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ALAMEDA POINT
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FINAL

AMENDMENT TO THE RECORD OF DECISION OU-5/FISCA IR-02 GROUNDWATER

ALAMEDA POINT AND FISCA ALAMEDA, CALIFORNIA

APRIL 2015

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1 Declaration

1.1 Site Name and Location

This decision document amends the August 2007 Record of Decision (ROD) titled *Final Record of Decision, Operable Unit 5/IR-02 Groundwater, Alameda Point and FISCA.* The 2007 ROD and this amendment address shallow groundwater underlying a portion of Operable Unit (OU)-5 and former Fleet and Industrial Supply Center Oakland, Alameda Facility/Alameda Annex (FISCA), which are located in Alameda, California. The U.S. Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) identification number on the National Priority List (NPL) that is applicable to this ROD amendment is CA2170023236. OU-5 is located east of Main Street and is considered part of the former Naval Air Station (NAS) Alameda, which now is referred to as Alameda Point. OU-5 consists of Installation Restoration (IR) Sites 25, 30, and 31. "IR-02 Groundwater," as identified in the 2007 ROD, is the shallow groundwater underlying portions of three FISCA IR sites, IR-01, IR-02, and IR-03. These FISCA sites are located adjacent to OU-5 to the east and south.

This ROD amendment addresses dissolved-phase benzene and naphthalene in the shallow groundwater underlying portions of each of the OU-5 sites and FISCA IR Sites IR-01, IR-02, and IR-03. Specifically, the shallow groundwater addressed in the 2007 ROD and this amendment is the "Shallow Fill Aquifer," which is defined as the first water-bearing zone (FWBZ) groundwater that extends to the top of the Young Bay Mud Aquitard. This aquitard is located between approximately 15 and 20 feet below ground surface (bgs).

The shallow groundwater beneath portions of OU-5 and FISCA IR-01, IR-02, and IR-03 is grouped together to facilitate the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. "OU-5/FISCA IR-02" groundwater and "shallow" groundwater are used for brevity throughout this amendment.

1.2 Statement of Basis and Purpose

This amendment to the 2007 ROD selects the remedy of no further action for shallow groundwater at OU-5/FISCA IR-02. The amendment is based on data collected after issuance of the 2007 ROD and additional evaluations of historical (pre-ROD) and post-ROD data. The remedy in this ROD amendment was selected in accordance with CERCLA (1980), as amended by the Superfund Amendments and Reauthorization Act of 1986 (Title 42 of the *United States Code [USC]*, Sections 9601 et seq.), and in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (Title 40 of the *Code of Federal Regulations [CFR]*, Part 300).

The remedy in this amendment to the 2007 ROD is based on information in the **Administrative Record**[1] file (40 CFR, Section 300.825(a)(2)). A site-specific Administrative Record Index is included as part of this ROD amendment. Information in the Administrative Record that forms the basis for the remedy in this amendment was developed based on site histories, extensive field investigations, laboratory analytical results, interpretation of data, current and reasonable anticipated future land use, and a thorough assessment of potential human health and ecological risks for OU-5/FISCA IR-02 shallow groundwater. The post-ROD assessments used current toxicities and risk assessment methodologies for evaluating vapor intrusion.

This amendment follows the implementation of the 2007 ROD's selected remedy for shallow groundwater (Alternative 4), which consists of biosparging with soil vapor extraction (SVE) in the plume centers, nutrient/microorganism enhancement as required, monitored natural attenuation (MNA), and institutional controls (ICs). The determination that no further action is needed for shallow groundwater at OU-5/FISCA IR-02 to protect human health and the environment is based on no unacceptable risk for the current (residential and school) land uses and potential future land uses. Further rationale for the ROD amendment, including a summary of results of key evaluations and risk assessments, is presented in Section 1.3. Because there is no unacceptable risk for residential and school or other potential uses, there are no land-use restrictions, environmental monitoring, Resource Conservation and Recovery Act (RCRA) corrective actions, or other actions required for OU-5/FISCA IR-02 shallow groundwater.

The NAS Alameda Federal Facility Agreement (FFA) was signed by the Department of the Navy (DON) and EPA on July 5, 2001, and by the State of California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC) and the San Francisco Bay Regional Water Quality Control Board (Water Board) in 2005. The FFA documents how the DON intends to meet its statutory obligations and implement CERCLA in partnership with EPA, DTSC, and the Water Board. The DON and EPA, as the lead regulatory agencies, co-selected the no further action remedy. The DTSC and Water Board concur on this amendment to the ROD for OU-5/FISCA IR-02 shallow groundwater.

[1] **Bold blue text** identifies detailed site information available in the Administrative Record and listed in the References table at the end of this ROD amendment. **Bold blue text** serves as a hyperlink to the referenced information. This ROD amendment is available on CD. To the extent there may be any inconsistencies between the referenced information hyperlinked in this ROD amendment and the information in this basic ROD amendment itself, the language in this basic ROD amendment has precedence. The hyperlink will open a text box at the top of the screen. A blue box surrounds applicable information in the hyperlinked text.

1.3 Assessment of the Site and Selected Amended Remedy Rationale

This section provides the rationale for the selected amended remedy and summarizes results of key assessments for shallow groundwater at OU-5/FISCA IR-02. The rationale for this no further action amendment to the 2007 ROD is that there is no unacceptable risk to human health or the environment. This conclusion is supported by site histories, extensive sampling during multiple investigations (initial groundwater sampling in 1988), evaluations of stratification of benzene and naphthalene concentrations (highest concentrations at depth at the Marsh Crust), levels of total dissolved solids (TDS) and naturally occurring constituents, and several assessments of potential ecological and human health risks for current and reasonably anticipated future land uses.

Specifically, results of the evaluations of extensive data for OU-5/FISCA IR-02 shallow groundwater show that there is no unacceptable risk for current residential and school uses and any potential future land uses, as follows:

- no unacceptable vapor intrusion risk based on multiple assessments and EPA indoor air sampling in 2013,
- no unacceptable risk for other potential pathways, and
- no unacceptable risk for the hypothetical drinking water pathway because it is not feasible to extract the shallow groundwater for drinking water purposes (low yield and other characteristics of the shallow FWBZ groundwater prohibit the installation and/or operation of a shallow groundwater well for drinking water purposes).

Results documenting no unacceptable risk to human health and the environment for shallow groundwater at OU-5/FISCA IR-02 are summarized in Section 1.3.1. Investigations and risk assessments are further described in Sections 2.3 and 2.5, respectively.

In addition to the determination of no unacceptable risk based on evaluation of data for OU-5/FISCA IR-02 shallow groundwater, there are multiple site-specific factors that further ensure the protectiveness of the no further action remedy for shallow groundwater at OU-5/FISCA IR-02. These site-specific factors include the following:

- Dissolved benzene and naphthalene concentrations are located at the bottom of the shallow FWBZ adjacent to the Marsh Crust.
- Clays are present in the OU-5/FISCA IR-02 area above the Marsh Crust in most areas, thereby restricting potential vapor migration.
- OU-5/FISCA IR-02 shallow groundwater does not meet standards for industrial or irrigation use due to naturally occurring constituents, so would not be expected to be used for these or any other purposes.
- Within the OU-5/FISCA IR-02 area of current residential and school uses, water for all uses is supplied by a utility company from off-site sources.
- City of Alameda regulations, Alameda County regulations, and State of California regulations prohibit intrusive activities and specifically prohibit well installation in the shallow FWBZ groundwater.

Site-specific data are described in Sections 1.3.1 and 1.3.2.

1.3.1 Summary of Key Results of Evaluations

Results of key evaluations and risk assessments for shallow groundwater at OU-5/FISCA IR-02 are presented below in chronological order.

Based on results of investigations conducted between 1988 and 1999, the Water Board issued a letter in June 1999 (Concurrence Letter) addressing the shallow groundwater that is the subject of the 2007 ROD and this ROD amendment to document their evaluation and findings related to the shallow groundwater. The 1999 Water Board letter concurred with the DON's position that OU-5/FISCA IR-02 shallow groundwater does not meet the criteria for sources of drinking water pursuant to State Water Resources Control Board Resolution 88-63 and Regional Water Quality Control Board Resolution 89-39.

The 2002 OU-5 remedial investigation (RI) risk assessment included evaluation of 42 soil gas samples collected throughout OU-5/FISCA IR-02 that were analyzed for volatile organic compounds (VOCs) and for naphthalene (not included in the analysis for VOCs). The RI report states that little volatilization or release of benzene and naphthalene into vadose zone soil is occurring. The RI report risk assessment used two transport models and documented estimated **cancer risks for residential use based on the soil gas data** at well below 10^{-6} (10^{-8} to 10^{-9} cancer risks). The non-cancer risk for residential use, expressed by the hazard index (HI), is less than 1.

The 2004 groundwater RI/feasibility study (FS) risk assessment for OU-5/FISCA IR-02 included all available soil gas sampling results and HydroPunch® data collected at approximately 20 feet bgs. The resulting total carcinogenic risks for groundwater for all potential receptors and pathways except drinking water use (including for residential and educational receptors) are within the risk management range of 10^{-4} to 10^{-6} specified in the NCP. Additionally, the HI values are below 1. The 2004 RI/FS for OU-5/FISCA IR-02 also evaluated **risk using soil gas data** for residents, school workers, and school students. For the residential scenario, the cancer risks based on the soil gas data are 5×10^{-8} for OU-5 and 1×10^{-6} for FISCA IR-02, and the HI values are less than 1 for both. For the school worker and school student receptors, the cancer risks based on soil gas data at OU-5/FISCA IR-02 are below 10^{-6} (10^{-7} to 10^{-8} cancer risks), and the non-cancer HI values are less than 1.

The 2007 ROD identifies the chemicals of concern (COC) for OU-5/FISCA IR-02 shallow groundwater as benzene and naphthalene, summarizes results of the risk assessment, and documents that the carcinogenic risks as a result of groundwater use for irrigation and other commercial uses are within the EPA's risk management range. Alternative 4 of the FS was selected as the remedy for OU-5/FISCA IR-02 shallow groundwater. Alternative 4 consists of biosparging with SVE in the plume centers, nutrient/microorganism enhancement as required, MNA, and ICs.

In 2007 and 2008, a pre-design investigation was conducted to address data gaps identified in the RI/FS report and to support remedial design preparation. This investigation included extensive continuous soil core collection and sampling, soil gas sampling, and multi-interval groundwater sampling. Results of this investigation document high TDS and naturally occurring constituents

in shallow groundwater (due to saltwater intrusion, not a COC), confirm the stratification of the shallow groundwater COC concentrations, with the highest concentrations at depth adjacent to the **Marsh Crust** throughout the plume area, and delineate the lithologies in the plume area. This investigation is further described in Section 2.3.2.

The **treatment system** was installed between 2008 and 2009. Consistent with the 2007 ROD remediation goals (RG), the installed treatment system consisted of biosparge wells with depths determined to place the 2-foot-long biosparge well screens to extend up to 6 inches into the Bay Sediment Unit to provide oxygen delivery immediately adjacent to the Marsh Crust. Operation of the treatment system began in 2009 and ended in early 2013. Modeling conducted as part of the remedial action estimated that the treatment resulted in destruction of approximately 9.5 pounds of benzene and 86 pounds of naphthalene, which is documented in the Technical Memorandum issued in December 2012 (2012 Technical Memorandum).

In 2012, the DON conservatively evaluated **pre-treatment concentrations** using the current risk assessment vapor intrusion methodologies. Results of soil gas sampling show low to non-detect concentrations of benzene and naphthalene in soil gas above locations where groundwater concentrations are high at the Marsh Crust. Due to the Marsh Crust depth and extensive clay layer above the Marsh Crust/treatment zone limiting vapor diffusion, the groundwater treatment and concentrations in the groundwater adjacent to the Marsh Crust do not appear to affect the vapor intrusion pathway. Key vapor intrusion risk assessment details follow.

The **2012 risk assessment** evaluated historical and post-ROD data, focusing on the vapor intrusion pathway. Input parameters for the vapor intrusion risk evaluation were coordinated with the regulatory agencies. This assessment used the most recent EPA Integrated Risk Information System (IRIS) toxicity criteria for all COCs and also used the current DTSC values. The risk assessment was conservatively conducted (1) using the existing soil gas data from 32 locations at OU-5 and FISCA IR-02; (2) using the current vapor intrusion evaluation methodology; (3) applying the DTSC 2011 attenuation factor for existing residential buildings at each sampling location; and (4) using DTSC toxicity criteria for benzene and naphthalene. Cancer risks for benzene from vapor inhalation for residential receptors are between 4.8×10^{-8} and 4.8×10^{-7}. Cancer risks for naphthalene from vapor inhalation for residential receptors are between 5.6×10^{-8} and 5.0×10^{-6}. In addition, results from 2002 crawl space and indoor air sampling indicate that **benzene concentrations in crawl spaces** are lower than in indoor air, indicating that benzene in indoor air is not due to vapors from groundwater. The 2012 assessment of vapor intrusion risk is further described in Section 2.5.1.

In 2012, the **completeness and significance of the vapor intrusion exposure pathway** at OU-5/FISCA IR-02 also were evaluated to assess whether the benzene and naphthalene in shallow groundwater pose a potential indoor air inhalation risk to residents. Results of the evaluation support the no further action decision for OU-5/FISCA IR-02 shallow groundwater. This detailed evaluation included the following lines of supporting evidence:

- Direct measurements from sampling soil gas, shallow groundwater, crawl space air, indoor air, and outdoor ambient air;
- Results from modeling the migration of volatile compounds using different models in multiple assessments; and

- Results of additional characterization of the subsurface and stratigraphy relative to factors known either to enhance or diminish the potential for vapor intrusion.

The lines of evidence above are described in Sections 2.3 and 2.5. The 2012 evaluation concludes that the weight of evidence from evaluation of multiple lines of evidence collected during the past 20 years supports the conclusion that vapor intrusion and subsequent indoor air inhalation exposure to volatile compounds from groundwater do not pose risk to residential receptors.

In October 2013, the EPA conducted **sub-slab soil gas and indoor and outdoor air sampling** to further evaluate the potential vapor intrusion risk based on current sampling. The sub-slab sample results were non-detect for all naphthalene samples. For benzene, the sub-slab sample results were non-detect except at one of four child daycare locations, where a value of 2 parts per billion by volume (ppbv) was qualified as estimated below the quantitation limit. This result is below the California Human Health Screening Level for sub-slab air of 11.3 ppbv for benzene. Indoor air results for all samples were non-detect for naphthalene. Benzene results for indoor air were consistent with outdoor air results. The results of EPA's 2013 indoor air and sub-slab sampling support previous risk assessments showing no unacceptable vapor intrusion risk due to groundwater.

Results of the extensive sampling and multiple risk assessments conducted from 1988 through EPA's 2013 sampling event at OU-5/FISCA IR-02 provide a high level of confidence in the protectiveness of the no further action remedy for OU-5/FISCA IR-02 shallow groundwater. Results of ecological risk assessment show that the presence of terrestrial receptors is limited, and there is no significant ecological risk to current and expected future terrestrial receptors.

In addition, at OU-5/FISCA IR-02, multiple site-specific characteristics of the shallow FWBZ groundwater make the hypothetical use for drinking water not feasible. There is no viable potential pathway for ingestion of OU-5/FISCA IR-02 shallow groundwater because there is insufficient yield, i.e. the shallow groundwater cannot be extracted for drinking. The characteristics of OU-5/FISCA IR-02 shallow groundwater that preclude its use for drinking water include the following:

- The RI/FS Report documents that the maximum artificial fill thickness is approximately 15 to 20 feet in the OU-5/FISCA IR-02 area. This is too thin for the shallow FWBZ at OU5/FISCA IR-02 to meet minimum construction requirements for community potable or industrial water supply wells. The required annular sanitary seal for a well cannot be installed due to the thin fill, so a well that could produce water for drinking cannot be constructed and operated.
- The thickness of the shallow FWBZ at OU-5/FISCA IR-02 is only approximately 2 feet thick in some areas, with an average thickness of 6 feet. In addition, there are significant clay lithologies present, as documented in the continuous coring conducted as part of the pre-design investigation. The very small water bearing zone thickness combined with the clay that does not yield much water result in a low yield for the shallow FWBZ at OU-5/FISCA IR-02. Therefore, insufficient water is available for extraction and a sustained yield for drinking water use is not possible.

- The high TDS (average of 16,075 milligrams per liter [mg/L]) as a result of saltwater intrusion and high naturally occurring sulfates, iron, and alkalinity, as further described below, make the naturally occurring shallow groundwater quality at OU-5/FISCA IR-02 unusable for potable water and unsuitable for any use.
    - The average TDS concentration of 16,075 mg/L in the OU-5/FISCA IR-02 shallow groundwater significantly exceeds State of California and EPA criteria for drinking water. In addition, the TDS in the shallow groundwater exceeds acceptable levels for crop irrigation or livestock watering (i.e., below 5,000 mg/L) or landscape watering (i.e., below 2,000 mg/L). Industrial supply is not a potential beneficial use of the OU-5/FISCA IR-02 shallow FWBZ groundwater due to TDS concentrations greater than 1,000 mg/L.
    - For sulfates, concentrations should be below 250 mg/L to avoid laxative effects. OU-5/FISCA IR-02 sulfate concentrations are up to 2,780 mg/L.
    - For iron, a concentration of 0.3 mg/L is considered acceptable for domestic use. OU-5/FISCA IR-02 iron concentrations are up to 10 mg/L.
    - For alkalinity, the recommended range for potable water is between 30 and 400 mg/L. OU-5/FISCA IR-02 alkalinity concentrations are up to 4,250 mg/L.

In summary, shallow groundwater does not pose an unacceptable risk to human health or the environment under the current or expected future (residential and school) land uses or any other land uses. Therefore, the no further action remedy allows unrestricted site use.

1.3.2 Additional Site-Specific Protectiveness Factors

Separate from the assessment of extensive data for OU-5/FISCA IR-02 shallow groundwater that shows there is no unacceptable risk and there is not sufficient shallow groundwater to extract, a number of other site-specific factors provide further protectiveness and are briefly described in this section. These factors are summarized below.

Dissolved benzene and naphthalene concentrations are located at the bottom of the shallow FWBZ adjacent to the Marsh Crust. This provides further protectiveness because the dissolved benzene and, to a lesser degree, naphthalene are typically present at the top of the water table, which provides more of a potential for migration of vapors and vapor intrusion. Stratification with the high concentrations at approximately 18 feet bgs significantly minimizes the potential for any vapor intrusion concerns.

Clays are present in the OU-5/FISCA IR-02 area above the Marsh Crust in most areas. This provides further protectiveness because the clays restrict potential vapor migration.

Within the OU-5/FISCA IR-02 area of current residential and school uses, water for all uses is supplied by a utility company from off-site sources. The East Bay Municipal Utility District (EBMUD) has historically provided the water supply, currently provides it, and is expected to continue to provide the water service in the future.

City of Alameda regulations, Alameda County regulations, and State of California regulations prohibit intrusive activities and specifically prohibit well installation in the shallow FWBZ groundwater. OU-5/FISCA IR-02 is located within the area regulated by the City of Alameda's Marsh Crust Ordinance No. 2824. This Ordinance prohibits excavations and intrusive activities, and drilling is one type of intrusive activity. In addition, drilling of wells in the saline shallow FWBZ is prohibited by Alameda County Title 6, Chapter 6.88, "Water Wells," and by "Water Well Standards: State of California"(Bulletin No. 74) and "Cathodic Protection Well Standards: State of California" (Bulletin No. 74-1). These existing regulations provide further assuredness that the no further action remedy is protective.

1.4 Statutory Determinations

The DON, EPA, and State of California (referring collectively to the DTSC and Water Board) have concluded that the selected remedy of no further remedial action is appropriate for OU-5/FISCA IR-02 shallow groundwater because the shallow groundwater does not pose an unacceptable risk to human health or the environment. A five-year review is not required because this remedy does not result in hazardous substances, pollutants, or contaminants remaining on site at levels exceeding action levels or that require limitations in land use or restricted exposure.

1.5 Data Certification Checklist

The data certification checklist information provided in Table 1 is included in Section 2 of this ROD amendment. Additional information is provided in the Administrative Record for this site.

TABLE 1: DATA CERTIFICATION CHECKLIST

Checklist Item	Description
Identification of chemicals of potential concern (COPC) and their concentrations	COPCs in shallow groundwater throughout OU-5/FISCA IR-02 were characterized based on data from several investigations. Descriptions of these investigations are provided in Section 2.3 of this ROD amendment.
Risk assessments representative of the COPCs	A human health risk assessment (HHRA) and screening-level ecological risk assessment (ERA) were conducted as part of the RI/FS using data representative of current and future conditions at OU-5/FISCA IR-02. The baseline HHRA findings are supported by subsequent risk assessment evaluations of the potential for vapor intrusion using data collected to date in combination with current DTSC and EPA vapor intrusion assessment methodologies and toxicity criteria. Risk assessment results are presented in Section 2.5 of this ROD amendment.
How source materials constituting principal threats are addressed	As discussed in Section 2.6 of this ROD amendment, there are no wastes constituting principal threats at OU-5/FISCA IR-02.
Current and reasonably anticipated future land-use assumptions and current and potential future beneficial uses of groundwater	OU-5 currently is a residential area containing occupied and unoccupied U.S. Coast Guard (USCG) housing, an unoccupied high school, and a day care center. The long-term reuse of OU-5 is anticipated to be residential and educational. The western portion of IR-02 currently contains occupied housing. The remainder of IR-02 currently is under development for mixed residential and commercial use. Drinking water is supplied to OU-5/FISCA IR-02 by the East Bay Municipal Utility District, and shallow groundwater at the site is not expected to be used for domestic purposes in the future. Groundwater in the FWBZ is sufficiently impaired relative to multiple quality parameters that non-potable beneficial uses for car washing, landscaping, or irrigation likely are not realistic based on operational constraints. Current and potential future site uses are discussed in Section 2.4 of this ROD amendment.

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1.6 Authorizing Signatures

This signature sheet documents the DON's and the EPA's co-selection of no further action for shallow groundwater in this ROD amendment for OU-5/FISCA IR-02 at Alameda Point and FISCA. It also documents the concurrence of the State of California through the DTSC and the Water Board. The respective parties may sign this sheet in counterparts.

Signature — **Date** April 30, 2015

Mr. Derek Robinson
Base Realignment and Closure Environmental Coordinator
Base Realignment and Closure Program Management Office West
Department of the Navy

Signature — **Date** June 17, 2015

Ms. Angeles Herrera
Assistant Director, Superfund Division
Federal Facilities and Cleanup Branch
United States Environmental Protection Agency, Region 9

Signature — **Date** July 7, 2015

Ms. Karen M. Toth, P.E.
Unit Chief
Brownfields and Environmental Restoration Program
California Environmental Protection Agency
Department of Toxic Substances Control

Signature — **Date** July 9, 2015

Mr. Bruce H. Wolfe
Executive Officer
California Environmental Protection Agency
San Francisco Bay Regional Water Quality Control Board

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2 Decision Summary

2.1 Site Description and History

OU-5/FISCA IR-02 is located within two former DON installations in Alameda, California: OU-5 is located on the **former NAS Alameda, now referred to as Alameda Point**, and IR-02 is located on the **former FISCA**.

Alameda Point is located on the western tip of Alameda Island, which is surrounded by San Francisco Bay and the Oakland Inner Harbor (Figure 1). FISCA is located along the southern shore of the Oakland Inner Harbor east of Alameda Point. In this ROD amendment, the site collectively is referred to as OU-5/FISCA IR-02 or is discussed as either OU-5 to represent the property within Alameda Point or IR-02 to represent the property within FISCA.

NAS Alameda ceased operations in 1997. When NAS Alameda and FISCA were designated for closure, the Alameda Point Base Realignment and Closure (BRAC) Cleanup Team (BCT) became responsible for the environmental cleanup program. The BCT consists of representatives from the DON, EPA, DTSC, and Water Board. FISCA was transferred under an early transfer conveyance to the City of Alameda in June 2000, and after that conveyance, the DON continued to investigate and remediate FISCA sites under a revised Federal Facility Site Remediation Agreement (FFSRA) entered into with DTSC.

OU-5/FISCA IR-02 includes six IR sites (Figure 2). These IR sites are included in the 2007 ROD and this amendment but are not included in the site name for brevity's sake. Previous site documentation refers to OU-5 as IR Site 25. Shallow groundwater beneath OU-5 at Alameda Point and IR-02 at FISCA is addressed in one ROD because there is one plume.

FIGURE 1: Alameda Point Location Map

FIGURE 2: OU-5/FISCA IR-02 Site Location Map

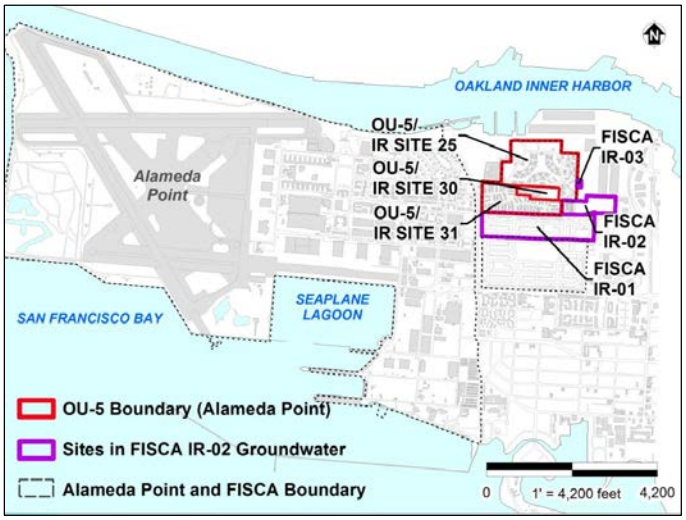
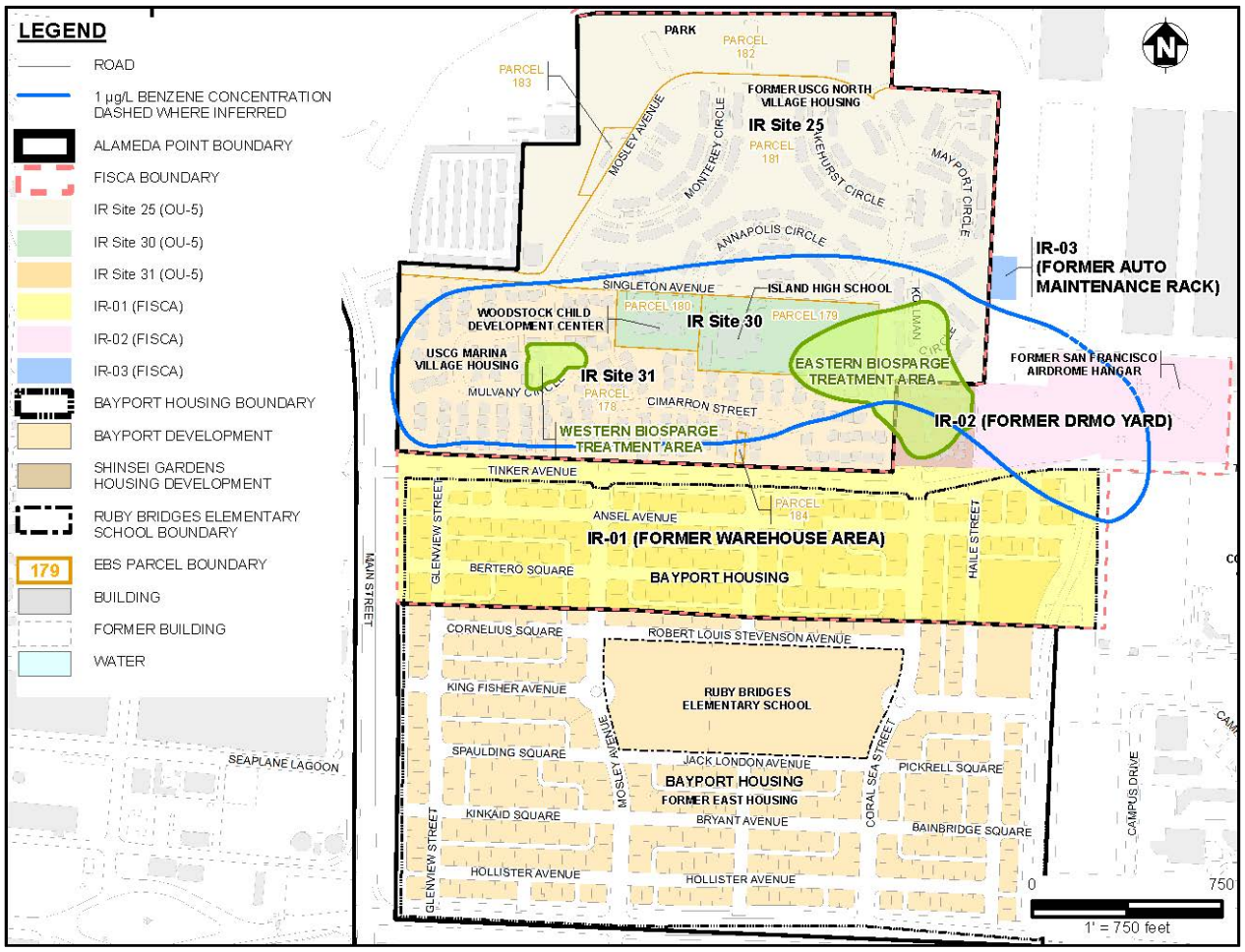


Figure 3 shows the **key features at the site**. **Plume boundaries,** defined as shallow groundwater containing benzene exceeding 1 microgram per liter (µg/L), are shown on Figure 3 for the FWBZ and are based on the August 2013 annual plume perimeter monitoring well sample results.

FIGURE 3: OU-5/FISCA IR-02 Site Delineation and Site Features



OU-5, located east of Main Street on Alameda Point, consists of IR Site 25, IR Site 30, and IR Site 31. The OU-5 property historically was used for housing and storage. IR Site 25 is located on the northeast side of Alameda Point and occupies approximately 42 acres. IR Site 25 includes currently unoccupied housing, a park, and the USCG Housing Maintenance Office. IR Site 30 is located south of IR Site 25 and occupies approximately 6 acres. IR Site 30 includes currently unoccupied Island High School and the Woodstock Child Development Center. IR Site 31 is located south and west of IR Site 30 and occupies approximately 25 acres. USCG Marina Village Housing is located at IR Site 31.

FISCA IR-02 shallow groundwater includes portions of the three FISCA sites: IR-01, IR-02, and IR-03. IR-01 is a former warehouse area south of IR Site 31 on the southwest side of FISCA. Bayport Housing has since been constructed at IR-01. IR-02 is located on the south-central side of FISCA. Until 1997, the Defense Logistics Agency Defense Reutilization and Marketing Office

used the western portion of IR-02 as a screening lot and for temporary equipment storage. The eastern portion of IR-02 was used as a scrap yard and for temporary storage of discarded automobiles, stockpiled scrap metal, and surplus equipment. The Shinsei Garden Housing Development is a multi-family residential development constructed on the western portion of IR-02. The remainder of IR-02 currently is under development for mixed residential and commercial use. IR-03 is located on the west-central side of FISCA. It formerly consisted of an automotive drive-up maintenance rack over an asphalt-paved area. The area remains undeveloped.

2.2 Site Characteristics

Alameda Point **geology** is characterized by unconsolidated sedimentary deposits, and surface conditions are characterized by flat topography. There are no streams or surface water bodies at the site. Urban habitat vegetation, which is characterized by ornamental shrubs, trees, and landscaped areas, generally supports few wildlife species due to human disturbances and limited vegetation.

Surface and near-surface soil at the site consists of artificial fill (to approximately 17 feet bgs) placed during the historical filling of the tidal marshlands, which occurred from approximately 1900 to 1930. The **Bay Sediment Unit (BSU)** underlying the artificial fill material ranges from 25 to 100 feet thick and consists of gray to black, high-plasticity clay, with occasional abundant organic material deposited in an estuarine environment.

The **hydrogeology** at Alameda Island includes a shallow water table aquifer above the deeper regional aquifers. The BSU forms an aquitard between the FWBZ and second water-bearing zone (SWBZ), the deeper, confined aquifer beneath the site. Shallow groundwater has a lateral flow direction that is variable but generally is north to northwest toward Oakland Inner Harbor. Local variation likely results primarily from the variable permeability of the shallow aquifer fill material.

Shallow groundwater is not used for drinking water, and water service is provided by the EBMUD from a separate source.

2.3 Previous Investigations, Removal Actions, and a Remedial Action

A series of environmental investigations, removal actions, and a remedial action were conducted at OU-5/FISCA IR-02 between 1988 and 2013 to assess potential sources of contamination and implement remedial action for shallow groundwater at the site. Findings from investigations involving air sampling conducted to evaluate protectiveness at military housing are not included in the 2007 ROD but are described in this section to further support this ROD amendment. Soil removal and remedial actions listed in the 2007 ROD for soil with different COCs (metals and polychlorinated biphenyls [PCB]) are not described below because these soil actions are not relevant to the shallow groundwater COCs (benzene and naphthalene) addressed in this amendment. Investigations and actions are summarized in Table 2, with key investigations described after this table. No enforcement activities have occurred in association with OU-5/FISCA IR-02, and there are no RCRA units at OU-5/FISCA IR-02.

TABLE 2: TIMELINE SUMMARY OF PREVIOUS INVESTIGATIONS, REMOVAL ACTIONS, AND A REMEDIAL ACTION FOR OU-5/FISCA IR-02 GROUNDWATER

Previous Investigation or Action[a]	Date	Findings
Preliminary Assessment/Site Investigation, Naval Supply Center, Alameda Annex and Facility	1988	This assessment/investigation identifies sites that pose potential risks to human health or the environment and areas where hazardous materials were stored, transferred, processed, and disposed of. VOCs were identified in shallow groundwater.
Air Sampling and Analysis, Naval Family Housing Area	1993	This analysis presents the earliest indoor and outdoor air sampling results. Air samples were collected in 1992 at Marina Village Housing. The report concludes that indoor air results for Marina Village houses are similar to ambient and typical indoor air levels.
RI, Fleet and Industrial Supply Center Oakland	1996	The ERA in this RI report concludes that there is no ecological risk to San Francisco Bay due to lateral groundwater movement or storm sewer system discharge. Additionally, the ERA concludes that the site supports only limited habitat, the presence of terrestrial receptors is limited, and future land uses would not create additional ecological habitat.
Screening Level ERA for Alameda Point	1999	This ERA concludes that there is no significant risk to terrestrial ecological receptors, the site supports only limited habitat, the presence of terrestrial receptors is limited, and future land uses would not create additional ecological habitat.
Baseline HHRA	2000	The HHRA presents a qualitative human health evaluation that identifies commercial car wash and landscaping irrigation workers as hypothetical receptors.
Soil Removal at IR Site 25 (Parcel 181)	2000	This report documents removal of soil with elevated levels of polycyclic aromatic hydrocarbons (PAH) from the Clover Park play area at IR Site 25 to eliminate risk to children in the play area. Soil in the play area was excavated to 4 feet bgs and transported off site to an approved landfill. An estimated total of 900 cubic yards of soil was removed.
Environmental Baseline Survey (EBS), Zone 16, Parcels 178 through 184, Alameda Point	2001	The EBS report presents the results of soil, soil gas, and shallow groundwater samples collected as part of the EBS for the OU-5 parcels. VOCs were detected in soil, soil gas, and shallow groundwater samples.
Time-critical Removal Action (TCRA) for USCG North Village Housing and Estuary Park at IR Site 25	2001-2002	The TCRA addressed potential health risk from PAH-impacted soil through the removal of the upper 2 feet of soil in areas with elevated PAH concentrations. The total excavation area was approximately 26 acres. The excavation was backfilled with clean imported fill, topsoil, and sod. Excavated soil was disposed of at an off-site disposal facility.

Previous Investigation or Action[a]	Date	Findings
OU-5 RI	2002	The RI report presents the results of RI sampling and risk assessment for OU-5. Soil gas data were collected to evaluate potential residential indoor air risk due to VOCs migrating from the soil and groundwater into a residence. Vertical stratification of benzene in shallow groundwater was discovered. Resulting cancer risks for the maximum soil gas concentrations of all VOCs were well below 10^{-6} (10^{-8} to 10^{-9}), and HI values were below 1.
Residential Risk Evaluation for USCG Housing (by USCG)	2002	This evaluation presents results of indoor and outdoor air and crawl space sampling conducted for this report and provides a risk assessment using data collected during the OU-5 RI. Results indicate that risks to USCG personnel residing in this housing are similar to risks to other individuals residing in the San Francisco Bay Area.
Groundwater RI/FS, IR Site 25 and Alameda Annex IR-02	2004	The RI/FS report includes an HHRA, identifies applicable and relevant or appropriate requirements (ARAR), and develops and evaluates remedial action objectives (RAO) and remedial alternatives. This HHRA concludes that risks are acceptable except for unacceptable risk for hypothetical potable water use. The FS cites proposed RGs of 1 µg/L for benzene and 100 µg/L for naphthalene.
TCRA, IR Site 30	2004	The TCRA, which included addition of soil cover materials and soil removal, was conducted as a proactive measure to protect human health and the environment while the RI was being completed.
Soil RI, IR Site 30 School and Child Development Center	2005	The RI report presents RI sampling results and the associated HHRA. HHRA results indicate that no action is required for soil.
Basewide Groundwater Monitoring	2002-2007	Basewide groundwater monitoring reports present groundwater monitoring results and discuss plume status, natural degradation, and groundwater flow directions and gradients.
Soil RI, IR Site 31 Marina Village Housing	2007	The RI report presents RI sampling results and the associated HHRA. HHRA results indicate that no action is required for soil.
ROD, OU-5/FISCA IR-02 Groundwater	2007	The ROD documents the selected remedy for the shallow groundwater. The selected remedy is Alternative 4: biosparging in the plume centers, with SVE and nutrients/ microorganism enhancement (as required), MNA for the remaining plume, and ICs during the implementation of the remedial action.

Previous Investigation or Action[a]	Date	Findings
Remedial Design (RD)/Remedial Action Work Plan (RAWP) for OU-5/FISCA IR-02 Groundwater	2007-2010	The RD/RAWP documents pre-design investigation results and presents the RD. Investigation results indicate that benzene and naphthalene concentrations increase with depth, with the highest concentrations at the Marsh Crust and low to non-detect concentrations at the top of the water table. A ubiquitous, competent, fairly continuous clay layer between shallow groundwater and the ground surface at or above the groundwater table would retard vapor migration.
Results for Groundwater Monitoring Conducted from 2009 through 2013	2009-2013	Biosparge zone and the biosparge perimeter groundwater monitoring wells were sampled for benzene and naphthalene. Results confirm a decrease in the overall size of the plume and a decrease in benzene and naphthalene concentrations at most locations over the 4-year period of operation.
OU-5/FISCA IR-02 Groundwater Data Evaluation Technical Memorandum (referred to as 2012 Technical Memorandum in this ROD addendum)	2012	The 2012 Technical Memorandum reevaluates shallow groundwater quality and potential human health risks associated with shallow groundwater underlying OU-5 (IR Sites 25, 30, and 31) and FISCA IR-02. It documents that no further action for shallow groundwater is protective of humans living or working above the plume from the potential migration of benzene and naphthalene vapors into indoor air.
EPA Sub-slab Soil Gas and Indoor and Outdoor Air Sampling	2013	Soil gas and indoor air sampling was conducted. The sub-slab soil gas and indoor air results were non-detect for all naphthalene samples. For benzene, the sub-slab soil gas results were non-detect except at one of four child daycare locations, where a value of 2 ppbv was qualified as estimated below the quantitation limit. Benzene results for indoor air were consistent with outdoor air results. These results indicate that there is no indoor air contamination due to shallow groundwater.

Note:

a Documents describing the investigations and actions are available in the Administrative Record and provide detailed information used to support the remedy selection for shallow groundwater at OU-5/FISCA IR-02.

2.3.1 Summary of Pre-ROD Investigation Data

Because pre-2007 indoor air and crawl space air data are not described in the 2007 ROD and because the potential vapor intrusion pathway is relevant to this ROD amendment, this section describes investigations during which these air data were gathered. Risk assessment results related to the vapor intrusion pathway for the pre-remediation data are described in Section 2.5.

Air Sampling and Analysis, Naval Family Housing Area (Marina Village Housing), 1993

In July 1992, samples were collected of indoor air in Marina Village houses, outdoor air, and indoor air from houses located outside of Marina Village Housing. No sub-slab or soil gas samples were collected during this sampling event. Air samples were collected from 30 houses in Marina

Village Housing, most of which were occupied. All samples were analyzed for benzene, and samples from 15 of the houses also were analyzed for VOCs, which include naphthalene. The samples were collected using SUMMA air canisters allowed to fill over 1 hour. Field duplicates were collected to assess the precision of the sample collection and analysis methods, and field duplicates from two houses were analyzed for VOCs.

Benzene was detected in all of the 1992 indoor air samples, with results ranging from 0.47 to 23 parts per billion (ppb). Naphthalene was non-detect in 1 indoor air sample, and 9 of the 15 Marina Village houses had naphthalene results less than 26 ppb, the naphthalene result for the outdoor air sample. Naphthalene indoor air results ranged from non-detect to 280 ppb. For benzene, the field duplicate relative percent difference (RPD) results for the 1992 indoor air sampling showed good precision. However, for VOCs, the 1992 indoor air sampling results were significantly different, with naphthalene showing the greatest RPD of all of the VOCs. At one of the two buildings where a field duplicate sample was collected, naphthalene results for the two samples were 12 ppb and 150 ppb (an RPD of 170). The 1993 report states that this level of variability is not uncommon with VOC analysis of air samples and needs to be considered in the interpretation and assessment of the 1992 VOC air data.

There was no correlation of the 1992 benzene and naphthalene indoor air results. The highest benzene level of 23 ppb was in a sample with a naphthalene result of 22 ppb. The highest naphthalene result was in a sample containing 3.1 ppb of benzene. Given the co-location of benzene and naphthalene in the shallow groundwater plume, the volatile property of benzene, and the RPD results for naphthalene air data, the data from this investigation indicate that the naphthalene levels presented in this report are not due to naphthalene that has volatilized from OU-5/FISCA IR-02 shallow groundwater.

Off-site indoor air results were similar to on-site results. The 1993 report notes that the Agency for Toxic Substances and Disease Registry (ATSDR) identifies the largest sources of naphthalene emissions to ambient air as the combustion of fossil fuels and the volatilization of mothballs. In addition to comparison to off-site background levels during the 1992 sampling, the report compared the Marina Village Housing indoor air levels to the national VOC database and results from other studies. The 1993 report concludes that indoor air results for benzene and naphthalene in Marina Village houses are similar to ambient and typical indoor air levels.

EBS, 2001

The EBS report issued in 2001 presents the results of the various phases of EBS investigation. During the EBS, air data were collected from the school (George P. Miller Elementary School at that time). Six air samples and two field duplicates were collected from three locations within the crawl space of the school building in November 1994 as part of the EBS. The air samples were collected using SUMMA canisters filled for a combination of 1-hour and 8-hour periods and were analyzed for benzene. Because benzene is more volatile than naphthalene, in this investigation, the laboratory did not analyze samples for naphthalene. Benzene was not detected in any of these crawl space air samples.

Residential Risk Evaluation for USCG Housing, 2002

Indoor air, outdoor air, and crawl space sampling were conducted in 2002 at North Village Housing (including Kollman Circle) and Marina Village Housing. At North Village Housing, 34 air samples were collected (17 indoor air samples, 12 crawl space samples, and 5 outdoor air samples). At Marina Village Housing, 19 air samples were collected (13 indoor air samples and 6 outdoor air samples; due to housing construction, there are no crawl spaces at Marina Village). All air samples were collected using SUMMA air canisters with sampling integrated over a 24-hour period. These samples were analyzed for VOCs. The indoor air quality assessment evaluated 10 VOCs. Naphthalene was not one of the 10 VOCs evaluated.

The 2002 report concludes that (1) VOC concentrations in crawl space air do not differ from indoor air concentrations and (2) indoor air VOC concentrations are consistent with both outdoor air concentrations and ambient air measurements collected by the California Air Resources Board (CARB) for the Bay area. Thus, indoor air concentrations in these housing areas are not elevated over ambient levels for the San Francisco Bay area.

Evaluation of air sampling results at houses with both crawl space data and indoor air data (as well as outdoor air data) is important in determining the source of the concentrations. Table 3 presents the 2002 benzene air results for houses where both crawl space and indoor air data were collected. At some locations, outdoor air samples also were collected.

TABLE 3: BENZENE CONTAMINATION DISTRIBUTIONS AT CRAWL SPACE AIR, INDOOR AIR, AND OUTDOOR AIR LOCATIONS

Housing Area	Address	Crawl Space Air Benzene Concentration (µg/m³)	Indoor Air Concentration (µg/m³)	Outdoor Air Concentration (µg/m³)
North Housing Area	103 F Singleton	1.10	2.6	2.6
	2000 D Mayport	2.70	3.9	5.2
	2004 D Mayport	2.40	2.9	2.8
	2006 E Mayport	1.80	4.6	3.1
Kollman Circle	2000 A Kollman	1.05	0.59	Not measured
	2000 E Kollman	0.49	0.88	Not measured
	2002 C Kollman	0.46	0.65	Not measured
	2004 C Kollman	0.46	0.52	Not measured
	2006 B Kollman	0.65	0.52	Not measured
	2006 E Kollman	0.49	0.55	0.49
	2008 D Kollman	0.49	0.59	Not measured
	2010 C Kollman	0.52	0.62	Not measured

Notes:
Air data were collected in 2002.
µg/m³ Microgram per cubic meter
Source: Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Tetra Tech EC, Inc. (TtEC). 2012.

If VOCs are migrating from subsurface sources (such as groundwater or soil vapor) to indoor air and the building has a crawl space, then the VOC concentrations should be higher in crawl space air than in indoor air. At 10 of the 12 addresses where both crawl space and indoor air data were

collected, the crawl space benzene results were lower than the indoor air results. At the other two sampling locations, benzene results were similar (0.65 μg/m^3 in the crawl space and 0.59 μg/m^3 in indoor air at one location, and 0.65 μg/m^3 in the crawl space and 0.52 μg/m^3 in indoor air at the other location).

Crawl space and indoor air data were evaluated statistically, and statistical results also indicated that benzene concentrations in crawl space air were lower than in indoor air. The crawl space benzene air sampling results also were less than outdoor air levels except in one sample, where the results were the same. These air analytical results also support the conclusion that shallow groundwater is not the source of indoor air concentrations. Further evaluation of these data is included in the 2012 Technical Memorandum.

2.3.2 Summary of ROD and Post-ROD Data

The ROD and post-ROD data and evaluations are described in this section because in conjunction with the risk assessments, they provide the foundation for this ROD amendment. The risk assessments are described in Section 2.5.

Summary of ROD, 2007

The **2007 ROD** identifies the COCs for the site as dissolved-phase benzene and naphthalene in shallow groundwater. The RAO for shallow groundwater is to protect human health by preventing exposure of potential residents and occupational workers to benzene and naphthalene in shallow groundwater at OU-5/FISCA IR-02.

Pre-Design Investigation and RD/RAWP, 2007 - 2010

A pre-design investigation was conducted in 2007 and 2008 to address data gaps identified in the RI/FS report. The investigation included collection of continuous cores, soil gas samples, soil samples, and multi-depth groundwater samples all presented in the RD/RAWP. Fifty-nine continuously cored soil borings were collected during this pre-design investigation. These cores showed a competent, fairly continuous, ubiquitous clay layer that is typically over 2 feet thick between groundwater and the ground surface in the vadose zone across the site at or above the groundwater table. The cores showed some variability; although the clay layer typically is slightly over 2 feet thick, it is thinner in some portions of the site. The clay layer has been shown through soil gas measurements above and below the layer to be effectively limiting the upward migration of benzene and naphthalene volatilized out of shallow groundwater into soil gas. Therefore, site data indicate that the variability in the clay layer has not resulted in increased soil gas measurements above it.

In 2007, a **passive soil gas survey** was conducted as part of the pre-design investigation to support the RD/RAWP. The survey was conducted throughout the estimated plume center identified during the RI/FS to refine plume center HydroPunch® and soil boring locations. Eighty-seven Gore-Sorber modules installed in May 2007 were removed 1 month later. Benzene and naphthalene were not detected in Gore-Sorber modules at the Kollman Circle housing area, where high benzene and naphthalene concentrations had been reported in shallow groundwater, indicating that vertical migration of soil gas is limited.

In 2007 and 2008, **soil and groundwater samples** were collected from HydroPunch® and monitoring well locations along the plume center and along the plume boundary. Table 4 presents the results of multi-depth soil and groundwater sampling.

Results confirm that contaminant concentrations increase with depth, with the highest concentrations at the Marsh Crust and low to non-detect concentrations at the top of the water table.

TABLE 4: VERTICAL SOIL AND GROUNDWATER CONTAMINATION DISTRIBUTIONS AT HYDROPUNCH SAMPLING LOCATIONS

	Soil			Groundwater		
Location	Sampling Depth (feet bgs)	Benzene (µg/kg)	Naphthalene (µg/kg)	Sampling Depth (feet bgs)	Benzene (µg/L)	Naphthalene (µg/L)
PC2–1	8–8.5	5.5 U	5.5 UJ	6.5–9.5	1.7	1.2 J
	13–13.5	5.8 U	11 J	12–15	170	1,500 J
	15–15.5	1,300 J	640,000	14.5–17.5	580	9,600
PC2–3	9.5–10	5.7 U	5.7 UJ	8–11	0.50 U	0.64 J
	13–13.5	4,600 J	830,000	11–14	1,800	6,100 J
PC2–4	9.5–10	9.4 U	9.4 U	8–11	No water	No water
	13–13.5	5.8 U	4.9 J	12–15	0.50 U	2.0 U
	18.5–19	29,000 J	2,700,000 J	16–19	160	1,800
PC2-6	13–13.5	5.5 U	5.5 U	11.5–14.5	0.50 U	2.3
	16.5–17	15,000 J	5,100,000	15–18	490	4,400
PC3–4	13–13.5	5.4 U	3.0 J	12.5–13.5	0.50 U	0.68 J
	16–16.5	1,000	120,000	14.5–17.5	1,300	5,800
PC3–10	7–7.5	7.1 U	7.1 U	(clay)	No sample	No sample
	13.75–14.25	9.7 U	9.7 U	(clay)	No sample	No sample
	15–16	610 J	340,000	14–17	84	1,600
PC3–12	9.5–10	10 U	10 U	(clay)	No sample	No sample
	13–13.5	310 J	42,000	(clay)	No sample	No sample
	15–15.5	2,100	800,000	13–16	34	33
PC3–13	9.5–10	9.1 U	9.1 U	7.5–10.5	No water	No water
	13–13.5	7.9 U	7.9 U	12–15	8.1	660
	16.5–17	5,000 J	1,800,000	15–18	730	7,300
PC3–14	7.5–8	6.0 U	6.0 U	6–9	0.50 U	2.0 U
	11–11.5	11 U	11 U	(clay)	No sample	No sample
	13.5–14	8.7	1,800 J	12.5–15.5	90	390
	15.5–16	31,000 J	4,100,000 J	(silt and clay)	No sample	No sample

Notes:
The data were collected in 2007 and 2008 as part of the pre-design investigation.
Highlighted cells show the shallowest depth result for each groundwater sampling location. In some cases, this highlighted depth is at or near the Marsh Crust.
µg/kg Microgram per kilogram
J Estimated value
U Analyte not detected above project reporting limit
Source: Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. TtEC. 2012.

Groundwater samples collected during the pre-design investigation also were analyzed for TDS, sulfate, iron, and alkalinity to determine if groundwater in the shallow FWBZ meets municipal or domestic supply criteria. These are naturally occurring constituents, not COCs. Table 5 summarizes the results. As Table 5 shows, shallow groundwater sample results exceed drinking water and domestic water supply suitability criteria for TDS, sulfate, iron, and alkalinity. Shallow groundwater quality in the FWBZ of OU-5/FISCA IR-02 does not meet drinking water or domestic supply criteria.

TABLE 5: COMPARISON OF GROUNDWATER SAMPLE RESULTS TO WATER QUALITY CRITERIA

Water Quality Parameter	Source for Water Quality Criterion	Criterion (mg/L)	Site Average Concentration (mg/L)	Site Maximum Concentration (mg/L)
TDS	State Water Resources Control Board (SWRCB) Resolution No. 88-63, Class II Groundwater	3,000	16,075	38,300
	Safe Drinking Water Act of 1974, Class III Groundwater	10,000	16,075	38,300
Sulfate	EPA National Secondary Drinking Water Regulations, May 2009	250	133	2,780
Iron	EPA National Secondary Drinking Water Regulations, May 2009	1	3	10
Alkalinity	Illinois Department of Public Health pamphlet titled "Commonly Found Substances in Drinking Water and Available Treatment"	500	2,111	4,550

Notes:
The data were collected in 2007 and 2008 as part of the pre-design investigation.
Source: Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. TtEC. 2012.

Results for Groundwater Monitoring, 2009 - 2013

A treatment system was installed between October 2008 and October 2009 in the two areas of the shallow groundwater plume with the highest benzene and naphthalene concentrations. The treatment systems cover approximately 6 acres and consist of over 300 biosparge wells on approximately 20-foot centers, 15 SVE wells, and 7 new monitoring wells. The biosparge wells are screened at the Marsh Crust based on findings from the pre-design investigation, previous investigations, and a pilot study. Biosparging and groundwater monitoring were initiated in March 2009 and continued until February 2013. For the biosparging, the 2-foot long biosparge well screen typically extended up to 6 inches into the BSU to ensure oxygen delivery to the Marsh Crust, which is located at the bottom of the FWBZ and top of the BSU. The biosparge zone monitoring wells (identified with the "BZMW" prefix) were designed to monitor the progress of the groundwater treatment.

Groundwater monitoring results confirm a decrease in the overall size of the plume shown in Figure 3 and a decrease in benzene and naphthalene concentrations from baseline concentrations at all biosparge treatment area sampling locations 6 months after the 4-year period of operation,

even though groundwater concentrations fluctuated during operation of the treatment system. The concentration fluctuations in the groundwater observed during operation most likely were due to treatment system operation. The system operation can create a dynamic environment where air injection at the Marsh Crust, even at low volume, will cause groundwater movement resulting in temporary fluctuation in contaminant concentrations. Based on the location of the Marsh Crust at depth adjacent to the BSU (approximately 17 feet bgs), the generally thick overlying clay layer, and soil gas and groundwater data indicating low or non-detect results at the top of the water table, the groundwater concentrations adjacent to the Marsh Crust are not representative of water table concentrations.

Technical Memorandum, 2012

The 2012 Technical Memorandum evaluated pre-2007 ROD and post-2007 ROD TDS shallow groundwater data. The TDS shallow groundwater data collected during the pre-design investigation were further evaluated to determine whether the shallow FWBZ groundwater meets federal drinking water criteria and the criteria for sources of drinking water in California SWRCB Resolution No. 88-63. The 2012 Technical Memorandum provided conservative risk assessment evaluations and reevaluated vapor intrusion risk using current toxicity data and current vapor intrusion risk assessment methodologies.

TDS analysis was conducted to evaluate whether the OU-5/FISCA IR-02 shallow FWBZ groundwater meets municipal or domestic supply criteria using the most recent post-ROD data. The federal standard for TDS of 10,000 mg/L in the Safe Drinking Water Act of 1974 applies for making this determination. SWRCB Resolution No. 88-63 (Sources of Drinking Water) states that groundwater is considered to be suitable, or potentially suitable, for municipal or domestic water supply with the exception of groundwater where TDS exceeds 3,000 mg/L. The 2012 Technical Memorandum includes the OU-5/FISCA IR-02 groundwater analytical results and the evaluation of potable and other potential non-potable uses for the FWBZ groundwater. The average TDS concentration in the OU-5/FISCA IR-02 FWBZ of 16,075 mg/L exceeds the federal TDS criterion of 10,000 mg/L for Class III groundwater as well as the State of California criteria of 3,000 mg/L.

In addition to TDS, the OU-5/FISCA IR-02 FWBZ shallow groundwater does not meet other drinking water or domestic water supply suitability criteria, as evaluated in the 2012 Technical Memorandum and summarized below:

- Iron - An iron concentration less than 0.3 mg/L is considered to be acceptable for domestic use, while concentrations greater than 1.0 mg/L are considered to be unsuitable for use. The average iron concentration in the OU-5/FISCA IR-02 FWBZ groundwater is 3 mg/L.
- The recommended range for alkalinity in drinking water supplies is 30 to 400 mg/L. The average alkalinity concentration in the OU-5/FISCA IR-02 FWBZ groundwater is 2,111 mg/L.
- The maximum thickness of the OU-5/FISCA IR-02 FWBZ is approximately 9 feet, which precludes meeting the California Department of Water Resources annular sanitary seal criteria.

- The sustained yield criterion of 200 gallons per day may not be possible in several areas of the plume, and pumping-induced intrusion of saltwater would further degrade water quality.

The 2012 Technical Memorandum concluded that there are no potential agricultural or industrial uses for the 5/FISCA IR-02 FWBZ groundwater. The 2012 Technical Memo documented that agricultural supply is not a potential beneficial use of the FWBZ groundwater because the average OU-5/FISCA IR-02 shallow FWBZ TDS concentration of 16,075 mg/L significantly exceeds acceptable levels for crop irrigation or livestock watering (i.e., below 5,000 mg/L) or landscape watering (i.e., below 2,000 mg/L). In addition, the 2012 Technical Memorandum determined that industrial supply was not a potential beneficial use of the FWBZ groundwater due to TDS concentrations greater than 1,000 mg/L and there is insufficient sustainable yield, as described in Sections 1.3.1 and 2.7.

The conservative risk assessments in the 2012 Technical Memorandum use historical and current vapor intrusion evaluation methodologies, crawl space air and soil gas data collected from multiple depths over a widespread area, and groundwater data from the RI/FS from locations potentially at or near the water table to reevaluate vapor intrusion risk. Results document no unacceptable risks from vapor intrusion or other existing pathways due to OU-5/FISCA IR-02 shallow groundwater. These additional assessments of risk are described in Section 2.5.1.

EPA Sub-slab Soil Gas and Indoor and Outdoor Air Sampling, 2013

In September 2013, the EPA issued a **Final Quality Assurance Project Plan** to collect air and soil gas samples at locations within the OU-5/FISCA IR-02 plume. EPA's plan states that the investigation is "to evaluate the worst case scenario for vapor intrusion based on accessible buildings and constraints on drilling." In October 2013, the EPA conducted sub-slab soil gas and indoor and outdoor air sampling at the unoccupied Island High School and at the child daycare center to evaluate (1) sub-slab soil vapor COC concentrations and (2) potential indoor air contamination due to the potential volatilization of groundwater contaminants to the indoor air exposure pathway. Tables 6 and 7 present the indoor and outdoor air and sub-slab soil gas sampling results, respectively, for benzene and naphthalene.

As shown in Table 7, the sub-slab sample results were non-detect for all naphthalene samples. For benzene, the sub-slab sample results were non-detect except at one of the four child daycare locations, where a value of 2 parts per billion by volume (ppbv) of benzene was qualified as estimated below the quantitation limit. This level is below the California Human Health Screening Level for sub-slab air (11.3 ppbv for benzene). Indoor air results for all samples were non-detect for naphthalene. Benzene results for indoor air were consistent with outdoor air. These results indicate that there is no indoor air contamination due to the volatilization of groundwater contaminants to the indoor air exposure pathway. Since the largely non-detect sub-slab soil gas sample results for benzene and all non-detect results for naphthalene show that groundwater is not a source for indoor air concentrations, the remaining potential sources for the benzene indoor air concentrations are various materials (such as carpeting) inside the building and the outdoor air, which contains similar benzene concentrations. This investigation provides another line of evidence regarding the strength of the RI/FS risk assessment results and 2012 Technical Memorandum and supports a no further action remedy for OU-5/FISCA IR-02 groundwater.

TABLE 6: 2013 EPA OU-5 AIR SAMPLING RESULTS

Sample Location	Benzene (pptv)	Naphthalene (pptv)
APTOU5-IA1 - Island High School Indoor Air Southeast Classroom	120	ND
APTOU5-IA2 - Island High School Indoor Air Eastern Bathroom	120	ND
APTOU5-IA3 - Island High School Indoor Air Southwest Annex	130	ND
APTOU5-IA4 - Child Daycare Center Indoor Air Southwest Classroom	140	ND
APTOU5-IA5 - Child Daycare Center Indoor Air Northwest Classroom	150	ND
APTOU5-IA8 - Child Daycare Center Indoor Air Southwest Classroom (duplicate APTOU5-IA4)	140	ND
APTOU5-OA1 - Island High School Outdoor Air Western Edge	120	ND
APTOU5-OA2 - Child Daycare Center Outdoor Air Western Edge	120	ND

Notes:
Federal screening criteria for benzene: 97.1 parts per trillion by volume (pptv) (based on November 2013 Regional Screening Levels for Residential Indoor Air converted to pptv using the molecular weight of each compound and a conversion factor)
State screening criteria for benzene: 26.3 pptv (based on 2005 California Human Health Screening Levels for Indoor Air converted to pptv using the molecular weight of each compound and a conversion factor)
ND Non-detect

TABLE 7: 2013 EPA OU-5 SUB-SLAB SOIL GAS SAMPLING RESULTS

Sample Location	Benzene (ppbv)	Naphthalene (ppbv)
APTOU5-SS1 - Island High School Outside Western Main Building	ND	ND
APTOU5-SS2 - Island High School Southwest Site Corner	ND	ND
APTOU5-SS3 - Child Daycare Center Southwest Corner Classroom	ND	ND
APTOU5-SS4 - Child Daycare Center Southwest Corner Classroom (duplicate of APTOU5-SS3)	ND	ND
APTOU5-SS5 - Child Daycare Center Northwest Corner Classroom	ND	ND
APTOU5-SS6 - Child Daycare Center Northwest Corner Parking Area	2 C1, J	ND

Notes:
Notes: Federal screening criteria for benzene: 0.097 parts per billion by volume (ppbv) (based on November 2013 Regional Screening Levels for Residential Indoor Air converted to ppbv using the molecular weight of each compound and a conversion factor)
State screening criteria for benzene: 11.3 ppbv (based on the 2010 California Human Health Screening Levels for Subslab Air converted to ppbv using the molecular weight of each compound and a conversion factor)
C1 Concentration below quantitation limit
J Estimated value
ND Non-detect

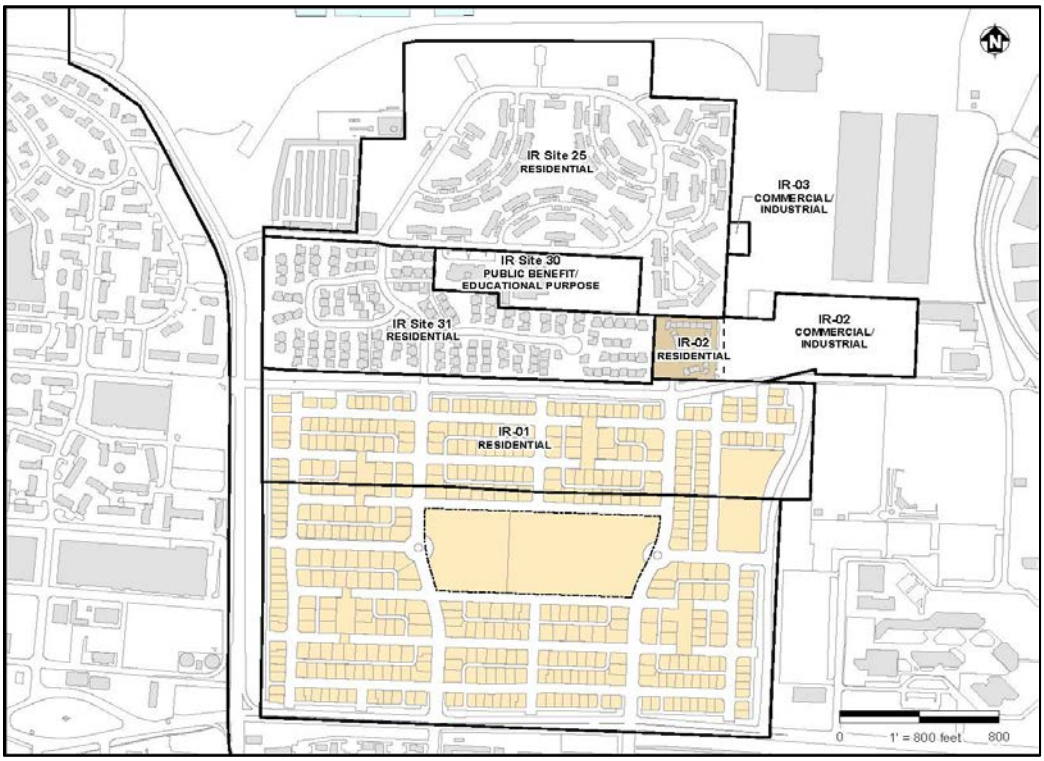
2.4 Current and Potential Future Site and Resource Uses

Figure 4 shows the current and proposed land uses for OU-5 and FISCA IR-02. Under the **Alameda Point General Plan Amendment** (amended in 2003), Chapter 9, Figure 9-2, the proposed land use for the OU-5 area includes residential and educational uses.

The OU-5 area consists of occupied and unoccupied multiple-unit housing structures, open space park areas, a daycare center, and the unoccupied Island High School (formerly George P. Miller

Elementary School). The current site use and the planned future site use are the same. Under the Alameda Point General Plan Amendment, the proposed land uses for FISCA IR-01, IR-02, and IR-03 include residential and commercial/industrial usage. IR-01 is used for residential purposes (within the Bayport Housing development). IR-02 has a western part used for residential purposes, with the remaining part used for commercial/industrial purposes. IR-03 is used for commercial/industrial purposes. Construction of the Bayport Housing residential development was completed at FISCA IR-01 and at the former East Housing Property within Alameda Point (Figure 3). The Shinsei Garden Housing Development was completed in the western portion of IR-02. The remainder of IR-02 currently is under development for residential and commercial use. FISCA IR-03 remains undeveloped. OU-5/FISCA IR-02 does not have any naturally occurring surface streams or ponds.

FIGURE 4: Community Reuse Plan



Drinking water is supplied to OU-5/FISCA IR-02 by the EBMUD, and groundwater at the site is not expected to be used for domestic purposes in the future. Data collected during the pre-design investigation show that shallow groundwater quality is not adequate for potable use due to concentrations of TDS, sulfate, iron, and alkalinity in the FWBZ at OU-5/FISCA IR-02. Neither TDS nor sulfate can be economically removed from domestic drinking water or small- to medium-sized industrial water supplies using conventional techniques. The SWBZ already has been classified as a Class III aquifer because of its high TDS and saline content, making it unsuitable for domestic, agricultural, industrial, or municipal beneficial uses. The 2012 Technical Memorandum documents that the FWBZ groundwater at OU-5/FISCA IR-02 does not meet the **criteria for a potential drinking water source** in California (SWRCB Resolution No. 88-63)

and also does not meet federal requirements for a drinking water source; a summary of the evaluation is presented in Section 2.3.2. Finally, the aquifer is not a geothermal energy source.

In summary, no drinking water wells are located at the site, shallow groundwater does not meet the specifications of a potential drinking water source, and no future potable or non-potable groundwater uses have been identified for OU-5/FISCA IR-02 shallow groundwater.

2.5 Site Risks

This section presents risk assessment results. Section 2.5.1 summarizes the HHRA results. A detailed description of the vapor intrusion pathway potential risks is provided because the data and risk evaluations of this pathway highlight the protectiveness of a no further action remedy for OU-5/FISCA IR-02 shallow groundwater. Section 2.5.2 summarizes the ERA.

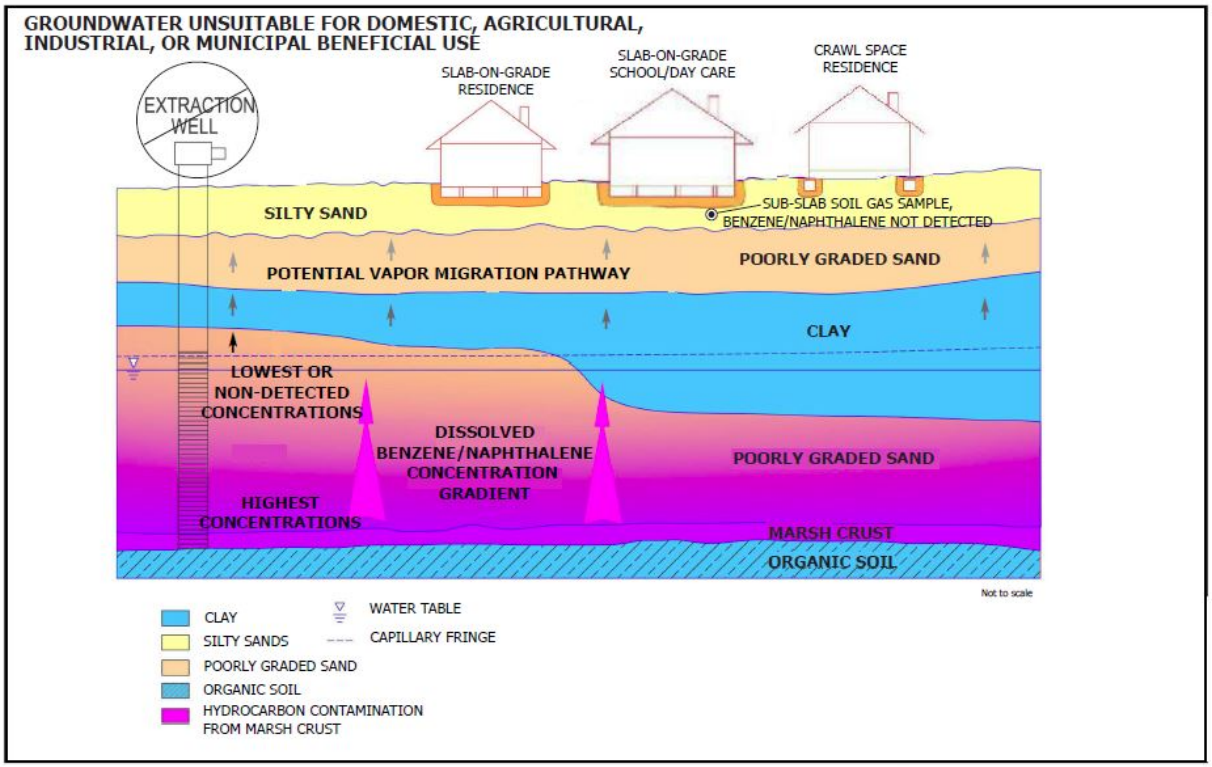
Post-ROD data collection filled the data gaps identified during the 2004 RI/FS and resulted in a modification to the 2007 ROD's conceptual site model (CSM) that identifies potential point-source surface releases in addition to the Marsh Crust as a source of the benzene and naphthalene shallow groundwater concentrations. The revised **CSM** was developed based on the results of multiple lines of evidence, including pre-design continuous soil coring, additional multi-depth soil and groundwater sampling, and hydrocarbon fingerprinting and stable isotope C-13 and H-2 signature analysis of soil and groundwater. Figure 5 shows the CSM. There is no complete pathway for the hypothetical drinking water use because there is insufficient (low) sustainable yield, i.e., there is little water in the thin shallow FWBZ and the water is too difficult, if not impossible, to remove from the ground.

2.5.1 Human Health Risk Assessment

An HHRA does not predict actual health effects but instead is used as a tool for making risk management decisions. In accordance with EPA Office of Solid Waste and Emergency Response (OSWER) Directive 9355.0-30, the risk management range is defined as 10^{-4} to 10^{-6}. The risk management range was established by the EPA to set guidelines for making risk management decisions. EPA OSWER Directive 9355.0-30 states the text quoted below.

> "Where the cumulative carcinogenic site risk to an individual based on reasonable maximum exposure for both current and future land use is less than 10^{-4} and the noncarcinogenic hazard quotient (HQ) is less than 1, action generally is not warranted unless there are adverse environmental impacts."

FIGURE 5: Conceptual Site Model



Site-specific factors typically are considered when making decisions about whether action is required at sites where cancer risks are in the risk management range. Risks less than 10^{-6} are considered negligible. When risks exceed 10^{-4}, action generally is required.

The **2004 RI/FS baseline HHRA** discussions for exposure pathways other than vapor intrusion to indoor air are discussed in detail in the 2007 ROD. Although the vapor intrusion pathway is included in the total risk presented in the 2007 ROD, this pathway and the risk associated with it are not presented. Based on the shallow groundwater quality evaluation in the 2012 Technical Memorandum, the only potential exposure pathway for OU-5/FISCA IR-02 shallow groundwater is potential indirect inhalation of benzene and naphthalene due to vapor intrusion. Therefore, that pathway is described in detail in this section.

Potential vapor intrusion into a residence, school, or daycare center has been a focus for risk assessments at this site for over 20 years due to the presence of residential housing, a school, and a child daycare center overlying the OU-5/FISCA IR-02 shallow groundwater plume. Therefore, rather than only one risk assessment for the vapor intrusion pathway in the RI/FS, there have been multiple investigations and risk assessments. Structures overlying this site include the following:

- The unoccupied North Village Housing area (including the Kollman Circle housing area): houses that have crawl spaces;
- The USCG Marina Village Housing area: slab-on-grade housing units still in use and occupied;

- The Shinsei Garden Housing Development: a new apartment complex constructed in 2008 to 2009 with a vapor barrier and sub-slab depressurization system;
- Island High School: currently unoccupied and formerly the George P. Miller Elementary School; and
- Woodstock Child Development Center.

A significant and consistent body of evidence supports the conclusion that there are no unacceptable cancer or non-cancer risks due to benzene and naphthalene concentrations in OU-5/FISCA IR-02 groundwater. This evidence includes a combination of the following:

- Direct measurements from the sampling of soil gas, groundwater, crawl space air, indoor air, and outdoor ambient air in relation to the site's residential areas;
- Results of modeling of the migration of volatile constituents released from groundwater or overlying soil gas up through the soil column into a residential building, and assessment of the risk implications of the projected indoor air concentrations of the volatile constituents; and
- Results of additional characterization of the physical features and stratigraphy of the site relative to factors known to either enhance or diminish potential vapor intrusion.

Risk assessments that evaluate the vapor intrusion pathway within OU-5/FISCA IR-02 are summarized below in chronological order, followed by an HHRA summary. All risk assessments used pre-remediation data, so rebound of groundwater concentrations at the Marsh Crust that were for groundwater treated by the OU-5/FISCA IR-02 remediation system is not relevant.

Residential Risk Evaluation for USCG Housing, 2002

As discussed in more detail in Section 2.3.1, indoor air, outdoor air, and crawl space sampling were conducted in 2002 at North Village Housing (including Kollman Circle) and Marina Village Housing. A total of 34 air samples were collected at North Village Housing. A total of 19 air samples were collected at Marina Village Housing. This section focuses on the risk assessment results for these samples. As cited in recent vapor intrusion guidance, evaluation of air sampling results at houses with both crawl space and indoor air data as well as outdoor air data is important in evaluating the source of the concentrations. Table 3 provides these concentrations. At 10 of the 12 addresses where both crawl space and indoor air data were collected, the crawl space benzene results were lower than the indoor air results. At the other two sampling locations, benzene results were similar in crawl space and indoor air. Crawl space and indoor air data were evaluated statistically, and statistical results also indicate that benzene concentrations in crawl space air were lower than in indoor air. The crawl space benzene air sampling results also were less than outdoor air levels except in one sample where the results were the same.

The 2002 report concludes that (1) VOC concentrations in crawl space air do not differ from indoor air concentrations and (2) indoor air VOC concentrations are consistent with both outdoor air concentrations and ambient air measurements collected by the CARB. These air analytical results support the conclusion that shallow groundwater is not the source of VOCs detected in indoor air.

In addition to the statistical evaluation of the air sampling results, risk assessment was conducted to evaluate potential vapor intrusion risk using both HydroPunch® and soil gas data. Risk estimates used the maximum detected concentration of each chemical detected. **For 30-year exposure, the residential cancer risk** using soil gas data was 1.46×10^{-7}. For 30-year exposure, the residential cancer risk using data HydroPunch® data was 1.1×10^{-6}. The HI value was less than 1.

OU-5 RI HHRA, 2002

The 2002 OU-5 RI risk assessment includes evaluation of results for 42 soil gas samples collected throughout OU-5/FISCA IR-02 analyzed for naphthalene and VOCs. The RI report risk assessment uses two transport models and documents estimated **cancer risks for residential use based on the soil gas data** at well below 10^{-6} (10^{-8} to 10^{-9} cancer risks). The non-cancer HI value was less than 1. The RI report states that the soil gas sampling results show that little volatilization or release of benzene and naphthalene into vadose zone soil is occurring.

Groundwater RI/FS, 2004

The HHRA for OU-5/FISCA IR-02 shallow groundwater considers the following indirect exposures to COPCs in FWBZ groundwater from potential vapor intrusion:

- A school exposure scenario (school children and adult workers) based on the assumption of theoretical exposure to volatile COPCs migrating upward from groundwater into the indoor air of an existing or future school; and
- Vapor intrusion into occupied or potentially occupied residential buildings at the site.

For the school scenario, the HHRA estimates the theoretical inhalation of COPCs by adult workers and children resulting from vapor migration from groundwater into indoor school air using the Johnson and Ettinger **vapor migration model**. Lastly, for the residential scenario, the HHRA evaluates theoretical inhalation exposure resulting from vapor migration from groundwater into indoor air. Tier 2 exposure point concentrations (EPC) for benzene and naphthalene were calculated from kriged (a geostatistical evaluation based on a mathematical function known as a semivariogram) groundwater concentrations for a 500-foot and a 725-foot radius around the monitoring well with the highest detected concentration of benzene or naphthalene.

Two different approaches were used to calculate EPCs for vapor intrusion, one based on groundwater monitoring results and one based on soil gas measurements. The first approach used the Tier 2 groundwater EPCs as input to the Johnson and Ettinger vapor migration modeling. The second approach used the measured soil gas concentrations as the driver inputs to the Johnson and Ettinger modeling. The maximum benzene soil gas concentrations in the Alameda Point and FISCA (referred to as Alameda Annex in this report) areas of the plume were used as the EPCs for each of these areas.

The HHRA evaluates vapor intrusion using shallow groundwater data from multiple depths down to 20 feet bgs and soil gas data. Current guidance indicates that only groundwater data within a few feet of the water table should be considered in evaluation of potential vapor intrusion risk. Table 8 summarizes the HI values and the carcinogenic risks for reasonable maximum exposure (RME) for potential residential and school exposure scenarios using the soil gas data.

TABLE 8: 2004 BASELINE HHRA RESULTS MODELED FROM SOIL GAS DATA (NO POTABLE GROUNDWATER USE)

Exposure Scenario	Location	Noncarcinogenic HI – RME	Carcinogenic Risk – RME
Resident	Alameda Annex	0.0092	1×10^{-6}
	Alameda Point	0.0076	5×10^{-8}
School Worker	Alameda Annex	0.0087	8×10^{-7}
	Alameda Point	0.0076	5×10^{-8}
School Student	Alameda Annex	0.0084	2×10^{-7}
	Alameda Point	0.0076	5×10^{-8}

Source: Final Groundwater Remedial Investigation/Feasibility Study, Alameda Point Site 25/Alameda Annex IR-02. Section 6, Page 6-5. Engineering/Remediation Resources Group, Inc. (ERRG). 2004.

Using soil gas data, the HHRA vapor intrusion risk assessment estimates RME incremental lifetime cancer risk (ILCR) values ranging from 5×10^{-8} to 8×10^{-7} for school worker and student receptors and 5×10^{-8} to 1×10^{-6} for residents. Using groundwater data from all depths, RME ILCR results are within or below the risk management range. The RI/FS concludes that there are no unacceptable risks to residents, school workers, or students due to vapor intrusion. In addition, there are no unacceptable risks for industrial uses such as car-washing, landscaping, or irrigation.

IR Site 30, School and Child Development Center RI HHRA, 2005

The RI HHRA for the school and child daycare center prepared in 2005 includes evaluation of potential vapor intrusion risk due to vapors from soil and groundwater. The vapor intrusion risk was calculated using shallow groundwater data from the IR Site 30 RI and the 2002 OU-5 RI. Based on **groundwater as the potential source of indoor air vapors**, the highest potential future risk (residential scenario) was 2×10^{-6} (using Cal/EPA methodology, including naphthalene). The HI value for this pathway was less than 1. The Office of Environmental Health Hazard Assessment School Model also was used to calculate the total risk for all exposure pathways for the educational scenario. The risk was 1×10^{-6} for benzene and naphthalene using this model. The RI report cites the 1994 non-detect benzene crawl space air results at the school as further evidence that vapors are not migrating from soil or groundwater into indoor air. A no-action ROD for IR Site 30 soil was signed in 2009.

IR Site 31, Marina Village Housing RI HHRA, 2007

The RI HHRA for Marina Village Housing (IR Site 31) prepared in 2007 includes evaluation of potential vapor intrusion risk due to vapors from soil and groundwater. The vapor intrusion risk was calculated using shallow groundwater data from the IR Site 31 RI and the 2002 OU-5 RI. The EPC for vapor migration modeling was the maximum concentration for each volatile chemical found in any groundwater sample within the shallow OU-5/FISCA IR-02 plume (that is, one hypothetical sample with maximum concentrations of all volatile chemicals that conservatively was assumed to be representative). **For groundwater, the total RME residential cancer risk** for all volatile compounds for the inhalation of vapors in indoor air from groundwater was 8×10^{-7} using EPA protocol and 1×10^{-5} using DTSC protocol. The RI report indicates that the DTSC risk is driven by naphthalene concentrations in groundwater at depth, which are not representative of shallower groundwater at the water table. The maximum naphthalene concentration for the IR

Site 31 RI HydroPunch® data was from a depth of 16.5 feet bgs. If the next highest naphthalene groundwater concentration in Marina Village Housing is used, then the report states that the total vapor intrusion risk using DTSC protocol would be 1×10^{-6} for all volatile chemicals. The IR Site 31 RI report also notes that air sampling results at Marina Village Housing in 2002 show that benzene concentrations in crawl spaces were lower than in indoor air, indicating that the benzene in indoor air is not due to benzene in groundwater. A no-action ROD for IR Site 31 soil was signed in 2008.

2012 Technical Memorandum

The findings of the RI/FS **HHRA of potential vapor intrusion** are supported by the risk assessment performed in the 2012 Technical Memorandum using the current DTSC toxicity data and approach. The 2012 Technical Memorandum evaluates the vapor intrusion pathway using soil gas measurements (at 32 locations) spread throughout the OU-5/FISCA IR-02 plume. Sampling points included locations where shallow groundwater contamination previously had been confirmed and where shallow groundwater contamination had not been observed. When possible, soil gas samples were collected from two depths: 2 and approximately 5 feet bgs.

Table 9 summarizes the projected indoor air inhalation risks based on soil gas sampling results for benzene and naphthalene. This table also shows the results of applying the default **DTSC attenuation factor for existing residential buildings** of 0.002 to project benzene and naphthalene indoor air concentrations for each soil gas sampling location. The higher of the indoor air concentrations projected from the soil gas samples from 2 and approximately 5 feet bgs then was conservatively used as the projected indoor air concentration for that location. Lastly, the **DTSC toxicity criteria** for benzene and naphthalene were applied to calculate the projected indoor air inhalation ILCR and non-cancer HI values for both constituents as shown in Table 9.

With respect to benzene, Table 9 shows that all projected HQ values were many orders of magnitude below the threshold of 1.0. The RME results for the projected benzene ILCRs ranged from 4.8×10^{-8} to 4.8×10^{-7}. With respect to naphthalene, Table 9 shows that all the projected HQ values also were well below 1.0. The RME results for the projected naphthalene ILCR values ranged from 5.6×10^{-8} to 5.0×10^{-6}. These results serve as another line of evidence that even using the highest projected values and current DTSC toxicity data and protocol, no further action is protective for OU-5/FISCA IR-02 groundwater.

The 2012 Technical Memorandum also evaluates the air data shown in Table 3 and reviews other risk assessment results. The 2002 air data for 12 individual houses within Kollman Circle and other locations within the plume was modeled. Using DTSC 2011 and 2012 criteria (including the DTSC toxicity data and approach), the cancer risk for residential receptors (due to benzene) was 10^{-6} for most individual locations, with a maximum risk of 3.2×10^{-5}.

In addition to the risk assessment using soil gas and air data, the 2012 Technical Memorandum evaluates potential vapor intrusion risk using groundwater data by performing location-specific vapor intrusion modeling using the Johnson and Ettinger model with all the DTSC toxicity and default input parameter adjustments for a **slab-on-grade residential structure**. The modeling used shallow groundwater concentrations measured across the site from the depth interval at or near the local water table. This selection of groundwater sampling results is supported by the fact

that **groundwater concentrations at the water table dictate the volatilization of dissolved constituents out of the liquid phase and into soil gas**.

Vapor intrusion risk was evaluated using groundwater data from 37 locations at or near the water table. Of these locations, results for 16 locations were non-detect for both benzene and naphthalene. These locations were reviewed to identify those with a higher likelihood to result in potential vapor intrusion either because (1) of the reported groundwater concentrations, (2) the vadose zone at that location consisted of more permeable material, or (3) the vadose zone was thinner. Based on this review, four locations were selected for additional modeling: OS-HP2, OS-HP-10, PC2-1, and PC3-13.

