	III	LDC
06A004	P-9-MWI06-1098	1/3/2006	EMXT	NS	SW8270C	SW3520C	III	LDC

Table 1: Summary of Samples Collected, Sample Date, Preparation Method, Analysis Method, and Data Review Level
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

SDG	Field Sample ID	Sample Date	Lab	Sample Type	Analytical Method	Extraction Method	Review Level	Reviewer
06A004	TB1-2091	1/3/2006	EMXT	TB	SW8260B	SW5030B	III	LDC
06A010	9IF-MW03U-1105	1/4/2006	EMXT	NS	SW6010B	FLDFLT	III	LDC
06A010	9IF-MW03U-1105	1/4/2006	EMXT	NS	SW7196A	NONE	III	LDC
06A010	9IF-MW03U-1105	1/4/2006	EMXT	NS	SW8260B	SW5030B	III	LDC
06A010	9IF-MW03U-1105	1/4/2006	EMXT	NS	SW8270C	SW3520C	III	LDC
06A010	9IF-MW07L-1122	1/4/2006	EMXT	NS	SW6010B	FLDFLT	III	LDC
06A010	9IF-MW07L-1122	1/4/2006	EMXT	NS	SW7196A	NONE	III	LDC
06A010	9IF-MW07L-1122	1/4/2006	EMXT	NS	SW8260B	SW5030B	III	LDC
06A010	9IF-MW07L-1122	1/4/2006	EMXT	NS	SW8270C	SW3520C	III	LDC
06A010	TB1-2083	1/4/2006	EMXT	TB	SW8260B	SW5030B	III	LDC

Notes:

SDG - Sample Delivery Group
EMXT - Emax Laboratories, Inc.
NS - Normal Sample
NS1 - Normal Sample with associated Field Duplicate sample.
(The normal sample was analyzed using multiple methods whereas the associated field duplicate was only analyzed for VOCs (SW8260B)).
FD - Field Duplicate sample
TB - Trip Blank sample
FLDFLT - Filtered
III - Samples received Level III data review.
IV - Samples received Level IV data validation.
LDC - Laboratory Data Consultants, Inc.

Table 2: DATA QUALIFICATION FLAGS AND REASON CODES

Data Qualifier Definitions For Organic Data Review

Qualifier	Definition
	No Qualifier indicates that the data are acceptable both qualitatively and quantitatively.
U	The analyte was analyzed for but was not detected above the reported sample quantitation limit.
J	The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.
J-	The analyte was positively identified; associated numerical value is its approximate concentration with a low bias in the sample.
J+	The analyte was positively identified; associated numerical value is its approximate concentration with a high bias in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated value represents its approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis may be necessary to confirm or deny the presence of the analyte. Results are rejected and data are unusable for any purposes.

Data Qualifier Definitions For Inorganic Data Review

Qualifier	Definition
	No Qualifier indicates that the data are acceptable both qualitatively and quantitatively.
U	The analyte was analyzed for but was not detected above the level of the reported value. The reported value is the Instrument Detection Limit (IDL) for waters and the Method Detection Limit (MDL) for soils for all the analytes except Cyanide (CN) and Mercury (Hg). For CN and Hg, the reported value is the Contract Required Detection Limit (CRDL).
J	The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.
J-	The analyte was positively identified; associated numerical value is its approximate concentration with a low bias in the sample.
J+	The analyte was positively identified; associated numerical value is its approximate concentration with a high bias in the sample.
UJ	The analyte was analyzed for but was not detected above the reported value. The reported value may not accurately or precisely represent the sample reporting limit.
R	The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis may be necessary to confirm or deny the presence of the analyte. Results are rejected and data are unusable for any purposes.

Table 2: DATA QUALIFICATION FLAGS AND REASON CODES

Reason Codes for Data Review and Validation

REASON CODE	DESCRIPTION
A	Serial dilution outside criteria (Level IV).
B1	Method blank contaminants above reporting limit.
B2	Calibration blank contaminants above reporting limit.
B2, Bias Flag "-"	Calibration blank indicates negative interference, false negatives may be present
C	Calibration outside control limits.
D1	Sample Duplicate RPD outside control limit.
D2	Matrix Duplicate RPD outside control limit
E	The sample results exceed the linear calibration range of the instrument.
F	Hydrocarbon pattern does not match hydrocarbon pattern in the standard.
G1	Initial calibration RSD outside control limit.
G2	Initial continuing calibration RRF outside control limit.
G3	Continuing calibration RRF outside control limit.
H	Holding time exceeded.
I	Internal standard recovery outside control limit.
K1	Equipment rinsate contamination.
K2	Field blank contamination
K3	Trip blank contamination
L	LCS outside control limits.
M	MS outside control limits.
O	Interference check sample outside acceptance criteria
P	Analyte qualified based on the professional judgement of the reviewer.
S	Surrogate recovery outside control limit.
T	Temperature outside acceptance criteria.
Tr	Value reported detected between the MDL and PQL
W	Pesticide breakdown outside criteria (Level IV).
X	Raised reporting limit due to matrix interference or high analyte concentration.
Y	Analyte was not confirmed by a second column.
Y1	Primary and Confirmation Sample Duplicate RPD outside control limit.

Table 3: Qualified Data
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

Analytical Method	SDG	Field Sample ID	Analyte	Result	MDL	PQL	Units	Qualifier
Reason Code A								
SW6010B	05I083	9IF-MW08L-1092	Lead	5.28	2.6	5	µg/L	J
		9IF-MW10L-1094	Lead	17.3	2.6	5	µg/L	J
		9IF-MW10U-1081	Lead	32.5	2.6	5	µg/L	J
	05L183	9IF-MW01U-1103	Magnesium	4460	100	500	µg/L	J
		9IF-MW02U-1104	Magnesium	55700	100	500	µg/L	J
		9IF-MW03L-1118	Magnesium	273000	100	500	µg/L	J
		9IF-MW04U-1106	Magnesium	33800	100	500	µg/L	J
		9IF-MW06U-1109	Magnesium	19900	100	500	µg/L	J
		P9MWI03-1096	Magnesium	8610	100	500	µg/L	J
		P9MWI05-1097	Magnesium	5630	100	500	µg/L	J
	05L201	9EMW01-1099	Calcium	36800	100	500	µg/L	J
		9EMW04-1102	Calcium	21800	100	500	µg/L	J
		9IF-MW01L-1116	Calcium	145000	100	500	µg/L	J
		9IF-MW02L-1117	Calcium	518000	10000	50000	µg/L	J
		9IF-MW06L-1121	Calcium	84600	100	500	µg/L	J
		9IF-MW12U-1115	Calcium	42500	100	500	µg/L	J
		9EMW01-1099	Cobalt	90.5	2.5	5	µg/L	J
		9EMW04-1102	Cobalt	1070	2.5	5	µg/L	J
		9IF-MW01L-1116	Cobalt	311	2.5	5	µg/L	J
		9IF-MW02L-1117	Cobalt	8.63	2.5	5	µg/L	J
		9IF-MW06L-1121	Cobalt	316	2.5	5	µg/L	J
		9IF-MW12U-1115	Cobalt	22.2	2.5	5	µg/L	J
		9EMW01-1099	Nickel	392	2.5	10	µg/L	J
		9EMW04-1102	Nickel	1310	2.5	10	µg/L	J
		9IF-MW01L-1116	Nickel	321	2.5	10	µg/L	J
		9IF-MW06L-1121	Nickel	673	2.5	10	µg/L	J
		9IF-MW12U-1115	Nickel	155	2.5	10	µg/L	J
Reason Code ATr								
SW6010B	05I083	9IF-MW08U-1079	Lead	2.98	2.6	5	µg/L	J
	05L201	9IF-MW02L-1117	Nickel	9.13	2.5	10	µg/L	J
Reason Code B1								
SW6010B	05D013	9EMW01-1003	Zinc	22.1	5	10	µg/L	U
		9IF-MW01U-1007	Zinc	12.4	5	10	µg/L	U
		9IF-MW03U-1009	Zinc	11.4	5	10	µg/L	U
		9IF-MW05U-1011	Zinc	6.15	5	10	µg/L	U
		9IF-MW07U-1014	Zinc	14.2	5	10	µg/L	U
		9IF-MW08U-1015	Zinc	11.7	5	10	µg/L	U
		9IF-MW09U-1016	Zinc	11.7	5	10	µg/L	U
		P-9-MWI03-1000	Zinc	13.8	5	10	µg/L	U
		P-9-MWI06-1002	Zinc	9.01	5	10	µg/L	U
	05L183	9IF-MW01U-1103	Arsenic	6.09	5	10	µg/L	U
		9IF-MW03L-1118	Arsenic	7.05	5	10	µg/L	U
		9IF-MW04U-1106	Arsenic	9.55	5	10	µg/L	U
		P9MWI03-1096	Arsenic	5.14	5	10	µg/L	U
		P9MWI05-1097	Arsenic	7.23	5	10	µg/L	U
	06A004	P-9-MWI06-1098	Aluminum	320	60	200	µg/L	U
Reason Code C								
SW8260B	05I084	9IF-MW06L-1090	Hexachlorobutadiene	ND	0.2	0.5	µg/L	UJ

Table 3: Qualified Data
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

Analytical Method	SDG	Field Sample ID	Analyte	Result	MDL	PQL	Units	Qualifier
Reason Code C								
SW8260B	05I084	TB1-2071	Hexachlorobutadiene	ND	0.2	0.5	µg/L	UJ
	05L201	9IF-MW01L-1116	2-Hexanone	ND	1	20	µg/L	UJ
Reason Code C								
SW6010B	05L191	9IF-MW07U-1110	Potassium	6130	100	500	µg/L	J
	05L196	9EMW03-1100	Potassium	25500	100	500	µg/L	J
		9IF-MW04L-1119	Potassium	33500	100	500	µg/L	J
		9IF-MW05U-1107	Potassium	29600	100	500	µg/L	J
		9IF-MW09L-1125	Potassium	4900	100	500	µg/L	J
		9IF-MW10L-1126	Potassium	11200	100	500	µg/L	J
		9IF-MW11U-1114	Potassium	38400	100	500	µg/L	J
Reason Code C								
SW8270C	05L183	9IF-MW01U-1103	2-Nitrophenol	ND	4.9	9.7	µg/L	UJ
		9IF-MW02U-1104	2-Nitrophenol	ND	4.7	9.4	µg/L	UJ
		9IF-MW03L-1118	2-Nitrophenol	ND	5.4	11	µg/L	UJ
		9IF-MW04U-1106	2-Nitrophenol	ND	4.9	9.7	µg/L	UJ
		9IF-MW06U-1109	2-Nitrophenol	ND	4.8	9.6	µg/L	UJ
		P9MWI03-1096	2-Nitrophenol	ND	4.8	9.6	µg/L	UJ
		P9MWI05-1097	2-Nitrophenol	ND	4.9	9.7	µg/L	UJ
	05L191	9IF-MW07U-1110	2-Nitrophenol	ND	5.1	10	µg/L	UJ
		9IF-MW09U-1112	2-Nitrophenol	ND	4.8	9.5	µg/L	UJ
		9IF-MW07U-1110	4,6-dinitro-2-methylphenol	ND	10	51	µg/L	UJ
		9IF-MW09U-1112	4,6-dinitro-2-methylphenol	ND	9.5	47	µg/L	UJ
	05L196	9EMW03-1100	2-Nitrophenol	ND	4.8	9.5	µg/L	UJ
		9IF-MW04L-1119	2-Nitrophenol	ND	4.9	9.8	µg/L	UJ
		9IF-MW05U-1107	2-Nitrophenol	ND	4.9	9.8	µg/L	UJ
		9IF-MW09L-1125	2-Nitrophenol	ND	4.9	9.8	µg/L	UJ
		9IF-MW10L-1126	2-Nitrophenol	ND	4.9	9.9	µg/L	UJ
		9IF-MW11U-1114	2-Nitrophenol	ND	4.8	9.6	µg/L	UJ
		9EMW03-1100	4,6-dinitro-2-methylphenol	ND	9.5	47	µg/L	UJ
		9IF-MW04L-1119	4,6-dinitro-2-methylphenol	ND	9.8	49	µg/L	UJ
		9IF-MW05U-1107	4,6-dinitro-2-methylphenol	ND	9.8	49	µg/L	UJ
		9IF-MW09L-1125	4,6-dinitro-2-methylphenol	ND	9.8	49	µg/L	UJ
		9IF-MW10L-1126	4,6-dinitro-2-methylphenol	ND	9.9	50	µg/L	UJ
		9IF-MW11U-1114	4,6-dinitro-2-methylphenol	ND	9.6	48	µg/L	UJ
	05L201	9EMW01-1099	2-Nitrophenol	ND	4.9	9.7	µg/L	UJ
		9EMW04-1102	2-Nitrophenol	ND	4.8	9.6	µg/L	UJ
		9IF-MW01L-1116	2-Nitrophenol	ND	4.9	9.8	µg/L	UJ
		9IF-MW02L-1117	2-Nitrophenol	ND	4.9	9.8	µg/L	UJ
		9IF-MW06L-1121	2-Nitrophenol	ND	4.8	9.6	µg/L	UJ
		9IF-MW12U-1115	2-Nitrophenol	ND	5	10	µg/L	UJ
		9EMW01-1099	4,6-dinitro-2-methylphenol	ND	9.7	48	µg/L	UJ
		9EMW04-1102	4,6-dinitro-2-methylphenol	ND	9.6	48	µg/L	UJ
		9IF-MW01L-1116	4,6-dinitro-2-methylphenol	ND	9.8	49	µg/L	UJ
		9IF-MW02L-1117	4,6-dinitro-2-methylphenol	ND	9.8	49	µg/L	UJ
		9IF-MW06L-1121	4,6-dinitro-2-methylphenol	ND	9.6	48	µg/L	UJ
		9IF-MW12U-1115	4,6-dinitro-2-methylphenol	ND	10	50	µg/L	UJ
	06A004	9IF-MW05L-1120	2-Nitrophenol	ND	4.9	9.7	µg/L	UJ
		9IF-MW08L-1123	2-Nitrophenol	ND	5	10	µg/L	UJ