TABLE 9: PROJECTION OF INDOOR AIR INHALATION RISK DUE TO BENZENE AND NAPHTHALENE FROM SOIL GAS SAMPLED IN JUNE 2001

Soil Gas Sampling Location (June 2001)	Maximum Projected Benzene Indoor Air ILCR[a] (unitless)	Maximum Projected Benzene Indoor Air HQ[a] (unitless)	Maximum Projected Naphthalene Indoor Air ILCR[a] (unitless)	Maximum Projected Naphthalene Indoor Air HQ[a] (unitless)
OU5-SG1	4.8×10^{-8}	0.0001	5.87×10^{-7}	0.0045
OU5-SG2	7.4×10^{-8}	0.0001	4.75×10^{-7}	0.0036
OU5-SG3	4.8×10^{-8}	0.0001	6.15×10^{-7}	0.0047
OU5-SG4	1.6×10^{-7}	0.0002	1.51×10^{-6}	0.0115
OU5-SG5	7.2×10^{-8}	0.0001	2.54×10^{-7}	0.0019
OU5-SG6	4.8×10^{-8}	0.0001	3.91×10^{-7}	0.0030
OU5-SG7	4.8×10^{-8}	0.0001	5.03×10^{-7}	0.0038
OU5-SG8	4.8×10^{-8}	0.0001	2.60×10^{-7}	0.0020
OU5-SG9	1.0×10^{-7}	0.0001	5.87×10^{-8}	0.0004
OU5-SG10	3.1×10^{-7}	0.0004	1.20×10^{-7}	0.0009
OU5-SG11	4.8×10^{-8}	0.0001	8.66×10^{-7}	0.0066
OU5-SG12	1.7×10^{-7}	0.0002	4.75×10^{-7}	0.0036
OU5-SG13	1.6×10^{-7}	0.0002	4.75×10^{-7}	0.0036
OU5-SG14	4.8×10^{-8}	0.0001	3.35×10^{-7}	0.0026
OU5-SG15	7.4×10^{-8}	0.0001	2.29×10^{-7}	0.0017
OS-SG1	4.8×10^{-7}	0.0006	3.07×10^{-7}	0.0023
OS-SG2	2.4×10^{-7}	0.0003	2.79×10^{-7}	0.0021
OS-SG3	1.2×10^{-7}	0.0002	3.63×10^{-7}	0.0028
OS-SG4	4.8×10^{-8}	0.0001	3.35×10^{-7}	0.0026
OS-SG5	4.8×10^{-8}	0.0001	5.59×10^{-8}	0.0004
OS-SG6	4.8×10^{-8}	0.0001	5.03×10^{-7}	0.0038
OS-SG7	4.8×10^{-8}	0.0001	1.01×10^{-7}	0.0008
OS-SG8	4.8×10^{-8}	0.0003	1.31×10^{-7}	0.0010
OS-SG9	1.9×10^{-7}	0.0001	7.82×10^{-7}	0.0060
OS-SG10	4.8×10^{-8}	0.0001	3.91×10^{-7}	0.0030
OS-SG11	1.0×10^{-7}	0.0001	4.75×10^{-7}	0.0036
OS-SG12	3.3×10^{-7}	0.0005	1.06×10^{-6}	0.0081
OS-SG13	4.8×10^{-8}	0.0001	1.23×10^{-6}	0.0094
OS-SG14	3.6×10^{-7}	0.0003	4.19×10^{-7}	0.0032
OS-SG15	1.0×10^{-7}	0.0001	5.31×10^{-7}	0.0040
OS-SG16	2.4×10^{-7}	0.0003	5.03×10^{-6}	0.0384
OS-SG17	7.6×10^{-8}	0.0001	2.52×10^{-7}	0.0019

Soil Gas Sampling Location (June 2001)	Maximum Projected Benzene Indoor Air ILCR[a] (unitless)	Maximum Projected Benzene Indoor Air HQ[a] (unitless)	Maximum Projected Naphthalene Indoor Air ILCR[a] (unitless)	Maximum Projected Naphthalene Indoor Air HQ[a] (unitless)
Minimum	**4.8×10^{-8}**	**0.0001**	**5.59×10^{-8}**	**0.0004**
Maximum	**4.8×10^{-7}**	**0.0006**	**5.03×10^{-6}**	**0.0384**

Notes:
a DTSC Toxicity Criteria: Inhalation Unit Risks and Chronic Reference Concentrations
Source: Final Technical Memorandum OU-5/FISCA IR-02 Groundwater Data Evaluation. TtEC. 2012.

For comparison purposes, the projected indoor air inhalation RME risks for each of the four cases warranting verification modeling were estimated using both the EPA **IRIS** toxicity criteria and the DTSC toxicity criteria. Table 10 summarizes the estimated risks. For each of the four highlighted water table groundwater sampling locations (which represent locations with conditions that could result in vapor intrusion), Table 10 lists the projected ILCR and non-cancer HQ values for benzene and naphthalene. Results are shown separately for the two sets of toxicity criteria.

TABLE 10: PROJECTION OF INDOOR AIR INHALATION RISK DUE TO BENZENE AND NAPHTHALENE FROM NEAR-WATER TABLE GROUNDWATER AT FOUR "WORST-CASE" LOCATIONS USING EPA IRIS AND CAL/EPA DTSC TOXICITY CRITERIA

Criterion	ILCR from Vapor Intrusion to Indoor Air		Incremental Non-Cancer HQ from Vapor Intrusion to Indoor Air	
	Benzene (unitless)	Naphthalene (unitless)	Benzene (unitless)	Naphthalene (unitless)
OS-HP2 (June 2001)				
IRIS Toxicity Criteria	2.0×10^{-7}	Not applicable	0.0019	0.0410
DTSC Toxicity Criteria	6.9×10^{-7}	1.8×10^{-6}	0.0009	0.0140
OS-HP-10 (June 2001)				
IRIS Toxicity Criteria	7.9×10^{-7}	Not applicable	0.0079	0.0570
DTSC Toxicity Criteria	3.0×10^{-6}	2.5×10^{-6}	0.0040	0.0190
PC2-1 (July/August 2007)				
IRIS Toxicity Criteria	4.0×10^{-7}	Not applicable	0.0040	0.0018
DTSC Toxicity Criteria	1.5×10^{-6}	7.9×10^{-8}	0.0020	0.0006
PC3-13 (July/Aug 2007)				
IRIS Toxicity Criteria	1.6×10^{-6}	Not applicable	0.0160	0.8100
DTSC Toxicity Criteria	6.0×10^{-6}	3.6×10^{-5}	0.0080	0.2700

Source: Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. TtEC. 2012.

There also are differences in the values of the remaining Unit Risk Factors and Reference Concentrations for benzene and naphthalene between the two sources. The most conservative value from the range of Unit Risk Factors for benzene reported in IRIS was used in these projections. Once again, all the projected HQ values for both chemicals were less than the HQ threshold value of 1.0. Specifically, all HQ values for benzene were less than 0.010 using both the DTSC and IRIS criteria except at one location, where the maximum HQ for benzene was 0.016. All HQ values for naphthalene were less than 0.10 using both the DTSC and IRIS criteria except

at one location, where the maximum HQ for naphthalene was 0.81. Using IRIS toxicity criteria, the projected RME ILCR values for benzene were 10^{-7} except at one location, where the ILCR was 1.6×10^{-6}. Using DTSC toxicity criteria, the projected RME ILCR values for naphthalene ranged from 7.9×10^{-8} to 3.6×10^{-5}. Using DTSC toxicity criteria, the projected RME ILCR values for benzene ranged from 6.9×10^{-7} to 6.0×10^{-6}. In addition, many of the water table sampling results for these locations were non-detect for benzene and naphthalene.

HHRA Summary

In summary, using soil gas data, the RI/FS vapor intrusion risk assessment estimates RME ILCR values ranging from 5×10^{-8} to $1 \text{ x } 10^{-6}$ for residents and from 5×10^{-8} to 8×10^{-7} for school student receptors. Using groundwater data from all depths, all RI/FS RME ILCR results were within the risk management range except for drinking water use. Collection of additional data provided results that show that the potential uses of shallow groundwater evaluated in the RI/FS are not viable based on water quality data collected after issuance of the 2007 ROD. The final RI/FS report concludes that "potential inhalation of VOCs in indoor air by residential and school receptors does not pose an unacceptable risk."

The findings of the RI/FS risk assessment of no unacceptable potential vapor intrusion risk are supported by the 2012 Technical Memorandum HHRA performed using the current DTSC toxicity data and approach and soil gas data from multiple depths over a widespread area. Using the more recent DTSC approach and soil gas data, the 2012 vapor intrusion evaluations estimate the RME ILCR values for benzene as ranging from 4.8×10^{-8} to 4.8×10^{-7} across the site and for naphthalene as ranging from 5.6×10^{-8} to 5.0×10^{-6} across the site.

The 2012 Technical Memorandum HHRA performed using shallow groundwater data collected near the water table also shows that there are no unacceptable risks for the vapor intrusion pathway due to OU-5/FISCA IR-02 groundwater. Based on the shallow groundwater data, all HI values were below 1 using EPA and DTSC criteria for both benzene and naphthalene. Using EPA IRIS toxicity criteria, the projected RME ILCR values for benzene at these locations were 10^{-7} except at one location, where the ILCR was 1.6×10^{-6}. All cancer risks for these "worst-case" locations were 10^{-6} to 10^{-8} for benzene and naphthalene using DTSC criteria except for one location with a naphthalene risk of 3.6×10^{-5}. Accordingly, even the individual locations with optimum conditions for vapor migration do not indicate unacceptable indoor air inhalation risk.

The RI/FS conclusion that there are no unacceptable risks to the residents, school workers, or students at the site as the result of vapor intrusion due to OU-5/FISCA IR-02 shallow groundwater is supported by multiple sampling events and the HHRAs summarized in this section, including the 2012 HHRA using current DTSC toxicity data and protocols. This conclusion also is supported by the 2013 EPA air sampling results.

2.5.2 Ecological Risk Assessment

Results of the previous ERAs conducted for both Alameda Point and FISCA conclude that (1) there is no significant risk to terrestrial ecological receptors due to lateral groundwater movement and (2) there is no ecological risk to the San Francisco Bay due to storm sewer system discharge. Additionally, the ERAs conclude that the site supports only limited habitat, the presence of

terrestrial receptors is limited, and future land uses would not create additional ecological habitat. A large factor affecting the ERAs is the marginal quality of the general site area with respect to terrestrial ecological receptors. Based on current reuse plans, this situation would be true for future scenarios as well.

2.6 Principal Threat Waste

No principal threat wastes have been identified for OU-5/FISCA IR-02 groundwater. Principal threat wastes are source materials considered to be highly toxic or highly mobile, or that would present a significant risk to human health or the environment if exposure occurs. Additional evaluations were performed using soil gas measurements from across the site, and the RME results for the projected benzene indoor air inhalation ILCR values ranged from 4.8×10^{-8} to 4.8×10^{-7}. The RME results from the additional evaluations of projected naphthalene indoor air inhalation ILCR values ranged from 5.6×10^{-8} to 5.0×10^{-6}. All lines of evidence from previous investigations and assessments show that dissolved benzene and naphthalene in OU-5/FISCA IR-02 groundwater do not pose an indoor air inhalation risk to residents or a potential risk to future residents, children, or students who may routinely occupy buildings at the site.

2.7 Selected Remedy

The selected remedy for OU-5/FISCA IR-02 shallow groundwater is no further action. Shallow groundwater does not pose an unacceptable risk to human health or the environment under the current or expected future (residential and school) land uses or any other land uses. This determination is based on extensive field investigations, laboratory analyses, data evaluations, review of current and future land use, and thorough assessment of potential human health risk and ecological risk. The site has been extensively sampled and assessed during multiple investigations conducted from 1988 through EPA's 2013 sampling event. The Water Board provided a letter concurring that the shallow groundwater at OU-5/FISCA IR-02 meets the criteria in SWRCB Resolution No. 88-63 and Regional Water Quality Control Board Resolution 89-39, demonstrating that the quality and nature of the shallow OU-5/FISCA IR-02 groundwater is not suitable for drinking water. The OU-5/FISCA IR-02 shallow groundwater also does not meet federal requirements for a drinking water source. The post-2007 ROD, pre-treatment investigations, and additional groundwater and soil gas evaluations provide additional lines of evidence regarding the strength of the RI/FS risk assessment results, the lack of a significant vapor intrusion pathway due to a combination of depth of contaminants and site lithology, and the high level of confidence in the protectiveness of no further action for OU-5/FISCA IR-02 groundwater.

Based on the previous sampling results, in 2013, EPA selected locations for sub-slab, indoor air, and outdoor air sampling. All naphthalene results were non-detect, and benzene sub-slab results largely were non-detect. Indoor air and outdoor air results for benzene were similar, indicating that indoor air results may be influenced by outdoor air as well as potential benzene sources within the building. Multiple HHRAs and the ERAs show that groundwater at the site does not pose an unacceptable risk to human health or the environment, and the 2013 air sampling results also support this conclusion.

In addition, at OU-5/FISCA IR-02, multiple site-specific characteristics of the shallow FWBZ groundwater make the hypothetical use for drinking water not feasible. There is no viable potential

pathway for ingestion of OU-5/FISCA IR-02 shallow groundwater because there is insufficient yield, i.e. the groundwater cannot be extracted for drinking. The characteristics of OU-5/FISCA IR-02 shallow groundwater that preclude its use for drinking water include the following:

- The RI/FS Report documents that the maximum artificial fill thickness is approximately 15 to 20 feet in the OU-5/FISCA IR-02 area. This is too thin for the shallow FWBZ at OU5/FISCA IR-02 to meet minimum construction requirements for community potable or industrial water supply wells. The required annular sanitary seal for a well cannot be installed due to the thin fill, so a well that could produce water for drinking cannot be constructed and operated.
- The thickness of the shallow FWBZ at OU-5/FISCA IR-02 is only approximately 2 feet thick in some areas, with an average thickness of 6 feet. In addition, there are significant clay lithologies present, as documented in the continuous coring conducted as part of the pre-design investigation. The very small water bearing zone thickness combined with the clay that does not yield much water result in a low yield for the shallow FWBZ at OU-5/FISCA IR-02. Therefore, insufficient water is available for extraction and a sustained yield for drinking water use is not possible.
- The high TDS (average of 16,075 mg/L) as a result of saltwater intrusion and high naturally occurring sulfates, iron, and alkalinity, as described below, make the naturally occurring shallow groundwater quality at OU-5/FISCA IR-02 unusable for potable water and unsuitable for any use.
    - The average OU-5/FISCA IR-02 shallow FWBZ TDS concentration in the groundwater of 16,075 mg/L significantly exceeds State of California and EPA criteria for drinking water. In addition, the TDS in the shallow groundwater exceeds acceptable levels for crop irrigation or livestock watering (i.e., below 5,000 mg/L) or landscape watering (i.e., below 2,000 mg/L). Industrial supply is not a potential beneficial use of the OU-5 FISCA IR-02 shallow FWBZ groundwater due to TDS concentrations greater than 1,000 mg/L.
    - For sulfates, concentrations should be below 250 mg/L to avoid laxative effects. OU-5/FISCA IR-02 sulfate concentrations are up to 2,780 mg/L.
    - For iron, a concentration of 0.3 mg/L is considered acceptable for domestic use. OU-5/FISCA IR-02 iron concentrations are up to 10 mg/L.
    - For alkalinity, the recommended range for potable water is between 30 and 400 mg/L. OU-5/FISCA IR-02 alkalinity concentrations are up to 4,250 mg/L.

Separate from the assessment of extensive data for OU-5/FISCA IR-02 shallow groundwater that shows there is no unacceptable risk and there is not sufficient shallow groundwater to extract, a number of other site-specific factors provide further protectiveness and are briefly summarized below.

Dissolved benzene and naphthalene concentrations are located at the bottom of the shallow FWBZ, adjacent to the Marsh Crust. This provides further protectiveness because the dissolved benzene and, to a lesser degree naphthalene, are typically present at the top of the water table, which provides more of a potential for migration of vapors and vapor intrusion. Stratification with the

high concentrations at approximately 18 feet bgs significantly minimizes the potential for any vapor intrusion concerns.

Clays are present in the OU-5/FISCA IR-02 area above the Marsh Crust in most areas. This provides further protectiveness because the clays restrict potential vapor migration.

If any small quantity of shallow groundwater were extractable, the OU-5/FISCA IR-02 shallow groundwater does not meet standards for industrial or irrigation use due to naturally occurring constituents resulting from salt water intrusion. As summarized in Section1.3.1, in addition to insufficient fill thickness/insufficient yield for potable or industrial supply well installation, very high TDS, sulfates, iron, and alkalinity make OU-5/FISCA IR-02 groundwater unsuitable for any use.

Within the OU-5/FISCA IR-02 area of current residential and school uses, water for all uses is supplied by a utility company from off-site sources. EBMUD has historically provided the water supply, currently provides it, and is expected to continue to provide the water service in the future.

City of Alameda regulations, Alameda County regulations, and State of California regulations prohibit intrusive activities and specifically prohibit well installation in the shallow, FWBZ groundwater. OU-5/FISCA IR-02 is located within the area regulated by the City of Alameda's Marsh Crust Ordinance No. 2824. This Ordinance prohibits excavations and intrusive activities, and drilling is one type of intrusive activity. In addition, drilling of wells in the saline shallow FWBZ is prohibited by Alameda County Title 6 Chapter 6.88, "Water Wells" and by "Water Well Standards: State of California"(Bulletin No. 74) and "Cathodic Protection Well Standards: State of California" (Bulletin No. 74-1). These existing regulations provide further assuredness that the no further action remedy is protective.

No land-use restrictions, environmental monitoring, RCRA corrective actions, or other actions are required for groundwater at this site. Nonetheless, one more round of groundwater sampling at OU-5/FISCA IR-02 will be completed under the Basewide Groundwater Monitoring Program, and the results will be included in the next Basewide Five-Year Review report.

2.8 Community Participation

A Community Relations Plan for Alameda Point was developed to document interests, issues, and concerns raised by the community regarding ongoing investigation and cleanup activities and to describe a specific program designed to address these issues and concerns. The initial plan for Alameda Point was prepared in February 1989 and was revised most recently in 2013. The revisions incorporate the most recent assessment of community issues, concerns, and informational needs related to the ongoing environmental investigation and remediation program at Alameda Point.

As described in further detail below, public participation and documentation procedures have been followed for this ROD amendment as specified in CERCLA Section 117 and 40 CFR, Section 300.435(c)(2)(ii). Community participation in the environmental investigation and remediation program at Alameda Point and FISCA has been encouraged through the formation of the RAB, public mailings, and specific community participation efforts related to OU-5/FISCA IR-02 as discussed below.

2.8.1 Restoration Advisory Board

The Alameda Point RAB was established in 1993. Original membership in the board was solicited by the DON through newspaper notices and included business and homeowner representatives, residents, local elected officials, and regulatory agency staff.

The RAB currently consists of members of the DON, the community, and regulatory agencies. The RAB meetings are open to the public. Meetings are held in the evenings after normal working hours on the second Thursday of every other month at Building 1, Room 140, at 950 West Mall Square at Alameda Point. RAB members also review and comment on technical documents.

During the monthly RAB meetings, the DON and regulators report information to the RAB members about OU-5/FISCA IR-02, including the availability of site documents. Copies of the RAB meeting minutes and documents describing environmental investigations and removal actions are available at the following Alameda Point information repository and Administrative Record file locations:

Alameda Point Information Repository 950 West Mall Square Building 1, Room 240 Alameda, California 94501	Administrative Record Naval Facilities Engineering Command, Southwest 2965 Mole Road, NBSD Building 3519 San Diego, CA 92136

The Alameda public library also will maintain new DON environmental documents during review periods. The Alameda public library is located at 1550 Oak Street, Alameda, CA 94501. RAB meeting minutes and upcoming RAB meeting agendas also are available at the **DON BRAC Program Management Office website** at www.bracpmo.navy.mil.

2.8.2 Public Mailings

Public mailings, including information updates, fact sheets, and Proposed Plans, have been used to ensure a broad distribution of information throughout the local community. Since March 1990, information updates announcing the program process at OU-5/FISCA IR-02 have been delivered to residents living near Alameda Point and FISCA and mailed to city, state, and federal officials; agencies; local groups; and individuals identified in the Community Relations Plan. Updates and fact sheets have included information concerning the following:

- Status of environmental investigations
- Removal action activities
- Remedy selection process
- Opportunities for the public to participate in investigation and remediation efforts
- History and geology of the area
- Access to the Administrative Record for Alameda Point

Proposed Plans provide an overview of environmental investigation results (including HHRA and ERA results), present remedial alternatives for a site or group of sites, and describe the preferred alternative. The updates, fact sheets, and Proposed Plans are mailed to between 400 and 1,400 households, businesses, public officials, and agencies in an effort to reach community members. The public documents related to OU-5/FISCA IR-02 are summarized in Table 11.

2.8.3 Community Participation for OU-5/FISCA IR-02

As discussed in Sections 2.8.1 and 2.8.2, the DON conducts multiple community participation activities. Key reports related to OU-5/FISCA IR-02 that were provided to the community follow. The RI/FS report was finalized in October 2004. The Proposed Plan was released to the public in March 2006. The final ROD was released to the public in August 2007. The DON issued the final RD/RAWP in October 2008. In December 2012, the DON issued the OU-5/FISCA IR-02 Technical Memorandum. In May 2014, the DON released to the public a Proposed Plan outlining no further action for groundwater as detailed in this amendment to the OU-5/FISCA IR-02 ROD and solicited public input on this remedy.

TABLE 11: SUMMARY OF ALAMEDA POINT FACT SHEETS, NEWSLETTERS, AND PROPOSED PLANS RELATED TO OU-5/FISCA IR-02

Reference	Title
DON 1990a	Fact Sheet 1: Remedial Investigation/Feasibility Study Update
DON 1990b	Fact Sheet 2: Remedial Investigation/Feasibility Study Update
DON 1991	Fact Sheet 3: Remedial Investigation/Feasibility Study Update
DON 1993	Fact Sheet 4: Installation Restoration Program Update
DON 1995	Fact Sheet 5: BRAC Cleanup Plan
DON 1996	Fact Sheet 7: History and Geology
DON 2003	Alameda Point Focus Environmental July 2003 Newsletter
DON 2004	Newsletter Regarding the Navy's Environmental Activities at Alameda Point
DON 2005	Alameda Point Focus, Environmental February 2005 Newsletter
DON 2006a	Alameda Point Focus, Environmental Fall 2005/Winter 2006 Newsletter
DON 2006b	Proposed Plan for Operable Unit 5/IR-02 Groundwater, Former NAS Alameda and Alameda Annex (FISCA)
DON 2007b	Alameda Point Focus, Environmental Fall 2006/Winter 2007 Newsletter
DON 2007c	Alameda Point Focus, Environmental Fall 2007 Newsletter
DON 2008	OU-5/FISCA IR-02 Remedial Action Fact Sheet
DON 2010	Alameda Point Focus, Environmental Summer 2010 Newsletter
DON 2011	Fact Sheet - Five-Year Review of Alameda Point and Fleet and Industrial Supply Center Oakland, Alameda Facility/Alameda Annex
DON 2012	Alameda Point Focus, Environmental Spring 2012 Newsletter
DON 2013	Alameda Point Focus, Environmental Spring 2013 Newsletter
DON 2014	Proposed Plan for Alameda Point Operable Unit 5/FISCA IR-02 Groundwater, Alameda

These documents are available to the public at the information repository maintained at Alameda Point and in the Administrative Record file maintained at the Naval Facilities Engineering Command, Southwest, in San Diego, California. The information repository also contains a complete index of the Administrative Record file.

A 30-day public comment period for the OU-5/FISCA IR-02 Proposed Plan describing this ROD amendment extended from May 5 through June 5, 2014. In addition, a public meeting was held on May 20, 2014. A notice of the public comment period and public meeting was published in the *Alameda Journal*, *Alameda Sun*, and *East Bay Express* newspapers.

At the May 20, 2014, public meeting, the BRAC Environmental Coordinator and Remedial Project Manager were available to discuss OU-5/FISCA IR-02 and describe the selected remedy. Representatives from the DON and environmental regulatory agencies also were available to answer questions. A court reporter prepared a transcript of the meeting. No public comments on the OU-5/FISCA IR-02 Proposed Plan were received during the public comment period.

3 Responsiveness Summary

The participants at the public meeting held on May 21, 2014, included representatives of the public, DON, EPA, DTSC, and Water Board. The **meeting transcript** is included as part of this ROD amendment. Because no public comments were received, responses to comments are not included in a Responsiveness Summary as part of this ROD amendment.

Item	Reference Phrase in ROD[a]	Location in ROD	Referenced Document Available in the Administrative Record
1	**Administrative Record file**	Section 1.2	Alameda Point Information Repository 950 West Mall Square Building 1, Room 240 Alameda, CA 94501 Administrative Record Naval Facilities Engineering Command, Southwest 2965 Mole Road, NBSD Building 3519 San Diego, CA 92136
2	**cancer risks for residential use based on the soil gas data**	Section 1.3.1	Final OU-5 Remedial Investigation, Alameda Point. Section 5.9.2.2, Page 5-40; Section 5.9.3.2, Page 5-43; and Tables 5-52 through 5-57. Neptune and others. 2002.
3	**risk using soil gas data**	Section 1.3.1	Final Groundwater Remedial Investigation/Feasibility Study, Alameda Point Site 25/Alameda Annex IR-02. Section 6, Pages 6-4 and 6-5, and Section 10, Page 10-1. Engineering/Remediation Resources Group, Inc. (ERRG). 2004.
4	**Marsh Crust**	Section 1.3.1	Final Remedial Design/Remedial Action Work Plan, OU-5/IR-02 Groundwater, Revision 2. Section 3.4, Pages 3-8 through 3-10. TtEC. 2010.
5	**treatment system**	Sections 1.3.1 and 2.3.2	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 2.8, Page 11, Figure 1. TtEC. 2012.
6	**pre-treatment concentrations**	Section 1.3.1	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 3, Pages 11 and 15, and Section 5, Pages 18 through 32. TtEC. 2012.
7	**2012 risk assessment**	Section 1.3.1	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Appendix C, including figures and tables. TtEC. 2012.
8	**benzene concentrations in crawl spaces**	Section 1.3.1	Residential Risk Evaluation for U.S. Coast Guard Housing, Alameda, California. Page 9. Tetra Tech EM Inc. (TtEM). 2002.
9	**completeness and significance of the vapor intrusion exposure pathway**	Section 1.3.1	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Sections 5.2.1.2 through 6.0, Pages 23 through 34. TtEC. 2012.

Item	Reference Phrase in ROD[a]	Location in ROD	Referenced Document Available in the Administrative Record[1]
10	**sub-slab soil gas and indoor and outdoor air sampling**	Section 1.3.1	Alameda OU-5/IR-02 Subsurface and Indoor Air Data Correspondence. U.S. Environmental Protection Agency (EPA). December 13, 2013.
11	**former NAS Alameda, now referred to as Alameda Point**	Section 2.1	Final Groundwater Remedial Investigation/Feasibility Study, Alameda Point Site 25/Alameda Annex IR-02. Section 1, Page 1-1. ERRG. 2004.
12	**former FISCA**	Section 2.1	Final Groundwater Remedial Investigation/Feasibility Study, Alameda Point Site 25/Alameda Annex IR-02. Section 1, Page 1-1. ERRG. 2004.
13	**key features at the site**	Section 2.1	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Sections 2.1 and 2.2, Page 5-6, Figure 1. TtEC. 2012.
14	**Plume boundaries**	Section 2.1	August 2013 Analytical Results for OU-5/FISCA IR-02 Groundwater, Alameda Point and FISCA, Alameda, California. Figure 2. Department of Navy (DON). 2013.
15	**geology**	Section 2.2	Final Technical, Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 2.3, Page 6, Figures 2 through 9. TtEC. 2012.
16	**Surface and near-surface soil**	Section 2.2	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 2.3, Page 6, Figures 2 through 9. TtEC. 2012.
17	**Bay Sediment Unit (BSU)**	Section 2.2	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 2.3, Page 6. TtEC. 2012.
18	**hydrogeology**	Section 2.2	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 2.4, Pages 6 and 7, Figures 2 through 9. TtEC. 2012.
19	**2007 ROD**	Section 2.3.2	Final Record of Decision, OU-5/IR-02 Groundwater. Section Declaration, Page D-2; Section 2.2.1, Page 2-4; and Section 5.3, Pages 5-4 through 5-6. Tetra Tech EC, Inc. (TtEC). 2007.
20	**passive soil gas survey**	Section 2.3.2	Final Remedial Design/Remedial Action Work Plan, OU-5/IR-02 Groundwater. Section 3.2, Page 3-2, Figure 3-2, Figure 3-3, Appendix A, and Appendix B. TtEC. 2010.
21	**soil and groundwater samples**	Section 2.3.2	Final Remedial Design/Remedial Action Work Plan, OU-5/IR-02 Groundwater, Revision 2. Section 3.3, Pages 3-3 through 3-8, Figure 3-8. TtEC. 2010.
22	**Groundwater monitoring results**	Section 2.3.2	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 3, Page 11, Attachment 2. TtEC. 2012.

Item	Reference Phrase in ROD[a]	Location in ROD	Referenced Document Available in the Administrative Record[1]
23	**Final Quality Assurance Project Plan**	Section 2.3.2	Final Quality Assurance Project Plan for Sampling and Analysis of Indoor Air, Outdoor Air, and Sub-Slab Gas, Alameda Point Operable Unit 5/Installation Restoration Site 2, Alameda, California. Pages 14 through 20. EPA. September 19, 2013.
24	**Alameda Point General Plan Amendment**	Section 2.4	Alameda Point General Plan Amendment. City of Alameda. May 2003.
25	**criteria for a potential drinking water source**	Section 2.4	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 4.3, Page 18. TtEC. 2012.
26	**CSM**	Section 2.5	Final Remedial Design/Remedial Action Work Plan, OU-5/IR-02 Groundwater, Revision 2. Section 3.8, Page 3-14. TtEC. 2010.
27	**2004 RI/FS baseline HHRA**	Section 2.5.1	Final Groundwater Remedial Investigation/Feasibility Study, Alameda Point Site 25/Alameda Annex IR-02. Section 6, Pages 6-1 through 6-9. ERRG. 2004.
28	**For 30-year exposure, the residential risk**	Section 2.5.1	Residential Risk Evaluation for U.S. Coast Guard Housing. Appendix A, Tables A-11 and A-18. TEM. 2002.
29	**cancer risks for residential use based on the soil gas data**	Section 2.5.1	Final OU-5 Remedial Investigation, Alameda Point. Section 5.9.2.2, Page 5-40, Section 5.9.3.2, Page 5-43, Tables 5-52 to 5-57. Neptune and others. 2002.
30	**vapor migration model**	Section 2.5.1	Johnson and Ettinger Models. On-line Address: www.epa.gov/oswer/riskassessment/airmodel/johnson_ettinger.htm. EPA. 2013.
31	**groundwater as the potential source of indoor air vapors**	Section 2.5.1	Final Soil Remedial Investigation Report, IR Site 30. Appendix I, Tables I6-1 and I6-2 for groundwater. Bechtel Environmental, Inc. 2005.
32	**For groundwater, the total RME residential cancer risk**	Section 2.5.1	Final Soil Remedial Investigation Report, IR Site 31 Marina Village Housing. Appendix I, Tables I6-1 and I6-2 for groundwater. CDM Federal Programs Corporation. 2007.
33	**HHRA of potential vapor intrusion**	Section 2.5.1	Final Groundwater Remedial Investigation/Feasibility Study, Alameda Point Site 25/Alameda Annex IR-02. Section 6, Pages 6-1 through 6-9. ERRG. 2004.
34	**DTSC attenuation factor for existing residential buildings**	Section 2.5.1	Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air. Table 2, Appendix B, Page B-1. DTSC. 2011.
35	**DTSC toxicity criteria**	Section 2.5.1	Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air. Appendix C, Pages C-2 through C-5. DTSC. 2011.

Item	Reference Phrase in ROD[a]	Location in ROD	Referenced Document Available in the Administrative Record
36	**slab-on-grade residential structure**	Section 2.5.1	Johnson and Ettinger Models. On-line Address: www.oehha.ca.gov/tcdb/index.asp. DTSC. 2012.
37	**groundwater concentrations at the water table dictate the volatilization of dissolved constituents out of the liquid phase and into soil gas**	Section 2.5.1	Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air. Pages 1 and 9. DTSC. 2011.
38	**IRIS toxicity criteria**	Section 2.5.1	Integrated Risk Information System database. Available at http://www.epa.gov/iris
39	**DON BRAC Program Management Office website**	Section 2.8.1	www.bracpmo.navy.mil
40	**meeting transcript**	Section 3	Public Meeting, Alameda Point Public Library, May 20, 2014.

Note:

a **Bold blue text** is hyperlinked to detailed site information available on the ROD amendment's reference CD that also is contained in the publicly available Administrative Record. For access to information contained in the Administrative Record for Former NAS Alameda, please contact the following:

Administrative Record
Naval Facilities Engineering Command, Southwest
Attn: Ms. Diane Silva
2965 Mole Road
NBSD Building 3519
San Diego, CA 92136
Telephone No.: (619) 532-3676

ALAMEDA POINT

DRAFT ENVIRONMENTAL RESTORATION RECORD PUBLIC / IR INDEX - UPDATE (SORTED BY RECORD DATE/RECORD NUMBER)

ADMINISTRATIVE RECORD INDEX FOR OU 5 AND SITES 25, 30 AND 31

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_000696 MINUTES 10	**04-21-1998**	TETRA TECH EM, INC.	21 APRIL 1998 TRACKING MEETING MINUTES FOR ENVIRONMENTAL ACTIONS	YES	OU 0000001 SITE 00025
AR_N00236_001563 REPORT 148	**10-01-1998**	TETRA TECH EM, INC.	FINAL FIELD SAMPLING PLAN GROUNDWATER INVESTIGATION AND REMEDIAL INVESTIGATION	YES	SITE 00014 SITE 00025
AR_N00236_000343 REPORT 109	**01-29-1999**	TETRA TECH EM, INC.	DATA SUMMARY REPORT REMEDIAL INVESTIGATION (INCLUDES NAVFAC EFAW TRANSMITTAL LETTER, SER 612.6/9083)	YES	SITE 00025
AR_N00236_001680 MINUTES 71	**07-06-1999**	NAVFAC - EFA WEST	06 JULY 1999 DRAFT RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA, HANDOUTS AND SIGN-IN SHEETS)	YES	BLDG 0000005 BLDG 0000400 OU 0000001 OU 0000002 OU 0000003 OU 0000004 SITE 00001 SITE 00002 SITE 00006 SITE 00007 SITE 00008 SITE 00015 SITE 00016 SITE 00017 SITE 00025

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_001679 MINUTES 29	**08-03-1999**	NAVFAC - EFA WEST	03 AUGUST 1999 RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA, HANDOUTS AND SIGN-IN SHEETS)	YES	BLDG 0000005 BLDG 0000014 BLDG 0000162 BLDG 0000360 BLDG 0000400 BLDG 0000410 OU 0000001 OU 0000002 OU 0000003 OU 0000004 SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00009 SITE 00010 SITE 00011 SITE 00012 SITE 00013 SITE 00014 SITE 00017 SITE 00019 SITE 00020 SITE 00021 SITE 00022 SITE 00023 SITE 00024

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					SITE 00025
AR_N00236_001678 MINUTES 85	**09-07-1999**	NAVFAC - WESTERN DIVISION	07 SEPTEMBER 1999 DRAFT RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA, SIGN-IN SHEETS AND VARIOUS HANDOUT MATERIALS)	YES	BLDG 0000005 BLDG 0000014 BLDG 0000400 BLDG 0000410 BLDG 0000530 OU 0000002 SITE 00003 SITE 00004 SITE 00005 SITE 00009 SITE 00010 SITE 00011 SITE 00012 SITE 00013 SITE 00014 SITE 00015 SITE 00019 SITE 00021 SITE 00022 SITE 00023 SITE 00025

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_001676 MINUTES 43	**11-11-1999**	NAVFAC - SOUTHWEST DIVISION	11 NOVEMBER 1999 DRAFT RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA, VARIOUS HANDOUTS AND SIGN-IN SHEETS)	YES	BLDG 0000005 BLDG 0000400 OU 0000001 OU 0000002 OU 0000003 OU 0000004 SITE 00001 SITE 00002 SITE 00004 SITE 00006 SITE 00007 SITE 00008 SITE 00010 SITE 00012 SITE 00015 SITE 00016 SITE 00017 SITE 00018 SITE 00020 SITE 00024 SITE 00025

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_000511 MINUTES 26	**01-04-2000**	TETRA TECH EM, INC.	04 JANUARY 2000 RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA, SIGN-IN SHEETS AND VARIOUS HANDOUTS)	YES	BLDG 0000400 OU 0000001 OU 0000002 OU 0000003 OU 0000004 SITE 00001 SITE 00002 SITE 00005 SITE 00010 SITE 00014 SITE 00025
AR_N00236_000512 MINUTES 81	**02-01-2000**	TETRA TECH EM, INC.	01 FEBRUARY 2000 RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA, SIGN-IN SHEETS AND VARIOUS HANDOUTS)	YES	OU 0000002 OU 0000003 OU 0000004 SITE 00001 SITE 00025
AR_N00236_000515 MINUTES 14	**03-07-2000**	TETRA TECH EM, INC.	07 MARCH 2000 RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY	YES	OU 0000001 OU 0000002 OU 0000003 OU 0000004 SITE 00025

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_000554 MINUTES 11	**05-02-2000**	TETRA TECH EM, INC.	06 JUNE 2000 RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY	YES	OU 0000001 OU 0000002 OU 0000003 OU 0000004 SITE 00006 SITE 00014 SITE 00015 SITE 00016 SITE 00025
AR_N00236_000560 MINUTES 9	**06-06-2000**	TETRA TECH EM, INC.	06 JUNE 2000 RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY	YES	OU 0000001 OU 0000002 OU 0000004 SITE 00001 SITE 00025
AR_N00236_000568 MINUTES 12	**07-11-2000**	TETRA TECH EM, INC.	11 JULY 2000 RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY	YES	OU 0000002 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004 OU 0000005 SITE 00015 SITE 00023 SITE 00025

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_000003 CORRESPONDENCE 9	**07-19-2000**	ARC ECOLOGY	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL ACTION PLAN/RECORD OF DECISION AND THE PROPOSED PLAN FOR THE MARSH CRUST AND GROUNDWATER (FISC-ALAMEDA ANNEX) AND FOR THE MARSH CRUST AND FORMER SUBTIDAL AREA (ALAMEDA POINT)	YES	SITE 00025
AR_N00236_000590 MINUTES 19	**10-03-2000**	TETRA TECH EM, INC.	03 OCTOBER 2000 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES	YES	OU 0000001 OU 0000002 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004 OU 0000005 OU 0000007 SITE 00001 SITE 00002 SITE 00005 SITE 00007 SITE 00013 SITE 00025
AR_N00236_000027 CORRESPONDENCE 17	**10-20-2000**	NAVFAC - SOUTHWEST DIVISION	ACTION MEMORANDUM FOR TIME-CRITICAL REMOVAL OF POLYNUCLEAR AROMATIC HYDROCARBONS-CONTAMINATED SOIL AT THE CLOWN PARK PLAY AREA [INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER, SER 06CA.RW/870]	YES	OU 0000005 SITE 00025

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_000051 CORRESPONDENCE 3	**11-01-2000**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE ACTION MEMORANDUM FOR TIME-CRITICAL REMOVAL ACTION OF PAH-CONTAMINATED SOIL AT CLOWN PARK PLAY AREA	YES	OU 0000005 SITE 00025
AR_N00236_000052 CORRESPONDENCE 3	**12-20-2000**	NAVFAC - SOUTHWEST DIVISION	RESPONSE TO COMMENTS ON THE ACTION MEMORANDUM FOR TIME-CRITICAL REMOVAL ACTION OF POLYNUCLEAR AROMATIC HYDROCARBONS-CONTAMINATED SOIL AT THE CLOWN PARK PLAY AREA	YES	OU 0000005 SITE 00025
AR_N00236_000593 MINUTES 10	**01-02-2001**	NAVFAC - EFA WEST	02 JANUARY 2001 RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY	YES	OU 0000001 OU 0000003 OU 0000004 SITE 00002 SITE 00015 SITE 00025
AR_N00236_000595 MINUTES 8	**03-06-2001**	TETRA TECH EM, INC.	06 MARCH 2004 RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY	YES	PARCEL 0125 PARCEL 0178 SITE 00005 SITE 00025
AR_N00236_000073 CORRESPONDENCE 10	**03-20-2001**	U.S. EPA - SAN FRANCISCO, CA	PRELIMINARY REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION WORK PLAN	YES	OU 0000005 SITE 00025

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_003581 REPORT 500	**03-28-2001**	IT CORPORATION	WORK PLAN FOR ADDENDUM ACTIVITIES (PARCELS AND THE NORTH VILLAGE HOUSING AREA) [SEE RECORD # 56 - DRAFT REMEDIAL INVESTIGATION WORK PLAN]	NO	OU 0000005 PARCEL 0098 PARCEL 0099 PARCEL 0100 PARCEL 0103 PARCEL 0178 PARCEL 0179 PARCEL 0180
AR_N00236_000596 MINUTES 19	**04-03-2001**	TETRA TECH EM, INC.	03 APRIL 2001 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES MEETING AGENDA AND SIGN-IN SHEETS)	YES	OU 0000001 OU 0000002 OU 0000004 SITE 00014 SITE 00015 SITE 00017 SITE 00024 SITE 00025
AR_N00236_000082 CORRESPONDENCE 8	**04-04-2001**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION WORK PLAN	YES	OU 0000005 SITE 00025
AR_N00236_000083 CORRESPONDENCE 10	**04-05-2001**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION WORK PLAN	YES	OU 0000005 SITE 00025
AR_N00236_000395 CORRESPONDENCE 7	**04-10-2001**	DTSC - BERKELEY, CA	SUPPLEMENTAL COMMENTS BY THE HUMAN AND ECOLOGICAL RISK DIVISION ON THE DRAFT REMEDIAL INVESTIGATION WORK PLAN	YES	OU 0000005 SITE 00025

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_000604 MINUTES 13	**05-01-2001**	TETRA TECH EM, INC.	01 MAY 2001 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES MEETING AGENDA AND SIGN-IN SHEETS)	YES	OU 0000001 OU 0000002 OU 0000003 OU 0000004 OU 0000004A SITE 00025
AR_N00236_000393 CORRESPONDENCE 4	**05-11-2001**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT FINAL REMEDIAL INVESTIGATION WORK PLAN	YES	OU 0000005 SITE 00025
AR_N00236_000100 REPORT 647	**06-04-2001**	NEPTUNE AND COMPANY, INC.	FINAL REMEDIAL INVESTIGATION WORK PLAN (INCLUDES RESPONSES TO COMMENTS AND NAVFAC SWDIV TRANSMITTAL LETTERS)	YES	"PERCHLORATE " SEARCH - ROUND 1 OU 0000005 SITE 00025
AR_N00236_000225 CORRESPONDENCE 12	**07-24-2001**	IT CORPORATION	RESPONSE TO COMMENTS ON THE CHEMICAL OXIDATION TREATABILITY STUDY	YES	OU 0000005
AR_N00236_000224 REPORT 293	**08-03-2001**	IT CORPORATION	FINAL WORK PLAN - CHEMICAL OXIDATION TREATABILITY STUDY	YES	OU 0000005
AR_N00236_000607 MINUTES 42	**08-07-2001**	TETRA TECH EM, INC.	07 AUGUST 2001 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INLCUDES AGENDA, SIGN-IN SHEETS, AND VARIOUS HANDOUTS)	YES	SITE 00025 SITE 00026

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_000240 REPORT 47	**08-30-2001**	TETRA TECH EM, INC.	STORM SEWER STUDY - TECHNICAL MEMORANDUM ADDENDUM AND RESPONSE TO AGENCY COMMENTS {SEE RECORD # 7 - DRAFT FINAL STORM SEWER STUDY REPORT ADDENDUM AND # 42 - DRAFT FINAL STORM SEWER STUDY REPORT}	YES	OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000005 SITE 00018
AR_N00236_000249 CORRESPONDENCE 3	**09-27-2001**	NAVFAC - SOUTHWEST DIVISION	REQUEST FOR DTSC TO IDENTIFY POTENTIAL APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS FOR A PROPOSED TIME CRITICAL REMOVAL ACTION FOR POLYNUCLEAR AROMATIC HYDROCARBONS CONTAMINATED SOIL, COAST GUARD HOUSING	YES	SITE 00025
AR_N00236_000609 MINUTES 14	**10-02-2001**	TETRA TECH EM, INC.	02 OCTOBER 2001 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES MEETING AGENDA AND SIGN-IN SHEETS)	YES	OU 0000001 OU 0000002 OU 0000003 OU 0000004 OU 0000005
AR_N00236_000297 REPORT 630	**11-26-2001**	FOSTER WHEELER ENVIRONMENTAL CORPORATION	FINAL REMOVAL ACTION WORK PLAN CERCLA TIME CRITICAL REMOVAL ACTION (SEE RECORD # 360 - DRAFT ADDENDUM AND # 363 - FINAL ADDENDUM)	YES	OU 0000005 SITE 00025
AR_N00236_000611 MINUTES 11	**12-04-2001**	TETRA TECH EM, INC.	04 DECEMBER 2001 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES MEETING AGENDA AND SIGN-IN SHEETS)	YES	SITE 00005 SITE 00025

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AR_N00236_000612 MINUTES 47	**01-08-2002**	TETRA TECH EM, INC.	08 JANUARY 2002 DRAFT RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES MEETING AGENDA, SIGN-IN SHEETS, AND VARIOUS HANDOUTS)	YES	BLDG 0000195 SITE 00005 SITE 00014 SITE 00015 SITE 00025
AR_N00236_000317 REPORT 68	**01-18-2002**	FOSTER WHEELER ENVIRONMENTAL CORPORATION	FINAL ACTION MEMORANDUM, COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA) TIME-CRITICAL REMOVAL ACTION [SEE RECORD # 425 AND RECORD # 397 - FINAL ACTION MEMORANDUM ADDENDUM]	YES	OU 0000005 SITE 00025
AR_N00236_000329 PUBLIC NOTICE 2	**01-21-2002**	ALAMEDA TIMES-STAR - ALAMEDA, CA	PUBLIC NOTICE: NOTICE OF AVAILABILITY AND PUBLIC COMMENT PERIOD ON THE ACTION MEMORANDUM FOR CERCLA TIME-CRITICAL REMOVAL ACTION	YES	SITE 00025
AR_N00236_000330 PUBLIC NOTICE 2	**01-21-2002**	OAKLAND TRIBUNE - OAKLAND, CA	PUBLIC NOTICE: NOTICE OF AVAILABILITY AND PUBLIC COMMENT PERIOD ON THE ACTION MEMORANDUM FOR COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA) TIME-CRITICAL REMOVAL ACTION	YES	SITE 00025

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AR_N00236_000354 CORRESPONDENCE 9	**01-28-2002**	CRWQCB - OAKLAND, CA	REVIEW AND COMMENTS ON THE DRAFT WORK PLAN FOR BASEWIDE GROUNDWATER MONITORING PROGRAM	YES	BLDG 0000410 OU 0000001 SITE 00004 SITE 00005 SITE 00008 SITE 00009 SITE 00016 SITE 00025 SITE 00026 SITE 00027 UST 0000608-1
AR_N00236_000616 MINUTES 32	**02-05-2002**	TETRA TECH EM, INC.	05 FEBRARY 2002 DRAFT RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES MEETING AGENDA, SIGN-IN SHEETS, AND VARIOUS HANDOUTS)	YES	BLDG 0000162 OU 0000005 SITE 00025 SITE 00026
AR_N00236_000355 CORRESPONDENCE 1	**02-25-2002**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND CONCURRENCE ON THE ACTION MEMORANDUM FOR TIME-CRITICAL REMOVAL ACTION	YES	OU 0000005 SITE 00025
AR_N00236_000443 CORRESPONDENCE 5	**03-01-2002**	ARC ECOLOGY	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION REPORT	YES	OU 0000005 SITE 00025

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AR_N00236_000380 CORRESPONDENCE 7	**03-19-2002**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION REPORT	YES	OU 0000005 PARCEL 0178 PARCEL 0181 PARCEL 0182 SITE 00025
AR_N00236_000425 REPORT 41	**03-29-2002**	FOSTER WHEELER ENVIRONMENTAL CORPORATION	FINAL ACTION MEMORANDUM ADDENDUM COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA) TIME-CRITICAL REMOVAL ACTION [SEE RECORD # 317 - FINAL ACTION MEMORANDUM]	YES	OU 0000005 PARCEL 0181 PARCEL 0182 PARCEL 0183 SITE 00025
AR_N00236_000619 MINUTES 40	**04-02-2002**	TETRA TECH EM, INC.	02 APRIL 2002 DRAFT RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES MEETING AGENDA, SIGN-IN SHEETS, AND VARIOUS HANDOUTS)	YES	BLDG 0000397 SITE 00025
AR_N00236_000359 CORRESPONDENCE 32	**04-08-2002**	NAVFAC - SOUTHWEST DIVISION	RESPONSES TO COMMENTS ON THE DRAFT ENGINEERING EVALUATION AND COST ANALYSIS FOR THE NON-TIME CRITICAL LEAD REMOVAL ACTION AT THE WATER TOWER AND ANTENNA SITES	YES	OU 0000001 OU 0000002 OU 0000003 OU 0000004 OU 0000005 OU 0000006 PARCEL 0079 PARCEL 0098 PARCEL 0105 PARCEL 0106 PARCEL 0107

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_000363 REPORT 265	**04-19-2002**	FOSTER WHEELER ENVIRONMENTAL CORPORATION	FINAL ADDENDUM TO THE REMOVAL ACTION WORK PLAN, CERCLA TIME-CRITICAL REMOVAL ACTION (INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER) [SEE RECORD # 297 - REMOVAL ACTION WORK PLAN AND # 360 - DRAFT ADDENDUM]	YES	SITE 00025
AR_N00236_000392 CORRESPONDENCE 10	**04-22-2002**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION REPORT (INCLUDES GSU COMMENTS DATED 05 APRIL 2002)	YES	OU 0000005 PARCEL 0181 PARCEL 0182 PARCEL 0183 SITE 00025
AR_N00236_000620 MINUTES 31	**05-01-2002**	TETRA TECH EM, INC.	01 MAY 2002 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES MEETING AGENDA, SIGN-IN SHEETS, AND VARIOUS HANDOUTS)	YES	OU 0000001 OU 0000002 OU 0000003 OU 0000004A OU 0000005 SITE 00026
AR_N00236_000366 REPORT 143	**05-14-2002**	FOSTER WHEELER ENVIRONMENTAL CORPORATION	AMBIENT AIR SAMPLING	YES	SITE 00025
AR_N00236_000391 CORRESPONDENCE 8	**05-31-2002**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION REPORT - BASELINE HEALTH RISK ASSESSMENT	YES	OU 0000005 PARCEL 0180 PARCEL 0181 PARCEL 0182 PARCEL 0183 SITE 00025

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_000367 CORRESPONDENCE 35	**06-14-2002**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF DRAFT SITE MANAGEMENT PLAN AMENDMENT (W/ ENCLOSURE)	YES	AREA 00001 AREA 00002 AREA 00003 OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000004B OU 0000004C OU 0000005 OU 0000006 SITE 00001 SITE 00002 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00013 SITE 00014 SITE 00015 SITE 00016 SITE 00017 SITE 00019 SITE 00020 SITE 00022 SITE 00023

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					SITE 00024 SITE 00025 SITE 00026 SITE 00027 SITE 00028 SITE 00029
AR_N00236_000622 MINUTES 12	**07-02-2002**	TETRA TECH EM, INC.	02 JULY 2002 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES MEETING AGENDA, SIGN-IN SHEETS, AND VARIOUS HANDOUTS)	YES	CAA 000006 CAA 000007 CAA 000013 SITE 00025
AR_N00236_003582 CORRESPONDENCE 1	**07-12-2002**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE DRAFT FINAL REMEDIAL INVESTIGATION REPORT (ENCLOSURE IS RECORD # 3583)	NO	OU 0000005

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AR_N00236_000405 CORRESPONDENCE 20	**07-18-2002**	TETRA TECH EM, INC.	RESPONSES TO COMMENTS ON THE DRAFT ACTION MEMORANDUM NON-TIME CRITICAL REMOVAL ACTION LEAD IN SOIL AND LEAD BASED PAINT (INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER)	YES	BLDG 0000023 BLDG 0000024 BLDG 0000073B OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000004B OU 0000004C OU 0000005 OU 0000006 PARCEL 0079 PARCEL 0098 PARCEL 0105 PARCEL 0106 PARCEL 0107 SITE 00008
AR_N00236_000397 REPORT 44	**07-24-2002**	FOSTER WHEELER ENVIRONMENTAL CORPORATION	FINAL ACTION MEMORANDUM ADDENDUM COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA) TIME-CRITICAL REMOVAL ACTION (INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER) [SEE RECORD # 317 - FINAL ACTION MEMORANDUM]	YES	OU 0000005 SITE 00025
AR_N00236_000407 PUBLIC NOTICE 2	**08-05-2002**	ALAMEDA TIMES-STAR - ALAMEDA, CA	PUBLIC NOTICE OF AVAILABILITY AND PUBLIC COMMENT PERIOD ON THE ACTION MEMORANDUM ADDENDUM FOR CERCLA TIME-CRITICAL REMOVAL ACTION	YES	SITE 00025

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_002645 PUBLIC NOTICE 2	**08-05-2002**	OAKLAND TRIBUNE - OAKLAND, CA	PUBLIC NOTICE OF AVAILABILITY AND PUBLIC COMMENT PERIOD ON THE ACTION MEMORANDUM ADDENDUM FOR CERCLA TIME-CRITICAL REMOVAL ACTION	YES	SITE 00025
AR_N00236_000623 MINUTES 29	**08-06-2002**	TETRA TECH EM, INC.	06 AUGUST 2002 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES MEETING AGENDA, SIGN-IN SHEETS, AND VARIOUS HANDOUTS)	YES	OU 0000005 SITE 00001 SITE 00025
AR_N00236_000410 CORRESPONDENCE 36	**08-21-2002**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE FINAL SITE MANAGEMENT PLAN AMENDMENT (W/ OUT ENCLOSURE)	YES	OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000004B OU 0000004C OU 0000005 OU 0000006
AR_N00236_000624 MINUTES 81	**09-10-2002**	TETRA TECH EM, INC.	10 SEPTEMBER 2002 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES MEETING AGENDA, SIGN-IN SHEETS, AND VARIOUS HANDOUTS)	YES	OU 0000003 OU 0000005 SITE 00014 SITE 00015

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AR_N00236_000625 MINUTES 47	**10-01-2002**	TETRA TECH EM, INC.	01 OCTOBER 2002 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES MEETING AGENDA, SIGN-IN SHEETS, AND VARIOUS HANDOUTS)	YES	OU 0000003 OU 0000005 SITE 00001 SITE 00014 SITE 00015 SITE 00032
AR_N00236_000450 CORRESPONDENCE 113	**12-02-2002**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE RESPONSES TO COMMENTS ON THE DRAFT FINAL REMEDIAL INVESTIGATION REPORT (W/ENCLOSURE)	YES	OU 0000005 PARCEL 0181 PARCEL 0182 PARCEL 0183 SITE 00025
AR_N00236_000451 REPORT 1062	**12-02-2002**	IT CORPORATION	FINAL REMEDIAL INVESTIGATION REPORT, VOLUMES I AND II OF II (INCLUDES SWDIV TRANSMITTAL LETTER, SER 06CA.RW/0213)	YES	OU 0000005 PARCEL 0181 SITE 00025
AR_N00236_000627 MINUTES 21	**12-03-2002**	TETRA TECH EM, INC.	03 DECEMBER 2002 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES MEETING AGENDA, SIGN-IN SHEETS, AND VARIOUS HANDOUTS)	YES	OU 0000005 SITE 00025 SITE 00026 SITE 00031

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AR_N00236_000456 CORRESPONDENCE 7	**12-16-2002**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT TECHNICAL MEMORANDUM: EVALUATION OF ISSUES RELATED TO THE RESOURCE CONSERVATION AND RECOVERY ACT FACILITY PERMIT EPA ID CA 217002323G TIERED PERMITS AND THE NON-PERMITTED AREAS	YES	OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000004B OU 0000004C OU 0000005 OU 0000006 SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00013 SITE 00014 SITE 00015 SITE 00016 SITE 00019 SITE 00020 SITE 00022 SITE 00023 SITE 00027 SITE 00028

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AR_N00236_000470 CORRESPONDENCE 31	**01-16-2003**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE SITE MANAGEMENT PLAN UPDATE (W/ ENCLOSURE)	YES	OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000004B OU 0000004C OU 0000005 OU 0000006 SITE 00017 SITE 00020 SITE 00024 SITE 00025 SITE 00029
AR_N00236_000472 REPORT 252	**01-31-2003**	IT CORPORATION	FIELD SUMMARY REPORT FOR THE CHEMICAL OXIDATION TREATABILITY STUDY ACTIVITIES (INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER)	YES	BLDG 0000534 OU 0000005
AR_N00236_000493 REPORT 701	**05-15-2003**	FOSTER WHEELER ENVIRONMENTAL CORPORATION	FINAL REMOVAL ACTION WORK PLAN FOR THE CERCLA TIME-CRITICAL REMOVAL ACTION AT WEST HOUSING AREA (INCLUDES FINAL SAMPLING AND ANALYSIS PLAN, FINAL SITE-SPECIFIC HEALTH AND SAFETY PLAN AND RESPONSE TO COMMENTS ON DRAFT SAMPLING AND ANALYSIS PLAN)	YES	"PERCHLORATE " SEARCH - ROUND 1 OU 0000005 PARCEL EDC-12 PARCEL EDC-17 PARCEL EDC-21 PARCEL EDC-5 PARCEL PBC-3

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AR_N00236_000772 PUBLIC NOTICE 16	**07-01-2003**	NAVFAC - SOUTHWEST DIVISION	JULY 2003 ALAMEDA POINT FOCUS ENVIRONMENTAL NEWSLETTER	YES	SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00010 SITE 00011 SITE 00012 SITE 00013 SITE 00014 SITE 00015 SITE 00016 SITE 00017 SITE 00018 SITE 00019 SITE 00020 SITE 00021 SITE 00022 SITE 00023 SITE 00024 SITE 00025 SITE 00026 SITE 00027 SITE 00028

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AR_N00236_001988 CORRESPONDENCE 6	**07-15-2003**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT WORK PLAN FOR THE ASSESSMENT OF POLYCYCLIC AROMATIC HYDROCARBON CONTAMINATION AT SELECTED CERCLA SITES AND ENVIRONMENTAL BASELINE STUDY PARCELS (INCLUDES COMMENTS BY HERD DATED 08 JULY 2003)	YES	PARCEL 0028 PARCEL 0051 PARCEL 0205 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00010 SITE 00011 SITE 00012 SITE 00013 SITE 00014 SITE 00015 SITE 00016 SITE 00019 SITE 00021 SITE 00022 SITE 00023 SITE 00030 SITE 00031 SITE 00032

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AR_N00236_001803 MINUTES 34	**08-05-2003**	SULTECH	05 AUGUST 2003 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA AND VARIOUS HANDOUTS)	YES	BLDG 0000195 SITE 00001 SITE 00002 SITE 00003 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00011 SITE 00014 SITE 00016 SITE 00021 SITE 00025 SITE 00026 SITE 00027

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AR_N00236_001757 REPORT 33	**11-05-2003**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF SITE MANAGEMENT PLAN UPDATE (W/ ENCLOSURE)	YES	OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000004B OU 0000004C OU 0000005 OU 0000006 SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00011 SITE 00012 SITE 00013 SITE 00014 SITE 00015 SITE 00016 SITE 00018 SITE 00019 SITE 00020

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					SITE 00021 SITE 00022 SITE 00023 SITE 00024 SITE 00025 SITE 00026 SITE 00027
AR_N00236_002451 CORRESPONDENCE 3	**11-17-2003**	ALAMEDA REUSE AND REDEVELOPMENT AUTHORITY - ALAMEDA, CA	REVIEW AND COMMENTS ON DRAFT SOIL FEASIBILITY STUDY REPORT	YES	OU 0000005 SITE 00025
AR_N00236_002450 CORRESPONDENCE 12	**11-18-2003**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON DRAFT SOIL FEASIBILITY STUDY REPORT	YES	OU 0000005 SITE 00025
AR_N00236_001880 CORRESPONDENCE 15	**11-24-2003**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE GROUNDWATER MONITORING REPORTS, SUMMER 2002 TO SPRING 2003 (ENCLOSURES ARE RECORDS # 774 THROUGH # 778, # 823, # 824, # 839, # 840, # 861, # 873, AND # 880)	YES	SITE 00001 SITE 00002 SITE 00003 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00014 SITE 00016 SITE 00025 SITE 00027

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AR_N00236_002449 CORRESPONDENCE 5	**12-23-2003**	ALAMEDA REUSE AND REDEVELOPMENT AUTHORITY - ALAMEDA, CA	REVIEW AND COMMENTS ON THE DRAFT GROUNDWATER REMEDIAL INVESTIGATION FEASIBILITY STUDY	YES	OU 0000005 SITE 00025
AR_N00236_003090 CORRESPONDENCE 8	**12-31-2003**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT SOIL FEASIBILITY STUDY REPORT (SEE RECORD # 1305 - DRAFT SOIL FEASIBILITY STUDY REPORT)	YES	OU 0000005 PARCEL 0183
AR_N00236_002480 CORRESPONDENCE 19	**01-08-2004**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON DRAFT GROUNDWATER REMEDIAL INVESTIGATION FEASIBILITY STUDY	YES	OU 0000005 SITE 00025

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AR_N00236_001787 REPORT 621	**02-06-2004**	SHAW ENVIRONMENTAL, INC.	FINAL WORK PLAN FOR BASEWIDE GROUNDWATER MONITORING PROGRAM (INCLUDES CD COPY, RESPONSES TO COMMENTS ON THE REVISED DRAFT GROUNDWATER MONITORING WORK PLAN AND NAVFAC SWDIV TRANSMITTAL LETTER)	YES	AREA 00097 BLDG 0000005 BLDG 0000010 BLDG 0000014 BLDG 0000162 BLDG 0000360 BLDG 0000372 BLDG 0000398 BLDG 0000400 BLDG 0000594 SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00010 SITE 00011 SITE 00012 SITE 00014 SITE 00016 SITE 00025 SITE 00026 SITE 00027 SITE 00032

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					WELL M001-A
					WELL M001-B
					WELL M001-E
					WELL M001-P
					WELL M002-A
					WELL M002-E
					WELL M003-B
					WELL M003-C
					WELL M003-E
					WELL M004-A
					WELL M005-A
					WELL M006-A
					WELL M007-A
					WELL M007-C
					WELL M008-A
					WELL M025-A
					WELL M025-C
					WELL M025-E
					WELL M026-A
					WELL M026-E
					WELL M027-A
					WELL M027-B
					WELL M027-C
					WELL M027-E
					WELL M028-A
					WELL M028-C
					WELL M028-E
					WELL M029-A

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					WELL M029-E WELL M030-A WELL M030-C WELL M030-E WELL M031-A WELL M031-C WELL M031-E WELL M032-A WELL M033-A WELL M034-A WELL M035-A
AR_N00236_002481 CORRESPONDENCE 47	**02-24-2004**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT GROUNDWATER REMEDIAL INVESTIGATION FEASIBILITY STUDY (INCLUDES HERD COMMENTS DATED 23 JANUARY 2004, GSU COMMENTS DATED 20 JANUARY 2004, AND ESU COMMENTS DATED 22 JANUARY 2004)	YES	OU 0000005 SITE 00025
AR_N00236_001841 FACT SHEET 4	**03-01-2004**	NAS ALAMEDA - ALAMEDA, CA	NEWSLETTER REGARDING CLEANUP OPTIONS BEING EVALUATED	YES	SITE 00005 SITE 00009 SITE 00014 SITE 00015 SITE 00016 SITE 00025 SITE 00026

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AR_N00236_001830 CORRESPONDENCE 7	**05-07-2004**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF WINTER AND FALL 2003 QUARTERLY GROUNDWATER MONITORING DATA REPORTS (COMPACT DISC FORMAT ONLY) [ENCLOSURES ARE RECORDS # 1813 THROUGH 1823 AND RECORD # 1827]	YES	SITE 00001 SITE 00002 SITE 00003 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00014 SITE 00016 SITE 00025
AR_N00236_003053 CORRESPONDENCE 2	**06-25-2004**	NAVFAC - SOUTHWEST DIVISION	REQUEST FOR EXTENSION TO THE MILESTONE FOR PRIMARY DOCUMENTS - DRAFT FINAL AND FINAL GROUNDWATER REMEDIAL INVESTIGATION / FEASIBILITY STUDY REPORTS FOR ALAMEDA POINT AND ALAMEDA ANNEX	YES	OU 0000005 SITE 00025
AR_N00236_001872 MINUTES 38	**07-01-2004**	SULTECH	01 JULY 2004 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA AND VARIOUS HANDOUTS)	YES	SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00009 SITE 00011 SITE 00013 SITE 00019 SITE 00021 SITE 00022 SITE 00023 SITE 00025

ALAMEDA POINT

DRAFT ENVIRONMENTAL RESTORATION RECORD PUBLIC / IR INDEX - UPDATE (SORTED BY RECORD DATE/RECORD NUMBER)

ADMINISTRATIVE RECORD INDEX FOR OU 5 AND SITES 25, 30 AND 31

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AR_N00236_001418 CORRESPONDENCE 3	**07-15-2004**	ARC ECOLOGY	REVIEW AND COMMENTS ON THE DRAFT SITE MANAGEMENT PLAN FOR FISCAL YEAR 2005 (SEE RECORD # 1861 - DRAFT SITE MANAGEMENT PLAN FISCAL YEAR 2005)	YES	OU 0000001 OU 0000002A OU 0000002B OU 0000003 OU 0000005 SITE 00001 SITE 00014 SITE 00025

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AR_N00236_004257 CORRESPONDENCE 3	**07-15-2004**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT SITE MANAGEMENT PLAN, JUNE 2004	NO	OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004B SITE 00001 SITE 00003 SITE 00004 SITE 00005 SITE 00009 SITE 00010 SITE 00011 SITE 00012 SITE 00013 SITE 00020 SITE 00021 SITE 00022 SITE 00023 SITE 00024 SITE 00028 SITE 00031 SITE 00034
AR_N00236_001884 CORRESPONDENCE 5	**07-19-2004**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF DRAFT WORK PLAN FOR REMEDIAL INVESTIGATION	YES	SITE 00030

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AR_N00236_003399 FACT SHEET 2	**08-01-2004**	NAVFAC - SOUTHWEST DIVISION	FACT SHEET - ENVIRONMENTAL ACTIVITIES UPDATE FOR REMEDIAL INVESTIGATION AND REMOVAL ACTION AT GEORGE P. MILLER ELEMENTARY SCHOOL AND WOODSTOCK CHILD DEVELOPMENT CENTER	NO	SITE 00030
AR_N00236_002534 CORRESPONDENCE 16	**08-03-2004**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION WORKPLAN (INCLUDES SACRAMENTO SCHOOLS UNIT COMMENTS BY C. KAO DATED 08 JULY 2004, GSU COMMENTS BY M. VEST DATED 28 JULY 2004 AND HERD COMMENTS BY J. CHRISTOPHER DATED 14 JULY 2004)	YES	SITE 00030
AR_N00236_001894 MINUTES 68	**08-05-2004**	SULTECH	05 AUGUST 2004 DRAFT RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	YES	BLDG 0000001 OU 0000001 OU 0000002A OU 0000002B SITE 00025 SITE 00030
AR_N00236_001885 CORRESPONDENCE 5	**08-25-2004**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF POLYNUCLEAR AROMATIC HYDROCARBON SUMMARY REPORT FOR PUBLIC BENEFIT CONVEYANCE 3 AND ECONOMIC DEVELOPMENT CONVEYANCE 21	YES	PARCEL EDC-21 PARCEL PBC-3 SITE 00030 SITE 00031
AR_N00236_001874 REPORT 251	**09-01-2004**	BECHTEL ENVIRONMENTAL, INC.	FINAL WORK PLAN FOR REMEDIAL INVESTIGATION (INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER)	YES	SITE 00030

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AR_N00236_003146 CORRESPONDENCE 91	**09-10-2004**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE 1) DRAFT FINAL GROUNDWATER REMEDIAL INVESTIGATION/FEASIBILITY STUDY, AND 2) RESPONSES TO COMMENTS ON THE DRAFT GROUNDWATER REMEDIAL INVESTIGATION/FEASIBILITY STUDY (ENCLOSURE 1) IS RECORD # 3147 AND W/ ENCLOSURE 2)	YES	SITE 00025
AR_N00236_001876 REPORT 43	**09-14-2004**	NAVFAC - SOUTHWEST DIVISION	FINAL SITE MANAGEMENT PLAN FOR FISCAL YEAR 2005 [INCLUDES NAVFAC SWDIV TRANSMITTAL, SER 06CA.GL/0942]	YES	OU 0000001 OU 0000002A OU 0000002C OU 0000003 OU 0000004A OU 0000004B OU 0000004C OU 0000005 OU 0000006
AR_N00236_002479 CORRESPONDENCE 11	**10-13-2004**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON DRAFT FINAL GROUNDWATER REMEDIAL INVESTIGATION FEASIBILITY STUDY	YES	OU 0000005 SITE 00025
AR_N00236_002478 CORRESPONDENCE 4	**10-14-2004**	CRWQCB - OAKLAND, CA	REVIEW AND COMMENTS ON DRAFT FINAL GROUNDWATER REMEDIAL INVESTIGATION FEASIBILITY STUDY	YES	OU 0000005 SITE 00025

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AR_N00236_003147 REPORT 1018	**10-18-2004**	ENGINEERING/REMEDIATION RESOURCES GROUP, INC.	FINAL GROUNDWATER REMEDIAL INVESTIGATION/FEASIBILITY STUDY (INCLUDES REPLACEMENT PAGES CONVERTING DRAFT FINAL DATED 10 SEPTEMBER 2004 TO FINAL, RESPONSE TO COMMENTS ON THE DRAFT DATED 01 OCTOBER 2003, AND CD COPY)	YES	PARCEL 0178 PARCEL 0179 PARCEL 0181 PARCEL 0182 PARCEL 0183 PARCEL 0184 SITE 00025 SITE 00030 SITE 00031 WELL MW-025-01 WELL MW-025-02 WELL MW-025-03 WELL MW-025-04 WELL MW-025-05 WELL PW-10A WELL S-002 WELL S-012 WELL S-013 WELL S-016 WELL S-035

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AR_N00236_001887 CORRESPONDENCE 5	**10-20-2004**	BRAC PMO WEST	TRANSMITTAL OF REPLACEMENT PAGES CONVERTING THE DRAFT FINAL GROUNDWATER REMEDIAL INVESTIGATION/FEASIBILITY STUDY FOR ALAMEDA POINT SITE 25 AND ALAMEDA ANNEX IR-02 DATED 01 SEPTEMBER 2004 TO FINAL (ENCLOSURE IS RECORD # 1882)	YES	OU 0000005 SITE 00002 SITE 00025
AR_N00236_003010 CORRESPONDENCE 2	**10-28-2004**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND CONCURRENCE OF THE DRAFT FINAL GROUNDWATER REMEDIAL INVESTIGATION / FEASIBILITY STUDY FOR ALAMEDA POINT AND ALAMEDA ANNEX (SEE ALAMEDA ANNEX RECORD # 702 - FINAL REMEDIAL INVESTIGATION / FEASIBILITY STUDY)	YES	OU 0000005
AR_N00236_002672 CORRESPONDENCE 11	**11-15-2004**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE REVISED DRAFT SOIL FEASIBILITY STUDY REPORT	YES	SITE 00025
AR_N00236_001957 CORRESPONDENCE 9	**11-16-2004**	CDM FEDERAL PROGRAMS CORP.	RESPONSES TO COMMENTS ON THE REVISED DRAFT SOIL FEASIBILITY STUDY REPORT	YES	OU 0000005 SITE 00025
AR_N00236_002388 CORRESPONDENCE 4	**11-16-2004**	ARC ECOLOGY	RESTORATION ADVISORY BOARD (RAB) COMMENTS ON THE REVISED DRAFT SOIL FEASIBILITY STUDY REPORT	YES	OU 0000005 SITE 00025

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AR_N00236_001901 CORRESPONDENCE 88	**11-22-2004**	BRAC PMO WEST	TRANSMITTAL OF 1) RESPONSE TO REGULATOR COMMENTS FOR THE SPRING 2003 ALAMEDA POINT QUARTERLY GROUNDWATER REPORTS, AND 2) REPLACEMENT PAGES (W/ ENCLOSURES)	YES	"PERCHLORATE " SEARCH - ROUND 1 SITE 00001 SITE 00002 SITE 00005 SITE 00007 SITE 00008 SITE 00025
AR_N00236_002008 MINUTES 15	**12-02-2004**	SULTECH	02 DECEMBER 2005 FINAL RESTORATION ADVISORY BOARD (RAB) MONTHLY MEETING SUMMARY (INCLUDES AGENDA, ATTENDANCE LIST AND VARIOUS HANDOUT MATERIALS]	YES	OU 0000002A OU 0000002B SITE 00002 SITE 00030
AR_N00236_001821 REPORT 302	**12-17-2004**	SHAW ENVIRONMENTAL, INC.	GROUNDWATER MONITORING REPORT, SUMMER 2003 TO SPRING 2004 (INCLUDES REPLACEMENT PAGES THAT REFLECT SUMMER 2003 TO SPRING 2004, CD COPY, AND NAVFAC SWDIV TRANSMITTAL LETTERS)	YES	OU 0000005
AR_N00236_002673 CORRESPONDENCE 5	**12-21-2004**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON REVISED DRAFT SOIL FEASIBILITY STUDY REPORT	YES	SITE 00025
AR_N00236_000873 REPORT 298	**12-22-2004**	SHAW ENVIRONMENTAL, INC.	GROUNDWATER MONITORING REPORT FOR, SUMMER 2002 TO SPRING 2003 (INCLUDES REPLACEMENT PAGES, NAVFAC SWDIV TRANSMITTAL LETTERS AND CD COPY)	YES	SITE 00025

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AR_N00236_001975 REPORT 87	**12-22-2004**	SHAW ENVIRONMENTAL, INC.	RESPONSES TO COMMENTS ON THE GROUNDWATER MONITORING REPORTS, SUMMER 2002 TO SPRING 2003 [INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER]	YES	"PERCHLORATE " SEARCH - ROUND 1 SITE 00002 SITE 00006 SITE 00008 SITE 00025
AR_N00236_002447 CORRESPONDENCE 13	**02-09-2005**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON DRAFT FINAL REMEDIAL INVESTIGATION, FEASIBILITY STUDY FOR GROUNDWATER (INCLUDES HERD COMMENTS BY J. CHRISTOPHER DATED 5 JANUARY 2005)	YES	OU 0000005 SITE 00025
AR_N00236_002587 CORRESPONDENCE 11	**02-09-2005**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON DRAFT FINAL SOIL FEASIBILITY STUDY REPORT (INCLUDES HERD COMMENTS DATED 4 JANUARY 2005) [	YES	OU 0000005

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AR_N00236_003004 REPORT 513	**03-01-2005**	INNOVATIVE TECHNICAL SOLUTIONS, INC.	FINAL FALL/WINTER 2004 QUARTERLY GROUNDWATER MONITORING DATA REPORT (INCLUDES ANALYTICAL DATA) [SEE RECORD # 2034 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	SITE 00001 SITE 00002 SITE 00003 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00014 SITE 00016 SITE 00025 SITE 00027 SITE 00028 SITE 00032
AR_N00236_001997 REPORT 107	**03-07-2005**	SHAW ENVIRONMENTAL, INC.	FINAL WORK PLAN FOR THE TIME-CRITICAL REMOVAL ACTION AT THE MILLER SCHOOL/WOODSTOCK CHILD DEVELOPMENT CENTER (INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER)	YES	SITE 00030
AR_N00236_001937 REPORT 1445	**03-11-2005**	CDM FEDERAL PROGRAMS CORP.	FINAL SOIL FEASIBILITY STUDY REPORT, VOLUME I AND II OF II (INCLUDES NAVFAC SWDIV TRANSMITTALS LETTERS, SER BPMOW.DN/0499 AND SER BPMOW.DN/0322, AND REPLACEMENT PAGES CONVERTING THE DRAFT FINAL DATED 18 JANUARY 2005 TO FINAL)	YES	OU 0000005 SITE 00025

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AR_N00236_002059 MINUTES 47	**03-14-2005**	SULTECH	14 MARCH 2005 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES SUMMARY (INCLUDES AGENDA AND VARIOUS HANDOUT MATERIALS)	YES	BLDG 0000601 CAA 000011B OU 0000005 SITE 00027 SITE 00029 SITE 00031 UST 0000015-1 UST 0000015-2 UST 0000015-3
AR_N00236_002442 CORRESPONDENCE 2	**04-12-2005**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON DRAFT ACTION MEMORANDUM, TIME CRITICAL REMOVAL ACTION, MILLER SCHOOL/WOODSTOCK CHILD DEVELOPMENT CENTER	YES	SITE 00030
AR_N00236_002383 CORRESPONDENCE 1	**05-16-2005**	U.S. EPA - SAN FRANCISCO, CA	REQUEST FOR THIRTY DAY EXTENSION FOR REVIEW OF DRAFT SOIL REMEDIAL INVESTIGATION REPORT	YES	SITE 00030
AR_N00236_002198 CORRESPONDENCE 5	**05-27-2005**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT PROPOSED PLAN FOR SOIL AND GROUNDWATER ESTUARY PARK AND THE COAST GUARD HOUSING AREA (ENCLOSURE IS RECORD # 2129)	YES	OU 0000005 SITE 00025
AR_N00236_003011 CORRESPONDENCE 10	**06-07-2005**	BRAC PMO WEST	RESPONSE TO COMMENTS ON 1) DRAFT FINAL GROUNDWATER REMEDIAL INVESTIGATION/FEASIBILITY REPORT, ALAMEDA POINT/ANNEX SITE; AND 2) DRAFT FINAL SOIL FEASIBILITY STUDY REPORT, OPERABLE UNIT, ALAMEDA POINT	YES	OU 0000005 SITE 00025

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AR_N00236_002434 CORRESPONDENCE 8	**06-16-2005**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON DRAFT SOIL REMEDIAL INVESTIGATION REPORT	YES	SITE 00030
AR_N00236_002422 CORRESPONDENCE 24	**06-17-2005**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON DRAFT SOIL REMEDIAL INVESTIGATION REPORT (INCLUDES GSU COMMENTS DATED 16 JUNE 2005 AND HERD COMMENTS DATED 28 APRIL 2005)	YES	SITE 00030
AR_N00236_003100 CORRESPONDENCE 8	**06-17-2005**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT WORK PLAN FOR THE REMEDIAL INVESTIGATION (SEE RECORD # 2031 - DRAFT WORK PLAN)	YES	BLDG 0000172 BLDG 0000369 SITE 00025 SITE 00031
AR_N00236_002471 CORRESPONDENCE 13	**06-20-2005**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON DRAFT WORKPLAN FOR REMEDIAL INVESTIGATION (INCLUDES GSU COMMENTS DATED 14 JUNE 2005 AND HERD COMMENTS DATED 20 JUNE 2005)	YES	SITE 00031
AR_N00236_002386 CORRESPONDENCE 2	**06-28-2005**	BRAC PMO WEST	REQUEST FOR FIFTEEN DAY EXTENSION FOR REVIEW OF DRAFT PROPOSED PLAN FOR SOIL AND GROUNDWATER, ESTUARY PARK AND THE COAST GUARD HOUSING AREA (COAST GUARD HOUSING/ANNEX [FISC])	YES	OU 0000005 SITE 00025
AR_N00236_002470 CORRESPONDENCE 7	**06-30-2005**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON DRAFT WORK PLAN FOR REMEDIAL INVESTIGATION	YES	SITE 00031
AR_N00236_001007 CORRESPONDENCE 11	**07-15-2005**	DTSC - BERKELEY, CA	RESPONSES TO COMMENTS ON 1) DRAFT FINAL GROUNDWATER REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT, ALAMEDA POINT/ANNEX SITE; AND 2) DRAFT FINAL SOIL FEASIBILITY STUDY REPORT,	YES	OU 0000005 SITE 00025

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AR_N00236_002400 CORRESPONDENCE 3	**07-15-2005**	CRWQCB - OAKLAND, CA	REVIEW AND COMMENTS ON DRAFT PROPOSED PLAN FOR SOIL AND GROUNDWATER, ESTUARY PARK AND COAST GUARD HOUSING AREA	YES	OU 0000005 SITE 00025
AR_N00236_002433 CORRESPONDENCE 17	**07-15-2005**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON DRAFT PROPOSED PLAN FOR SOIL AND GROUNDWATER, ESTUARY PARK AND THE COAST GUARD HOUSING AREA	YES	OU 0000005 SITE 00025
AR_N00236_002399 CORRESPONDENCE 16	**07-16-2005**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON DRAFT PROPOSED PLAN FOR SOIL AND GROUNDWATER, ESTUARY PARK AND THE COAST GUARD HOUSING AREA (INCLUDES COMMENTS BY R. PERRY DATED 15 JULY 2005)	YES	OU 0000005 SITE 00025
AR_N00236_002435 CORRESPONDENCE 3	**07-26-2005**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON DRAFT SITE MANAGEMENT PLAN SCHEDULE ADDENDUM FOR 2006	YES	OU 0000002A OU 0000002B OU 0000002C SITE 00002 SITE 00026 SITE 00031 SITE 00032
AR_N00236_002079 REPORT 33	**07-27-2005**	SHAW ENVIRONMENTAL, INC.	FINAL ACTION MEMORANDUM FOR THE TIME-CRITICAL REMOVAL ACTION AT THE MILLER SCHOOL/WOODSTOCK CHILD DEVELOPMENT CENTER (INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER)	YES	SITE 00030
AR_N00236_002154 CORRESPONDENCE 1	**09-22-2005**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE FINAL ACTION MEMORANDUM, TIME CRITICAL REMOVAL ACTION AT THE MILLER SCHOOL/WOODSTOCK CHILD DEVELOPMENT CENTER	YES	SITE 00030

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AR_N00236_002141 CORRESPONDENCE 14	**10-17-2005**	DTSC - BERKELEY, CA	DTSC COMMENTS ON DRAFT FINAL SOIL REMEDIAL INVESTIGATION REPORT. (INCLUDES DTSC COMMENTS ON DRAFT FINAL REMEDIAL INVESTIGATION WORKPLAN DATED 10/17/05 W/HERD MEMORANDUM DATED 10/06/05)	YES	SITE 00030 SITE 00031
AR_N00236_002125 REPORT 2278	**10-24-2005**	BECHTEL ENVIRONMENTAL, INC.	FINAL SOIL REMEDIAL INVESTIGATION REPORT, VOLUMES I AND II OF II (INCLUDES REPLACEMENT PAGES CONVERTING THE DRAFT FINAL DATED SEPTEMBER 2005 TO FINAL, SWDIV TRANSMITTAL LETTERS, AND CD COPY)	YES	SITE 00030
AR_N00236_002153 CORRESPONDENCE 1	**10-27-2005**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT FINAL SOIL REMEDIAL INVESTIGATION REPORT	YES	SITE 00030
AR_N00236_002145 REPORT 328	**10-28-2005**	CDM FEDERAL PROGRAMS CORP.	FINAL WORK PLAN FOR REMEDIAL INVESTIGATION (INCLUDES BRAC TRANSMITTAL LETTER, SER BPMOW.MEP/1330) [CD COPY ENCLOSED]	YES	SITE 00031
AR_N00236_002200 CORRESPONDENCE 3	**10-31-2005**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT PROPOSED PLAN (ENCLOSURE IS RECORD # 2199)	YES	OU 0000005
AR_N00236_002203 CORRESPONDENCE 1	**12-12-2005**	U.S. EPA - SAN FRANCISCO, CA	REQUEST FOR A FOURTEEN (14) DAY EXTENSION FOR THE REVIEW OF THE DRAFT PROPOSED PLAN	YES	OU 0000005
AR_N00236_002204 CORRESPONDENCE 5	**12-14-2005**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT PROPOSED PLAN	YES	OU 0000005

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AR_N00236_002205 CORRESPONDENCE 2	**12-15-2005**	CRWQCB - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT PROPOSED PLAN	YES	OU 0000005
AR_N00236_002206 CORRESPONDENCE 5	**12-16-2005**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT PROPOSED PLAN	YES	OU 0000005
AR_N00236_002207 CORRESPONDENCE 2	**12-21-2005**	CRWQCB - OAKLAND, CA	REQUEST FOR COMMENT DEADLINE EXTENSIONS ON DRAFT PROPOSED PLAN AND DRAFT FEASIBILITY STUDY	YES	OU 0000005 SITE 00027
AR_N00236_002230 CORRESPONDENCE 2	**01-12-2006**	DTSC - BERKELEY, CA	REQUEST FOR COMMENT DEADLINE EXTENSION ON DRAFT PROPOSED PLANS	YES	SITE 00025
AR_N00236_002216 CORRESPONDENCE 6	**01-18-2006**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON DRAFT PROPOSED PLAN	YES	SITE 00025
AR_N00236_002231 CORRESPONDENCE 3	**01-18-2006**	BRAC PMO WEST	REQUEST FOR EXTENSION ON SUBMITTAL DATES FOR THE DRAFT FINAL PROPOSED PLANS	YES	OU 0000001 OU 0000005 SITE 00014 SITE 00017 SITE 00028
AR_N00236_002784 CORRESPONDENCE 12	**01-24-2006**	DTSC - BERKELEY, CA	RESPONSES TO COMMENTS ON DRAFT PROPOSED PLAN - GROUNDWATER	YES	OU 0000005

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AR_N00236_002202 CORRESPONDENCE 3	**01-30-2006**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL PROPOSED PLAN (ENCLOSURE IS RECORD # 2201)	YES	OU 0000005
AR_N00236_002225 CORRESPONDENCE 5	**02-15-2006**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT PROPOSED PLAN	YES	OU 0000005 SITE 00025
AR_N00236_002294 REPORT 16	**03-01-2006**	CDM FEDERAL PROGRAMS CORP.	PROPOSED PLAN FOR GROUNDWATER (DOCUMENT PERTAINS TO MULTIPLE BASES) [SEE RECORD # 2295 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	OU 0000005
AR_N00236_002963 REPORT 17502	**03-01-2006**	INNOVATIVE TECHNICAL SOLUTIONS, INC.	SUMMER 2005 QUARTERLY GROUNDWATER MONITORING DATA REPORT (INCLUDES ANALYTICAL DATA - PAPER ONLY)	YES	SITE 00001 SITE 00002 SITE 00003 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00014 SITE 00016 SITE 00025 SITE 00027 SITE 00028 SITE 00032

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AR_N00236_002295 CORRESPONDENCE 3	**03-03-2006**	BRAC PMO WEST	TRANSMITTAL OF THE PROPOSED PLAN FOR GROUNDWATER (ENCLOSURE IS RECORD # 2294)	YES	OU 0000005
AR_N00236_002862 PUBLIC NOTICE 1	**03-03-2006**	ALAMEDA JOURNAL - ALAMEDA, CA	03 MARCH 2006 PUBLIC NOTICE REGARDING THE COMMENT PERIOD FOR THE PROPOSED PLAN TO CLEAN UP CONTAMINATED SHALLOW GROUNDWATER	YES	SITE 00025
AR_N00236_003012 PUBLIC NOTICE 1	**03-06-2006**	OAKLAND TRIBUNE - OAKLAND, CA	PUBLIC NOTICE OF PUBLIC REVIEW AND COMMENT PERIOD FOR THE PROPOSED PLAN TO CLEAN UP CONTAMINATED SHALLOW GROUNDWATER	YES	OU 0000005
AR_N00236_002310 CORRESPONDENCE 5	**03-23-2006**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT FINAL PROPOSED PLAN	YES	OU 0000005
AR_N00236_002414 CORRESPONDENCE 2	**03-29-2006**	BRAC PMO WEST	FEDERAL FACILITY AGREEMENT EXTENSION FOR DRAFT FINAL PROPOSED PLAN	YES	SITE 00025
AR_N00236_002515 CORRESPONDENCE 2	**04-03-2006**	RESTORATION ADVISORY BOARD MEMBER	REVIEW AND COMMENTS ON PROPOSED PLAN, GROUNDWATER	YES	OU 0000005
AR_N00236_002276 CORRESPONDENCE 4	**04-21-2006**	BRAC PMO WEST	TRANSMITTAL OF DRAFT SOIL REMEDIAL INVESTIGATION REPORT, MARINA VILLAGE HOUSING (ENCLOSURE IS RECORD # 2275)	YES	SITE 00031