Table 3: Qualified Data
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

Analytical Method	SDG	Field Sample ID	Analyte	Result	MDL	PQL	Units	Qualifier
Reason Code C								
SW8270C	06A004	9IF-MW08U-1111	2-Nitrophenol	ND	4.9	9.9	µg/L	UJ
		9IF-MW10U-1113	2-Nitrophenol	ND	4.8	9.6	µg/L	UJ
		P-9-MWI06-1098	2-Nitrophenol	ND	5.1	10	µg/L	UJ
		9IF-MW05L-1120	4,6-dinitro-2-methylphenol	ND	9.7	48	µg/L	UJ
		9IF-MW08L-1123	4,6-dinitro-2-methylphenol	ND	10	50	µg/L	UJ
		9IF-MW08U-1111	4,6-dinitro-2-methylphenol	ND	9.9	50	µg/L	UJ
		9IF-MW10U-1113	4,6-dinitro-2-methylphenol	ND	9.6	48	µg/L	UJ
		P-9-MWI06-1098	4,6-dinitro-2-methylphenol	ND	10	52	µg/L	UJ
	06A010	9IF-MW03U-1105	2-Nitrophenol	ND	4.9	9.8	µg/L	UJ
		9IF-MW07L-1122	2-Nitrophenol	ND	5	10	µg/L	UJ
		9IF-MW03U-1105	4,6-dinitro-2-methylphenol	ND	9.8	49	µg/L	UJ
		9IF-MW07L-1122	4,6-dinitro-2-methylphenol	ND	10	50	µg/L	UJ
Reason Code G2								
SW8260B	05L196	9EMW03-1100	Methyl ethyl ketone	ND	5	20	µg/L	UJ
		9EMW03-1101	Methyl ethyl ketone	ND	5	20	µg/L	UJ
		9IF-MW05U-1108	Methyl ethyl ketone	ND	5	20	µg/L	UJ
	05L201	9EMW01-1099	Methyl ethyl ketone	ND	5	20	µg/L	UJ
		9EMW04-1102	Methyl ethyl ketone	ND	5	20	µg/L	UJ
		9IF-MW02L-1117	Methyl ethyl ketone	ND	5	20	µg/L	UJ
		9IF-MW06L-1121	Methyl ethyl ketone	ND	5	20	µg/L	UJ
		9IF-MW12U-1115	Methyl ethyl ketone	ND	5	20	µg/L	UJ
		TB1-2081	Methyl ethyl ketone	ND	5	20	µg/L	UJ
Reason Code G2G3								
SW8260B	05L183	9IF-MW01U-1103	Acetone	ND	2	10	µg/L	UJ
		9IF-MW02U-1104	Acetone	ND	2	10	µg/L	UJ
		9IF-MW03L-1118	Acetone	ND	2	10	µg/L	UJ
		9IF-MW04U-1106	Acetone	ND	2	10	µg/L	UJ
		9IF-MW06U-1109	Acetone	ND	2	10	µg/L	UJ
		P9MWI03-1096	Acetone	ND	2	10	µg/L	UJ
		P9MWI05-1097	Acetone	ND	2	10	µg/L	UJ
		TB1-2075	Acetone	ND	2	10	µg/L	UJ
		TB2-2076	Acetone	ND	2	10	µg/L	UJ
		9IF-MW01U-1103	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW02U-1104	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW03L-1118	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW06U-1109	tert-butyl alcohol	ND	5	50	µg/L	UJ
		P9MWI03-1096	tert-butyl alcohol	ND	5	50	µg/L	UJ
		P9MWI05-1097	tert-butyl alcohol	ND	5	50	µg/L	UJ
		TB1-2075	tert-butyl alcohol	ND	5	50	µg/L	UJ
		TB2-2076	tert-butyl alcohol	ND	5	50	µg/L	UJ
	05L191	9IF-MW07U-1110	Acetone	ND	2	10	µg/L	UJ
		9IF-MW09U-1112	Acetone	ND	2	10	µg/L	UJ
		TB1-2077	Acetone	ND	2	10	µg/L	UJ
		9IF-MW07U-1110	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW09U-1112	tert-butyl alcohol	ND	5	50	µg/L	UJ
		TB1-2077	tert-butyl alcohol	ND	5	50	µg/L	UJ
	05L196	9EMW03-1100	Acetone	ND	2	10	µg/L	UJ
		9EMW03-1101	Acetone	ND	2	10	µg/L	UJ

Table 3: Qualified Data
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

Analytical Method	SDG	Field Sample ID	Analyte	Result	MDL	PQL	Units	Qualifier
Reason Code G2G3								
SW8260B	05L196	9IF-MW04L-1119	Acetone	ND	2	10	µg/L	UJ
		9IF-MW05U-1107	Acetone	ND	2	10	µg/L	UJ
		9IF-MW05U-1108	Acetone	ND	2	10	µg/L	UJ
		9IF-MW09L-1125	Acetone	ND	2	10	µg/L	UJ
		9IF-MW10L-1126	Acetone	ND	2	10	µg/L	UJ
		9IF-MW11U-1114	Acetone	ND	2	10	µg/L	UJ
		TB1-2089	Acetone	ND	2	10	µg/L	UJ
		9IF-MW04L-1119	Methyl ethyl ketone	ND	5	20	µg/L	UJ
		9IF-MW05U-1107	Methyl ethyl ketone	ND	5	20	µg/L	UJ
		9IF-MW09L-1125	Methyl ethyl ketone	ND	5	20	µg/L	UJ
		9IF-MW10L-1126	Methyl ethyl ketone	ND	5	20	µg/L	UJ
		9IF-MW11U-1114	Methyl ethyl ketone	ND	5	20	µg/L	UJ
		TB1-2089	Methyl ethyl ketone	ND	5	20	µg/L	UJ
		9EMW03-1100	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9EMW03-1101	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW04L-1119	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW05U-1107	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW05U-1108	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW09L-1125	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW10L-1126	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW11U-1114	tert-butyl alcohol	ND	5	50	µg/L	UJ
		TB1-2089	tert-butyl alcohol	ND	5	50	µg/L	UJ
	05L201	9EMW04-1102	Acetone	ND	2	10	µg/L	UJ
		9IF-MW01L-1116	Acetone	ND	2	10	µg/L	UJ
		9IF-MW02L-1117	Acetone	ND	2	10	µg/L	UJ
		9IF-MW12U-1115	Acetone	ND	2	10	µg/L	UJ
		TB1-2081	Acetone	ND	2	10	µg/L	UJ
		9IF-MW01L-1116	Methyl ethyl ketone	ND	5	20	µg/L	UJ
		9EMW04-1102	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW01L-1116	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW02L-1117	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW06L-1121	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW12U-1115	tert-butyl alcohol	ND	5	50	µg/L	UJ
		TB1-2081	tert-butyl alcohol	ND	5	50	µg/L	UJ
	06A004	9IF-MW05L-1120	Acetone	ND	2	10	µg/L	UJ
		P-9-MWI06-1098	Acetone	33	2	10	µg/L	J
		TB1-2091	Acetone	ND	2	10	µg/L	UJ
		9IF-MW05L-1120	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW08L-1123	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW08L-1124	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW08U-1111	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW10U-1113	tert-butyl alcohol	ND	5	50	µg/L	UJ
		P-9-MWI06-1098	tert-butyl alcohol	ND	5	50	µg/L	UJ
		TB1-2091	tert-butyl alcohol	ND	5	50	µg/L	UJ
	06A010	9IF-MW03U-1105	Acetone	ND	2	10	µg/L	UJ
		9IF-MW07L-1122	Acetone	ND	2	10	µg/L	UJ
		TB1-2083	Acetone	ND	2	10	µg/L	UJ
		9IF-MW03U-1105	tert-butyl alcohol	ND	5	50	µg/L	UJ
		9IF-MW07L-1122	tert-butyl alcohol	ND	5	50	µg/L	UJ

Table 3: Qualified Data
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

Analytical Method	SDG	Field Sample ID	Analyte	Result	MDL	PQL	Units	Qualifier
Reason Code G2G3								
SW8260B	06A010	TB1-2083	tert-butyl alcohol	ND	5	50	µg/L	UJ
Reason Code G2G3Tr								
SW8260B	05L183	9IF-MW04U-1106	tert-butyl alcohol	16	5	50	µg/L	J
	05L201	9EMW01-1099	Acetone	4.5	2	10	µg/L	J
		9IF-MW06L-1121	Acetone	5.6	2	10	µg/L	J
		9EMW01-1099	tert-butyl alcohol	25	5	50	µg/L	J
	06A004	9IF-MW08L-1123	Acetone	3.3	2	10	µg/L	J
		9IF-MW08L-1124	Acetone	3	2	10	µg/L	J
		9IF-MW08U-1111	Acetone	8	2	10	µg/L	J
		9IF-MW10U-1113	Acetone	2.3	2	10	µg/L	J
Reason Code H								
SW7196A	05D013	9EMW01-1003	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9EMW04-1005	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9IF-MW02U-1008	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9IF-MW09U-1016	Chromium VI	ND	0.005	0.02	mg/L	UJ
		P-9-MWI06-1002	Chromium VI	ND	0.005	0.02	mg/L	UJ
	05D025	9IF-MW01L-1020	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9IF-MW02L-1021	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9IF-MW06U-1012	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9IF-MW11U-1018	Chromium VI	ND	0.005	0.02	mg/L	UJ
	05D039	9IF-MW01S-1031	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9IF-MW06L-1025	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9IF-MW07L-1027	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9IF-MW09L-1029	Chromium VI	ND	0.005	0.02	mg/L	UJ
	05F080	9IF-MW02U-1040	Chromium VI	0.036	0.005	0.02	mg/L	J
		P-9-MWI05-1033	Chromium VI	ND	0.005	0.02	mg/L	UJ
		P-9-MWI06-1034	Chromium VI	ND	0.005	0.02	mg/L	UJ
	05F102	9IF-MW04U-1042	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9IF-MW06U-1044	Chromium VI	ND	0.005	0.02	mg/L	UJ
	05F113	9IF-MW10L-1062	Chromium VI	ND	0.005	0.02	mg/L	UJ
	05I051	P-9-MWI03-1064	Chromium VI	0.006	0.005	0.02	mg/L	J
		P-9-MWI05-1066	Chromium VI	ND	0.005	0.02	mg/L	UJ
	05I070	9IF-MW01L-1084	Chromium VI	ND	0.005	0.02	mg/L	UJ
	05I083	9IF-MW08L-1092	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9IF-MW09L-1093	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9IF-MW10L-1094	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9IF-MW10U-1081	Chromium VI	ND	0.005	0.02	mg/L	UJ
	05L183	P9MWI03-1096	Chromium VI	ND	0.005	0.02	mg/L	UJ
		P9MWI05-1097	Chromium VI	ND	0.005	0.02	mg/L	UJ
	05L196	9IF-MW09L-1125	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9IF-MW10L-1126	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9IF-MW11U-1114	Chromium VI	ND	0.005	0.02	mg/L	UJ
	05L201	9EMW01-1099	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9EMW04-1102	Chromium VI	ND	0.005	0.02	mg/L	UJ
	06A004	9IF-MW10U-1113	Chromium VI	ND	0.005	0.02	mg/L	UJ
	06A010	9IF-MW03U-1105	Chromium VI	ND	0.005	0.02	mg/L	UJ
		9IF-MW07L-1122	Chromium VI	ND	0.005	0.02	mg/L	UJ

Table 3: Qualified Data
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

Analytical Method	SDG	Field Sample ID	Analyte	Result	MDL	PQL	Units	Qualifier
Reason Code H								
SW8270C	05D039	9IF-MW10L-1030	bis(2-Ethylhexyl)phthalate	ND	10	20	µg/L	UJ
	05I083	9IF-MW10L-1094	1,2,4-Trichlorobenzene	ND	4.7	9.4	µg/L	UJ
			1,2-Dichlorobenzene	ND	4.7	9.4	µg/L	UJ
			1,3-Dichlorobenzene	ND	4.7	9.4	µg/L	UJ
			1,4-Dichlorobenzene	ND	4.7	9.4	µg/L	UJ
			2,4,5-Trichlorophenol	ND	4.7	47	µg/L	UJ
			2,4,6-Trichlorophenol	ND	4.7	9.4	µg/L	UJ
			2,4-Dichlorophenol	ND	4.7	9.4	µg/L	UJ
			2,4-Dimethylphenol	ND	4.7	9.4	µg/L	UJ
			2,4-Dinitrophenol	ND	9.4	47	µg/L	UJ
			2,4-Dinitrotoluene	ND	5.6	9.4	µg/L	UJ
			2,6-Dinitrotoluene	ND	5.6	9.4	µg/L	UJ
			2-Chloronaphthalene	ND	4.7	9.4	µg/L	UJ
			2-Chlorophenol	ND	4.7	9.4	µg/L	UJ
			2-Methylnaphthalene	ND	4.7	9.4	µg/L	UJ
			2-Methylphenol	ND	4.7	9.4	µg/L	UJ
			2-Nitroaniline	ND	5.6	47	µg/L	UJ
			2-Nitrophenol	ND	4.7	9.4	µg/L	UJ
			3,3'-Dichlorobenzidine	ND	4.7	19	µg/L	UJ
			3-Nitroaniline	ND	4.7	47	µg/L	UJ
			4,6-dinitro-2-methylphenol	ND	9.4	47	µg/L	UJ
			4-Bromophenylphenyl ether	ND	6.6	9.4	µg/L	UJ
			4-Chloro-3-methylphenol	ND	4.7	9.4	µg/L	UJ
			4-Chloroaniline	ND	4.7	9.4	µg/L	UJ
			4-Chlorophenylphenyl ether	ND	4.7	9.4	µg/L	UJ
			4-Methylphenol	ND	4.7	9.4	µg/L	UJ
			4-Nitroaniline	ND	4.7	47	µg/L	UJ
			4-Nitrophenol	ND	4.7	47	µg/L	UJ
			Acenaphthene	ND	4.7	9.4	µg/L	UJ
			Acenaphthylene	ND	4.7	9.4	µg/L	UJ
			Anthracene	ND	4.7	9.4	µg/L	UJ
			Benzo(a)anthracene	ND	4.7	9.4	µg/L	UJ
			Benzo(a)pyrene	ND	4.7	9.4	µg/L	UJ
			Benzo(b)fluoranthene	ND	4.7	9.4	µg/L	UJ
			Benzo(g,h,i)perylene	ND	4.7	9.4	µg/L	UJ
			Benzo(k)fluoranthene	ND	4.7	9.4	µg/L	UJ
			Benzoic acid	ND	4.7	47	µg/L	UJ
			Benzyl butyl phthalate	ND	4.7	9.4	µg/L	UJ
			bis(2-Chloroethoxy)methane	ND	4.7	9.4	µg/L	UJ
			bis(2-Chloroethyl)ether	ND	4.7	9.4	µg/L	UJ
			bis(2-chloroisopropyl) ether	ND	4.7	9.4	µg/L	UJ
			bis(2-Ethylhexyl)phthalate	ND	9.4	19	µg/L	UJ
			Chrysene	ND	4.7	9.4	µg/L	UJ
			Di-n-butyl phthalate	ND	4.7	9.4	µg/L	UJ
			Di-n-octyl phthalate	ND	4.7	9.4	µg/L	UJ
			Dibenz(a,h)anthracene	ND	4.7	9.4	µg/L	UJ
			Dibenzofuran	ND	4.7	9.4	µg/L	UJ
			Diethylphthalate	ND	5.6	9.4	µg/L	UJ
			Dimethylphthalate	ND	5.6	9.4	µg/L	UJ