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AR_N00236_002300 CORRESPONDENCE 5	**04-21-2006**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT SOIL FEASIBILITY STUDY REPORT (ENCLOSURE IS RECORD # 2280)	YES	SITE 00030
AR_N00236_002313 CORRESPONDENCE 3	**05-03-2006**	BRAC PMO WEST	EXTENSION LETTER FOR THE DRAFT FINAL PROPOSED PLAN	YES	SITE 00025
AR_N00236_002314 CORRESPONDENCE 3	**05-03-2006**	BRAC PMO WEST	TRANSMITTAL OF THE WORKING DRAFT FINAL PROPOSED PLAN (ENCLOSURE IS RECORD # 2315)	YES	SITE 00025
AR_N00236_002336 MINUTES 59	**05-04-2006**	SULTECH	04 MAY 2006 FINAL RESTORATION ADVISORY BOARD (RAB) MONTHLY MEETING SUMMARY (INCLUDES AGENDA AND VARIOUS HANDOUT MATERIALS)	YES	CAA 000006 OU 0000001 OU 0000002B OWS 000459 SITE 00001 SITE 00007 SITE 00008 SITE 00014 SITE 00025 SITE 00027 SITE 00028
AR_N00236_002341 CORRESPONDENCE 3	**06-01-2006**	BRAC PMO WEST	REQUEST FOR AN EXTENSION ON SUBMITTAL OF THE DRAFT RECORD OF DECISION FOR GROUNDWATER	YES	OU 0000005 SITE 00002

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_002613 CORRESPONDENCE 1	**06-22-2006**	U.S. EPA - SAN FRANCISCO, CA	REQUEST FOR THIRTY DAY EXTENSION FOR REVIEW OF THE DRAFT SOIL FEASIBILITY STUDY REPORT AND DRAFT REMEDIAL INVESTIGATION REPORT	YES	SITE 00030 SITE 00031
AR_N00236_002614 CORRESPONDENCE 3	**06-23-2006**	U.S. DEPARTMENT OF HOMELAND SECURITY, COAST GUARD - OAKLAND, CA	REVIEW AND COMMENTS ON THE DRAFT SOIL REMEDIAL INVESTIGATION REPORT, MARINA VILLAGE HOUSING	YES	SITE 00031
AR_N00236_002361 CORRESPONDENCE 6	**07-05-2006**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL PROPOSED PLAN (INCLUDES RESPONSES TO INFORMAL AGENCY COMMENTS ON THE WORKING DRAFT FINAL PROPOSED PLAN) [ENCLOSURE IS RECORD # 2362]	YES	SITE 00025
AR_N00236_001117 MINUTES 24	**07-13-2006**	DTSC - SACRAMENTO, CA	SUMMARY OF DISCUSSION AND AGREEMENTS MADE AT THE 22 MAY 2006 REGULATORY MEETING REGARDING POLYNUCLEAR AROMATIC HYDROCARBONS	YES	PARCEL 0098 PARCEL 0099 PARCEL 0100 PARCEL 0103 SITE 00025
AR_N00236_003128 CORRESPONDENCE 4	**07-20-2006**	DTSC - SACRAMENTO, CA	REVIEW AND COMMENTS ON THE DRAFT 2007 SITE MANAGEMENT PLAN SCHEDULE (SEE RECORD # 2373 - DRAFT 2007 SITE MANAGEMENT PLAN SCHEDULE)	YES	OU 0000002A OU 0000004B OU 0000004C SITE 00020 SITE 00024 SITE 00030 SITE 00031
AR_N00236_002636 CORRESPONDENCE 14	**07-24-2006**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT SOIL FEASIBILITY STUDY REPORT	YES	SITE 00030

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AR_N00236_002638 CORRESPONDENCE 25	**07-26-2006**	DTSC - SACRAMENTO, CA	REVIEW AND COMMENTS ON DRAFT SOIL FEASIBILITY STUDY REPORT [INCLUDES HERD COMMENTS DATED 31 MAY 2006 AND GSU COMMENTS DATED 14 AND 22 JUNE 2006]	YES	SITE 00030
AR_N00236_002665 CORRESPONDENCE 26	**07-31-2006**	DTSC - SACRAMENTO, CA	REVIEW AND COMMENTS ON DRAFT SOIL REMEDIAL INVESTIGATION REPORT, MARINA VILLAGE HOUSING (INCLUDES HERD COMMENTS DATED 06/26/2006 AND GSU COMMENTS DATED 06/26/2006)	YES	SITE 00031
AR_N00236_002466 REPORT 17	**08-01-2006**	CDM FEDERAL PROGRAMS CORP.	PROPOSED PLAN, SOIL (SEE RECORD # 2465 - BRAC PMO WEST TRANSMITTAL LETTER)	YES	SITE 00025
AR_N00236_002833 CORRESPONDENCE 3	**08-08-2006**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT RECORD OF DECISION, GROUNDWATER (ENCLOSURE IS RECORD # 2834)	YES	OU 0000005

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AR_N00236_003129 CORRESPONDENCE 6	**08-14-2006**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL AMENDMENT TO THE SITE MANAGEMENT PLAN (ENCLOSURE IS RECORD # 2588)	YES	OU 0000001 OU 0000002A OU 0000004B OU 0000004C PARCEL EDC-12 PARCEL EDC-17 SITE 00001 SITE 00002 SITE 00014 SITE 00015 SITE 00024 SITE 00026 SITE 00030 SITE 00031 SITE 00034 SITE 00035
AR_N00236_002465 CORRESPONDENCE 3	**08-18-2006**	BRAC PMO WEST	TRANSMITTAL OF THE FINAL PROPOSED PLAN, SOIL (ENCLOSURE IS RECORD # 2466)	YES	SITE 00025
AR_N00236_002861 PUBLIC NOTICE 1	**08-21-2006**	OAKLAND TRIBUNE - OAKLAND, CA	21 AUGUST 2006 MEETING REGARDING THE PUBLIC COMMENT PERIOD FOR THE PROPOSED PLAN FOR SOIL	YES	SITE 00025
AR_N00236_002863 PUBLIC NOTICE 1	**08-22-2006**	ALAMEDA JOURNAL - ALAMEDA, CA	22 AUGUST 2006 PUBLIC NOTICE REGARDING THE PUBLIC COMMENT PERIOD FOR THE PROPOSED PLAN FOR SOIL	YES	OU 0000005 SITE 00002

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AR_N00236_003127 MINUTES 25	**09-12-2006**	DOUCETTE AND ASSOCIATES	12 SEPTEMBER 2006 PUBLIC MEETING TRANSCRIPT FOR THE PROPOSED PLAN	YES	SITE 00025
AR_N00236_002552 CORRESPONDENCE 4	**09-19-2006**	RESTORATION ADVISORY BOARD MEMBER	REVIEW AND ACCUMULATED COMMENTS ON THE PROPOSED PLAN	YES	SITE 00025
AR_N00236_002778 CORRESPONDENCE 14	**11-09-2006**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON DRAFT RECORD OF DECISION (SEE RECORD # 2834 - DRAFT RECORD OF DECISION)	YES	OU 0000005
AR_N00236_002621 CORRESPONDENCE 4	**11-30-2006**	BRAC PMO WEST	TRANSMITTAL OF DRAFT SOIL REMEDIAL INVESTIGATION REPORT - REVISION I FOR MARINA VILLAGE HOUSING (ENCLOSURE IS RECORD # 2622)	YES	SITE 00031
AR_N00236_002768 CORRESPONDENCE 101	**12-04-2006**	BRAC PMO WEST	RESPONSES TO COMMENTS ON DRAFT SOIL REMEDIAL INVESTIGATION REPORT FOR MARINA VILLAGE HOUSING	YES	SITE 00031
AR_N00236_003009 CORRESPONDENCE 3	**12-07-2006**	CRWQCB - OAKLAND, CA	REVIEW AND COMMENTS ON THE DRAFT RECORD OF DECISION FOR GROUNDWATER (SEE RECORD # 2834 - DRAFT RECORD OF DECISION)	YES	OU 0000005
AR_N00236_002635 CORRESPONDENCE 3	**12-19-2006**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT RECORD OF DECISION, SOIL [ENCLOSURE IS RECORD # 2634]	YES	SITE 00025

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AR_N00236_002644 CORRESPONDENCE 4	**12-19-2006**	BRAC PMO WEST	FEDERAL FACILITY AGREEMENT EXTENSION FOR SUBMITTAL OF REVISED DRAFT FEASIBILITY STUDY REPORT	YES	SITE 00030
AR_N00236_002982 CORRESPONDENCE 6	**12-21-2006**	DTSC - SACRAMENTO, CA	REVIEW AND COMMENTS ON THE DRAFT RECORD OF DECISION (SEE RECORD # 2834 - DRAFT RECORD OF DECISION)	YES	OU 0000005
AR_N00236_002753 MINUTES 59	**01-04-2007**	SULTECH	04 JANUARY 2007 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA, HANDOUT MATERIALS, AND VARIOUS ATTACHMENTS)	YES	CAA 000003B CAA 000003C CAA 000004C CAA 000006 CAA 000007 CAA 000011 CAA 000013 OU 0000005 SITE 00002 SITE 00009
AR_N00236_002697 CORRESPONDENCE 3	**02-08-2007**	DTSC - SACRAMENTO, CA	REQUEST FOR THIRTY DAY EXTENSION FOR REVIEW OF DRAFT SOIL REMEDIAL INVESTIGATION REPORT, REVISION 1	YES	SITE 00031
AR_N00236_002707 CORRESPONDENCE 3	**02-26-2007**	BRAC PMO WEST	FEDERAL FACILITY AGREEMENT EXTENSION FOR GROUNDWATER RECORD OF DECISION	YES	OU 0000005

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AR_N00236_003125 CORRESPONDENCE 1	**03-08-2007**	CRWQCB - OAKLAND, CA	REVIEW AND NO COMMENTS ON THE DRAFT SOIL REMEDIAL INVESTIGATION REPORT - REVISION 1 FOR MARINA VILLAGE HOUSING (SEE RECORD # 2622 - DRAFT SOIL REMEDIAL INVESTIGATION REPORT - REVISION 1)	YES	SITE 00031
AR_N00236_002870 CORRESPONDENCE 4	**03-16-2007**	DTSC - SACRAMENTO, CA	REVIEW AND COMMENTS ON THE DRAFT RECORD OF DECISION, SOIL [SEE RECORD # 2634 - DRAFT RECORD OF DECISION	YES	SITE 00025
AR_N00236_002871 CORRESPONDENCE 14	**03-17-2007**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT REVISION I SOIL REMEDIAL INVESTIGATION REPORT, MARINA VILLAGE HOUSING [SEE RECORD # 2622 - DRAFT REVISION I SOIL RI REPORT]	YES	SITE 00031
AR_N00236_002855 CORRESPONDENCE 1	**03-20-2007**	CRWQCB - OAKLAND, CA	REVIEW AND NO COMMENTS ON THE DRAFT RECORD OF DECISION, SOIL [SEE RECORD # 2634 - DRAFT RECORD OF DECISION]	YES	SITE 00025
AR_N00236_002877 CORRESPONDENCE 24	**04-17-2007**	DTSC - SACRAMENTO, CA	REVIEW AND COMMENTS ON THE DRAFT SOIL REMEDIAL INVESTIGATION REPORT - REVISION 1, MARINA VILLAGE HOUSING (INCLUDES GSU COMMENTS DATED 18 JANUARY 2007, AND HERD COMMENTS DATED 09 APRIL 2007)	YES	SITE 00031
AR_N00236_002755 CORRESPONDENCE 10	**04-18-2007**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT RECORD OF DECISION, SOIL	YES	SITE 00025
AR_N00236_002795 MINUTES 48	**05-03-2007**	SULTECH	03 MAY 2007 FINAL RESTORATION ADVISORY BOARD MEETING SUMMARY (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	YES	OU 0000005

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AR_N00236_002835 CORRESPONDENCE 3	**05-31-2007**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL RECORD OF DECISION, GROUNDWATER (ENCLOSURE IS RECORD # 2836)	YES	OU 0000005
AR_N00236_002788 CORRESPONDENCE 5	**06-07-2007**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL SOIL REMEDIAL INVESTIGATION REPORT FOR MARINA VILLAGE HOUSING (ENCLOSURE IS RECORD # 2789) {CD COPY ENCLOSED}	YES	SITE 00031
AR_N00236_002810 CORRESPONDENCE 2	**07-17-2007**	ALAMEDA REUSE AND REDEVELOPMENT AUTHORITY - ALAMEDA, CA	REVIEW AND COMMENTS ON THE DRAFT RECORD OF DECISION (SEE RECORD # 2634 - DRAFT RECORD OF DECISION)	YES	SITE 00025
AR_N00236_002789 REPORT 2420	**08-01-2007**	BARAJAS AND ASSOCIATES, INC.	FINAL SOIL REMEDIAL INVESTIGATION REPORT FOR MARINA VILLAGE HOUSING (CD COPY IS ENCLOSED) [SEE RECORD # 2818 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	SITE 00031
AR_N00236_002838 REPORT 343	**08-01-2007**	TETRA TECH EM, INC.	FINAL RECORD OF DECISION, GROUNDWATER (CD COPY ENCLOSED) [SEE RECORD # 2837 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	OU 0000005
AR_N00236_002832 CORRESPONDENCE 2	**08-08-2007**	DTSC - SACRAMENTO, CA	REVIEW AND COMMENTS ON THE DRAFT FINAL SOIL REMEDIAL INVESTIGATION REPORT FOR MARINA VILLAGE HOUSING [SEE RECORD # 2789 - FINAL SOIL REMEDIAL]	YES	SITE 00031
AR_N00236_002831 CORRESPONDENCE 2	**08-09-2007**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND CONCURRENCE ON THE DRAFT FINAL SOIL REMEDIAL INVESTIGATION REPORT FOR MARINA VILLAGE HOUSING [SEE RECORD # 2789 - FINAL REMEDIAL INVESTIGATION REPORT]	YES	SITE 00031

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_002818 CORRESPONDENCE 5	**08-14-2007**	BRAC PMO WEST	TRANSMITTAL OF REPLACEMENT PAGES CONVERTING DRAFT FINAL SOIL REMEDIAL INVESTIGATION REPORT FOR MARINA VILLAGE HOUSING DATED 05 JULY 2007 TO FINAL (ENCLOSURE IS RECORD # 2789)	YES	SITE 00031
AR_N00236_002826 CORRESPONDENCE 3	**08-27-2007**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL RECORD OF DECISION, SOIL (ENCLOSURE IS RECORD # 2827)	YES	SITE 00025
AR_N00236_002957 MINUTES 51	**09-06-2007**	SULTECH	06 SEPTEMBER 2007 FINAL RESTORATION ADVISORY BOARD MEETING SUMMARY (INCLUDES CD COPY, LIST OF ATTENDEES, AGENDA, AND VARIOUS HANDOUT MATERIALS)	YES	SITE 00005 SITE 00009 SITE 00010 SITE 00012 SITE 00013 SITE 00014 SITE 00015 SITE 00016 SITE 00019 SITE 00022 SITE 00023 SITE 00025 SITE 00030 SITE 00031 SITE 00032
AR_N00236_002837 CORRESPONDENCE 5	**09-10-2007**	BRAC PMO WEST	TRANSMITTAL OF THE FINAL DRAFT RECORD OF DECISION, GROUNDWATER (ENCLOSURE IS RECORD # 2838)	YES	OU 0000005 SITE 00002

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_002904 REPORT 191	**09-24-2007**	TETRA TECH EM, INC.	FINAL RECORD OF DECISION, SOIL (CD COPY ENCLOSED) [SEE RECORD # 2903 - BRAC TRANSMITTAL LETTER] {INCLUDES RESPONSIVENESS SUMMARY FOR THE PROPOSED PLAN DATED AUGUST 2006}	YES	SITE 00025
AR_N00236_002903 CORRESPONDENCE 4	**10-15-2007**	BRAC PMO WEST	TRANSMITTAL OF THE FINAL RECORD OF DECISION, SOIL (ENCLOSURE IS RECORD # 2904)	YES	SITE 00025
AR_N00236_002955 CORRESPONDENCE 4	**11-08-2007**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT PROPOSED PLAN, SOIL, MARINA VILLAGE HOUSING (ENCLOSURE IS RECORD # 2956)	YES	SITE 00031
AR_N00236_002961 CORRESPONDENCE 4	**11-20-2007**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT REMEDIAL INVESTIGATION ADDENDUM (ENCLOSURE IS RECORD # 2962)	YES	SITE 00030
AR_N00236_002970 REPORT 131	**12-01-2007**	SULTECH	FINAL SAMPLING AND ANALYSIS PLAN (FIELD SAMPLING/QUALITY ASSURANCE PROJECT PLAN) TO ADDRESS DATA GAPS - SOIL AT KOLLMAN CIRCLE, GROUNDWATER, AND GROUNDWATER IN AREAS OF CONCERN	YES	AOC 000001 AOC 000006 AOC 000023 SITE 00025 SITE 00032 SITE 00035
AR_N00236_002992 CORRESPONDENCE 4	**12-11-2007**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT PROPOSED PLAN FOR SOIL AT MARINA VILLAGE HOUSING [SEE RECORD # 2956 - DRAFT PROPOSED PLAN]	YES	SITE 00031

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_002969 CORRESPONDENCE 3	**12-12-2007**	BRAC PMO WEST	TRANSMITTAL OF THE FINAL SAMPLING AND ANALYSIS PLAN (FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN) TO ADDRESS DATA GAPS AT SOIL AT KOLLMAN CIRCLE, GROUNDWATER, AND GROUNDWATER IN AREAS OF CONCERN (ENCLOSURE IS RECORD # 2970)	YES	AOC 000001 AOC 000006 AOC 000023 SITE 00025 SITE 00032 SITE 00035
AR_N00236_003141 CORRESPONDENCE 19	**01-24-2008**	BRAC PMO WEST	TRANSMITTAL OF THE 1) DRAFT FINAL PROPOSED PLAN, SOIL, MARINA VILLAGE HOUSING, AND 2) RESPONSE TO COMMENTS ON THE DRAFT FINAL PROPOSED PLAN, SOIL, MARINA VILLAGE HOUSING (ENCLOSURE 1) IS RECORD # 3142 AND W/ ENCLOSURE 2)	YES	SITE 00031
AR_N00236_003270 CORRESPONDENCE 54	**01-24-2008**	BRAC PMO WEST	TRANSMITTAL OF THE DECEMBER 2007 SOIL GAS ANALYTICAL RESULTS AND DATA VALIDATION (W/ENCLOSURE)	YES	SITE 00031 WELL OU5-SG-16D WELL OU5-SG-16S
AR_N00236_003041 CORRESPONDENCE 4	**02-21-2008**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION ADDENDUM (SEE RECORD # 2962 - DRAFT REMEDIAL INVESTIGATION ADDENDUM)	YES	SITE 00030
AR_N00236_003143 CORRESPONDENCE 4	**02-25-2008**	BRAC PMO WEST	TRANSMITTAL OF THE FINAL PROPOSED PLAN, SOIL, MARINA VILLAGE HOUSING (ENCLOSURE IS RECORD # 3144)	YES	SITE 00031
AR_N00236_003144 REPORT 10	**03-01-2008**	BECHTEL ENVIRONMENTAL, INC.	FINAL PROPOSED PLAN, SOIL, MARINA VILLAGE HOUSING (CD COPY ENCLOSED) [SEE RECORD # 3143 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	BLDG 0000001 OU 0000005 SITE 00031

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AR_N00236_003105 MINUTES 74	**03-06-2008**	SULTECH	06 MARCH 2008 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES CD COPY, AGENDA AND VARIOUS HANDOUT MATERIALS)	YES	OU 0000002A PARCEL 0182 SITE 00009 SITE 00013 SITE 00020 SITE 00022 SITE 00023 SITE 00031

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AR_N00236_003054 MINUTES 40	**03-14-2008**	SULTECH	06 DECEMBER 2007 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	YES	AOC 000023G BLDG 0000071 CAA 000003A CAA 000003B CAA 000003C CAA 000004C CAA-A OU 0000001 OU 0000002A OU 0000004 OU 0000005 PARCEL 0012 SITE 00001 SITE 00002 SITE 00004 SITE 00005 SITE 00010 SITE 00014 SITE 00017 SITE 00020 SITE 00026 SITE 00027 SITE 00028 SITE 00031 SITE 00032 SITE 00033 SITE 00035

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AR_N00236_003056 MINUTES 51	**03-14-2008**	SULTECH	07 FEBRUARY 2008 RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA AND VARIOUS HANDOUT MATERIALS) [CD COPY ENCLOSED]	YES	OU 0000001 SITE 00005 SITE 00014 SITE 00025 SITE 00026 SITE 00034 SITE 00035

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_003028 REPORT 1130	**04-01-2008**	INNOVATIVE TECHNICAL SOLUTIONS, INC.	FINAL SPRING 2007, ANNUAL GROUNDWATER MONITORING REPORT, VOLUMES I AND II OF II (INCLUDES REPLACEMENT PAGES CONVERTING THE DRAFT FINAL DATED 01 MARCH 2008 TO FINAL, ANALYTICAL DATA, RESPONSE TO COMMENTS ON THE DRAFT, AND CD COPY)	YES	OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000005 OU 0000006 SITE 00001 SITE 00002 SITE 00003 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00014 SITE 00016 SITE 00025 SITE 00026 SITE 00027 SITE 00028 SITE 00032 WELL M002-A WELL M002-E WELL M003-10 WELL M003-15 WELL M003-16

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					WELL M015-A WELL M016-A WELL M016-E WELL M018-A WELL M019-A WELL M019-E WELL M022-A WELL M022-E WELL M023-A WELL M023-E WELL M024-E WELL M025-E WELL M026-A WELL M026-E WELL M029-A WELL M030-E WELL MW-013-04 WELL MW-360-01 WELL MW-360-02 WELL MW-360-04 WELL MW-410-03
AR_N00236_003213 CORRESPONDENCE 3	**05-02-2008**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT RECORD OF DECISION, SOIL (ENCLOSURE IS RECORD # 3214)	YES	SITE 00031

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AR_N00236_003236 MINUTES 48	**06-05-2008**	SULTECH	05 JUNE 2008 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	YES	BLDG 0000002 BLDG 0000005 OU 0000002C OU 0000005 SITE 00001 SITE 00002 SITE 00010 SITE 00012 SITE 00025 SITE 00035
AR_N00236_000985 CORRESPONDENCE 4	**06-12-2008**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL REMEDIAL INVESTIGATION ADDENDUM (ENCLOSURE IS RECORD # 992)	YES	SITE 00030
AR_N00236_000992 REPORT 683	**07-01-2008**	BECHTEL ENVIRONMENTAL, INC.	FINAL REMEDIAL INVESTIGATION ADDENDUM (INCLUDES REPLACEMENT PAGES CONVERTING THE DRAFT FINAL DATED 01 JUNE 2008 TO FINAL AND CD COPY)	YES	AOC 000001 OU 0000002 OU 0000005 SITE 00025 SITE 00030 SITE 00031 SITE 00035 SWMU 00001
AR_N00236_000987 CORRESPONDENCE 2	**07-07-2008**	DTSC - SACRAMENTO, CA	REVIEW AND COMMENTS ON THE DRAFT FINAL REMEDIAL INVESTIGATION ADDENDUM (SEE RECORD # 992 - FINAL REMEDIAL INVESTIGATION ADDENDUM)	YES	SITE 00030

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AR_N00236_000988 CORRESPONDENCE 4	**07-21-2008**	BRAC PMO WEST	TRANSMITTAL OF REPLACEMENT PAGES CONVERTING THE DRAFT FINAL DATED 01 JUNE 2008 TO THE FINAL REMEDIAL INVESTIGATION ADDENDUM (ENCLOSURE IS RECORD # 992)	YES	SITE 00030
AR_N00236_001006 CORRESPONDENCE 1	**07-23-2008**	DTSC - SACRAMENTO, CA	REVIEW AND ACCEPTANCE OF THE FINAL REMEDIAL INVESTIGATION ADDENDUM (SEE RECORD # 992 - FINAL REMEDIAL INVESTIGATION ADDENDUM)	YES	SITE 00030
AR_N00236_003197 CORRESPONDENCE 4	**07-29-2008**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT PROPOSED PLAN (ENCLOSURE IS RECORD # 3196)	YES	SITE 00030

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AR_N00236_003237 MINUTES 78	**08-14-2008**	SULTECH	14 AUGUST 2008 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	YES	OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004B OU 0000004C OU 0000005 SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00011 SITE 00013 SITE 00014 SITE 00016 SITE 00017 SITE 00019 SITE 00020 SITE 00021 SITE 00022 SITE 00023 SITE 00026 SITE 00027

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					SITE 00028 SITE 00030 SITE 00031 SITE 00032 SITE 00034 SITE 00035
AR_N00236_003215 CORRESPONDENCE 3	**08-27-2008**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL RECORD OF DECISION, SOIL (ENCLOSURE IS RECORD # 3216)	YES	SITE 00031
AR_N00236_003281 REPORT 160	**09-01-2008**	BECHTEL ENVIRONMENTAL, INC.	FINAL RECORD OF DECISION (CD COPY ENCLOSED) [SEE RECORD # 3280 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	SITE 00031
AR_N00236_003275 MINUTES 45	**09-04-2008**	CHADUX - TT, JOINT VENTURE	04 SEPTEMBER 2008 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	YES	AOC 000023G BLDG 0000005 OU 0000005 SITE 00001 SITE 00002 SITE 00017 SITE 00026 SITE 00032
AR_N00236_003207 CORRESPONDENCE 10	**09-15-2008**	BRAC PMO WEST	TRANSMITTAL OF THE 1) DRAFT FINAL 2009 AMENDMENT TO THE SITE MANAGEMENT PLAN, AND 2) REPONSES TO COMMENTS ON THE DRAFT DATED 26 JUNE 2008 (ENCLOSURE 1) IS RECORD # 3208, AND W/ ENCLOSURE 2)	YES	OU 0000002A OU 0000002B SITE 00030 SITE 00035

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_003243 CORRESPONDENCE 4	**10-02-2008**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL PROPOSED PLAN, SOIL (ENCLOSURE IS RECORD # 3217)	YES	SITE 00030
AR_N00236_003276 MINUTES 91	**10-02-2008**	CHADUX - TT, JOINT VENTURE	02 OCTOBER 2008 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	YES	CAA-C OU 0000002A OU 0000002B OU 0000002C OU 0000005 SITE 00001 SITE 00002 SITE 00014 SITE 00015 SITE 00017 SITE 00024 SITE 00026 SITE 00033
AR_N00236_003245 CORRESPONDENCE 4	**10-30-2008**	BRAC PMO WEST	TRANSMITTAL OF THE FINAL PROPOSED PLAN (ENCLOSURE IS RECORD # 3247)	YES	SITE 00030
AR_N00236_003246 CORRESPONDENCE 4	**10-30-2008**	BRAC PMO WEST	TRANSMITTAL OF THE FINAL PROPOSED PLAN (ENCLOSURE IS RECORD # 3247)	YES	SITE 00030
AR_N00236_003247 REPORT 9	**11-01-2008**	BATTELLE	FINAL PROPOSED PLAN, SOIL (CD COPY ENCLOSED) [SEE RECORD # 3245 AND 3246 - BRAC PMO WEST TRANSMITTAL LETTERS)	YES	SITE 00030

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_003277 MINUTES 34	**11-06-2008**	CHADUX - TT, JOINT VENTURE	06 NOVEMBER 2008 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	YES	OU 0000002A OU 0000002B OU 0000002C OU 0000005 SITE 00001 SITE 00002 SITE 00005 SITE 00026 SITE 00030
AR_N00236_003261 PUBLIC NOTICE 3	**11-07-2008**	OAKLAND TRIBUNE - OAKLAND, CA	PUBLIC NOTICE OF THE AVAILABILITY OF PROPOSED PLAN AND PUBLIC COMMENT PERIOD (INCLUDES AFFIDAVIT AND CD COPY)	YES	SITE 00030
AR_N00236_003262 PUBLIC NOTICE 3	**11-07-2008**	ALAMEDA JOURNAL - ALAMEDA, CA	PUBLIC NOTICE OF THE AVAILABILITY OF PROPOSED PLAN AND PUBLIC COMMENT PERIOD (INCLUDES AFFIDAVIT AND CD COPY)	YES	SITE 00030
AR_N00236_003257 REPORT 4	**11-14-2008**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT DATA GAPS SUMMARY REPORT FOR SOIL AT KOLLMAN CIRCLE, GROUNDWATER, AND GROUNDWATER AND SOIL IN AREAS OF CONCERN (ENCLOSURE IS RECORD # 3258)	YES	AOC 000001 AOC 000006 AOC 000023 SITE 00025 SITE 00032 SITE 00035
AR_N00236_003259 CORRESPONDENCE 2	**11-19-2008**	ALAMEDA UNIFIED SCHOOL DISTRICT - ALAMEDA, CA	REVIEW AND COMMENTS ON THE NO FURTHER ACTION FOR SOIL PROPOSAL IN THE FINAL PROPOSED PLAN, SOIL [SEE RECORD # 3247 - FINAL PROPOSED PLAN, SOIL]	YES	SITE 00030

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_003365 MINUTES 40	**12-04-2008**	CHADUX - TT, JOINT VENTURE	04 DECEMBER 2008 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY [INCLUDES AGENDA, VARIOUS HANDOUTS AND CD COPY]	NO	AOC 000003 AOC 000010 AOC 000012 BLDG 0000410 CAA 000003 CAA 000005B CAA-C OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000005 SITE 00001 SITE 00002 SITE 00014 SITE 00017 SITE 00024 SITE 00026 SITE 00027 SITE 00028 SITE 00030 SITE 00032 SITE 00034 SITE 00035

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_003260 CORRESPONDENCE 22	**12-05-2008**	BRAC PMO WEST	TRANSMITTAL OF THE FINAL 2009 AMENDMENT TO THE SITE MANAGEMENT PLAN (ENCLOSURE IS RECORD # 1710)	YES	OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000004B OU 0000005 OU 0000006 SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00010 SITE 00011 SITE 00012 SITE 00013 SITE 00014 SITE 00016 SITE 00017 SITE 00019 SITE 00020 SITE 00021

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					SITE 00022 SITE 00023 SITE 00024 SITE 00025 SITE 00026 SITE 00027 SITE 00028 SITE 00030 SITE 00031 SITE 00032 SITE 00034 SITE 00035
AR_N00236_003280 CORRESPONDENCE 4	**12-30-2008**	BRAC PMO WEST	TRANSMITTAL OF THE FINAL RECORD OF DECISION (ENCLOSURE IS RECORD # 3281)	YES	SITE 00031

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_003366 MINUTES 50	**01-08-2009**	CHADUX - TT, JOINT VENTURE	08 JANUARY 2009 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY [INCLUDES AGENDA AND VARIOUS HANDOUTS] {CD COPY ENCLOSED}	NO	AST 0000360E BLDG 0000014 BLDG 0000112 BLDG 0000113 BLDG 0000118 BLDG 0000162 BLDG 0000163 BLDG 0000265 BLDG 0000360 BLDG 0000372 BLDG 0000398 OU 0000002A OU 0000002B OU 0000002C OU 0000005 OWS 000014A OWS 000014B OWS 000014C OWS 000014D OWS 000014E OWS 000163 OWS 000360 OWS 000372A SITE 00001 SITE 00002 SITE 00002A SITE 00002B SITE 00003

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					SITE 00003B SITE 00004 SITE 00009 SITE 00011 SITE 00013 SITE 00014 SITE 00019 SITE 00021 SITE 00022 SITE 00026 SITE 00032 SWMU 00372
AR_N00236_003367 MINUTES 50	**02-05-2009**	CHADUX - TT, JOINT VENTURE	05 FEBRUARY 2009 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY [INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY]	NO	OU 0000002A OU 0000002B OU 0000002C OU 0000005 SITE 00001 SITE 00002 SITE 00014 SITE 00026 SITE 00027
AR_N00236_003316 CORRESPONDENCE 2	**03-11-2009**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT RECORD OF DECISION, SOIL (ENCLOSURE IS RECORD # 3317)	NO	SITE 00030

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_003374 MINUTES 33	**04-02-2009**	CHADUX - TT, JOINT VENTURE	02 APRIL 2009 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING SUMMARY (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	NO	OU 0000002A OU 0000002B OU 0000002C OU 0000005 SITE 00002 SITE 00024 SITE 00025 SITE 00026 SITE 00028
AR_N00236_003411 MINUTES 51	**05-07-2009**	CHADUX - TT, JOINT VENTURE	07 MAY 2009 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	NO	OU 0000002A OU 0000002B OU 0000002C OU 0000005 SITE 00001 SITE 00002 SITE 00017 SITE 00025 SITE 00026 SITE 00032 SITE 00034 SITE 00035

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_003622 REPORT 525	**07-01-2009**	INNOVATIVE TECHNICAL SOLUTIONS, INC.	FINAL BASEWIDE 2008 SEMIANNUAL GROUNDWATER MONITORING REPORT (CD COPY ENCLOSED) [SEE RECORD # 3621 - BRAC PMO WEST TRANSMITTAL LETTER]	NO	AOC 000023 OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000006 SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00010 SITE 00011 SITE 00012 SITE 00013 SITE 00014 SITE 00016 SITE 00019 SITE 00021 SITE 00022 SITE 00023 SITE 00025

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					SITE 00026 SITE 00027 SITE 00028 SITE 00032 SITE 00035
AR_N00236_003424 CORRESPONDENCE 2	**08-18-2009**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL RECORD OF DECISION, SOIL (ENCLOSURE IS RECORD # 3425)	NO	SITE 00030

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_003432 CORRESPONDENCE 30	**08-30-2009**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT 2010 AMENDMENT TO THE SITE MANAGEMENT PLAN (W/ ENCLOSURE)	NO	BLDG 0000005 BLDG 0000010 BLDG 0000014 BLDG 0000041 BLDG 0000114 BLDG 0000162 BLDG 0000163 BLDG 0000301 BLDG 0000360 BLDG 0000389 BLDG 0000400 BLDG 0000410 BLDG 0000459 BLDG 0000530 BLDG 0000547 OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000004B OU 0000005 OU 0000006 PIER 00001 PIER 00002 SITE 00001 SITE 00002

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AR_N00236_003456 REPORT 213	**09-01-2009**	BATTELLE	FINAL RECORD OF DECISION, SOIL (CD COPY ENCLOSED) [SEE RECORD # 3455 - BRAC PMO WEST TRANSMITTAL LETTER]	NO	OU 0000005 SITE 00002 SITE 00030 SITE 00031
AR_N00236_003472 MINUTES 24	**09-03-2009**	CHADUX - TT, JOINT VENTURE	FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	NO	OU 0000002A OU 0000002B SITE 00001 SITE 00005 SITE 00024 SITE 00027 SITE 00030 SITE 00034 SITE 00035

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_003431 CORRESPONDENCE 30	**09-14-2009**	BRAC PMO WEST	TRANSMITTAL OF THE 2010 AMENDMENT TO THE SITE MANAGEMENT PLAN (W/ ENCLOSURE)	NO	BLDG 0000005 BLDG 0000010 BLDG 0000014 BLDG 0000041 BLDG 0000114 BLDG 0000162 BLDG 0000163 BLDG 0000360 BLDG 0000389 BLDG 0000400 BLDG 0000410 BLDG 0000459 BLDG 0000530 BLDG 0000547 OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000004B OU 0000005 OU 0000006 PIER 00001 PIER 00002 SITE 00002 SITE 00003 SITE 00004

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
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ALAMEDA POINT

DRAFT ENVIRONMENTAL RESTORATION RECORD PUBLIC / IR INDEX - UPDATE (SORTED BY RECORD DATE/RECORD NUMBER)

ADMINISTRATIVE RECORD INDEX FOR OU 5 AND SITES 25, 30 AND 31

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AR_N00236_003455 CORRESPONDENCE 2	**10-23-2009**	BRAC PMO WEST	TRANSMITTAL OF THE FINAL RECORD OF DECISION, SOIL [ENCLOSURE IS RECORD # 3456]	NO	SITE 00030

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_003542 REPORT 143	**03-01-2010**	CHADUX - TT, JOINT VENTURE	FINAL COMMUNITY INVOLVEMENT PLAN UPDATE (INCLUDES REPLACEMENT PAGES CONVERTING THE DRAFT FINAL, DATED 28 JANUARY 2010, TO FINAL AND CD COPY) [INCLUDES REPLACEMENT PAGES, DATED 01 MARCH 2010]	NO	OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000004B OU 0000004C OU 0000006 SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00010 SITE 00011 SITE 00012 SITE 00013 SITE 00014 SITE 00015 SITE 00016 SITE 00017 SITE 00018 SITE 00019

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					SITE 00020 SITE 00021 SITE 00022 SITE 00023 SITE 00024 SITE 00025 SITE 00026 SITE 00027 SITE 00028 SITE 00029 SITE 00030 SITE 00031 SITE 00032 SITE 00033 SITE 00034 SITE 00035
AR_N00236_001967 MINUTES 40	**03-04-2010**	CHADUX - TT, JOINT VENTURE	04 MARCH 2010 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	NO	BLDG 0000005 SITE 00001 SITE 00002 SITE 00005 SITE 00024 SITE 00025 SITE 00027 SITE 00032 SITE 00033

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_003595 MINUTES 39	**04-01-2010**	CHADUX - TT, JOINT VENTURE	01 APRIL 2010 FINAL RESTORATION ADVISORY BOARD MEETING MINUTES (INCLUDES AGENDA, VARIOUS HANDOUTS, FINAL REMEDIAL INVESTIGATION REPORT DATED 18 NOVEMBER 2004, AND CD COPY)	NO	BLDG 0000005 BLDG 0000360 OU 0000002B SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00010 SITE 00011 SITE 00016 SITE 00021 SITE 00025 SITE 00026 SITE 00032

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AR_N00236_003651 MINUTES 48	**06-03-2010**	CHADUX - TT, JOINT VENTURE	03 JUNE 2010 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	NO	BLDG 0000001 OU 0000001 OU 0000002C OU 0000005 SITE 00001 SITE 00002 SITE 00005 SITE 00007 SITE 00010 SITE 00016 SITE 00032
AR_N00236_003693 MINUTES 37	**09-02-2010**	CHADUX - TT, JOINT VENTURE	02 SEPTEMBER 2010 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	NO	BLDG 0000005 BLDG 0000162 BLDG 0000346 BLDG 0000360 OU 0000002A OU 0000002B SITE 00007 SITE 00026 SITE 00030
AR_N00236_003736 MINUTES 34	**12-02-2010**	TREVET, INC.	02 DECEMBER 2010 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES [INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY]	NO	BLDG 0000005 OU 0000002B SITE 00017 SITE 00024 SITE 00025 SITE 00028 SITE 00033

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AR_N00236_003819 MINUTES 38	**02-03-2011**	TREVET, INC.	03 FEBRUARY 2011 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	NO	BLDG 0000005 BLDG 0000005A BLDG 0000400 OU 0000002C SITE 00005 SITE 00010 SITE 00025 SITE 00035
AR_N00236_003830 MINUTES 41	**03-03-2011**	TREVET, INC.	03 MARCH 2011 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	NO	OU 0000002A SITE 00001 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00014 SITE 00016 SITE 00019 SITE 00025 SITE 00026 SITE 00027 SITE 00028 SITE 00032

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AR_N00236_003824 MINUTES 32	**04-07-2011**	TREVET, INC.	07 APRIL 2011 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	NO	BLDG 0000005 BLDG 0000005A BLDG 0000041 BLDG 0000400 OU 0000002A OU 0000002C SITE 00001 SITE 00002 SITE 00006 SITE 00017 SITE 00025
AR_N00236_003921 MINUTES 32	**10-06-2011**	TREVET, INC.	06 OCTOBER 2011 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	NO	OU 0000005 SITE 00002
AR_N00236_003998 CORRESPONDENCE 3	**07-13-2012**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT TECHNICAL MEMORANDUM, GROUNDWATER DATA EVALUATION (ENCLOSURE IS RECORD # 3999) [DOCUMENT PERTAINS TO MULTIPLE BASES]	YES	OU 0000005
AR_N00236_004095 MINUTES 30	**09-13-2012**	TREVET, INC.	13 SEPTEMBER 2012 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	YES	OU 0000002B OU 0000002C SITE 00001 SITE 00002 SITE 00017 SITE 00025 SITE 00026 SITE 00035

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AR_N00236_004139 MINUTES 37	**11-08-2012**	TREVET, INC.	08 NOVEMBER 2012 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	YES	BLDG 0000007 BLDG 0000025 BLDG 0000066 BLDG 0000113 BLDG 0000114 BLDG 0000360 BLDG 0000410 BLDG 0000530 CAA 000005B CAA 000013 OU 0000002B OU 0000002C OU 0000005 SITE 00001 SITE 00002 SITE 00017 SITE 00032
AR_N00236_004056 CORRESPONDENCE 3	**11-16-2012**	BRAC PMO WEST	LETTER REQUESTING A FEDERAL FACILITY AGREEMENT EXTENSION ON THE FINAL TECHNICAL MEMORANDUM (DOCUMENT PERTAINS TO MULTIPLE BASES)	NO	OU 0000005
AR_N00236_004094 REPORT 285	**12-01-2012**	TETRA TECH EC, INC.	FINAL TECHNICAL MEMORANDUM GROUNDWATER DATA EVALUATION (CD COPY ENCLOSED) [SEE RECORD # 4093 - BRAC PMO WEST TRANSMITTAL LETTER] {DOCUMENT PERTAINS TO MULTIPLE BASES}	YES	OU 0000005 SITE 00025 SITE 00030 SITE 00031

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_004093 CORRESPONDENCE 3	**12-07-2012**	BRAC PMO WEST	TRANSMITTAL OF THE FINAL TECHNICAL MEMORANDUM GROUNDWATER DATA EVALUATION (ENCLOSURE IS RECORD # 4094)	YES	OU 0000005
AR_N00236_004136 MINUTES 26	**01-10-2013**	TREVET, INC.	10 JANUARY 2013 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	YES	BLDG 0000066 OU 0000002B SITE 00025 SITE 00032
AR_N00236_001139 MINUTES 34	**03-14-2013**	TREVET, INC.	14 MARCH 2013 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	YES	BLDG 0000001 BLDG 0000005 BLDG 0000400 OU 0000005 SITE 00001 SITE 00002 SITE 00025
AR_N00236_001170 MINUTES 53	**05-09-2013**	TREVET, INC.	09 MAY 2013 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	YES	BLDG 0000360 BLDG 0000395 OU 0000002B OU 0000005 SITE 00003 SITE 00004

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AR_N00236_004233 CORRESPONDENCE 1	**08-21-2013**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT COMMUNITY INVOLVEMENT PLAN (ENCLOSURE IS RECORD # 4234)	NO	BLDG 0000005 BLDG 0000010 BLDG 0000014 BLDG 0000041 BLDG 0000114 BLDG 0000162 BLDG 0000360 BLDG 0000400 BLDG 0000410 BLDG 0000530 BLDG 0000547 OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000004B OU 0000004C OU 0000005 OU 0000006 SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007

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AR_N00236_004236 REPORT 145	**12-01-2013**	TREVET, INC.	FINAL COMMUNITY INVOLVEMENT PLAN (CD COPY ENCLOSED) [SEE RECORD # 4235 - BRAC PMO WEST TRANSMITTAL LETTER]	NO	BLDG 0000005 BLDG 0000010 BLDG 0000014 BLDG 0000041 BLDG 0000114 BLDG 0000162 BLDG 0000360 BLDG 0000400 BLDG 0000410 BLDG 0000530 BLDG 0000547 OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000004B OU 0000004C OU 0000005 OU 0000006 SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007

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AR_N00236_004235 CORRESPONDENCE 3	**12-23-2013**	BRAC PMO WEST	TRANSMITTAL OF THE FINAL COMMUNITY INVOLVEMENT PLAN (ENCLOSURE IS RECORD # 4236)	NO	BLDG 0000005 BLDG 0000010 BLDG 0000014 BLDG 0000041 BLDG 0000114 BLDG 0000162 BLDG 0000360 BLDG 0000400 BLDG 0000410 BLDG 0000530 BLDG 0000547 OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000004B OU 0000004C OU 0000005 OU 0000006 SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007

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					SITE 00032
					SITE 00033
					SITE 00034
					SITE 00035

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_004197 CORRESPONDENCE 3	**01-15-2014**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT PROPOSED PLAN FOR NO FURTHER ACTION FOR GROUNDWATER (ENCLOSURE IS RECORD # 4198) [DOCUMENT PERTAINS TO MULTIPLE BASES]	YES	OU 0000005 SITE 00002
AR_N00236_004230 CORRESPONDENCE 2	**02-21-2014**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT PROPOSED PLAN (SEE RECORD # 4198 - DRAFT PROPOSED PLAN FOR NO FURTHER ACTION FOR GROUNDWATER) [DOCUMENT PERTAINS TO MULTIPLE BASES]	NO	OU 0000005 SITE 00002
AR_N00236_004231 CORRESPONDENCE 2	**03-21-2014**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL PROPOSED PLAN FOR NO FURTHER ACTION FOR GROUNDWATER (ENCLOSURE IS RECORD # 4232) [DOCUMENT PERTAINS TO MULTIPLE BASES]	NO	OU 0000005 SITE 00002
AR_N00236_004243 REPORT 12	**04-01-2014**	SEALASKA ENVIRONMENTAL SERVICES	FINAL PROPOSED PLAN (CD COPY ENCLOSED) [DOCUMENT PERTAINS TO MULTIPLE BASES]	NO	OU 0000005
AR_N00236_004241 CORRESPONDENCE 2	**04-22-2014**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT AMENDMENT TO THE RECORD OF DECISION (ENCLOSURE IS RECORD # 4242) [DOCUMENT PERTAINS TO MULTIPLE BASES]	NO	OU 0000005
AR_N00236_004277 PUBLIC NOTICE 1	**04-30-2014**	EAST BAY EXPRESS - OAKLAND, CA	PUBLIC NOTICE OF PROPOSED PLAN AND PUBLIC COMMENT PERIOD FOR GROUNDWATER (CD COPY ENCLOSED) [DOCUMENT PERTAINS TO MULTIPLE BASES]	NO	OU 0000005 SITE 00025 SITE 00030 SITE 00031
AR_N00236_004276 PUBLIC NOTICE 1	**05-01-2014**	ALAMEDA SUN - ALAMEDA, CA	PUBLIC NOTICE OF PROPOSED PLAN AND PUBLIC COMMENT PERIOD FOR GROUNDWATER (CD COPY ENCLOSED) [DOCUMENT PERTAINS TO MULTIPLE BASES	NO	OU 0000005 SITE 00025 SITE 00030 SITE 00031

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00236_004273 MINUTES 6	**05-20-2014**	SEALASKA ENVIRONMENTAL SERVICES	20 MAY 2014 PUBLIC MEETING TRANSCRIPT FOR PROPOSED PLAN (CD COPY ENCLOSED) [DOCUMENT PERTAINS TO MULTIPLE BASES]	NO	OU 0000005

Total Estimated Record Page Count: 40,471

Total Records: 293

(([SSIC NUMBER]="5090.3.A.")) AND [UIC NUMBER]='N00236'
No Keywords
Sites=OU 0000005;SITE 00025;SITE 00030;SITE 00031
No Distribution
No FRC Box number
No Litigation Case Number

ALAMEDA ANNEX (AKA FISCA)

DRAFT ENVIRONMENTAL RESTORATION RECORD PUBLIC / IR INDEX - UPDATE (SORTED BY RECORD DATE/RECORD NUMBER)

ADMINISTRATIVE INDEX FOR SITES 1, 2 AND 3

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000001 REPORT 22	**04-09-1987**	ENVIRONMENTAL RESOURCES MANAGEMENT (ERM) WEST, INC.	HEALTH AND SAFETY PLAN FOR CONTAMINATED SITE INVESTIGATION AT SCREENING LOT AND SCRAP YARD AREA	YES	SITE 00002
AR_N68619_000002 REPORT 7	**04-14-1987**	ENVIRONMENTAL RESOURCES MANAGEMENT (ERM) WEST, INC.	SAMPLING PLAN FOR CONTAMINATED SITE INVESTIGATION AT SCREENING LOT AND SCRAP YARD AREA	YES	SITE 00002
AR_N68619_000003 REPORT 92	**09-01-1987**	ENVIRONMENTAL RESOURCES MANAGEMENT (ERM) WEST, INC.	CONTAMINATED SITE INVESTIGATION FOR SCREENING LOT AND SCRAPYARD AREA (SEE RECORD # 12 - NAVFAC WDIV TRANSMITTAL LETTER)	YES	SITE 00002
AR_N68619_000010 REPORT 66	**05-01-1988**	ENVIRONMENTAL RESOURCES MANAGEMENT (ERM) WEST, INC.	SITE INVESTIGATION PHASE II AT WAREHOUSE AREA (SEE RECORD # 12 - NAVFAC EFAW TRANSMITTAL LETTER)	YES	SITE 00001
AR_N68619_000012 CORRESPONDENCE 2	**07-12-1988**	NAVFAC - WESTERN DIVISION	TRANSMITTAL OF THE 1) SITE INVESTIGATION REPORT FOR SCREENING LOT AND SCRAPYARD, AND 2) PHASE II SITE INVESTIGATION REPORT AT THE WAREHOUSE AREA (ENCLOSURE 1 IS RECORD # 3, AND ENCLOSURE 2 IS RECORD # 10)	YES	SITE 00001 SITE 00002
AR_N68619_000016 CORRESPONDENCE 5	**11-29-1990**	NAVFAC - WESTERN DIVISION	TRANSMITTAL OF THE DRAFT REMEDIAL INVESTIGATION/FEASIBILITY STUDY, 1) WORK PLAN, 2) FIELD SAMPLING PLAN, 3) QUALITY ASSURANCE PROJECT PLAN AND 4) HEALTH AND SAFETY PLAN FOR SCREENING LOT AND SCRAPYARD	YES	SITE 00002
AR_N68619_000017 CORRESPONDENCE 1	**01-12-1991**	SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION/FEASIBILITY STUDY 1) WORK PLAN, 2) FIELD SAMPLING PLAN, 3) QUALITY ASSURANCE PROJECT PLAN, AND 4) HEALTH AND SAFETY PLAN	YES	SITE 00002

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AR_N68619_000018 CORRESPONDENCE 1	**02-28-1991**	SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT COMMUNITY RELATIONS PLAN	YES	SITE 00002
AR_N68619_000023 REPORT 281	**05-30-1991**	PRC ENVIRONMENTAL MANAGEMENT, INC.	FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY FIELD SAMPLING PLAN, SCREENING LOT AND SCRAPYARD AREA	YES	SITE 00002
AR_N68619_000024 REPORT 94	**05-30-1991**	PRC ENVIRONMENTAL MANAGEMENT, INC.	FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN, SCREENING LOT AND SCRAPYARD AREA	YES	SITE 00002
AR_N68619_000025 REPORT 88	**05-30-1991**	PRC ENVIRONMENTAL MANAGEMENT, INC.	FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY QUALITY ASSURANCE PROJECT PLAN, SCREENING LOT AND SCRAPYARD AREA	YES	SITE 00002
AR_N68619_000026 REPORT 136	**05-30-1991**	PRC ENVIRONMENTAL MANAGEMENT, INC.	FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY HEALTH AND SAFETY PLAN, SCREENING LOT AND SCRAPYARD AREA	YES	SITE 00002
AR_N68619_000083 REPORT 7	**07-21-1993**	NAVFAC - WESTERN DIVISION	PROPOSED RADIOLOGICAL INVESTIGATION, SCREENING LOT AND SCRAPYARD AREA (INCLUDES NAVFAC EFAW TRANSMITTAL LETTER, SER T4E2EG/L3401)	YES	SITE 00002
AR_N68619_000136 CORRESPONDENCE 2	**02-25-1994**	NAVFAC - WESTERN DIVISION	TRANSMITTAL OF THE DRAFT REMEDIAL INVESTIGATION/FEASIBILITY STUDY REMOVAL ACTION ENGINEERING EVALUATION/COST ANALYSIS FOR POLYCHLORINATED BIPHENYL (PCB) AND LEAD-CONTAMINATED SOILS	YES	SITE 00002

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000139 CORRESPONDENCE 2	**03-31-1994**	NAVFAC - WESTERN DIVISION	LETTER REGARDING THE DISCOVERY OF LOW LEVEL RADIOACTIVE WASTE AT SCREENING LOT AND SCRAPYARD	YES	SITE 00002
AR_N68619_000140 CORRESPONDENCE 6	**03-31-1994**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION/FEASIBILITY STUDY REMOVAL ACTION, ENGINEERING EVALUATION AND COST ANALYSIS FOR POLYCHLORINATED BIPHENYL (PCB) AND LEAD-CONTAMINATED SOILS (INCLUDES COMMENTS BY CRWQCB DATED 31 MARCH 1994)	YES	SITE 00002
AR_N68619_000148 CORRESPONDENCE 9	**04-13-1994**	NAVFAC - WESTERN DIVISION	TRANSMITTAL OF THE RESPONSES TO COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION/FEASIBILITY STUDY REMOVAL ACTION ENGINEERING EVALUATION/COST ANALYSIS FOR POLYCHLORINATED BIPHENYL (PCB) AND LEAD CONTAMINATED SOILS (W/ ENCLOSURE)	YES	SITE 00002
AR_N68619_000157 CORRESPONDENCE 2	**06-10-1994**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY REMOVAL ACTION ENGINEERING EVALUATION/COST ANALYSIS FOR SOIL REMOVAL	YES	SITE 00002
AR_N68619_000161 CORRESPONDENCE 3	**07-06-1994**	NAVFAC - WESTERN DIVISION	LETTER REQUEST TO IDENTIFY STATE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS FOR THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY	YES	SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008

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AR_N68619_000163 CORRESPONDENCE 2	**07-14-1994**	NAVFAC - WESTERN DIVISION	TRANSMITTAL OF THE DRAFT FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY REMOVAL ACTION ENGINEERING EVALUATION/COST ANALYSIS FOR POLYCHLORINATED BIPHENYL (PCB) AND LEAD-CONTAMINATED SOIL	YES	SITE 00002
AR_N68619_000172 REPORT 97	**08-26-1994**	PRC ENVIRONMENTAL MANAGEMENT, INC.	FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY REMOVAL ACTION ENGINEERING EVALUATION AND COST ANALYSIS FOR POLYCHLORINATED BIPHENYL (PCB) AND LEAD-CONTAMINATED SOILS (SEE RECORD # 283 - ADDENDUM, AND RECORD # 171 - NAVFAC WDIV TRANSMITTAL LETTER)	YES	SITE 00002
AR_N68619_000171 CORRESPONDENCE 2	**08-29-1994**	NAVFAC - WESTERN DIVISION	TRANSMITTAL OF THE FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY REMOVAL ACTION ENGINEERING EVALUATION AND COST ANALYSIS FOR POLYCHLORINATED BIPHENYL (PCB) AND LEAD-CONTAMINATED SOILS (ENCLOSURE IS RECORD # 172)	YES	SITE 00002
AR_N68619_000174 PUBLIC NOTICE 1	**08-31-1994**	ALAMEDA JOURNAL - ALAMEDA, CA	PUBLIC NOTICE OF THE PUBLIC COMMENT PERIOD 31 AUGUST TO 30 SEPTEMBER 1994 FOR ENGINEERING EVALUATION/COST ANALYSIS REPORT	YES	SITE 00002
AR_N68619_000761 PUBLIC NOTICE 1	**08-31-1994**	OAKLAND TRIBUNE - OAKLAND, CA	PUBLIC NOTICE OF THE PUBLIC COMMENT PERIOD 31 AUGUST TO 30 SEPTEMBER 1994 FOR THE ENGINEERING EVALUATION/COST ANALYSIS REPORT	YES	SITE 00002
AR_N68619_000762 PUBLIC NOTICE 1	**08-31-1994**	ALAMEDA TIMES-STAR - ALAMEDA, CA	PUBLIC NOTICE OF THE COMMENT PERIOD 31 AUGUST TO 30 SEPTEMBER 1994 FOR ENGINEERING EVALUATION/COST ANALYSIS REPORT	YES	SITE 00002

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000177 PUBLIC NOTICE 1	**09-09-1994**	ALAMEDA JOURNAL - ALAMEDA, CA	PUBLIC NOTICE OF THE PUBLIC COMMENT PERIOD 31 AUGUST TO 30 SEPTEMBER 1994 FOR ENGINEERING EVALUATION/COST ANALYSIS REPORT	YES	SITE 00002
AR_N68619_000193 CORRESPONDENCE 2	**11-16-1994**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT ACTION MEMORANDUM, SCREENING LOT AND SCRAPYARD AREA, POLYCHLORINATED BIPHENYL (PCB) AND LEAD CONTAMINATED SOILS REMOVAL ACTION	YES	SITE 00002
AR_N68619_000198 CORRESPONDENCE 3	**01-05-1995**	NAVFAC - EFA WEST	TRANSMITTAL OF THE DECEMBER 1994 REMEDIAL INVESTIGATION/FEASIBILITY STUDY MONTHLY STATUS REPORT (W/ ENCLOSURE)	YES	SITE 00002
AR_N68619_000199 CORRESPONDENCE 3	**01-09-1995**	NAVFAC - EFA WEST	TRANSMITTAL OF THE FINAL ACTION MEMORANDUM, SCREENING LOT AND SCRAPYARD AREA, POLYCHLORINATED BIPHENYL (PCB) AND LEAD CONTAMINATED SOIL NON-TIME CRITICAL REMOVAL ACTION (ENCLOSURE IS RECORD # 200)	YES	SITE 00002
AR_N68619_000200 REPORT 38	**01-09-1995**	PRC ENVIRONMENTAL MANAGEMENT, INC.	FINAL ACTION MEMORANDUM, SCREENING LOT AND SCRAPYARD AREA, POLYCHLORINATED BIPHENYL (PCB) AND LEAD CONTAMINATED SOIL NON-TIME CRITICAL REMOVAL ACTION (SEE RECORD # 199 - NAVFAC EFAW TRANSMITTAL LETTER)	YES	SITE 00002

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AR_N68619_000202 FACT SHEET 6	**03-01-1995**	NAVFAC - EFA WEST	ENVIRONMENTAL FACT SHEET (DOCUMENT PERTAINS TO MULTIPLE BASES)	YES	AOC 000001 AOC 000002 AOC 000003 AOC 000008 BLDG 0000003 BLDG 0000025 SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SWMU 00001 SWMU 00003 SWMU 00004
AR_N68619_000203 REPORT 3	**03-06-1995**	NAVFAC - EFA WEST	TRANSMITTAL OF THE JANUARY 1995 REMEDIAL INVESTIGATION/FEASIBILITY STUDY MONTHLY STATUS REPORT (W/ ENCLOSURE)	YES	SITE 00002

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AR_N68619_000210 CORRESPONDENCE 44	**03-31-1995**	NAVFAC - EFA WEST	TRANSMITTAL OF THE 21 MARCH 1995 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (W/ ENCLOSURE) [DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS]	YES	AOC 000001 AOC 000002 AOC 000003 AOC 000008 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SWMU 00001 SWMU 00003 SWMU 00004
AR_N68619_000227 CORRESPONDENCE 3	**04-19-1995**	NAVFAC - EFA WEST	TRANSMITTAL OF THE DRAFT WORK PLAN SCREENING LOT AND SCRAPYARD AREA POLYCHLORINATED BIPHENYL (PCB), AND LEAD-CONTAMINATED SOILS NON-TIME CRITICAL REMOVAL ACTION (ENCLOSURE IS RECORD # 256)	YES	SITE 00002
AR_N68619_000215 CORRESPONDENCE 3	**04-21-1995**	NAVFAC - EFA WEST	TRANSMITTAL OF ADDITIONAL PAGES FOR THE DRAFT WORK PLAN SCREENING LOT AND SCRAPYARD AREA POLYCHLORINATED BIPHENYL (PCB) AND LEAD CONTAMINATED SOILS NON-TIME CRITICAL REMOVAL ACTION (ENCLOSURE WAS INSERTED IN RECORD # 256)	YES	SITE 00002

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000256 REPORT 319	**05-01-1995**	IT CORPORATION	FINAL WORK PLAN SCREENING LOT AND SCRAPYARD AREA, POLYCHLORINATED BIPHENYL (PCB) AND LEAD-CONTAMINATED SOILS, NON-CRITICAL REMOVAL ACTION, (INCLUDES REPLACEMENT PAGES CONVERTING THE DRAFT, DATED 21 APRIL 1995, TO FINAL; AND FINAL VERSIONS **SEE COMMENTS**	YES	SITE 00002
AR_N68619_000223 CORRESPONDENCE 2	**06-19-1995**	NAVFAC - EFA WEST	LETTER REQUESTING RE-SOLICIT IDENTIFICATION OF STATE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS FOR THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY AT VARIOUS SITES	YES	SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008
AR_N68619_000228 CORRESPONDENCE 3	**07-07-1995**	NAVFAC - EFA WEST	TRANSMITTAL OF THE REPLACEMENT PAGES CONVERTING THE DRAFT WORK PLAN SCREENING LOT AND SCRAPYARD AREA POLYCHLORINATED BIPHENYL (PCB) AND LEAD-CONTAMINATED SOILS NON-TIME CRITICAL REMOVAL ACTION DATED 21 APRIL 1995, TO FINAL (ENCLOSURE IS RECORD # 256)	YES	SITE 00002
AR_N68619_000232 CORRESPONDENCE 3	**08-08-1995**	NAVFAC - EFA WEST	TRANSMITTAL OF THE DRAFT ENGINEERING EVALUATION/COST ANALYSIS ADDENDUM FOR POLYCHLORINATED BIPHENYL (PCB) CONTAMINATED SOIL NON-TIME CRITICAL REMOVAL ACTION	YES	SITE 00002

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AR_N68619_000205 REPORT 1103	**01-01-1996**	PRC ENVIRONMENTAL MANAGEMENT, INC.	FINAL REMEDIAL INVESTIGATION REPORT, VOLUME I OF V (SEE RECORDS # 206 THROUGH # 209 - VOLUMES II THROUGH V, AND RECORDS # 262, # 284 AND # 531 - NAVFAC EFAW TRANSMITTAL LETTERS]	YES	AOC 000001 AOC 000002 AOC 000003 SITE 00002 SITE 00003 SITE 00004 SWMU 00001 SWMU 00003 SWMU 00004
AR_N68619_000283 REPORT 65	**03-01-1996**	PRC ENVIRONMENTAL MANAGEMENT, INC.	FINAL REMOVAL ACTION ENGINEERING EVALUATION/COST ANALYSIS ADDENDUM FOR POLYCHLORINATED BIPHENYL (PCB) CONTAMINATED SOILS AND SUMP REMOVAL	YES	SITE 00002
AR_N68619_000282 CORRESPONDENCE 3	**03-29-1996**	NAVFAC - EFA WEST	TRANSMITTAL OF THE FINAL REMOVAL ACTION ENGINEERING EVALUATION/COST ANALYSIS ADDENDUM FOR POLYCHLORINATED BIPHENYL (PCB) CONTAMINATED SOILS AND SUMP REMOVAL (ENCLOSURE IS RECORD # 283)	YES	SITE 00002
AR_N68619_000316 CORRESPONDENCE 3	**09-19-1996**	NAVFAC - EFA WEST	TRANSMITTAL OF THE ENGINEERING EVALUATION/COST ANALYSIS TABLE OF APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS FOR THE INTERIM REMOVAL ACTION, SCRAPYARD/SCREENING LOT (W/ ENCLOSURE)	YES	SITE 00002

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000327 REPORT 333	**10-18-1996**	PRC ENVIRONMENTAL MANAGEMENT, INC.	QUARTERLY GROUNDWATER MONITORING REPORT (FIRST INTERIM QUARTER, JANUARY 1996) [SEE RECORD # 326 - NAVFAC EFAW TRANSMITTAL LETTER]	YES	AOC 000001 AOC 000002 AOC 000003 BLDG 0000013 BLDG 0000025 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SWMU 00001 SWMU 00003 SWMU 00004
AR_N68619_000325 REPORT 51	**11-01-1996**	PRC ENVIRONMENTAL MANAGEMENT, INC.	FINAL ENGINEERING EVALUATION/COST ANALYSIS FOR POLYCHLORINATED BIPHENYL (PCB) CONTAMINATED SOILS AND SUMP REMOVAL	NO	SITE 00002
AR_N68619_000324 CORRESPONDENCE 3	**11-13-1996**	NAVFAC - EFA WEST	TRANSMITTAL OF THE FINAL ENGINEERING EVALUATION/COST ANALYSIS FOR POLYCHLORINATED BIPHENYL (PCB) CONTAMINATED SOILS AND SUMP REMOVAL	YES	SITE 00002

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AR_N68619_000339 REPORT 307	**02-01-1997**	PRC ENVIRONMENTAL MANAGEMENT, INC.	QUARTERLY GROUNDWATER MONITORING REPORT (SECOND INTERIM QUARTER, APRIL 1996) [SEE RECORD # 338 - NAVFAC EFAW TRANSMITTAL LETTER]	YES	AOC 000001 AOC 000002 AOC 000003 BLDG 0000013 BLDG 0000025 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SWMU 00001 SWMU 00003 SWMU 00004
AR_N68619_000336 CORRESPONDENCE 3	**02-03-1997**	NAVFAC - EFA WEST	TRANSMITTAL OF THE DRAFT REMOVAL ACTION IMPLEMENTATION REPORT FOR REMOVAL OF POLYCHLORINATED BIPHENYL (PCB) AND LEAD CONTAMINATED SOILS, SCREENING LOT AND SCRAPYARD AREA (ENCLOSURE IS RECORD # 337)	YES	SITE 00002
AR_N68619_000345 REPORT 65	**03-01-1997**	PRC ENVIRONMENTAL MANAGEMENT, INC.	FINAL ENGINEERING EVALUATION/COST ANALYSIS FOR POLYCHLORINATED BIPHENYL (PCB) CONTAMINATED SOILS AND SUMP REMOVAL (SEE RECORD # 344 - NAVFAC EFAW TRANSMITTAL LETTER)	YES	SITE 00002
AR_N68619_000342 CORRESPONDENCE 3	**03-19-1997**	NAVFAC - EFA WEST	LETTER REQUESTING IDENTIFICATION OF STATE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS FOR THE FEASIBILITY STUDY	YES	SITE 00002 SWMU 00001

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AR_N68619_000344 CORRESPONDENCE 3	**03-31-1997**	NAVFAC - EFA WEST	TRANSMITTAL OF THE FINAL ENGINEERING EVALUATION/COST ANALYSIS FOR POLYCHLORINATED BIPHENYL (PCB) CONTAMINATED SOILS AND SUMP REMOVAL (ENCLOSURE IS RECORD # 345)	YES	SITE 00002
AR_N68619_000347 REPORT 295	**04-01-1997**	PRC ENVIRONMENTAL MANAGEMENT, INC.	QUARTERLY GROUNDWATER MONITORING REPORT (THIRD INTERIM QUARTER, JULY 1996) [SEE RECORD # 346 - NAVFAC EFAW TRANSMITTAL LETTER]	YES	AOC 000001 AOC 000002 AOC 000003 BLDG 0000013 BLDG 0000025 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SWMU 00001 SWMU 00003 SWMU 00004
AR_N68619_000369 CORRESPONDENCE 2	**04-25-1997**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT REMOVAL ACTION IMPLEMENTATION REPORT FOR REMOVAL OF POLYCHLORINATED BIPHENYL (PCB) AND LEAD CONTAMINATED SOILS	YES	SITE 00002
AR_N68619_000355 PUBLIC NOTICE 6	**07-01-1997**	NAVFAC - EFA WEST	PUBLIC NOTICE FOR THE PUBLIC COMMENTS ON THE PROPOSED PLAN FOR FOUR INSTALLATION RESTORATION SITES (SEE RECORDS # 354 AND # 429 - NAVFAC EFAW TRANSMITTAL LETTERS)	YES	SITE 00002

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AR_N68619_000354 CORRESPONDENCE 3	**07-22-1997**	NAVFAC - EFA WEST	TRANSMITTAL OF THE PROPOSED PLAN FOR FOUR INSTALLATION RESTORATION SITES (ENCLOSURE IS RECORD # 355)	YES	SITE 00001 SITE 00003 SITE 00005 SITE 00007
AR_N68619_000358 CORRESPONDENCE 3	**08-19-1997**	NAVFAC - EFA WEST	TRANSMITTAL OF THE DRAFT FEASIBILITY STUDY, SCRAPYARD/SCREENING LOT	YES	SITE 00002
AR_N68619_000362 CORRESPONDENCE 3	**09-02-1997**	NAVFAC - EFA WEST	TRANSMITTAL OF THE REPLACEMENT PAGES CONVERTING THE DRAFT REMOVAL ACTION IMPLEMENTATION REPORT FOR REMOVAL OF POLYCHLORINATED BIPHENYL (PCB) AND LEAD-CONTAMINATED SOILS, SCREENING LOT AND SCRAPYARD AREA, DATED FEBRUARY 1997 TO FINAL	YES	SITE 00002
AR_N68619_000377 CORRESPONDENCE 2	**10-10-1997**	U.S. EPA - SAN FRANCISCO, CA	LETTER NOTIFICATION TO TEMPORARILY SUSPEND REVIEW OF THE DRAFT FEASIBILITY STUDY DATED AUGUST 1997 PENDING DISCUSSIONS AT THE 14 OCTOBER 1997 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING	YES	SITE 00002
AR_N68619_000382 CORRESPONDENCE 3	**10-16-1997**	NAVFAC - EFA WEST	TRANSMITTAL OF THE DRAFT ACTION MEMORANDUM, SCREENING LOT AND SCRAPYARD AREA, POLYCHLORINATED BIPHENYL (PCB) CONTAMINATED SOILS AND SUMP REMOVAL, NON-TIME CRITICAL REMOVAL ACTION	YES	SITE 00002
AR_N68619_000378 CORRESPONDENCE 3	**10-21-1997**	DTSC - BERKELEY, CA	LETTER SUMMARIZING THE DISCUSSION BETWEEN THE NAVY AND REGULATORY AGENCIES REGARDING THE DRAFT FEASIBILITY STUDY, SCRAPYARD/SCREENING LOT ON 14 OCTOBER 1997	YES	SITE 00002

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AR_N68619_000384 CORRESPONDENCE 11	**10-28-1997**	NAVFAC - EFA WEST	LETTER ACKNOWLEDGING THE RECEIPT OF LETTER, DATED 21 OCTOBER 1997 SUMMARIZING DISCUSSION REGARDING THE DRAFT FEASIBILITY STUDY, AND TRANSMITTAL OF THE SAMPLING AND ANALYSIS PLAN	YES	SITE 00002
AR_N68619_000394 CORRESPONDENCE 4	**11-07-1997**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT ACTION MEMORANDUM, SCREENING LOT AND SCRAPYARD AREA, POLYCHLORINATED BIPHENYL (PCB) CONTAMINATED SOILS AND SUMP REMOVAL, NON-TIME CRITICAL REMOVAL ACTION	YES	SITE 00002
AR_N68619_000388 CORRESPONDENCE 4	**11-25-1997**	NAVFAC - EFA WEST	RESPONSES TO CONCERNS REGARDING THE CHROMIUM CONCENTRATIONS PRESENTED IN THE REMEDIAL INVESTIGATION REPORT AND TO PRESENT THE SAMPLING LOCATIONS THAT SHOULD BE RE-SAMPLED AND ANALYZED FOR HEXAVALENT CHROMIUM	YES	SITE 00002
AR_N68619_000395 CORRESPONDENCE 2	**12-01-1997**	DTSC - BERKELEY, CA	REVIEW AND CONCURRENCE WITH THE LETTERS, DATED 28 OCTOBER 1997 AND 25 NOVEMBER 1997 REGARDING HEXAVALENT CHROMIUM SAMPLING; AND REQUEST TO IDENTIFY SAMPLES THAT HAD HIGH LEVELS OF CHROMIUM, AND COLLECT ADDITIONAL SURFACE SOIL SAMPLES FOR ANALYSIS	YES	SITE 00002
AR_N68619_000396 CORRESPONDENCE 6	**12-03-1997**	NAVFAC - EFA WEST	TRANSMITTAL OF THE RESTORATION ADVISORY BOARD (RAB) FOCUS GROUP COMMENTS ON THE DRAFT FEASIBILITY STUDY, SCRAPYARD/SCREENING LOT (W/ ENCLOSURE)	YES	SITE 00002
AR_N68619_000399 CORRESPONDENCE 7	**01-01-1998**	NAVFAC - EFA WEST	RESPONSES TO COMMENTS ON THE DRAFT ACTION MEMORANDUM, SCREENING LOT AND SCRAPYARD AREA, POLYCHLORINATED BIPHENYL (PCB) CONTAMINATED SOILS AND SUMP REMOVAL, NON-TIME CRITICAL REMOVAL ACTION	YES	SITE 00002

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AR_N68619_000409 REPORT 26	**01-01-1998**	TETRA TECH EM, INC.	FINAL ACTION MEMORANDUM, SCREENING LOT AND SCRAPYARD AREA, POLYCHLORINATED BIPHENYL (PCB) CONTAMINATED SOILS AND SUMP REMOVAL, NON-TIME CRITICAL REMOVAL ACTION (SEE RECORD # 400 - NAVFAC EFAW TRANSMITTAL LETTER)	YES	SITE 00002
AR_N68619_000401 CORRESPONDENCE 36	**01-13-1998**	TETRA TECH EM, INC.	TRANSMITTAL OF THE 13 JANUARY 1998 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (W/ ENCLOSURE) [DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS]	YES	OUTFALL 001 SITE 00002
AR_N68619_000400 CORRESPONDENCE 3	**01-16-1998**	NAVFAC - EFA WEST	TRANSMITTAL OF THE FINAL ACTION MEMORANDUM, SCREENING LOT AND SCRAPYARD AREA, POLYCHLORINATED BIPHENYL (PCB) CONTAMINATED SOILS AND SUMP REMOVAL, NON-TIME CRITICAL REMOVAL ACTION (ENCLOSURE IS RECORD # 409)	YES	SITE 00002
AR_N68619_000403 CORRESPONDENCE 3	**01-30-1998**	NAVFAC - EFA WEST	TRANSMITTAL OF THE DRAFT FEASIBILITY STUDY	YES	SITE 00002
AR_N68619_000437 CORRESPONDENCE 8	**05-11-1998**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE 1) DRAFT FEASIBILITY STUDY FOR SOIL AT SOLID WASTE MANAGEMENT UNIT, AND 2) DRAFT FEASIBILITY STUDY FOR SOLID WASTE MANAGEMENT UNIT AND AREA OF CONCERN	YES	AOC 000002 AOC 000008 SITE 00002 SITE 00004 SITE 00006 SITE 00008 SWMU 00001 SWMU 00004

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AR_N68619_000438 CORRESPONDENCE 5	**05-11-1998**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT FEASIBILITY STUDY FOR SOIL AT SOLID WASTE MANAGEMENT UNIT	YES	SITE 00002
AR_N68619_000427 CORRESPONDENCE 4	**06-25-1998**	NAVFAC - EFA WEST	TRANSMITTAL OF THE 1) DRAFT FINAL CUMULATIVE GROUNDWATER MONITORING REPORT, AND 2) DRAFT ON-SCENE COORDINATOR REPORT OF THE INTERIM REMOVAL ACTION	YES	SITE 00002
AR_N68619_000429 CORRESPONDENCE 3	**07-08-1998**	NAVFAC - EFA WEST	TRANSMITTAL OF THE 1) PROPOSED PLAN FOR FOUR INSTALLATION RESTORATION SITES, AND 2) DRAFT REMEDIAL ACTION PLAN (ENCLOSURE 1 IS RECORD # 355 AND ENCLOSURE 2 IS RECORD # 430)	YES	SITE 00001 SITE 00003 SITE 00005 SITE 00007
AR_N68619_000455 CORRESPONDENCE 2	**07-27-1998**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT ON-SCENE COORDINATOR REPORT	YES	SITE 00002
AR_N68619_000456 REPORT 54	**08-14-1998**	TETRA TECH EM, INC.	FINAL ON-SCENE COORDINATOR REPORT, REMOVAL ACTION, SCREENING LOT AND SCRAP YARD AREA RAILROAD SUMP (INCLUDES NAVFAC EFAW TRANSMITTAL LETTER SER 612.2/L8203)	YES	SITE 00002
AR_N68619_000431 PUBLIC NOTICE 6	**08-19-1998**	NAVFAC - EFA WEST	PUBLIC NOTICE INVITING COMMENTS ON THE RESULTS OF ENVIRONMENTAL INVESTIGATIONS AND THE PROPOSED NO ACTION PLAN FOR FOUR INSTALLATION RESTORATION SITES	YES	SITE 00001 SITE 00003 SITE 00005 SITE 00007
AR_N68619_000460 CORRESPONDENCE 5	**08-24-1998**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE 1) DRAFT PROPOSED PLAN, AND 2) DRAFT REMEDIAL ACTION PLAN	YES	SITE 00001 SITE 00003 SITE 00005 SITE 00007

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AR_N68619_000466 CORRESPONDENCE 3	**08-28-1998**	NAVFAC - EFA WEST	RESPONSES TO COMMENTS ON THE DRAFT FEASIBILITY STUDY (SEE RECORD # 438 - COMMENTS BY DTSC)	YES	SITE 00002
AR_N68619_000479 CORRESPONDENCE 10	**09-02-1998**	NAVFAC - EFA WEST	RESPONSE TO ADDITIONAL COMMENT REGARDING FRUIT BEARING TREE ROOTS (INCLUDES ATTACHMENT A - EVALUATION OF POTENTIAL EXPOSURE OF RESIDENTS TO CHEMICALS DETECTED IN GROUNDWATER THROUGH THE INGESTION OF HOMEGROWN FRUITS)	YES	SITE 00002
AR_N68619_000467 CORRESPONDENCE 2	**09-23-1998**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE RESPONSES TO COMMENTS ON THE DRAFT FEASIBILITY STUDY (SEE RECORD # 466 - RESPONSES TO COMMENTS)	YES	SITE 00002
AR_N68619_000485 CORRESPONDENCE 12	**10-06-1998**	NAVFAC - EFA WEST	RESPONSES TO COMMENTS ON THE 1) DRAFT FINAL CUMULATIVE GROUNDWATER MONITORING REPORT, 2) DRAFT REMEDIAL ACTION PLAN/RECORD OF DECISION, AND 3) PROPOSED PLAN (SEE RECORDS # 460 AND # 464 - COMMENTS BY DTSC)	YES	SITE 00001 SITE 00003 SITE 00005 SITE 00007
AR_N68619_000473 CORRESPONDENCE 3	**10-08-1998**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE LETTER, DATED 02 SEPTEMBER 1998 ON THE POTENTIAL EXPOSURE PATHWAY VIA FRUIT INGESTIONS (SEE RECORD # 479 - LETTER)	YES	SITE 00002 SITE 00004 SITE 00006 SITE 00008
AR_N68619_000487 MINUTES 10	**10-13-1998**	NAVFAC - EFA WEST	13 OCTOBER 1998 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEET, AND PRESS RELEASE)	YES	SITE 00001

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AR_N68619_000489 CORRESPONDENCE 2	**10-16-1998**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE FEASIBILITY STUDY REGARDING LETTER DATED 02 SEPTEMBER 1998 AND IT'S ATTACHMENT A	YES	SITE 00002
AR_N68619_000498 FACT SHEET 14	**11-01-1998**	NAVFAC - EFA WEST	FACT SHEET: PROPOSED PLAN FOR FOUR INSTALLATION RESTORATION SITES	YES	SITE 00002 SITE 00004 SITE 00006 SITE 00008
AR_N68619_000494 CORRESPONDENCE 8	**11-06-1998**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE PROPOSED PLAN AND DRAFT REMEDIAL ACTION PLAN/RECORD OF DECISION (W/ ENCLOSURES)	YES	SITE 00001 SITE 00003 SITE 00005 SITE 00007
AR_N68619_000495 CORRESPONDENCE 10	**11-09-1998**	NAVFAC - EFA WEST	RESPONSES TO ADDITIONAL COMMENTS ON THE FEASIBILITY STUDY REGARDING FRUIT TREE GROUNDWATER UPTAKE (SEE RECORD # 473 - COMMENTS BY DTSC, AND RECORD # 489 - COMMENTS BY U.S. EPA)	YES	SITE 00002
AR_N68619_000476 PUBLIC NOTICE 6	**12-01-1998**	NAVFAC - EFA WEST	PUBLIC NOTICE INVITING PUBLIC COMMENTS ON THE PROPOSED PLAN FOR FOUR INSTALLATION RESTORATION SITES	YES	SITE 00001 SITE 00003 SITE 00005 SITE 00007
AR_N68619_000502 CORRESPONDENCE 2	**12-04-1998**	DTSC - BERKELEY, CA	REVIEW AND NO COMMENTS ON THE DRAFT FINAL FEASIBILITY STUDY; AND REVIEW AND COMMENTS ON THE RESPONSES TO COMMENTS ON THE LETTER DATED 09 NOVEMBER 1998	YES	SITE 00002

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AR_N68619_000509 REPORT 285	**01-22-1999**	TETRA TECH EM, INC.	FINAL FEASIBILITY STUDY FOR SOIL (SEE RECORD # 508 - NAVFAC EFAW TRANSMITTAL LETTER)	YES	SITE 00002 SWMU 00001
AR_N68619_000126 CORRESPONDENCE 3	**06-09-1999**	CRWQCB - OAKLAND, CA	REVIEW AND COMMENTS ON THE DRAFT BASEWIDE GROUNDWATER BENEFICIAL USE REPORT (SEE RECORD # 500 - DRAFT BASEWIDE GROUNDWATER BENEFICIAL USE REPORT)	YES	SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008
AR_N68619_000675 REPORT 24	**10-20-1999**	TETRA TECH EM, INC.	BENZENE SOIL GAS INVESTIGATION SUMMARY (INCLUDES ESTIMATING BENZENE CANCER RISKS DUE TO VAPOR INTRUSION AND SUMMARY OF CRAWL SPACE BENZENE AIR SAMPLING AT GEORGE P. MILLER ELEMENTARY SCHOOL) [DOCUMENT PERTAINS TO MULTIPLE BASES]	YES	PARCEL 0178 PARCEL 0179 PARCEL 0180 PARCEL 0181 SITE 00002
AR_N68619_000550 CORRESPONDENCE 3	**11-23-1999**	DTSC - BERKELEY, CA	LETTER REGARDING THE DISCUSSION OF TECHNICAL ISSUES TO BE RESOLVED FOR EARLY TRANSFER	YES	SITE 00001 SITE 00004 SITE 00006 SITE 00008
AR_N68619_000547 CORRESPONDENCE 2	**11-29-1999**	DTSC - BERKELEY, CA	LETTER TO CORRECT LETTER DATED 23 NOVEMBER 1999 REGARDING TECHNICAL ISSUES TO BE RESOLVED - INCORRECTLY LISTED SOLID WASTE MANAGEMENT UNIT 1 AS SITE 1 SHOULD BE SITE 2	YES	PARCEL 0029 SITE 00002 SWMU 00001

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AR_N68619_000567 MINUTES 17	**12-14-1999**	TETRA TECH EM, INC.	14 DECEMBER 1999 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEETS AND VARIOUS HANDOUTS)	YES	SITE 00002
AR_N68619_000568 MINUTES 52	**01-11-2000**	TETRA TECH EM, INC.	11 JANUARY 2000 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEETS, AND VARIOUS HANDOUTS	YES	SITE 00002 SITE 00004 SITE 00006
AR_N68619_000539 REPORT 148	**01-14-2000**	NEWFIELDS, INC.	FINAL BASELINE HUMAN HEALTH RISK ASSESSMENT (INCLUDES NAVFAC EFAW TRANSMITTAL LETTER SER 612B/L0036; DRAFT RISK ASSESSMENT, DATED 07 JULY 1999; AND TECHNICAL MEMORANDUM, DATED 20 OCTOBER 1999)	YES	AOC 000001 AOC 000002 AOC 000003 SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SWMU 00001 SWMU 00003 SWMU 00004
AR_N68619_000544 CORRESPONDENCE 17	**01-14-2000**	ENVIRONMENTAL RESOURCES MANAGEMENT (ERM) WEST, INC.	LETTER REGARDING THE PROPOSED GROUNDWATER SAMPLING APPROACH FOR WAREHOUSE INSTALLATION RESTORATION AREAS; AND EAST HOUSING AREA IN ALAMEDA POINT (W/ ENCLOSURES) [DOCUMENT PERTAINS TO MULTIPLE BASES]	YES	SITE 00002
AR_N68619_000554 CORRESPONDENCE 2	**02-02-2000**	NAVFAC - EFA WEST	REVIEW AND COMMENTS ON THE PROPOSED SAMPLING APPROACH FOR WAREHOUSE AREA AND ALAMEDA POINT EAST HOUSING AREA	YES	SITE 00002

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AR_N68619_000597 CORRESPONDENCE 10	**02-07-2000**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT FINAL FEASIBILITY STUDY FOR THE MARSH CRUST AND GROUNDWATER (DOCUMENT PERTAINS TO MULTIPLE BASES)	YES	SITE 00002 SWMU 00001
AR_N68619_000569 MINUTES 23	**02-08-2000**	TETRA TECH EM, INC.	08 FEBRUARY 2000 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEETS, AND VARIOUS HANDOUTS)	YES	SITE 00002 SITE 00004 SITE 00005 SITE 00006
AR_N68619_000553 CORRESPONDENCE 13	**02-17-2000**	CLEARWATER REVIVAL COMPANY - ALAMEDA, CA	REVIEW AND COMMENTS ON THE DRAFT FINAL FEASIBILITY STUDY MARSH CRUST, SUB-TIDAL AREA AND GROUNDWATER (INCLUDES COMMENTS ON BASEWIDE FEASIBILITY STUDY FOR MARSH CRUST AND SUB-TIDAL WETLANDS DATED 19 MARCH 1999)	YES	OU 0000001 OU 0000002 OU 0000003 SITE 00003 SITE 00007
AR_N68619_000541 REPORT 125	**03-31-2000**	TETRA TECH EM, INC.	FINAL FEASIBILITY STUDY FOR THE MARSH CRUST AND GROUNDWATER (DOCUMENT PERTAINS TO MULTIPLE BASES)	YES	OU 0000001 OU 0000002 OU 0000003 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007
AR_N68619_000571 MINUTES 21	**04-11-2000**	TETRA TECH EM, INC.	11 APRIL 2000 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS)	YES	SITE 00002 SITE 00004 SITE 00006