Table 3: Qualified Data
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

Analytical Method	SDG	Field Sample ID	Analyte	Result	MDL	PQL	Units	Qualifier
Reason Code H								
SW8270C	05I083	9IF-MW10L-1094	Fluoranthene	ND	4.7	9.4	µg/L	UJ
			Fluorene	ND	4.7	9.4	µg/L	UJ
			Hexachlorobenzene	ND	5.6	9.4	µg/L	UJ
			Hexachlorobutadiene	ND	4.7	9.4	µg/L	UJ
			Hexachlorocyclopentadiene	ND	4.7	9.4	µg/L	UJ
			Hexachloroethane	ND	4.7	9.4	µg/L	UJ
			Indeno(1,2,3-c,d)pyrene	ND	4.7	9.4	µg/L	UJ
			Isophorone	ND	4.7	9.4	µg/L	UJ
			N-Nitrosodi-n-propylamine	ND	4.7	9.4	µg/L	UJ
			N-Nitrosodimethylamine	ND	4.7	9.4	µg/L	UJ
			N-Nitrosodiphenylamine	ND	4.7	9.4	µg/L	UJ
			Naphthalene	ND	4.7	9.4	µg/L	UJ
			Nitrobenzene	ND	4.7	9.4	µg/L	UJ
			Pentachlorophenol	ND	9.4	47	µg/L	UJ
			Phenanthrene	ND	4.7	9.4	µg/L	UJ
			Phenol	ND	4.7	9.4	µg/L	UJ
			Pyrene	ND	4.7	9.4	µg/L	UJ
Reason Code M								
SW6010B	05F080	9EMW04-1038	Potassium	33300	100	500	µg/L	J
		9IF-MW01L-1052	Potassium	66700	100	500	µg/L	J
		9IF-MW02L-1053	Potassium	28000	100	500	µg/L	J
		9IF-MW02U-1040	Potassium	62500	100	500	µg/L	J
		9IF-MW03U-1041	Potassium	80300	100	500	µg/L	J
		9IF-MW05U-1043	Potassium	40900	100	500	µg/L	J
		9IF-MW08L-1059	Potassium	5690	100	500	µg/L	J
		9IF-MW08U-1046	Potassium	6900	500	2500	µg/L	J
		9IF-MW10U-1049	Potassium	13100	100	500	µg/L	J
		P-9-MWI05-1033	Potassium	13700	100	500	µg/L	J
		P-9-MWI06-1034	Potassium	16600	100	500	µg/L	J
	05F102	9IF-MW01S-1063	Potassium	43300	100	500	µg/L	J
		9IF-MW03L-1054	Potassium	15500	1000	5000	µg/L	J
		9IF-MW04L-1055	Potassium	34300	100	500	µg/L	J
		9IF-MW04U-1042	Potassium	70300	100	500	µg/L	J
		9IF-MW06U-1044	Potassium	8590	100	500	µg/L	J
		9IF-MW09L-1060	Potassium	5270	100	500	µg/L	J
		9IF-MW09U-1048	Potassium	21900	100	500	µg/L	J
		9IF-MW11U-1050	Potassium	14400	100	500	µg/L	J
		9IF-MW12U-1051	Potassium	6670	100	500	µg/L	J
	05I051	9IF-MW01U-1071	Potassium	7330	100	500	µg/L	J
		9IF-MW03U-1073	Potassium	70500	200	1000	µg/L	J
		9IF-MW07U-1078	Potassium	4170	500	2500	µg/L	J
		9IF-MW12U-1083	Potassium	55600	200	1000	µg/L	J
		P-9-MWI03-1064	Potassium	3550	100	500	µg/L	J
		P-9-MWI05-1066	Potassium	15000	100	500	µg/L	J
		P-9-MWI06-1067	Potassium	25400	100	500	µg/L	J
	05I070	9IF-MW01L-1084	Potassium	46800	200	1000	µg/L	J
		9IF-MW01S-1095	Potassium	36000	100	500	µg/L	J
		9IF-MW02L-1085	Potassium	18100	100	500	µg/L	J