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AR_N68619_000572 MINUTES 14	**05-09-2000**	TETRA TECH EM, INC.	09 MAY 2000 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEET, AND SCHEDULE)	YES	SITE 00002
AR_N68619_000004 CORRESPONDENCE 4	**07-14-2000**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT SUPPLEMENTAL REMEDIAL INVESTIGATION FOR POLYNUCLEAR AROMATIC HYDROCARBON (PAH) CONTAMINATED SOIL (SEE RECORD # 556 - DRAFT SUPPLEMENTAL REMEDIAL INVESTIGATION FOR POLYNUCLEAR AROMATIC HYDROCARBON (PAH) CONTAMINATED SOIL)	YES	SITE 00002
AR_N68619_000577 CORRESPONDENCE 3	**08-24-2000**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT SITE MANAGEMENT PLAN (SEE RECORD # 14 - DRAFT SITE MANAGEMENT PLAN)	YES	SITE 00002
AR_N68619_000682 CORRESPONDENCE 3	**09-11-2000**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT PRELIMINARY ASSESSMENT/SITE INSPECTION/ACTION LEVEL DECISION DOCUMENT (SEE RECORD # 576 - DRAFT PRELIMINARY ASSESSMENT/SITE INSPECTION/ACTION LEVEL DECISION DOCUMENT)	YES	SITE 00003 SITE 00005 SITE 00013 SITE 00014 SITE 00015 SITE 00016 SITE 00025 SITE 00026 SITE 00034 SITE 00038 SITE 00045

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AR_N68619_000588 MINUTES 18	**09-12-2000**	TETRA TECH EM, INC.	12 SEPTEMBER 2000 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS) [DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS]	YES	AOC 000001 AOC 000002 AOC 000003 AOC 000008 BLDG 0000001 BLDG 0000002 BLDG 0000003 BLDG 0000004 BLDG 0000005 BLDG 0000006 BLDG 0000007 BLDG 0000008 BLDG 0000009 BLDG 0000010 BLDG 0000012 BLDG 0000013 BLDG 0000016 BLDG 0000017 BLDG 0000025 BLDG 0000026 BLDG 0000027 BLDG 0000361 BLDG 0000364 BLDG 0000365 BLDG 0000366 BLDG 0000368 BLDG 0000370 BLDG 0000371

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					SITE 00001 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00012 SWMU 00001 SWMU 00003 SWMU 00004
AR_N68619_000594 MINUTES 12	**10-10-2000**	TETRA TECH EM, INC.	10 OCTOBER 2000 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS)	YES	SITE 00002 SITE 00004 SITE 00005 SITE 00006
AR_N68619_000593 CORRESPONDENCE 8	**11-01-2000**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE QUARTERLY PROGRESS REPORT FOR MAY THROUGH AUGUST 2000 (W/ ENCLOSURE)	YES	SITE 00002 SITE 00004 SITE 00006 WELL S-27
AR_N68619_000606 MINUTES 8	**11-14-2000**	TETRA TECH EM, INC.	14 NOVEMBER 2000 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA AND SIGN-IN SHEET)	YES	SITE 00002 SITE 00004 SITE 00005 SITE 00006 WELL S-27

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AR_N68619_000608 CORRESPONDENCE 4	**01-04-2001**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE QUARTERLY PROGRESS REPORT FOR SEPTEMBER THROUGH NOVEMBER 2000 (W/ ENCLOSURE)	YES	SITE 00002 SITE 00004 SITE 00005 SITE 00006
AR_N68619_000612 MINUTES 20	**01-09-2001**	TETRA TECH EM, INC.	09 JANUARY 2001 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS)	YES	SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008 WELL S-27
AR_N68619_000611 CORRESPONDENCE 2	**01-12-2001**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT FINAL SUPPLEMENTAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY FOR POLYNUCLEAR AROMATIC HYDROCARBON (PAH) CONTAMINATION	YES	SITE 00002
AR_N68619_000615 REPORT 202	**02-01-2001**	TETRA TECH EM, INC.	FINAL REMEDIAL ACTION PLAN/RECORD OF DECISION FOR THE MARSH CRUST (INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER, SER 06CA.LO/0224) [DOCUMENT PERTAINS TO MULTIPLE BASES]	YES	SITE 00002

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AR_N68619_000628 MINUTES 25	**02-13-2001**	TETRA TECH EM, INC.	13 FEBRUARY 2001 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS) [DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS]	YES	SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008
AR_N68619_000630 MINUTES 15	**03-13-2001**	TETRA TECH EM, INC.	13 MARCH 2001 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUT)	YES	SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008 WELL S-27
AR_N68619_000622 REPORT 11	**04-01-2001**	TETRA TECH EM, INC.	FINAL PROPOSED PLAN FOR THE CONTAMINATED SOIL (INCLUDES PUBLIC NOTICE OF THE PUBLIC MEETING AND COMMENT PERIOD FOR THE PROPOSED PLAN AND DRAFT REMEDIAL ACTION PLAN/RECORD OF DECISION FOR SOIL REMEDIATION)	YES	SITE 00002
AR_N68619_000635 CORRESPONDENCE 3	**04-12-2001**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE 1) DRAFT WORK PLAN AND QUALITY CONTROL PLAN, 2) DRAFT SITE SAFETY AND HEALTH PLAN, 3) DRAFT FINAL REMEDIAL DESIGN, SPECIFICATIONS AND DRAWINGS, AND 4) DRAFT FINAL FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN	YES	SITE 00002

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AR_N68619_000636 MINUTES 2	**04-23-2001**	TETRA TECH EM, INC.	07 MARCH 2001 CONFERENCE CALL MEETING MINUTES	YES	SITE 00002
AR_N68619_000637 CORRESPONDENCE 1	**04-25-2001**	ALAMEDA UNIFIED SCHOOL DISTRICT - ALAMEDA, CA	REVIEW AND COMMENTS ON THE PROPOSED PLAN AND DRAFT REMEDIAL ACTION PLAN/RECORD OF DECISION FOR SOIL REMEDIATION	YES	SITE 00002
AR_N68619_000638 MINUTES 1	**04-27-2001**	TETRA TECH EM, INC.	26 APRIL 2001 CONFERENCE CALL MEETING MINUTES	YES	SITE 00002
AR_N68619_000639 CORRESPONDENCE 2	**04-30-2001**	DTSC - BERKELEY, CA	LETTER REQUESTING TO REVISE THE PROPOSED INDUSTRIAL CLEANUP LEVEL FOR POLYCHLORINATED BIPHENYLS (PCB) IN SOIL IDENTIFIED IN THE DRAFT REMEDIAL ACTION PLAN/RECORD OF DECISION	YES	SITE 00002
AR_N68619_000640 CORRESPONDENCE 5	**05-01-2001**	CLEARWATER REVIVAL COMPANY - ALAMEDA, CA	REVIEW AND COMMENTS ON THE PROPOSED PLAN FOR CONTAMINATED SOIL	YES	SITE 00002
AR_N68619_000641 CORRESPONDENCE 3	**05-01-2001**	ALAMEDA POINT COLLABORATIVE - ALAMEDA, CA	REVIEW AND COMMENTS ON THE PROPOSED PLAN FOR CONTAMINATED SOIL	YES	SITE 00002
AR_N68619_000644 REPORT 107	**05-01-2001**	ENVIRONMENTAL CHEMICAL CORPORATION	FINAL SITE SAFETY AND HEALTH PLAN, EXCAVATION OF POLYCHLORINATED BIPHENYL (PCB) AND CADMIUM CONTAMINATED SOIL (INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER SER 06CA.MM/0506)	YES	SITE 00002

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AR_N68619_000645 REPORT 104	**05-01-2001**	ENVIRONMENTAL CHEMICAL CORPORATION	FINAL WORK PLAN, EXCAVATION OF POLYCHLORINATED BIPHENYL (PCB) AND CADMIUM CONTAMINATED SOIL (INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER SER 06CA.MM/0506, AND RESPONSES TO COMMENTS ON THE DRAFT)	YES	SITE 00002
AR_N68619_000642 CORRESPONDENCE 3	**05-02-2001**	EAST BAY MUNICIPAL UTILITY DISTRICT - OAKLAND, CA	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL ACTION PLAN/RECORD OF DECISION	YES	SITE 00002
AR_N68619_000643 CORRESPONDENCE 2	**05-02-2001**	ARC ECOLOGY	REVIEW AND COMMENTS ON THE PROPOSED PLAN FOR CONTAMINATED SOIL	YES	SITE 00002
AR_N68619_000646 CORRESPONDENCE 3	**05-14-2001**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE 1) FINAL FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN; AND 2) FINAL REMEDIAL DESIGN SPECIFICATIONS AND DRAWINGS FOR REMEDIATION OF CONTAMINATED SOIL (ENCLOSURE 1 IS RECORD # 647 AND ENCLOSURE 2 IS RECORD # 648)	YES	SITE 00002
AR_N68619_000647 REPORT 146	**05-14-2001**	TETRA TECH EM, INC.	FINAL FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN, REMOVAL OF CONTAMINATED SURFACE SOIL (SEE RECORD # 646 - NAVFAC SWDIV TRANSMITTAL LETTER, RECORD # 657 - DRAFT FINAL ADDENDUM, AND RECORD # 670 - FINAL ADDENDUM 2)	YES	SITE 00002
AR_N68619_000650 REPORT 135	**06-01-2001**	TETRA TECH EM, INC.	FINAL REMEDIAL ACTION PLAN/RECORD OF DECISION	YES	SITE 00002

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AR_N68619_000649 CORRESPONDENCE 3	**06-04-2001**	CALIFORNIA DEPARTMENT OF FISH AND GAME - SACRAMENTO, CA	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL ACTION PLAN/RECORD OF DECISION	YES	SITE 00002
AR_N68619_000651 CORRESPONDENCE 3	**06-26-2001**	DTSC - BERKELEY, CA	REVIEW AND APPROVAL OF THE 1) FINAL WORK PLAN AND QUALITY CONTROL PLAN, 2) FINAL SITE SAFETY AND HEALTH PLAN, 3) FINAL REMEDIAL DESIGN, SPECIFICATIONS AND DRAWINGS, AND 4) FINAL FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN	YES	SITE 00002
AR_N68619_000652 CORRESPONDENCE 6	**07-27-2001**	TETRA TECH EM, INC.	RESPONSE TO ENVIRONMENTAL CHEMICAL CORPORATION REQUEST FOR INFORMATION REGARDING THE REMOVAL OF CONTAMINATED SURFACE SOIL	YES	SITE 00002
AR_N68619_000654 CORRESPONDENCE 7	**08-21-2001**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE ADDENDUM NO. 1 TO THE FINAL WORK PLAN, EXCAVATION OF POLYCHLORINATED BIPHENYL (PCB) AND CADMIUM CONTAMINATED SOIL (W/ ENCLOSURE) [SEE RECORD # 645 - FINAL WORK PLAN AND QUALITY CONTROL PLAN]	YES	SITE 00002
AR_N68619_000655 CORRESPONDENCE 9	**08-21-2001**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE 1) QUARTERLY PROGRESS REPORT FOR DECEMBER 2000 THROUGH FEBRUARY 2001; AND 2) QUARTERLY PROGRESS REPORT FOR MARCH THROUGH MAY 2001 (W/ ENCLOSURES)	YES	SITE 00002 SITE 00004 SITE 00005 SITE 00006 WELL S-27 WELL S-28
AR_N68619_000656 CORRESPONDENCE 2	**08-27-2001**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE ADDENDUM NO. 1 TO THE FINAL WORK PLAN, EXCAVATION OF POLYCHLORINATED BIPHENYL (PCB) AND CADMIUM CONTAMINATED SOIL	YES	SITE 00002

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000670 REPORT 20	**09-28-2001**	TETRA TECH EM, INC.	FINAL FIELD SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN ADDENDUM 2, REMOVAL OF CONTAMINATED SURFACE SOIL (SEE RECORD # 647 - FINAL FIELD SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN)	YES	SITE 00002
AR_N68619_000130 CORRESPONDENCE 2	**10-26-2001**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE FINAL PRELIMINARY ASSESSMENT/SITE INSPECTION/ACTION LEVEL DECISION DOCUMENT (ENCLOSURE IS RECORD # 660)	YES	SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000660 REPORT 626	**10-26-2001**	NEPTUNE AND COMPANY, INC.	FINAL PRELIMINARY ASSESSMENT/SITE INSPECTION/ACTION LEVEL DECISION DOCUMENT (INCLUDES CD COPY OF ATTACHMENT A) [SEE RECORD # 130 - NAVFAC SWDIV TRANSMITTAL LETTER]	YES	PARCEL 0001 PARCEL 0002 PARCEL 0003 PARCEL 0004 PARCEL 0005 PARCEL 0006 PARCEL 0007 PARCEL 0008 PARCEL 0009 PARCEL 0010 PARCEL 0011 PARCEL 0012 PARCEL 0013 PARCEL 0014 PARCEL 0015 PARCEL 0016 PARCEL 0017 PARCEL 0018 PARCEL 0019 PARCEL 0020 PARCEL 0021 PARCEL 0022 PARCEL 0023 PARCEL 0024 PARCEL 0025 PARCEL 0026 SITE 00001 SITE 00002

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008
AR_N68619_000807 CORRESPONDENCE 7	**11-15-2001**	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE 1) DRAFT GROUNDWATER TECHNICAL MEMORANDUM; AND 2) DRAFT POLYNUCLEAR AROMATIC HYDROCARBONS TECHNICAL MEMORANDUM	YES	SITE 00002
AR_N68619_000665 CORRESPONDENCE 2	**11-27-2001**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT RISK ASSESSMENT SUMMARY OF POLYNUCLEAR AROMATIC HYDROCARBONS (PAH) IN SOIL; DTSC PROVIDED COMMENTS DURING CONFERENCE CALL OF 15 NOVEMBER AND HAS NO ADDITIONAL COMMENTS	YES	SITE 00002
AR_N68619_000671 REPORT 62	**12-20-2001**	TETRA TECH EM, INC.	FINAL TECHNICAL MEMORANDUM ON THE POLYNUCLEAR AROMATIC HYDROCARBONS (PAH) IN SOIL AT EASTERN PORTION OF SITE (INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER, SER 06CA.LO/1325)	YES	SITE 00002
AR_N68619_000672 REPORT 38	**12-27-2001**	TETRA TECH EM, INC.	FINAL TECHNICAL MEMORANDUM ON THE GROUNDWATER AND BENZENE SOIL GAS INVESTIGATION (DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS) [INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER, SER 06CA.LO/1326]	YES	SITE 00002
AR_N68619_000680 CORRESPONDENCE 4	**09-13-2002**	ALAMEDA POINT COLLABORATIVE - ALAMEDA, CA	LETTER REQUESTING TO BE PLACED ON THE APPROPRIATE DISTRIBUTION LIST FOR THE ANNEX RESTORATION ADVISORY BOARD (RAB) MEETINGS IN ORDER TO MONITOR PROGRESS AND STANDARDS FOR CLEAN UP	YES	SITE 00002

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000690 REPORT 43	**09-25-2003**	TETRA TECH EM, INC.	FINAL SITE MANAGEMENT PLAN (INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER, SER 06CA.LO/1305) [DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS]	YES	SITE 00002
AR_N68619_000692 CORRESPONDENCE 2	**11-13-2003**	CALIFORNIA DEPARTMENT OF HEALTH SERVICES - SACRAMENTO, CA	REVIEW AND CONCURRENCE WITH THE UNRESTRICTED RELEASE OF INSTALLATION RESTORATION SITE	YES	SITE 00002
AR_N68619_000694 MINUTES 27	**02-04-2004**	TETRA TECH EM, INC.	07 JANUARY 2004 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEET, VARIOUS HANDOUTS, AND 11 FEBRUARY 2004 AGENDA) [DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS]	YES	SITE 00002
AR_N68619_000703 CORRESPONDENCE 3	**06-18-2004**	DTSC - BERKELEY, CA	REVIEW AND CONCURRENCE WITH THE REMOVAL ACTIVITIES AS PRESENTED IN THE DISCOVERY OF PETROLEUM IMPACTED SOIL	YES	BLDG 0000370 SITE 00001
AR_N68619_000780 CORRESPONDENCE 2	**06-25-2004**	NAVFAC - SOUTHWEST DIVISION	REQUEST FOR EXTENSION TO THE MILESTONE FOR PRIMARY DOCUMENTS - DRAFT FINAL AND FINAL GROUNDWATER REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORTS (DOCUMENT PERTAINS TO MULTIPLE BASES)	YES	OU 0000005 SITE 00002
AR_N68619_000698 CORRESPONDENCE 3	**08-13-2004**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE RESIDENTIAL PHASE II AFFORDABLE HOUSING PROJECT, POST-GRADING SOIL ANALYTICAL RESULTS	YES	SITE 00001
AR_N68619_000700 CORRESPONDENCE 3	**09-09-2004**	DTSC - BERKELEY, CA	REVIEW AND CONCURRENCE WITH THE RESPONSES TO COMMENTS ON THE POLYCYCLIC AROMATIC HYDROCARBON (PAH) SAMPLING DATA	YES	SITE 00001

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000701 REPORT 233	**09-09-2004**	ENVIRONMENTAL RESOURCES MANAGEMENT (ERM) WEST, INC.	FINAL TECHNICAL MEMORANDUM STORM WATER CONVEYANCE AND ASSOCIATED INFRASTRUCTURE DEVELOPMENT	YES	SITE 00002
AR_N68619_000702 REPORT 499	**10-18-2004**	ENGINEERING/REMEDIATION RESOURCES GROUP, INC.	FINAL GROUNDWATER REMEDIAL INVESTIGATION/FEASIBILITY STUDY (INCLUDES REPLACEMENT PAGES CONVERTING THE DRAFT FINAL DATED 10 SEPTEMBER 2004 TO FINAL, BRAC PMO WEST, NAVFAC SW TRANSMITTAL LETTERS, RESPONSES TO COMMENTS, AND CD COPY)	YES	SITE 00002 WELL EW-02 WELL MW-25-01 WELL MW-25-02 WELL MW-25-03 WELL MW-25-04 WELL MW-25-05 WELL P181-MW-45 WELL P181-MW-46 WELL P181-MW-47 WELL PW-10A WELL PW-12 WELL S-02 WELL S-12 WELL S-13 WELL S-16 WELL S-16-02 WELL S-35

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000774 CORRESPONDENCE 2	**10-28-2004**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND CONCURRENCE WITH THE DRAFT FINAL GROUNDWATER REMEDIAL INVESTIGATION/FEASIBILITY STUDY (SEE RECORD # 702 - DRAFT FINAL GROUNDWATER REMEDIAL INVESTIGATION/FEASIBILITY STUDY)	YES	SITE 00002
AR_N68619_000708 MINUTES 11	**01-12-2005**	SULTECH	12 JANUARY 2005 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MATERIALS (INCLUDES AGENDA AND SIGN-IN SHEET)	YES	SITE 00002 SITE 00025
AR_N68619_000705 REPORT 23	**01-26-2005**	NAVFAC - SOUTHWEST DIVISION	FINAL SITE MANAGEMENT PLAN UPDATE (INCLUDES NAVFAC SWDIV TRANSMITTAL LETTER SER BPMOW.LO/0342) [DOCUMENT CONTAINS SENSITIVE STREET LEVEL MAPS]	YES	SITE 00002
AR_N68619_000775 CORRESPONDENCE 10	**06-07-2005**	BRAC PMO WEST	RESPONSES TO COMMENTS ON THE DRAFT FINAL GROUNDWATER REMEDIAL INVESTIGATION/FEASIBILITY REPORT (SEE RECORD # 702 - DRAFT FINAL GROUNDWATER REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT) [DOCUMENT PERTAINS TO MULTIPLE BASES]	YES	OU 0000005 SITE 00002 SITE 00025
AR_N68619_000094 CORRESPONDENCE 12	**07-15-2005**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE RESPONSES TO COMMENTS ON THE DRAFT FINAL GROUNDWATER REMEDIAL INVESTIGATION/FEASIBILITY REPORT (DOCUMENT PERTAINS TO MULTIPLE BASES) [SEE RECORD # 775 - RESPONSES TO COMMENTS]	YES	OU 0000005 SITE 00002 SITE 00025

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000432 REPORT 17	**03-01-2006**	CDM FEDERAL PROGRAMS CORP.	FINAL PROPOSED PLAN FOR GROUNDWATER (DOCUMENT PERTAINS TO MULTIPLE BASES) [SEE RECORD # 433 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	OU 0000005 SITE 00001 SITE 00002 SITE 00003 SITE 00025 SITE 00030 SITE 00031
AR_N68619_000433 CORRESPONDENCE 3	**03-03-2006**	BRAC PMO WEST	TRANSMITTAL OF THE FINAL PROPOSED PLAN FOR GROUNDWATER (ENCLOSURE IS RECORD # 432) [DOCUMENT PERTAINS TO MULTIPLE BASES]	YES	OU 0000005 SITE 00002
AR_N68619_000776 PUBLIC NOTICE 1	**03-06-2006**	OAKLAND TRIBUNE - OAKLAND, CA	PUBLIC NOTICE OF THE PUBLIC REVIEW AND COMMENT PERIOD FOR THE PROPOSED PLAN TO CLEAN UP CONTAMINATED SHALLOW GROUNDWATER	YES	OU 0000005 SITE 00002
AR_N68619_000192 CORRESPONDENCE 25	**07-13-2006**	DTSC - SACRAMENTO, CA	LETTER SUMMARIZING THE DISCUSSIONS AND AGREEMENTS MADE AT THE 22 MAY 2006 REGULATORY MEETING REGARDING POLYNUCLEAR AROMATIC HYDROCARBONS (PAH)	YES	PARCEL 0098 PARCEL 0099 PARCEL 0100 PARCEL 0103 SITE 00001 SITE 00002 SITE 00025
AR_N68619_000765 CORRESPONDENCE 3	**08-08-2006**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT RECORD OF DECISION, GROUNDWATER (ENCLOSURE IS RECORD # 766)	YES	OU 0000005 SITE 00002

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000757 REPORT 55	**10-03-2006**	NORTHGATE ENVIRONMENTAL	REMOVAL ACTION WORK PLAN, 39-UNIT APARTMENTS, WESTERN ONE-THIRD OF INSTALLATION RESTORATION SITE	YES	SITE 00002
AR_N68619_000763 MINUTES 19	**10-04-2006**	SULTECH	04 OCTOBER 2006 FINAL RESTORATION ADVISORY BOARD (RAB) QUARTERLY MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS) [DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS]	YES	SITE 00002
AR_N68619_000771 CORRESPONDENCE 3	**12-07-2006**	CRWQCB - OAKLAND, CA	REVIEW AND COMMENTS ON THE DRAFT RECORD OF DECISION FOR GROUNDWATER (SEE RECORD # 766 - DRAFT RECORD OF DECISION)	YES	OU 0000005 SITE 00002
AR_N68619_000447 CORRESPONDENCE 6	**12-21-2006**	DTSC - SACRAMENTO, CA	REVIEW AND COMMENTS ON THE DRAFT RECORD OF DECISION (SEE RECORD # 766 - DRAFT RECORD OF DECISION) [DOCUMENT PERTAINS TO MULTIPLE BASES]	NO	OU 0000005 SITE 00001 SITE 00002 SITE 00025 SITE 00026 SITE 00030 SITE 00031
AR_N68619_000264 MINUTES 18	**01-10-2007**	SULTECH	10 JANUARY 2007 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEET, VARIOUS HANDOUTS, AND CD COPY] (DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS.)	YES	OU 0000005 SITE 00002
AR_N68619_000231 CORRESPONDENCE 12	**01-24-2007**	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE RESPONSES TO COMMENTS ON THE DRAFT PROPOSED PLAN GROUNDWATER	YES	OU 0000005 SITE 00002

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000263 REPORT 345	**08-01-2007**	TETRA TECH EC, INC.	FINAL RECORD OF DECISION, GROUNDWATER (CD COPY ENCLOSED) [SEE RECORD # 255 - BRAC PMO WEST TRANSMITTAL LETTER] {DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS}	YES	OU 0000005 SITE 00002
AR_N68619_000255 CORRESPONDENCE 6	**09-10-2007**	BRAC PMO WEST	TRANSMITTAL OF THE FINAL RECORD OF DECISION, GROUNDWATER (ENCLOSURE IS RECORD # 263)	YES	OU 0000005 SITE 00002
AR_N68619_000483 MINUTES 43	**09-12-2007**	SULTECH	12 SEPTEMBER 2007 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEET, VARIOUS HANDOUTS, AND CD COPY) [DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS]	YES	OU 0000005 SITE 00002
AR_N68619_000777 CORRESPONDENCE 2	**11-28-2007**	BRAC PMO WEST	REQUEST FOR ADDITIONAL EXTENSION ON THE ANNUAL AMENDMENT TO THE SITE MANAGEMENT PLAN	YES	SITE 00002
AR_N68619_000778 CORRESPONDENCE 3	**03-26-2008**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL FOCUSED FEASIBILITY STUDY FOR BASEWIDE POLYNUCLEAR AROMATIC HYDROCARBON (PAH) IMPACTED SOILS (ENCLOSURE IS RECORD # 779)	YES	SITE 00001 SITE 00002
AR_N68619_000781 CORRESPONDENCE 6	**04-01-2008**	BRAC PMO WEST	TRANSMITTAL OF THE 2008 DRAFT FINAL AMENDMENT TO THE SITE MANAGEMENT PLAN (W/ ENCLOSURE) [SEE RECORD # 690 - FINAL SITE MANAGEMENT PLAN]	YES	SITE 00002

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000782 REPORT 14	**05-29-2008**	ENVIRONMENTAL RESOURCES MANAGEMENT (ERM) WEST, INC.	LETTER REPORT FOR WELL ABANDONMENT ACTIVITIES, SHENSEI GARDENS DEVELOPMENT	YES	SITE 00002 WELL D-04 WELL PZ-02 WELL PZ-03 WELL S-12

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000448 CORRESPONDENCE 30	**08-20-2009**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT 2010 AMENDMENT TO THE SITE MANAGEMENT PLAN (W/ ENCLOSURE)	NO	OU 0000001 OU 0000002A OU 0000002B OU 0000002C OU 0000003 OU 0000004A OU 0000004B OU 0000004C OU 0000005 OU 0000006 SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00010 SITE 00011 SITE 00012 SITE 00013 SITE 00014 SITE 00016 SITE 00017 SITE 00019 SITE 00020

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					SITE 00021 SITE 00022 SITE 00023 SITE 00024 SITE 00025 SITE 00026 SITE 00027 SITE 00028 SITE 00030 SITE 00031 SITE 00032 SITE 00034 SITE 00035
AR_N68619_000515 CORRESPONDENCE 4	**09-21-2009**	BRAC PMO WEST	TRANSMITTAL OF THE FINAL 2010 AMENDMENT TO THE SITE MANAGEMENT PLAN (W/ ENCLOSURE) [SEE RECORD # 690 - FINAL SITE MANAGEMENT PLAN]	YES	SITE 00002
AR_N68619_000533 CORRESPONDENCE 3	**07-08-2010**	BRAC PMO WEST	TRANSMITTAL OF THE REPLACEMENT PAGES CONVERTING THE DRAFT FINAL FOCUSED FEASIBILITY STUDY FOR BASEWIDE POLYCYCLIC AROMATIC HYDROCARBON (PAH) IMPACTED SOILS, TO FINAL (ENCLOSURE IS RECORD # 779)	YES	SITE 00001 SITE 00002
AR_N68619_000779 REPORT 183	**07-08-2010**	BARAJAS AND ASSOCIATES, INC.	FINAL FOCUSED FEASIBILITY STUDY FOR BASEWIDE POLYCYCLIC AROMATIC HYDROCARBON (PAH) IMPACTED SOILS (INCLUDES REPLACEMENT PAGES CONVERTING THE DRAFT FINAL, DATED 26 MARCH 2008, TO FINAL; AND CD COPY)	YES	SITE 00001 SITE 00002

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000802 CORRESPONDENCE 3	**11-16-2012**	BRAC PMO WEST	LETTER REQUESTING A FEDERAL FACILITY AGREEMENT EXTENSION ON THE FINAL TECHNICAL MEMORANDUM (DOCUMENT PERTAINS TO MULTIPLE BASES)	YES	OU 0000005 SITE 00002
AR_N68619_000127 CORRESPONDENCE 3	**01-15-2014**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT PROPOSED PLAN FOR NO FURTHER ACTION FOR GROUNDWATER (ENCLOSURE IS RECORD # 128) [DOCUMENT PERTAINS TO MULTIPLE BASES]	YES	OU 0000005 SITE 00001 SITE 00002 SITE 00003
AR_N68619_000137 CORRESPONDENCE 2	**02-21-2014**	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT PROPOSED PLAN (SEE RECORD # 128 - DRAFT PROPOSED PLAN FOR NO FURTHER ACTION FOR GROUNDWATER) [DOCUMENT PERTAINS TO MULTIPLE BASES]	NO	OU 0000005 SITE 00002
AR_N68619_000164 CORRESPONDENCE 3	**03-21-2014**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL PROPOSED PLAN FOR NO FURTHER ACTION FOR GROUNDWATER (ENCLOSURE IS RECORD # 233) [DOCUMENT PERTAINS TO MULTIPLE BASES]	NO	OU 0000005 SITE 00002
AR_N68619_000252 CORRESPONDENCE 2	**04-22-2014**	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT AMENDMENT TO THE RECORD OF DECISION (ENCLOSURE IS RECORD # 286)	NO	SITE 00002
AR_N68619_000383 PUBLIC NOTICE 1	**04-30-2014**	EAST BAY EXPRESS - OAKLAND, CA	PUBLIC NOTICE OF PROPOSED PLAN AND PUBLIC COMMENT PERIOD FOR GROUNDWATER (CD COPY ENCLOSED)	NO	OU 0000005 SITE 00002
AR_N68619_000331 REPORT 12	**05-01-2014**	SEALASKA ENVIRONMENTAL SERVICES	FINAL PROPOSED PLAN FOR NO FURTHER ACTION FOR GROUNDWATER (CD COPY ENCLOSED) [DOCUMENT PERTAINS TO MULTIPLE BASES]	NO	SITE 00002

UIC No. _ Rec. No. Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N68619_000357 PUBLIC NOTICE 1	**05-01-2014**	ALAMEDA SUN - ALAMEDA, CA	PUBLIC NOTICE OF PROPOSED PLAN AND PUBLIC COMMENT PERIOD FOR GROUNDWATER (CD COPY ENCLOSED)	NO	OU 0000005 SITE 00002
AR_N68619_000386 MINUTES 6	**05-20-2014**	SEALASKA ENVIRONMENTAL SERVICES	20 MAY 2014 PUBLIC MEETING TRANSCRIPT FOR PROPOSED PLAN (CD COPY ENCLOSED) [DOCUMENT PERTAINS TO MULTIPLE BASES]	NO	SITE 00002

Total Estimated Record Page Count: 8,005

Total Records: 193

(([SSIC NUMBER]="5090.3.A.")) AND [UIC NUMBER]='N68619'
No Keywords
Sites=SITE 00001;SITE 00002;SITE 00003
No Distribution
No FRC Box number
No Litigation Case Number

2	**cancer risks for residential use based on the soil gas data**	Section 1.3	Final OU-5 Remedial Investigation, Alameda Point. Section 5.9.2.2, Page 5-40, Section 5.9.3.2, Page 5-43, Tables 5-52 to 5-57. Neptune and others. 2002.

5.9.2.2 Subsurface Soil/Shallow Groundwater

Exposure to chemicals in subsurface soil and shallow groundwater is limited to the inhalation of VOCs that have migrated through the overlying soil into indoor and ambient air. Only the inhalation of VOCs in indoor air was modeled for residential populations since outdoor concentrations of VOCs will be lower than indoor air concentrations due to higher mixing in the ambient environment.

As discussed in Section 5.7, soil gas data collected at the site was used to evaluate potential VOCs migrating from subsurface soil and groundwater. The screening evaluation was conducted using the maximum detected concentration for each chemical detected. The estimated cancer risks and noncancer HIs were shown in Tables 5-52 and 53 for the maximum concentrations detected in Parcel 181. Table 5-52 provides these results based on EPA methodology and Table 5-53 provides these results based on CalEPA methodology.

As shown in Table 5-52 and Table 5-53, the cancer risk for the maximum soil gas concentrations detected in Parcel 181 is 1×10^{-8} (EPA methodology – child) and 3×10^{-9} (CalEPA methodology – adult). The estimated HIs are below one for both methodologies. As these estimated cancer risks are below the low end of the target range and the noncancer HIs are well below one, no further refinement of the risk calculations was conducted for the residential scenario.

5.9.3 Cancer Risks and Chronic Noncancer Hazard Indices for Future Residents

This section presents the results of the risk calculations for the potential future residents. Potential media of concern for these populations include surface soil, subsurface soil, and shallow groundwater. Section 5.9.3.1 discusses the estimated cancer and noncancer HIs for surface soil. Subsurface soil and groundwater are combined in Section 5.9.3.2 that discusses potential migration of VOCs into indoor air.

5.9.3.1 Surface Soil

As discussed in Section 5.5, future on-site residents could be exposed directly to PAHs and metals remaining in surface soil on site. Potential routes of exposure for these populations would include incidental ingestion, dermal contact, and inhalation of windblown particulates. The exposure duration for a future resident is 30 years. For future residents, the 0 to 0.5 feet bgs interval is the most likely depth for direct contact if the current buildings remain. The 0 to 2 foot interval and 0 to 4 foot interval were evaluated assuming that soils may be mixed to these depths during redevelopment activities. Although the 0 to 8 foot depth interval has been included in this assessment, it is considered unlikely that future redevelopment activities would mix soils to this

methodology. These estimated noncancer HIs are presented by chemical and depth in Appendix C, Tables C2-39 through C2-42 (EPA methodology) and Tables C3-39 through C3-42 (CalEPA methodology). All estimated noncancer HIs were at or below the target of one. In addition, the maximum detected concentration of lead, 92.6 mg/kg, was well below the EPA Region 9 PRG for lead of 400 mg/kg for residential soil. For metals, incidental ingestion is the major pathway of concern.

5.9.3.2 Subsurface Soil/Shallow Groundwater

Exposure to chemicals in subsurface soil and shallow groundwater is limited to the inhalation of VOCs that have migrated through the overlying soil into indoor and ambient air. Only the inhalation of VOCs in indoor air was modeled for residential populations since outdoor concentrations of VOCs will be lower than indoor air concentrations due to higher mixing in the ambient environment.

Soil gas data collected at the site was used to evaluate potential VOCs migrating from subsurface soil and groundwater. Because the soil gas samples are distributed both on-site and off site, a screening evaluation was conducted to determine the significance of this potential exposure pathway. The screening evaluation was conducted using the maximum detected concentration for each chemical detected. The estimated cancer risks and noncancer HIs were shown in Tables 5-54 and 5-55 for the maximum concentrations detected in Parcel 181 and in Tables 5-56 and 5-57 for the maximum concentration detected off site. Tables 5-54 and 5-56 provide these results based on EPA methodology and Tables 5-55 and 5-57 provide these results based on CalEPA methodology.

As shown in Table 5-54 and Table 5-55, the cancer risk for the maximum soil gas concentrations detected in Parcel 181 is 4×10^{-8} (EPA methodology and 2×10^{-8} (CalEPA methodology). The HIs are below one for both methodologies. As shown in Table 5-56 and Table 5-57, the cancer risk for the maximum soil gas concentrations detected in off site properties is 9×10^{-8} (EPA methodology) and 4×10^{-8} (CalEPA methodology). The HIs are below one for both methodologies. As these estimated cancer risks are below the low end of the target range and the noncancer HIs are well below one, no further refinement of the risk calculations was conducted for a future residential on-site or off site scenario.

5.9.4 Cancer Risks and Noncancer Hazard Indices for Construction Workers

This section presents the results of the risk calculations for the construction worker. Similar to the residents, potential media of concern for this population includes surface soil, subsurface soil, and shallow groundwater. Section 5.9.4.1 discusses the estimated cancer and noncancer HIs for

Table 5-52
Maximum Estimated Cancer Risks and Noncancer Hazard Indices for Volatile Organic Compounds in Soil Gas - Parcel 181 - Current Residents - EPA Methodology (VLEACH)

Chemical	Maximum Concentration* (ug/m^3)	Estimated Cancer Risk		Estimated Noncancer Hazard Index	
		Current Resident (adult)	Current Resident (child)	Current Resident (adult)	Current Resident (child)
Acetone	180	NC	NC	$4x10^{-5}$	0.0001
2-Butanone	28	NC	NC	$2x10^{-6}$	$4x10^{-6}$
Benzene	13	$4.8x10^{-10}$	$1.1x10^{-9}$	0.0001	0.0003
Chlorobenzene	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND
Chloroform	35	$4.6x10^{-9}$	$1.1x10^{-8}$	0.008	0.02
1,1-Dichloroethane	ND	ND	ND	ND	ND
1,1-Dichloroethene	3.9	$9.6x10^{-10}$	$2.2x10^{-9}$	$7x10^{-6}$	$2x10^{-5}$
cis-1,2-Dichloroethene	4	NC	NC	$5x10^{-6}$	$1x10^{-5}$
Ethylbenzene	86	NC	NC	$4x10^{-6}$	$1x10^{-5}$
2-Hexanone	4.1	NC	NC	NA	NA
4-Methyl-2-Pentanone	12	NC	NC	$7x10^{-6}$	$2x10^{-5}$
Methyl tert-Butyl Ether	77	$1.7x10^{-10}$	$4.0x10^{-10}$	$1x10^{-6}$	$3x10^{-6}$
Naphthalene	54	NA	NA	0.0007	0.002
Styrene	2.9	NC	NC	$1x10^{-7}$	$3x10^{-7}$
Tetrachloroethene	22	$5.0x10^{-11}$	$1.2x10^{-10}$	$3x10^{-6}$	$6x10^{-6}$
Toluene	230	NC	NC	$3x10^{-5}$	$8x10^{-5}$
1,1,1-Trichloroethane	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND
Vinyl Acetate	26	NC	NC	$7x10^{-6}$	$2x10^{-5}$
Xylenes (total)	430	NC	NC	$3x10^{-6}$	$7x10^{-6}$
Total		**$6x10^{-9}$**	**$1x10^{-8}$**	**0.009**	**0.02**

** Maximum concentration detected for each chemical in samples from Parcel 181 used to calculate risks and hazard indices*
ug/m^3 denotes micrograms per cubic meter
NA denotes Not available
NC denotes Not known to be a carcinogen
ND denotes Not detected within Parcel 181

Table 5-53
Maximum Estimated Cancer Risks and Noncancer Hazard Indices for Volatile Organic Compounds in Soil Gas - Parcel 181 - Current Residents - CalEPA Methodology (Johnson and Ettinger)

Chemical	Maximum Concentration* (ug/m^3)	Cancer Risk Current Resident (adult)	Noncancer Hazard Index Current Resident (adult)
Acetone	180	NC	5.5E-06
2-Butanone	28	NC	2.9E-07
Benzene	13	1.6E-09	2.2E-06
Chlorobenzene	ND	ND	ND
Chloroethane	ND	ND	ND
Chloroform	35	8.2E-10	1.2E-06
1,1-Dichloroethane	ND	ND	ND
1,1-Dichloroethene	3.9	NA	5.6E-07
cis-1,2-Dichloroethene	4	NC	1.1E-06
Ethylbenzene	86	NC	4.2E-07
2-Hexanone	4.1	NA	NA
4-Methyl-2-Pentanone	12	NC	1.5E-06
Methyl tert-Butyl Ether	77	8.8E-11	9.9E-08
Naphthalene	54	NA	5.7E-05
Styrene	2.9	NA	3.2E-08
Tetrachloroethene	22	5.5E-10	6.2E-06
Toluene	230	NC	7.7E-06
1,1,1-Trichloroethane	ND	ND	ND
Trichloroethene	ND	ND	ND
Vinyl Acetate	26	NA	1.3E-06
Xylenes (total)	430	NC	6.2E-06
Total		**3E-09**	**0.00009**

** Maximum concentration detected for each chemical in samples from Parcel 181 used to calculate risks and hazard indices*
ug/m^3 denotes micrograms per cubic meter
NA denotes Not available
NC denotes Not known to be a carcinogen
ND denotes Not detected within Parcel 181

Table 5-54
Maximum Estimated Cancer Risks and Noncancer Hazard Indices for Volatile Organic Compounds in Soil Gas - Parcel 181 - Future Residents - EPA Methodology (VLEACH)

Chemical	Maximum Concentration* (ug/m^3)	Estimated Cancer Risk	Estimated Noncancer Hazard Index	
		Future Resident (age-adjusted)	Future Resident (adult)	Future Resident (child)
Acetone	180	NC	$4x10^{-5}$	0.0001
2-Butanone	28	NC	$2x10^{-6}$	$4x10^{-6}$
Benzene	13	$3.1x10^{-9}$	0.0001	0.0003
Chlorobenzene	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
Chloroform	35	$2.9x10^{-8}$	0.008	0.02
1,1-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	3.9	$6.1x10^{-9}$	$7x10^{-6}$	$2x10^{-5}$
cis-1,2-Dichloroethene	4	NC	$5x10^{-6}$	$1x10^{-5}$
Ethylbenzene	86	NC	$4x10^{-6}$	$1x10^{-5}$
2-Hexanone	4.1	NC	NA	NA
4-Methyl-2-Pentanone	12	NC	$7x10^{-6}$	$2x10^{-5}$
Methyl tert-Butyl Ether	77	$1.1x10^{-9}$	$1x10^{-6}$	$3x10^{-6}$
Naphthalene	54	NA	0.0007	0.002
Styrene	2.9	NC	$1x10^{-7}$	$3x10^{-7}$
Tetrachloroethene	22	$3.1x10^{-10}$	$3x10^{-6}$	$6x10^{-6}$
Toluene	230	NC	$3x10^{-5}$	$8x10^{-5}$
1,1,1-Trichloroethane	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
Vinyl Acetate	26	NC	$7x10^{-6}$	$2x10^{-5}$
Xylenes (total)	430	NC	$3x10^{-6}$	$7x10^{-6}$
Total		**$4x10^{-8}$**	**0.009**	**0.02**

** Maximum concentration detected for each chemical in samples from Parcel 181 used to calculate risks and hazard indices*

ug/m^3 denotes micrograms per cubic meter

NA denotes Not available

NC denotes Not known to be a carcinogen

ND denotes Not detected within Parcel 181

Table 5-55
Maximum Estimated Cancer Risks and Noncancer Hazard Indices for Volatile Organic Compounds in Soil Gas - Parcel 181 - Future Residents - CalEPA Methodology (Johnson and Ettinger)

Chemical	Maximum* Concentration (ug/m^3)	Estimated Cancer Risk Future Resident (adult)	Estimated Noncancer Hazard Index Future Resident (adult)
Acetone	180	NC	$2.8x10^{-5}$
2-Butanone	28	NC	$1.5x10^{-6}$
Benzene	13	$8.2x10^{-9}$	$1.1x10^{-5}$
Chlorobenzene	ND	ND	ND
Chloroethane	ND	ND	ND
Chloroform	35	$4.1x10^{-9}$	$6.0x10^{-6}$
1,1-Dichloroethane	ND	ND	ND
1,1-Dichloroethene	3.9	NA	$2.8x10^{-6}$
cis-1,2-Dichloroethene	4	NC	$5.6x10^{-6}$
Ethylbenzene	86	NC	$2.1x10^{-6}$
2-Hexanone	4.1	NA	NA
4-Methyl-2-Pentanone	12	NC	$7.4x10^{-6}$
Methyl tert-Butyl Ether	77	$4.4x10^{-10}$	$5.0x10^{-7}$
Naphthalene	54	NA	$2.9x10^{-4}$
Styrene	2.9	NA	$1.6x10^{-7}$
Tetrachloroethene	22	$2.7x10^{-9}$	$3.1x10^{-5}$
Toluene	230	NC	$3.9x10^{-5}$
1,1,1-Trichloroethane	ND	ND	ND
Trichloroethene	ND	ND	ND
Vinyl Acetate	26	NA	$6.6x10^{-6}$
Xylenes (total)	430	NC	$3.1x10^{-5}$
Total		**$2x10^{-8}$**	**0.0005**

** Maximum concentration detected for each chemical in samples from Parcel 181 used to calculate risks and hazard indices*
ug/m^3 denotes micrograms per cubic meter
NA denotes Not available
NC denotes Not known to be a carcinogen
ND denotes Not detected within Parcel 181

Table 5-56
Maximum Estimated Cancer Risks and Noncancer Hazard Indices for Volatile Organic Compounds in Soil Gas - Off Site Properties - Future Residents - EPA Methodology (VLEACH)

Chemical	Maximum Concentration* (ug/m^3)	Estimated Cancer Risk	Estimated Noncancer Hazard Index	
		Future Resident (age-adjusted)	Future Resident (adult)	Future Resident (child)
Acetone	310	NC	$7x10^{-5}$	0.0002
2-Butanone	240	NC	$1x10^{-5}$	$3x10^{-5}$
Benzene	20	$4.7x10^{-9}$	0.0002	0.0004
Chlorobenzene	28	NC	$2x10^{-5}$	$5x10^{-5}$
Chloroethane	5.2	$1.5x10^{-10}$	$3x10^{-8}$	$8x10^{-8}$
Chloroform	92	$7.7x10^{-8}$	0.02	0.05
1,1-Dichloroethane	38	NC	$4x10^{-6}$	$9x10^{-6}$
1,1-Dichloroethene	ND	ND	ND	ND
cis-1,2-Dichloroethene	19	NC	$3x10^{-5}$	$6x10^{-5}$
Ethylbenzene	390	NC	$2x10^{-5}$	$4x10^{-5}$
2-Hexanone	29	NC	NA	NA
4-Methyl-2-Pentanone	78	NC	$5x10^{-5}$	0.0001
Methyl tert-Butyl Ether	170	$2.4x10^{-9}$	$3x10^{-6}$	$7x10^{-6}$
Naphthalene	180	NA	0.002	0.006
Styrene	7.2	NC	$3x10^{-7}$	$8x10^{-7}$
Tetrachloroethene	86	$1.2x10^{-9}$	$1x10^{-5}$	$2x10^{-5}$
Toluene	300	NC	$4x10^{-5}$	0.0001
1,1,1-Trichloroethane	27	NC	$1x10^{-6}$	$3x10^{-6}$
Trichloroethene	130	$6.1x10^{-9}$	0.0003	0.0006
Vinyl Acetate	76	NC	$2x10^{-5}$	$5x10^{-5}$
Xylenes (total)	2810	NC	$2x10^{-5}$	$5x10^{-5}$
Total		**$9x10^{-8}$**	**0.02**	**0.06**

** Maximum concentration detected for each chemical in samples from outside Parcel 181 used to calculate risks and hazard indices*

ug/m^3 denotes micrograms per cubic meter

NA denotes Not available

NC denotes Not known to be a carcinogen

ND denotes Not detected in off-site properties

Table 5-57
Maximum Estimated Cancer Risks and Noncancer Hazard Indices for Volatile Organic Compounds in Soil Gas - Off Site Properties - Future Residents - CalEPA Methodology (Johnson and Ettinger)

Chemical	Maximum* Concentration (ug/m^3)	Cancer Risk Future Resident (adult)	Noncancer Hazard Index Future Resident (adult)
Acetone	310	NC	$4.8x10^{-5}$
2-Butanone	240	NC	$1.3x10^{-5}$
Benzene	20	$1.3x10^{-8}$	$1.7x10^{-5}$
Chlorobenzene	28	NC	$1.4x10^{-6}$
Chloroethane	5.2	$9.5x10^{-11}$	$8.9x10^{-9}$
Chloroform	92	$1.1x10^{-8}$	$1.6x10^{-5}$
1,1-Dichloroethane	38	$1.3x10^{-9}$	$3.7x10^{-6}$
1,1-Dichloroethene	ND	ND	ND
cis-1,2-Dichloroethene	19	NC	$2.7x10^{-5}$
Ethylbenzene	390	NC	$9.6x10^{-6}$
2-Hexanone	29	NA	NA
4-Methyl-2-Pentanone	78	NC	$4.8x10^{-5}$
Methyl tert-Butyl Ether	170	$9.8x10^{-10}$	$1.1x10^{-6}$
Naphthalene	180	NA	$9.6x10^{-4}$
Styrene	7.2	NA	$3.9x10^{-7}$
Tetrachloroethene	86	$1.1x10^{-8}$	$1.2x10^{-4}$
Toluene	300	NC	$5.0x10^{-5}$
1,1,1-Trichloroethane	27	NC	$1.3x10^{-6}$
Trichloroethene	130	$5.5x10^{-9}$	$1.1x10^{-5}$
Vinyl Acetate	76	NA	$1.9x10^{-5}$
Xylenes (total)	2810	NC	$2.0x10^{-4}$
Total		**$4x10^{-8}$**	**0.002**

** Maximum concentration detected for each chemical in samples from outside Parcel 181 used to calculate risks and hazard indices*

ug/m^3 denotes micrograms per cubic meter

NA denotes Not available

NC denotes Not known to be a carcinogen

ND denotes Not detected in off-site properties

Paspalm, Ryegrass, St. Augustine, and Tall Fescue. The average irrigation need per workday was determined to be 0.0033 cubic meters per square meters per day (m^3/m^2-d), with a maximum of 0.0076 m^3/m^2-d. An application rate was derived based on the irrigation rate, an 8-hour workday, and a 100-foot by 100-feet area (929 m^2). The chemical air emission rate was then based on the application rate, transfer efficiency, and groundwater concentration. Once the amount of chemical volatilized during an event was estimated, an air concentration was derived based on simple mixing and diffusion with ambient outdoor air.

For the residential exposure scenario, the volatilization of groundwater constituents into soil gas that migrates into indoor air was estimated using a heuristic model known as the Johnson and Ettinger model, which was also used for previous HHRAs. The Johnson and Ettinger model, as modified by DTSC to include California Environmental Protection Agency (Cal/EPA) toxicity criteria, was used for this HHRA to provide an output of predicted health risks associated with groundwater concentrations in indoor air. The default chemical properties provided in USEPA guidance were used where available. A slab-on-grade construction was assumed, and a default value of 15 centimeters was used for the depth below grade to the bottom of the enclosed space floor. The depth to groundwater was assumed to be 7.2 feet bgs based on observed depths to groundwater at Alameda Annex IR-02 (depths to groundwater within OU-5 are comparable). Soil properties taken from soil boring logs collected at the site identified the subsurface soil as a sandy loam. These parameters were the basis of the Johnson and Ettinger model as described in further detail in Appendix E.

To test the validity of the Johnson and Ettinger model, a second risk assessment was performed using actual soil gas data rather than modeled concentrations assumed to volatilize from contaminated groundwater. Benzene concentrations detected in soil gas are lower than concentrations predicted by the Johnson and Ettinger model. This may be due to areas of clay material in the vadose zone limiting vapor migration to the surface, or to the weathered nature of the groundwater contamination. In addition, benzene concentrations in soil gas were higher at Alameda Annex than at Alameda Point; thus, separate calculations were performed using the maximum detected concentration of benzene in each area to further refine estimated risks to human receptors. Table 6-2 summarizes the risks to residents, school workers, and school students modeled from exposure to soil gas in each area.

Actual concentrations of benzene in soil gas are lower than predicted by the Johnson and Ettinger model; therefore, the calculated risks were more than 1 order of magnitude lower, and the Tier 2 HHRA was overly conservative. The findings of this revised risk assessment indicate that soil gas exposure does not pose an unacceptable cancer or non-cancer risk to current or potential future residents, students, or school workers at Alameda Point or Alameda Annex. At Alameda Point, the non-carcinogenic HIs and carcinogenic risks for all three receptors were 0.0076 and 5×10^{-8}, respectively, well below the acceptable

Table 6-2
Summary of Tier 2 HHRA Results Modeled from Soil Gas Data
Alameda Point Site 25/Alameda Annex IR-02 Groundwater RI/FS

Exposure Scenario	Location	Non-Carcinogenic Hazard Index		Carcinogenic Risk	
		Average Exposure	Reasonable Maximum Exposure	Average Exposure	Reasonable Maximum Exposure
Assuming No Domestic Potable Water Use					
Resident	Alameda Annex	0.0092	0.0092	1×10^{-6}	1×10^{-6}
	Alameda Point	0.0076	0.0076	5×10^{-8}	5×10^{-8}
School Worker	Alameda Annex	0.0087	0.0087	8×10^{-7}	8×10^{-7}
	Alameda Point	0.0076	0.0076	5×10^{-8}	5×10^{-8}
School Student	Alameda Annex	0.0084	0.0084	2×10^{-7}	2×10^{-7}
	Alameda Point	0.0076	0.0076	5×10^{-8}	5×10^{-8}

levels of 1.0 and 1×10^{-6}. This indicates that, under current land use conditions at Alameda Point with no domestic potable water use, there are no unacceptable risks to current residents, students, or school workers.

Likewise, at Alameda Annex, the non-carcinogenic HI ranges from 0.0084 to 0.0092 for these receptors, well below the acceptable level. The carcinogenic risk at Alameda Annex to these receptors ranges from 2×10^{-7} to 1×10^{-6}, at or below the USEPA's risk management range. Therefore, as Alameda Annex is redeveloped, adverse health effects to current or future residents, students, or school workers are considered unlikely.

6.4. EXPOSURE POINT CONCENTRATION DATA

This HHRA is based on accumulated data from both Alameda Point and the Alameda Annex. The most recent groundwater data, which were collected during the field-sampling program in 2001 and quarterly sampling events through 2003, have been incorporated into the data used for this analysis.

The HHRA was completed in a two-tiered stepwise manner. The Tier 1 evaluation, based on maximum detected concentrations for each constituent, was performed prior to a more site-specific Tier 2 evaluation. Exposure point concentrations in the Tier 2 assessment were adjusted to account for the following factors:

- Sampling methodologies (Hydropunch™ samples were not filtered in the field; the highest benzene concentrations detected were from Hydropunch™ samples).

10. CONCLUSIONS

This Remedial Investigation/Feasibility Study was conducted to address dissolved-phase benzene and naphthalene contamination in shallow groundwater beneath Alameda Point Sites 25, 30, and 31, and Alameda Annex Installation Restoration Site-02 in Alameda, California. The groundwater contamination underlies approximately 42 acres of residential and industrial areas. To date, characterization data indicate that benzene and naphthalene contamination is not migrating and that natural degradation has been occurring; however, the rate of natural degradation has slowed as dissolved oxygen has been consumed and site conditions have become predominantly anaerobic. In addition, additional monitoring data are needed to better understand benzene and naphthalene concentrations at the west and east edges of the contaminant plume.

A human health risk assessment was performed as part of this report, and risks were found to be acceptable for all groundwater use scenarios, except for use as a potable water supply. There are currently no drinking water wells installed at the Site. However, there is concern that wells may be installed in the future, which would complete the groundwater ingestion pathway. Therefore, drinking water standards were used as cleanup goals to address the concern that contaminated groundwater could be used as a potable water supply.

A variety of remedial technologies were screened and evaluated in this report to formulate six remedial alternatives:

- **Alternative 1 –** No Action: This alternative would not adequately address the potential for unacceptable risks to human health if the drinking water pathway were completed.
- **Alternative 2 –** Monitored Natural Attenuation (MNA) with Institutional Controls: In the short term, this alternative would prevent the drinking water pathway from being completed through the use of institutional controls to prohibit installation of drinking water wells at the Site. Alternative 2 would rely on MNA to degrade the existing contaminant plumes over an estimated 50-year period. While MNA is a useful tool for addressing residual contamination, it is dependent on the electron acceptors available in the natural environment. Dissolved oxygen, the preferred electron acceptor, has been largely consumed throughout the Site, creating predominantly anaerobic subsurface conditions. The remaining electron acceptors are less efficient and the rate of biodegradation has slowed. The remaining electron acceptors will not be sufficient to degrade remaining contamination present within plume centers and at depth within a practical time frame.
- **Alternative 3 –** Biosparging with a Soil Vapor Extraction (SVE), MNA, and Institutional Controls: This alternative introduces air as an oxygen source for aerobic degradation into the subsurface, thereby converting anaerobic environments to aerobic environments and accelerating the naturally occurring biodegradation processes. Biosparging could also volatilize a certain amount of benzene into the vadose zone. Although benzene vapors would likely be degraded in the aerobic vadose zone, a vapor extraction contingency is included as part of the biosparging alternative to capture and treat fugitive benzene vapors in the vadose zone. Initiation of the vapor

4	**Marsh Crust**	Section 2.5	Final Remedial Design/Remedial Action Work Plan, OU-5/IR-02 Groundwater, Revision 2. Section 3.4, Pages 3-8 through 3-10. TtEC. 2010.

HydroPunch screen installed at a depth spanning the soil sample depth. Contamination source evaluation results are as follows:

- Hydrocarbon fingerprints were consistent and similar in the soil and groundwater samples at the College of Alameda property line and across the site, suggesting a common source material.
- Stable isotope signatures (^{13}C and ^{2}H) for benzene and naphthalene were consistent and similar in soil and groundwater samples at the College of Alameda property line and across the site, indicating a common source material. Multiple contaminant sources were not indicated.
- Stable isotope signatures and hydrocarbon fingerprint results indicate that the benzene and naphthalene present in groundwater originate from the Marsh Crust.
- Stable isotope signatures and hydrocarbon fingerprint results were consistent with MGP residues from a coal carbonization process (Figure 3-9). Petroleum residues are not indicated.
- Stable isotope data ($\delta^{13}C$ and $\delta^{2}H$ isotope enrichment) indicate that biodegradation of benzene and naphthalene is occurring.

A detailed evaluation of these data is presented in Appendix F.

3.4 MARSH CRUST AND THE ORIGIN OF SITE CONTAMINATION

An analysis was performed to answer the following questions regarding the Marsh Crust at OU-5/IR-02 and the origin of site contamination:

- What is the Marsh Crust?
- Where did the Marsh Crust come from?
- How did the Marsh Crust get there?
- Why is the Marsh Crust not a continuous layer?
- Why is the contaminant distribution variable throughout the Marsh Crust?

The Marsh Crust was originally defined in 1969 by Lee and Praszker in the California Division of Mines and Geology Special Report 97 (Lee and Praszker, 1969) and in 1979 (Lee and Praszker, 1979) when they performed a geotechnical investigation at Alameda. They defined the Marsh Crust as the peat layer that was the historic marshlands. The marshlands were filled in with dredge material between 1900 and 1940. By 2000, the definition of the Marsh Crust had changed to a layer of refinery by-products and sludges deposited within tidal channels and up to the high water mark on the tidal marsh (TtEMI, 2000). A similar definition can be found in the RI/FS (ERRG, 2004) – "A layer of petroleum-related contamination on the historic shoreline, marshland and tidal channels underlying the Site, referred to as the Marsh Crust."

The Marsh Crust beneath OU-5/IR-02 originated from residues associated with the Oakland Gas Works, an MGP in Oakland that was active in the 1800s. The stable isotopic analysis (described in Appendix F) determined that the Marsh Crust contaminants are consistent with MGP residues from a coal carbonization process. No petroleum derived residues are present. The Oakland Gas Works was formerly located across San Antonio Creek at the present-day Jack London Square, approximately 1 mile from the site as shown in Figure 3-10. This facility processed coal only from 1866 to 1904 (consistent with the isotope analysis). Another MGP facility may have been active in Alameda at the present location of the Alameda Marina. Gas holders are shown at that location in the 1897 Sanborn map, and the facility is labeled as Oakland Gas, Light, and Heat. Although historical records are lacking, the MGP is presumed to have used a coal carbonization process also based on typical processes of that time period.

Based on the MGP location, residuals were probably discharged to San Antonio Creek. Once discharged into an estuarine environment, such as San Antonio Creek and adjacent tidelands/marshes on Alameda, dissolved-phase coal tar residuals (primarily benzene, toluene, ethylbenzene, xylenes [BTEX] and/or naphthalene), suspended microglobules of coal tar polycyclic aromatic hydrocarbons (PAHs), and/or suspended sediment particulates with PAHs adsorbed to their surface would migrate with the tidal currents and become adsorbed to the surface of the tidal marsh organic matter/sediment. This would typically be restricted to a thin layer due to the highly adsorptive nature of the marshes/tidal flats organic peat and/or fine grained sediments. Once incorporated in the sediment, these contaminants will typically remain there and serve as a localized source to adjacent surface water. If subsequently covered with fill, such as at Site 25, the impacted sediment would occur as a relatively thin subsurface layer that serves as a localized source to adjacent groundwater.

The Marsh Crust is not a uniform continuous layer because natural estuarine processes as well as construction/development activities were not static during its formation. Estuarine marshes are dynamic landforms that are continually in a state of flux due to water-mediated sediment transport, erosion/accretion, and/or other depositional events that constantly shape and reshape tidally influenced wetland areas. Other major erosional and/or depositional events such as storms or the differential filling (placement of dredge spoils) of the marsh over time also have a significant impact on the reshaping of the tidally influenced wetland areas and the subsequent distribution of impacted marshland sediments referred to as the Marsh Crust.

In addition to the Marsh Crust not being a uniform, continuous layer for reasons described above, contaminants within the Marsh Crust also vary in concentration. For example, high concentrations of benzene and naphthalene are collocated in some areas; however, there are other areas with high naphthalene and low benzene. Three processes can contribute to this variability:

- The estuarine environment and related construction/development activities described in the previous paragraph.

- The differences in the way benzene and naphthalene react when released into the environment due to differing chemical characteristics. Differences in solubility, adsorption, volatility, and other chemical characteristics may cause attenuation of one compound but not another.
- The MGP coal carbonization process produces two different waste product streams: coal tar and benzol (light oil). The coal tar consists of the heavier molecular weight PAHs, and benzol consists primarily of BTEX and naphthalene. Manufacturing, by-product segregation, and disposal practices at the MGPs typically resulted in differential distributions of different MGP constituents. For example, the benzol may be discharged at different rates or different times than the coal tar.

Because of these processes, a uniform MGP residual (i.e., uniform Marsh Crust) does not exist, and this contaminant variability is routinely seen at other MGP sites.

The conclusion that the Marsh Crust is the source of benzene and naphthalene contamination at OU-5 is also supported by recent site investigation data. Section 2.2 and Table 2-1 in the ROD summarize investigations and removal actions, which include RIs for Site 25/IR-02, OU-5, Site 30, and Site 31; removal actions at Site 25 and IR-02; and numerous supporting sampling activities. None of these sampling efforts has indicated a significant source other than the Marsh Crust (except for occasional isolated hot spots near the Marsh Crust). A detailed evaluation of Marsh Crust and the origin of site contamination, including other sites with similar MGP wastes, is presented in Appendix G.

3.5 PLUME BOUNDARY GROUNDWATER SAMPLING

Plume boundary groundwater sampling was conducted to complete the following:

- Locate new plume boundary monitoring wells based on HydroPunch sample benzene and naphthalene concentrations.
- Refine the extent of the plume boundary as identified by the 1 µg/L benzene or the 100 µg/L naphthalene isoconcentration contour based on monitoring well sampling results.
- Evaluate the plume boundary stability over time.
- Evaluate the presence of microbes and nutrients needed for benzene and naphthalene bioremediation.
- Evaluate hydraulic conductivity in the newly installed plume boundary wells.

Twenty HydroPunches and six new monitoring wells were installed and sampled. Sampling results are described in the following sections. The laboratory analytical results reports are provided in Appendix D. The survey report from the plume boundary groundwater sample locations is provided in Appendix A.

5	treatment system	Section 1.3	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 2.8, Page 11, Figure 1. Tetra Tech EC, Inc. (TtEC). 2012.

monitored within the plume and at the plume perimeters, as well as the monitoring for the biosparging of the plume centers. The groundwater treatment system was installed between October 2008 and October 2009. Biosparging and groundwater monitoring were initiated in March 2009, and are continuing as of the writing of this Technical Memorandum. Approximately 4.33 kilograms (9.55 pounds) of benzene and 39.04 kilograms (86.07 pounds) of naphthalene have been removed. The calculations are included in Attachment 1. Semiannual biosparge area groundwater monitoring results are included in Attachment 2.

3.0 GROUNDWATER QUALITY

Groundwater samples were collected from HydroPunch and monitoring well locations along the plume center and along the plume boundary in 2007 and 2008 as part of a predesign investigation and as described in the RD/RAWP (TtEC 2010). The groundwater quality data generated by this sampling are discussed below.

3.1 Benzene and Naphthalene

Benzene and naphthalene analyses were conducted on HydroPunch and monitoring well groundwater samples (Tables 2 and 3). HydroPunch locations with benzene and naphthalene concentrations are shown on Figures 14 and 15 respectively (Figures 3-6 and 3-7 of the RD/RAWP). Samples from 48 and 45 percent of OU-5 groundwater sampling locations had benzene or naphthalene concentrations, respectively, exceeding their ROD criteria. The typical HydroPunch included a 3-foot-long well screen. The typical monitoring well was constructed with a 10-foot screen interval. Plume boundary monitoring well locations with benzene and naphthalene concentrations are shown on Figure 16 (Figure 3-12 of the RD/RAWP). Annual plume boundary monitoring well results from 2009 to 2012 are included in Attachment 2.

Pursuant to the remedial design, plume center groundwater sampling also was conducted to evaluate the vertical distribution or gradients of benzene and naphthalene concentrations across the FWBZ. Multi-depth HydroPunch groundwater samples were collected from seven locations (see Table 4). At each of the seven locations, the groundwater sample spanning the Marsh Crust had benzene and naphthalene concentrations one to four orders of magnitude greater than samples collected above the Marsh Crust. These post-ROD multi-depth groundwater sampling results correlated well with the multi-depth soil sampling results and confirm the pre-ROD investigation results that groundwater contamination increases with depth and proximity to the Marsh Crust. COC concentrations at the top of the FWBZ at the time of this sampling were near or below the respective reporting limits for benzene and naphthalene at 6 of 7 multi-depth sampling locations (see Table 4).

3.2 Total Dissolved Solids Distribution

The TDS analytical method measures the total amount of dissolved minerals in water. The solids are typically iron, chlorides, sulfates, calcium, or other minerals. The dissolved minerals can

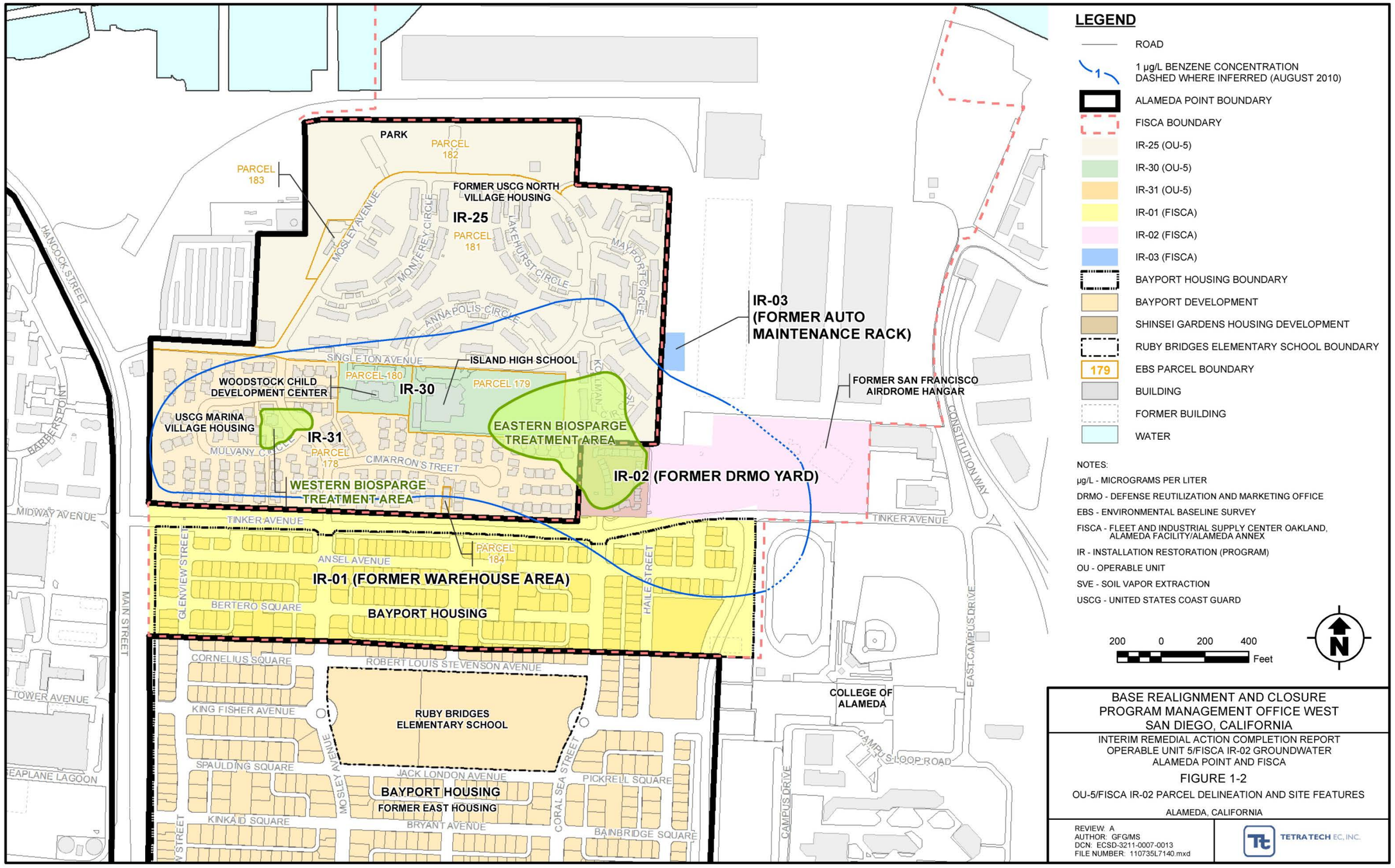
LEGEND
ROAD
1 µg/L BENZENE CONCENTRATION DASHED WHERE INFERRED (AUGUST 2010)
ALAMEDA POINT BOUNDARY
FISCA BOUNDARY
IR-25 (OU-5)
IR-30 (OU-5)
IR-31 (OU-5)
IR-01 (FISCA)
IR-02 (FISCA)
IR-03 (FISCA)
BAYPORT HOUSING BOUNDARY
BAYPORT DEVELOPMENT
SHINSEI GARDENS HOUSING DEVELOPMENT
RUBY BRIDGES ELEMENTARY SCHOOL BOUNDARY
179 EBS PARCEL BOUNDARY
BUILDING
FORMER BUILDING
WATER
NOTES:
µg/L - MICROGRAMS PER LITER
DRMO - DEFENSE REUTILIZATION AND MARKETING OFFICE
EBS - ENVIRONMENTAL BASELINE SURVEY
FISCA - FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR - INSTALLATION RESTORATION (PROGRAM)
OU - OPERABLE UNIT
SVE - SOIL VAPOR EXTRACTION
USCG - UNITED STATES COAST GUARD
200 0 200 400 Feet
N
PARK
PARCEL 182
PARCEL 183
FORMER USCG NORTH VILLAGE HOUSING
IR-25
PARCEL 181
MOSLEY AVENUE
MONTEREY CIRCLE
LAKEHURST CIRCLE
MAYPORT CIRCLE
ANNAPOLIS CIRCLE
IR-03 (FORMER AUTO MAINTENANCE RACK)
SINGLETON AVENUE
ISLAND HIGH SCHOOL
PARCEL 180
PARCEL 179
WOODSTOCK CHILD DEVELOPMENT CENTER
IR-30
USCG MARINA VILLAGE HOUSING
IR-31
MULVANY CIRCLE
PARCEL 178
CIMARRON STREET
EASTERN BIOSPARGE TREATMENT AREA
WESTERN BIOSPARGE TREATMENT AREA
IR-02 (FORMER DRMO YARD)
FORMER SAN FRANCISCO AIRDROME HANGAR
CONSTITUTION WAY
TINKER AVENUE
PARCEL 184
ANSEL AVENUE
IR-01 (FORMER WAREHOUSE AREA)
BERTERO SQUARE
BAYPORT HOUSING
GLENVIEW STREET
HAILEY STREET
HANCOCK STREET
BARBERS POINT
MIDWAY AVENUE
MAIN STREET
TOWER AVENUE
SEAPLANE LAGOON
CORNELIUS SQUARE
ROBERT LOUIS STEVENSON AVENUE
KING FISHER AVENUE
RUBY BRIDGES ELEMENTARY SCHOOL
SPAULDING SQUARE
JACK LONDON AVENUE
PICKREL SQUARE
BAYPORT HOUSING
FORMER EAST HOUSING
KINKAID SQUARE
BRYANT AVENUE
BAINBRIDGE SQUARE
CORAL SEA STREET
COLLEGE OF ALAMEDA
EAST CAMPUS DRIVE
CAMPUS LOOP ROAD
CAMPUS DRIVE
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
INTERIM REMEDIAL ACTION COMPLETION REPORT
OPERABLE UNIT 5/FISCA IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 1-2
OU-5/FISCA IR-02 PARCEL DELINEATION AND SITE FEATURES
ALAMEDA, CALIFORNIA
REVIEW: A
AUTHOR: GFG/MS
DCN: ECSD-3211-0007-0013
FILE NUMBER: 110735L7140.mxd
TETRA TECH EC, INC.

FIGURE 1

6	pre-treatment concentrations	Section 1.3	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 3, Pages 11, 15, Section 5, Pages 18 through 32. TtEC. 2012.

monitored within the plume and at the plume perimeters, as well as the monitoring for the biosparging of the plume centers. The groundwater treatment system was installed between October 2008 and October 2009. Biosparging and groundwater monitoring were initiated in March 2009, and are continuing as of the writing of this Technical Memorandum. Approximately 4.33 kilograms (9.55 pounds) of benzene and 39.04 kilograms (86.07 pounds) of naphthalene have been removed. The calculations are included in Attachment 1. Semiannual biosparge area groundwater monitoring results are included in Attachment 2.

3.0 GROUNDWATER QUALITY

Groundwater samples were collected from HydroPunch and monitoring well locations along the plume center and along the plume boundary in 2007 and 2008 as part of a predesign investigation and as described in the RD/RAWP (TtEC 2010). The groundwater quality data generated by this sampling are discussed below.

3.1 Benzene and Naphthalene

Benzene and naphthalene analyses were conducted on HydroPunch and monitoring well groundwater samples (Tables 2 and 3). HydroPunch locations with benzene and naphthalene concentrations are shown on Figures 14 and 15 respectively (Figures 3-6 and 3-7 of the RD/RAWP). Samples from 48 and 45 percent of OU-5 groundwater sampling locations had benzene or naphthalene concentrations, respectively, exceeding their ROD criteria. The typical HydroPunch included a 3-foot-long well screen. The typical monitoring well was constructed with a 10-foot screen interval. Plume boundary monitoring well locations with benzene and naphthalene concentrations are shown on Figure 16 (Figure 3-12 of the RD/RAWP). Annual plume boundary monitoring well results from 2009 to 2012 are included in Attachment 2.

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3.2 Total Dissolved Solids Distribution

The TDS analytical method measures the total amount of dissolved minerals in water. The solids are typically iron, chlorides, sulfates, calcium, or other minerals. The dissolved minerals can

domestic, agricultural, industrial, or municipal beneficial uses. Accordingly, a compliant well could not be installed that could be used to extract water from the FWBZ.

3.6 Potential for Off-Site Plume Migration

No off-site FWBZ groundwater production wells have been identified in the vicinity of OU-5. Off-site migration of groundwater is via the regional groundwater flow toward the nearby Oakland Inner Harbor.

3.7 Groundwater Quality Summary

Groundwater quality in the FWBZ does not meet drinking water/domestic supply criteria. In addition to the presence of benzene and naphthalene contamination associated with the Marsh Crust, there are other constituents present due to saltwater intrusion and other phenomena that have resulted in poor water quality relative to the levels of TDS, sulfates, iron, and alkalinity. Groundwater quality parameters and aquifer characteristics incompatible with drinking water/domestic supply include:

- The overall average concentration of 16,075 mg/L in the FWBZ exceeds the federal TDS criterion of 10,000 mg/L for Class III groundwater.
- 11 percent of the OU-5 area groundwater sampling locations had sulfate concentrations exceeding the 250 mg/L criterion.
- 94 percent of the OU-5 area groundwater sampling locations had iron concentrations exceeding the 0.3 mg/L criterion, and the average iron concentration was 3 mg/L.
- 86 percent of the OU-5 area groundwater sampling locations had alkalinity concentrations exceeding 500 mg/L.
- Pumping-induced intrusion of saltwater would further degrade water quality.
- Sustained yields of 200 gallons per day may not be possible in the western portion of OU-5.
- Given that the maximum thickness of the FWBZ at OU-5 is approximately 9 feet, water supply well construction requirements would result in the required sanitary seals extending all the way through the FWBZ into the SWBZ (precluding groundwater extraction form the FWBZ). The SWBZ has already been classified as a Class III aquifer due to high TDS/saline content which makes it unsuitable for domestic, agricultural, industrial, or municipal beneficial uses.

4.0 GROUNDWATER BENEFICIAL USE EVALUATION

Currently, the FWBZ in the central region of Alameda Point beneath OU-5 is considered to be a Class II aquifer based on federal TDS and yield criteria. The SWBZ in this area is considered to be a Class III aquifer because TDS concentrations exceeded 10,000 mg/L (TtEMI 2000). Additional groundwater data collected since the ROD was issued were compiled and evaluated.

4.3 Evaluation of Groundwater Classification for the FWBZ

The current classification of the FWBZ in the OU-5 area as a potential source of drinking water (Class II or MUN) was based on a limited or incomplete evaluation of groundwater quality parameters. Data collected during the predesign investigation indicate that groundwater quality is not adequate for potable use due to average TDS concentrations in excess of both the state (3,000 mg/L) and federal (10,000 mg/L) thresholds. In addition, several other groundwater quality parameters are incompatible with domestic use, including sulfate, iron, and alkalinity (see Section 3.7). The presence of these groundwater contaminants is due in part to salt water intrusion and is not associated with any identified contaminant source. Neither TDS nor sulfate can be economically removed from domestic drinking water or small to medium-sized industrial water supplies using conventional techniques.

Agricultural supply (AGR) use was identified as a potential use for the central region groundwater (TtEMI 2000). Use of groundwater for crop irrigation or landscape watering was determined not to be feasible because of the TDS concentration. Livestock water was considered to be an improbable use, based on the assumption that TDS was less than 5,000 mg/L (TtEMI 2000). This use is also not likely to be associated with the reasonably anticipated future use of this site. Acceptable TDS concentrations for turf grass irrigation range from 200 to 500 mg/L. TDS concentrations higher than 2,000 mg/L can damage turf grasses (PennState 2012). As the average TDS concentration in the groundwater (16,075 mg/L) significantly exceeds acceptable levels for crop irrigation or livestock watering (i.e., below 5,000 mg/L) or landscape watering (i.e., below 2,000 mg/L), agricultural supply is not a potential beneficial use of the FWBZ groundwater.

Industrial supply (IND) was determined to not be a potential beneficial use of the FWBZ groundwater due to TDS concentrations greater than 1,000 mg/L and insufficient sustainable yield (TtEMI 2000).

Based on an evaluation of the groundwater quality information presented in Section 3.0 in the context of the federal and state beneficial use criteria, the FWBZ at this site is not a potential source of drinking water and, therefore, should be considered Class III groundwater instead of Class II groundwater. This evaluation also found that the FWBZ groundwater was not suitable for uses like wash water for a car wash or water for irrigating crops or landscaping on a routine basis.

5.0 RISK ASSESSMENT SUMMARY AND UPDATE

5.1 Summary of 2004 BHHRA

The RI BHHRA for OU-5/FISCA IR-02 evaluated potential risks from direct and indirect exposures to chemicals in groundwater associated with potential future beneficial uses that involve bringing groundwater to the surface and using it in commercial and/or industrial

activities. The BHHRA identified potential beneficial uses of groundwater based on the 1995 Basin Plan for the San Francisco Bay Region (Water Board 1995), which identified beneficial water uses for the aquifer that included irrigation water, commercial water, and industrial service supply water. Additionally, the BHHRA quantitatively assessed potential health risks associated with the migration of dissolved groundwater and soil gas constituents into indoor air at a current or future school that would be located at the site.

The BHHRA considered several hypothetically possible direct exposure scenarios associated with groundwater use, including:

- Exposure to workers and the public associated with groundwater use at a commercial car wash
- Exposure to workers associated with groundwater use for industrial cooling or process cooling
- Exposure to workers using groundwater for an industrial emergency shower
- Exposure to workers using groundwater for janitorial activities
- Exposure to workers and the public using groundwater for irrigation purposes (lawn, landscaping, or vegetation)
- Exposure to workers and residents associated with future hypothetical use of the groundwater beneath the property as a potable water supply

These hypothetical receptors were identified through the performance of a qualitative human health evaluation conducted as part of the BHHRA (NewFields 2000). Of these various hypothetical beneficial groundwater use scenarios, the following two were quantitatively assessed in the BHHRA:

- A worker theoretically exposed to chemicals of potential concern (COPCs) in groundwater during the operation of a commercial car wash
- A worker hypothetically exposed to COPCs in the groundwater through landscaping irrigation activities

The BHHRA also considered indirect exposures to COPCs in the FWBZ groundwater due to potential vapor intrusion:

- A school exposure scenario (school children and adult workers) was evaluated based on the assumption of theoretical exposure to volatile COPCs migrating upward from the groundwater into the indoor air of an existing or future school.
- Vapor intrusion into occupied or potentially occupied residential buildings at the site also was evaluated.

For the hypothetical worker beneficial groundwater use exposure scenarios, the potential inhalation of COPCs volatilized from groundwater brought to the surface and released during the

operation of spray jets and sprinklers and the dermal absorption of COPCs during contact with this water were assessed. Use of groundwater as a potable water supply also was assessed. For the school scenario, theoretical inhalation of adult workers and children resulting from vapor migration from groundwater into the indoor school air was estimated using the Johnson and Ettinger (J&E) vapor migration model (EPA 2000). Lastly, for the residential scenario, theoretical inhalation exposures resulting from vapor migration from groundwater into the indoor air and exposures associated with use of groundwater as a potable water supply were evaluated.

The BHHRA conservatively used the maximum detected concentration in groundwater for all COPCs as the exposure point concentrations (EPCs) for both its Tier 1 and Tier 2 risk evaluations, except for benzene and naphthalene. Tier 2 EPCs for benzene and naphthalene were calculated from kriged groundwater concentrations for a 500-foot and 725-foot radius around the monitoring well with the highest detected concentration of benzene. The RI/FS risk assessment (Final RI/FS Report, Section 6, page 6-1) included use of HydroPunch data from samples collected at approximately 20 feet bgs (ERRG 2004). The Final RI/FS Report further documented (Section 6.4, page 6-6) that in both Tier 1 and Tier 2 analysis, exposure point concentration data included data from all depths at both Alameda Point and FISCA.

Two different approaches were used to calculate EPCs for vapor intrusion, one based on groundwater monitoring results and one based on soil gas measurements. The first approach used the Tier 2 groundwater EPCs as input to the J&E vapor migration modeling. The second approach used the measured soil gas concentrations as the driver inputs to the J&E modeling. For soil gas, four exposure areas were defined based on current land use. They were the OU-5 – IR-25, IR-30, IR-31, and FISCA. FISCA was not used for residential purposes at the time the BHHRA was prepared, but the IR-02 area is currently occupied by the Shinsei Garden Housing Development, which was constructed with sub-slab depressurization and vapor barriers. Land use controls dictate that any other new construction in FISCA IR-02 must include engineering controls similar to those now in place. OU-5 IR-31 is currently used for residential housing (USCG Marina Village Housing). IR-30 includes a school that is no longer in use and the Woodstock Child Development Center. IR-25 is abandoned USCG housing. The maximum benzene soil gas concentrations were used as the Tier 2 EPCs for each of these four locations. The Tier 2 evaluation included both Central Tendency and Reasonable Maximum Exposure (RME) factors. The RME noncarcinogenic Hazard Indices (HIs) based on the soil gas data ranged from 0.0076 to 0.0092 across all locations. These values were all well below the acceptable HI threshold of 1.0. The RME results for the incremental lifetime cancer (carcinogenic) risk (ILCR) based on the soil gas data ranged from 5×10^{-8} to 1×10^{-6}. Table 6-2 of the Final RI/FS is included in Appendix C.

The results of this BHHRA demonstrate that for non-potable water beneficial use scenarios involving the FWBZ groundwater, the projected upper-bound Incremental Lifetime Cancer Risks (ILCRs) did not exceed a probability of 1×10^{-4} (1 in 10,000) for any current or future receptors.

Use of the multi-depth groundwater data yielded slightly higher risk than the risk using the soil gas data summarized above, but risks were still in the risk management range. The RME ILCR without potable water usage ranges from 10^{-5} to 10^{-8} for workers, residents, and school children (ERRG 2004). In addition, projected non-cancer Hazard Indices (HIs) were below 1.0 for all receptors. The calculated HI and ILCR for the RME case for each receptor group are summarized in Table 5. The 725-foot kriged radius results are not presented as these HIs and ILCRs were consistently lower than the results based on the 500-foot kriged radius. Therefore, the BHHRA non-consumptive uses of the FWBZ groundwater associated with the commercial worker scenarios were projected to have risks within the risk management range.

The hypothetical use of the FWBZ groundwater as a potable water supply also was evaluated. The BHHRA noted that groundwater at the site is currently not used as a potable water supply. The calculated HI and ILCR for the RME case for each receptor group are summarized in Table 6. These results are seen to be higher than the risk management range, reflecting potentially unacceptable risks for drinking the groundwater.

5.2 RAOs and Exposure Pathways

The ROD states:

"RAOs for OU-5/IR-02 were developed to guide the development and evaluation of remedial alternatives for the groundwater plume. The DON proposes to reduce contaminant concentrations as a risk management decision, which was made in coordination with the regulatory agencies (DON 2006). The RAOs for groundwater are to protect human health by preventing exposure of potential residents and occupational workers to benzene and naphthalene present within groundwater at OU-5/IR-02."