Table 3: Qualified Data
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

Analytical Method	SDG	Field Sample ID	Analyte	Result	MDL	PQL	Units	Qualifier
Reason Code M								
SW6010B	05I070	9IF-MW04L-1087	Potassium	31400	100	500	µg/L	J
		9IF-MW04U-1074	Potassium	51800	200	1000	µg/L	J
		9IF-MW06U-1077	Potassium	24600	100	500	µg/L	J
		9IF-MW11U-1082	Potassium	14700	500	2500	µg/L	J
	05L201	9EMW01-1099	Potassium	34100	1000	5000	µg/L	J
		9EMW04-1102	Potassium	21900	100	500	µg/L	J
		9IF-MW01L-1116	Potassium	35500	2000	10000	µg/L	J
		9IF-MW02L-1117	Potassium	21600	100	500	µg/L	J
		9IF-MW06L-1121	Potassium	59200	1000	5000	µg/L	J
		9IF-MW12U-1115	Potassium	34900	1000	5000	µg/L	J
Reason Code S								
SW8260B	05F080	P-9-MWI06-1034	1,1,1,2-Tetrachloroethane	ND	0.2	0.5	µg/L	UJ
			1,1,1-Trichloroethane	ND	0.2	0.5	µg/L	UJ
			1,1,2,2-Tetrachloroethane	ND	0.3	0.5	µg/L	UJ
			1,1,2-Trichloroethane	ND	0.2	0.5	µg/L	UJ
			1,1,2-Trichlorotrifluoroethane	ND	0.2	5	µg/L	UJ
			1,1-Dichloroethane	75	1	2.5	µg/L	J
			1,1-Dichloroethene	ND	0.2	0.5	µg/L	UJ
			1,2,3-Trichloropropane	ND	0.2	0.5	µg/L	UJ
			1,2,4-Trichlorobenzene	ND	0.2	0.5	µg/L	UJ
			1,2,4-Trimethylbenzene	ND	0.2	0.5	µg/L	UJ
			1,2-Dibromo-3-chloropropane	ND	1	2	µg/L	UJ
			1,2-Dibromoethane	ND	0.2	0.5	µg/L	UJ
			1,2-Dichlorobenzene	ND	0.2	0.5	µg/L	UJ
			1,2-Dichloroethane	ND	0.2	0.5	µg/L	UJ
			1,2-Dichloropropane	ND	0.2	0.5	µg/L	UJ
			1,3,5-Trimethylbenzene	ND	0.2	0.5	µg/L	UJ
			1,3-Dichlorobenzene	ND	0.2	0.5	µg/L	UJ
			1,3-Dichloropropene	ND	0.2	0.5	µg/L	UJ
			1,4-Dichlorobenzene	ND	0.2	0.5	µg/L	UJ
			2-Hexanone	ND	1	20	µg/L	UJ
			4-Chlorotoluene	ND	0.2	0.5	µg/L	UJ
			Acetone	35	2	20	µg/L	J
			Benzene	ND	0.2	0.5	µg/L	UJ
			Bromobenzene	ND	0.2	0.5	µg/L	UJ
			Bromodichloromethane	ND	0.2	0.5	µg/L	UJ
			Bromomethane	ND	0.2	0.5	µg/L	UJ
			Carbon Tetrachloride	ND	0.2	0.5	µg/L	UJ
			Chlorobenzene	ND	0.2	0.5	µg/L	UJ
			Chloroethane	ND	0.2	0.5	µg/L	UJ
			Chloroform	13	0.2	0.5	µg/L	J
			Chloromethane	ND	0.5	0.5	µg/L	UJ
			cis-1,2-Dichloroethene	ND	0.2	0.5	µg/L	UJ
			Dibromochloromethane	ND	0.2	0.5	µg/L	UJ
			Dichlorodifluoromethane	ND	0.5	0.5	µg/L	UJ
			Ethylbenzene	ND	0.2	0.5	µg/L	UJ
			Hexachlorobutadiene	ND	0.2	0.5	µg/L	UJ
			Isopropyl Ether	ND	1	5	µg/L	UJ

Table 3: Qualified Data
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

Analytical Method	SDG	Field Sample ID	Analyte	Result	MDL	PQL	Units	Qualifier
Reason Code S								
SW8260B	05F080	P-9-MWI06-1034	Isopropylbenzene	ND	0.2	0.5	µg/L	UJ
			Methyl ethyl ketone	ND	5	20	µg/L	UJ
			Methyl isobutyl ketone	ND	1	20	µg/L	UJ
			Methyl tert-butyl ether	ND	0.2	0.5	µg/L	UJ
			Methylene Chloride	ND	0.5	1	µg/L	UJ
			N-butylbenzene	ND	0.2	0.5	µg/L	UJ
			N-propylbenzene	ND	0.2	0.5	µg/L	UJ
			Naphthalene	ND	0.3	0.5	µg/L	UJ
			sec-butylbenzene	ND	0.2	0.5	µg/L	UJ
			Styrene	ND	0.2	0.5	µg/L	UJ
			tert-amyl methyl ether	ND	0.3	5	µg/L	UJ
			tert-butyl alcohol	ND	5	50	µg/L	UJ
			tert-butyl ethyl ether	ND	1	5	µg/L	UJ
			tert-butylbenzene	ND	0.2	0.5	µg/L	UJ
			Tetrachloroethene	ND	0.2	0.5	µg/L	UJ
			Toluene	ND	0.2	0.5	µg/L	UJ
			trans-1,2-Dichloroethene	ND	0.2	0.5	µg/L	UJ
			Trichloroethene	ND	0.2	0.5	µg/L	UJ
			Trichlorofluoromethane	ND	0.2	0.5	µg/L	UJ
			Vinyl Chloride	ND	0.3	0.5	µg/L	UJ
			Xylenes, total	ND	0.5	2	µg/L	UJ

Notes:

ND - Non Detect
MDL - Method Detection Limit
PQL - Practical Quantitation Limit
µg/L - micrograms per liter
mg/L - milligrams per liter

See Table 2 for definitions of qualifiers and reason codes.

Table 4: Field Duplicate Summary
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