The ROD RAO of ensuring "to protect human health by preventing exposure of potential residents and occupational workers to benzene and naphthalene present within groundwater at OU-5/IR-02" is still intact given the evaluation of the post-ROD data herein. In light of the additional post-ROD groundwater quality data described in the RD/RAWP and as detailed in Sections 3.0 and 4.0 of this Technical Memorandum, the FWBZ is not a potential source of potable water nor is it a plausible source for agricultural or industrial supply, independent of the presence of dissolved benzene and naphthalene. As discussed above, the overall low quality of the groundwater in the FWBZ with respect to TDS, iron, sulfates, and alkalinity causes the groundwater in the FWBZ to be undesirable for use in even these nonpotable applications that were evaluated in the BHHRA. This is especially true for the use of the groundwater at a car wash where the high dissolved solids, sulfates, and iron contents would likely lead to the water causing significant staining and spotting of the vehicles being washed (Water Laundry News 2009). The quality of the groundwater also would practically limit if and when it could be used for irrigation or watering lawns (Miller and Gardiner 2001).

Consequently, the only exposure pathway remaining for the FWBZ groundwater is the potential indirect inhalation exposure to COCs in groundwater due to vapor intrusion. The vapor intrusion pathway in the context of the FWBZ groundwater is discussed in more detail in Section 5.2.1.

5.2.1 Vapor Intrusion

5.2.1.1 Features and Characteristics of the Site Relevant to Potential Vapor Intrusion

Possible vapor intrusion into a residence, school, or day care has been a focus for this site for over a decade. This is due to the presence of a number of residential housing and public buildings overlying the groundwater plume that contains dissolved benzene and naphthalene. These structures include (see Figure 1):

- The unoccupied North Village Housing Area (including the Kollman Circle Housing Area) – A set of formerly used housing units with crawl spaces
- The USCG Marina Village Housing Area – A set of slab-on-grade housing units that is still in use and occupied
- The Shinsei Gardens Housing Development – A new apartment complex that was constructed with a vapor barrier and sub-slab depressurization (Note: Land use controls that have already been implemented require any new construction in IR-02 to include similar engineering controls.)
- The Island High School – A former high school and elementary school that is no longer in use
- The Woodstock Child Development Center – An active slab-on-grade child day-care center

Vapor intrusion of subsurface contamination into the breathing spaces of houses and occupied public structures can occur as a result of the release of volatile constituents that are dissolved in the shallow groundwater and their migration up through the soil column by diffusion and convection. Once at the building foundation or flooring of the structure, the volatile constituents can be drawn into the structure through cracks and openings and mixed with the indoor air. This upward migration of volatiles from the groundwater is most significantly affected by:

- The length of the soil column between the bottom of the foundation or the floor of the occupied structure and the surface of the groundwater table
- The type(s) of soil making up this soil column and their properties (e.g., density, porosity, moisture content, soil vapor permeability)
- The thicknesses and juxtaposition of the soil layers in the vadose zone between the groundwater table and the building foundation or floor of the structure
- The degree to which conditions in the soil column either promote or limit biodegradation of the volatile organic contaminants

5.2.1.2 Evidence Regarding the Completeness and Significance of the Vapor Intrusion Exposure Pathway

A significant and consistent body of evidence supports the conclusion that volatiles from the dissolved plume of benzene and naphthalene in the FWBZ are not migrating upward into potentially or currently occupied structures sufficiently to create indoor air concentrations that pose a carcinogenic or noncarcinogenic risk higher than the regulatory benchmarks and thresholds that define the risk management range (i.e., an ILCR between 10^{-4} and 10^{-6}). This evidence includes a combination of the following:

A. Direct measurements from the sampling of soil gas, groundwater, crawl space air, indoor air, and outdoor ambient air in relation to the site's residential areas

B. Results of modeling the migration of volatiles released from the groundwater or in the overlying soil gas up through the soil column into a residential building and assessment of the risk implications of the projected indoor air concentrations of the volatiles

C. Results of additional characterization of the physical features and stratigraphy of the site relative to the factors that are known to either enhance or diminish potential vapor intrusion

More specifically, these lines of evidence (presented in more detail below) include: (1) direct measurements of soil gas crawl space air, indoor air and outdoor ambient air that in combination indicated that there is not a significant contribution to indoor air COC levels from a subsurface source; (2) numerous borings with associated analytical sampling at different depths that have demonstrated that there are extensive, layered clay deposits at the site that are blocking the upward migration of volatile COCs in the soil gas; (3) soil characterization in the vadose zone that showed that the conditions that are conducive to biodegradation of COCs like benzene and naphthalene are likely to be present across much of the site; (4) analytical results for multi-depth groundwater sampling performed in the absence of hydraulic pumping and mixing showed a natural vertical stratification of COC concentrations with the highest concentrations at depth at the Marsh Crust; (5) site-specific vapor intrusion modeling performed in accordance with recent studies and vapor intrusion guidance projected indoor air concentrations not indicative of significant vapor migration; (6) RI/FS risk assessment results showed RME ILCRs of 1×10^{-6} to 5×10^{-8} for residents based on use of soil gas data; and (7) the results of additional vapor intrusion evaluations using current DTSC criteria that were recently performed and added as Appendix C of this Technical Memorandum. The additional evaluations were performed using the soil gas measurements from across the site, and the RME results for the projected benzene indoor air inhalation ILCRs ranged from 4.8×10^{-8} to 4.8×10^{-7}. The RME results from the additional evaluations had projected naphthalene indoor air inhalation ILCRs ranging from 5.6×10^{-8} to 5.0×10^{-6}.

All the above evidence was reviewed to assess whether the dissolved benzene and naphthalene in the FWBZ groundwater currently pose an indoor air inhalation risk to residents or a potential risk

to future residents, children, or students who may routinely occupy buildings at the site. A more detailed summary of this evidence is presented below.

5.2.1.2.1 Evidence Based on Direct Soil Gas, Groundwater, and Air Sampling

Three lines of direct evidence relative to the potential completeness and significance of the vapor intrusion pathway at the site are associated with the results of the sampling of the site soil gas, groundwater, and air (including indoor, outdoor, and crawl space air).

A-1. Soil gas measurements (active and passive) have been taken multiple times across the study area. Sampling has typically been performed at locations above the groundwater plume and above and below the clay layer. The results of this sampling showed that the soil gas has consistently had relatively low concentrations of benzene and naphthalene even at locations directly above where the highest groundwater concentrations of these constituents were measured. These measurements indicate that the upward migration of volatiles through the soil column is being limited or restricted. An examination of the site conditions (see Section 5.2.1.2.3) suggests that soil gas migration is being limited by the clay layer, which is acting as a relatively effective barrier to upward vapor diffusion and the occurrence of some amount of natural biodegradation of benzene and naphthalene in the vadose zone. In combination, these mechanisms appear to be acting to prevent the benzene and naphthalene soil gas concentrations near the ground surface from becoming measurably elevated. (Further information on the soil gas sampling performed at the site is presented in Appendix B, Section B-1.)

A-2. Indoor air sampling was performed at a number of unoccupied and occupied residential structures of different design and construction styles, in combination with colocated ambient air and/or crawl space air sampling. The results indicated that the concentrations of benzene, naphthalene, and other volatile in the crawl space air (at the houses with crawl spaces) did not differ from their concentrations in the indoor (or outdoor) air. In addition, the measurements showed that the indoor air volatiles concentrations were generally very comparable to the outdoor ambient air concentrations. Together, these findings support the conclusion that there was no significant contribution of volatiles to the crawl space or indoor air from a subsurface source. (Further information on the air sampling performed at the site is presented in Appendix B, Section B-2.)

A-3. An evaluation of the pre-operations soil gas and groundwater data compared to the conservative default screening levels presented in the 2002 EPA Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance) (EPA 2002) suggested that subsurface volatile contamination could potentially pose an indoor air inhalation risk relative to the threshold carcinogenic and noncarcinogenic risk levels of 1×10^{-6} and 1, respectively, when the maximum detected study areawide concentrations were used in the screening. However, most of the comparisons showed that the measured pre-operations soil gas and groundwater concentrations did not exceed these default screening levels for risk goals within the risk management range. (Further

information on the comparison of the site data to the default EPA vapor intrusion screening levels is presented in Appendix B, Section B-3.)

Therefore, the best predictor of potential indoor air impacts (i.e., properly placed soil gas measurements) indicated that potential inhalation risks were within the risk management range. Second, direct air measurements did not indicate that a subsurface source of volatiles contamination was contributing detectably to the concentrations of these constituents in indoor air or crawl space air. Third, only a very conservative screening level analysis of the maximum measured soil gas and groundwater concentrations assuming minimal resistance to upward vapor migration and no biodegradation gave an indication that there was the potential for vapor intrusion. This indication was associated with potential projected inhalation risk at the most stringent end of the risk management range.

5.2.1.2.2 Evidence Based on Vapor Intrusion Modeling and Risk Assessment

Two indirect lines of evidence relative to the potential completeness and significance of the vapor intrusion pathway involve analyses to project indoor air concentrations by modeling vapor migration from measured subsurface conditions and comparing the projected indoor air concentrations to risk-based thresholds.

B-1. Soil gas to indoor air modeling performed as part of the BHHRA using both the "EPA Methodology" (i.e., modeling vapor intrusion using the VLEACH model and a box model for air mixing inside the residence) and the "Cal/EPA Methodology" (i.e., simulating the vapor migration and indoor air mixing using the DTSC-modified J&E vapor intrusion model) projected indoor air concentrations of the site volatiles that were associated with potential indoor air inhalation carcinogenic and noncarcinogenic risks that were within the risk management range. These analyses of potential residential exposures used conservative pretreatment operations soil gas concentrations and conservative modeling inputs relative to the site vadose zone and representative residential structure design parameters. Similar J&E modeling performed for the USCG Alameda Housing Indoor Air Assessment using the soil gas measurements as the driver reached the same conclusion that the projected indoor air inhalation risks from vapor intrusion were within the risk management range.

B-2. Two designs of groundwater to indoor air modeling were developed for the USCG Alameda Housing Indoor Air Assessment using the J&E vapor intrusion model. The first design used the groundwater quality measured in a series of HydroPunch borings of the shallow groundwater extracted from just below the groundwater table. The second design used the groundwater quality measured in a series of monitoring wells that were screened across the width of the FWBZ and in contact with the Marsh Crust. The projected indoor air concentrations from the first design (using the contaminant concentrations measured near the groundwater table) were lower than were predicted using the monitoring well data with higher concentrations. The projected indoor air concentrations for all modeled volatiles using the HydroPunch data were below their respective EPA ambient air PRGs (risk-based thresholds associated with a contaminant-specific residential inhalation cancer risk level of

1×10^{-6} or a noncarcinogenic HI of 1). The projected indoor air concentrations for all modeled volatiles except benzene using the monitoring well data were below their respective EPA ambient air PRGs. The projected benzene indoor air concentration was associated with a potential inhalation cancer risk of approximately 3.8×10^{-6}, which is within the risk management range. This vapor migration modeling also conservatively used the pretreatment operations groundwater concentrations from the HydroPunch borings and the monitoring wells, conservative site characteristic modeling inputs, and residential exposure assumptions.

Projections of the potential indoor air concentrations of the site-related volatiles due to vapor intrusion and their associated inhalation risks were developed for multiple scenarios using mechanistic vapor migration modeling. As was noted, the soil types and soil column characteristics were conservatively selected such that minimal resistance to upward vapor migration was assumed. In addition, but no less significant, is that the modeling was driven by soil gas and groundwater measurements made prior to the start of the biosparging treatment operations. These pre-operations concentrations reflect the highest levels of these volatiles detected in these media. The vapor intrusion modeling and indoor air risk assessments that have been performed indicate that the vapor intrusion to indoor air exposure pathway is not likely to become significant at this site unless the dissolved groundwater concentrations near the groundwater table would increase to levels 1 to 2 orders of magnitude higher than they were in the pre-operations baseline HydroPunch and monitoring well measurements.

5.2.1.2.3 Evidence Associated with Better Defined Site Characteristics that Affect Vapor Migration

A considerable amount of additional site characterization has been performed since the OU-5 BHHRA and the follow-up vapor intrusion assessments at the site. This additional characterization work was performed primarily as part of the remedial design of the biosparging treatment system. The sampling, coring, and other characterization activity have produced a more complete description of the subsurface conditions at the site and have allowed the CSM to be refined. Some of this newer information relates to conditions or features that would be expected to have a direct effect on the volatilization of benzene and naphthalene from the groundwater or their migration up through the soil column to the area beneath a possible house or public building.

C-1. There is a competent, fairly continuous clay layer in the vadose zone across the site at or above the groundwater table that has been shown through soil gas measurements above and below the layer to be effectively limiting the upward migration of benzene and naphthalene volatilized out of the groundwater into the soil gas. The clay layer typically is just over 2 feet thick but is considerably thinner in some portions of the site (see the geologic cross sections presented in Figures 2 through 9). The migration-limiting effect of this clay layer was not accounted for in any of the prior conservative vapor migration modeling performed using the DTSC-modified J&E or VLEACH models. Had the presence of this clay layer been reflected in the modeling,

even lower benzene and naphthalene indoor air concentrations and associated potential inhalation risks would have been projected than were previously reported. (Further information on the characteristics of the clay layer and the associated stratigraphy is presented in Appendix B, Section B-4.)

C-2. Benzene and naphthalene are known to naturally biodegrade in the environment under the right conditions. Sand and sandy soil in the vadose zone can create conditions that are very conducive to biodegradation and constituent attenuation. This is due, in part, to the combination of the ability of the sand to allow oxygen to penetrate deeper into the soil column and the sand providing a suitable matrix on which microbes can grow. The rate of biodegradation is typically greatest for compounds like benzene and naphthalene under aerobic conditions in the soil column (i.e., in the presence of oxygen). Under these conditions, biodegradation can be an effective mechanism for benzene and naphthalene elimination in the vadose zone and can lead to reductions of concentrations of up to two orders of magnitude (Davis 2010). No direct measurements have been made of the degree to which biodegradation was occurring or would be occurring naturally at the site in the absence of the biosparging. However, the near surface vadose zone soil types and stratigraphy (being largely associated with poorly graded sand, silty sand, and some gravel) promote the penetration of oxygen deeper into the soil column. The presence of oxygen that has penetrated deeper into the soil allows biodegradation to occur over a larger fraction of the vapor migration path and residence time.

C-3. When the FWBZ is not disturbed by groundwater pumping or air injection, the concentrations of benzene and naphthalene have tended to stratify with the concentrations of the dissolved constituents two to four orders of magnitude higher near the bottom of the water column nearer the Marsh Crust and concentrations below or near detection limits near the surface of the groundwater table. As volatilization and upward vapor migration is driven by the dissolved concentrations of benzene and naphthalene present at the surface of the groundwater table, this stratification leads to reduced soil gas concentrations of these constituents above the groundwater table. Lower soil gas concentrations at the bottom of the soil column would then be associated with lower indoor air concentrations in structures located above. (Further information on the potential stratification of the dissolved groundwater concentrations in the FWBZ is presented in Appendix B, Section B-5.)

C-4. Several recent studies indicate that vapor intrusion of petroleum hydrocarbons (including benzene) is much less significant than previously thought (CSWRCB 2010). The main reason for this is that benzene and other petroleum hydrocarbons readily degrade in the vadose zone, and the models historically used to evaluate this pathway (including the models used at OU-5) did not account for this degradation. Using sets of colocated and contemporaneous groundwater, soil gas, indoor air, and outdoor air measurements from a large number of petroleum contamination sites across the country with different soil stratigraphies and building construction styles, certain combinations of site characteristics were identified where subsurface volatile contamination did not result in significant vapor intrusion or projected indoor air inhalation risks. These conditions described a site that was characterized as a “low strength dissolved groundwater source” of volatiles

contamination (CSWRCB 2010, API 2009, Davis 2010). The combination of characteristics that in general never produced vapor intrusion concerns was: 1) there were only dissolved constituents in groundwater (i.e., no free product or LNAPL); 2) the concentrations reflected <1,000 µg/L of benzene and <10,000 µg/L of TPH; and 3) the impacted groundwater is overlain by 5 feet of clean soil in the vadose zone. The California State Water Resources Control Board has included this finding in its current Draft Leaking Underground Fuel Tank Guidance manual, (SWRCB 2010) as a vapor intrusion risk screening tool for quickly identifying sites that "present no unacceptable risk for vapor intrusion." Upon comparison of these specifications to the site conditions and the pre-operations groundwater data, these specifications were seen to be met. This similarity would lead to the expectation that this site would not create vapor intrusion concerns because these conditions did not create vapor intrusion concerns when they were found to exist at other similar sites. (Further information on the "rule of thumb" for screening potential vapor intrusion sites with petroleum-related contaminants is presented in Appendix B, Section B-6.)

Analyses of potential vapor intrusion that were performed nearly a decade ago made very conservative assumptions about the site that did not address site features that may effectively limit or mitigate upward vapor migration. The modeling analyses performed did not account for the presence of the clay layer in the vadose zone and the natural biodegradation that is likely to be occurring to some degree. In addition, the vapor migration modeling analyses were generally performed using the maximum detected groundwater concentrations from monitoring well data collected across the FWBZ and not the groundwater concentrations near the groundwater table (which are typically two to four orders of magnitude lower than the concentrations found near the Marsh Crust source). Even though the prior analyses concluded that vapor intrusion was not creating conditions that were outside the risk management range, the refined site characterization would suggest that these modeling results were even more conservative than was possibly first thought. The recently derived "low strength source" paradigm would indicate that the modeling and measurement evidence for this site is what should be anticipated for a site with these known characteristics and features.

5.2.1.2.4 Summary of Verification Evaluation of the Potential for Vapor Intrusion with Better Defined Site Characteristics and RI/FS Risk Assessment Results

Evaluation of the potential for vapor intrusion was performed using the data collected to date in combination with current DTSC and EPA vapor intrusion assessment methodologies and toxicity criteria. All results are less than or within the risk management range. The details of this evaluation and the RI/FS risk evaluations can be found in Appendix C. Key results are summarized below.

The RI/FS risk assessment evaluated multiple pathways, including vapor intrusion, using groundwater data from multiple depths down to 20 feet bgs and soil gas data (ERRG 2004). All HQs were less than 1 for all evaluations. Using soil gas data, the RI/FS vapor intrusion risk assessment estimated RME ILCRs ranging from 5×10^{-8} to 1×10^{-6} for residents and from

5×10^{-8} to 8×10^{-7} for school receptors. Using groundwater data from all depths, the RI/FS RME ILCR results were in the risk management range. The Final RI/FS Report (ERRG 2004) concluded "Additionally, potential inhalation of VOCs in indoor air by residential and school receptors does not pose an unacceptable risk."

The findings of the RI/FS risk assessment of potential vapor intrusion are supported by subsequent evaluations performed using the current DTSC approach and the collected crawl space air and soil gas data from multiple depths over a widespread area. Using the more recent DTSC approach and the soil gas data, subsequent vapor intrusion evaluations presented in Appendix C estimated the RME ILCR for benzene to range from 4.8×10^{-8} to 4.8×10^{-7} and for naphthalene to range from 5.6×10^{-8} to 5.0×10^{-6} across the site.

Additional evaluations presented in Appendix C were performed using groundwater data collected near the water table, which is recommended for use in vapor intrusion evaluations by current guidance. The groundwater at these depths shows much lower benzene and naphthalene concentrations than the data used in the RI/FS vapor intrusion risk assessment that were from depths considerably below the water table. Benzene and naphthalene were both detected at only 7 of 37 locations in the more recent water table data. Four of these locations were chosen for further vapor intrusion evaluation because they had the characteristics most likely to promote vapor migration and higher potential indoor air concentrations. Using IRIS toxicity criteria, the projected RME ILCRs for benzene at these locations were 10^{-7} except at one location, where the ILCR was 1.6×10^{-6}. Using DTSC toxicity criteria, the projected RME ILCRs for benzene at these individual locations ranged from 6.9×10^{-7} to 6.0×10^{-6}. Using DTSC toxicity criteria, the projected RME ILCRs for naphthalene at these individual locations ranged from 7.9×10^{-8} to a maximum of 3.6×10^{-5}. All HQs were less than 1 for all evaluations based on groundwater. These results serve as another line of evidence for verifying the RI/FS risk assessment results.

Therefore, in summary, these additional analyses of the pretreatment subsurface conditions at the site provide additional support for the conclusion that there are no unacceptable potential risks to the residents, school workers, or students at the site as the result of vapor intrusion.

5.2.1.2.5 Findings Relative to the Vapor Intrusion Exposure Pathway

In consideration of the series of direct measurements, modeling analyses, and risk assessments conducted with an explicit focus on the potential vapor intrusion pathway relative to the dissolved benzene and naphthalene contamination plume in the FWBZ, the weight of evidence supports the finding that vapor intrusion and subsequent indoor air inhalation exposure to volatiles released from the groundwater do not currently pose a risk to members of the public in exceedance of the risk management range and are not likely to pose an inhalation risk in exceedance of the risk management range in the future:

1. **There is a consistent body of evidence that supports the conclusion that volatiles from the FWBZ are not migrating upward into potentially or currently occupied structures sufficiently to create indoor air concentrations posing a carcinogenic or noncarcinogenic risk level in exceedance of the risk management range.**

This evidence includes the inhalation risk assessments performed for the OU-5 RI, the Residential Risk Evaluation for the USCG Housing, and the BHHRA conducted for residences and the school as part of the Groundwater RI/FS. These assessments were performed using conservative source term concentrations (typically the maximum detected pre-biosparging system operation groundwater and soil gas concentrations); conservative exposure parameters (typically residential or unrestricted access exposure parameters applicable to the most sensitive potential receptor – a child); and vapor migration modeling using conservative default site parameters (typically permeable sand or silty sand making up the entire vadose zone soil column and taking no credit for the presence of the competent clay layer as an impediment to upward migration or for biodegradation of the benzene or naphthalene during migration). The only indoor air modeling results that indicated a potential inhalation risk were those using the full water column groundwater quality as the modeling source term, and no results using the measured soil gas concentrations as the modeling driver. Modeling indoor air concentrations all the way from groundwater concentrations using the J&E model does not account for any biodegradation during the upward migration process. Modeling indoor air concentrations from soil gas measurements made above the clay layer would be expected to provide a more realistic estimate of vapor migration that is less prone to uncertainties or inaccuracies as less of the overall migration path must be modeled (i.e., part of the migration and environmental chemistry is captured empirically) and the effect of the clay layer and part of any biodegradation that will occur has already taken place and affected the soil gas composition. In addition, the groundwater concentrations that actually drive or affect the vapor migration process are at the top of the groundwater table, not the well-mixed dissolved groundwater concentrations or the higher groundwater concentrations that existed pre-operations deeper in the aquifer due to stratification.

The vapor migration modeling and risk estimates developed from crawl space and soil gas measurements have consistently indicated no significant risks from vapor intrusion, even when the maximum detected preoperations soil gas concentrations were used to drive the modeling. An evaluation of the potential for vapor intrusion that was performed using the data collected to date, in combination with current DTSC and EPA vapor intrusion assessment methodologies and toxicity criteria presented in Appendix C, also supports this finding. The passive soil gas survey and baseline soil gas sampling performed as part of the design of the biosparging system provided further evidence that soil gas concentrations are much lower above the clay layer than below it. The site characterization data show that this clay layer is over 2 feet thick throughout the area of interest and indicated that this clay layer is acting as an effective barrier to upward vapor migration.

2. **Measurements of the indoor air concentrations in residences and structures with potentially sensitive receptors taken to address uncertainties associated with the vapor migration modeling revealed that benzene and naphthalene were not present in the indoor air at concentrations that were demonstrably higher than in the colocated ambient air.**

This appears to be, in part, because the dissolved concentrations of benzene and naphthalene in the shallow groundwater have not been extraordinarily high, which limits the amount of volatile contaminant being released into the soil column. The shallow groundwater was not seen to be grossly contaminated with dissolved volatiles, even before operation of the biosparging system began. Again, it should be emphasized that the findings of no projected potential indoor air inhalation risk in exceedance of the risk management range noted in the assessments above were obtained assuming the groundwater and soil gas contaminant concentrations associated with pre-operation conditions.

Recent published results of extensive data analyses for sites with respect to natural attenuation of subsurface petroleum hydrocarbons and their potential to create vapor intrusion concerns have indicated that vapor intrusion is very unlikely to be a complete pathway given a certain set of conditions (Davis 2010). An extensive Petroleum Vapor Database of paired groundwater and soil gas sampling results for over 100 locations (focusing primarily on benzene and TPH constituents like naphthalene) was analyzed to identify trends in the empirical attenuation of these constituents during upward migration under different conditions. A "low strength source" scenario (as described in Section 5.2.1.2.3 bullet C-4) was defined in which the vapor intrusion pathway for these constituents was empirically determined to not be complete (Davis 2010, CSWRCB 2010). This case reflects a source that is dissolved constituents in groundwater with <1,000 micrograms per liter (µg/L) of benzene and <10,000 µg/L of TPH that is overlain by 5 feet of clean soil in the vadose zone.

A detailed evaluation was made of data for sites with buildings with slab-on-grade construction and sites where sampling was performed very near and adjacent to the structures. The results showed that sand in the vadose zone created the good conditions for biodegradation and constituent attenuation, followed by silt and silty clay in the vadose zone. This is due, in part, to the combination of the ability of the sand to allow oxygen to penetrate deeper into the soil column and the sand providing a suitable matrix on which microbes can grow. Significant biodegradation rates for benzene in the soil column were seen from the data (leading to attenuation by approximately two orders of magnitude). Pre-operational conditions at OU-5 match the conditions specified for a "low strength dissolved groundwater source" at almost all locations, which would suggest that the vapor intrusion pathway for benzene and naphthalene would not be complete for the majority of the site. Those locations that would not meet the "low strength dissolved groundwater source" definition based on the pre-operations characterization data are clustered in the area of the Shinsei Gardens Housing Development, which was constructed with a vapor barrier and sub-slab depressurization foundation design. As such, the

recently published research on vapor intrusion pathway completeness appears to be borne out by the characterizations and assessments performed for this site.

3. **The vapor intrusion exposure pathway is not significant at this site.**

The Residential Risk Evaluation for the USCG Housing projected that an increase in the dissolved groundwater concentrations of benzene and naphthalene of one or two orders of magnitude above the maximum preoperational levels considered in those indoor air inhalation risk assessments would be required for vapor intrusion to contribute enough contaminant to the indoor air for a change relative to ambient conditions to be noticeable. An increase in benzene and naphthalene to such levels is highly unlikely. In addition, predesign investigation results identified natural barriers (clay) to upward vapor intrusion. Therefore, the vapor intrusion pathway may not be complete in these areas, and does not contribute significantly to potential indoor air inhalation risk where the pathway exists. Biosparging has been actively remediating the site for over 3 years. During this time, an increase in the dissolved oxygen content of FWBZ groundwater has resulted in the destruction of approximately 4.33 kilograms (9.55 pounds) of benzene and 39.04 kilograms (86.07 pounds) of naphthalene.

6.0 FINDINGS AND RECOMMENDATIONS

As outlined in Section 1.1, this groundwater data evaluation was designed to answer a number of basic groundwater management questions. The answers to these questions were addressed in some detail in the body of this report and are summarized below:

- **What do these additional groundwater data tell us about the potential beneficial uses of the local groundwater?** The analysis of the groundwater quality measurements made over time at the site indicates that the FWBZ does not meet the specifications of a potential source of drinking water (Class II or MUN). The level of TDS in the FWBZ was the primary factor in this determination. However, several other groundwater quality parameters also were found to be incompatible with domestic use, including the characteristic levels of sulfate, iron, and alkalinity. Neither TDS nor sulfate can be economically removed from domestic water supplies using conventional techniques. Further evaluation of the FWBZ groundwater characteristics revealed that the groundwater in the FWBZ is sufficiently impaired relative to multiple quality parameters (including TDS) that even the nonpotable beneficial uses evaluated in the BHHRA (i.e., as a water supply for a car wash or for landscaping or irrigation) are not likely to be realistic given operational and aesthetic constraints to using the groundwater. In addition, the California well standards require that annular sanitary seals extend at least 50 feet bgs for community and industrial water supply wells and at least 20 feet bgs for domestic, agricultural, and other types of water supply wells. Given that the maximum artificial fill thickness that defines the bottom of the FWBZ at OU-5 is approximately 20 feet, water supply well construction requirements would preclude the installation of water supply wells in the FWBZ. As such, no practical beneficial uses of the groundwater in the FWBZ (consumptive or nonconsumptive) were identified.

APPENDIX C

ANALYSIS OF THE POTENTIAL RISKS ASSOCIATED WITH THE VAPOR INTRUSION PATHWAY

RI/FS Projections of Indoor Air Risk Based on the Soil Gas Sampling Results

The Groundwater RI/FS for Alameda Point Site 25 and Alameda Annex IR-02 (ERRG 2004) compiled and evaluated the soil gas data that had been collected for the site up to that time. This site is now referred to as Operable Unit 5/FISCA IR-02 Groundwater. This information was summarized in Table 4-3 of that Report. As part of that RI/FS, a human health risk assessment was performed to evaluate the potential risks to human health posed by chemicals detected in the groundwater. For the residential exposure scenario, the volatilization of groundwater contaminants into soil gas, that then migrate into indoor air, was estimated using the Johnson and Ettinger (J&E) model as modified by DTSC to include Cal/EPA toxicity criteria (ERRG 2004).

To test the validity of this assessment of the potential vapor intrusion risks from groundwater to indoor air, a second risk assessment (line of evidence) was performed using actual soil gas measurements at the source term in the modeling rather than the groundwater concentrations with some projected volatilization. The RI/FS Report noted that the measured benzene concentrations in the soil gas were lower than were predicted by the J&E modeling. In addition, the measured benzene soil gas concentrations were higher at Alameda Annex than they were at Alameda Point. As such, separate indoor air inhalation risk calculations were performed for the two areas in the RI. Table 6-2 from the RI/FS Report (ERRG 2004) (reproduced and included in this appendix following the text) presents the results of those vapor intrusion exposure pathway risk calculations for residents, school workers, and school students.

Under the Reasonable Maximum Exposure (RME) scenario, the noncarcinogenic Hazard Indices (HIs) ranged from 0.0076 to 0.0092 across both locations. These values were all well below the acceptable HI threshold of 1.0. The RME results for the incremental lifetime cancer (carcinogenic) risk (ILCR) ranged from 5×10^{-8} to 1×10^{-6}. All of these values are less than the ILCR target risk range of 10^{-6} to 10^{-4}. The Alameda Annex result for the resident was at the lower (most stringent) end of this range. These results indicated no unacceptable risks to the residents, school workers, or students due to vapor intrusion.

Additional Projections of Indoor Air Risk Based on the Soil Gas Sampling Results

Two evaluations were performed to assess the existing data using a more recent DTSC approach. First, the air sampling that has been performed in crawl spaces (Tetra Tech 2002) (i.e., in the North Housing and Kollmann Circle developments) was used to project indoor air concentrations using the conservative DTSC crawl space-to-indoor air attenuation factor of 1.0 (DTSC 2011). Applying this attenuation factor means that the crawl space air is assumed to be identical to the indoor air with no additional attenuation in contaminant concentrations as the air penetrates the building.

Four crawl spaces were sampled at the North Coast Guard Housing area, and eight were sampled at the Kollmann Circle development in the spring of 2002 (see Figure C-1, reproduced from Figure 6 of the Residential Risk Evaluation for U.S. Coast Guard Housing [Tetra Tech 2002]). Table C-1 shows the results of this sampling. Only benzene detections were reported (i.e., no naphthalene). Table C-1 also shows the results of applying the DTSC default crawl space attenuation factor to project an indoor air concentration for these structures. Table C-1 also shows results from concurrent sampling of indoor and outdoor air. Table C-1 then shows the conversion of the projected indoor air concentration to the time-weighted exposure concentration used by DTSC for inhalation risk assessments for carcinogens and noncarcinogens (DTSC 2011). Lastly, the DTSC toxicity criteria for benzene were applied to this exposure concentration to calculate the projected indoor air inhalation ILCRs and noncancer Hazard Quotients (HQs) for benzene (DTSC 2012b). Results in the last two columns of Table C-1 indicate that all 12 of the sampled residences with crawl spaces had projected HQs much less than 1.0, and all the sampled residences had projected ILCRs within the target risk range of 10^{-6} to 10^{-4}. The projected indoor air inhalation ILCRs were 10^{-6} for all except four residences, where the risk was 10^{-5}. These results serve as one line of evidence for verifying the RI/FS risk assessment findings.

A second evaluation was performed using a similar vapor migration and risk assessment approach with the broader set of soil gas measurements made across the site in June of 2001. Soil gas sampling was attempted at 32 locations spread throughout the site (see Figure C-2, reproduced from Figure 3-5 of the OU-5 RI Report [Neptune et al. 2002]). When possible, soil gas was collected from two depths: 2 feet and approximately 5 feet below ground surface (bgs). The samples were collected in 6-liter Summa® canisters and analyzed for volatile organic compounds and naphthalene by U.S. Environmental Protection Agency (EPA) Method TO-14A. Further details of the sampling procedure and approach used in the investigation are presented in Section 3.4.3.2 of the OU-5 RI Report (Neptune et al. 2002). Tables C-2B and C-2N present the results of that soil gas sampling for benzene and naphthalene, respectively. Tables C-2B and C-2N also show the results of applying the default DTSC attenuation factor for existing residential buildings (i.e., 0.002 [DTSC 2011]) to project benzene and naphthalene indoor air concentrations for each soil gas sampling location. The higher of the indoor air concentrations projected from the soil gas from 2 feet bgs and approximately 5 feet bgs was then conservatively taken as the projected indoor air concentration for that location. Tables C-2B and C-2N then show the conversion of the indoor air concentrations to the time-weighted exposure concentrations used by DTSC for inhalation risk assessments for carcinogens and noncarcinogens (as noted above). Lastly, the DTSC toxicity criteria for benzene and naphthalene were applied to calculate the projected indoor air inhalation ILCRs and noncancer HQs for both constituents (DTSC 2012a). The results are shown in the last two columns of Tables C-2B and C-2N.

With respect to benzene, Table C-2B shows that all the projected HQs were many orders of magnitude below the threshold of 1.0 and all the residences had projected ILCRs that were lower than the lowest endpoint of the target risk range of 10^{-6} to 10^{-4}. The RME results for the projected benzene ILCRs ranged from 4.8×10^{-8} to 4.8×10^{-7}. With respect to naphthalene, Table C-2N also shows that all the projected HQs were well below 1.0, and 28 of the 32 locations had projected

ILCRs that were lower than the lowest endpoint of the target risk range of 10^{-6} to 10^{-4}. The remaining four locations had projected ILCRs of 10^{-6}, the lowest endpoint of the target risk range. The RME results for the projected naphthalene ILCRs ranged from 5.6×10^{-8} to 5.0×10^{-6}. These results serve as another line of evidence for verifying the RI/FS risk assessment findings.

In summary, the findings of the RI/FS risk assessment of potential vapor intrusion are supported by current evaluations performed based on recent DTSC criteria using the collected crawl space and widespread soil gas data from multiple depths. As such, this additional analysis provides further support for the RI/FS conclusion that there are no unacceptable risks to the residents, school workers, or students at the site as the result of vapor intrusion.

RI/FS Projections of Indoor Air Risk Based on All Available Multi-Depth Groundwater Sampling Results

As noted above, the Groundwater RI/FS for Alameda Point Site 25 and Alameda Annex IR-02 (ERRG 2004) included a human health risk assessment that evaluated various potential pathways, including the volatilization of groundwater constituents into soil gas, which then could migrate into indoor air. The vapor intrusion evaluation was built on migration modeling using the J&E model as modified by DTSC to include Cal/EPA toxicity criteria (ERRG 2004). The default chemical properties provided in the J&E model were used when available. A default slab-on-grade residential structure was assumed. A depth to groundwater of 7.2 feet was modeled using soil properties taken from site-specific boring logs for the vadose zone. The RI/FS risk assessment (Final RI/FS Report, Section 6, page 6-1) included use of HydroPunch® data from samples collected at approximately 20 feet bgs (ERRG 2004). The Final RI/FS Report further documented (Section 6.4, page 6-6) that in both Tier 1 and Tier 2 analyses, exposure point concentration data included data from all depths at both Alameda Point and FISCA. Table 6-1 from that RI/FS (ERRG 2004), reproduced and included in this appendix following the text, presents the results of calculations for all noningestion pathways, as well as the hypothetical potable water usage, for various receptors, including residents, school workers, and students. Results for the resident, school worker, and student for the "Assuming No Domestic Potable Water Use" reflect the potential risks to these receptors from the vapor intrusion exposure pathway as projected using the groundwater contaminant concentrations as the source to the J&E modeling.

As can be seen for the nondomestic potable water use scenario, the projected HI (with contributions for all constituents in the groundwater) was calculated to be 0.29 for the resident, the school worker, and the student. Two different data kriging approaches (using different kriging radii) were used to obtain representative exposure point groundwater concentrations for this assessment. The projected HI of 0.29 was less than the threshold value of 1.0. For the nondomestic potable water use scenario, the RME results for the projected indoor air inhalation ILCRs from vapor intrusion from groundwater ranged from 2×10^{-6} for the student to 1×10^{-5} for the resident. Most of these results were due to benzene given the toxicity criteria used in the assessment. All of these ILCR estimates were within the target risk range of 10^{-6} to 10^{-4}. The Final RI/FS Report (ERRG 2004) concluded "Additionally, potential inhalation of VOCs in indoor air by residential and school receptors does not pose an unacceptable risk."

Projections of Indoor Air Risk Based on the At/Near Water Table Groundwater Sampling Results

An independent evaluation was performed to verify the RI/FS results by applying a more current DTSC assessment approach to the available data. This evaluation was made by performing location-specific vapor intrusion modeling using the J&E model with all the DTSC toxicity and default input parameter adjustments for a slab-on-grade residential structure (DTSC 2012b). In addition, the modeling used only the groundwater concentrations measured across the site from the depth interval at or near the local water table. This selection of groundwater sampling results is supported by the fact that the groundwater concentrations at the water table dictate the volatilization of the dissolved constituents out of the liquid phase and into the soil gas (DTSC 2011).

Table C-3 lists the groundwater sampling results for benzene and naphthalene for this subset of the groundwater sampling locations where the sample was collected from as close to the water table as possible. Data from the summer of 2001 (Neptune et al. 2002) and 2007 (Tetra Tech 2010) are presented. Table C-3 lists the sampling location and the approximate sample depth, followed by the measured concentrations.

Thirty-seven locations had groundwater samples drawn from appropriate depth intervals to potentially capture groundwater at or near the water table. The locations of the 2001 samples are displayed on Figure C-3 (reproduced from Figure 3-4 of the Operable Unit 5 RI Report [Neptune et al. 2002]). The locations of the 2007 samples are displayed on Figure C-4 (reproduced from Figure 3-6 of the Remedial Design/Remedial Action Work Plan [Tetra Tech 2010]). Of these, 16 locations were nondetect for both benzene and naphthalene. An additional 14 locations were nondetect for benzene but reported a low concentration for naphthalene. Only 7 of the 37 locations had detected concentrations for both benzene and naphthalene. These cases were reviewed to identify those with a higher likelihood to result in potential vapor intrusion either because the reported groundwater concentrations were higher, the vadose zone at that location consisted of more permeable material, or the vadose zone was thinner. Based on this review, four locations were judged to warrant verification modeling: OS-HP2, OS-HP-10, PC2-1, and PC3-13. Table C-4 shows the measured groundwater concentrations at these four locations and the composition of the local vadose zone soil.

For purposes of comparison, the projected indoor air inhalation RME risks for each case were estimated using both the EPA Integrated Risk Information System (IRIS) toxicity criteria (EPA 2012) and the DTSC toxicity criteria (DTSC 2012a). Table C-5 shows the results of these calculations. For each of the four highlighted water table groundwater sampling locations (which represent the locations with conditions that potentially could result in vapor intrusion), Table C-5 lists the sampling date, the effective groundwater-to-indoor air attenuation factors for benzene and naphthalene, and the projected ILCRs and noncancer HQs for both constituents. Results are shown separately for the two sets of toxicity criteria.

As can be seen, DTSC considers naphthalene to be a carcinogen while IRIS does not. In addition, there are differences in the values of the remaining Unit Risk Factors and Reference Concentrations for these chemicals between the two sources. It should be noted that the most conservative value

from the range of Unit Risk Factors for benzene reported in IRIS was used in these projections. Once again, all the projected HQs for both chemicals were less than the HQ threshold value of 1.0. Specifically, all HQs for benzene were less than 0.010 using both DTSC and IRIS criteria, except for one location where the maximum HQ for benzene was 0.016. All HQs for naphthalene were less than 0.10 using both DTSC and IRIS criteria, except for one location where the maximum HQ for naphthalene was 0.81. Using IRIS toxicity criteria, the projected RME ILCRs for benzene were 10^{-7} except at one location, where the ILCR was 1.6×10^{-6}. Using DTSC toxicity criteria, the projected RME ILCRs for benzene ranged from 6.9×10^{-7} to 6.0×10^{-6}. Using DTSC toxicity criteria, the projected RME ILCRs for naphthalene ranged from 7.9×10^{-8} to a maximum of 3.6×10^{-5}.

All the projected RME ILCRs using both DTSC and IRIS criteria for both benzene and naphthalene were within or below the target risk range of 10^{-6} to 10^{-4}. Accordingly, even these individual locations with conditions that potentially would best promote vapor migration do not indicate an unacceptable indoor air inhalation risk. It should also be noted that the majority of the water table sampling results for these locations were non-detect for these constituents.

Summary

The RI/FS risk assessment evaluated multiple pathways, including vapor intrusion, using groundwater data from multiple depths down to 20 feet bgs and soil gas data (ERRG 2004). All HQs were less than 1 for all evaluations. Using soil gas data, the RI/FS vapor intrusion risk assessment estimated RME ILCRs ranging from 5×10^{-8} to 1×10^{-6} for residents and from 5×10^{-8} to 8×10^{-7} for school receptors. Using groundwater data from all depths, the RI/FS RME ILCR results were in the risk management range. The Final RI/FS Report (ERRG 2004) concluded "Additionally, potential inhalation of VOCs in indoor air by residential and school receptors does not pose an unacceptable risk."

The findings of the RI/FS risk assessment of potential vapor intrusion are supported by subsequent evaluations performed using the current DTSC approach and the collected crawl space air and soil gas data from multiple depths over a widespread area. Using the more recent DTSC approach and the soil gas data, subsequent vapor intrusion evaluations presented in this appendix estimated the RME ILCR for benzene to range from 4.8×10^{-8} to 4.8×10^{-7} and for naphthalene to range from 5.6×10^{-8} to 5.0×10^{-6} across the site.

Additional evaluations presented in this appendix were performed using groundwater data collected near the water table, an approach that is recommended for use in vapor intrusion evaluations by current guidance. The groundwater at these depths shows much lower benzene and naphthalene concentrations than the data used in the RI/FS vapor intrusion risk assessment that were from depths considerably below the water table. Benzene and naphthalene were both detected at only 7 of 37 locations in the more recent water table data. Four of these locations were chosen for further vapor intrusion evaluation because they had the characteristics most likely to promote vapor migration and higher potential indoor air concentrations. Using IRIS toxicity criteria, the projected RME ILCRs for benzene at these locations were 10^{-7} except at one location, where the ILCR was 1.6×10^{-6}.

Using DTSC toxicity criteria, the projected RME ILCRs for benzene at these individual locations ranged from 6.9×10^{-7} to 6.0×10^{-6}. Using DTSC toxicity criteria, the projected RME ILCRs for naphthalene at these individual locations ranged from 7.9×10^{-8} to a maximum of 3.6×10^{-5}. All HQs were less than 1 for all evaluations based on groundwater. These results serve as another line of evidence for verifying the RI/FS risk assessment findings.

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——————. 2010. Final Remedial Design/Remedial Action Work Plan for Operable Unit 5/ IR-02 Groundwater, Alameda Point and FISCA, Alameda, California, Revision 2. Prepared for the Department of the Navy, Base Realignment and Closure, Program Management Office West. December.

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TABLES

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TABLE C-4

GROUNDWATER CONCENTRATIONS AND LOCAL VADOSE ZONE SOIL COMPOSITION

Water Table Groundwater Sampling Location	Benzene Concentration (µg/L)	Naphthalene Concentration (µg/L)	Vadose Zone Stratigraphy (Starting at the surface)	Depth to Groundwater (feet bgs)
OS-HP-2	41	270	Sand - Clay	6.0
OS-HP-10	4.2	49	Sand - Clay - Sand	7.0
PC2-1	1.7	1.2	Sand - Silt - Sand	6.9
PC3-13	8.1	660	Sand - Clay - Sand	8.1

Abbreviations and Acronyms:
µg/L – micrograms per liter
bgs – below ground surface

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TABLE 6-2

SUMMARY OF TIER 2 HHRA RESULTS MODELED FROM SOIL GAS DATA ALAMEDA POINT SITE 25/ALAMEDA ANNEX IR-02 GROUNDWATER RI/FS

Exposure Scenario	Location	Noncarcinogenic Hazard Index		Carcinogenic Risk	
		Average Exposure	Reasonable Maximum Exposure	Average Exposure	Reasonable Maximum Exposure
Assuming No Domestic Potable Water Use					
Resident	Alameda Annex	0.0092	0.0092	1×10^{-6}	1×10^{-6}
	Alameda Point	0.0076	0.0076	5×10^{-8}	5×10^{-8}
School Worker	Alameda Annex	0.0087	0.0087	8×10^{-7}	8×10^{-7}
	Alameda Point	0.0076	0.0076	5×10^{-8}	5×10^{-8}
School Student	Alameda Annex	0.0084	0.0084	2×10^{-7}	2×10^{-7}
	Alameda Point	0.0076	0.0076	5×10^{-8}	5×10^{-8}

Source: Reproduced from ERRG 2004

Abbreviations and Acronyms:
HHRA – human health risk assessment
IR – Installation Restoration (Program)

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Table C-1
Projection of Indoor Air Inhalation Risk Due to Benzene from Crawl Space Air Sampled in February/April 2002

Housing Area	Address	Sample Type	Benzene Concentration [1] (mg/m^3)	Benzene Concentration ($\mu g/m^3$)	DTSC Existing Residential Structures with Crawl Spaces Attenuation Factor [2] (unitless)	Projected Benzene Indoor Air Concentration From Crawl Space Air ($\mu g/m^3$)	*Measured Benzene Indoor Air Concentration ($\mu g/m^3$)*	*Measured Benzene Outdoor Air Concentration ($\mu g/m^3$)*	Projected Benzene Indoor Air Exposure Concentration from Crawl Space Air [3] (Carcinogens) ($\mu g/m^3$)	Projected Benzene Indoor Air Exposure Concentration from Crawl Space Air [3] (Non-Carcinogens) ($\mu g/m^3$)	Projected Benzene Indoor Air from Crawl Space Cancer Risk [4] (unitless)	Projected Benzene Indoor Air from Crawl Space Hazard Quotient [4] (unitless)
North Housing	103 F Singleton	Crawl Space	1.10E-03	1.10E+00	1.0	1.1E+00	*2.6E+00*	*2.6E+00*	4.5E-01	1.1E+00	1.3E-05	1.76E-02
North Housing	2000 D Mayport	Crawl Space	2.70E-03	2.70E+00	1.0	2.7E+00	*3.9E+00*	*5.2E+00*	1.1E+00	2.6E+00	3.2E-05	4.32E-02
North Housing	2004 D Mayport	Crawl Space	2.40E-03	2.40E+00	1.0	2.4E+00	*2.9E+00*	*2.8E+00*	9.9E-01	2.3E+00	2.9E-05	3.84E-02
North Housing	2006 E Mayport	Crawl Space	1.80E-03	1.80E+00	1.0	1.8E+00	*4.6E+00*	*3.1E+00*	7.4E-01	1.7E+00	2.1E-05	2.88E-02
Kollmann Circle	2000 A Kollmann	Crawl Space	6.50E-04	6.50E-01	1.0	6.5E-01	*5.9E-01*	*Not Measured*	2.7E-01	6.2E-01	7.7E-06	1.04E-02
Kollmann Circle	2000 E Kollmann	Crawl Space	4.90E-04	4.90E-01	1.0	4.9E-01	*8.8E-01*	*Not Measured*	2.0E-01	4.7E-01	5.8E-06	7.83E-03
Kollmann Circle	2002 C Kollmann	Crawl Space	4.60E-04	4.60E-01	1.0	4.6E-01	*6.5E-01*	*Not Measured*	1.9E-01	4.4E-01	5.5E-06	7.35E-03
Kollmann Circle	2004 C Kollmann	Crawl Space	4.60E-04	4.60E-01	1.0	4.6E-01	*5.2E-01*	*Not Measured*	1.9E-01	4.4E-01	5.5E-06	7.35E-03
Kollmann Circle	2006 B Kollmann	Crawl Space	6.50E-04	6.50E-01	1.0	6.5E-01	*5.2E-01*	*Not Measured*	2.7E-01	6.2E-01	7.7E-06	1.04E-02
Kollmann Circle	2006 E Kollmann	Crawl Space	4.90E-04	4.90E-01	1.0	4.9E-01	*5.5E-01*	*4.9E-01*	2.0E-01	4.7E-01	5.8E-06	7.83E-03
Kollmann Circle	2008 D Kollmann	Crawl Space	4.90E-04	4.90E-01	1.0	4.9E-01	*5.9E-01*	*Not Measured*	2.0E-01	4.7E-01	5.8E-06	7.83E-03
Kollmann Circle	2010 C Kollmann	Crawl Space	5.20E-04	5.20E-01	1.0	5.2E-01	*6.2E-01*	*Not Measured*	2.1E-01	5.0E-01	6.2E-06	8.31E-03
										Minimum	**5.5E-06**	**7.4E-03**
										Maximum	**3.2E-05**	**4.3E-02**

Sources:

[1] Residential Risk Evaluation for U.S. Coast Guard Housing, Alameda, CA, August 2002, Table 10

[2] Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, Final, DTSC/CalEPA, October 2011 : Appendix B - Preliminary Screening Attenuation Factors, Existing Residential Structures: Crawl Space Air Samples

[3] Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, Final, DTSC/CalEPA, October 2011 : Appendix C - Human Risk Assessment, Exposure Concentrations and Assumptions, Page C-3

[4] DTSC Toxicity Criteria: Inhalation Unit Risks and Chronic reference Concentrations

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Table C-2B
Projection of Indoor Air Inhalation Risk Due to Benzene from Soil Gas Sampled in June 2001

Soil Gas Sampling Location [June 2001]	Benzene Concentration @ 2' bgs [1] (µg/m^3)	Benzene Concentration @ 5' bgs [1] (µg/m^3)	DTSC Existing Residential Building Attenuation Factor [2] (unitless)	Projected Benzene Indoor Air Concentration From SG @ 2' bgs (µg/m^3)	Projected Benzene Indoor Air Concentration From SG @ 5' bgs (µg/m^3)	Maximum Projected Benzene Indoor Air Concentration From SG (µg/m^3)	Maximum Projected Benzene Indoor Air Exposure Concentration [3] (Carcinogens) (µg/m^3)	Maximum Projected Benzene Indoor Air Exposure Concentration [3] (Non-Carcinogens) (µg/m^3)	Maximum Projected Benzene Indoor Air Cancer Risk [4] (unitless)	Maximum Projected Benzene Indoor Air Hazard Quotient [4] (unitless)
OU5-SG1	<2	NS	0.002	0.0040	NS	0.0040	0.0016	0.0038	4.8E-08	6.39E-05
OU5-SG2	NS	3.1	0.002	NS	0.0062	0.0062	0.0025	0.0059	7.4E-08	9.91E-05
OU5-SG3	<2	NS	0.002	0.0040	NS	0.0040	0.0016	0.0038	4.8E-08	6.39E-05
OU5-SG4	6.8	5.2	0.002	0.0136	0.0104	0.0136	0.0056	0.0130	1.6E-07	2.17E-04
OU5-SG5	3.0	NS	0.002	0.0060	NS	0.0060	0.0025	0.0058	7.2E-08	9.59E-05
OU5-SG6	<2	NS	0.002	0.0040	NS	0.0040	0.0016	0.0038	4.8E-08	6.39E-05
OU5-SG7	<2	NS	0.002	0.0040	NS	0.0040	0.0016	0.0038	4.8E-08	6.39E-05
OU5-SG8	<2	NS	0.002	0.0040	NS	0.0040	0.0016	0.0038	4.8E-08	6.39E-05
OU5-SG9	4.4	NS	0.002	0.0088	NS	0.0088	0.0036	0.0084	1.0E-07	1.41E-04
OU5-SG10	NA	13	0.002	NA	0.0260	0.0260	0.0107	0.0249	3.1E-07	4.16E-04
OU5-SG11	<2	<2	0.002	0.0040	0.0040	0.0040	0.0016	0.0038	4.8E-08	6.39E-05
OU5-SG12	7.2	<2	0.002	0.0144	0.0040	0.0144	0.0059	0.0138	1.7E-07	2.30E-04
OU5-SG13	6.6	NS	0.002	0.0132	NS	0.0132	0.0054	0.0127	1.6E-07	2.11E-04
OU5-SG14	<2	NS	0.002	0.0040	NS	0.0040	0.0016	0.0038	4.8E-08	6.39E-05
OU5-SG15	3.1	NS	0.002	0.0062	NS	0.0062	0.0025	0.0059	7.4E-08	9.91E-05
OS-SG1	20	NS	0.002	0.0400	NS	0.0400	0.0164	0.0384	4.8E-07	6.39E-04
OS-SG2	<10	NS	0.002	0.0200	NS	0.0200	0.0082	0.0192	2.4E-07	3.20E-04
OS-SG3	5.1	<2	0.002	0.0102	0.0040	0.0102	0.0042	0.0098	1.2E-07	1.63E-04
OS-SG4	<2	NS	0.002	0.0040	NS	0.0040	0.0016	0.0038	4.8E-08	6.39E-05
OS-SG5	<2	NS	0.002	0.0040	NS	0.0040	0.0016	0.0038	4.8E-08	6.39E-05
OS-SG6	<2	NS	0.002	0.0040	NS	0.0040	0.0016	0.0038	4.8E-08	6.39E-05
OS-SG7	<2	NS	0.002	0.0040	NS	0.0040	0.0016	0.0038	4.8E-08	6.39E-05
OS-SG8	<2	NS	0.002	0.0040	NS	0.0040	0.0016	0.0038	4.8E-08	6.39E-05
OS-SG9	8.0	<2	0.002	0.0160	0.0040	0.0160	0.0066	0.0153	1.9E-07	2.56E-04
OS-SG10	<2	NS	0.002	0.0040	NS	0.0040	0.0016	0.0038	4.8E-08	6.39E-05
OS-SG11	4.4	3.9	0.002	0.0088	0.0078	0.0088	0.0036	0.0084	1.0E-07	1.41E-04
OS-SG12	3.9	14	0.002	0.0078	0.0280	0.0280	0.0115	0.0268	3.3E-07	4.47E-04
OS-SG13	<2	NS	0.002	0.0040	NS	0.0040	0.0016	0.0038	4.8E-08	6.39E-05
OS-SG14	4.9	15	0.002	0.0098	0.0300	0.0300	0.0123	0.0288	3.6E-07	4.79E-04
OS-SG15	4.3	NS	0.002	0.0086	NS	0.0086	0.0035	0.0082	1.0E-07	1.37E-04
OS-SG16	2.5	10	0.002	0.0050	0.0200	0.0200	0.0082	0.0192	2.4E-07	3.20E-04
OS-SG17	3.2	NS	0.002	0.0064	NS	0.0064	0.0026	0.0061	7.6E-08	1.02E-04
								Minimum	**4.8E-08**	**6.4E-05**
								Maximum	**4.8E-07**	**6.4E-04**

Sources:

[1] Operable Unit 5 Remedial Investigation Report, Alameda Point, Alameda, CA Draft Final, July 12, 2002: Appendix D remedial Investigation Data Tables, Table D-3

[2] Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, Final, DTSC/CalEPA, October 2011 : Appendix B - Preliminary Screening Attenuation Factors, Existing Residential Structures

[3] Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, Final, DTSC/CalEPA, October 2011 : Appendix C - Human Risk Assessment, Exposure Concentrations and Assumptions, Page C-3

[4] DTSC Toxicity Criteria: Inhalation Unit Risks and Chronic reference Concentrations

NS No sample attempted or no recovery

NA Constituent not analyzed

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Table C-2N
Projection of Indoor Air Inhalation Risk Due to Naphthalene from Soil Gas Sampled in June 2001

Soil Gas Sampling Location [June 2001]	Naphthalene Concentration @ 2' bgs [1] ($\mu g/m^3$)	Naphthalene Concentration @ 5' bgs [1] ($\mu g/m^3$)	DTSC Existing Residential Building Attenuation Factor [2] (unitless)	Projected Naphthalene Indoor Air Concentration From SG @ 2' bgs ($\mu g/m^3$)	Projected Naphthalene Indoor Air Concentration From SG @ 5' bgs ($\mu g/m^3$)	Maximum Projected Naphthalene Indoor Air Concentration From SG ($\mu g/m^3$)	Maximum Projected Naphthalene Indoor Air Exposure Concentration [3] (Carcinogens) ($\mu g/m^3$)	Maximum Projected Naphthalene Indoor Air Exposure Concentration [3] (Non-Carcinogens) ($\mu g/m^3$)	Maximum Projected Naphthalene Indoor Air Cancer Risk [4] (unitless)	Maximum Projected Naphthalene Indoor Air Hazard Quotient [4] (unitless)
OU5-SG1	21	NS	0.002	0.0420	NS	0.0420	0.0173	0.0403	5.9E-07	4.47E-03
OU5-SG2	NS	17	0.002	NS	0.0340	0.0340	0.0140	0.0326	4.8E-07	3.62E-03
OU5-SG3	22	NS	0.002	0.0440	NS	0.0440	0.0181	0.0422	6.1E-07	4.69E-03
OU5-SG4	54	42	0.002	0.1080	0.0840	0.1080	0.0444	0.1036	1.5E-06	1.15E-02
OU5-SG5	9.1	NS	0.002	0.0182	NS	0.0182	0.0075	0.0175	2.5E-07	1.94E-03
OU5-SG6	14	NS	0.002	0.0280	NS	0.0280	0.0115	0.0268	3.9E-07	2.98E-03
OU5-SG7	18	NS	0.002	0.0360	NS	0.0360	0.0148	0.0345	5.0E-07	3.84E-03
OU5-SG8	9.3	NS	0.002	0.0186	NS	0.0186	0.0076	0.0178	2.6E-07	1.98E-03
OU5-SG9	2.1	NS	0.002	0.0042	NS	0.0042	0.0017	0.0040	5.9E-08	4.47E-04
OU5-SG10	NA	4.3	0.002	NA	0.0086	0.0086	0.0035	0.0082	1.2E-07	9.16E-04
OU5-SG11	24	31	0.002	0.0480	0.0620	0.0620	0.0255	0.0595	8.7E-07	6.61E-03
OU5-SG12	17	14	0.002	0.0340	0.0280	0.0340	0.0140	0.0326	4.8E-07	3.62E-03
OU5-SG13	17	NS	0.002	0.0340	NS	0.0340	0.0140	0.0326	4.8E-07	3.62E-03
OU5-SG14	12	NS	0.002	0.0240	NS	0.0240	0.0099	0.0230	3.4E-07	2.56E-03
OU5-SG15	8.2	NS	0.002	0.0164	NS	0.0164	0.0067	0.0157	2.3E-07	1.75E-03
OS-SG1	11	NS	0.002	0.0220	NS	0.0220	0.0090	0.0211	3.1E-07	2.34E-03
OS-SG2	<10	NS	0.002	0.0200	NS	0.0200	0.0082	0.0192	2.8E-07	2.13E-03
OS-SG3	7.4	13	0.002	0.0148	0.0260	0.0260	0.0107	0.0249	3.6E-07	2.77E-03
OS-SG4	12	NS	0.002	0.0240	NS	0.0240	0.0099	0.0230	3.4E-07	2.56E-03
OS-SG5	<2	NS	0.002	0.0040	NS	0.0040	0.0016	0.0038	5.6E-08	4.26E-04
OS-SG6	18	NS	0.002	0.0360	NS	0.0360	0.0148	0.0345	5.0E-07	3.84E-03
OS-SG7	3.6	NS	0.002	0.0072	NS	0.0072	0.0030	0.0069	1.0E-07	7.67E-04
OS-SG8	4.7	NS	0.002	0.0094	NS	0.0094	0.0039	0.0090	1.3E-07	1.00E-03
OS-SG9	17	28	0.002	0.0340	0.0560	0.0560	0.0230	0.0537	7.8E-07	5.97E-03
OS-SG10	14	NS	0.002	0.0280	NS	0.0280	0.0115	0.0268	3.9E-07	2.98E-03
OS-SG11	13	17	0.002	0.0260	0.0340	0.0340	0.0140	0.0326	4.8E-07	3.62E-03
OS-SG12	19	38	0.002	0.0380	0.0760	0.0760	0.0312	0.0729	1.1E-06	8.10E-03
OS-SG13	44	NS	0.002	0.0880	NS	0.0880	0.0362	0.0844	1.2E-06	9.38E-03
OS-SG14	13	15	0.002	0.0260	0.0300	0.0300	0.0123	0.0288	4.2E-07	3.20E-03
OS-SG15	19	NS	0.002	0.0380	NS	0.0380	0.0156	0.0364	5.3E-07	4.05E-03
OS-SG16	19	180	0.002	0.0380	0.3600	0.3600	0.1479	0.3452	5.0E-06	3.84E-02
OS-SG17	9.0	NS	0.002	0.0180	NS	0.0180	0.0074	0.0173	2.5E-07	1.92E-03
								Minimum	**5.6E-08**	**4.3E-04**
								Maximum	**5.0E-06**	**3.8E-02**

Sources:

[1] Operable Unit 5 Remedial Investigation Report, Alameda Point, Alameda, CA Draft Final, July 12, 2002: Appendix D remedial Investigation Data Tables, Table D-3
[2] Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, Final, DTSC/CalEPA, October 2011 : Appendix B - Preliminary Screening Attenuation Factors,
[3] Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, Final, DTSC/CalEPA, October 2011 : Appendix C - Human Risk Assessment, Exposure
[4] DTSC Toxicity Criteria: Inhalation Unit Risks and Chronic reference Concentrations
NS No sample attempted or no recovery
NA Constituent not analyzed

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TABLE 6-1

SUMMARY OF TIER 2 HHRA RESULTS
ALAMEDA POINT SITE 25/ALAMEDA ANNEX IR-02 GROUNDWATER RI/FS

Exposure Scenario	Noncarcinogenic Hazard Index		Carcinogenic Risk	
	Average Exposure	Reasonable Maximum Exposure	Average Exposure	Reasonable Maximum Exposure
Assuming No Domestic Potable Water Use (500-foot radius Kriging)				
Car Wash Worker	0.38	0.99	2×10^{-6}	2×10^{-5}
Landscape Worker	0.66	0.98	3×10^{-6}	3×10^{-5}
Resident	0.29	0.29	1×10^{-5}	1×10^{-5}
School Worker	0.29	0.29	7×10^{-6}	7×10^{-6}
School Student	0.29	0.29	2×10^{-6}	2×10^{-6}
Assuming Domestic Potable Water Use (500-foot radius Kriging)				
Resident	88	145	5×10^{-3}	2×10^{-2}

Source: Reproduced from ERRG 2004

Abbreviations and Acronyms:
HHRA – human health risk assessment
IR – Installation Restoration (Program)

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Table C-3
Summary of Benzene and Naphthalene Groundwater Concentrations from Samples Collected At/Near the Surface of the Water Table at Hydropunch Locations

Hydropunch Sample Location	Sample Depth Interval (feet)	Benzene Concentration (µg/L)	Naphthalene Concentration (µg/L)	Sampling Date	Comment	Next Shallowest Sample Depth Interval (feet)
OU5-HP-1	6-10	<2	<2	June - 2001	Sample collected at/nearest the water table	10 - 14
OU5-HP-2	8-12	2.2	34	June - 2001	Sample collected at/nearest the water table	12 - 16
OU5-HP-3	8-12	<1	<1	June - 2001	Sample collected at/nearest the water table	12 - 16
OU5-HP-4	8-12	<1	<1	June - 2001	Sample collected at/nearest the water table	12 - 16
OU5-HP-5	12-16	3.8	26	June - 2001	Shallowest sample - Not representative of conditions at the water table	16 - 20
OU5-HP-6	6-10	<2	<2	June - 2001	Sample collected at/nearest the water table	10 - 14
OU5-HP-7	6-10	<2	<2	June - 2001	Sample collected at/nearest the water table	10 - 14
OU5-HP-8	8-12	<2	<2	June - 2001	Sample collected at/nearest the water table	12 - 16
OU5-HP-9	8-12	<1	<1	June - 2001	Sample collected at/nearest the water table	12 - 16
OU5-HP-10	8-10	<2	<2	June - 2001	Sample collected at/nearest the water table	10 - 14
OU5-HP-11	8-12	<1	5	June - 2001	Sample collected at/nearest the water table	12 - 16
OU5-HP-12	8-12	<1	14	June - 2001	Sample collected at/nearest the water table	12 - 16
OU5-HP-13	8-12	<2	2.3	June - 2001	Sample collected at/nearest the water table	12 - 15
OU5-HP-14	6-10	<2	<2	June - 2001	Sample collected at/nearest the water table	10 - 14
OU5-HP-15	7-11	<2	<2	June - 2001	Sample collected at/nearest the water table	12 - 16
OU5-HP-16	8-12	<1	<1	June - 2001	Sample collected at/nearest the water table	12 - 16
OU5-HP-17	6-10	<1	2.2	June - 2001	Sample collected at/nearest the water table	10 - 14
OU5-HP-18	8-12	<2	0.79	June - 2001	Sample collected at/nearest the water table	12 - 16
OU5-HP-19	8-12	<2	4.7	June - 2001	Sample collected at/nearest the water table	12 - 16
OU5-HP-20	6-10	0.4	27	June - 2001	Sample collected at/nearest the water table	10 - 14
OU5-HP-21	8-12	<1	21	June - 2001	Sample collected at/nearest the water table	12 - 16
OU5-HP-22	8-12	<1	<1	June - 2001	Sample collected at/nearest the water table	12 - 16
OS-HP1		No Reported Data		June - 2001		
OS-HP2	8-12	41	270	June - 2001	Sample collected at/nearest the water table	12 - 16
OS-HP3	12-16	<2	0.6	June - 2001	Shallowest sample - Not representative of conditions at the water table	16 - 20
OS-HP4	12-16	12	839	June - 2001	Shallowest sample - Not representative of conditions at the water table	16 - 20
OS-HP5	12-16	7.1	89	June - 2001	Shallowest sample - Not representative of conditions at the water table	None
OS-HP6	6-10	<1	2.6	June - 2001	Sample collected at/nearest the water table	10 - 14
OS-HP7	10-14	375	3180	June - 2001	Shallowest sample - Not representative of conditions at the water table	14 - 18
OS-HP8	6-10	<1	4.4	June - 2001	Sample collected at/nearest the water table	11 - 15
OS-HP9	8-12	<1	30	June - 2001	Sample collected at/nearest the water table	12 - 16
OS-HP10	6-10	4.2	49	June - 2001	Sample collected at/nearest the water table	9 - 13
OS-HP11	8-12	0.49	0.89	June - 2001	Sample collected at/nearest the water table	12 - 16

Hydropunch Sample Location	Sample Depth Interval (feet)	Benzene Concentration (µg/L)	Naphthalene Concentration (µg/L)	Sampling Date	Comment	Next Shallowest Sample Depth Interval (feet)
OS-HP12	5.5-9.5	<2	13	June - 2001	Sample collected at/nearest the water table	10 - 14
OS-HP13	16-20	850	19000	June - 2001	Shallowest sample - Not representative of conditions at the water table	None
OS-HP14	12-16	742	3710	June - 2001	Shallowest sample - Not representative of conditions at the water table	16 - 19
OS-HP15		No Reported Data		June - 2001		
OS-HP16		No Reported Data		June - 2001		
OS-HP17	8-12	<1	<1	June - 2001	Sample collected at/nearest the water table	12 - 16
OS-HP18	17.5-20	27	2400	June - 2001	Shallowest sample - Not representative of conditions at the water table	None
OS-HP19		No Reported Data		June - 2001		
OS-HP20	16-20	17	210	June - 2001	Shallowest sample - Not representative of conditions at the water table	None
OS-HP21	12-16	0.6	0.7	June - 2001	Shallowest sample - Not representative of conditions at the water table	None
OS-HP22	16-20	8.8	370	June - 2001	Shallowest sample - Not representative of conditions at the water table	None
OS-HP23		No Reported Data		June - 2001		
OS-HP24		No Reported Data		June - 2001		
OS-HP25	12-16	<2	6.6	June - 2001	Shallowest sample - Not representative of conditions at the water table	None
OS-HP26	12-16	<2	<2	June - 2001	Shallowest sample - Not representative of conditions at the water table	None
OS-HP27	12-16	<2	1.3	June - 2001	Shallowest sample - Not representative of conditions at the water table	16 - 20
OS-HP28	8-12	<2	<2	June - 2001	Sample collected at/nearest the water table	12 - 16
OS-HP29	12-16	<2	<2	June - 2001	Shallowest sample - Not representative of conditions at the water table	17 - 21
OS-HP30	12-16	1.2	390	June - 2001	Shallowest sample - Not representative of conditions at the water table	17 - 21
OS-HP31	12-16	113	235	June - 2001	Shallowest sample - Not representative of conditions at the water table	16 - 20
OS-HP32		No Reported Data		June - 2001		
OS-HP33		No Reported Data		June - 2001		
OS-HP34		No Reported Data		June - 2001		
OS-HP35	16-20	230	3400	June - 2001	Shallowest sample - Not representative of conditions at the water table	None
OS-HP36	8-12	<1	9.2	June - 2001	Sample collected at/nearest the water table	12 - 16
OS-HP37	6-10	<1	4.9	June - 2001	Sample collected at/nearest the water table	10 - 14
OS-HP38		No Reported Data		June - 2001		
OS-HP39	12-16	90	1200	June - 2001	Shallowest sample - Not representative of conditions at the water table	None
PC2-1	6.5-9.5	1.7	1.2	July/August 2007	Sample collected at/nearest the water table	12 - 15
PC2-3	8-11	<0.5	0.64	July/August 2007	Sample collected at/nearest the water table	11 - 14
PC2-4	8-11	No Sample Could Be Obtained		July/August 2007		
PC2-4	12-15	<0.5	<2	July/August 2007	Sample collected at/nearest the water table	16 - 19
PC3-13	7.5-10.5	No Sample Could Be Obtained		July/August 2007		
PC3-13	12-15	8.1	660	July/August 2007	Sample collected nearest the water table	15 - 18
PC3-14	6-9	<0.5	<2	July/August 2007	Sample collected at/nearest the water table	12.5 - 15.5

Table C-5
Projection of Indoor Air Inhalation Risk Due to Benzene and Naphthalene from Near Water Table Groundwater at Four Worst Case Locations Using USEPA, IRIS, and Cal/EPA DTSC Toxicity Criteria

	Month/Year of Near Water Table Groundwater Sampling	Groundwater to Indoor Air Modeling Results				Incremental Cancer Risk from Vapor Intrusion to Indoor Air		Incremental Non-Cancer Hazard Quotient from Vapor Intrusion to Indoor Air	
		Benzene		Napthalene		Benzene	Naphthalene	Benzene	Naphthalene
		Attenuation Factor	Projected Maximum Indoor Air Concentration	Attenuation Factor	Projected Maximum Indoor Air Concentration				
		(unitless)	($\mu g/m^3$)	(unitless)	($\mu g/m^3$)	(unitless)	(unitless)	(unitless)	(unitless)
OS-HP2	June - 2001								
IRIS Toxicity Criteria		6.51E-06	0.058	2.61E-05	0.13	2.0E-07	NA	0.0019	0.0410
DTSC Toxicity Criteria		6.51E-06	0.058	2.61E-05	0.13	6.9E-07	1.8E-06	0.0009	0.0140
OS-HP-10	June - 2001								
IRIS Toxicity Criteria		2.72E-04	0.25	1.99E-04	0.18	7.9E-07	NA	0.0079	0.0570
DTSC Toxicity Criteria		2.72E-04	0.25	1.99E-04	0.18	3.0E-06	2.5E-06	0.0040	0.0190
PC2-1	July/August - 2007								
IRIS Toxicity Criteria		3.42E-04	0.13	2.56E-04	0.0057	4.0E-07	NA	0.0040	0.0018
DTSC Toxicity Criteria		3.42E-04	0.13	2.56E-04	0.0057	1.5E-06	7.9E-08	0.0020	0.0006
PC3-13	July/August - 2007								
IRIS Toxicity Criteria		2.86E-04	0.50	2.10E-04	2.6	1.6E-06	NA	0.0160	0.8100
DTSC Toxicity Criteria		2.86E-04	0.50	2.10E-04	2.6	6.0E-06	3.6E-05	0.0080	0.2700

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FIGURES

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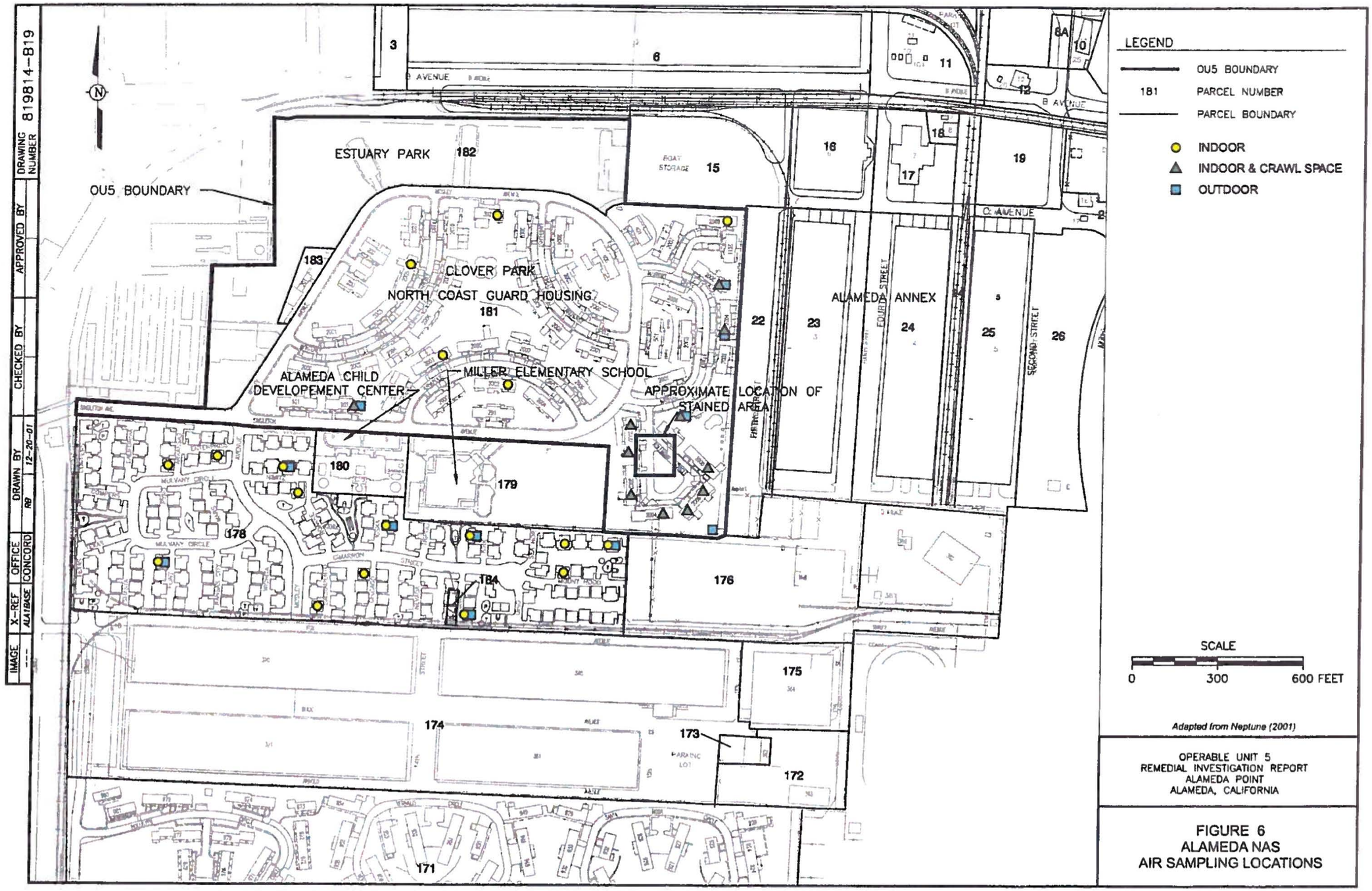
LEGEND
OU5 BOUNDARY
181 PARCEL NUMBER
PARCEL BOUNDARY
INDOOR
INDOOR & CRAWL SPACE
OUTDOOR
SCALE
0 300 600 FEET
Adapted from Neptune (2001)
OPERABLE UNIT 5
REMEDIAL INVESTIGATION REPORT
ALAMEDA POINT
ALAMEDA, CALIFORNIA
FIGURE 6
ALAMEDA NAS
AIR SAMPLING LOCATIONS
ESTUARY PARK 182
OU5 BOUNDARY
CLOVER PARK
NORTH COAST GUARD HOUSING
181
ALAMEDA CHILD DEVELOPEMENT CENTER
MILLER ELEMENTARY SCHOOL
APPROXIMATE LOCATION OF STAINED AREA
ALAMEDA ANNEX
EDWARD STREET
SECOND STREET
B AVENUE
C AVENUE
BOAT STORAGE
3
6
6A
10
11
12
15
16
17
18
19
22
23
24
25
26
171
172
173
174
175
176
178
179
180
183
184
DRAWING NUMBER 819814-B19
APPROVED BY
CHECKED BY
DRAWN BY RB 12-20-01
OFFICE CONCORD
X-REF ALATBASE
IMAGE

FIGURE C-1

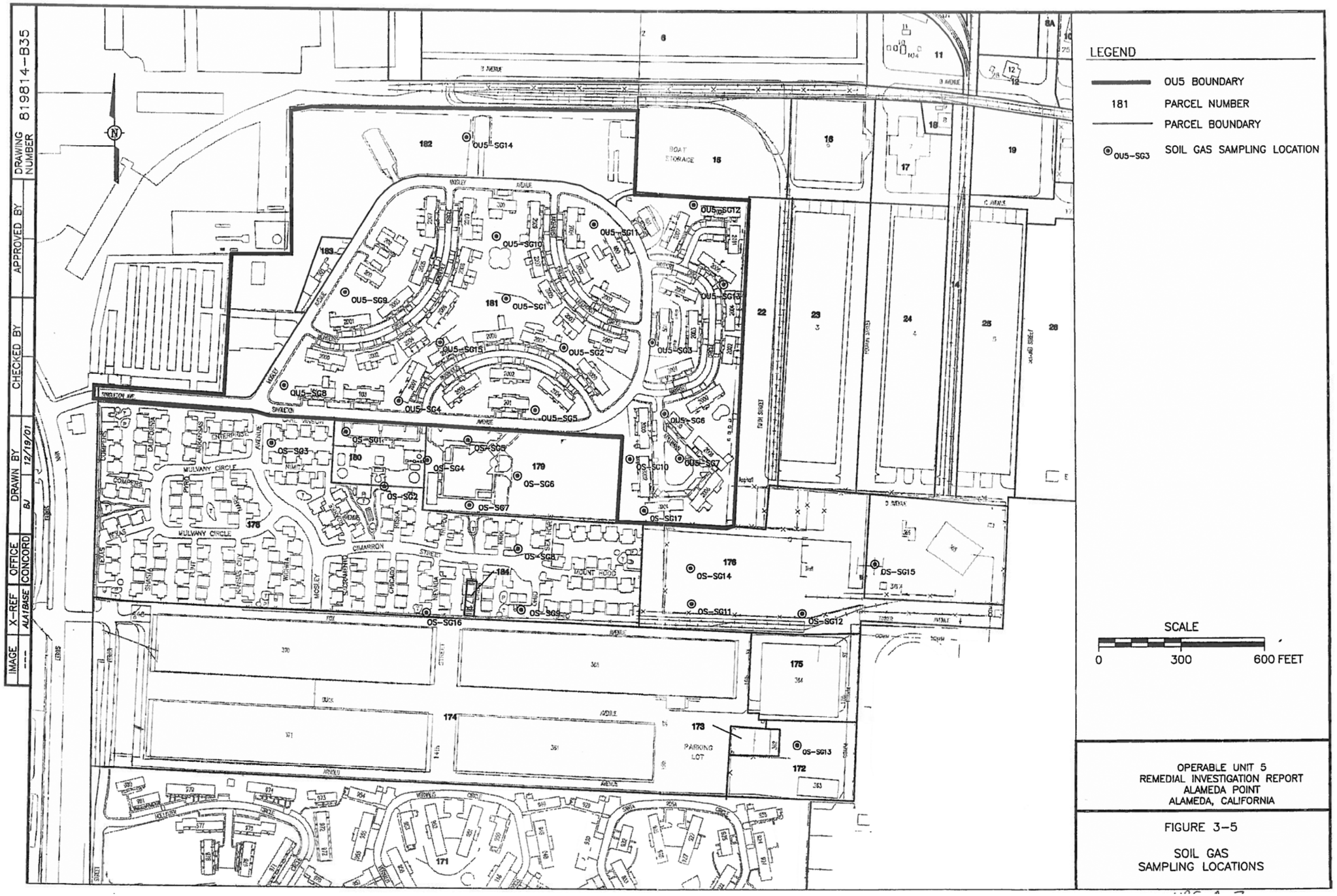
LEGEND
OU5 BOUNDARY
181 PARCEL NUMBER
PARCEL BOUNDARY
OU5-SG3 SOIL GAS SAMPLING LOCATION
SCALE
0 300 600 FEET
OPERABLE UNIT 5
REMEDIAL INVESTIGATION REPORT
ALAMEDA POINT
ALAMEDA, CALIFORNIA
FIGURE 3-5
SOIL GAS
SAMPLING LOCATIONS
DRAWING NUMBER 819814-B35
APPROVED BY
CHECKED BY
DRAWN BY BJ 12/19/01
OFFICE CONCORD
X-REF ALATBASE
IMAGE ---
182
183
181
180
179
178
177
176
175
174
173
172
171
184
OU5-SG14
OU5-SG12
OU5-SG11
OU5-SG10
OU5-SG9
OU5-SG1
OU5-SG13
OU5-SG15
OU5-SG2
OU5-SG3
OU5-SG8
OU5-SG4
OU5-SG5
OU5-SG6
OU5-SG7
OS-SG1
OS-SG8
OS-SG3
OS-SG4
OS-SG6
OS-SG2
OS-SG7
OS-SG10
OS-SG17
OS-SG14
OS-SG15
OS-SG11
OS-SG12
OS-SG16
OS-SG9
OS-SG13
BOAT STORAGE
PARKING LOT
MULVANY CIRCLE
CIMARRON STREET
MOUNT HOOD
SHOREMOORE AVENUE
KINGSTON AVE
B AVENUE
C AVENUE
FORM STREET
SQUARE STREET

FIGURE C-2

LEGEND
OU5-BOUNDARY
181 PARCEL NUMBER
PARCEL BOUNDARY
OS-HP24 DIRECT PUSH (HYDROPUNCH) GROUNDWATER SAMPLING LOCATIONS
S-35 MONITORING WELL LOCATION
OS-HP24 DIRECT PUSH (HYDROPUNCH) GROUNDWATER SAMPLING LOCATIONS SAMPLED FOR NATURAL ATTENUATION PARAMETER
SCALE
0 300 600 FEET
OPERABLE UNIT 5
REMEDIAL INVESTIGATION REPORT
ALAMEDA POINT
ALAMEDA, CALIFORNIA
FIGURE 3-4
GROUNDWATER SAMPLING LOCATIONS
DRAWING NUMBER 819814-B36
APPROVED BY
CHECKED BY
DRAWN BY BJ 12/19/01
OFFICE CONCORD
X-REF ALA1BASE
IMAGE

FIGURE C-3

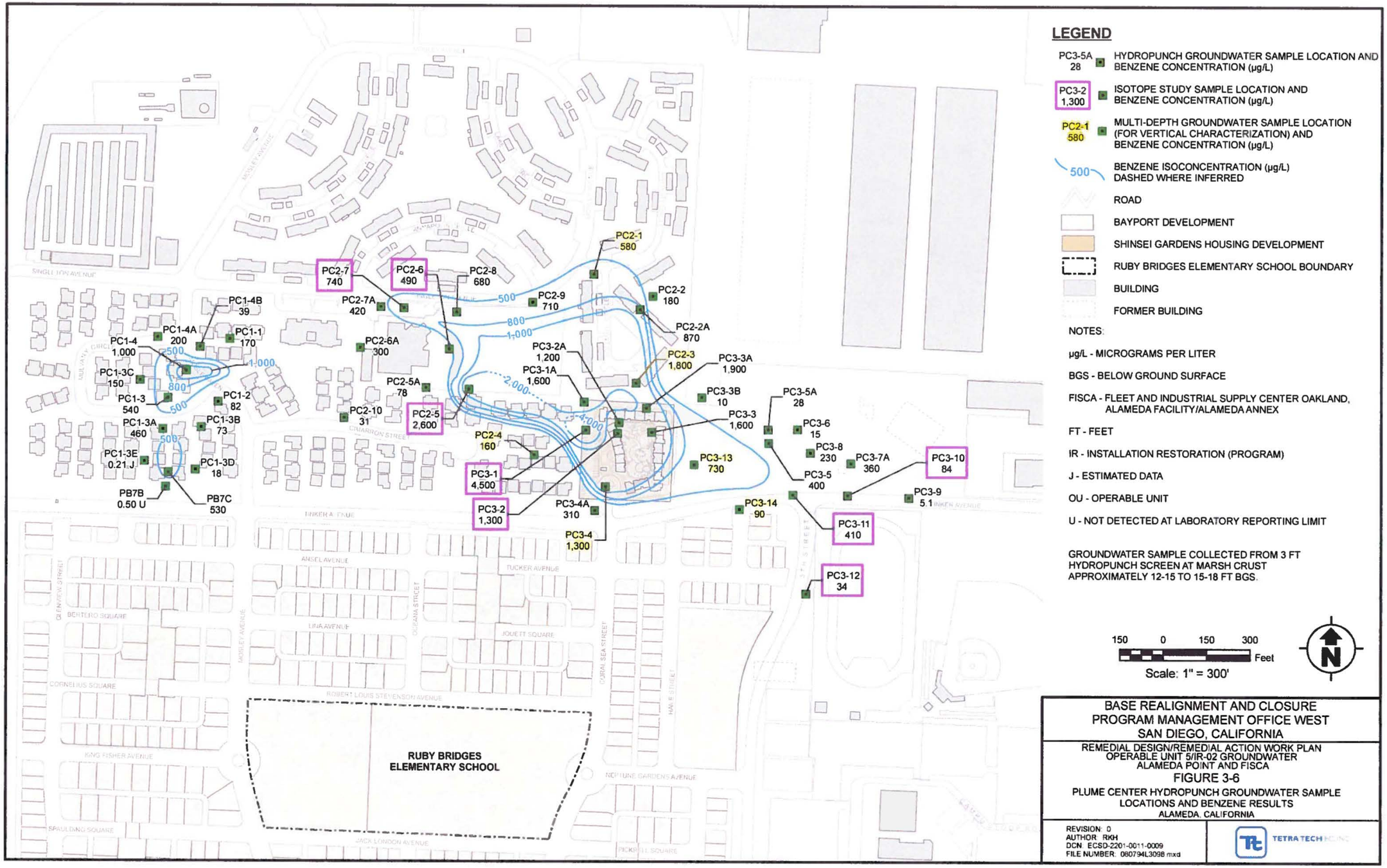
LEGEND
PC3-5A 28 HYDROPUNCH GROUNDWATER SAMPLE LOCATION AND BENZENE CONCENTRATION (µg/L)
PC3-2 1,300 ISOTOPE STUDY SAMPLE LOCATION AND BENZENE CONCENTRATION (µg/L)
PC2-1 580 MULTI-DEPTH GROUNDWATER SAMPLE LOCATION (FOR VERTICAL CHARACTERIZATION) AND BENZENE CONCENTRATION (µg/L)
500 BENZENE ISOCONCENTRATION (µg/L) DASHED WHERE INFERRED
ROAD
BAYPORT DEVELOPMENT
SHINSEI GARDENS HOUSING DEVELOPMENT
RUBY BRIDGES ELEMENTARY SCHOOL BOUNDARY
BUILDING
FORMER BUILDING
NOTES:
µg/L - MICROGRAMS PER LITER
BGS - BELOW GROUND SURFACE
FISCA - FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
FT - FEET
IR - INSTALLATION RESTORATION (PROGRAM)
J - ESTIMATED DATA
OU - OPERABLE UNIT
U - NOT DETECTED AT LABORATORY REPORTING LIMIT
GROUNDWATER SAMPLE COLLECTED FROM 3 FT HYDROPUNCH SCREEN AT MARSH CRUST APPROXIMATELY 12-15 TO 15-18 FT BGS.
150 0 150 300 Feet
Scale: 1" = 300'
N
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 3-6
PLUME CENTER HYDROPUNCH GROUNDWATER SAMPLE LOCATIONS AND BENZENE RESULTS
ALAMEDA, CALIFORNIA
REVISION: 0
AUTHOR: RKH
DCN: ECSD-2201-0011-0009
FILE NUMBER: 080794L3098.mxd
TETRA TECH INC
PC2-7 740
PC2-6 490
PC2-8 680
PC2-1 580
PC2-7A 420
PC2-9 710
PC2-2 180
PC2-2A 870
PC2-3 1,800
PC1-4B 39
PC1-4A 200
PC1-1 170
PC1-4 1,000
PC1-3C 150
PC1-3 540
PC1-2 82
PC1-3A 460
PC1-3B 73
PC1-3E 0.21 J
PC1-3D 18
PB7B 0.50 U
PB7C 530
PC2-6A 300
PC2-5A 78
PC2-10 31
PC2-5 2,600
PC2-4 160
PC3-2A 1,200
PC3-1A 1,600
PC3-3A 1,900
PC3-3B 10
PC3-3 1,600
PC3-5A 28
PC3-6 15
PC3-8 230
PC3-7A 360
PC3-5 400
PC3-13 730
PC3-10 84
PC3-9 5.1
PC3-1 4,500
PC3-2 1,300
PC3-4A 310
PC3-4 1,300
PC3-14 90
PC3-11 410
PC3-12 34
500
800
1,000
2,000
4,000
SINGLETON AVENUE
MOSLEY AVENUE
CIMARRON STREET
TINKER AVENUE
ANSEL AVENUE
TUCKER AVENUE
GLENVIEW STREET
BERTERO SQUARE
MOSLEY AVENUE
LINA AVENUE
QUIANA STREET
JOUETT SQUARE
CORAL SEA STREET
CORNELIUS SQUARE
ROBERT LOUIS STEVENSON AVENUE
HALE STREET
KING FISHER AVENUE
RUBY BRIDGES ELEMENTARY SCHOOL
NEPTUNE GARDENS AVENUE
SPAULDING SQUARE
JACK LONDON AVENUE
PICKRELL SQUARE

FIGURE C-4

8	**benzene concentrations in crawl spaces**	Section 1.3	Residential Risk Evaluation for U.S. Coast Guard Housing, Alameda, California. Page 9. Tetra Tech EM Inc. (TtEM). 2002.

Marina Housing) were pooled together for the analyses. Non-detected results were considered usable data (USEPA, 1989) and were analyzed using the detection limit.

3.1.1 Indoor vs. Outdoor Air

If there is a subsurface source of VOCs that can migrate to indoor air, then these VOCs may accumulate in indoor air. This occurs because the air inside a house generally has a low rate of mixing with "fresh" outdoor air. Mixing with "fresh" outdoor air would serve to dilute the concentrations of the VOCs that may have migrated to indoor air. However, the air inside of a house usually has a relatively low turnover rate with outdoor air, allowing the buildup of VOCs from subsurface sources. Due to the presence of VOCs in soil vapors and groundwater at the Site, indoor and outdoor air concentrations were compared to determine whether VOCs had accumulated in indoor air.

The statistical analyses indicated that the indoor air concentrations were not elevated over outdoor air concentrations measured at the Site for any VOC (see Appendix C). These results indicate that, although some indoor VOC concentration exceeded the ambient air PRGs, the measured indoor air concentrations for all detected VOCs were consistent with outdoor air concentrations.

3.1.2 Crawl space vs. Indoor Air

If VOCs are migrating from subsurface sources (e.g., groundwater or soil vapor) to indoor air and the house has a crawl space, then the concentration of VOCs should be higher in crawl space air than in indoor air (Olson and Corsi, 2001). This is because the VOCs must first enter the crawl space before they can enter indoor air and, therefore, could reach higher concentrations there.

Chemical concentration in indoor air were compared to concentrations in crawl space air. The comparisons indicated that only the concentration of benzene differed in crawl space air from indoor air. However, the concentrations in the crawl spaces were lower than in indoor air. The concentrations of all of the other VOCs measured in crawl spaces were consistent with indoor air (see Appendix C).

3.1.3 The Effect of Residents

Residents may use or bring objects into their houses that are VOC sources. Common residential sources of VOCs include paints, glues, fingernail polish, varnishes, plastics, linoleum, gasoline in cars or gas cans, and household cleaners. VOC concentrations measured in indoor air at occupied houses were compared to unoccupied houses to determine whether residents had affected indoor VOC concentrations.

The comparisons indicated that concentrations of benzene, MTBE, PCE, and toluene were higher in air measured at occupied residences than at unoccupied residences (see Appendix C). These are all common organic compounds that are used in a number of household applications and products. For example, toluene is a common component of glue, and one of the residents was a model builder. The concentration of toluene in indoor air at that residence was elevated over measurements taken at the other houses. These results indicate that residents can increase the concentrations of VOCs in indoor air.

3.1.4 Seasonal Effects on VOC Concentrations in Outdoor Air

The three different housing areas were sampled at different times of the year; i.e., North Housing was sampled during the winter and Kollmann Circle and Marina Housing were sampled in the spring (see Section 2). To determine whether there was a seasonal effect in outdoor air VOC concentrations, the outdoor air samples collected at the three housing areas were compared.

9	**completeness and significance of the vapor intrusion exposure pathway**	Section 1.3	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 5.2.1.2 through Section 6.0, Pages 23 through 34. TtEC. 2012.

5.2.1.2 Evidence Regarding the Completeness and Significance of the Vapor Intrusion Exposure Pathway

A significant and consistent body of evidence supports the conclusion that volatiles from the dissolved plume of benzene and naphthalene in the FWBZ are not migrating upward into potentially or currently occupied structures sufficiently to create indoor air concentrations that pose a carcinogenic or noncarcinogenic risk higher than the regulatory benchmarks and thresholds that define the risk management range (i.e., an ILCR between 10^{-4} and 10^{-6}). This evidence includes a combination of the following:

A. Direct measurements from the sampling of soil gas, groundwater, crawl space air, indoor air, and outdoor ambient air in relation to the site's residential areas

B. Results of modeling the migration of volatiles released from the groundwater or in the overlying soil gas up through the soil column into a residential building and assessment of the risk implications of the projected indoor air concentrations of the volatiles

C. Results of additional characterization of the physical features and stratigraphy of the site relative to the factors that are known to either enhance or diminish potential vapor intrusion

More specifically, these lines of evidence (presented in more detail below) include: (1) direct measurements of soil gas crawl space air, indoor air and outdoor ambient air that in combination indicated that there is not a significant contribution to indoor air COC levels from a subsurface source; (2) numerous borings with associated analytical sampling at different depths that have demonstrated that there are extensive, layered clay deposits at the site that are blocking the upward migration of volatile COCs in the soil gas; (3) soil characterization in the vadose zone that showed that the conditions that are conducive to biodegradation of COCs like benzene and naphthalene are likely to be present across much of the site; (4) analytical results for multi-depth groundwater sampling performed in the absence of hydraulic pumping and mixing showed a natural vertical stratification of COC concentrations with the highest concentrations at depth at the Marsh Crust; (5) site-specific vapor intrusion modeling performed in accordance with recent studies and vapor intrusion guidance projected indoor air concentrations not indicative of significant vapor migration; (6) RI/FS risk assessment results showed RME ILCRs of 1×10^{-6} to 5×10^{-8} for residents based on use of soil gas data; and (7) the results of additional vapor intrusion evaluations using current DTSC criteria that were recently performed and added as Appendix C of this Technical Memorandum. The additional evaluations were performed using the soil gas measurements from across the site, and the RME results for the projected benzene indoor air inhalation ILCRs ranged from 4.8×10^{-8} to 4.8×10^{-7}. The RME results from the additional evaluations had projected naphthalene indoor air inhalation ILCRs ranging from 5.6×10^{-8} to 5.0×10^{-6}.

All the above evidence was reviewed to assess whether the dissolved benzene and naphthalene in the FWBZ groundwater currently pose an indoor air inhalation risk to residents or a potential risk

to future residents, children, or students who may routinely occupy buildings at the site. A more detailed summary of this evidence is presented below.

5.2.1.2.1 Evidence Based on Direct Soil Gas, Groundwater, and Air Sampling

Three lines of direct evidence relative to the potential completeness and significance of the vapor intrusion pathway at the site are associated with the results of the sampling of the site soil gas, groundwater, and air (including indoor, outdoor, and crawl space air).

A-1. Soil gas measurements (active and passive) have been taken multiple times across the study area. Sampling has typically been performed at locations above the groundwater plume and above and below the clay layer. The results of this sampling showed that the soil gas has consistently had relatively low concentrations of benzene and naphthalene even at locations directly above where the highest groundwater concentrations of these constituents were measured. These measurements indicate that the upward migration of volatiles through the soil column is being limited or restricted. An examination of the site conditions (see Section 5.2.1.2.3) suggests that soil gas migration is being limited by the clay layer, which is acting as a relatively effective barrier to upward vapor diffusion and the occurrence of some amount of natural biodegradation of benzene and naphthalene in the vadose zone. In combination, these mechanisms appear to be acting to prevent the benzene and naphthalene soil gas concentrations near the ground surface from becoming measurably elevated. (Further information on the soil gas sampling performed at the site is presented in Appendix B, Section B-1.)

A-2. Indoor air sampling was performed at a number of unoccupied and occupied residential structures of different design and construction styles, in combination with colocated ambient air and/or crawl space air sampling. The results indicated that the concentrations of benzene, naphthalene, and other volatile in the crawl space air (at the houses with crawl spaces) did not differ from their concentrations in the indoor (or outdoor) air. In addition, the measurements showed that the indoor air volatiles concentrations were generally very comparable to the outdoor ambient air concentrations. Together, these findings support the conclusion that there was no significant contribution of volatiles to the crawl space or indoor air from a subsurface source. (Further information on the air sampling performed at the site is presented in Appendix B, Section B-2.)

A-3. An evaluation of the pre-operations soil gas and groundwater data compared to the conservative default screening levels presented in the 2002 EPA Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance) (EPA 2002) suggested that subsurface volatile contamination could potentially pose an indoor air inhalation risk relative to the threshold carcinogenic and noncarcinogenic risk levels of 1×10^{-6} and 1, respectively, when the maximum detected study areawide concentrations were used in the screening. However, most of the comparisons showed that the measured pre-operations soil gas and groundwater concentrations did not exceed these default screening levels for risk goals within the risk management range. (Further

information on the comparison of the site data to the default EPA vapor intrusion screening levels is presented in Appendix B, Section B-3.)

Therefore, the best predictor of potential indoor air impacts (i.e., properly placed soil gas measurements) indicated that potential inhalation risks were within the risk management range. Second, direct air measurements did not indicate that a subsurface source of volatiles contamination was contributing detectably to the concentrations of these constituents in indoor air or crawl space air. Third, only a very conservative screening level analysis of the maximum measured soil gas and groundwater concentrations assuming minimal resistance to upward vapor migration and no biodegradation gave an indication that there was the potential for vapor intrusion. This indication was associated with potential projected inhalation risk at the most stringent end of the risk management range.

5.2.1.2.2 Evidence Based on Vapor Intrusion Modeling and Risk Assessment

Two indirect lines of evidence relative to the potential completeness and significance of the vapor intrusion pathway involve analyses to project indoor air concentrations by modeling vapor migration from measured subsurface conditions and comparing the projected indoor air concentrations to risk-based thresholds.

B-1. Soil gas to indoor air modeling performed as part of the BHHRA using both the "EPA Methodology" (i.e., modeling vapor intrusion using the VLEACH model and a box model for air mixing inside the residence) and the "Cal/EPA Methodology" (i.e., simulating the vapor migration and indoor air mixing using the DTSC-modified J&E vapor intrusion model) projected indoor air concentrations of the site volatiles that were associated with potential indoor air inhalation carcinogenic and noncarcinogenic risks that were within the risk management range. These analyses of potential residential exposures used conservative pretreatment operations soil gas concentrations and conservative modeling inputs relative to the site vadose zone and representative residential structure design parameters. Similar J&E modeling performed for the USCG Alameda Housing Indoor Air Assessment using the soil gas measurements as the driver reached the same conclusion that the projected indoor air inhalation risks from vapor intrusion were within the risk management range.

B-2. Two designs of groundwater to indoor air modeling were developed for the USCG Alameda Housing Indoor Air Assessment using the J&E vapor intrusion model. The first design used the groundwater quality measured in a series of HydroPunch borings of the shallow groundwater extracted from just below the groundwater table. The second design used the groundwater quality measured in a series of monitoring wells that were screened across the width of the FWBZ and in contact with the Marsh Crust. The projected indoor air concentrations from the first design (using the contaminant concentrations measured near the groundwater table) were lower than were predicted using the monitoring well data with higher concentrations. The projected indoor air concentrations for all modeled volatiles using the HydroPunch data were below their respective EPA ambient air PRGs (risk-based thresholds associated with a contaminant-specific residential inhalation cancer risk level of

1×10^{-6} or a noncarcinogenic HI of 1). The projected indoor air concentrations for all modeled volatiles except benzene using the monitoring well data were below their respective EPA ambient air PRGs. The projected benzene indoor air concentration was associated with a potential inhalation cancer risk of approximately 3.8×10^{-6}, which is within the risk management range. This vapor migration modeling also conservatively used the pretreatment operations groundwater concentrations from the HydroPunch borings and the monitoring wells, conservative site characteristic modeling inputs, and residential exposure assumptions.

Projections of the potential indoor air concentrations of the site-related volatiles due to vapor intrusion and their associated inhalation risks were developed for multiple scenarios using mechanistic vapor migration modeling. As was noted, the soil types and soil column characteristics were conservatively selected such that minimal resistance to upward vapor migration was assumed. In addition, but no less significant, is that the modeling was driven by soil gas and groundwater measurements made prior to the start of the biosparging treatment operations. These pre-operations concentrations reflect the highest levels of these volatiles detected in these media. The vapor intrusion modeling and indoor air risk assessments that have been performed indicate that the vapor intrusion to indoor air exposure pathway is not likely to become significant at this site unless the dissolved groundwater concentrations near the groundwater table would increase to levels 1 to 2 orders of magnitude higher than they were in the pre-operations baseline HydroPunch and monitoring well measurements.

5.2.1.2.3 Evidence Associated with Better Defined Site Characteristics that Affect Vapor Migration

A considerable amount of additional site characterization has been performed since the OU-5 BHHRA and the follow-up vapor intrusion assessments at the site. This additional characterization work was performed primarily as part of the remedial design of the biosparging treatment system. The sampling, coring, and other characterization activity have produced a more complete description of the subsurface conditions at the site and have allowed the CSM to be refined. Some of this newer information relates to conditions or features that would be expected to have a direct effect on the volatilization of benzene and naphthalene from the groundwater or their migration up through the soil column to the area beneath a possible house or public building.

C-1. There is a competent, fairly continuous clay layer in the vadose zone across the site at or above the groundwater table that has been shown through soil gas measurements above and below the layer to be effectively limiting the upward migration of benzene and naphthalene volatilized out of the groundwater into the soil gas. The clay layer typically is just over 2 feet thick but is considerably thinner in some portions of the site (see the geologic cross sections presented in Figures 2 through 9). The migration-limiting effect of this clay layer was not accounted for in any of the prior conservative vapor migration modeling performed using the DTSC-modified J&E or VLEACH models. Had the presence of this clay layer been reflected in the modeling,

even lower benzene and naphthalene indoor air concentrations and associated potential inhalation risks would have been projected than were previously reported. (Further information on the characteristics of the clay layer and the associated stratigraphy is presented in Appendix B, Section B-4.)

C-2. Benzene and naphthalene are known to naturally biodegrade in the environment under the right conditions. Sand and sandy soil in the vadose zone can create conditions that are very conducive to biodegradation and constituent attenuation. This is due, in part, to the combination of the ability of the sand to allow oxygen to penetrate deeper into the soil column and the sand providing a suitable matrix on which microbes can grow. The rate of biodegradation is typically greatest for compounds like benzene and naphthalene under aerobic conditions in the soil column (i.e., in the presence of oxygen). Under these conditions, biodegradation can be an effective mechanism for benzene and naphthalene elimination in the vadose zone and can lead to reductions of concentrations of up to two orders of magnitude (Davis 2010). No direct measurements have been made of the degree to which biodegradation was occurring or would be occurring naturally at the site in the absence of the biosparging. However, the near surface vadose zone soil types and stratigraphy (being largely associated with poorly graded sand, silty sand, and some gravel) promote the penetration of oxygen deeper into the soil column. The presence of oxygen that has penetrated deeper into the soil allows biodegradation to occur over a larger fraction of the vapor migration path and residence time.

C-3. When the FWBZ is not disturbed by groundwater pumping or air injection, the concentrations of benzene and naphthalene have tended to stratify with the concentrations of the dissolved constituents two to four orders of magnitude higher near the bottom of the water column nearer the Marsh Crust and concentrations below or near detection limits near the surface of the groundwater table. As volatilization and upward vapor migration is driven by the dissolved concentrations of benzene and naphthalene present at the surface of the groundwater table, this stratification leads to reduced soil gas concentrations of these constituents above the groundwater table. Lower soil gas concentrations at the bottom of the soil column would then be associated with lower indoor air concentrations in structures located above. (Further information on the potential stratification of the dissolved groundwater concentrations in the FWBZ is presented in Appendix B, Section B-5.)

C-4. Several recent studies indicate that vapor intrusion of petroleum hydrocarbons (including benzene) is much less significant than previously thought (CSWRCB 2010). The main reason for this is that benzene and other petroleum hydrocarbons readily degrade in the vadose zone, and the models historically used to evaluate this pathway (including the models used at OU-5) did not account for this degradation. Using sets of colocated and contemporaneous groundwater, soil gas, indoor air, and outdoor air measurements from a large number of petroleum contamination sites across the country with different soil stratigraphies and building construction styles, certain combinations of site characteristics were identified where subsurface volatile contamination did not result in significant vapor intrusion or projected indoor air inhalation risks. These conditions described a site that was characterized as a “low strength dissolved groundwater source” of volatiles

contamination (CSWRCB 2010, API 2009, Davis 2010). The combination of characteristics that in general never produced vapor intrusion concerns was: 1) there were only dissolved constituents in groundwater (i.e., no free product or LNAPL); 2) the concentrations reflected <1,000 µg/L of benzene and <10,000 µg/L of TPH; and 3) the impacted groundwater is overlain by 5 feet of clean soil in the vadose zone. The California State Water Resources Control Board has included this finding in its current Draft Leaking Underground Fuel Tank Guidance manual, (SWRCB 2010) as a vapor intrusion risk screening tool for quickly identifying sites that "present no unacceptable risk for vapor intrusion." Upon comparison of these specifications to the site conditions and the pre-operations groundwater data, these specifications were seen to be met. This similarity would lead to the expectation that this site would not create vapor intrusion concerns because these conditions did not create vapor intrusion concerns when they were found to exist at other similar sites. (Further information on the "rule of thumb" for screening potential vapor intrusion sites with petroleum-related contaminants is presented in Appendix B, Section B-6.)

Analyses of potential vapor intrusion that were performed nearly a decade ago made very conservative assumptions about the site that did not address site features that may effectively limit or mitigate upward vapor migration. The modeling analyses performed did not account for the presence of the clay layer in the vadose zone and the natural biodegradation that is likely to be occurring to some degree. In addition, the vapor migration modeling analyses were generally performed using the maximum detected groundwater concentrations from monitoring well data collected across the FWBZ and not the groundwater concentrations near the groundwater table (which are typically two to four orders of magnitude lower than the concentrations found near the Marsh Crust source). Even though the prior analyses concluded that vapor intrusion was not creating conditions that were outside the risk management range, the refined site characterization would suggest that these modeling results were even more conservative than was possibly first thought. The recently derived "low strength source" paradigm would indicate that the modeling and measurement evidence for this site is what should be anticipated for a site with these known characteristics and features.

5.2.1.2.4 Summary of Verification Evaluation of the Potential for Vapor Intrusion with Better Defined Site Characteristics and RI/FS Risk Assessment Results

Evaluation of the potential for vapor intrusion was performed using the data collected to date in combination with current DTSC and EPA vapor intrusion assessment methodologies and toxicity criteria. All results are less than or within the risk management range. The details of this evaluation and the RI/FS risk evaluations can be found in Appendix C. Key results are summarized below.

The RI/FS risk assessment evaluated multiple pathways, including vapor intrusion, using groundwater data from multiple depths down to 20 feet bgs and soil gas data (ERRG 2004). All HQs were less than 1 for all evaluations. Using soil gas data, the RI/FS vapor intrusion risk assessment estimated RME ILCRs ranging from 5×10^{-8} to 1×10^{-6} for residents and from

5×10^{-8} to 8×10^{-7} for school receptors. Using groundwater data from all depths, the RI/FS RME ILCR results were in the risk management range. The Final RI/FS Report (ERRG 2004) concluded "Additionally, potential inhalation of VOCs in indoor air by residential and school receptors does not pose an unacceptable risk."

The findings of the RI/FS risk assessment of potential vapor intrusion are supported by subsequent evaluations performed using the current DTSC approach and the collected crawl space air and soil gas data from multiple depths over a widespread area. Using the more recent DTSC approach and the soil gas data, subsequent vapor intrusion evaluations presented in Appendix C estimated the RME ILCR for benzene to range from 4.8×10^{-8} to 4.8×10^{-7} and for naphthalene to range from 5.6×10^{-8} to 5.0×10^{-6} across the site.

Additional evaluations presented in Appendix C were performed using groundwater data collected near the water table, which is recommended for use in vapor intrusion evaluations by current guidance. The groundwater at these depths shows much lower benzene and naphthalene concentrations than the data used in the RI/FS vapor intrusion risk assessment that were from depths considerably below the water table. Benzene and naphthalene were both detected at only 7 of 37 locations in the more recent water table data. Four of these locations were chosen for further vapor intrusion evaluation because they had the characteristics most likely to promote vapor migration and higher potential indoor air concentrations. Using IRIS toxicity criteria, the projected RME ILCRs for benzene at these locations were 10^{-7} except at one location, where the ILCR was 1.6×10^{-6}. Using DTSC toxicity criteria, the projected RME ILCRs for benzene at these individual locations ranged from 6.9×10^{-7} to 6.0×10^{-6}. Using DTSC toxicity criteria, the projected RME ILCRs for naphthalene at these individual locations ranged from 7.9×10^{-8} to a maximum of 3.6×10^{-5}. All HQs were less than 1 for all evaluations based on groundwater. These results serve as another line of evidence for verifying the RI/FS risk assessment results.

Therefore, in summary, these additional analyses of the pretreatment subsurface conditions at the site provide additional support for the conclusion that there are no unacceptable potential risks to the residents, school workers, or students at the site as the result of vapor intrusion.

5.2.1.2.5 Findings Relative to the Vapor Intrusion Exposure Pathway

In consideration of the series of direct measurements, modeling analyses, and risk assessments conducted with an explicit focus on the potential vapor intrusion pathway relative to the dissolved benzene and naphthalene contamination plume in the FWBZ, the weight of evidence supports the finding that vapor intrusion and subsequent indoor air inhalation exposure to volatiles released from the groundwater do not currently pose a risk to members of the public in exceedance of the risk management range and are not likely to pose an inhalation risk in exceedance of the risk management range in the future:

1. **There is a consistent body of evidence that supports the conclusion that volatiles from the FWBZ are not migrating upward into potentially or currently occupied structures sufficiently to create indoor air concentrations posing a carcinogenic or noncarcinogenic risk level in exceedance of the risk management range.**

This evidence includes the inhalation risk assessments performed for the OU-5 RI, the Residential Risk Evaluation for the USCG Housing, and the BHHRA conducted for residences and the school as part of the Groundwater RI/FS. These assessments were performed using conservative source term concentrations (typically the maximum detected pre-biosparging system operation groundwater and soil gas concentrations); conservative exposure parameters (typically residential or unrestricted access exposure parameters applicable to the most sensitive potential receptor – a child); and vapor migration modeling using conservative default site parameters (typically permeable sand or silty sand making up the entire vadose zone soil column and taking no credit for the presence of the competent clay layer as an impediment to upward migration or for biodegradation of the benzene or naphthalene during migration). The only indoor air modeling results that indicated a potential inhalation risk were those using the full water column groundwater quality as the modeling source term, and no results using the measured soil gas concentrations as the modeling driver. Modeling indoor air concentrations all the way from groundwater concentrations using the J&E model does not account for any biodegradation during the upward migration process. Modeling indoor air concentrations from soil gas measurements made above the clay layer would be expected to provide a more realistic estimate of vapor migration that is less prone to uncertainties or inaccuracies as less of the overall migration path must be modeled (i.e., part of the migration and environmental chemistry is captured empirically) and the effect of the clay layer and part of any biodegradation that will occur has already taken place and affected the soil gas composition. In addition, the groundwater concentrations that actually drive or affect the vapor migration process are at the top of the groundwater table, not the well-mixed dissolved groundwater concentrations or the higher groundwater concentrations that existed pre-operations deeper in the aquifer due to stratification.

The vapor migration modeling and risk estimates developed from crawl space and soil gas measurements have consistently indicated no significant risks from vapor intrusion, even when the maximum detected preoperations soil gas concentrations were used to drive the modeling. An evaluation of the potential for vapor intrusion that was performed using the data collected to date, in combination with current DTSC and EPA vapor intrusion assessment methodologies and toxicity criteria presented in Appendix C, also supports this finding. The passive soil gas survey and baseline soil gas sampling performed as part of the design of the biosparging system provided further evidence that soil gas concentrations are much lower above the clay layer than below it. The site characterization data show that this clay layer is over 2 feet thick throughout the area of interest and indicated that this clay layer is acting as an effective barrier to upward vapor migration.

2. **Measurements of the indoor air concentrations in residences and structures with potentially sensitive receptors taken to address uncertainties associated with the vapor migration modeling revealed that benzene and naphthalene were not present in the indoor air at concentrations that were demonstrably higher than in the colocated ambient air.**

This appears to be, in part, because the dissolved concentrations of benzene and naphthalene in the shallow groundwater have not been extraordinarily high, which limits the amount of volatile contaminant being released into the soil column. The shallow groundwater was not seen to be grossly contaminated with dissolved volatiles, even before operation of the biosparging system began. Again, it should be emphasized that the findings of no projected potential indoor air inhalation risk in exceedance of the risk management range noted in the assessments above were obtained assuming the groundwater and soil gas contaminant concentrations associated with pre-operation conditions.

Recent published results of extensive data analyses for sites with respect to natural attenuation of subsurface petroleum hydrocarbons and their potential to create vapor intrusion concerns have indicated that vapor intrusion is very unlikely to be a complete pathway given a certain set of conditions (Davis 2010). An extensive Petroleum Vapor Database of paired groundwater and soil gas sampling results for over 100 locations (focusing primarily on benzene and TPH constituents like naphthalene) was analyzed to identify trends in the empirical attenuation of these constituents during upward migration under different conditions. A "low strength source" scenario (as described in Section 5.2.1.2.3 bullet C-4) was defined in which the vapor intrusion pathway for these constituents was empirically determined to not be complete (Davis 2010, CSWRCB 2010). This case reflects a source that is dissolved constituents in groundwater with <1,000 micrograms per liter (µg/L) of benzene and <10,000 µg/L of TPH that is overlain by 5 feet of clean soil in the vadose zone.

A detailed evaluation was made of data for sites with buildings with slab-on-grade construction and sites where sampling was performed very near and adjacent to the structures. The results showed that sand in the vadose zone created the good conditions for biodegradation and constituent attenuation, followed by silt and silty clay in the vadose zone. This is due, in part, to the combination of the ability of the sand to allow oxygen to penetrate deeper into the soil column and the sand providing a suitable matrix on which microbes can grow. Significant biodegradation rates for benzene in the soil column were seen from the data (leading to attenuation by approximately two orders of magnitude). Pre-operational conditions at OU-5 match the conditions specified for a "low strength dissolved groundwater source" at almost all locations, which would suggest that the vapor intrusion pathway for benzene and naphthalene would not be complete for the majority of the site. Those locations that would not meet the "low strength dissolved groundwater source" definition based on the pre-operations characterization data are clustered in the area of the Shinsei Gardens Housing Development, which was constructed with a vapor barrier and sub-slab depressurization foundation design. As such, the

recently published research on vapor intrusion pathway completeness appears to be borne out by the characterizations and assessments performed for this site.

3. **The vapor intrusion exposure pathway is not significant at this site.**

The Residential Risk Evaluation for the USCG Housing projected that an increase in the dissolved groundwater concentrations of benzene and naphthalene of one or two orders of magnitude above the maximum preoperational levels considered in those indoor air inhalation risk assessments would be required for vapor intrusion to contribute enough contaminant to the indoor air for a change relative to ambient conditions to be noticeable. An increase in benzene and naphthalene to such levels is highly unlikely. In addition, predesign investigation results identified natural barriers (clay) to upward vapor intrusion. Therefore, the vapor intrusion pathway may not be complete in these areas, and does not contribute significantly to potential indoor air inhalation risk where the pathway exists. Biosparging has been actively remediating the site for over 3 years. During this time, an increase in the dissolved oxygen content of FWBZ groundwater has resulted in the destruction of approximately 4.33 kilograms (9.55 pounds) of benzene and 39.04 kilograms (86.07 pounds) of naphthalene.

6.0 FINDINGS AND RECOMMENDATIONS

As outlined in Section 1.1, this groundwater data evaluation was designed to answer a number of basic groundwater management questions. The answers to these questions were addressed in some detail in the body of this report and are summarized below:

- **What do these additional groundwater data tell us about the potential beneficial uses of the local groundwater?** The analysis of the groundwater quality measurements made over time at the site indicates that the FWBZ does not meet the specifications of a potential source of drinking water (Class II or MUN). The level of TDS in the FWBZ was the primary factor in this determination. However, several other groundwater quality parameters also were found to be incompatible with domestic use, including the characteristic levels of sulfate, iron, and alkalinity. Neither TDS nor sulfate can be economically removed from domestic water supplies using conventional techniques. Further evaluation of the FWBZ groundwater characteristics revealed that the groundwater in the FWBZ is sufficiently impaired relative to multiple quality parameters (including TDS) that even the nonpotable beneficial uses evaluated in the BHHRA (i.e., as a water supply for a car wash or for landscaping or irrigation) are not likely to be realistic given operational and aesthetic constraints to using the groundwater. In addition, the California well standards require that annular sanitary seals extend at least 50 feet bgs for community and industrial water supply wells and at least 20 feet bgs for domestic, agricultural, and other types of water supply wells. Given that the maximum artificial fill thickness that defines the bottom of the FWBZ at OU-5 is approximately 20 feet, water supply well construction requirements would preclude the installation of water supply wells in the FWBZ. As such, no practical beneficial uses of the groundwater in the FWBZ (consumptive or nonconsumptive) were identified.

- **What do these additional data tell us about the potential direct exposures to groundwater in the FWBZ that would be associated with those beneficial uses?** Based on the analysis of this data, no direct exposure pathways relative to this groundwater (i.e., ingestion/drinking, incidental ingestion, dermal absorption or inhalation of volatiles released during use) were identified to be complete.
- **What do these additional data tell us about the CSM and the resulting vertical distribution of site COCs, as documented in the ROD?** Based on borings and groundwater sampling from different depth horizons in the FWBZ, the highest groundwater COC concentrations are confirmed at the Marsh Crust depth, which along with other multiple lines of evidence indicates the source of the benzene and naphthalene dissolved in the groundwater is the Marsh Crust, a thin layer underlying the FWBZ. This conclusion is supported by multiple lines of evidence including continuous soil coring, additional soil and groundwater sampling, and isotopic analysis. The additional data are described in detail in Appendix A. An examination of the pre-operations groundwater data (i.e., data collected prior to the start of biopsarging) collected at multiple depth intervals shows clear concentration gradients for these constituents upward in the direction away from the Marsh Crust layer. The concentrations of dissolved benzene and naphthalene are two to four orders of magnitude higher near the bottom of the water column nearer the Marsh Crust and below or near analytical detection limits near the surface of the groundwater table. In a few cases where multiple depth groundwater samples were collected below the apparent Marsh Crust layer, concentrations of the contaminants were seen to decrease at the deeper samples (i.e., further from the Marsh Crust layer). The clearer role of the concentration gradient has been reflected in the refined CSM.
- **What do these additional data tell us about potential indirect exposures to COCs in the FWBZ as a result of vapor intrusion?** A systematic review of the compiled data and the findings of the sequence of analyses performed to assess the potential for vapor intrusion at the site revealed that vapor intrusion is not currently and is not projected to be an indirect exposure pathway that could lead to potential indoor air inhalation risks in the future that would exceed the risk management range. This conclusion was supported using multiple lines of evidence that included: 1) the results of the direct sampling of soil gas, groundwater, and air at the site; 2) conservative modeling of the potential migration of volatiles from the groundwater and soil gas into residential structures and assessments of the risk implications of their projected concentrations in the indoor air; 3) a verification that there has been no change in the EPA Integrated Waste Management System toxicity values for benzene and naphthalene since the prior risk assessments; 4) the further characterization of the site and the updated CSM that identified features and conditions that would naturally act as barriers to vapor migration and natural processes that would mitigate the amount of vapor intrusion that could occur; and further evaluation using recent DTSC criteria that show potential risk to be less than or within the risk management range. These data and their analysis support the conclusion that the indirect vapor intrusion/indoor air inhalation exposure pathway is not significant at this site. Previous assessments indicate that this pathway would not potentially become significant unless the dissolved groundwater concentrations of benzene and naphthalene were to increase to levels one to two orders of magnitude higher than they were at the pre-

operations levels. Since the source of the contamination has been in place for approximately 100 years, biosparging has been actively remediating the site for over 3 years, and approximately 12,000 pounds of benzene and 335,000 pounds of naphthalene have been destroyed, such an increase is highly unlikely.

- **What are the "next steps" to ensure protectiveness of human health in relation to the shallow groundwater contamination at the site?** Based on the evaluation presented in this Technical Memorandum, the questions and answers presented above frame a series of "next steps" to ensure protectiveness of human health in relation to the groundwater in the FWBZ:

  1. Document that the actual groundwater uses appropriate for the FWBZ do not include the occupational nonpotable groundwater uses or potable groundwater use evaluated in previous risk assessments. The uses of the shallow groundwater for car washing or landscaping/irrigation were shown in this Technical Memorandum to be very unlikely because of the impaired quality of the FWBZ groundwater relative to a number of parameters (i.e., not just its concentrations of dissolved benzene and naphthalene). Elimination of these potential groundwater beneficial uses leaves no practical groundwater uses and no corresponding potential for direct exposure of people to the FWBZ groundwater contaminants. This leaves only vapor intrusion into indoor air with subsequent potential inhalation exposure as a potential pathway for consideration.
  2. Adopt the findings of the prior vapor intrusion investigations and risk assessments that do not show unacceptable risk for residents and other potential receptors when the groundwater is not used for drinking water. Site conditions without groundwater treatment are protective of people living or working above the plume from the potential intrusion of benzene and naphthalene vapors into their indoor air.
  3. Shut down the biosparging operation. Turning off the biosparging system would allow the subsurface environment to re-equilibrate without the unnatural injection of oxygen/air, the artificial pressure gradients and forced vapor movement associated with biosparging.

7.0 REFERENCES

API. 2009 Simulating the Effect of Aerobic Biodegradation on Soil Vapor Intrusion into Buildings, Evaluation of Low Strength Sources Associated with Dissolved Gasoline Plumes. API Publication 4775. April.

CSWRCB (California State Water Resources Control). 2010. Board Draft for Public Comment Leaking Underground Fuel Tank Guidance Manual Version 2.0 – October 4.

Davis, R.V. 2010. Evaluating the Petroleum Vapor Intrusion Pathway – Studies of Natural Attenuation of Subsurface Petroleum Hydrocarbons & Recommended Screening Criteria. Robin V. Davis, Utah Department of Environmental Quality, Presentation at the 22nd Annual National Tanks Conference, Vapor Intrusion Workshop, Boston, MA. September 19.

10	**sub-slab soil gas and indoor and outdoor air sampling**	Section 1.3	Alameda OU-5/IR-02 Subsurface and Indoor Air Data Correspondence. U.S. Environmental Protection Agency (EPA). December 13, 2013.

Data Tables for Alameda Soil Vapor and Inidoor Air Sampling

Analytes	Federal Screening Criteria (ppbv)[a]	State Screening Criteria (ppbv)[b]	Sub-Slab Locations (ppbv)					
			APTOU5-SS1 Island High School Subslab Gas Outside Western Main Building	**APTOU5-SS2** Island High School Subslab Gas Subslab Southwest Site Corner	**APTOU5-SS3** Child Care Center Subslab Gas Southwest Corner Classroom	**APTOU5-SS4** Child Care Center Subslab Gas Southwest Corner Classroom (duplicate of APTOU5-SS4)	**APTOU5-SS5** Child Care Center Subslab Gas Northwest Corner Classroom	**APTOU5-SS6** Child Care Center Subslab Gas Northwest Corner Parking Area
1,1,1-Trichloroethane	-	-	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	-	-	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	-	-	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	-	-	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	-	-	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	-	-	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	-	-	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	-	-	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	-	-	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	-	-	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	-	-	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	-	-	ND	ND	ND	ND	ND	ND
1,2-Dichlorotetrafluoroethane	-	-	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	-	-	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	-	-	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	-	-	ND	ND	ND	ND	ND	ND
Benzene	0.097	11.3	ND	ND	ND	ND	ND	2 C1, J
Bromomethane	-	-	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	-	-	ND	ND	ND	ND	ND	ND
Chlorobenzene	-	-	ND	ND	ND	ND	ND	ND
Chloroethane	3792	NA	ND	ND	ND	ND	ND	1.6 C1, J
Chloroform	2.25	NA	1.2 C1, J, Q5	ND	ND	ND	ND	ND
Chloromethane	-	-	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	-	-	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	-	-	ND	ND	ND	ND	ND	ND
Dichloromethane	-	-	ND	ND	ND	ND	ND	ND
Ethylbenzene	-	-	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	-	-	ND	ND	ND	ND	ND	ND
m&p-Xylene	-	-	ND	ND	ND	ND	ND	ND
Naphthalene	-	-	ND	ND	ND	ND	ND	ND
o-Xylene	-	-	ND	ND	ND	ND	ND	ND
Styrene	-	-	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.38	26.6	ND	ND	ND	ND	1.5 C1, J	3.5
Toluene	1380	3.70E+04	ND	1.9 C1, J	ND	ND	ND	ND
trans-1,3-Dichloropropene	-	-	ND	ND	ND	ND	ND	ND
Trichloroethene	-	-	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	-	-	ND	ND	ND	ND	ND	ND
Vinyl chloride	-	-	ND	ND	ND	ND	ND	ND

Notes:

"-" - Not Applicable, no detections

NA - Not Available

ND - Not Detected

J - The reported result for this analyte should be considered an estimated value.

C1 - The reported concentration for this analyte is below the quantitation limit.

[a] - Based on the November 2013 Regional Screening Levels for Residential Indoor Air converted to parts per billion by volume (ppbv) using the molecular weight of each compound and a conversion factor

[b] - Based on the 2010 California Human Health Screening Levels for Subslab Air converted to ppbv using the molecular weight of each compound and a conversion factor

Data Tables for Alameda Soil Vapor and Inidoor Air Sampling										
			Indoor/Outdoor Locations (pptv)							
Analytes	**Federal Screening Criteria (pptv)[a]**	**State Screening Criteria (pptv)[b]**	**APTOU5-IA1** Island High School Indoor Air Southeast Classroom	**APTOU5-IA2** Island High School Indoor Air Eastern Bathroom	**APTOU5-IA3** Island High School Indoor Air Southwest Annex	**APTOU5-IA4** Child Care Center Indoor Air Southwest Classroom	**APTOU5-IA5** Child Care Center Indoor Air Northwest Classroom	**APTOU5-IA8** Child Care Center Indoor Air Southwest Classroom (duplicate of APTOU5-IA4)	**APTOU5-OA1** Island High School Outdoor Air Western Edge	**APTOU5-OA2** Child Care Center Outdoor Air Western Edge
1,1,1-Trichloroethane	-	-	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	4.07E+06	NA	59	60	60	60	60	60	59	59
1,1-Dichloroethane	-	-	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	-	-	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	-	-	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	-	-	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	-	-	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	-	-	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Butadiene	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	97.1	26.3	120	120	130	140	150	140	120	120
Bromoethene	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	65.2	9.2	70	65	65	65	64	64	64	64
Chlorobenzene	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	-	-	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Hexane	2.07E+05	NA	54	56	55	65	61	59	48	48 C1, J
m&p-Xylene	2.30E+04	1.68E+05	140	150	150	190	170	180	140	150
Naphthalene	-	-	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	2.35E+04	1.71E+05	66	66	58	64	60	64	48	53
Styrene	2.35E+05	NA	620	94		83	58	72	ND	ND
tert-Butyl methyl ether (MTBE)	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1.38E+06	8.30E+04	240	250	260	310	320	300	220	230
trans-1,2-Dichloroethene	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	-	-	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

"-" - Not Applicable, no detections

NA - Not Available

ND - Not Detected

J - The reported result for this analyte should be considered an estimated value.

C1 - The reported concentration for this analyte is below the quantitation limit.

[a] - Criteria based on he November 2013 Regional Screening Levels for Residential Indoor Air converted to parts per trillion per volume (pptv) using the molecular weight of each compound and a conversion factor

[b] - Criteria based on the 2005 California Human Health Screening Levels for Indoor Air converted to pptv using the molecular weight of each compound and a conversion factor

11	**former NAS Alameda, now referred to as Alameda Point**	Section 2.1	Final Groundwater Remedial Investigation/Feasibility Study, Alameda Point Site 25/Alameda Annex IR-02. Section 1, Page 1-1. ERRG. 2004.

1. INTRODUCTION

This report presents a focused Remedial Investigation/Feasibility Study (RI/FS) of groundwater contamination underlying portions of two adjacent Department of the Navy (Navy) properties in Alameda, California: the former Naval Air Station (NAS) Alameda (hereafter referred to as "Alameda Point") and the former Fleet and Industrial Supply Center Oakland (FISCA), Alameda Facility/Alameda Annex (hereafter referred to as "Alameda Annex"). Groundwater beneath the properties historically has been characterized under separate investigations performed at Alameda Point Operable Unit (OU) 5 (OU-5), also referred to as Installation Restoration (IR) Site 25 (hereafter referred to as "Site 25"), and Alameda Annex IR Site 02 (IR-02). This report evaluates the groundwater contamination at both Site 25 and Alameda Annex IR-02, because they comprise part of a single contaminant plume.

The general location of Site 25 and Alameda Annex IR-02 is shown in Figure 1-1. Detailed maps of the two sites and adjacent Navy properties are presented in Figures 1-2 and 1-3. The majority of the affected area within Site 25 is located in Parcel 181. The majority of the affected area within Alameda Annex is located in Alameda Annex IR-02. United States Coast Guard (USCG) North Village residential housing (Parcel 181), a park area (Parcel 182), and a community center (Parcel 183) currently occupy Site 25. Alameda Annex IR-02 is currently being developed as residential housing, but was formerly occupied by warehouses that served as an equipment storage and supply facility. The affected area also underlies residential parcels at Alameda Point, which are occupied by USCG Marina Village residential housing (Parcels 178 and 184), George Miller Elementary School (Alameda Parcel 179), and the Woodstock Child Development Center (Parcel 180). For the purposes of this RI/FS report, the areas affected by groundwater contamination at Alameda Point and Alameda Annex will be collectively referred to as the "Site."

A separate RI is being performed, concurrent with this groundwater RI/FS, at Miller Elementary School and the Woodstock Child Development Center (Parcels 179 and 180, renamed IR Site 30) and the residential housing (Parcels 178 and 184, renamed IR Site 31). The purpose of the investigation at IR Sites 30 and 31 is to further characterize the soil conditions and to verify that previous groundwater investigations, performed for Site 25 and Alameda Annex IR-02, have collected sufficient data to assess the risks to sensitive receptors at IR Sites 30 and 31.

The primary contaminants of potential concern (COPCs) in groundwater at the Site, based on risk assessment results (see Section 6), are dissolved-phase benzene and naphthalene. These chemicals are present in the shallow, unconfined first water bearing zone (FWBZ), the bottom of which is located approximately 20 feet below ground surface (bgs). This RI/FS focuses on these COPCs because they will drive the risk-based remediation alternatives to be analyzed in the FS portion of this report. Other COPCs, whether previously investigated or subject to continued site monitoring, will be briefly discussed,

12	former FISCA	Section 2.1	Final Groundwater Remedial Investigation/Feasibility Study, Alameda Point Site 25/Alameda Annex IR-02. Section 1, Page 1-1. ERRG. 2004.

1. INTRODUCTION

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13	key features at the site	Section 2.1	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Sections 2.1 and Section 2.2, Page 5-6, Figure 1. TtEC. 2012.

All the above evidence was reviewed and critically evaluated for this Technical Memorandum to assess whether the dissolved benzene and naphthalene in the FWBZ groundwater currently pose an indoor air inhalation risk to residents or a potential risk to future residents, children, or students who may routinely occupy buildings at the site. These results and further summary-level information focused on the questions in Section 1.1 are presented in Section 6.0.

2.0 SITE BACKGROUND

The following sections describe the site location, land use, geology, hydrogeology, existing groundwater classification for groundwater in the FWBZ, and the CSM. In addition, the ROD is summarized, and the key remedial activities that have been implemented since the issuance of the ROD are noted.

2.1 Site Location

The site location is shown on Figure 1 (Figure 1-2 from the Interim Remedial Action Completion Report OU-5/FISCA IR-02 Groundwater). Figure 1 also identifies the IR sites and the current site features. The OU-5/FISCA IR-02 groundwater plume, as delineated in the Remedial Design (RD)/Remedial Action Work Plan (RAWP) (TtEC 2010) and shown on Figure 1, is about 60 acres in extent. The EPA Comprehensive Environmental Response, Compensation, and Liability Information System identification number for the site, as certified in the ROD, is CA2170023236.

2.2 Land Use

The primary land use for OU-5 is residential, while land use at FISCA is mixed. OU-5 includes the following:

- IR-25: A 42-acre site, consisting of the currently unoccupied North Village Housing and the U.S. Coast Guard (USCG) Housing Maintenance Office. Future land use is expected to remain residential (DON 2007).
- IR-30: An approximately 6-acre site, consisting of the currently unoccupied Island High School and the Woodstock Child Development Center. If the future land use in this area does not return to education, it would be expected to be residential (DON 2007).
- IR-31: An approximately 24-acre site, consisting of USCG Marina Village Housing Area. Future land use is expected to remain residential (DON 2007).

FISCA includes the following:

- IR-01 is a former warehouse area located south of Site 31 on the southwest side of FISCA. Bayport Housing has since been constructed at IR-01.
- IR-02 is located on the south central side of FISCA. The Defense Logistics Agency Defense Reutilization and Marketing Office operated a screening lot and scrap yard at IR-02 until 1997. The western portion of IR-02 was used as a screening lot and for temporary equipment storage. The eastern portion of IR-02 was used as a scrap yard and

for temporary storage of discarded automobiles, stockpiled scrap metal, and surplus equipment. The Shinsei Garden Housing Development, a multi-family residential project, has been constructed on the western portion of IR-02.

- IR-03 is located in the west central portion of FISCA. It formerly consisted of an automotive drive-up maintenance rack over an asphalt-paved area. The area remains undeveloped.

IR-25, excluding the USCG housing office, and IR-30 are currently Navy property. The USCG housing office and IR-31 are USCG property. FISCA is City of Alameda property.

2.3 Geology

Surface and near-surface soil at the site consists of artificial fill placed during the historical filling of the tidal marshlands, which occurred from approximately 1900 to 1930. The artificial fill materials are believed to be dredging spoils from the surrounding San Francisco Bay and the Oakland Inner Harbor. The average fill thickness at OU-5/FISCA IR-02 is approximately 17 feet based on continuous soil cores collected during the RD/RAWP (TtEC 2010).

The following sedimentary units were identified throughout the site from the ground surface to approximately 20 feet below ground surface (bgs):

- Sand, silty sand (or gravel and cobbles in the west)
- Clay (with the clay layer being thicker to the south and west)
- Fine sand (FWBZ) (sand diminishes to the west and southwest)
- Marsh Crust (a thin layer of highly contaminated sediments)
- Top of the Bay Sediment Unit (BSU)

These sedimentary units were previously characterized by constructing a number of near-surface geological cross sections. These cross sections, labeled as AA′ through HH′, are reproduced as Figures 2 through 9. These figures are Figures 4-3, 4-4, 4-5, 4-13, 4-14, 4-15, 4-16, and 4-17 of the RD/RAWP, respectively. Figures 10 and 11 (Figures 4-2 and 4-12 of the RD/RAWP) show the locations of these cross sections.

The BSU underlying the artificial fill material ranges in thickness from 25 to 100 feet (PRC and Versar 1996), and consists of recent sediment deposited in an estuarine environment. The BSU generally consists of gray to black, high plasticity clay with occasional abundant organic material. Post-ROD drilling and coring activities were terminated once the top of the BSU was encountered.

2.4 Hydrogeology

The uppermost permeable unit at Alameda Point is referred to as the FWBZ. The FWBZ beneath OU-5 occurs in the artificial fill. The saturated thickness of the FWBZ is approximately 8 feet in

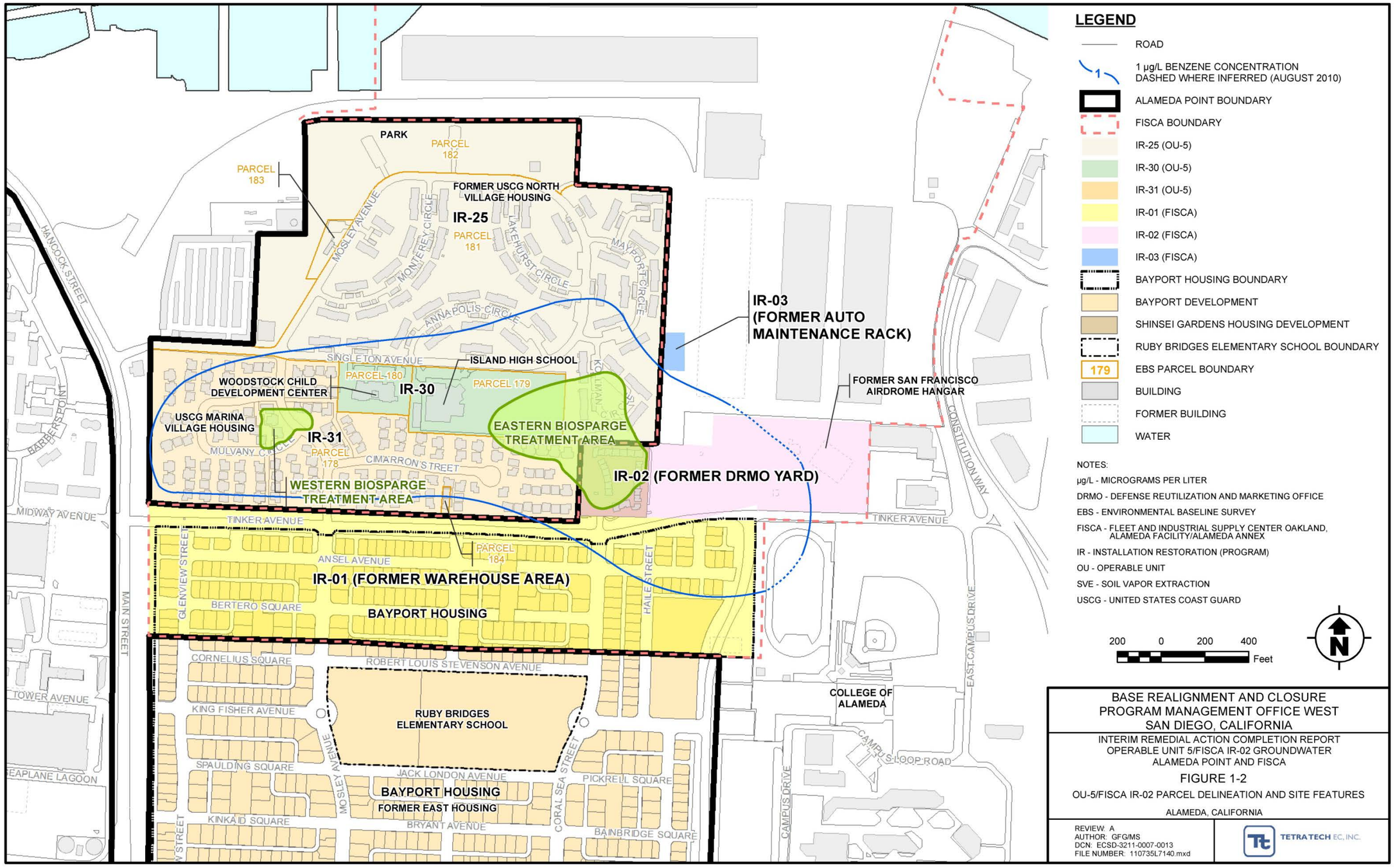
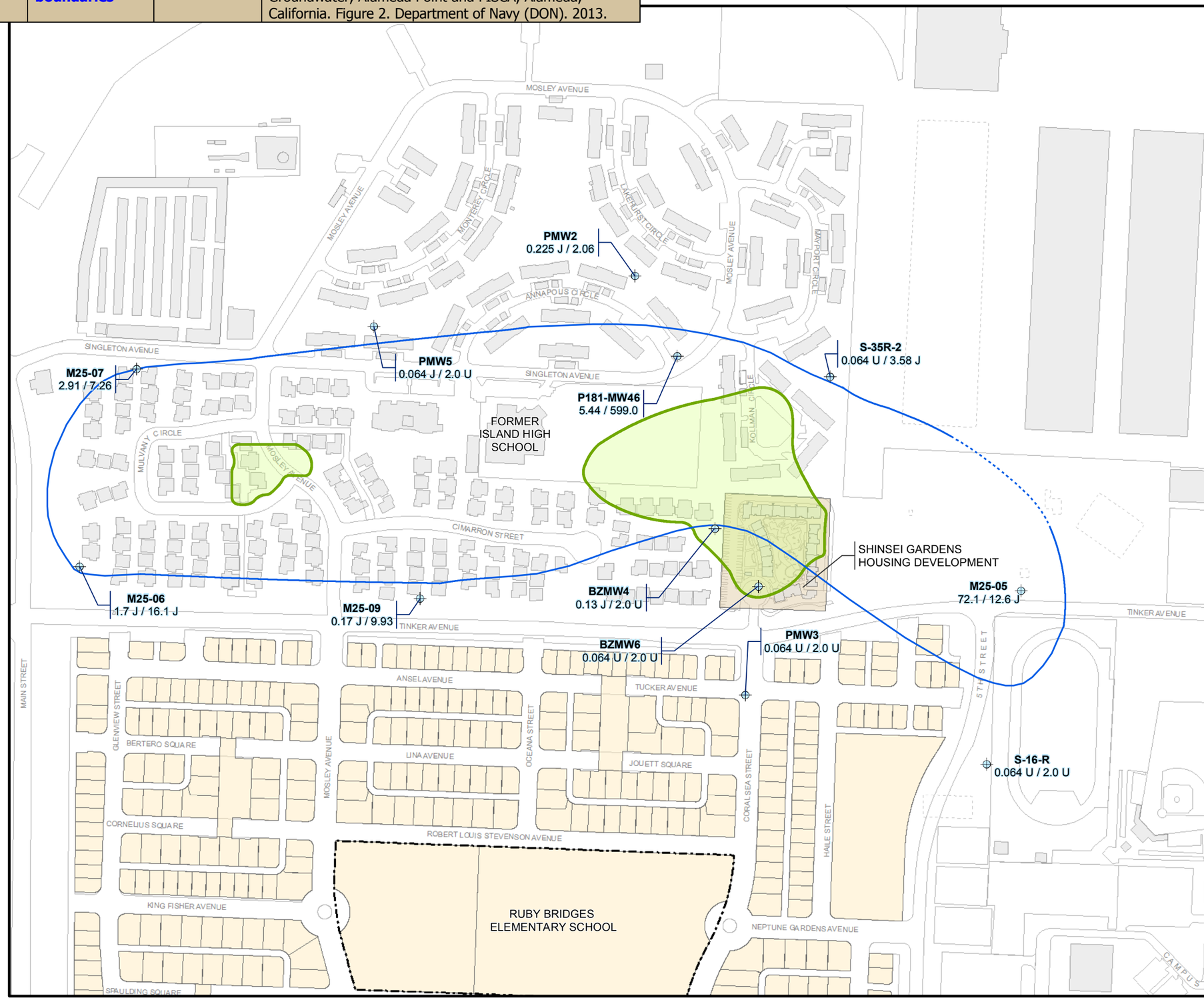

LEGEND
ROAD
1 µg/L BENZENE CONCENTRATION DASHED WHERE INFERRED (AUGUST 2010)
ALAMEDA POINT BOUNDARY
FISCA BOUNDARY
IR-25 (OU-5)
IR-30 (OU-5)
IR-31 (OU-5)
IR-01 (FISCA)
IR-02 (FISCA)
IR-03 (FISCA)
BAYPORT HOUSING BOUNDARY
BAYPORT DEVELOPMENT
SHINSEI GARDENS HOUSING DEVELOPMENT
RUBY BRIDGES ELEMENTARY SCHOOL BOUNDARY
179 EBS PARCEL BOUNDARY
BUILDING
FORMER BUILDING
WATER
NOTES:
µg/L - MICROGRAMS PER LITER
DRMO - DEFENSE REUTILIZATION AND MARKETING OFFICE
EBS - ENVIRONMENTAL BASELINE SURVEY
FISCA - FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR - INSTALLATION RESTORATION (PROGRAM)
OU - OPERABLE UNIT
SVE - SOIL VAPOR EXTRACTION
USCG - UNITED STATES COAST GUARD
200 0 200 400 Feet
N
PARK
PARCEL 182
PARCEL 183
FORMER USCG NORTH VILLAGE HOUSING
IR-25
PARCEL 181
MOSLEY AVENUE
MONTEREY CIRCLE
LAKEHURST CIRCLE
MAYPORT CIRCLE
ANNAPOLIS CIRCLE
IR-03 (FORMER AUTO MAINTENANCE RACK)
SINGLETON AVENUE
ISLAND HIGH SCHOOL
PARCEL 180
PARCEL 179
WOODSTOCK CHILD DEVELOPMENT CENTER
IR-30
USCG MARINA VILLAGE HOUSING
IR-31
MULVANY CIRCLE
PARCEL 178
CIMARRON STREET
EASTERN BIOSPARGE TREATMENT AREA
WESTERN BIOSPARGE TREATMENT AREA
IR-02 (FORMER DRMO YARD)
FORMER SAN FRANCISCO AIRDROME HANGAR
CONSTITUTION WAY
TINKER AVENUE
PARCEL 184
ANSEL AVENUE
IR-01 (FORMER WAREHOUSE AREA)
BERTERO SQUARE
BAYPORT HOUSING
GLENVIEW STREET
HAILEY STREET
HANCOCK STREET
BARBERS POINT
MIDWAY AVENUE
MAIN STREET
TOWER AVENUE
SEAPLANE LAGOON
CORNELIUS SQUARE
ROBERT LOUIS STEVENSON AVENUE
KING FISHER AVENUE
RUBY BRIDGES ELEMENTARY SCHOOL
SPAULDING SQUARE
JACK LONDON AVENUE
PICKREL SQUARE
BAYPORT HOUSING
FORMER EAST HOUSING
KINKAID SQUARE
BRYANT AVENUE
BAINBRIDGE SQUARE
CORAL SEA STREET
COLLEGE OF ALAMEDA
EAST CAMPUS DRIVE
CAMPUS LOOP ROAD
CAMPUS DRIVE
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
INTERIM REMEDIAL ACTION COMPLETION REPORT
OPERABLE UNIT 5/FISCA IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 1-2
OU-5/FISCA IR-02 PARCEL DELINEATION AND SITE FEATURES
ALAMEDA, CALIFORNIA
REVIEW: A
AUTHOR: GFG/MS
DCN: ECSD-3211-0007-0013
FILE NUMBER: 110735L7140.mxd
TETRA TECH EC, INC.

FIGURE 1

14	**Plume boundaries**	Section 2.1	August 2013 Analytical Results for OU-5/FISCA IR-02 Groundwater, Alameda Point and FISCA, Alameda, California. Figure 2. Department of Navy (DON). 2013.



LEGEND

M25-05 166 / 194 — MONITORING WELL BENZENE/NAPHTHALENE RESULT (µg/L) 10 FT WELL SCREEN (APPROXIMATELY 10-20 FT BGS)

1 — 1 µg/L BENZENE CONCENTRATION/ ESTIMATED PLUME BOUNDARY (DASHED WHERE INFERRED)

ROAD

BIOSPARGE TREATMENT AREA

BAYPORT DEVELOPMENT

BUILDING

FORMER BUILDING

NOTES:

µg/L - MICROGRAMS PER LITER

BGS - BELOW GROUND SURFACE

FISCA - FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX

FT - FEET

IR - INSTALLATION RESTORATION (PROGRAM)

J - ESTIMATED DATA

SVE - SOIL VAPOR EXTRACTION

U - NOT DETECTED AT LABORATORY REPORTING LIMIT

N

150 0 150 300 Feet

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

BIOSPARGE/SVE SYSTEMS
OPERABLE UNIT 5/FISCA IR-02 GROUNDWATER

FIGURE 2

AUGUST 2013 PERIMETER GROUNDWATER
MONITORING WELL BENZENE AND NAPHTHALENE RESULTS
ALAMEDA, CALIFORNIA

REVIEW: D
AUTHOR: MS
DCN: ECSD-2201-0011-0017
FILE NUMBER: 120301A7684.mxd

TETRA TECH EC, INC.

15	geology	Section 2.2	Final Technical, Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 2.3, Page 6, Figures 2 through 9. TtEC. 2012.

for temporary storage of discarded automobiles, stockpiled scrap metal, and surplus equipment. The Shinsei Garden Housing Development, a multi-family residential project, has been constructed on the western portion of IR-02.

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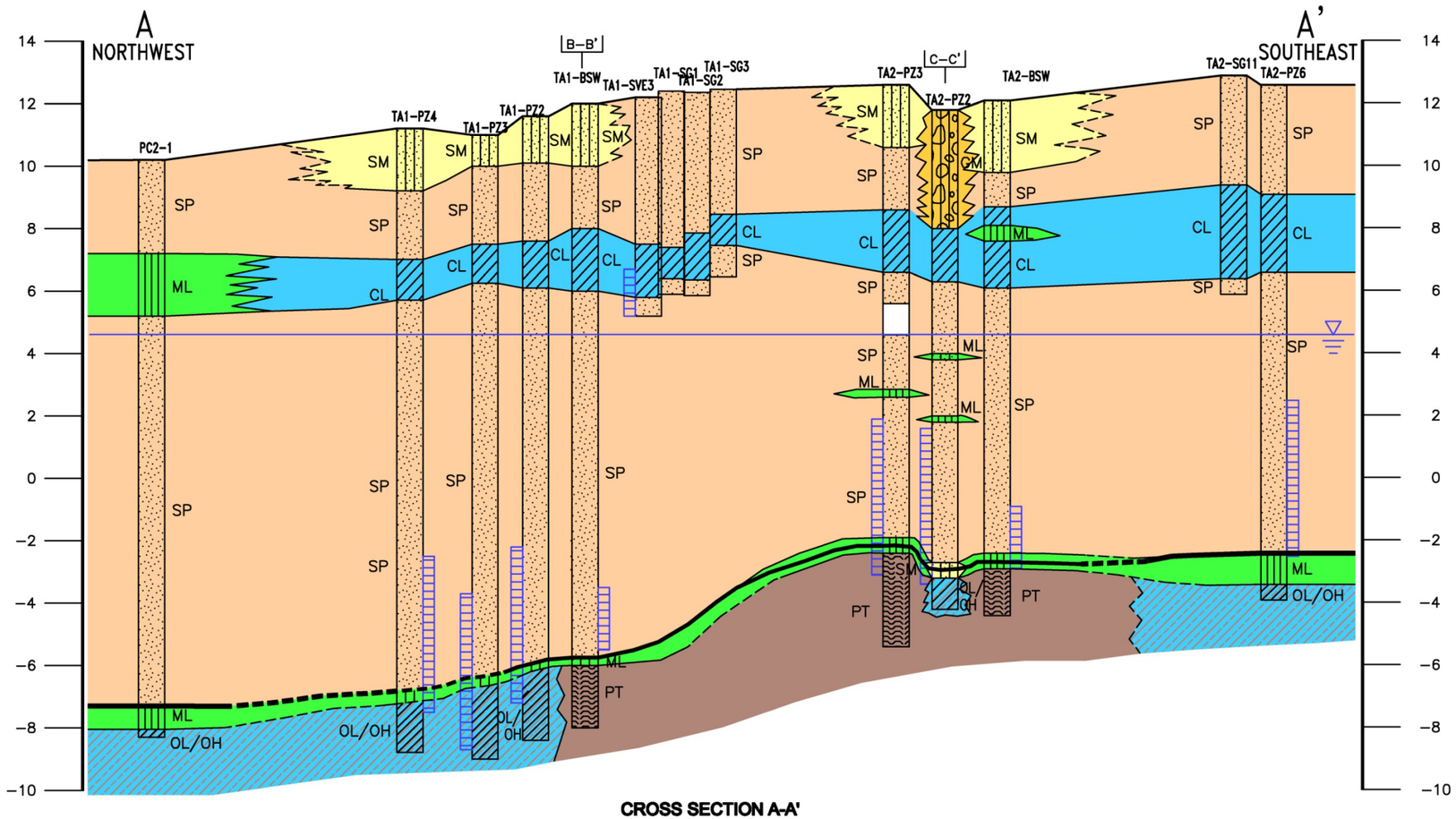
P:\CAD Terp\CAD - GIS\Alarreda\Alarreda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alarreda A_A xsec FIG 4-3_081508.dwg,



CROSS SECTION A-A'

LEGEND

CL	CLAY
ML	SILT
SM	SILTY SANDS
GM	SILTY GRAVELS, GRAVEL–SILT MIXTURE
SP	POORLY GRADED SAND
OL/OH	ORGANIC SOIL
PT	PEAT
	NO RECOVERY

FORMATION CONTACT (DASHED WHERE INFERRED)

PETROLEUM CONTAMINATED SEDIMENTS – MARSH CRUST (DASHED WHERE INFERRED)

WELL SCREEN

C–C' INTERSECTING CROSS SECTION

WATER TABLE (APPROXIMATE)

FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX

IR INSTALLATION RESTORATION

50' 0 50' 100'
HORIZONTAL SCALE

4' 0 4' 8'
VERTICAL SCALE

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

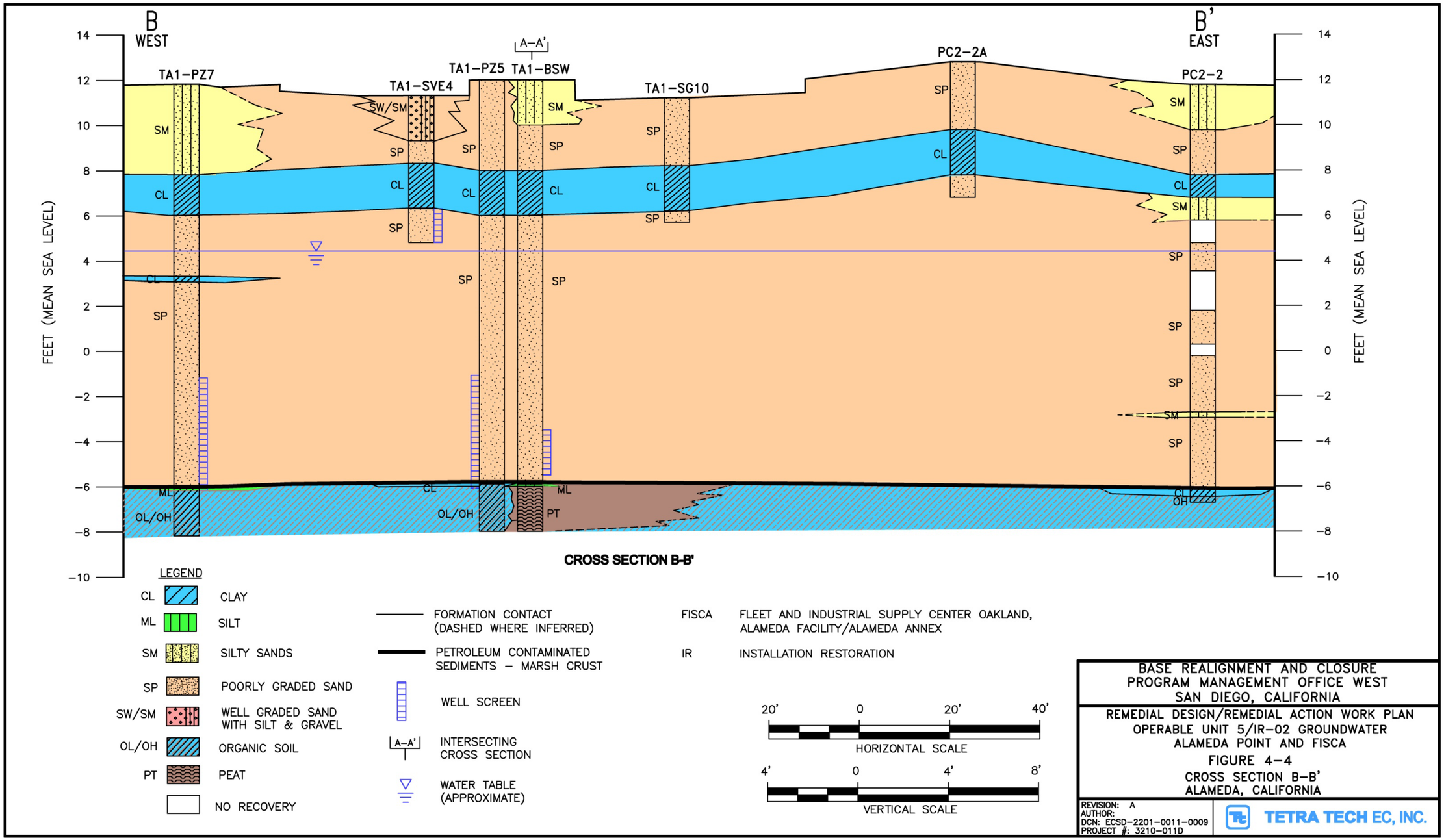
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA

FIGURE 4-3
CROSS SECTION A-A'
ALAMEDA, CALIFORNIA

REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D

TETRA TECH EC, INC.

FIGURE 2



P:\CAD Temp\CAD – GIS\Alameda\Alameda cross sections –Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alameda B_B' xsec FIG 4-4_08

FIGURE 3

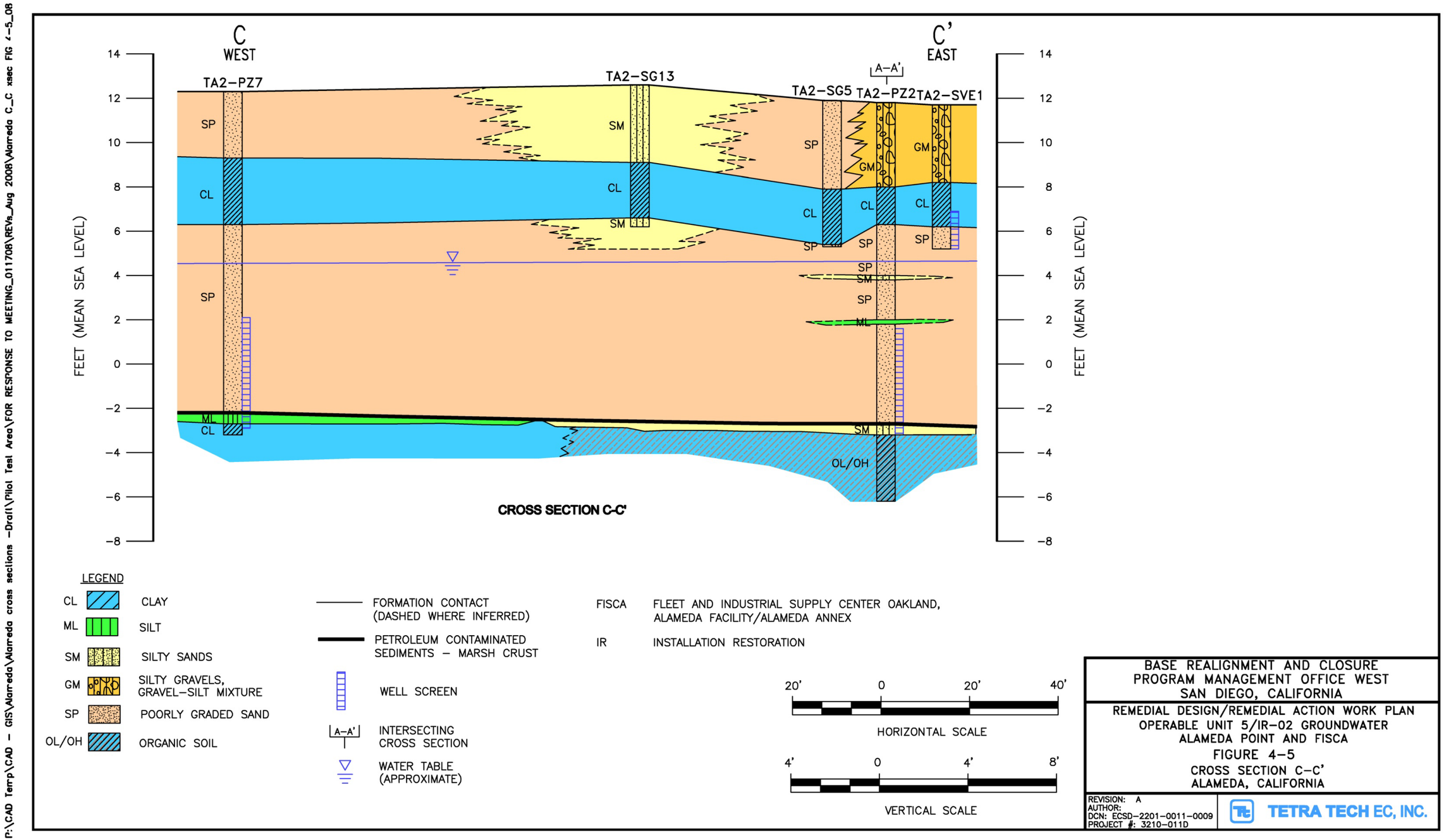

C
WEST
C'
EAST
TA2-PZ7
TA2-SG13
TA2-SG5
A-A'
TA2-PZ2
TA2-SVE1
SP
SM
CL
GM
ML
OL/OH
FEET (MEAN SEA LEVEL)
14
12
10
8
6
4
2
0
-2
-4
-6
-8
CROSS SECTION C-C'
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
SP POORLY GRADED SAND
OL/OH ORGANIC SOIL
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST
WELL SCREEN
A-A' INTERSECTING CROSS SECTION
WATER TABLE (APPROXIMATE)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
20' 0 20' 40'
HORIZONTAL SCALE
4' 0 4' 8'
VERTICAL SCALE
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-5
CROSS SECTION C-C'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Temp\CAD - GIS\Alameda\Alameda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alameda C_C xsec FIG 4-5_08

FIGURE 4

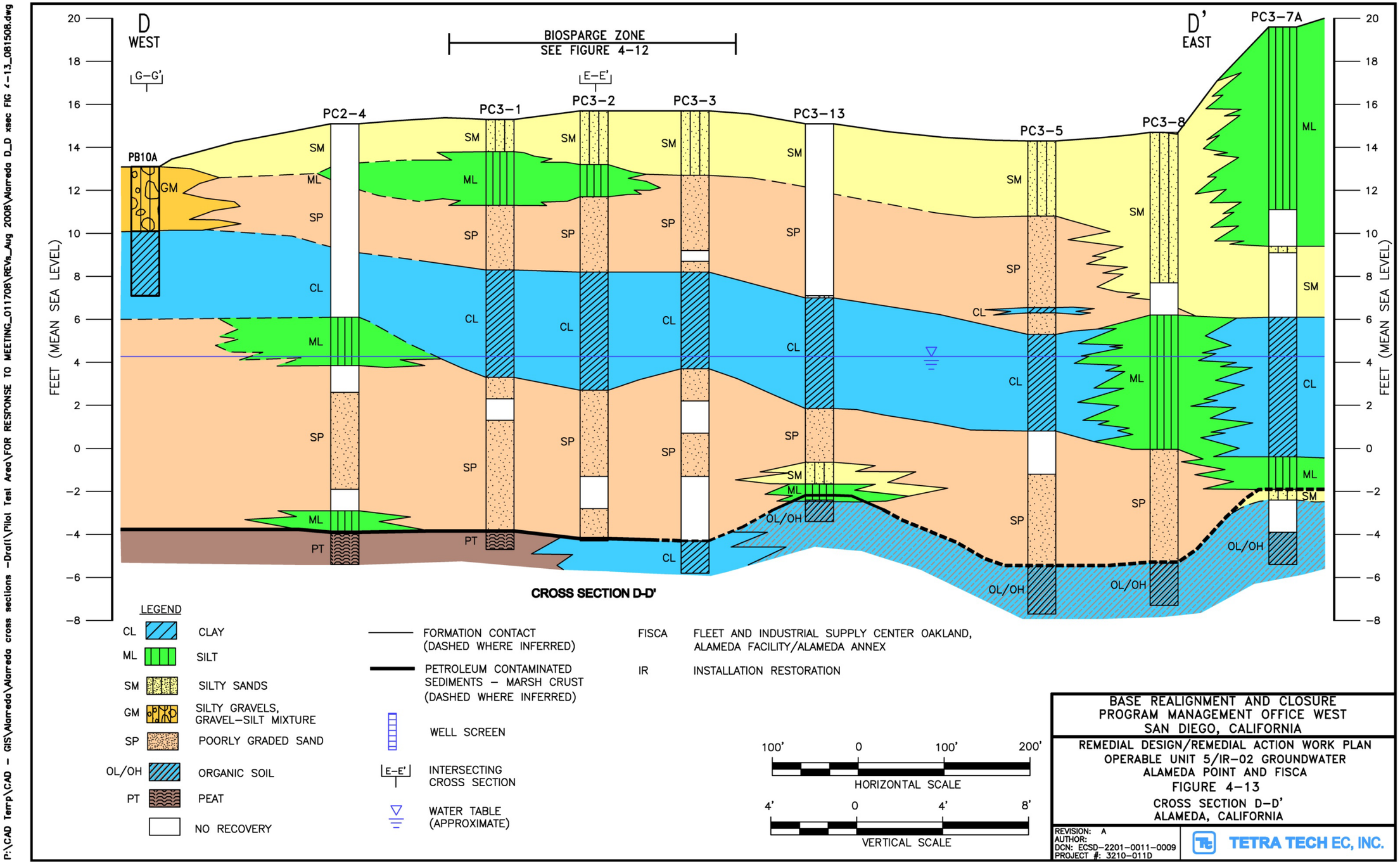

D
WEST
D'
EAST
BIOSPARGE ZONE
SEE FIGURE 4-12
G-G'
E-E'
PB10A
PC2-4
PC3-1
PC3-2
PC3-3
PC3-13
PC3-5
PC3-8
PC3-7A
FEET (MEAN SEA LEVEL)
20
18
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
GM
SM
ML
SP
CL
PT
OL/OH
CROSS SECTION D-D'
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
SP POORLY GRADED SAND
OL/OH ORGANIC SOIL
PT PEAT
NO RECOVERY
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST (DASHED WHERE INFERRED)
WELL SCREEN
E-E' INTERSECTING CROSS SECTION
WATER TABLE (APPROXIMATE)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
100' 0 100' 200'
HORIZONTAL SCALE
4' 0 4' 8'
VERTICAL SCALE
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-13
CROSS SECTION D-D'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Terrp\CAD - GIS\Alarreda\Alarreda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alarreda D_D xsec FIG 4-13_081508.dwg

FIGURE 5

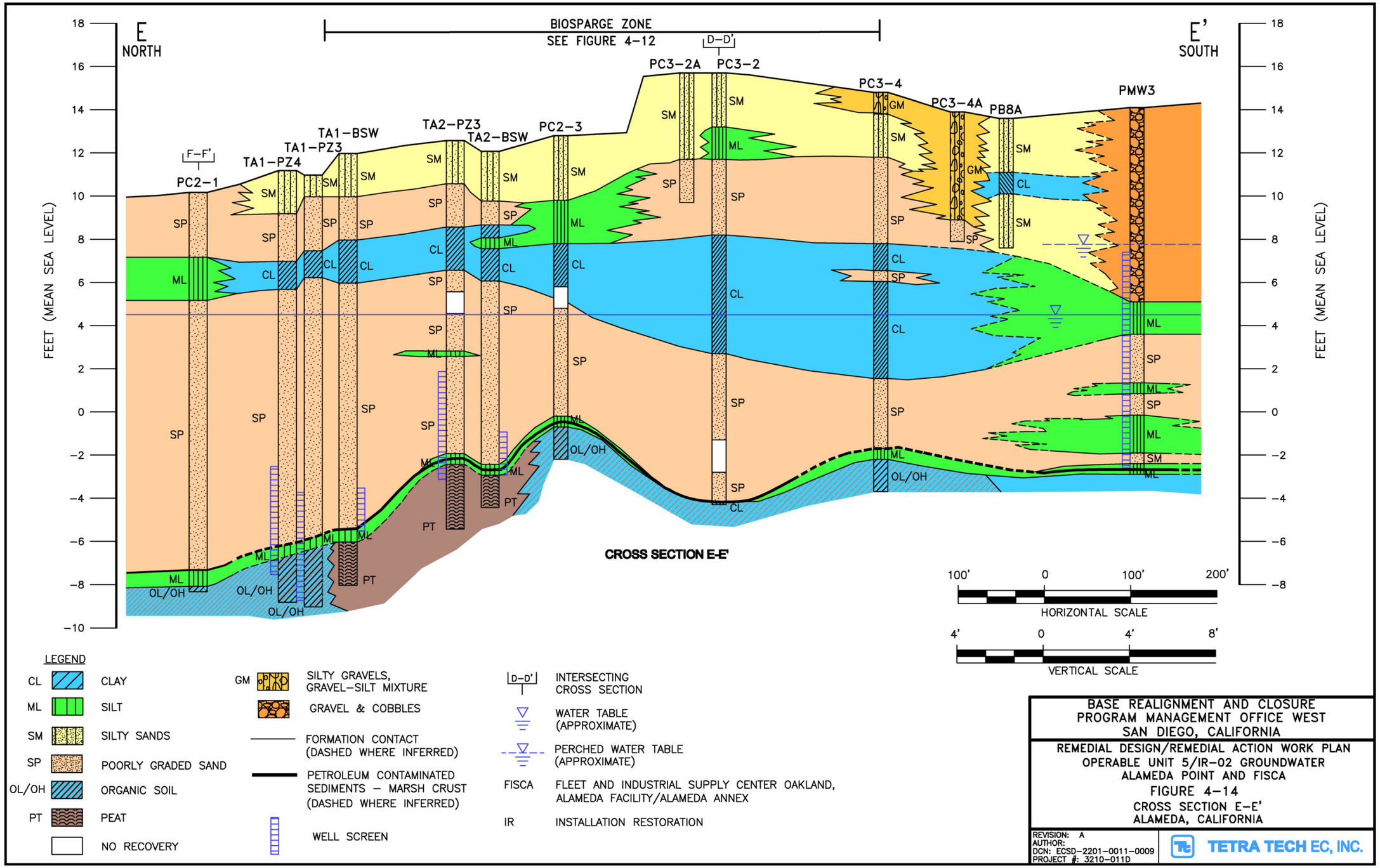

E
NORTH
E'
SOUTH
BIOSPARGE ZONE
SEE FIGURE 4-12
D-D'
F-F'
PC2-1
TA1-PZ4
TA1-PZ3
TA1-BSW
TA2-PZ3
TA2-BSW
PC2-3
PC3-2A
PC3-2
PC3-4
PC3-4A
PB8A
PMW3
FEET (MEAN SEA LEVEL)
CROSS SECTION E-E'
100' 0 100' 200'
HORIZONTAL SCALE
4' 0 4' 8'
VERTICAL SCALE
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
SP POORLY GRADED SAND
OL/OH ORGANIC SOIL
PT PEAT
NO RECOVERY
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
GRAVEL & COBBLES
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST (DASHED WHERE INFERRED)
WELL SCREEN
D-D' INTERSECTING CROSS SECTION
WATER TABLE (APPROXIMATE)
PERCHED WATER TABLE (APPROXIMATE)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-14
CROSS SECTION E-E'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Temp\CAD - GIS\Alameda\Alameda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alameda E_E xsec FIG 4-14_081508.dwg