SDG	Location ID	Sample Date	Analyte Name	Normal Sample ID	Result	Duplicate Sample ID	Result	Units	RPD %
SW8260B									
05F062	9EMW03	6/6/2005	1,1-Dichloroethane	9EMW03-1036	80	9EMW03-1037	85	µg/L	6
05L196	9EMW03	12/28/2005	1,1-Dichloroethane	9EMW03-1100	26	9EMW03-1101	27	µg/L	4
05F062	9EMW03	6/6/2005	1,1-Dichloroethene	9EMW03-1036	24	9EMW03-1037	23	µg/L	4
05L196	9EMW03	12/28/2005	1,1-Dichloroethene	9EMW03-1100	2.9	9EMW03-1101	3	µg/L	3
05F062	9EMW03	6/6/2005	Bromodichloromethane	9EMW03-1036	0.5 U	9EMW03-1037	0.3 J	µg/L	NC
	9EMW03	6/6/2005	Chloroform	9EMW03-1036	2.6	9EMW03-1037	2.6	µg/L	0
05L196	9EMW03	12/28/2005	Chloroform	9EMW03-1100	2.4	9EMW03-1101	2.5	µg/L	4
05F062	9EMW03	6/6/2005	cis-1,2-Dichloroethene	9EMW03-1036	0.6	9EMW03-1037	0.58	µg/L	3
	9EMW03	6/6/2005	Methyl tert-butyl ether	9EMW03-1036	8.4	9EMW03-1037	8.5	µg/L	1
05L196	9EMW03	12/28/2005	Methyl tert-butyl ether	9EMW03-1100	3.7	9EMW03-1101	3.7	µg/L	0
05F062	9EMW03	6/6/2005	Vinyl Chloride	9EMW03-1036	7	9EMW03-1037	6.7	µg/L	4
05L196	9EMW03	12/28/2005	Vinyl Chloride	9EMW03-1100	1.1	9EMW03-1101	1.1	µg/L	0
05D013	9EMW04	4/5/2005	1,1-Dichloroethane	9EMW04-1005	280	9EMW04-1006	270	µg/L	4
	9EMW04	4/5/2005	1,1-Dichloroethene	9EMW04-1005	22	9EMW04-1006	23	µg/L	4
	9EMW04	4/5/2005	1,2-Dichloroethane	9EMW04-1005	0.27 J	9EMW04-1006	0.5 U	µg/L	NC
	9EMW04	4/5/2005	Acetone	9EMW04-1005	3.9 J	9EMW04-1006	4.2 J	µg/L	NC
	9EMW04	4/5/2005	Bromodichloromethane	9EMW04-1005	0.85	9EMW04-1006	0.73	µg/L	15
	9EMW04	4/5/2005	Bromoform	9EMW04-1005	0.94	9EMW04-1006	0.78	µg/L	19
	9EMW04	4/5/2005	Chloroform	9EMW04-1005	3.4	9EMW04-1006	3.1	µg/L	9
	9EMW04	4/5/2005	cis-1,2-Dichloroethene	9EMW04-1005	0.88	9EMW04-1006	0.9	µg/L	2
	9EMW04	4/5/2005	Dibromochloromethane	9EMW04-1005	0.33 J	9EMW04-1006	0.28 J	µg/L	NC
	9EMW04	4/5/2005	Isopropyl Ether	9EMW04-1005	1.2 J	9EMW04-1006	1.3 J	µg/L	NC
	9EMW04	4/5/2005	Vinyl Chloride	9EMW04-1005	5.2	9EMW04-1006	5.9	µg/L	13
05I070	9IF-MW04U	9/9/2005	1,1-Dichloroethane	9IF-MW04U-1074	0.46 J	9IF-MW04U-1075	0.43 J	µg/L	NC
	9IF-MW04U	9/9/2005	Benzene	9IF-MW04U-1074	0.24 J	9IF-MW04U-1075	0.24 J	µg/L	NC
	9IF-MW04U	9/9/2005	cis-1,2-Dichloroethene	9IF-MW04U-1074	1.3	9IF-MW04U-1075	1.2	µg/L	8
	9IF-MW04U	9/9/2005	Isopropyl Ether	9IF-MW04U-1074	7.8	9IF-MW04U-1075	7.4	µg/L	5
	9IF-MW04U	9/9/2005	tert-butyl alcohol	9IF-MW04U-1074	20 J	9IF-MW04U-1075	23 J	µg/L	NC
	9IF-MW04U	9/9/2005	Vinyl Chloride	9IF-MW04U-1074	2.9	9IF-MW04U-1075	2.6	µg/L	11
05I083	9IF-MW05L	9/12/2005	1,1-Dichloroethane	9IF-MW05L-1088	0.29 J	9IF-MW05L-1089	0.26 J	µg/L	NC
	9IF-MW05L	9/12/2005	Chlorobenzene	9IF-MW05L-1088	0.34 J	9IF-MW05L-1089	0.5 U	µg/L	NC
05L196	9IF-MW05U	12/28/2005	1,1-Dichloroethane	9IF-MW05U-1107	100	9IF-MW05U-1108	93	µg/L	7

Table 4: Field Duplicate Summary
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

SDG	Location ID	Sample Date	Analyte Name	Normal Sample ID	Result	Duplicate Sample ID	Result	Units	RPD %
SW8260B									
05L196	9IF-MW05U	12/28/2005	1,1-Dichloroethene	9IF-MW05U-1107	0.42 J	9IF-MW05U-1108	0.44 J	µg/L	NC
	9IF-MW05U	12/28/2005	Methyl tert-butyl ether	9IF-MW05U-1107	0.21 J	9IF-MW05U-1108	0.23 J	µg/L	NC
	9IF-MW05U	12/28/2005	Vinyl Chloride	9IF-MW05U-1107	1.8	9IF-MW05U-1108	2	µg/L	11
05D039	9IF-MW06L	4/7/2005	1,1-Dichloroethane	9IF-MW06L-1025	7.6	9IF-MW06L-1026	9.7	µg/L	24
	9IF-MW06L	4/7/2005	1,1-Dichloroethene	9IF-MW06L-1025	0.44 J	9IF-MW06L-1026	0.57	µg/L	NC
	9IF-MW06L	4/7/2005	Chloroform	9IF-MW06L-1025	0.52	9IF-MW06L-1026	0.53	µg/L	2
	9IF-MW06L	4/7/2005	Isopropyl Ether	9IF-MW06L-1025	7	9IF-MW06L-1026	6.3	µg/L	11
	9IF-MW06L	4/7/2005	Toluene	9IF-MW06L-1025	0.28 J	9IF-MW06L-1026	0.27 J	µg/L	NC
05D025	9IF-MW06U	4/6/2005	1,1-Dichloroethane	9IF-MW06U-1012	4.4	9IF-MW06U-1013	4.4	µg/L	0
	9IF-MW06U	4/6/2005	1,1-Dichloroethene	9IF-MW06U-1012	14	9IF-MW06U-1013	13	µg/L	7
	9IF-MW06U	4/6/2005	Acetone	9IF-MW06U-1012	20 U	9IF-MW06U-1013	3.8 J	µg/L	NC
	9IF-MW06U	4/6/2005	Benzene	9IF-MW06U-1012	0.69	9IF-MW06U-1013	0.61	µg/L	12
	9IF-MW06U	4/6/2005	Bromodichloromethane	9IF-MW06U-1012	0.31 J	9IF-MW06U-1013	0.3 J	µg/L	NC
	9IF-MW06U	4/6/2005	Chloroethane	9IF-MW06U-1012	0.39 J	9IF-MW06U-1013	0.37 J	µg/L	NC
	9IF-MW06U	4/6/2005	Chloroform	9IF-MW06U-1012	1.4	9IF-MW06U-1013	1.4	µg/L	0
	9IF-MW06U	4/6/2005	cis-1,2-Dichloroethene	9IF-MW06U-1012	0.23 J	9IF-MW06U-1013	0.22 J	µg/L	NC
	9IF-MW06U	4/6/2005	Dibromochloromethane	9IF-MW06U-1012	0.5 U	9IF-MW06U-1013	0.2 J	µg/L	NC
	9IF-MW06U	4/6/2005	Vinyl Chloride	9IF-MW06U-1012	2.4	9IF-MW06U-1013	2.2	µg/L	9
06A004	9IF-MW08L	1/3/2006	1,1-Dichloroethane	9IF-MW08L-1123	45	9IF-MW08L-1124	40	µg/L	12
	9IF-MW08L	1/3/2006	1,1-Dichloroethene	9IF-MW08L-1123	8.3	9IF-MW08L-1124	8.4	µg/L	1
	9IF-MW08L	1/3/2006	1,2,3-Trichloropropane	9IF-MW08L-1123	4.9	9IF-MW08L-1124	5.2	µg/L	6
	9IF-MW08L	1/3/2006	1,2-Dichloropropane	9IF-MW08L-1123	0.95	9IF-MW08L-1124	0.94	µg/L	1
	9IF-MW08L	1/3/2006	Acetone	9IF-MW08L-1123	3.3 J	9IF-MW08L-1124	3 J	µg/L	NC
	9IF-MW08L	1/3/2006	Bromoform	9IF-MW08L-1123	0.56	9IF-MW08L-1124	0.53	µg/L	6
	9IF-MW08L	1/3/2006	Chloroform	9IF-MW08L-1123	3.3	9IF-MW08L-1124	3.4	µg/L	3
	9IF-MW08L	1/3/2006	cis-1,2-Dichloroethene	9IF-MW08L-1123	0.45 J	9IF-MW08L-1124	0.46 J	µg/L	NC
	9IF-MW08L	1/3/2006	Isopropyl Ether	9IF-MW08L-1123	1.1 J	9IF-MW08L-1124	5 U	µg/L	NC
	9IF-MW08L	1/3/2006	Vinyl Chloride	9IF-MW08L-1123	1.3	9IF-MW08L-1124	1.3	µg/L	0
05F080	9IF-MW08U	6/7/2005	1,1-Dichloroethane	9IF-MW08U-1046	9.8	9IF-MW08U-1047	10	µg/L	2
	9IF-MW08U	6/7/2005	1,1-Dichloroethene	9IF-MW08U-1046	7.7	9IF-MW08U-1047	7.6	µg/L	1
	9IF-MW08U	6/7/2005	1,2,3-Trichloropropane	9IF-MW08U-1046	9.2	9IF-MW08U-1047	11	µg/L	18
	9IF-MW08U	6/7/2005	1,2-Dichloropropane	9IF-MW08U-1046	3.7	9IF-MW08U-1047	3.9	µg/L	5