FIGURE 6

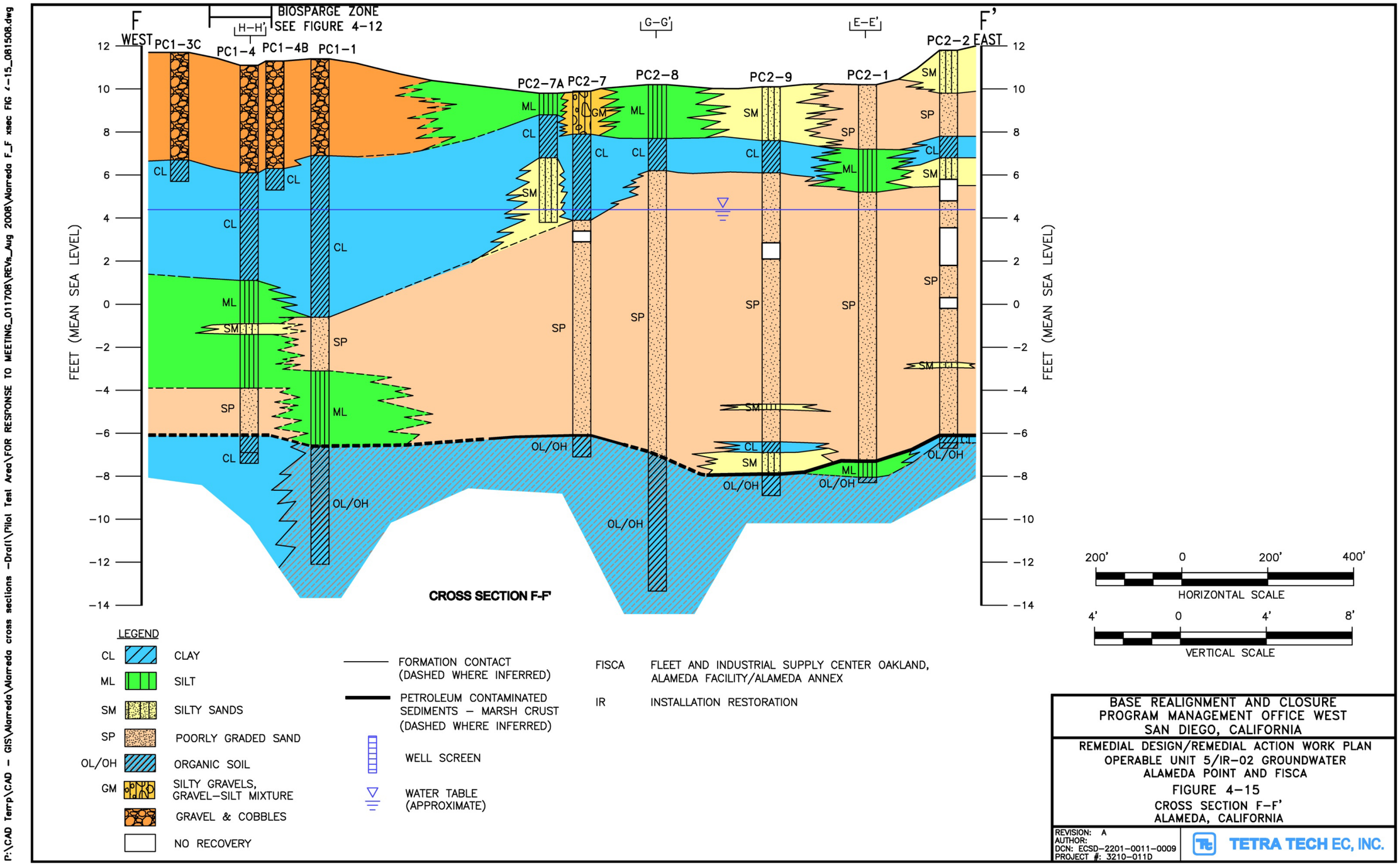

F
WEST
F'
EAST
BIOSPARGE ZONE
SEE FIGURE 4-12
H-H'
G-G'
E-E'
PC1-3C
PC1-4
PC1-4B
PC1-1
PC2-7A
PC2-7
PC2-8
PC2-9
PC2-1
PC2-2
FEET (MEAN SEA LEVEL)
12
10
8
6
4
2
0
-2
-4
-6
-8
-10
-12
-14
CL
ML
SM
SP
GM
OL/OH
CROSS SECTION F-F'
200'
0
200'
400'
HORIZONTAL SCALE
4'
0
4'
8'
VERTICAL SCALE
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
SP POORLY GRADED SAND
OL/OH ORGANIC SOIL
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
GRAVEL & COBBLES
NO RECOVERY
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST (DASHED WHERE INFERRED)
WELL SCREEN
WATER TABLE (APPROXIMATE)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-15
CROSS SECTION F-F'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Terrp\CAD - GIS\Alarreda\Alarreda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alarreda F_F xsec FIG 4-15_081508.dwg

FIGURE 7

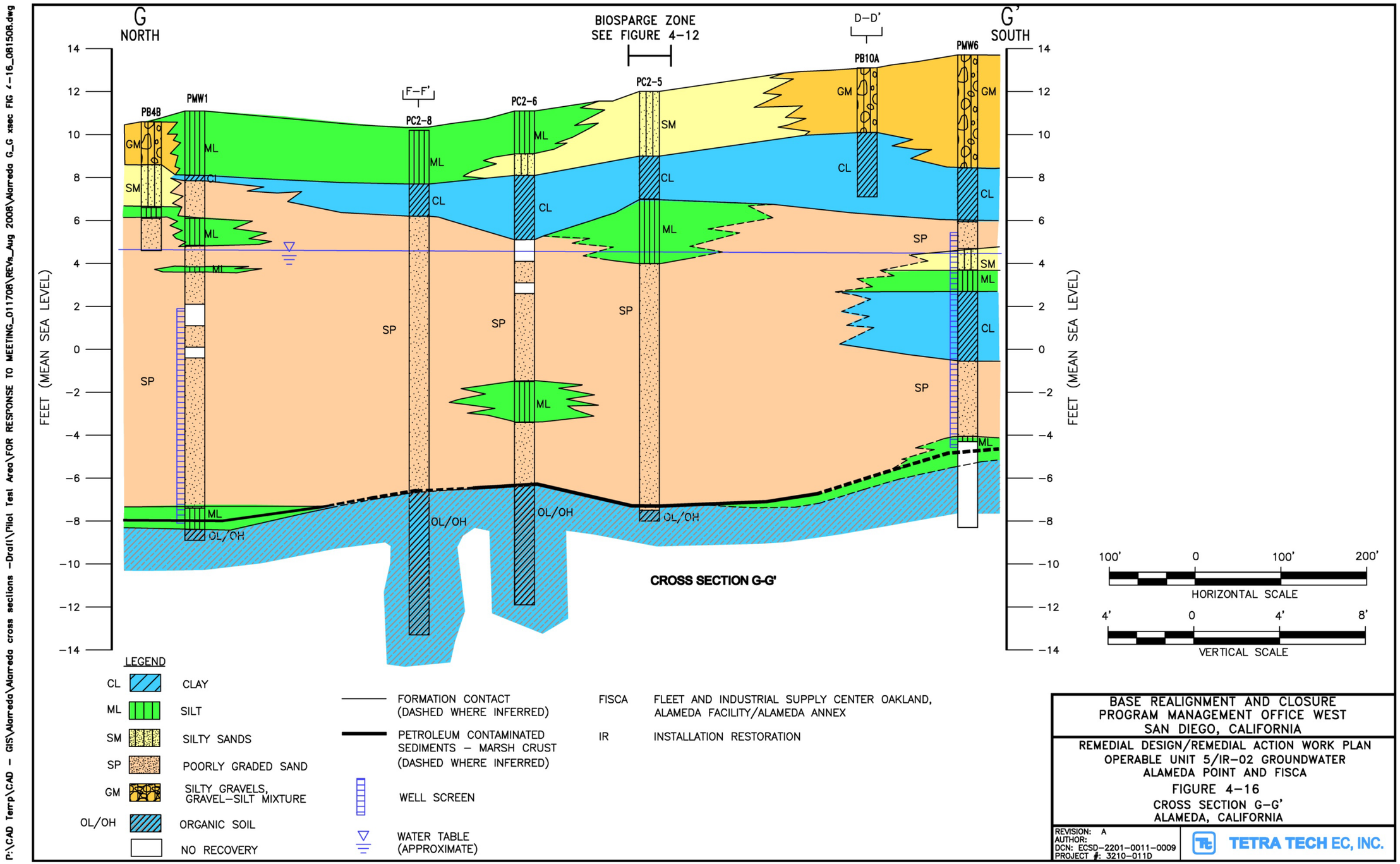

G
NORTH
G'
SOUTH
BIOSPARGE ZONE
SEE FIGURE 4-12
D-D'
F-F'
PB4B
PMW1
PC2-8
PC2-6
PC2-5
PB10A
PMW6
FEET (MEAN SEA LEVEL)
14
12
10
8
6
4
2
0
-2
-4
-6
-8
-10
-12
-14
GM
SM
ML
CL
SP
OL/OH
CROSS SECTION G-G'
100' 0 100' 200'
HORIZONTAL SCALE
4' 0 4' 8'
VERTICAL SCALE
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
SP POORLY GRADED SAND
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
OL/OH ORGANIC SOIL
NO RECOVERY
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST (DASHED WHERE INFERRED)
WELL SCREEN
WATER TABLE (APPROXIMATE)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-16
CROSS SECTION G-G'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Terrp\CAD - GIS\Alarreda\Alarreda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alarreda G_G xsec FIG 4-16_081508.dwg

FIGURE 8

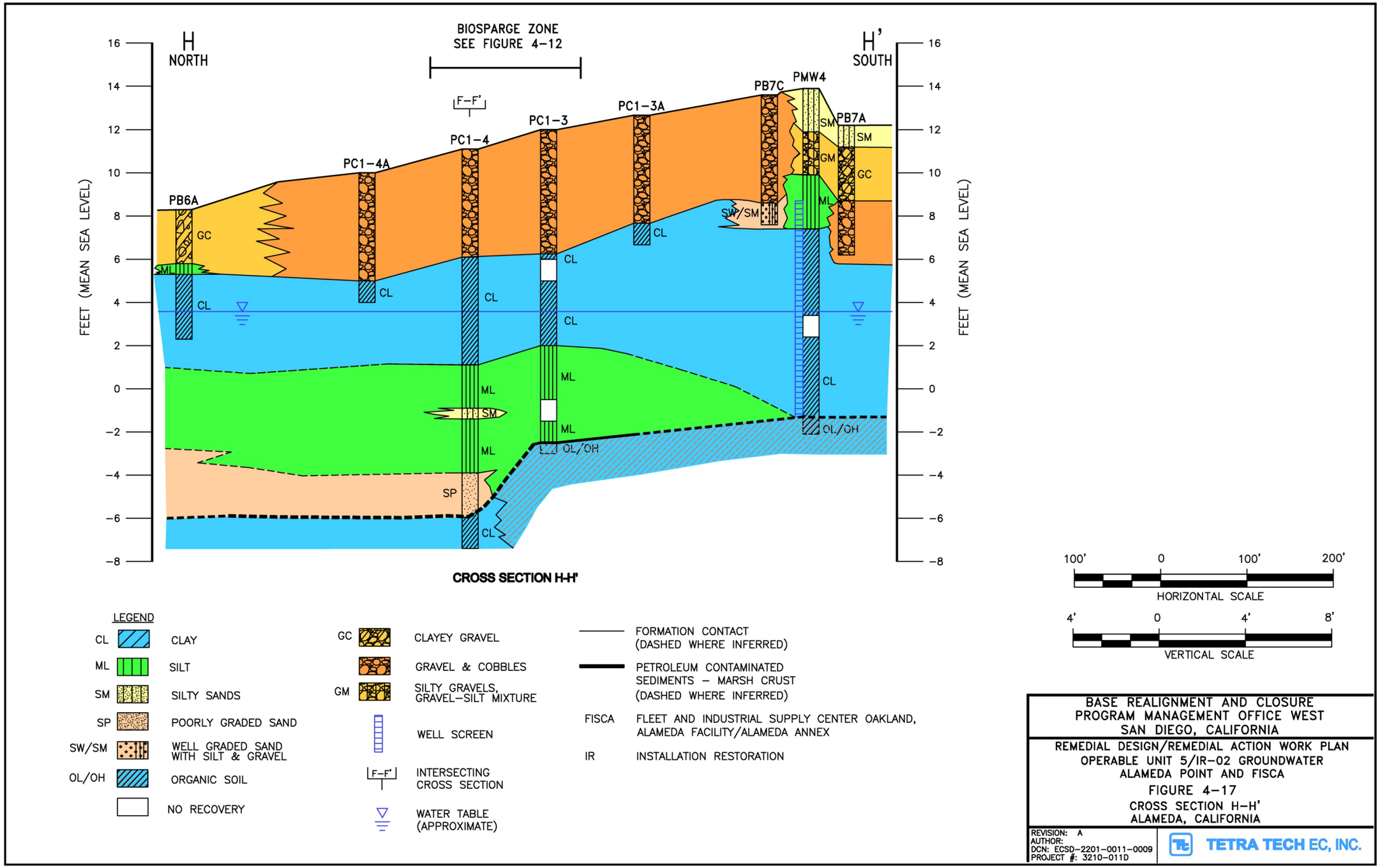

H
NORTH
H'
SOUTH
BIOSPARGE ZONE
SEE FIGURE 4-12
F-F'
PB6A
PC1-4A
PC1-4
PC1-3
PC1-3A
PB7C
PMW4
PB7A
GC
ML
CL
SM
SP
SW/SM
GM
OL/OH
FEET (MEAN SEA LEVEL)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
CROSS SECTION H-H'
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
SP POORLY GRADED SAND
SW/SM WELL GRADED SAND WITH SILT & GRAVEL
OL/OH ORGANIC SOIL
NO RECOVERY
GC CLAYEY GRAVEL
GRAVEL & COBBLES
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
WELL SCREEN
INTERSECTING CROSS SECTION
WATER TABLE (APPROXIMATE)
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST (DASHED WHERE INFERRED)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
100' 0 100' 200'
HORIZONTAL SCALE
4' 0 4' 8'
VERTICAL SCALE
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-17
CROSS SECTION H-H'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Temp\CAD - GIS\Alameda\Alameda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alameda H_H' xsec FIG 4-17_081508.dw

FIGURE 9

16	Surface and near-surface soil	Section 2.2	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 2.3, Page 6, Figures 2 through 9. TtEC. 2012.

for temporary storage of discarded automobiles, stockpiled scrap metal, and surplus equipment. The Shinsei Garden Housing Development, a multi-family residential project, has been constructed on the western portion of IR-02.

- IR-03 is located in the west central portion of FISCA. It formerly consisted of an automotive drive-up maintenance rack over an asphalt-paved area. The area remains undeveloped.

IR-25, excluding the USCG housing office, and IR-30 are currently Navy property. The USCG housing office and IR-31 are USCG property. FISCA is City of Alameda property.

2.3 Geology

Surface and near-surface soil at the site consists of artificial fill placed during the historical filling of the tidal marshlands, which occurred from approximately 1900 to 1930. The artificial fill materials are believed to be dredging spoils from the surrounding San Francisco Bay and the Oakland Inner Harbor. The average fill thickness at OU-5/FISCA IR-02 is approximately 17 feet based on continuous soil cores collected during the RD/RAWP (TtEC 2010).

The following sedimentary units were identified throughout the site from the ground surface to approximately 20 feet below ground surface (bgs):

- Sand, silty sand (or gravel and cobbles in the west)
- Clay (with the clay layer being thicker to the south and west)
- Fine sand (FWBZ) (sand diminishes to the west and southwest)
- Marsh Crust (a thin layer of highly contaminated sediments)
- Top of the Bay Sediment Unit (BSU)

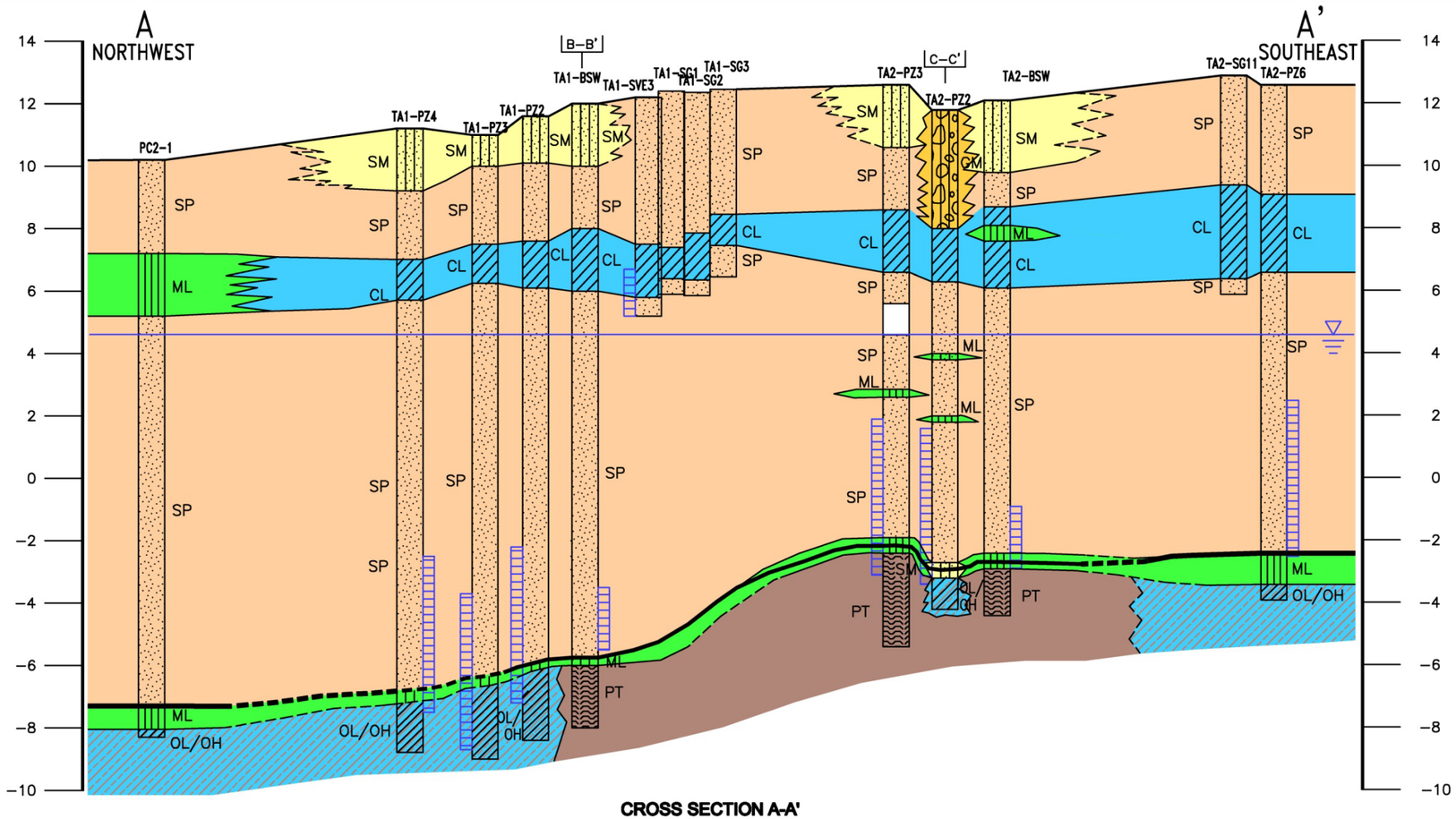
These sedimentary units were previously characterized by constructing a number of near-surface geological cross sections. These cross sections, labeled as AA′ through HH′, are reproduced as Figures 2 through 9. These figures are Figures 4-3, 4-4, 4-5, 4-13, 4-14, 4-15, 4-16, and 4-17 of the RD/RAWP, respectively. Figures 10 and 11 (Figures 4-2 and 4-12 of the RD/RAWP) show the locations of these cross sections.

The BSU underlying the artificial fill material ranges in thickness from 25 to 100 feet (PRC and Versar 1996), and consists of recent sediment deposited in an estuarine environment. The BSU generally consists of gray to black, high plasticity clay with occasional abundant organic material. Post-ROD drilling and coring activities were terminated once the top of the BSU was encountered.

2.4 Hydrogeology

The uppermost permeable unit at Alameda Point is referred to as the FWBZ. The FWBZ beneath OU-5 occurs in the artificial fill. The saturated thickness of the FWBZ is approximately 8 feet in

P:\CAD Terp\CAD - GIS\Alarreda\Alarreda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alarreda A_A xsec FIG 4-3_081508.dwg,



CROSS SECTION A-A'

LEGEND

CL	CLAY
ML	SILT
SM	SILTY SANDS
GM	SILTY GRAVELS, GRAVEL–SILT MIXTURE
SP	POORLY GRADED SAND
OL/OH	ORGANIC SOIL
PT	PEAT
	NO RECOVERY

FORMATION CONTACT (DASHED WHERE INFERRED)

PETROLEUM CONTAMINATED SEDIMENTS – MARSH CRUST (DASHED WHERE INFERRED)

WELL SCREEN

C–C' INTERSECTING CROSS SECTION

WATER TABLE (APPROXIMATE)

FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX

IR INSTALLATION RESTORATION

50' 0 50' 100'
HORIZONTAL SCALE

4' 0 4' 8'
VERTICAL SCALE

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

REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA

FIGURE 4-3
CROSS SECTION A-A'
ALAMEDA, CALIFORNIA

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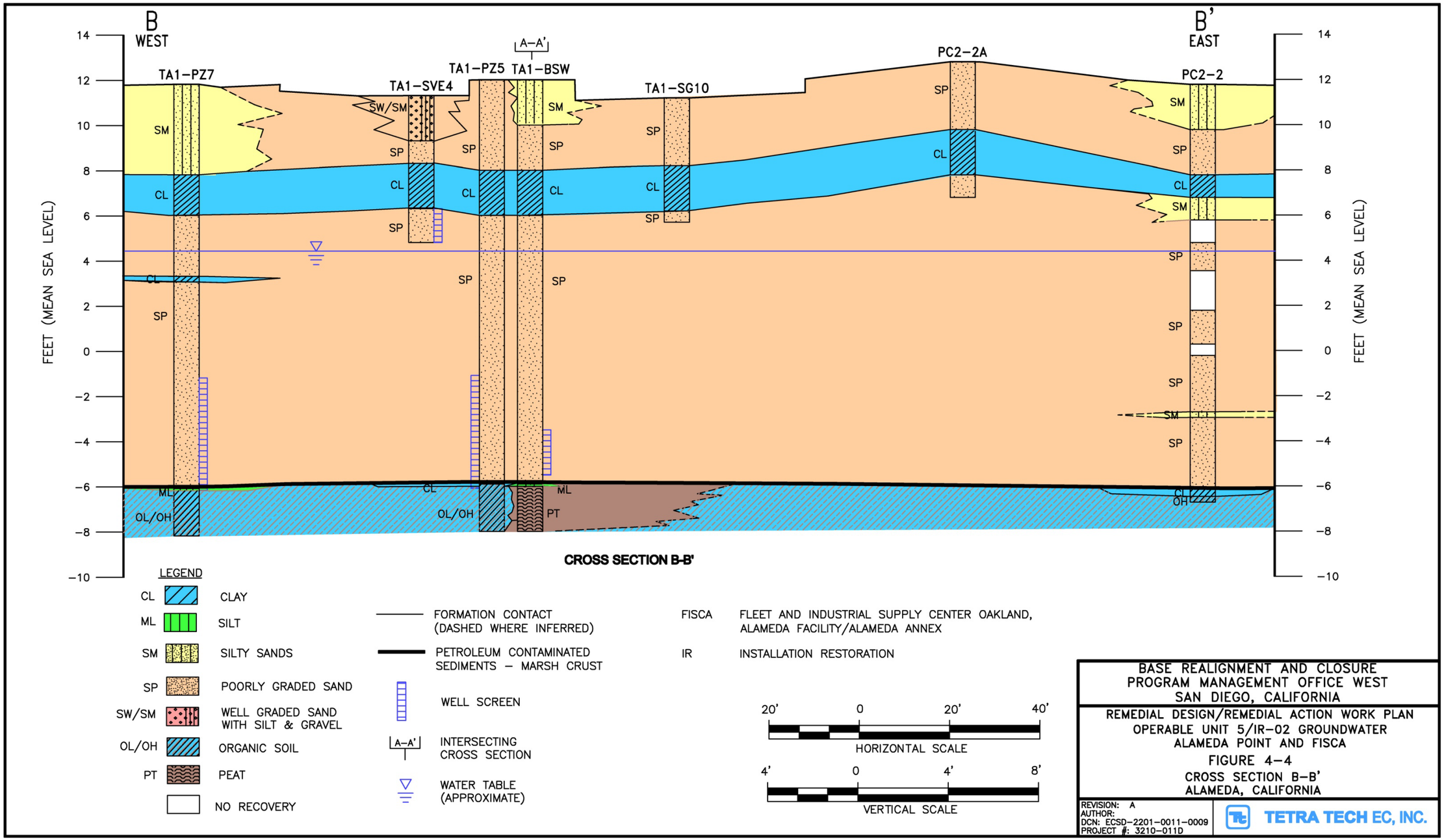
PROJECT #: 3210-011D

TETRA TECH EC, INC.

FIGURE 2



P:\CAD Temp\CAD – GIS\Alameda\Alameda cross sections –Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alameda B_B' xsec FIG 4-4_08

FIGURE 3

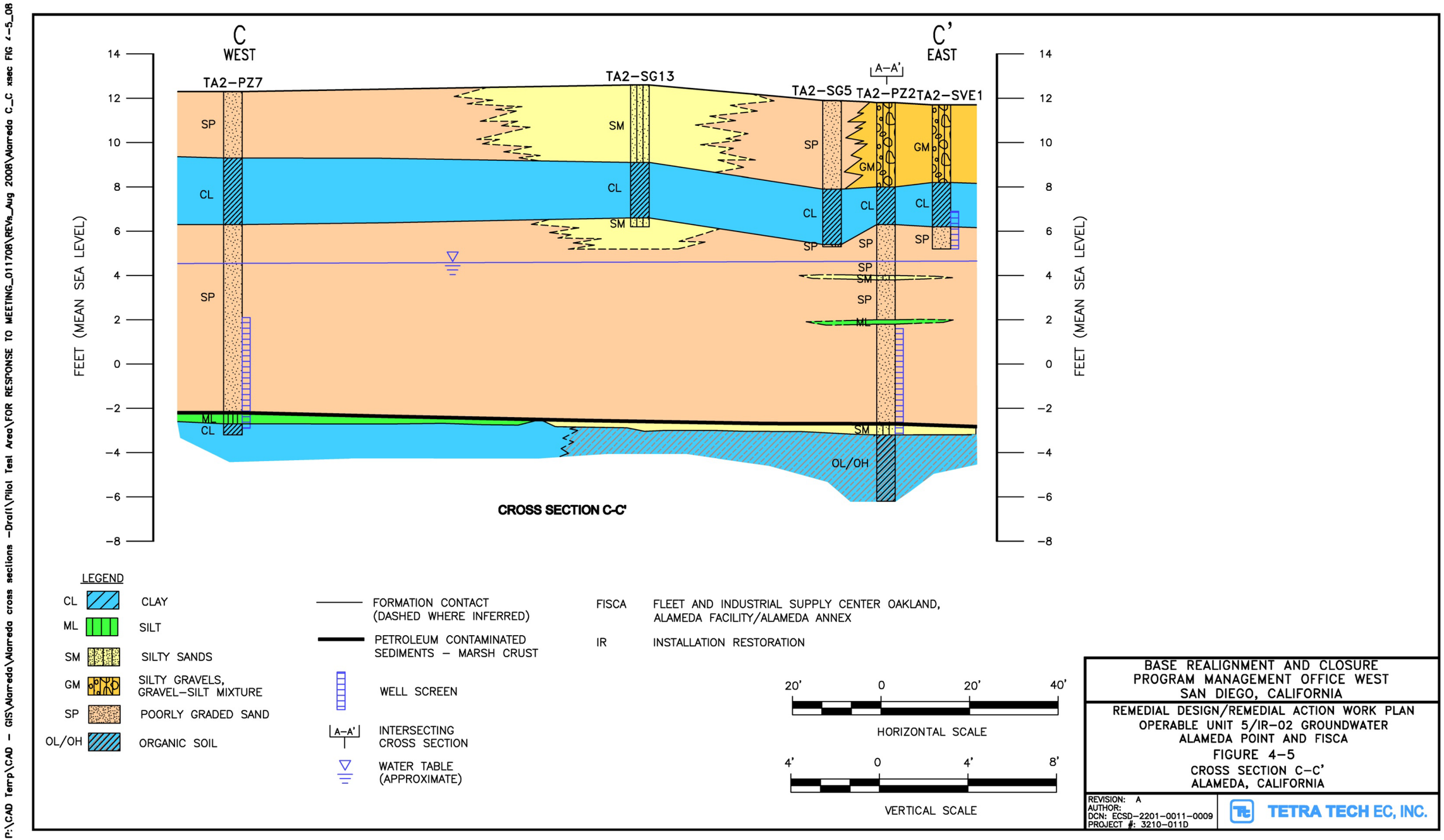

C
WEST
C'
EAST
TA2-PZ7
TA2-SG13
TA2-SG5
A-A'
TA2-PZ2
TA2-SVE1
SP
SM
CL
GM
ML
OL/OH
FEET (MEAN SEA LEVEL)
14
12
10
8
6
4
2
0
-2
-4
-6
-8
CROSS SECTION C-C'
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
SP POORLY GRADED SAND
OL/OH ORGANIC SOIL
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST
WELL SCREEN
A-A' INTERSECTING CROSS SECTION
WATER TABLE (APPROXIMATE)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
20' 0 20' 40'
HORIZONTAL SCALE
4' 0 4' 8'
VERTICAL SCALE
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-5
CROSS SECTION C-C'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Temp\CAD - GIS\Alameda\Alameda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alameda C_C xsec FIG 4-5_08

FIGURE 4

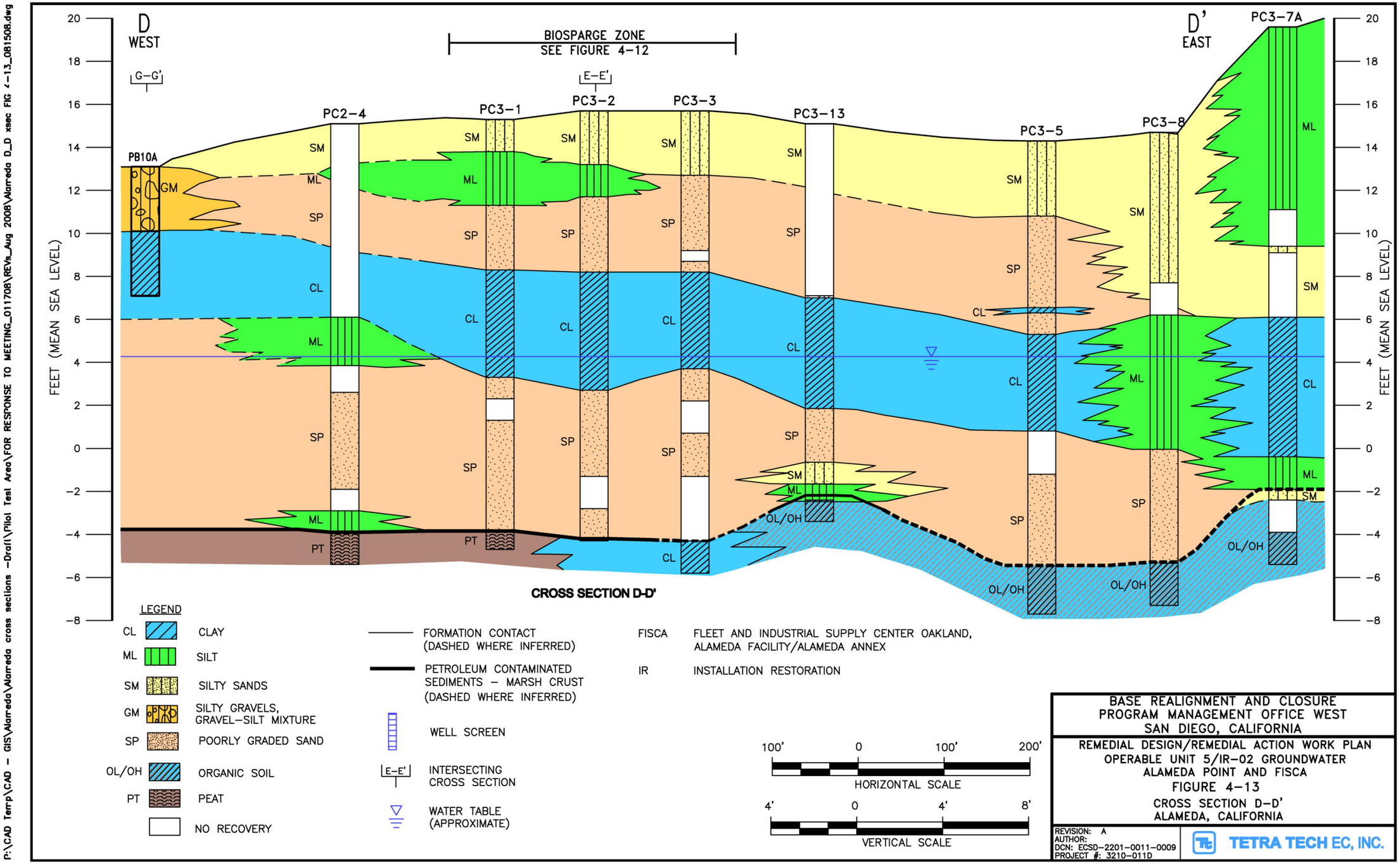

D
WEST
D'
EAST
BIOSPARGE ZONE
SEE FIGURE 4-12
G-G'
E-E'
PB10A
PC2-4
PC3-1
PC3-2
PC3-3
PC3-13
PC3-5
PC3-8
PC3-7A
FEET (MEAN SEA LEVEL)
20
18
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
GM
SM
ML
SP
CL
PT
OL/OH
CROSS SECTION D-D'
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
SP POORLY GRADED SAND
OL/OH ORGANIC SOIL
PT PEAT
NO RECOVERY
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST (DASHED WHERE INFERRED)
WELL SCREEN
E-E' INTERSECTING CROSS SECTION
WATER TABLE (APPROXIMATE)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
100' 0 100' 200'
HORIZONTAL SCALE
4' 0 4' 8'
VERTICAL SCALE
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-13
CROSS SECTION D-D'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Terrp\CAD - GIS\Alarreda\Alarreda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alarreda D_D xsec FIG 4-13_081508.dwg

FIGURE 5

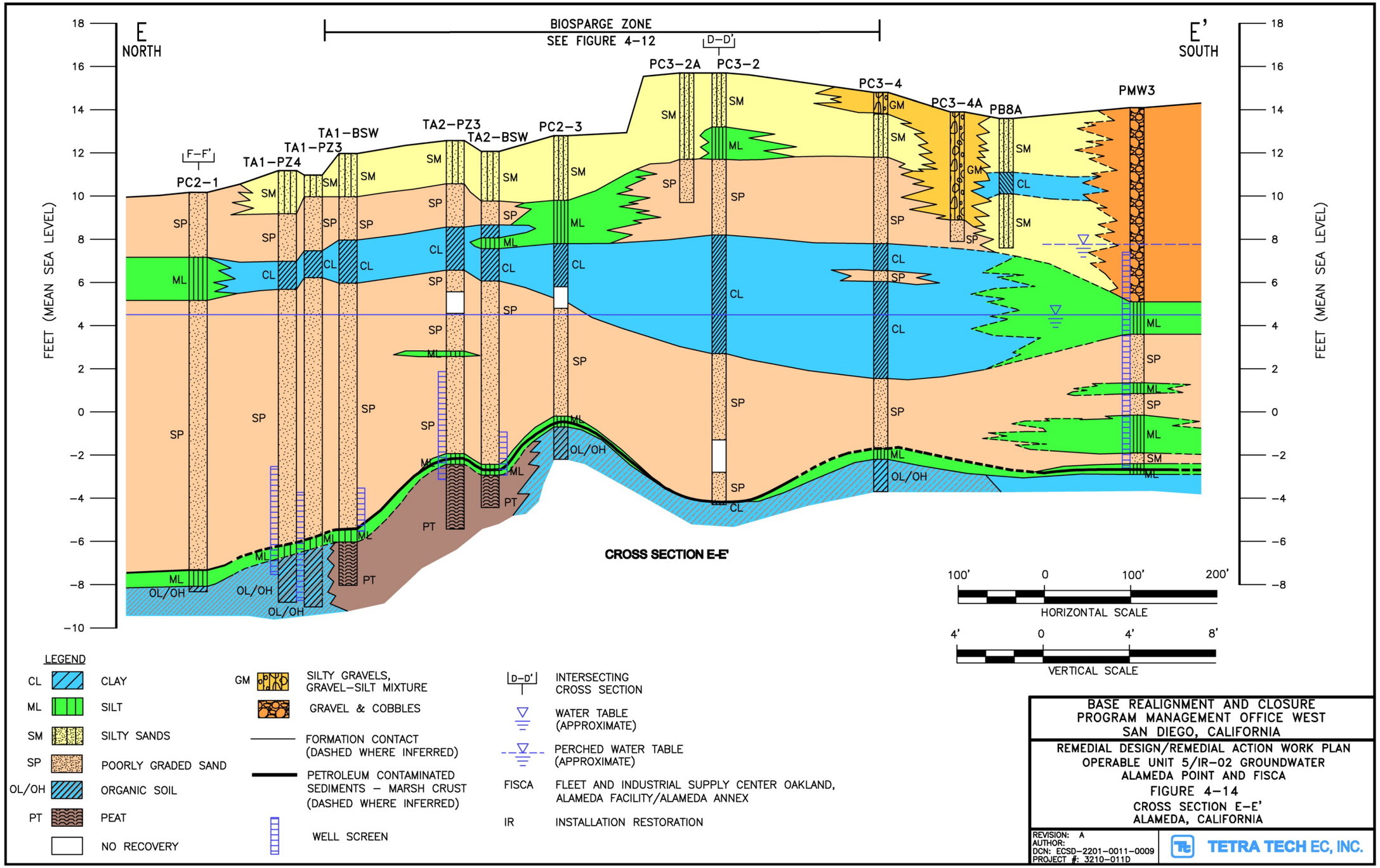

E
NORTH
E'
SOUTH
BIOSPARGE ZONE
SEE FIGURE 4-12
D-D'
F-F'
PC2-1
TA1-PZ4
TA1-PZ3
TA1-BSW
TA2-PZ3
TA2-BSW
PC2-3
PC3-2A
PC3-2
PC3-4
PC3-4A
PB8A
PMW3
FEET (MEAN SEA LEVEL)
CROSS SECTION E-E'
100' 0 100' 200'
HORIZONTAL SCALE
4' 0 4' 8'
VERTICAL SCALE
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
SP POORLY GRADED SAND
OL/OH ORGANIC SOIL
PT PEAT
NO RECOVERY
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
GRAVEL & COBBLES
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST (DASHED WHERE INFERRED)
WELL SCREEN
D-D' INTERSECTING CROSS SECTION
WATER TABLE (APPROXIMATE)
PERCHED WATER TABLE (APPROXIMATE)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-14
CROSS SECTION E-E'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Temp\CAD - GIS\Alameda\Alameda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alameda E_E xsec FIG 4-14_081508.dwg

FIGURE 6

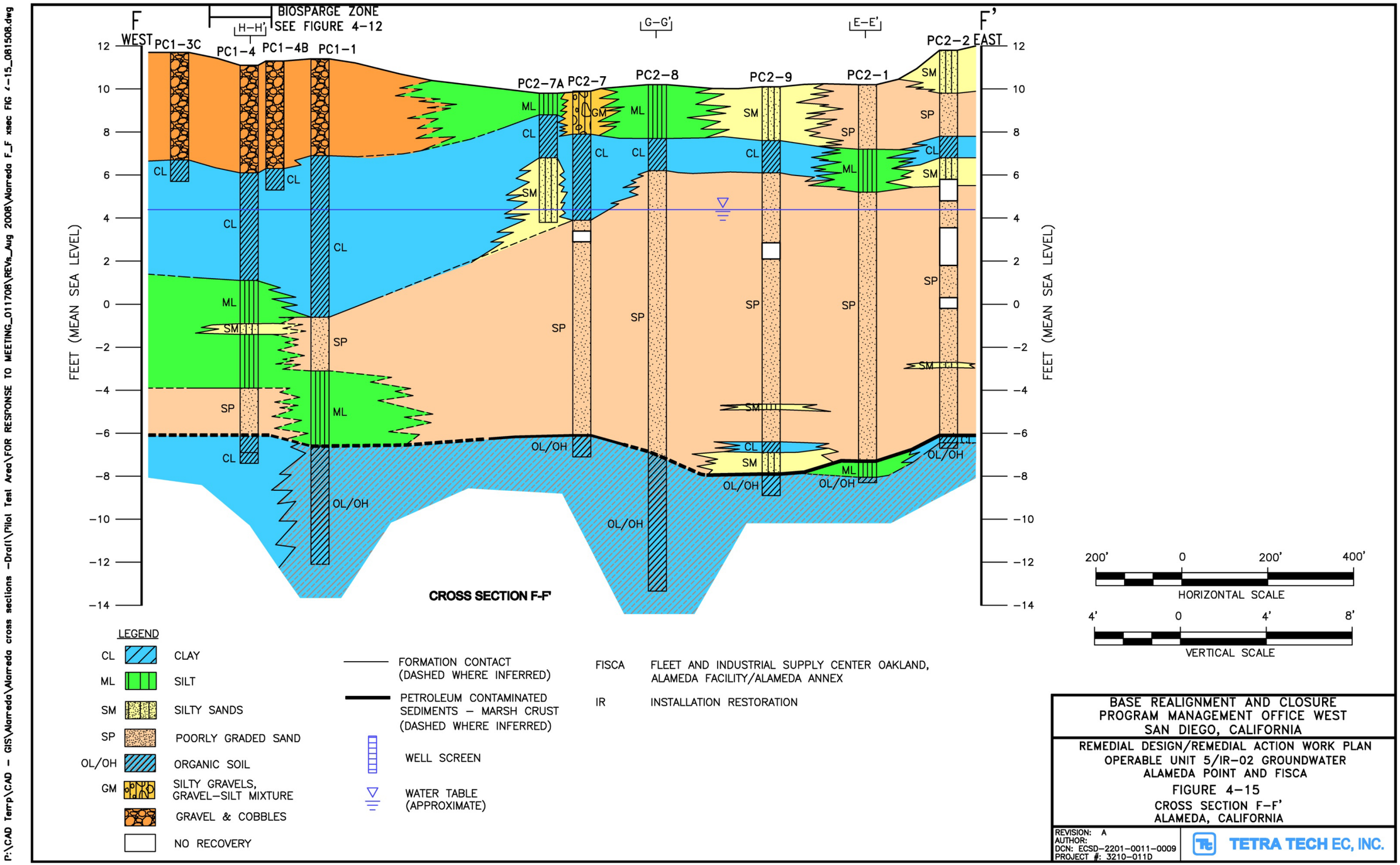

F
WEST
F'
EAST
BIOSPARGE ZONE
SEE FIGURE 4-12
H-H'
G-G'
E-E'
PC1-3C
PC1-4
PC1-4B
PC1-1
PC2-7A
PC2-7
PC2-8
PC2-9
PC2-1
PC2-2
FEET (MEAN SEA LEVEL)
12
10
8
6
4
2
0
-2
-4
-6
-8
-10
-12
-14
CL
ML
SM
SP
GM
OL/OH
CROSS SECTION F-F'
200'
0
200'
400'
HORIZONTAL SCALE
4'
0
4'
8'
VERTICAL SCALE
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
SP POORLY GRADED SAND
OL/OH ORGANIC SOIL
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
GRAVEL & COBBLES
NO RECOVERY
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST (DASHED WHERE INFERRED)
WELL SCREEN
WATER TABLE (APPROXIMATE)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-15
CROSS SECTION F-F'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Terrp\CAD - GIS\Alarreda\Alarreda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alarreda F_F xsec FIG 4-15_081508.dwg

FIGURE 7

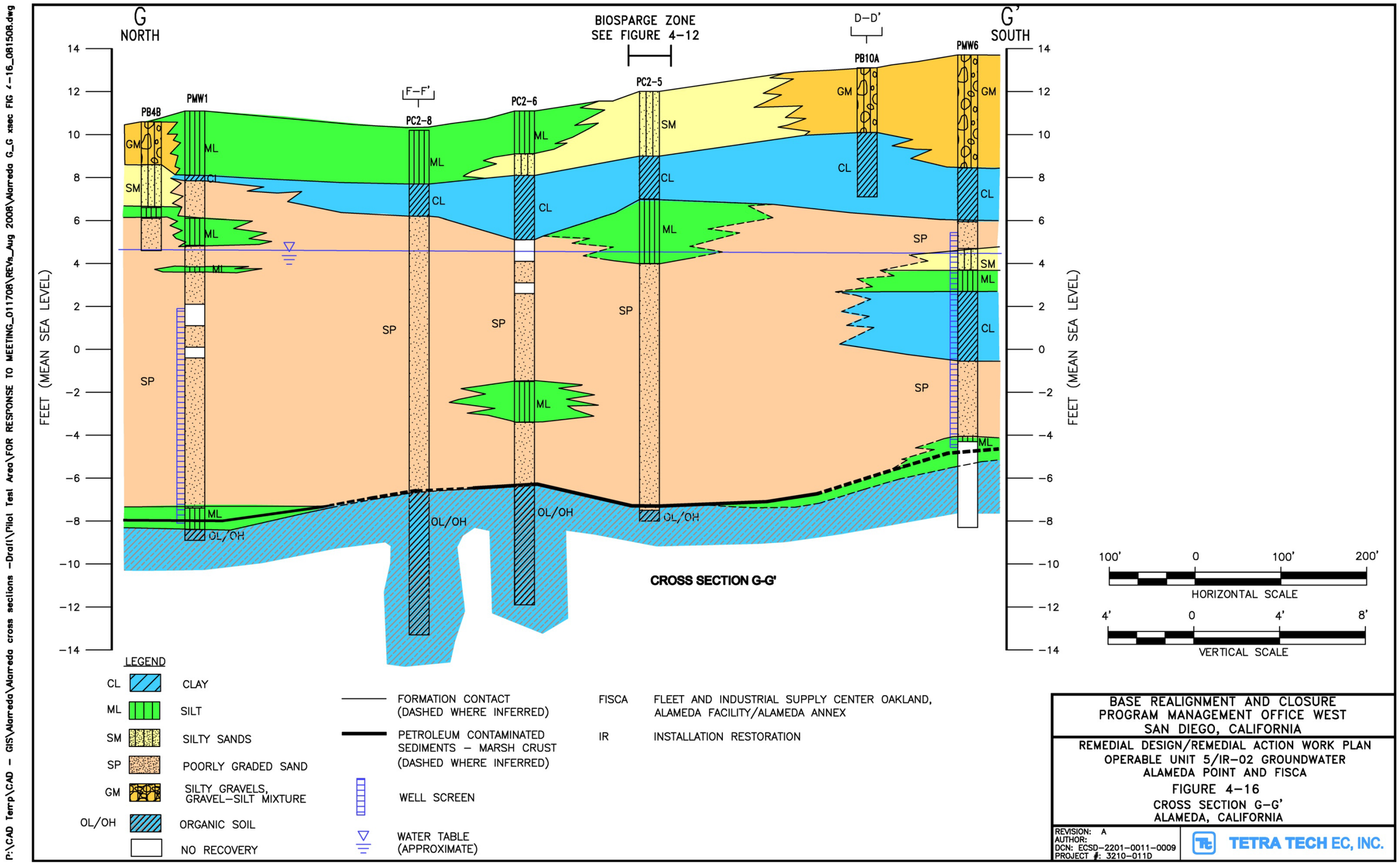

G
NORTH
G'
SOUTH
BIOSPARGE ZONE
SEE FIGURE 4-12
D-D'
F-F'
PB4B
PMW1
PC2-8
PC2-6
PC2-5
PB10A
PMW6
FEET (MEAN SEA LEVEL)
14
12
10
8
6
4
2
0
-2
-4
-6
-8
-10
-12
-14
GM
SM
ML
CL
SP
OL/OH
CROSS SECTION G-G'
100' 0 100' 200'
HORIZONTAL SCALE
4' 0 4' 8'
VERTICAL SCALE
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
SP POORLY GRADED SAND
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
OL/OH ORGANIC SOIL
NO RECOVERY
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST (DASHED WHERE INFERRED)
WELL SCREEN
WATER TABLE (APPROXIMATE)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-16
CROSS SECTION G-G'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Terrp\CAD - GIS\Alarreda\Alarreda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alarreda G_G xsec FIG 4-16_081508.dwg

FIGURE 8

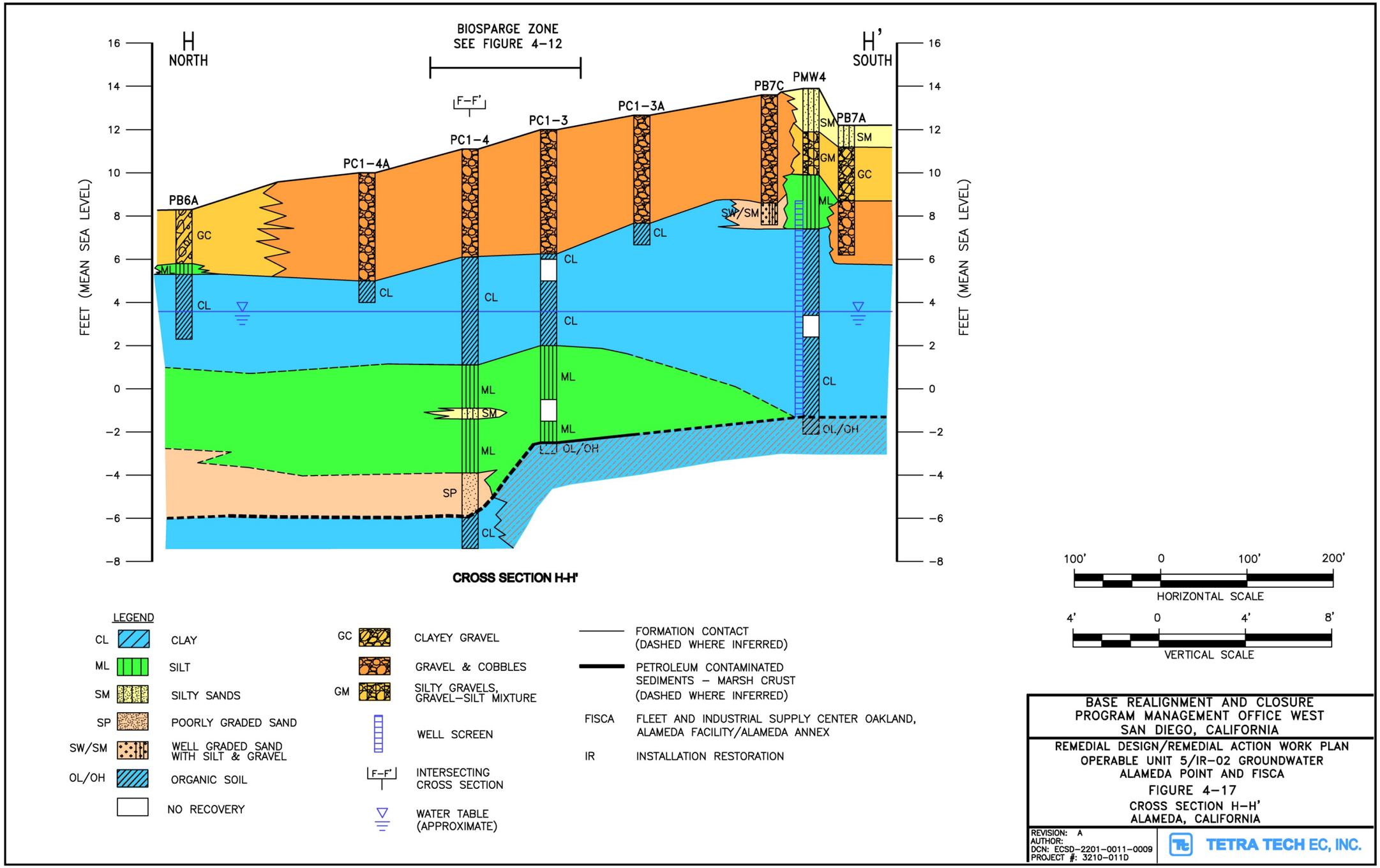

H
NORTH
H'
SOUTH
BIOSPARGE ZONE
SEE FIGURE 4-12
F-F'
PB6A
PC1-4A
PC1-4
PC1-3
PC1-3A
PB7C
PMW4
PB7A
GC
ML
CL
SM
SP
SW/SM
GM
OL/OH
FEET (MEAN SEA LEVEL)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
CROSS SECTION H-H'
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
SP POORLY GRADED SAND
SW/SM WELL GRADED SAND WITH SILT & GRAVEL
OL/OH ORGANIC SOIL
NO RECOVERY
GC CLAYEY GRAVEL
GRAVEL & COBBLES
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
WELL SCREEN
INTERSECTING CROSS SECTION
WATER TABLE (APPROXIMATE)
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST (DASHED WHERE INFERRED)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
100' 0 100' 200'
HORIZONTAL SCALE
4' 0 4' 8'
VERTICAL SCALE
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-17
CROSS SECTION H-H'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Temp\CAD - GIS\Alameda\Alameda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alameda H_H' xsec FIG 4-17_081508.dw

FIGURE 9

17	**Bay Sediment Unit (BSU)**	Section 2.2	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 2.3, Page 6. TtEC. 2012.

for temporary storage of discarded automobiles, stockpiled scrap metal, and surplus equipment. The Shinsei Garden Housing Development, a multi-family residential project, has been constructed on the western portion of IR-02.

- IR-03 is located in the west central portion of FISCA. It formerly consisted of an automotive drive-up maintenance rack over an asphalt-paved area. The area remains undeveloped.

IR-25, excluding the USCG housing office, and IR-30 are currently Navy property. The USCG housing office and IR-31 are USCG property. FISCA is City of Alameda property.

2.3 Geology

Surface and near-surface soil at the site consists of artificial fill placed during the historical filling of the tidal marshlands, which occurred from approximately 1900 to 1930. The artificial fill materials are believed to be dredging spoils from the surrounding San Francisco Bay and the Oakland Inner Harbor. The average fill thickness at OU-5/FISCA IR-02 is approximately 17 feet based on continuous soil cores collected during the RD/RAWP (TtEC 2010).

The following sedimentary units were identified throughout the site from the ground surface to approximately 20 feet below ground surface (bgs):

- Sand, silty sand (or gravel and cobbles in the west)
- Clay (with the clay layer being thicker to the south and west)
- Fine sand (FWBZ) (sand diminishes to the west and southwest)
- Marsh Crust (a thin layer of highly contaminated sediments)
- Top of the Bay Sediment Unit (BSU)

These sedimentary units were previously characterized by constructing a number of near-surface geological cross sections. These cross sections, labeled as AA′ through HH′, are reproduced as Figures 2 through 9. These figures are Figures 4-3, 4-4, 4-5, 4-13, 4-14, 4-15, 4-16, and 4-17 of the RD/RAWP, respectively. Figures 10 and 11 (Figures 4-2 and 4-12 of the RD/RAWP) show the locations of these cross sections.

The BSU underlying the artificial fill material ranges in thickness from 25 to 100 feet (PRC and Versar 1996), and consists of recent sediment deposited in an estuarine environment. The BSU generally consists of gray to black, high plasticity clay with occasional abundant organic material. Post-ROD drilling and coring activities were terminated once the top of the BSU was encountered.

2.4 Hydrogeology

The uppermost permeable unit at Alameda Point is referred to as the FWBZ. The FWBZ beneath OU-5 occurs in the artificial fill. The saturated thickness of the FWBZ is approximately 8 feet in

for temporary storage of discarded automobiles, stockpiled scrap metal, and surplus equipment. The Shinsei Garden Housing Development, a multi-family residential project, has been constructed on the western portion of IR-02.

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2.3 Geology

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2.4 Hydrogeology

The uppermost permeable unit at Alameda Point is referred to as the FWBZ. The FWBZ beneath OU-5 occurs in the artificial fill. The saturated thickness of the FWBZ is approximately 8 feet in

the eastern portion of OU-5 and 2 feet in the western portion of OU-5. FWBZ groundwater depth ranges from 5 to 9 feet bgs (TtEC 2010). The groundwater has a lateral flow direction that is variable, but is generally north to northwest toward Oakland's Inner Harbor as shown on Figure 12 (Figure 3-1 of the RD/RAWP). Groundwater contour maps generated during basewide sampling events indicate a high level of local variability. This local variation likely results primarily from the permeability variability of the shallow aquifer fill material (ERRG 2004).

The BSU forms an aquitard between the FWBZ and second water-bearing zone (SWBZ), the deeper, confined aquifer beneath the site (PRC and Versar 1996). BSU thicknesses of 25 to 100 feet were reported beneath the site (PRC and Versar 1996).

2.5 Existing Groundwater Classification

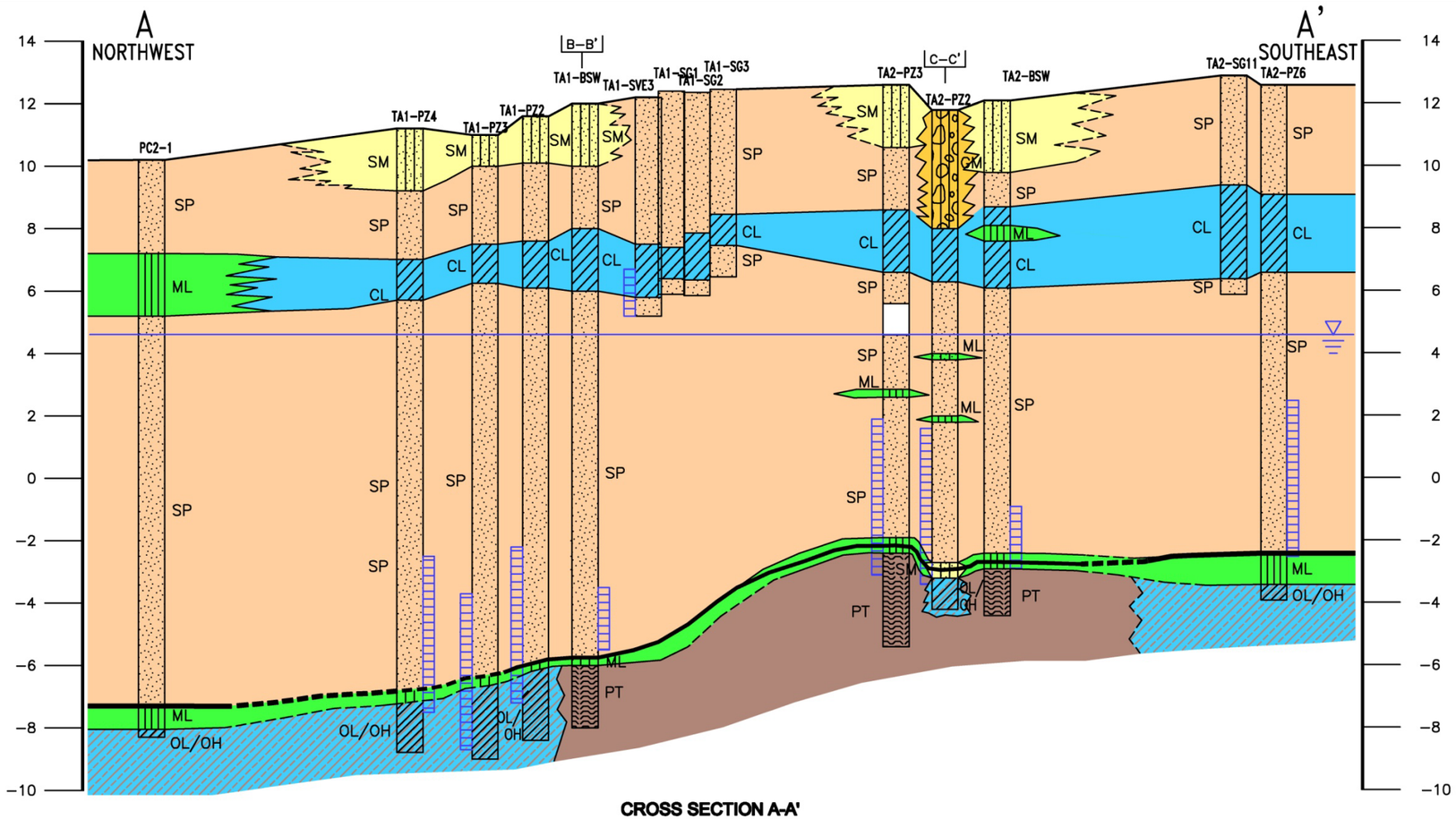
The 2000 beneficial use evaluation report stated that the FWBZ in the central region of Alameda Point beneath OU-5 is considered a Class II aquifer based on federal total dissolved solids (TDS) and aquifer yield criteria, and the SWBZ in this area is considered a Class III aquifer because TDS concentrations in this unit exceeded 10,000 milligrams per liter (mg/L) (TtEMI 2000). The beneficial use evaluation report also stated that the Class II groundwater in the central region (i.e., the area including OU-5 and FISCA) should not be considered a potential drinking water source for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) cleanup decisions because:

- The safe yield and maximum pumping rate for the FWBZ are inadequate to support the possible common uses of water or multiple domestic users.
- Saltwater intrusion is occurring at the base of the FWBZ and would be accelerated by groundwater extraction.
- No supply wells currently exist within or downgradient of contaminated groundwater.
- There is an inability to meet state and county requirements for well construction because of a thin, shallow aquifer.

The 2000 beneficial use evaluation report identified other potential beneficial uses (including those represented in Table 1) for the groundwater beneath the central region of Alameda Point that includes OU-5.

In consideration of mitigating factors and property reuse, the Base Realignment and Closure Cleanup Team (BCT) concluded that groundwater beneath OU-5 is unlikely to be used as a drinking water source (TtEMI 2000). However, contaminant mass reduction was believed to be required to facilitate long-term contaminant attenuation and allow for other beneficial uses of groundwater (TtEMI 2000). Furthermore, the BCT concurred with setting cleanup levels at concentrations higher than drinking water standards for the central region on the condition that any contaminated groundwater beneath OU-5 would be remediated to levels such that the potential threats posed by inhalation (e.g., groundwater vapors migrating into buildings), dermal

P:\CAD Terp\CAD - GIS\Alarreda\Alarreda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alarreda A_A xsec FIG 4-3_081508.dwg,



CROSS SECTION A-A'

LEGEND

CL	CLAY
ML	SILT
SM	SILTY SANDS
GM	SILTY GRAVELS, GRAVEL–SILT MIXTURE
SP	POORLY GRADED SAND
OL/OH	ORGANIC SOIL
PT	PEAT
	NO RECOVERY

FORMATION CONTACT (DASHED WHERE INFERRED)

PETROLEUM CONTAMINATED SEDIMENTS – MARSH CRUST (DASHED WHERE INFERRED)

WELL SCREEN

C–C' INTERSECTING CROSS SECTION

WATER TABLE (APPROXIMATE)

FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX

IR INSTALLATION RESTORATION

50' 0 50' 100'
HORIZONTAL SCALE

4' 0 4' 8'
VERTICAL SCALE

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

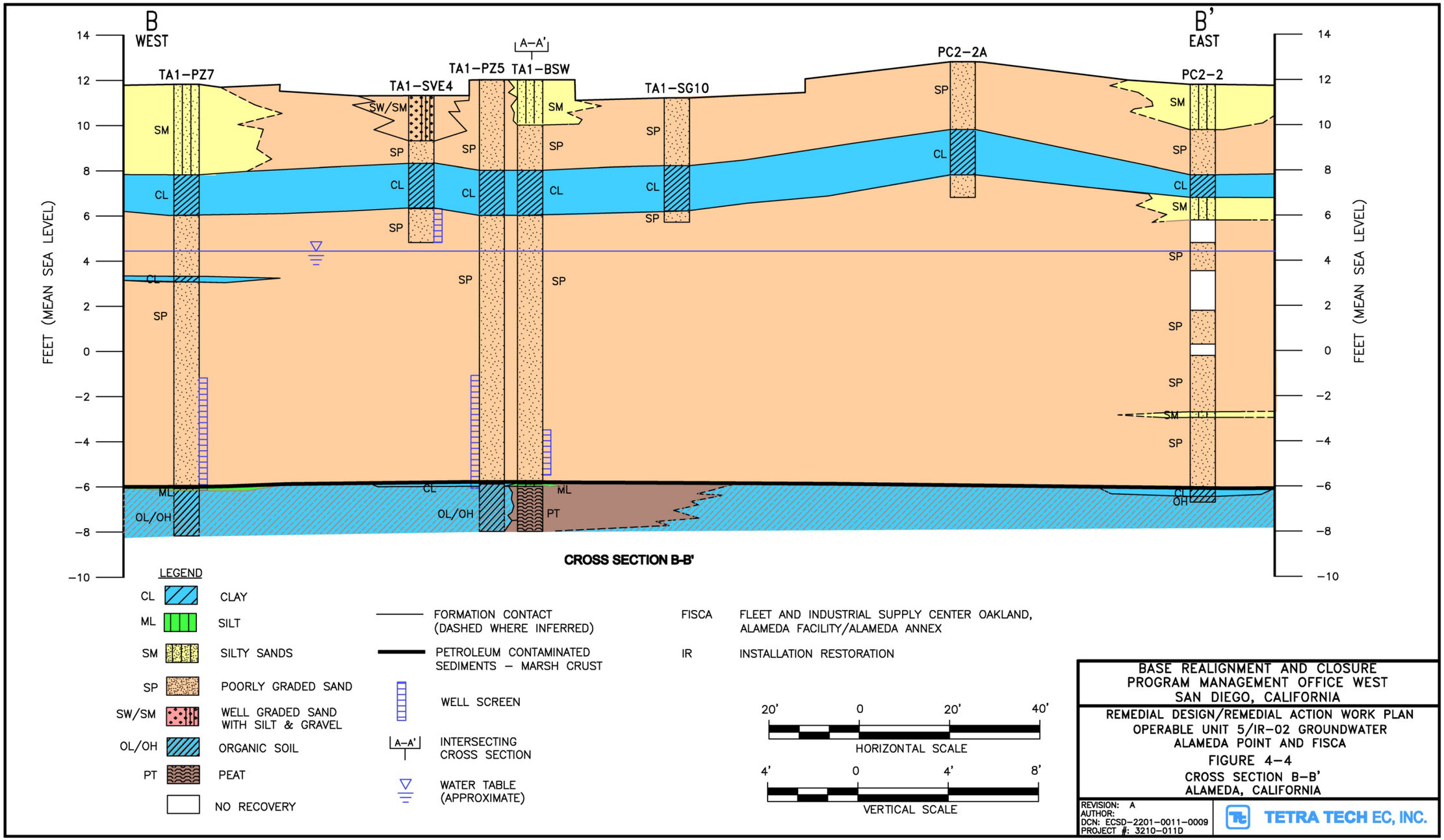
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA

FIGURE 4-3
CROSS SECTION A-A'
ALAMEDA, CALIFORNIA

REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D

TETRA TECH EC, INC.

FIGURE 2



P:\CAD Temp\CAD – GIS\Alameda\Alameda cross sections –Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alameda B_B' xsec FIG 4-4_08

FIGURE 3

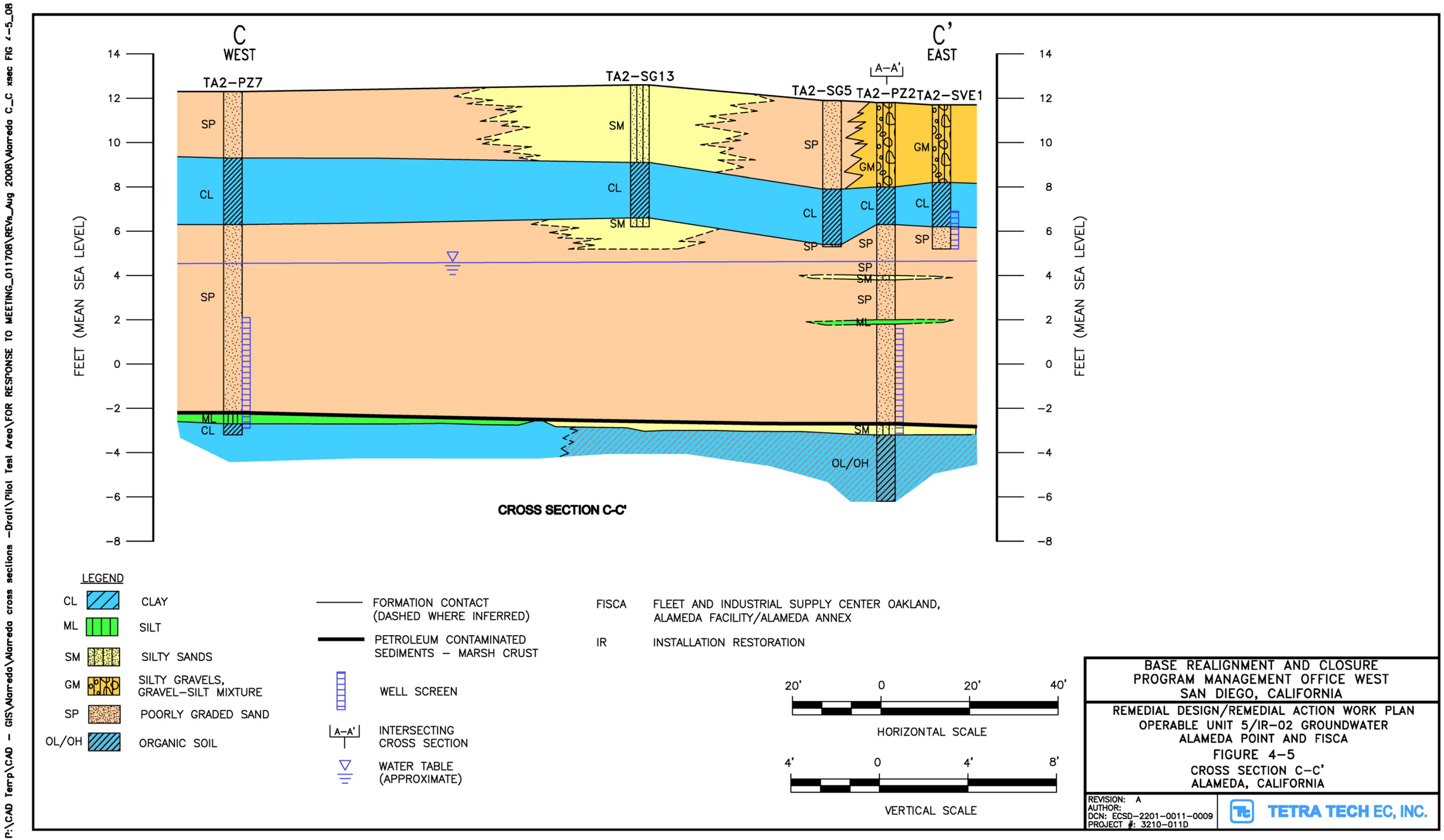

C
WEST
C'
EAST
TA2-PZ7
TA2-SG13
TA2-SG5
A-A'
TA2-PZ2
TA2-SVE1
SP
SM
CL
GM
ML
OL/OH
FEET (MEAN SEA LEVEL)
14
12
10
8
6
4
2
0
-2
-4
-6
-8
CROSS SECTION C-C'
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
SP POORLY GRADED SAND
OL/OH ORGANIC SOIL
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST
WELL SCREEN
A-A' INTERSECTING CROSS SECTION
WATER TABLE (APPROXIMATE)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
20' 0 20' 40'
HORIZONTAL SCALE
4' 0 4' 8'
VERTICAL SCALE
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-5
CROSS SECTION C-C'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Temp\CAD - GIS\Alameda\Alameda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alameda C_C xsec FIG 4-5_08

FIGURE 4

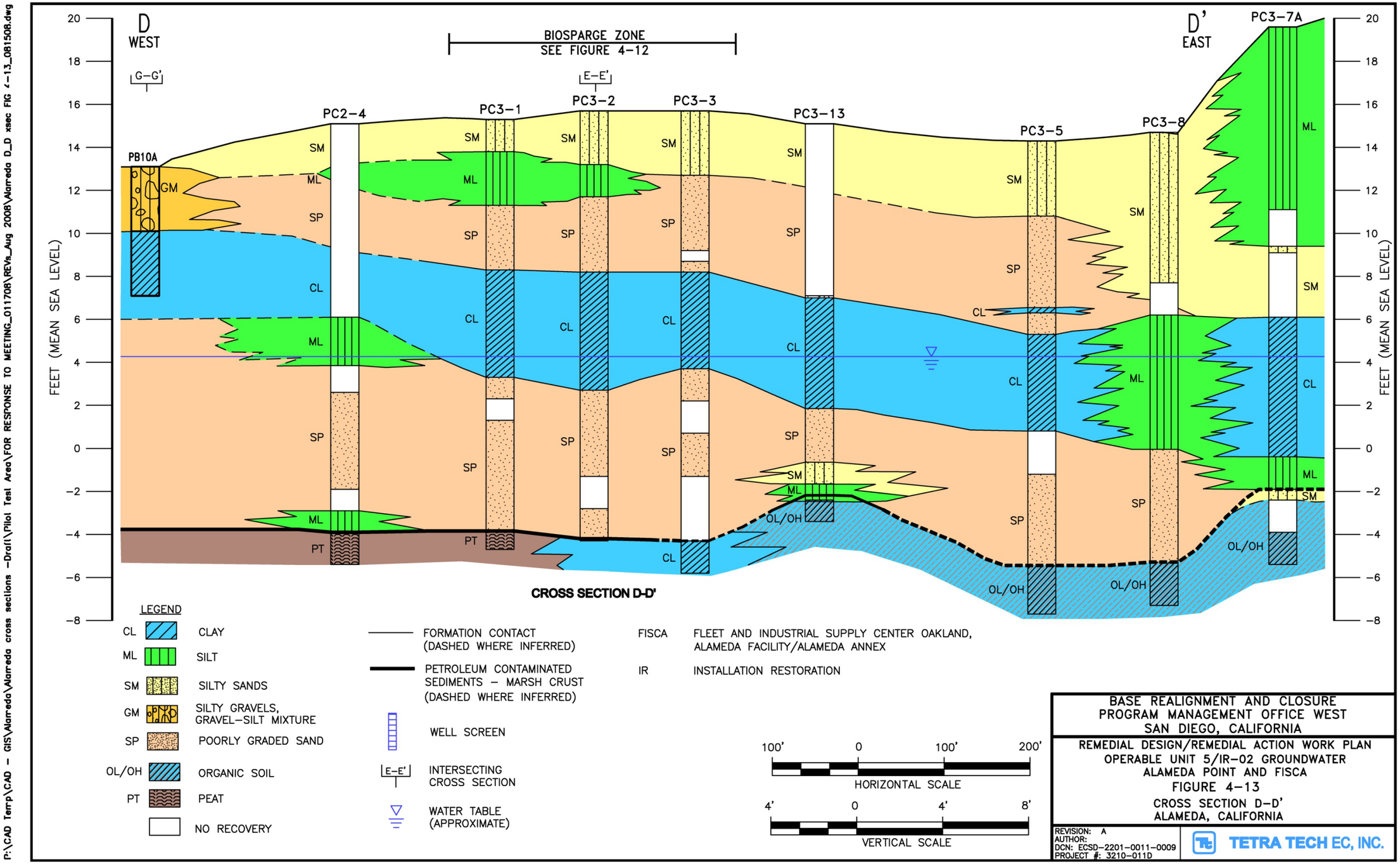

D
WEST
D'
EAST
BIOSPARGE ZONE
SEE FIGURE 4-12
G-G'
E-E'
PB10A
PC2-4
PC3-1
PC3-2
PC3-3
PC3-13
PC3-5
PC3-8
PC3-7A
FEET (MEAN SEA LEVEL)
20
18
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
GM
SM
ML
SP
CL
PT
OL/OH
CROSS SECTION D-D'
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
SP POORLY GRADED SAND
OL/OH ORGANIC SOIL
PT PEAT
NO RECOVERY
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST (DASHED WHERE INFERRED)
WELL SCREEN
E-E' INTERSECTING CROSS SECTION
WATER TABLE (APPROXIMATE)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
100' 0 100' 200'
HORIZONTAL SCALE
4' 0 4' 8'
VERTICAL SCALE
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-13
CROSS SECTION D-D'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Terrp\CAD - GIS\Alarreda\Alarreda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alarreda D_D xsec FIG 4-13_081508.dwg

FIGURE 5

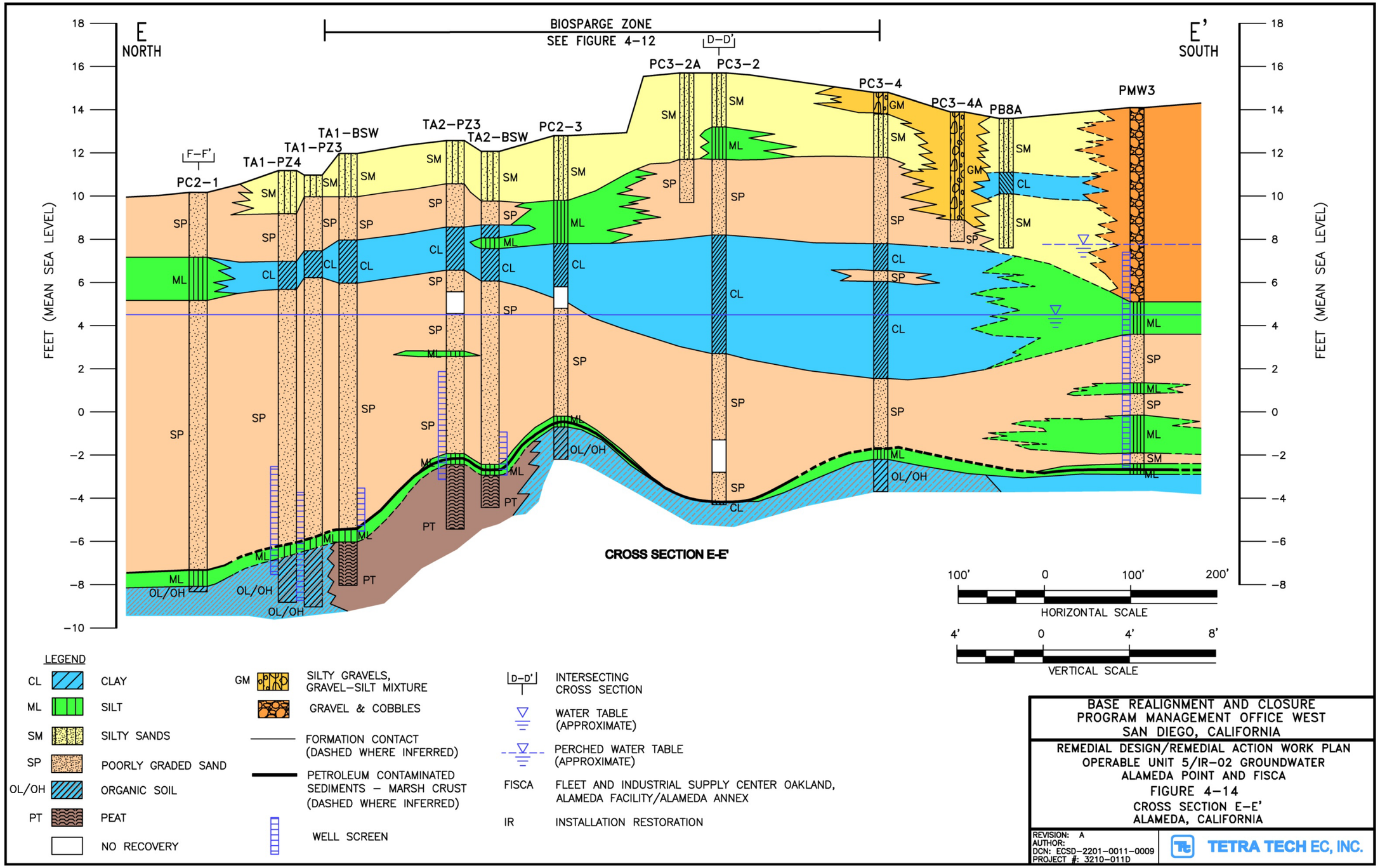

E
NORTH
E'
SOUTH
BIOSPARGE ZONE
SEE FIGURE 4-12
D-D'
F-F'
PC2-1
TA1-PZ4
TA1-PZ3
TA1-BSW
TA2-PZ3
TA2-BSW
PC2-3
PC3-2A
PC3-2
PC3-4
PC3-4A
PB8A
PMW3
FEET (MEAN SEA LEVEL)
CROSS SECTION E-E'
100' 0 100' 200'
HORIZONTAL SCALE
4' 0 4' 8'
VERTICAL SCALE
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
SP POORLY GRADED SAND
OL/OH ORGANIC SOIL
PT PEAT
NO RECOVERY
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
GRAVEL & COBBLES
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST (DASHED WHERE INFERRED)
WELL SCREEN
D-D' INTERSECTING CROSS SECTION
WATER TABLE (APPROXIMATE)
PERCHED WATER TABLE (APPROXIMATE)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-14
CROSS SECTION E-E'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Temp\CAD - GIS\Alameda\Alameda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alameda E_E xsec FIG 4-14_081508.dwg

FIGURE 6

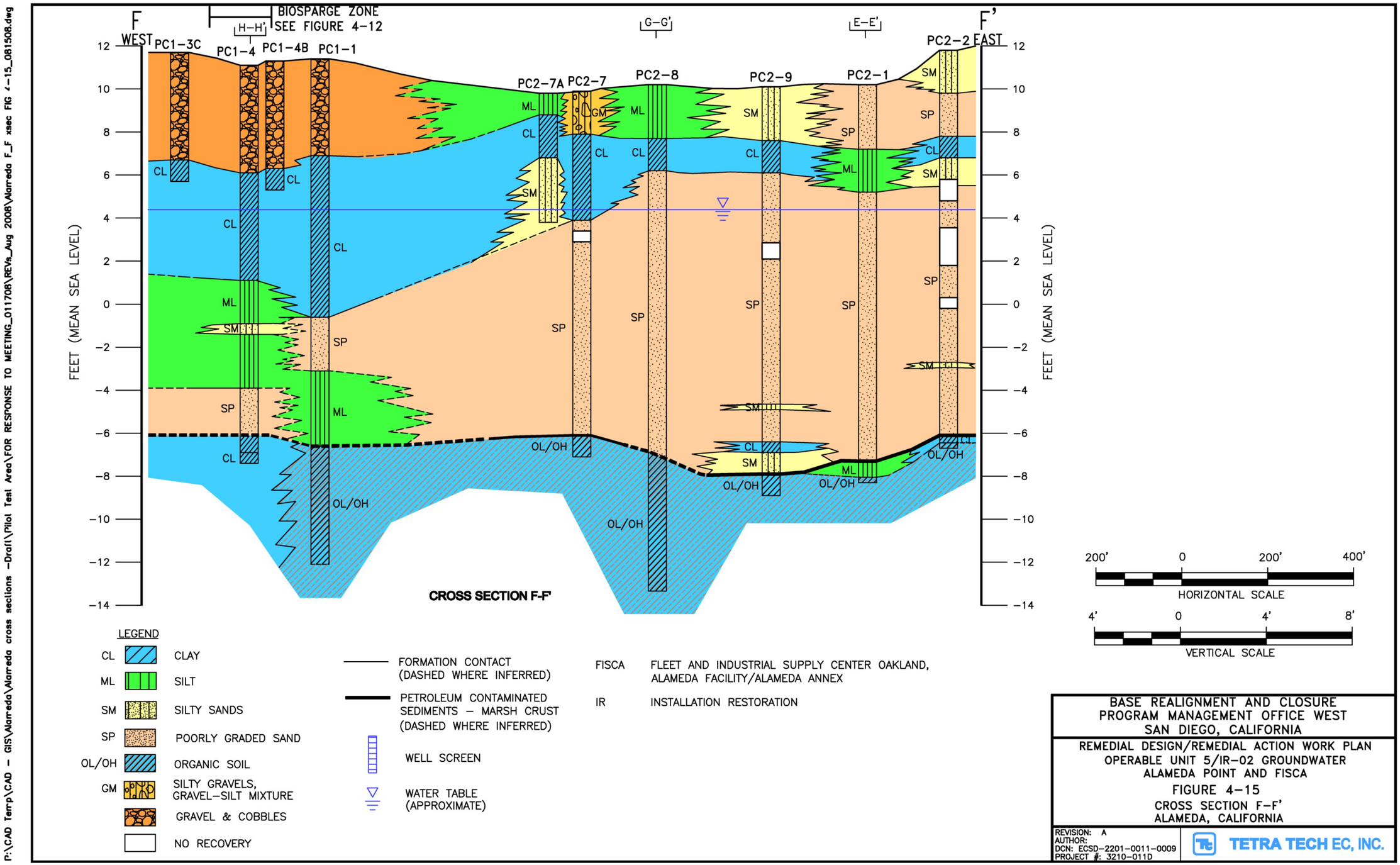

F
WEST
F'
EAST
BIOSPARGE ZONE
SEE FIGURE 4-12
H-H'
G-G'
E-E'
PC1-3C
PC1-4
PC1-4B
PC1-1
PC2-7A
PC2-7
PC2-8
PC2-9
PC2-1
PC2-2
FEET (MEAN SEA LEVEL)
12
10
8
6
4
2
0
-2
-4
-6
-8
-10
-12
-14
CL
ML
SM
SP
GM
OL/OH
CROSS SECTION F-F'
200'
0
200'
400'
HORIZONTAL SCALE
4'
0
4'
8'
VERTICAL SCALE
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
SP POORLY GRADED SAND
OL/OH ORGANIC SOIL
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
GRAVEL & COBBLES
NO RECOVERY
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST (DASHED WHERE INFERRED)
WELL SCREEN
WATER TABLE (APPROXIMATE)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-15
CROSS SECTION F-F'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Terrp\CAD - GIS\Alarreda\Alarreda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alarreda F_F xsec FIG 4-15_081508.dwg

FIGURE 7

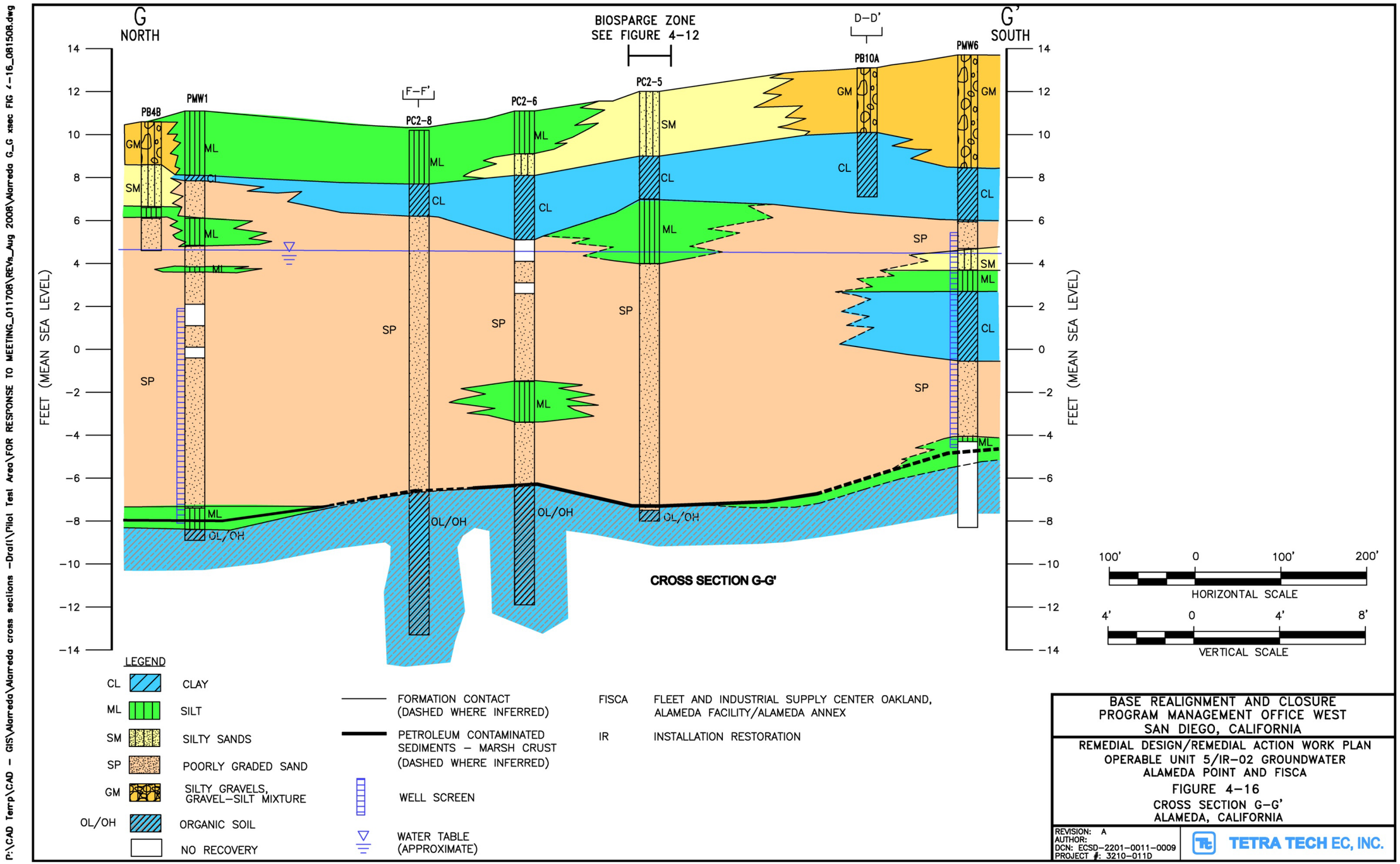

G
NORTH
G'
SOUTH
BIOSPARGE ZONE
SEE FIGURE 4-12
D-D'
F-F'
PB4B
PMW1
PC2-8
PC2-6
PC2-5
PB10A
PMW6
FEET (MEAN SEA LEVEL)
14
12
10
8
6
4
2
0
-2
-4
-6
-8
-10
-12
-14
GM
SM
ML
CL
SP
OL/OH
CROSS SECTION G-G'
100' 0 100' 200'
HORIZONTAL SCALE
4' 0 4' 8'
VERTICAL SCALE
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
SP POORLY GRADED SAND
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
OL/OH ORGANIC SOIL
NO RECOVERY
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST (DASHED WHERE INFERRED)
WELL SCREEN
WATER TABLE (APPROXIMATE)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-16
CROSS SECTION G-G'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Terrp\CAD - GIS\Alarreda\Alarreda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alarreda G_G xsec FIG 4-16_081508.dwg

FIGURE 8

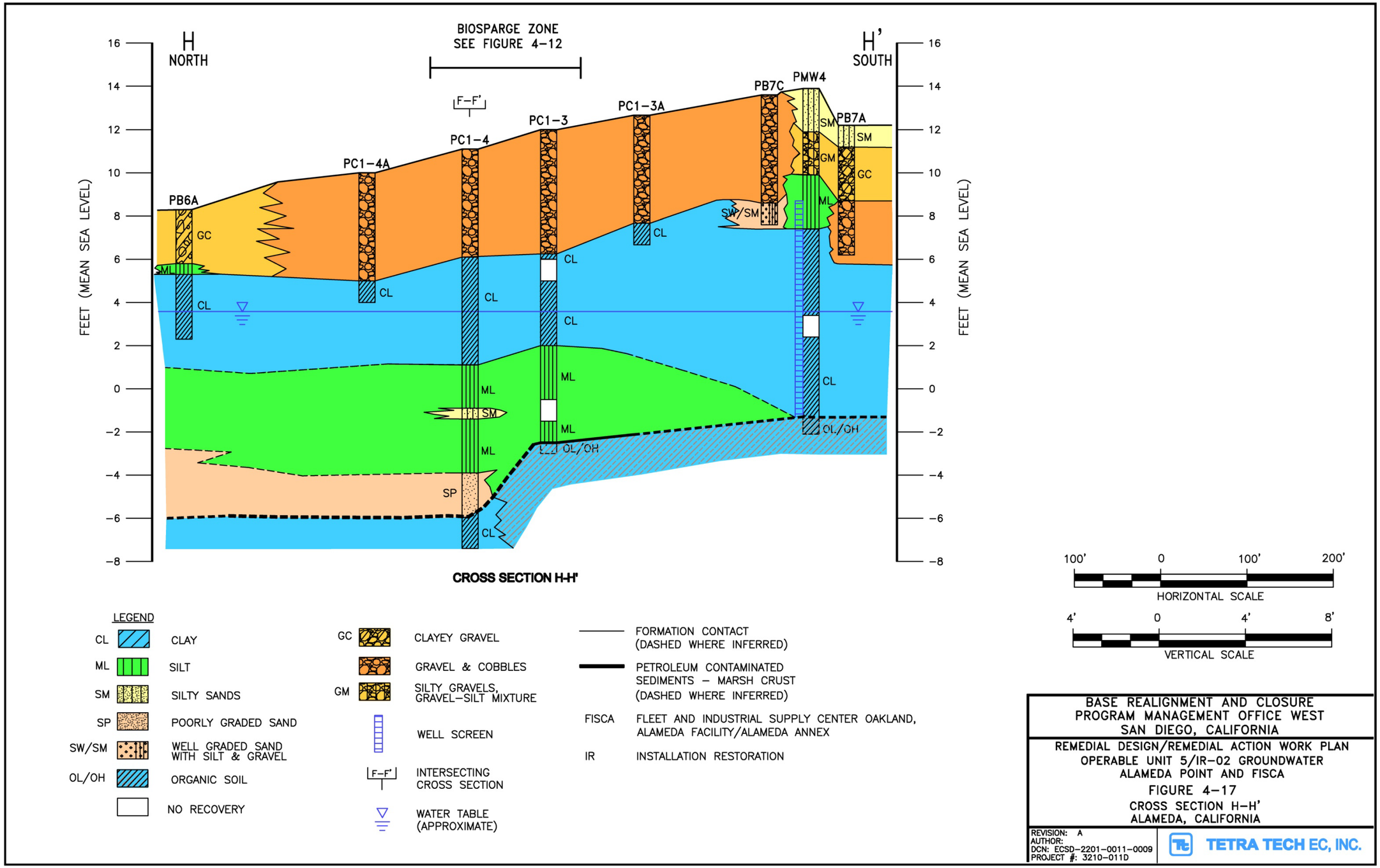

H
NORTH
H'
SOUTH
BIOSPARGE ZONE
SEE FIGURE 4-12
F-F'
PB6A
PC1-4A
PC1-4
PC1-3
PC1-3A
PB7C
PMW4
PB7A
GC
ML
CL
SM
SP
SW/SM
GM
OL/OH
FEET (MEAN SEA LEVEL)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
CROSS SECTION H-H'
LEGEND
CL CLAY
ML SILT
SM SILTY SANDS
SP POORLY GRADED SAND
SW/SM WELL GRADED SAND WITH SILT & GRAVEL
OL/OH ORGANIC SOIL
NO RECOVERY
GC CLAYEY GRAVEL
GRAVEL & COBBLES
GM SILTY GRAVELS, GRAVEL-SILT MIXTURE
WELL SCREEN
INTERSECTING CROSS SECTION
WATER TABLE (APPROXIMATE)
FORMATION CONTACT (DASHED WHERE INFERRED)
PETROLEUM CONTAMINATED SEDIMENTS - MARSH CRUST (DASHED WHERE INFERRED)
FISCA FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX
IR INSTALLATION RESTORATION
100' 0 100' 200'
HORIZONTAL SCALE
4' 0 4' 8'
VERTICAL SCALE
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA
FIGURE 4-17
CROSS SECTION H-H'
ALAMEDA, CALIFORNIA
REVISION: A
AUTHOR:
DCN: ECSD-2201-0011-0009
PROJECT #: 3210-011D
TETRA TECH EC, INC.
P:\CAD Temp\CAD - GIS\Alameda\Alameda cross sections -Draft\Pilot Test Area\FOR RESPONSE TO MEETING_011708\REVs_Aug 2008\Alameda H_H' xsec FIG 4-17_081508.dw

FIGURE 9

19	2007 ROD	Section 2.3.2	Final Record of Decision, OU-5/IR-02 Groundwater. Section Declaration, Page D-2, Section 2.2.1, Page 2-4, Section 5.3, Pages 5-4 through 5-6. TtEC. 2007.