Table 4: Field Duplicate Summary
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

SDG	Location ID	Sample Date	Analyte Name	Normal Sample ID	Result	Duplicate Sample ID	Result	Units	RPD %
SW8260B									
05F080	9IF-MW08U	6/7/2005	Benzene	9IF-MW08U-1046	1.3	9IF-MW08U-1047	1.2	µg/L	8
	9IF-MW08U	6/7/2005	Chlorobenzene	9IF-MW08U-1046	44	9IF-MW08U-1047	42	µg/L	5
	9IF-MW08U	6/7/2005	Vinyl Chloride	9IF-MW08U-1046	0.88	9IF-MW08U-1047	0.88	µg/L	0
05F102	9IF-MW09L	6/8/2005	1,1-Dichloroethane	9IF-MW09L-1060	180	9IF-MW09L-1061	180	µg/L	0
	9IF-MW09L	6/8/2005	1,1-Dichloroethene	9IF-MW09L-1060	6.9	9IF-MW09L-1061	6.9	µg/L	0
	9IF-MW09L	6/8/2005	Acetone	9IF-MW09L-1060	1,000	9IF-MW09L-1061	1,100	µg/L	10
	9IF-MW09L	6/8/2005	Chloroform	9IF-MW09L-1060	2.2	9IF-MW09L-1061	2.2	µg/L	0
	9IF-MW09L	6/8/2005	cis-1,2-Dichloroethene	9IF-MW09L-1060	1.1	9IF-MW09L-1061	1.1	µg/L	0
	9IF-MW09L	6/8/2005	Methyl ethyl ketone	9IF-MW09L-1060	240 J	9IF-MW09L-1061	240 J	µg/L	NC
	9IF-MW09L	6/8/2005	Vinyl Chloride	9IF-MW09L-1060	2.7	9IF-MW09L-1061	2.7	µg/L	0
05I051	P-9-MWI03	9/8/2005	1,1-Dichloroethane	P-9-MWI03-1064	100	P-9-MWI03-1065	100	µg/L	0
	P-9-MWI03	9/8/2005	1,1-Dichloroethene	P-9-MWI03-1064	7.3	P-9-MWI03-1065	7.3	µg/L	0
	P-9-MWI03	9/8/2005	cis-1,2-Dichloroethene	P-9-MWI03-1064	0.51	P-9-MWI03-1065	0.53	µg/L	4
	P-9-MWI03	9/8/2005	Methyl tert-butyl ether	P-9-MWI03-1064	0.31 J	P-9-MWI03-1065	0.33 J	µg/L	NC
	P-9-MWI03	9/8/2005	Trichloroethene	P-9-MWI03-1064	0.2 J	P-9-MWI03-1065	0.2 J	µg/L	NC
	P-9-MWI03	9/8/2005	Vinyl Chloride	P-9-MWI03-1064	1.9	P-9-MWI03-1065	2	µg/L	5

Notes:

NS - Normal Sample
FD - Field Duplicate
µg/L - micrograms per liter
NC - not calculated
RPD - Relative Percent Difference = { (NS - FD) / ((NS + FD) / 2) } x 100
RPD is calculated and shown only when both NS and FD are detected above the Practical Quantitation Limit.

Field duplicate RPD goal is 35.

See Table 2 for definitions of qualifiers and reason codes.

Table 5: Detected Trip Blank Results and Associated Sample Results
Site 9 Intermediate
Alameda CTO-107, Alameda Point, Alameda, California

SDG	Sample ID	Sample Type	Date	Method	Analyte	Result	MDL	PQL	Units	EPA Flag	Reason Code
05I051	**TB1-2066**	**TB**	**9/8/2005**	**SW8260B**	**Trichlorofluoromethane**	**0.26**	**0.2**	**0.5**	**µg/L**	**J**	**Tr**
05I051	9IF-MW01U-1071	NS	9/8/2005	SW8260B	Trichlorofluoromethane	ND	0.2	0.5	µg/L		
05I051	9IF-MW03U-1073	NS	9/8/2005	SW8260B	Trichlorofluoromethane	ND	0.2	0.5	µg/L		
05I051	9IF-MW07U-1078	NS	9/8/2005	SW8260B	Trichlorofluoromethane	ND	0.2	0.5	µg/L		
05I051	9IF-MW12U-1083	NS	9/8/2005	SW8260B	Trichlorofluoromethane	ND	0.2	0.5	µg/L		
05I051	P-9-MWI03-1064	NS	9/8/2005	SW8260B	Trichlorofluoromethane	ND	0.2	0.5	µg/L		
05I051	P-9-MWI03-1065	FD	9/8/2005	SW8260B	Trichlorofluoromethane	ND	0.2	0.5	µg/L		
05I051	P-9-MWI05-1066	NS	9/8/2005	SW8260B	Trichlorofluoromethane	ND	0.2	0.5	µg/L		
05I051	P-9-MWI06-1067	NS	9/8/2005	SW8260B	Trichlorofluoromethane	ND	0.2	0.5	µg/L		

Notes:
TB - Trip Blank Sample
NS - Normal Sample
FD - Field Duplicate Sample
ND - Non Detect
MDL - Method Detection Limit
PQL - Practical Quantitation Limit
µg/L - micrograms per liter

e Table 2 for definitions of qualifiers and reason codes.

AR_N00236_002573
ALAMEDA POINT
SSIC NO. 5090.3.A

RAW ANALYTICAL DATA

RAW ANALYTICAL DATA IS NOT REQUIRED TO BE PHYSICALLY LOCATED AT OR NEAR THE INSTALLATION AND INFORMATION REPOSITORY.

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