CERCLA generally applies to inactive sites where a hazardous substance is known or suspected to have been released to the environment. RCRA generally applies to active solid and hazardous waste management facilities. RCRA may also apply to past solid waste management units (SWMUs) and/or areas of concern that are located on past hazardous waste management facilities. CERCLA and RCRA address the investigation and cleanup of contaminated property through slightly different, but functionally equivalent processes; therefore, regulatory authorities normally require the application of only one of the processes, when both CERCLA and RCRA apply to a single site. Historically a number of investigations have been conducted at both Alameda Point OU-5 and FISCA, particularly Site IR-02. 2 Key investigations are summarized in Table 2-1. Additional information on CERCLA, RCRA, and EBS investigations, and the USCG Residential Risk Evaluation follows.

2.2.1 CERCLA Investigation Activities

Final Remedial Investigation, Fleet and Industrial Supply Center Oakland, Alameda Annex (PRC and Versar, 1996): the report provided characterization information for FISCA, including details on the nature and extent of contamination, previous risk assessment results, and detailed hydrogeologic data including pumping tests.

Final Feasibility Study for Soil at SWMU 1 (TtEMI, 1999a): This report evaluated alternatives for addressing shallow soil contaminated with PCBs and cadmium at SWMU 1 (IR-02). A *Remedial Action Plan/Record of Decision for IR-02* was prepared for excavation and off-site disposal of the impacted soil.

Final OU-5 Remedial Investigation, Alameda Point (IT et al., 2002): The Final Remedial Investigation (RI) Report provided information from groundwater and soil gas sampling events conducted in 2001, which was designed to further characterize both Alameda Point Site 25 (OU-5) and FISCA IR-02. The Final RI Report also contained a human health risk assessment (HHRA) based on the results of the sampling and analysis program. The Final RI included detailed information on the nature and extent of groundwater contamination; specifically, vertical stratification of benzene contamination. As part of the RI, 42 soil gas samples were collected at 32 locations and analyzed from depths of approximately 2 feet and 5 feet bgs. Detected concentrations of benzene were low, with a maximum detection of 20 micrograms per cubic meter ($\mu g/m^3$) at 2 feet bgs and 15 $\mu g/m^3$ at 5 feet bgs. The highest naphthalene detections were 54 $\mu g/m^3$ at 2 feet bgs and 180 $\mu g/m^3$ at 5 feet bgs. Methyl tertiary-butyl ether (MTBE) was detected in various soil gas samples, at concentrations ranging from 6.6 $\mu g/m^3$ (2 feet bgs) to a maximum of 170 $\mu g/m^3$ (5 feet bgs). MTBE was detected in approximately 65 percent of soil gas samples and appeared to be widespread in soil gas. The maximum concentration was located in the scrap yard area of IR-02. Soil gas samples collected during the RI were co-located with

groundwater samples to provide an indication of whether VOCs in groundwater were volatilizing into soil gas. In general, there appeared to be little correlation between benzene groundwater contamination and benzene soil gas detections (as was seen in previous soil gas investigations), indicating that volatilization of dissolved-phase benzene was not occurring. There also appeared to be more detections of MTBE in soil gas than in groundwater, indicating that MTBE contamination at the site may be due more substantially to surface discharges than groundwater volatilization.

Final Groundwater Remedial Investigation/ Feasibility Study, Alameda Point Site 25/Alameda Annex IR-02 (ERRG, 2004): the document summarizes the activities conducted at the site, now referred to as OU-5/IR-02. An HHRA was conducted and documented to determine pathways of contamination exposure and receptors at risk. Risks were quantified and used to determine that a response action for groundwater was required. Six alternatives were introduced and evaluated. The *Proposed Plan for Operable Unit 5/IR-02 Groundwater, Former NAS Alameda and Alameda Annex* (DON, 2006) documented the DON's preferred alternative.

2.2.2 RCRA Investigation Activities

On July 24, 1993, DTSC issued to DON for Alameda Point a Hazardous Waste Facility Permit, Number CA 2170 023 236, ("Alameda RCRA Permit") which expired on July 24, 2003. Alameda Point includes OU-5. There were no Solid Waste Management Units (SWMUs) or Areas of Concern (AOCs) identified within the area of OU-5 in the Alameda RCRA Permit or any subsequent corrective action requirements stemming from the Alameda RCRA Permit.

On July 31, 1993, DTSC issued to DON a Hazardous Waste Facility Permit for FISCA ("FISCA RCRA Permit"), Number CA 1170090012, which expired on July 31, 2003. The FISCA RCRA Permit identified one Hazardous Waste Storage Facility (Building 5), four Solid Waste Management Units (SWMUs) and eight Areas of Concern (AOCs). The area known as the Scrap Yard and Screening Lot was located within the current IR-02 site and was listed as SWMU No. 1. The DON obtained clean closure determination for Building 5 from DTSC in 1999 leaving only the resolution of any corrective actions stemming from the FISCA RCRA Permit. The new FFSRA signed in 2000 addressed corrective actions and a series of three letters from 2002 to 2004 further clarified the process for final resolution of RCRA corrective action issues (DON, 2002a; DTSC, 2003; DTSC, 2004). The selected remedy in this ROD will obviate the need for and satisfy the corrective action requirements of RCRA or otherwise applicable State hazardous waste or water quality protection laws.

There are no drinking water wells installed within the OU-5/IR-2 plume area. Water service is provided by the East Bay Municipal Utility District (EBMUD) from a separate source outside of the area. Portions of the groundwater within the plume underlying these sites are designated a potential drinking water source in the San Francisco Bay Basin Water Quality Control Plan (Basin Plan). Because of saltwater intrusion and naturally high total dissolved solids, it is unlikely that the shallow groundwater beneath the OU-5/IR-02 area would be used as a potential source of drinking water. In June 1999, the Water Board issued a letter that stated that the groundwater at FISCA meets the exemption criteria in the State Water Resources Control Board (SWRCB) Resolution No. 88-63 and Water Board Resolution No. 89-39 and it is unlikely that the shallow groundwater would be used as a potential source of drinking water.

5.3 NATURE AND EXTENT OF CONTAMINATION IN GROUNDWATER

The OU-5 RI reported the following analytes had been previously detected in groundwater at OU-5 (IT et al., 2002):

- Sixteen PAHs
- Forty-eight semi-volatile organic compounds (SVOCs), not including PAHs
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX)
- MTBE
- Twenty-nine volatile organic compounds (VOCs), not including BTEX and MTBE
- Three categories of total petroleum hydrocarbons (TPH)

The Base-wide Groundwater Monitoring Program (Shaw, 2004a) includes the following analytes for OU-5/IR-02:

- VOCs including oxygenated additives and naphthalene
- PAHs
- Dissolved metals
- Anions
- Sulfide
- Alkalinity
- Dissolved gases
- Ferrous iron

Benzene and naphthalene have been consistently detected above drinking water action levels (Maximum Containment Levels [MCLs] or Preliminary Remediation Goals [PRGs]). These two contaminants represent approximately 90 percent of the calculated human health risks associated with the site, primarily from the groundwater ingestion pathway. Therefore, these substances have been retained as the primary risk drivers for the site. Additional details on chemicals of potential concern (COPC) selection are presented in Section 7.0. As discussed in the RI/FS (ERRG, 2004), all analytes with a frequency of detection above 5 percent were retained as COPCs for the HHRA.

There have been isolated detections of both MTBE and 1,2-DCA above drinking water action levels; however, the available data indicate that the concentrations of MTBE and 1,2-dichloroethane (1,2-DCA) previously detected were localized and anomalous and have not been replicated during numerous subsequent sampling events. Therefore, MTBE and 1,2-DCA are not considered COPCs.

Numerous HydroPunch® groundwater samples were collected throughout the site to characterize the benzene and naphthalene plumes. The HydroPunch® groundwater samples were typically collected through a 4-foot screen interval. The screen intervals were typically installed in the upper portion of the FWBZ (less than 16 feet bgs) or the lower portion of the FWBZ (16 to 20 feet bgs). Groundwater monitoring well data from the Spring 2006 Alameda Basewide Annual Groundwater Monitoring Report (Innovative Technical Solutions, Inc. [ITSI], 2006) are also presented on the figures. The monitoring wells were typically screened from 10 to 20 feet bgs, across the upper and lower portions of the FWBZ

5.3.1 Benzene Concentration

Benzene isoconcentration contours in the upper and lower FWBZ based on previous sampling data are shown on Figures 5-1 and 5-2. Benzene contamination at the site is stratified, or vertically distributed, as well as laterally distributed. Generally, benzene concentrations have been found to increase with depth to the top of the Marsh Crust, with the highest concentrations detected in HydroPunch® samples collected from approximately 16 to 20 feet bgs. Soils below approximately 20 feet bgs are predominantly Bay Mud, which is present across the site at a thickness ranging from 25 to 100 feet (as discussed in Section 5.1) and serves as an effective aquitard to limit downward migration of contaminants. Because the plume boundary is not well-defined laterally in certain locations, additional data will be collected during the pre-design. Additional pre-design sampling is described in Section 5.3.3.

5.3.2 Naphthalene Concentrations

Naphthalene isoconcentration contours in the upper and lower FWBZ are shown on Figures 5-3 and 5-4, respectively. The naphthalene plume is generally co-located with the benzene plume. The extent of the naphthalene plume greater than 100 µg/L generally lies within the extent of the 1 µg/L benzene plume. Because the plume boundary is not well-defined in certain locations, additional data will be collected during the pre-design. Additional pre-design sampling is described in Section 5.3.3.

5.3.3 Pre-Design Sampling

Data related to the extent of the benzene and naphthalene plumes will be collected as part of the pre-design field work. The pre-design work plan includes the following activities:

- Passive soil gas survey, including in the College of Alameda area to help locate additional direct push HydroPunch® groundwater sample points;
- HydroPunch® groundwater sampling in the College of Alameda area to further evaluate the extent of the benzene and naphthalene plumes; and
- Additional HydroPunch® groundwater sampling and groundwater monitoring well installation to refine the remainder of the plume boundary.

5.4 POTENTIAL CONTAMINANT SOURCES

While several previous characterization efforts have been conducted, none have conclusively determined the source(s) of groundwater contamination in the FWBZ. There are four possible sources of shallow groundwater contamination at the site:

- Contaminated fill material, which was used to fill in marshland and create the site;
- Buried inclusions of high-concentration material trapped near the Marsh Crust surface during creation of the site;
- Layers of petroleum-related contamination on the historic shoreline, marshland, and tidal channels underlying the site, referred to as the Marsh Crust; and/or
- Point-source releases such as fuel spills.

The most likely sources of groundwater contamination at the site are localized in nature. Historical DON activities may have contributed to these potential sources described above.

The term “source material” refers to contamination that would continue to leach contaminants to groundwater, potentially causing plumes to enlarge and concentrations in groundwater to increase. Contaminant migration from sources is often accelerated by the presence of subsurface

20	**passive soil gas survey**	Section 2.3.2	Final Remedial Design/Remedial Action Work Plan, OU-5/IR-02 Groundwater. Section 3.2, Page 3-2, Figure 3-2, Figure 3-3, Appendix A, and Appendix B. TtEC. 2010

Results for well M25-06 were inconclusive and were rejected. Site utility corridors do not appear to have an effect on groundwater flow. Site groundwater flow is generally:

- Flat in the Island High School/Kollman Circle area (the northern half of the area proposed for active remediation)
- To the north in the southern third of the site
- To the northwest in the western portion of the site
- To the west along the eastern portion of the site

Groundwater gradients ranged from 0.0002 to 0.004 foot per foot. Tidal study data are included in Appendix A.

3.2 PASSIVE SOIL GAS SURVEY

A passive soil gas survey was conducted throughout the estimated plume centers identified in the RI/FS (ERRG, 2004) in accordance with Pre-Design Work Plan (TtEC, 2007). The purpose of the passive soil gas survey was to refine plume center HydroPunch® and soil boring locations. Eighty-nine Gore-Sorber Modules were installed between May 23 and 29, 2007. Eighty-seven modules were removed on June 16, 2007. Module G1-1 was apparently removed by vandals, and Module G3-27 could not be removed and was left in place. Gore-Sorber Module locations and the benzene and naphthalene results are shown on Figures 3-2 and 3-3, respectively. A report prepared by Gore and Associates is included as Appendix B. Gore-Sorber Module location survey reports are provided in Appendix A.

Gore-Sorber Modules were installed between 2.5 and 3 ft bgs, just above or within the clay layer that was encountered at most locations during subsequent soil sampling activities. Conclusions based on the passive soil gas survey are as follows:

- Low to not-detected results were observed throughout the survey area. These results did not correlate well with the previous groundwater or soil gas results. Therefore, these Gore-Sorber results were not used to refine HydroPunch locations.
- Benzene and naphthalene concentrations were not detected in Gore-Sorber Modules at areas such as Kollman Circle where high benzene and naphthalene concentrations were reported in groundwater, indicating limited vertical migration of soil vapor. The continuous clay layer observed between approximately 3 and 8 ft bgs throughout the area may be an effective barrier to vapor migration.
- Several proposed HydroPunch locations were moved to investigate elevated Gore-Sorber Module benzene or naphthalene concentrations: HydroPunch PC1-1 was moved near G1-2; PC2-2-1 was moved near G2-10; PC2-8 was moved near G2-13; PC3-6 was moved near G3-8; and PC3-14 was moved near G3-25. Groundwater sample results from these moved HydroPunch locations were no higher than sample results from other nearby HydroPunch locations. The only evidence of soil or groundwater contamination was from samples collected at or near the Marsh Crust.

LEGEND

ROAD

BUILDING

FORMER BUILDING

0.151
0.132
0.116
0.102
0.089
0.078
0.069
0.060
0.053
0.046
0.041
0.036
0.031
0.027
0.024
0.021
0.019
0.016
0.014
0.013
0.011

Benzene
[µg]

NOTES:

µg - MICROGRAMS

FISCA - FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX

IR - INSTALLATION RESTORATION (PROGRAM)

SOURCE: W.L. GORE & ASSOCIATES, 2007

150 0 150 300 Feet

Scale: 1" = 300'

N

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

REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA

FIGURE 3-2

PASSIVE SOIL GAS SURVEY BENZENE RESULTS

ALAMEDA, CALIFORNIA

REVISION: 0
AUTHOR: RKH
DCN: ECSD-2201-0011-0009
FILE NUMBER: 080794L3094.mxd

TETRA TECH EC, INC.

LEGEND

ROAD

BUILDING

FORMER BUILDING

22.233
15.657
11.026
7.764
5.468
3.850
2.711
1.909
1.345
0.947
0.667
0.470
0.331
0.233
0.164
0.115
0.081
0.057
0.040
0.028
0.020

Naphthalene
[µg]

NOTES:

µg - MICROGRAMS

FISCA - FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX

IR - INSTALLATION RESTORATION (PROGRAM)

SOURCE: W.L. GORE & ASSOCIATES, 2007

150 0 150 300 Feet

Scale: 1" = 300'

N

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

REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA

FIGURE 3-3

PASSIVE SOIL GAS SURVEY NAPHTHALENE RESULTS

ALAMEDA, CALIFORNIA

REVISION: 0
AUTHOR: RKH
DCN: ECSD-2201-0011-0009
FILE NUMBER: 080794L3095.mxd

TETRA TECH EC, INC.

APPENDIX A

LAND SURVEY REPORTS
(CD ONLY)

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HUNTER SURVEYING, INC.

6216 Main Avenue, Suite A
Orangevale, CA 95662
Phone: (916) 988-5600
Fax: (916) 988-5688

LETTER OF TRANSMITTAL

Project: **Alameda Point**
Job No: 2006-137 A

Date: Tuesday, May 08, 2007
Ship Via: ☒ US Mail ☐ UPS ☐ FedEx ☐ Pick Up ☐ HSI delivery

To: Larry Dudus
Company: **Tetra Tech EC, Inc.**
1230 Columbia Street, Suite 750
San Diego, CA 92101

Subject: **Survey Data - Alameda Point**

Enclosed Please Find:

Quantity	Description
1	Signed/Stamped Report
1	EXCEL Spreadsheet
1	Disk: ALA137A.doc / xls

The Enclosed Material is:

☒ For your use
☐ For your review
☐ For your approval
☐ As you requested
☐ Return with comments
☐ Being returned to you

Remarks:

Larry, Please find enclosed the above listed items for the survey work we performed at Alameda Point on April 23-25, 2007. This information was also e-mailed to your attention. Please give us a call if you have any questions. Thank You, Arlene Waldsmith

Signed: Arlene Waldsmith

cc:

If the enclosures are not as listed above, please notify us at once.

PT ID	NAD83 Zn3 Coordinates NORTH	NAD83 Zn3 Coordinates EAST	NAD27 Zn3 Coordinates NORTH	NAD27 Zn3 Coordinates EAST	NAVD88 Elevations PVC	NAVD88 Elevations RIM	NAVD88 Elevations GRND	NGVD29 Elevations PVC	NGVD29 Elevations RIM	NGVD29 Elevations GRND
28SW01	2115174.4	6042357.0	474766.6	1480990.7	9.11	9.66	9.4	6.41	6.96	6.7
28SW02	2115235.8	6042716.9	474828.1	1481350.6	10.83	11.40	11.1	8.13	8.70	8.4
28SW03	2115334.2	6043088.3	474926.5	1481721.9	10.71	11.24	10.8	8.01	8.54	8.1
28SW04	2115128.2	6043043.8	474720.5	1481677.5	10.56	10.92	10.9	7.86	8.22	8.2
M07A-07	2112734.4	6043766.6	472326.7	1482400.3	9.69	9.94	9.9	6.99	7.24	7.2
M07A-08	2112633.4	6044040.6	472225.7	1482674.3	7.52	7.79	7.7	4.82	5.09	5.0
M07A-10	2112790.1	6043924.6	472382.4	1482558.3	8.08	8.40	8.4	5.38	5.70	5.7
M07A-11	2112798.2	6044041.9	472390.5	1482675.6	7.31	7.90	7.9	4.61	5.20	5.2
M25-01	2113658.6	6044831.0	473250.9	1483464.7	11.70	11.91	11.8	9.00	9.21	9.1
M25-02	2114294.8	6045466.6	473887.0	1484100.3	10.78	11.07	11.1	8.08	8.37	8.4
M25-04	2114507.7	6046209.3	474099.9	1484842.9	9.73	10.32	10.2	7.03	7.62	7.5
M25-05	2113273.6	6046987.2	472865.9	1485620.9	15.06	15.41	15.3	12.36	12.71	12.6
M25-06	2113345.9	6044191.2	472938.2	1482824.9	10.14	10.49	10.5	7.44	7.79	7.8
M25-07	2113932.5	6044360.3	473524.8	1482993.9	9.63	10.01	10.0	6.93	7.31	7.3
M25-08	2114209.7	6044662.3	473801.9	1483296.0	8.10	8.54	8.5	5.40	5.84	5.8
M25-09	2113250.3	6045202.4	472842.6	1483836.1	13.11	13.46	13.4	10.41	10.76	10.7
MBG-1	2114797.9	6042379.6	474390.2	1481013.3	7.27	7.88	7.8	4.57	5.18	5.1
MBG-2	2113597.3	6043287.7	473189.6	1481921.4	10.31	10.74	10.7	7.61	8.04	8.0
P181-MW45	2113962.4	6045375.7	473554.7	1484009.4	9.21	9.89	9.8	6.51	7.19	7.1
P181-MW46	2113970.5	6045965.9	473562.8	1484599.6	10.29	10.62	10.5	7.59	7.92	7.8
P181-MW47	2113707.6	6046255.2	473299.9	1484888.8	12.39	12.63	12.6	9.69	9.93	9.9
PW-12	2113460.9	6045725.9	473053.2	1484359.6	15.38	15.34	13.2	12.68	12.64	10.5
S-16-R	2112758.8	6046885.8	472351.1	1485519.5	14.48	14.95	14.9	11.78	12.25	12.2
S-35R-2	2113909.9	6046420.5	473502.1	1485054.2	11.53	11.96	11.8	8.83	9.26	9.1

HUNTER SURVEYING, INC.

6216 Main Avenue, Suite A
Orangevale, CA 95662
Phone: (916) 988-5600
Fax: (916) 988-5688

08 May 2007

Tetra Tech EC, Inc.
1230 Columbia Street, Suite 750
San Diego, CA 92101

Attn: Larry Dudus

Re: **Alameda Point - Site 25 Monitoring Wells**

The following monitoring wells were surveyed on April 23-25, 2007. Horizontal positions recorded by GPS-RTK observations. Vertical elevations for monitoring wells surveyed by digital leveling loop methods.

	NAD83 Zn3 Coordinates		NAD27 Zn3 Coordinates		NAVD88 Elevations			NGVD29 Elevations		
PT ID	***NORTH***	***EAST***	***NORTH***	***EAST***	***PVC***	***RIM***	***GND***	***PVC***	***RIM***	***GND***
28SW01	2115174.4	6042357.0	474766.6	1480990.7	9.11	9.66	9.4	6.41	6.96	6.7
28SW02	2115235.8	6042716.9	474828.1	1481350.6	10.83	11.40	11.1	8.13	8.70	8.4
28SW03	2115334.2	6043088.3	474926.5	1481721.9	10.71	11.24	10.8	8.01	8.54	8.1
28SW04	2115128.2	6043043.8	474720.5	1481677.5	10.56	10.92	10.9	7.86	8.22	8.2
M07A-07	2112734.4	6043766.6	472326.7	1482400.3	9.69	9.94	9.9	6.99	7.24	7.2
M07A-08	2112633.4	6044040.6	472225.7	1482674.3	7.52	7.79	7.7	4.82	5.09	5.0
M07A-10	2112790.1	6043924.6	472382.4	1482558.3	8.08	8.40	8.4	5.38	5.70	5.7
M07A-11	2112798.2	6044041.9	472390.5	1482675.6	7.31	7.90	7.9	4.61	5.20	5.2
M25-01	2113658.6	6044831.0	473250.9	1483464.7	11.70	11.91	11.8	9.00	9.21	9.1
M25-02	2114294.8	6045466.6	473887.0	1484100.3	10.78	11.07	11.1	8.08	8.37	8.4
M25-04	2114507.7	6046209.3	474099.9	1484842.9	9.73	10.32	10.2	7.03	7.62	7.5
M25-05	2113273.6	6046987.2	472865.9	1485620.9	15.06	15.41	15.3	12.36	12.71	12.6
M25-06	2113345.9	6044191.2	472938.2	1482824.9	10.14	10.49	10.5	7.44	7.79	7.8
M25-07	2113932.5	6044360.3	473524.8	1482993.9	9.63	10.01	10.0	6.93	7.31	7.3
M25-08	2114209.7	6044662.3	473801.9	1483296.0	8.10	8.54	8.5	5.40	5.84	5.8
M25-09	2113250.3	6045202.4	472842.6	1483836.1	13.11	13.46	13.4	10.41	10.76	10.7
MBG-1	2114797.9	6042379.6	474390.2	1481013.3	7.27	7.88	7.8	4.57	5.18	5.1
MBG-2	2113597.3	6043287.7	473189.6	1481921.4	10.31	10.74	10.7	7.61	8.04	8.0
P181-MW45	2113962.4	6045375.7	473554.7	1484009.4	9.21	9.89	9.8	6.51	7.19	7.1
P181-MW46	2113970.5	6045965.9	473562.8	1484599.6	10.29	10.62	10.5	7.59	7.92	7.8
P181-MW47	2113707.6	6046255.2	473299.9	1484888.8	12.39	12.63	12.6	9.69	9.93	9.9
PW-12	2113460.9	6045725.9	473053.2	1484359.6	15.38	15.34	13.2	12.68	12.64	10.5
S-16-R	2112758.8	6046885.8	472351.1	1485519.5	14.48	14.95	14.9	11.78	12.25	12.2
S-35R-2	2113909.9	6046420.5	473502.1	1485054.2	11.53	11.96	11.8	8.83	9.26	9.1

Basis of Coordinates and Elevations:

NAD83 Horizontal US Survey Feet Coordinates, *CCS83 Zone 3* (epoch date 1991.35), established by GPS-RTK observations based on NGS Control Station ***MAIN ATL*** (PID HT0880). ***NAD27*** values translated from NAD83 at point ***MAIN ATL***. ***NAVD88*** Vertical US Survey Feet Elevations established by digital leveling loops based on NGS Benchmark ***MAIN ATL*** (PID HT0880), elev = 9.39'. ***NGVD29*** values translated at point ***MAIN ATL***, elev = 6.69'

James L. White
LS 7722

PROFESSIONAL LAND SURVEYOR
JAMES L. WHITE
Exp. 03-31-09
LS 7722
STATE OF CALIFORNIA

HUNTER SURVEYING, INC.

6216 Main Avenue, Suite A
Orangevale, CA 95662
Phone: (916) 988-5600
Fax: (916) 988-5688

LETTER OF TRANSMITTAL

Project: **Alameda Point**
Job No: 2006-137-02

Date: Tuesday, June 19, 2007
Ship Via: ☒ US Mail ☐ UPS ☐ FedEx ☐ Pick Up ☐ HSI delivery

To: Larry Dudua
Company: **Tetra Tech EC, Inc.**
1230 Columbia Street, Suite 750
San Diego, CA 92101

Subject: **Survey Data - Alameda Point**

Enclosed Please Find:

Quantity	Description
1	(3) Page: Signed/Stamped Report
1	Disk: ALA137B.doc / xls

The Enclosed Material is:

☒ For your use
☐ For your review
☐ For your approval
☐ As you requested
☐ Return with comments
☐ Being returned to you

Remarks:

Larry, Please find enclosed the above listed items for the survey work we performed at Alameda Point on June 13-14, 2007. This information was also e-mailed to your attention. Please give us a call if you have any questions. Thank You, Arlene Waldsmith

Signed Arlene Waldsmith

cc:

If the enclosures are not as listed above, please notify us at once.

HUNTER SURVEYING, INC.

6216 Main Avenue, Suite A
Orangevale, CA 95662
Phone: (916) 988-5600
Fax: (916) 988-5688

18 June 2007

Tetra Tech EC, Inc.
1230 Columbia Street, Suite 750
San Diego, CA 92101

Attn: Larry Dudus

Re: **Alameda Point - Site 25 Gore Sorber Locations**

The following sample locations were surveyed on June 13-14, 2007. Horizontal positions and vertical elevations recorded by GPS-RTK observations.

	NAD83 Zn3 Coordinates		NAD27 Zn3 Coordinates		NAVD88	NGVD29
PT ID	***NORTH***	***EAST***	***NORTH***	***EAST***	***ELEV***	***ELEV***
Plume Center 1:						
G1-1	2113833.4	6044851.3	473425.7	1483484.9	10.6	7.9
G1-2	2113759.6	6044928.9	473351.9	1483562.6	11.5	8.8
G1-3	2113698.4	6045022.7	473290.7	1483656.3	12.2	9.5
G1-4	2113744.4	6044786.0	473336.7	1483419.6	11.2	8.5
G1-5	2113679.9	6044889.9	473272.2	1483523.6	11.7	9.0
G1-6	2113630.6	6044975.7	473222.8	1483609.4	12.3	9.6
G1-7	2113664.1	6044735.3	473256.3	1483369.0	11.2	8.5
G1-8	2113563.6	6044842.7	473155.9	1483476.4	11.7	9.0
G1-9	2113576.3	6044933.6	473168.6	1483567.3	12.1	9.4
G1-10	2113566.9	6044671.1	473159.2	1483304.8	12.0	9.3
G1-11	2113509.9	6044753.9	473102.2	1483387.6	12.3	9.6
G1-12	2113456.1	6044834.4	473048.4	1483468.1	12.5	9.8
Plume Center 2:						
G2-1	2114052.7	6046196.7	473645.0	1484830.4	10.6	7.9
G2-2	2113950.1	6045574.3	473542.4	1484207.9	9.8	7.1
G2-3	2113944.3	6045675.9	473536.6	1484309.6	10.1	7.4
G2-4	2113939.6	6045775.1	473531.9	1484408.8	11.3	8.6
G2-5	2113932.3	6045874.7	473524.6	1484508.4	10.3	7.6
G2-6	2113917.9	6045977.3	473510.1	1484611.0	9.9	7.2
G2-7	2113966.1	6046062.4	473558.4	1484696.1	10.4	7.7
G2-8	2113936.1	6046199.7	473528.4	1484833.4	11.5	8.8
G2-9	2113957.3	6046293.0	473549.6	1484926.6	12.9	10.2
G2-10	2113942.7	6046412.2	473535.0	1485045.8	12.0	9.3
G2-11	2113881.8	6045485.0	473474.1	1484118.7	9.9	7.2

PT ID	NAD83 Zn3 Coordinates NORTH	EAST	NAD27 Zn3 Coordinates NORTH	EAST	NAVD88 ELEV	NGVD29 ELEV
G2-12	2113877.0	6045584.5	473469.3	1484218.2	9.9	7.2
G2-13	2113873.8	6045688.3	473466.1	1484322.0	10.2	7.5
G2-14	2113869.3	6045788.0	473461.5	1484421.7	10.0	7.3
G2-15	2113863.9	6045887.7	473456.2	1484521.4	10.5	7.8
G2-16	2113859.2	6045987.8	473451.5	1484621.5	10.7	8.0
G2-17	2113857.6	6046063.3	473449.9	1484696.9	10.7	8.0
G2-18	2113846.4	6046197.2	473438.7	1484830.9	11.4	8.7
G2-19	2113860.7	6046285.2	473452.9	1484918.9	13.0	10.3
G2-20	2113855.6	6046403.0	473447.8	1485036.7	12.1	9.4
G2-21	2113773.8	6045594.2	473366.1	1484227.9	10.7	8.0
G2-22	2113772.1	6045692.2	473364.4	1484325.8	10.8	8.1
G2-23	2113768.1	6045782.6	473360.4	1484416.3	11.0	8.3
G2-24	2113764.3	6045882.3	473356.6	1484515.9	11.4	8.7
G2-25	2113760.8	6045979.1	473353.1	1484612.8	11.5	8.8
G2-26	2113759.8	6046065.5	473352.1	1484699.2	11.4	8.7
G2-27	2113746.3	6046199.9	473338.6	1484833.6	12.1	9.4
G2-28	2113755.4	6046295.3	473347.6	1484928.9	12.5	9.8
G2-29	2113757.3	6046401.2	473349.6	1485034.9	12.9	10.2
G2-30	2113669.7	6045521.1	473261.9	1484154.8	10.7	8.0
G2-31	2113663.1	6045578.2	473255.4	1484211.9	10.9	8.2
G2-32	2113674.8	6045681.0	473267.1	1484314.7	11.5	8.8
G2-33	2113669.6	6045777.6	473261.9	1484411.3	11.8	9.1
G2-34	2113664.7	6045877.8	473256.9	1484511.5	12.4	9.7
G2-35	2113668.5	6045970.4	473260.8	1484604.1	12.6	9.9
G2-36	2113647.9	6046077.0	473240.1	1484710.7	11.9	9.2
G2-37	2113649.6	6046201.8	473241.8	1484835.5	12.7	10.0
G2-38	2113657.1	6046299.6	473249.4	1484933.3	13.3	10.6
G2-39	2113655.3	6046398.6	473247.6	1485032.3	13.1	10.4
G2-40	2113572.0	6045681.8	473164.2	1484315.5	13.1	10.4
G2-41	2113581.9	6045794.5	473174.2	1484428.2	13.6	10.9
G2-42	2113576.5	6045894.0	473168.8	1484527.7	14.2	11.5
G2-43	2113571.7	6045994.3	473164.0	1484628.0	15.0	12.3
G2-44	2113567.5	6046092.8	473159.8	1484726.4	15.4	12.7
G2-45	2113554.2	6046195.5	473146.5	1484829.2	16.2	13.5
G2-46	2113550.6	6046290.9	473142.8	1484924.6	16.6	13.9
G2-47	2113467.9	6045890.6	473060.1	1484524.3	14.7	12.0
G2-48	2113465.6	6045992.6	473057.9	1484626.3	15.2	12.5

Plume Center 3:

G3-1	2113465.3	6046091.0	473057.6	1484724.7	15.4	12.7
G3-2	2113465.1	6046194.5	473057.4	1484828.2	15.5	12.8
G3-3	2113463.4	6046294.2	473055.7	1484927.9	15.6	12.9
G3-4	2113462.3	6046393.6	473054.6	1485027.3	15.8	13.1
G3-5	2113462.3	6046494.2	473054.6	1485127.9	15.2	12.5
G3-6	2113454.7	6046617.7	473046.9	1485251.4	13.5	10.8
G3-7	2113471.7	6046744.9	473064.0	1485378.6	13.3	10.6
G3-8	2113465.4	6046844.4	473057.6	1485478.1	14.0	11.3
G3-9	2113364.8	6046088.7	472957.1	1484722.4	15.9	13.2

PT ID	NAD83 Zn3 Coordinates NORTH	EAST	NAD27 Zn3 Coordinates NORTH	EAST	NAVD88 ELEV	NGVD29 ELEV
G3-10	2113364.0	6046190.4	472956.3	1484824.1	15.6	12.9
G3-11	2113363.9	6046290.7	472956.2	1484924.3	15.6	12.9
G3-12	2113363.7	6046384.1	472955.9	1485017.8	15.3	12.6
G3-13	2113363.0	6046490.8	472955.2	1485124.5	15.1	12.4
G3-14	2113368.1	6046618.5	472960.4	1485252.2	15.4	12.7
G3-15	2113364.8	6046738.5	472957.1	1485372.2	15.4	12.7
G3-16	2113365.9	6046837.4	472958.2	1485471.1	15.0	12.3
G3-17	2113395.1	6046956.6	472987.4	1485590.3	17.0	14.3
G3-18	2113355.8	6047074.0	472948.1	1485707.7	19.6	16.9
G3-19	2113264.9	6046085.2	472857.2	1484718.9	15.6	12.9
G3-20	2113265.1	6046186.1	472857.4	1484819.7	14.5	11.8
G3-21	2113266.2	6046285.6	472858.5	1484919.3	15.1	12.4
G3-22	2113267.0	6046385.6	472859.2	1485019.3	14.9	12.2
G3-23	2113266.9	6046484.9	472859.2	1485118.5	14.9	12.2
G3-24	2113269.5	6046614.5	472861.8	1485248.2	13.5	10.8
G3-25	2113268.9	6046734.1	472861.1	1485367.8	13.2	10.5
G3-26	2113268.9	6046836.6	472861.2	1485470.2	13.6	10.9
G3-27	2113283.9	6046954.0	472876.2	1485587.6	15.4	12.7
G3-28	2113279.0	6047071.7	472871.3	1485705.4	14.8	12.1
G3-29	2113147.7	6046809.1	472740.0	1485442.8	14.9	12.2

Basis of Coordinates and Elevations:

NAD83 Horizontal US Survey Feet Coordinates, *CCS83 Zone 3* (epoch date 1991.35), established by GPS-RTK observations based on NGS Control Station *MAIN ATL* (PID HT0880).
NAD27 values translated from NAD83 at point *MAIN ATL*.

NAVD88 Vertical US Survey Feet Elevations established by digital leveling loops based on NGS Benchmark *MAIN ATL* (PID HT0880), elev = 9.39'.
NGVD29 values translated (-2.70') at point *MAIN ATL*, elev = 6.69'

James L. White
LS 7722

PROFESSIONAL LAND SURVEYOR
JAMES L. WHITE
Exp. 03-31-09
LS 7722
STATE OF CALIFORNIA

HUNTER SURVEYING, INC.

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Orangevale, CA 95662
Phone: (916) 988-5600
Fax: (916) 988-5688

LETTER OF TRANSMITTAL

Project: **Alameda Point**
Job No: 2007-137-03

Date: Tuesday, August 21, 2007
Ship Via: ☒ US Mail ☐ UPS ☐ FedEx ☐ Pick Up ☐ HSI delivery

To: Larry Dudus
Company: **Tetra Tech EC, Inc.**
1230 Columbia Street, Suite 750
San Diego, CA 92101

Subject: **Survey Data - Alameda Point**

Enclosed Please Find:

Quantity	Description
1	(4) Page: Signed/Stamped Report
1	(3) Page: EXCEL Spreadsheet
1	Disk: ALA137C.doc / xls

The Enclosed Material is:

☒ For your use
☐ For your review
☐ For your approval
☐ As you requested
☐ Return with comments
☐ Being returned to you

Remarks:

Larry, Please find enclosed the above listed items for the survey work we performed at Alameda Point on August 13-14, 2007. This information was also e-mailed to your attention. Please give us a call if you have any questions. Thank You, Arlene Waldsmith

Signed: Arlene Waldsmith

cc:

If the enclosures are not as listed above, please notify us at once.

HUNTER SURVEYING, INC.

6216 Main Avenue, Suite A
Orangevale, CA 95662
Phone: (916) 988-5600
Fax: (916) 988-5688

21 August 2007

Tetra Tech EC, Inc.
1230 Columbia Street, Suite 750
San Diego, CA 92101

Attn: Larry Dudus

Re: **Alameda Point - Site 25 Piezometers, Wells and Sample Locations**

The following piezometers, wells and sample locations were surveyed on August 13-14, 2007. Horizontal positions recorded by GPS-RTK observations or total-station survey methods.
Vertical elevations surveyed by digital levels for wells and piezometers, and by GPS-RTK or total-station methods for soil vapor probes and sample locations.

	CCS83 Zn3 Coordinates		CCS27 Zn3 Coordinates		NAVD88 Elevations			NGVD29 Elevations		
PT ID	***NORTH***	***EAST***	***NORTH***	***EAST***	***PVC***	***RIM***	***GND***	***PVC***	***RIM***	***GND***
Pilot Test Area 1 - Wells and Piezometers										
P181-MW-47	2113707.5	6046255.2	473299.8	1484888.9	12.39	12.58	12.6	9.7	9.9	9.9
TA1-BSW*	2113833.7	6046211.5	473426.0	1484845.2	13.68		12.0	11.0		9.3
TA1-PZ1	2113842.3	6046205.6	473434.6	1484839.3	14.95		11.8	12.2		9.1
TA1-PZ2	2113850.5	6046200.5	473442.8	1484834.2	12.72		11.6	10.0		8.9
TA1-PZ3	2113867.3	6046189.1	473459.6	1484822.7	13.45		11.0	10.8		8.3
TA1-PZ4	2113911.1	6046199.1	473503.4	1484832.8	12.88		11.2	10.2		8.5
TA1-PZ5	2113826.8	6046204.3	473419.1	1484838.0	13.45		12.0	10.7		9.3
TA1-PZ6	2113819.5	6046198.1	473411.7	1484831.8	13.92		11.9	11.2		9.2
TA1-PZ7	2113822.4	6046136.1	473414.6	1484769.8	13.58		11.8	10.9		9.1
Test Area 1 - Soil Vapor Extraction Locations										
TA1-SVE1	2113855.1	6046197.7	473447.4	1484831.4	13.61		11.1	10.9		8.4
TA1-SVE2	2113847.2	6046232.4	473439.4	1484866.1	13.71		11.2	11.0		8.5
TA1-SVE3	2113813.0	6046225.9	473405.3	1484859.6	14.73		12.2	12.0		9.5
TA1-SVE4	2113820.8	6046189.6	473413.1	1484823.3	13.99		11.3	11.3		8.6
Pilot Test Area 1 - Soil Gas Probes										
TA1-SG1	2113805.3	6046230.9	473397.5	1484864.6			12.4			9.7
TA1-SG2	2113796.7	6046236.4	473389.0	1484870.1			12.4			9.7
TA1-SG3	2113788.5	6046243.0	473380.8	1484876.7			12.5			9.8
TA1-SG4	2113803.8	6046213.6	473396.1	1484847.3			12.4			9.7
TA1-SG5	2113798.1	6046204.2	473390.4	1484837.9			12.2			9.5
TA1-SG6	2113798.8	6046265.4	473391.0	1484899.1			12.0			9.3
TA1-SG7	2113817.0	6046135.2	473409.3	1484768.8			11.6			8.9
TA1-SG8	2113829.8	6046202.5	473422.1	1484836.2			11.9			9.2
TA1-SG9	2113852.4	6046207.7	473444.7	1484841.4			11.3			8.6
TA1-SG10	2113838.6	6046243.7	473430.9	1484877.4			11.2			8.5
TA1-SG11	2113913.7	6046200.6	473506.0	1484834.3			11.2			8.5

* Metal Riser (Not PVC)

PT ID	CCS83 Zn3 Coordinates NORTH	CCS83 Zn3 Coordinates EAST	CCS27 Zn3 Coordinates NORTH	CCS27 Zn3 Coordinates EAST	NAVD88 Elevations PVC	NAVD88 Elevations RIM	NAVD88 Elevations GND	NGVD29 Elevations PVC	NGVD29 Elevations RIM	NGVD29 Elevations GND
Pilot Test Area 2 - Wells and Piezometers										
TA2-BSW*	2113701.3	6046309.7	473293.6	1484943.4	13.59		12.1	10.9		9.4
TA2-PZ1	2113710.7	6046305.5	473302.9	1484939.2	13.26		11.8	10.6		9.1
TA2-PZ2	2113720.2	6046300.5	473312.4	1484934.1	15.02		11.8	12.3		9.1
TA2-PZ3	2113736.9	6046289.9	473329.2	1484923.6	14.88		12.6	12.2		9.9
TA2-PZ4	2113696.4	6046301.5	473288.7	1484935.1	14.52		12.1	11.8		9.4
TA2-PZ5	2113691.9	6046293.1	473284.2	1484926.8	13.79		12.0	11.1		9.3
TA2-PZ6	2113625.3	6046391.3	473217.6	1485025.0	14.15		12.6	11.4		9.9
TA2-PZ7	2113685.4	6046157.1	473277.7	1484790.8	14.01		12.3	11.3		9.6
Pilot Test Area 2 - Soil Vapor Extraction Locations										
TA2-SVE1	2113728.5	6046311.3	473320.8	1484945.0	14.08		11.7	11.4		9.0
TA2-SVE2	2113702.4	6046331.8	473294.7	1484965.5	15.17		12.7	12.5		10.0
TA2-SVE3	2113674.7	6046306.9	473267.0	1484940.5	14.80		12.7	12.1		10.0
TA2-SVE4	2113704.8	6046285.7	473297.1	1484919.3	14.19		11.8	11.5		9.1
Pilot Test Area 2 - Soil Gas Probes										
TA2-SG1	2113737.6	6046307.8	473329.9	1484941.5			11.7			9.0
TA2-SG2	2113747.2	6046304.1	473339.4	1484937.8			11.8			9.1
TA2-SG3	2113756.7	6046299.6	473349.0	1484933.3			12.3			9.6
TA2-SG4	2113722.4	6046297.5	473314.7	1484931.2			11.8			9.1
TA2-SG5	2113718.7	6046288.3	473311.0	1484921.9			11.9			9.2
TA2-SG6	2113668.2	6046299.2	473260.4	1484932.9			12.9			10.2
TA2-SG7	2113661.0	6046292.1	473253.3	1484925.8			13.0			10.3
TA2-SG8	2113654.7	6046284.7	473247.0	1484918.4			12.9			10.2
TA2-SG9	2113688.3	6046292.5	473280.6	1484926.2			12.0			9.3
TA2-SG10	2113694.2	6046286.8	473286.4	1484920.5			11.8			9.1
TA2-SG11	2113636.0	6046381.4	473228.3	1485015.1			12.9			10.2
TA2-SG12	2113689.4	6046158.0	473281.7	1484791.7			12.1			9.4
TA2-SG13	2113710.5	6046245.6	473302.8	1484879.2			12.6			9.9
Soil Samples										
NSA1-1	2113764.9	6046074.3	473357.1	1484708.0			11.6			8.9
NSA1-2	2113729.4	6046055.5	473321.7	1484689.2			11.2			8.5
NSA1-3	2113733.0	6046094.9	473325.3	1484728.6			11.8			9.1
NSA1-4	2113692.6	6046036.3	473284.8	1484670.0			11.8			9.1
NSA1-5	2113694.2	6046076.1	473286.5	1484709.8			12.0			9.3
NSA1-6	2113662.2	6046063.0	473254.5	1484696.7			11.7			9.0
NSA1-7	2113663.0	6046095.0	473255.2	1484728.6			12.7			10.0
NSA2-1	2113849.7	6046158.1	473441.9	1484791.7			10.9			8.2
NSA2-2	2113848.9	6046200.5	473441.1	1484834.2			11.7			9.0
NSA2-3	2113816.3	6046138.2	473408.6	1484771.9			11.6			8.9
NSA2-4	2113814.1	6046179.2	473406.3	1484812.9			11.1			8.4
NSA2-5	2113815.1	6046217.9	473407.4	1484851.6			12.3			9.6
NSA2-6	2113779.0	6046160.4	473371.3	1484794.1			11.4			8.7
NSA2-7	2113779.9	6046200.3	473372.1	1484834.0			12.1			9.4
NSA2-8	2113747.8	6046140.9	473340.0	1484774.6			12.1			9.4
NSA2-9	2113744.7	6046180.8	473337.0	1484814.5			11.5			8.8
NSA2-10	2113715.3	6046161.8	473307.5	1484795.5			11.7			9.0

PT ID	CCS83 Zn3 Coordinates NORTH	CCS83 Zn3 Coordinates EAST	CCS27 Zn3 Coordinates NORTH	CCS27 Zn3 Coordinates EAST	NAVD88 Elevations PVC	NAVD88 Elevations RIM	NAVD88 Elevations GND	NGVD29 Elevations PVC	NGVD29 Elevations RIM	NGVD29 Elevations GND
Plume Center 1 Sample Locations										
PC1-1	2113771.2	6044885.8	473363.5	1483519.4			11.4			8.7
PC1-2	2113555.9	6044845.6	473148.1	1483479.2			11.9			9.2
PC1-3	2113568.6	6044673.7	473160.9	1483307.4			12.0			9.3
Plume Center 2 Sample Locations										
PC2-1	2113996.4	6046140.5	473588.7	1484774.2			10.2			7.5
PC2-2	2113921.6	6046345.2	473513.9	1484978.8			11.8			9.1
PC2-2A	2113876.1	6046300.5	473468.4	1484934.1			12.8			10.1
PC2-3	2113623.0	6046286.6	473215.3	1484920.3			12.8			10.1
PC2-5	2113600.2	6045710.1	473192.5	1484343.7			12.0			9.3
PC2-6	2113738.6	6045642.3	473330.9	1484276.0			11.1			8.4
PC2-7	2113880.1	6045485.5	473472.4	1484119.1			9.9			7.2
PC2-7A	2113884.1	6045405.5	473476.3	1484039.2			9.8			7.1
PC2-8	2113865.4	6045666.8	473457.7	1484300.5			10.2			7.5
PC2-9	2113900.1	6045929.5	473492.4	1484563.2			10.1			7.4
PC2-10	2113502.1	6045279.2	473094.4	1483912.9			9.6			6.9
Plume Center 3 Sample Locations										
PC3-1	2113460.3	6046114.1	473052.6	1484747.8			15.3			12.6
PC3-1A	2113557.2	6046107.8	473149.5	1484741.4			15.6			12.9
PC3-2	2113449.4	6046223.7	473041.6	1484857.4			15.7			13.0
PC3-2A	2113486.7	6046229.1	473079.0	1484862.8			15.7			13.0
PC3-3	2113453.8	6046341.2	473046.1	1484974.9			15.9			13.2
PC3-3A	2113536.8	6046322.7	473129.1	1484956.4			16.4			13.7
PC3-4	2113266.6	6046181.6	472858.8	1484815.3			14.8			12.1
PC3-4A	2113184.3	6046144.6	472776.5	1484778.3			13.9			11.2
PC3-5	2113416.6	6046745.3	473008.9	1485379.0			14.3			11.6
PC3-5A	2113463.5	6046743.2	473055.7	1485376.8			13.5			10.8
PC3-6	2113464.5	6046843.5	473056.7	1485477.2			13.8			11.1
PC3-7	2113355.9	6047073.2	472948.1	1485706.9			19.8			17.1
PC3-7A	2113347.6	6047026.5	472939.8	1485660.2			19.6			16.9
PC3-8	2113383.8	6046888.0	472976.1	1485521.7			14.7			12.0
PC3-9	2113229.6	6047227.2	472821.8	1485860.8			14.9			12.2
PC3-10	2113237.6	6047016.1	472829.9	1485649.8			14.9			12.2
PC3-11	2113239.4	6046828.1	472831.6	1485461.8			13.8			11.1
PC3-12	2112901.0	6046873.4	472493.2	1485507.0			13.7			11.0
PC3-13	2113342.3	6046487.3	472934.6	1485121.0			15.1			12.4
PC3-14	2113189.6	6046643.4	472781.9	1485277.1			13.5			10.8

PT ID	CCS83 Zn3 Coordinates NORTH	CCS83 Zn3 Coordinates EAST	CCS27 Zn3 Coordinates NORTH	CCS27 Zn3 Coordinates EAST	NAVD88 Elevations PVC	NAVD88 Elevations RIM	NAVD88 Elevations GND	NGVD29 Elevations PVC	NGVD29 Elevations RIM	NGVD29 Elevations GND
Plume Boundary Sample Locations										
PB1A	2114005.4	6046467.7	473597.6	1485101.3			12.8			10.1
PB1B	2114105.0	6046472.2	473697.3	1485105.9			12.1			9.4
PB2A	2114210.9	6046149.3	473803.2	1484783.0			10.6			7.9
PB2B	2114422.3	6046166.8	474014.5	1484800.5			10.7			8.0
PB3A	2114220.2	6045838.0	473812.5	1484471.7			11.8			9.1
PB4A	2114292.4	6045630.7	473884.7	1484264.4			11.2			8.5
PB4B	2114179.8	6045623.9	473772.1	1484257.6			10.6			7.9
PB4C	2114119.0	6045610.4	473711.3	1484244.1			11.6			8.9
PB4D	2114040.8	6045598.5	473633.1	1484232.1			10.5			7.8
PB5A	2114187.2	6045049.5	473779.5	1483683.2			9.3			6.6
PB5B	2114060.5	6045070.4	473652.8	1483704.1			9.0			6.3
PB6A	2113989.6	6044627.5	473581.9	1483261.1			8.3			5.6
PB7A	2113222.9	6044662.3	472815.2	1483296.0			12.2			9.5
PB7B	2113263.5	6044665.9	472855.7	1483299.5			14.0			11.3
PB7C	2113312.7	6044674.3	472905.0	1483308.0			13.6			10.9
PB8A	2113126.1	6046144.4	472718.3	1484778.1			13.6			10.9
PB8B	2112962.2	6046168.9	472554.5	1484802.6			14.1			11.4

Basis of Coordinates and Elevations:

NAD83 Horizontal US Survey Feet Coordinates, *CCS83 Zone 3* (epoch date 1991.35), established by GPS-RTK observations based on NGS Control Station ***MAIN ATL*** (PID HT0880).
NAD27 values translated from NAD83 at point ***MAIN ATL***.

NAVD88 Vertical US Survey Feet Elevations established by digital leveling loops based on NGS Benchmark ***MAIN ATL*** (PID HT0880), elev = 9.39'.
NGVD29 values translated from *NAVD88* (-2.70') at point ***MAIN ATL***, elev = 6.69'

James L. White
LS 7722

PROFESSIONAL LAND SURVEYOR
JAMES L. WHITE
Exp. 03-31-09
LS 7722
STATE OF CALIFORNIA

HUNTER SURVEYING, INC.

6216 Main Avenue, Suite A
Orangevale, CA 95662
Phone: (916) 988-5600
Fax: (916) 988-5688

LETTER OF TRANSMITTAL

Project: **Alameda Point**
Job No: 2006-137-D

Date: Wednesday, October 17, 2007
Ship Via: ☒ US Mail ☐ UPS ☐ FedEx ☐ Pick Up ☐ HSI delivery

To: Larry Dudus
Company: **Tetra Tech EC, Inc.**
1230 Columbia Street, Suite 750
San Diego, CA 92101

Subject: **Survey Data - Alameda Point**

Enclosed Please Find:

Quantity	Description
1	Signed/Stamped Report
1	EXCEL Spreadsheet
1	Disk: ALA137D.doc / xls
1	Billing Spreadsheet (FYI)

The Enclosed Material is:

☒ For your use
☐ For your review
☐ For your approval
☐ As you requested
☐ Return with comments
☐ Being returned to you

Remarks:

Larry, Please find enclosed the above listed items for the survey work we performed at Alameda Point on 10/02/07. This information was also e-mailed to your attention. FYI, I have also included a billing breakdown spreadsheet to let you see where we stand with the balances on the purchase order. Please give us a call if you have any questions. Thank You, Arlene Waldsmith

Signed: Arlene Waldsmith

cc:

HUNTER SURVEYING, INC.

6216 Main Avenue, Suite A
Orangevale, CA 95662
Phone: (916) 988-5600
Fax: (916) 988-5688

17 October 2007

Tetra Tech EC, Inc.
1230 Columbia Street, Suite 750
San Diego, CA 92101
Attn: Larry Dudus

Re: **Alameda Point - Site 25 Piezometers, Wells and Sample Locations**

The following locations were surveyed on October 2, 2007. Horizontal positions recorded by GPS-RTK observations. Vertical elevations surveyed by digital levels for wells and GPS-RTK methods for sample locations.

	CCS83 Zn3 Coordinates		CCS27 Zn3 Coordinates		NAVD88 Elevations			NGVD29 Elevations		
PT ID	***NORTH***	***EAST***	***NORTH***	***EAST***	***PVC***	***RIM***	***GND***	***PVC***	***RIM***	***GND***
PMW1	2114121.9	6045609.8	473714.2	1484243.5	10.63	11.25	11.1	7.93	8.55	8.4
PMW2	2114208.6	6045840.5	473800.9	1484474.2	11.44	12.08	12.0	8.74	9.38	9.3
PMW3	2112964.5	6046168.2	472556.8	1484801.9	13.53	14.15	14.1	10.83	11.45	11.4
PMW4	2113264.4	6044673.8	472856.6	1483307.5	13.54	13.98	13.9	10.84	11.28	11.2
PMW5	2114059.0	6045065.3	473651.3	1483699.0	8.84	9.27	9.0	6.14	6.57	6.3
PMW6	2113226.3	6045709.5	472818.5	1484343.2	13.31	13.76	13.7	10.61	11.06	11.0
TA1-PZ8	2113845.3	6046201.1	473437.5	1484834.7	13.04	2.70	11.7	10.34		9.0
TA2-PZ8	2113706.8	6046308.7	473299.1	1484942.4	13.93	2.70	12.0	11.23		9.3
PC1-3A	2113461.3	6044657.2	473053.5	1483290.9			12.7			10.0
PC1-3B	2113469.0	6044788.3	473061.3	1483422.0			14.0			11.3
PC1-3C	2113630.1	6044578.5	473222.4	1483212.1			11.7			9.0
PC1-3D	2113322.7	6044767.7	472914.9	1483401.4			13.7			11.0
PC1-3E	2113351.5	6044593.2	472943.8	1483226.9			13.4			10.7
PC1-4	2113662.4	6044737.2	473254.7	1483370.9			11.1			8.4
PC1-4A	2113777.9	6044638.4	473370.2	1483272.0			10.0			7.3
PC1-4B	2113744.4	6044783.8	473336.7	1483417.5			11.3			8.6
PC2-4E	2113375.7	6045934.5	472968.0	1484568.2			15.1			12.4
PC2-4W	2113375.7	6045932.3	472968.0	1484565.9			15.1			12.4
PC2-5A	2113605.3	6045562.0	473197.6	1484195.7			11.6			8.9
PC2-6A	2113742.8	6045334.4	473335.0	1483968.0			10.1			7.4
PC3-3B	2113573.6	6046513.3	473165.9	1485147.0			14.5			11.8
PB10A	2113344.5	6045710.6	472936.7	1484344.3			13.1			10.4
PB10BE	2113226.1	6045703.8	472818.4	1484337.5			13.8			11.1
PB10BW	2113225.8	6045702.3	472818.1	1484336.0			13.8			11.1
PB9A	2112655.5	6046868.3	472247.7	1485502.0			14.4			11.7

Basis of Coordinates and Elevations:

NAD83 Horizontal US Survey Feet Coordinates, *CCS83 Zone 3* (epoch date 1991.35), established by GPS-RTK observations based on NGS Control Station ***MAIN ATL*** (PID HT0880). ***NAD27*** values translated from NAD83 at point ***MAIN ATL***. ***NAVD88*** Vertical US Survey Feet Elevations established by digital leveling loops based on NGS Benchmark ***MAIN ATL*** (PID HT0880), elev = 9.39'. ***NGVD29*** values translated from *NAVD88* (-2.70') at point ***MAIN ATL***, elev = 6.69'

James L. White
LS 7722

PROFESSIONAL LAND SURVEYOR
JAMES L. WHITE
Exp. 03-31-09
LS 7722
STATE OF CALIFORNIA

	NAD83 Zn3 Coordinates		*NAD27 Zn3 Coordinates*		NAVD88 Elevations			NGVD29 Elevations		
	North	***East***	***North***	***East***	***PVC***	***Rim***	***Grnd***	***PVC***	***Rim***	***Grnd***
Monitoring Wells and Piezometers										
PMW1	2114121.9	6045609.8	473714.2	1484243.5	10.63	11.25	11.1	7.93	8.55	8.4
PMW2	2114208.6	6045840.5	473800.9	1484474.2	11.44	12.08	12.0	8.74	9.38	9.3
PMW3	2112964.5	6046168.2	472556.8	1484801.9	13.53	14.15	14.1	10.83	11.45	11.4
PMW4	2113264.4	6044673.8	472856.6	1483307.5	13.54	13.98	13.9	10.84	11.28	11.2
PMW5	2114059.0	6045065.3	473651.3	1483699.0	8.84	9.27	9.0	6.14	6.57	6.3
PMW6	2113226.3	6045709.5	472818.5	1484343.2	13.31	13.76	13.7	10.61	11.06	11.0
TA1-PZ8	2113845.3	6046201.1	473437.5	1484834.7	13.04	2.70	11.7	10.34		9.0
TA2-PZ8	2113706.8	6046308.7	473299.1	1484942.4	13.93	2.70	12.0	11.23		9.3
Plume Center Samples										
PC1-3A	2113461.3	6044657.2	473053.5	1483290.9			12.7			10.0
PC1-3B	2113469.0	6044788.3	473061.3	1483422.0			14.0			11.3
PC1-3C	2113630.1	6044578.5	473222.4	1483212.1			11.7			9.0
PC1-3D	2113322.7	6044767.7	472914.9	1483401.4			13.7			11.0
PC1-3E	2113351.5	6044593.2	472943.8	1483226.9			13.4			10.7
PC1-4	2113662.4	6044737.2	473254.7	1483370.9			11.1			8.4
PC1-4A	2113777.9	6044638.4	473370.2	1483272.0			10.0			7.3
PC1-4B	2113744.4	6044783.8	473336.7	1483417.5			11.3			8.6
PC2-4E	2113375.7	6045934.5	472968.0	1484568.2			15.1			12.4
PC2-4W	2113375.7	6045932.3	472968.0	1484565.9			15.1			12.4
PC2-5A	2113605.3	6045562.0	473197.6	1484195.7			11.6			8.9
PC2-6A	2113742.8	6045334.4	473335.0	1483968.0			10.1			7.4
PC3-3B	2113573.6	6046513.3	473165.9	1485147.0			14.5			11.8
Plume Boundary Samples										
PB10A	2113344.5	6045710.6	472936.7	1484344.3			13.1			10.4
PB10BE	2113226.1	6045703.8	472818.4	1484337.5			13.8			11.1
PB10BW	2113225.8	6045702.3	472818.1	1484336.0			13.8			11.1
PB9A	2112655.5	6046868.3	472247.7	1485502.0			14.4			11.7

TIDAL STUDY DATA

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/16/2007 20:20:00	8.027	18
2	4/16/2007 20:30:00	8.023	18
3	4/16/2007 20:40:00	8.02	18
4	4/16/2007 20:50:00	8.019	18
5	4/16/2007 21:00:00	8.015	18
6	4/16/2007 21:10:00	8.013	18
7	4/16/2007 21:20:00	8.01	18
8	4/16/2007 21:30:00	8.007	18
9	4/16/2007 21:40:00	8.005	18
10	4/16/2007 21:50:00	8.003	18
11	4/16/2007 22:00:00	8	18
12	4/16/2007 22:10:00	7.999	18
13	4/16/2007 22:20:00	7.998	18
14	4/16/2007 22:30:00	7.999	18
15	4/16/2007 22:40:00	7.997	18
16	4/16/2007 22:50:00	7.998	18
17	4/16/2007 23:00:00	7.998	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
18	4/16/2007 23:10:00	7.998	18
19	4/16/2007 23:20:00	7.996	18
20	4/16/2007 23:30:00	7.995	18
21	4/16/2007 23:40:00	7.993	18
22	4/16/2007 23:50:00	7.992	18
23	4/17/2007 0:00:00	7.991	18
24	4/17/2007 0:10:00	7.99	18
25	4/17/2007 0:20:00	7.99	18
26	4/17/2007 0:30:00	7.992	18
27	4/17/2007 0:40:00	7.991	18
28	4/17/2007 0:50:00	7.99	18
29	4/17/2007 1:00:00	7.989	18
30	4/17/2007 1:10:00	7.989	18
31	4/17/2007 1:20:00	7.989	18
32	4/17/2007 1:30:00	7.989	18
33	4/17/2007 1:40:00	7.986	18
34	4/17/2007 1:50:00	7.988	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
35	4/17/2007 2:00:00	7.991	18
36	4/17/2007 2:10:00	7.99	18
37	4/17/2007 2:20:00	7.986	18
38	4/17/2007 2:30:00	7.985	18
39	4/17/2007 2:40:00	7.984	18
40	4/17/2007 2:50:00	7.985	18
41	4/17/2007 3:00:00	7.984	18
42	4/17/2007 3:10:00	7.981	18
43	4/17/2007 3:20:00	7.976	18
44	4/17/2007 3:30:00	7.975	18
45	4/17/2007 3:40:00	7.974	18
46	4/17/2007 3:50:00	7.969	18
47	4/17/2007 4:00:00	7.97	18
48	4/17/2007 4:10:00	7.967	18
49	4/17/2007 4:20:00	7.964	18
50	4/17/2007 4:30:00	7.961	18
51	4/17/2007 4:40:00	7.954	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
52	4/17/2007 4:50:00	7.951	18
53	4/17/2007 5:00:00	7.954	18
54	4/17/2007 5:10:00	7.953	18
55	4/17/2007 5:20:00	7.947	18
56	4/17/2007 5:30:00	7.943	18
57	4/17/2007 5:40:00	7.939	18
58	4/17/2007 5:50:00	7.937	18
59	4/17/2007 6:00:00	7.934	18
60	4/17/2007 6:10:00	7.929	18
61	4/17/2007 6:20:00	7.928	18
62	4/17/2007 6:30:00	7.925	18
63	4/17/2007 6:40:00	7.921	18
64	4/17/2007 6:50:00	7.916	18
65	4/17/2007 7:00:00	7.915	18
66	4/17/2007 7:10:00	7.912	18
67	4/17/2007 7:20:00	7.908	18
68	4/17/2007 7:30:00	7.902	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
69	4/17/2007 7:40:00	7.9	18
70	4/17/2007 7:50:00	7.897	18
71	4/17/2007 8:00:00	7.892	18
72	4/17/2007 8:10:00	7.89	18
73	4/17/2007 8:20:00	7.884	18
74	4/17/2007 8:30:00	7.88	18
75	4/17/2007 8:40:00	7.879	18
76	4/17/2007 8:50:00	7.877	18
77	4/17/2007 9:00:00	7.877	18
78	4/17/2007 9:10:00	7.876	18
79	4/17/2007 9:20:00	7.876	18
80	4/17/2007 9:30:00	7.876	18
81	4/17/2007 9:40:00	7.877	18
82	4/17/2007 9:50:00	7.874	18
83	4/17/2007 10:00:00	7.871	18
84	4/17/2007 10:10:00	7.869	18
85	4/17/2007 10:20:00	7.864	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
86	4/17/2007 10:30:00	7.862	18
87	4/17/2007 10:40:00	7.862	18
88	4/17/2007 10:50:00	7.862	18
89	4/17/2007 11:00:00	7.862	18
90	4/17/2007 11:10:00	7.859	18
91	4/17/2007 11:20:00	7.859	18
92	4/17/2007 11:30:00	7.857	18
93	4/17/2007 11:40:00	7.854	18
94	4/17/2007 11:50:00	7.853	18
95	4/17/2007 12:00:00	7.854	18
96	4/17/2007 12:10:00	7.856	18
97	4/17/2007 12:20:00	7.856	18
98	4/17/2007 12:30:00	7.856	18
99	4/17/2007 12:40:00	7.854	18
100	4/17/2007 12:50:00	7.853	18
101	4/17/2007 13:00:00	7.853	18
102	4/17/2007 13:10:00	7.853	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
103	4/17/2007 13:20:00	7.851	18
104	4/17/2007 13:30:00	7.852	18
105	4/17/2007 13:40:00	7.85	18
106	4/17/2007 13:50:00	7.849	18
107	4/17/2007 14:00:00	7.843	18
108	4/17/2007 14:10:00	7.839	18
109	4/17/2007 14:20:00	7.835	18
110	4/17/2007 14:30:00	7.831	18
111	4/17/2007 14:40:00	7.833	18
112	4/17/2007 14:50:00	7.835	18
113	4/17/2007 15:00:00	7.835	18
114	4/17/2007 15:10:00	7.836	18
115	4/17/2007 15:20:00	7.836	18
116	4/17/2007 15:30:00	7.833	18
117	4/17/2007 15:40:00	7.836	18
118	4/17/2007 15:50:00	7.836	18
119	4/17/2007 16:00:00	7.837	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
120	4/17/2007 16:10:00	7.836	18
121	4/17/2007 16:20:00	7.832	18
122	4/17/2007 16:30:00	7.832	18
123	4/17/2007 16:40:00	7.832	18
124	4/17/2007 16:50:00	7.832	18
125	4/17/2007 17:00:00	7.831	18
126	4/17/2007 17:10:00	7.829	18
127	4/17/2007 17:20:00	7.83	18
128	4/17/2007 17:30:00	7.828	18
129	4/17/2007 17:40:00	7.826	18
130	4/17/2007 17:50:00	7.826	18
131	4/17/2007 18:00:00	7.824	18
132	4/17/2007 18:10:00	7.822	18
133	4/17/2007 18:20:00	7.821	18
134	4/17/2007 18:30:00	7.833	18.2
135	4/17/2007 18:40:00	7.87	18
136	4/17/2007 18:50:00	7.867	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
137	4/17/2007 19:00:00	7.867	18.1
138	4/17/2007 19:10:00	7.865	18
139	4/17/2007 19:20:00	7.864	18.1
140	4/17/2007 19:30:00	7.863	18
141	4/17/2007 19:40:00	7.862	18.1
142	4/17/2007 19:50:00	7.862	18
143	4/17/2007 20:00:00	7.859	18
144	4/17/2007 20:10:00	7.858	18
145	4/17/2007 20:20:00	7.857	18
146	4/17/2007 20:30:00	7.857	18
147	4/17/2007 20:40:00	7.853	18
148	4/17/2007 20:50:00	7.85	18.1
149	4/17/2007 21:00:00	7.849	18.1
150	4/17/2007 21:10:00	7.844	18.1
151	4/17/2007 21:20:00	7.84	18
152	4/17/2007 21:30:00	7.838	18
153	4/17/2007 21:40:00	7.837	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
154	4/17/2007 21:50:00	7.837	18
155	4/17/2007 22:00:00	7.833	18
156	4/17/2007 22:10:00	7.831	18
157	4/17/2007 22:20:00	7.83	18
158	4/17/2007 22:30:00	7.831	18
159	4/17/2007 22:40:00	7.832	18
160	4/17/2007 22:50:00	7.832	18.1
161	4/17/2007 23:00:00	7.83	18
162	4/17/2007 23:10:00	7.825	18
163	4/17/2007 23:20:00	7.826	18
164	4/17/2007 23:30:00	7.826	18
165	4/17/2007 23:40:00	7.825	18
166	4/17/2007 23:50:00	7.827	18.1
167	4/18/2007 0:00:00	7.823	18
168	4/18/2007 0:10:00	7.824	18
169	4/18/2007 0:20:00	7.824	18
170	4/18/2007 0:30:00	7.824	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
171	4/18/2007 0:40:00	7.821	18
172	4/18/2007 0:50:00	7.819	18
173	4/18/2007 1:00:00	7.821	18
174	4/18/2007 1:10:00	7.82	18.1
175	4/18/2007 1:20:00	7.82	18.1
176	4/18/2007 1:30:00	7.822	18
177	4/18/2007 1:40:00	7.823	18.1
178	4/18/2007 1:50:00	7.824	18
179	4/18/2007 2:00:00	7.83	18.1
180	4/18/2007 2:10:00	7.835	18
181	4/18/2007 2:20:00	7.837	18
182	4/18/2007 2:30:00	7.838	18
183	4/18/2007 2:40:00	7.841	18.1
184	4/18/2007 2:50:00	7.845	18
185	4/18/2007 3:00:00	7.842	18.1
186	4/18/2007 3:10:00	7.841	18.1
187	4/18/2007 3:20:00	7.841	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
188	4/18/2007 3:30:00	7.842	18
189	4/18/2007 3:40:00	7.842	18
190	4/18/2007 3:50:00	7.842	18
191	4/18/2007 4:00:00	7.836	18
192	4/18/2007 4:10:00	7.834	18.1
193	4/18/2007 4:20:00	7.833	18
194	4/18/2007 4:30:00	7.831	18
195	4/18/2007 4:40:00	7.827	18.1
196	4/18/2007 4:50:00	7.824	18
197	4/18/2007 5:00:00	7.821	18.1
198	4/18/2007 5:10:00	7.817	18.1
199	4/18/2007 5:20:00	7.815	18
200	4/18/2007 5:30:00	7.813	18.1
201	4/18/2007 5:40:00	7.81	18.1
202	4/18/2007 5:50:00	7.809	18
203	4/18/2007 6:00:00	7.808	18
204	4/18/2007 6:10:00	7.803	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
205	4/18/2007 6:20:00	7.8	18
206	4/18/2007 6:30:00	7.798	18
207	4/18/2007 6:40:00	7.796	18.1
208	4/18/2007 6:50:00	7.795	18
209	4/18/2007 7:00:00	7.793	18.1
210	4/18/2007 7:10:00	7.789	18.1
211	4/18/2007 7:20:00	7.787	18.1
212	4/18/2007 7:30:00	7.783	18.1
213	4/18/2007 7:40:00	7.779	18.1
214	4/18/2007 7:50:00	7.775	18.1
215	4/18/2007 8:00:00	7.772	18.1
216	4/18/2007 8:10:00	7.769	18.1
217	4/18/2007 8:20:00	7.767	18
218	4/18/2007 8:30:00	7.761	18.1
219	4/18/2007 8:40:00	7.76	18.1
220	4/18/2007 8:50:00	7.756	18
221	4/18/2007 9:00:00	7.753	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
222	4/18/2007 9:10:00	7.751	18
223	4/18/2007 9:20:00	7.748	18.1
224	4/18/2007 9:30:00	7.747	18
225	4/18/2007 9:40:00	7.745	18.1
226	4/18/2007 9:50:00	7.742	18
227	4/18/2007 10:00:00	7.741	18.1
228	4/18/2007 10:10:00	7.739	18.1
229	4/18/2007 10:20:00	7.739	18
230	4/18/2007 10:30:00	7.74	18
231	4/18/2007 10:40:00	7.739	18.1
232	4/18/2007 10:50:00	7.735	18
233	4/18/2007 11:00:00	7.735	18.1
234	4/18/2007 11:10:00	7.733	18
235	4/18/2007 11:20:00	7.731	18.1
236	4/18/2007 11:30:00	7.728	18
237	4/18/2007 11:40:00	7.726	18.1
238	4/18/2007 11:50:00	7.727	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
239	4/18/2007 12:00:00	7.726	18
240	4/18/2007 12:10:00	7.725	18.1
241	4/18/2007 12:20:00	7.726	18
242	4/18/2007 12:30:00	7.724	18
243	4/18/2007 12:40:00	7.725	18.1
244	4/18/2007 12:50:00	7.724	18.1
245	4/18/2007 13:00:00	7.724	18
246	4/18/2007 13:10:00	7.725	18.1
247	4/18/2007 13:20:00	7.724	18.1
248	4/18/2007 13:30:00	7.724	18.1
249	4/18/2007 13:40:00	7.725	18.1
250	4/18/2007 13:50:00	7.725	18.1
251	4/18/2007 14:00:00	7.724	18.1
252	4/18/2007 14:10:00	7.725	18
253	4/18/2007 14:20:00	7.724	18.1
254	4/18/2007 14:30:00	7.724	18
255	4/18/2007 14:40:00	7.724	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
256	4/18/2007 14:50:00	7.723	18
257	4/18/2007 15:00:00	7.724	18.1
258	4/18/2007 15:10:00	7.724	18.1
259	4/18/2007 15:20:00	7.724	18.1
260	4/18/2007 15:30:00	7.723	18.1
261	4/18/2007 15:40:00	7.725	18.1
262	4/18/2007 15:50:00	7.725	18
263	4/18/2007 16:00:00	7.72	18.1
264	4/18/2007 16:10:00	7.719	18
265	4/18/2007 16:20:00	7.721	18.1
266	4/18/2007 16:30:00	7.721	18.1
267	4/18/2007 16:40:00	7.72	18.1
268	4/18/2007 16:50:00	7.723	18.1
269	4/18/2007 17:00:00	7.721	18.1
270	4/18/2007 17:10:00	7.721	18.1
271	4/18/2007 17:20:00	7.723	18.1
272	4/18/2007 17:30:00	7.724	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
273	4/18/2007 17:40:00	7.724	18.1
274	4/18/2007 17:50:00	7.725	18.1
275	4/18/2007 18:00:00	7.724	18.1
276	4/18/2007 18:10:00	7.721	18.1
277	4/18/2007 18:20:00	7.724	18
278	4/18/2007 18:30:00	7.721	18.1
279	4/18/2007 18:40:00	7.72	18
280	4/18/2007 18:50:00	7.718	18.1
281	4/18/2007 19:00:00	7.716	18.1
282	4/18/2007 19:10:00	7.717	18.1
283	4/18/2007 19:20:00	7.714	18.1
284	4/18/2007 19:30:00	7.713	18.1
285	4/18/2007 19:40:00	7.713	18.1
286	4/18/2007 19:50:00	7.712	18.1
287	4/18/2007 20:00:00	7.712	18.1
288	4/18/2007 20:10:00	7.712	18.1
289	4/18/2007 20:20:00	7.714	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
290	4/18/2007 20:30:00	7.713	18.1
291	4/18/2007 20:40:00	7.713	18.1
292	4/18/2007 20:50:00	7.713	18
293	4/18/2007 21:00:00	7.942	18.1
294	4/18/2007 21:10:00	7.947	18.1
295	4/18/2007 21:20:00	7.95	18.1
296	4/18/2007 21:30:00	7.95	18.1
297	4/18/2007 21:40:00	7.95	18.1
298	4/18/2007 21:50:00	7.952	18.1
299	4/18/2007 22:00:00	7.952	18.1
300	4/18/2007 22:10:00	7.952	18.1
301	4/18/2007 22:20:00	7.95	18.1
302	4/18/2007 22:30:00	7.949	18.1
303	4/18/2007 22:40:00	7.952	18.1
304	4/18/2007 22:50:00	7.953	18.1
305	4/18/2007 23:00:00	7.952	18.1
306	4/18/2007 23:10:00	7.952	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
307	4/18/2007 23:20:00	7.953	18.1
308	4/18/2007 23:30:00	7.954	18.1
309	4/18/2007 23:40:00	7.956	18.1
310	4/18/2007 23:50:00	7.955	18.1
311	4/19/2007 0:00:00	7.957	18.1
312	4/19/2007 0:10:00	7.959	18.1
313	4/19/2007 0:20:00	7.961	18.1
314	4/19/2007 0:30:00	7.961	18.1
315	4/19/2007 0:40:00	7.962	18.1
316	4/19/2007 0:50:00	7.964	18.1
317	4/19/2007 1:00:00	7.966	18.1
318	4/19/2007 1:10:00	7.968	18.1
319	4/19/2007 1:20:00	7.97	18.1
320	4/19/2007 1:30:00	7.974	18.1
321	4/19/2007 1:40:00	7.975	18.1
322	4/19/2007 1:50:00	7.981	18.1
323	4/19/2007 2:00:00	7.988	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
324	4/19/2007 2:10:00	7.99	18.1
325	4/19/2007 2:20:00	7.995	18.1
326	4/19/2007 2:30:00	7.998	18.1
327	4/19/2007 2:40:00	7.997	18.1
328	4/19/2007 2:50:00	7.998	18.1
329	4/19/2007 3:00:00	7.999	18.1
330	4/19/2007 3:10:00	7.998	18.1
331	4/19/2007 3:20:00	7.998	18.1
332	4/19/2007 3:30:00	7.999	18.1
333	4/19/2007 3:40:00	7.998	18.1
334	4/19/2007 3:50:00	7.997	18.1
335	4/19/2007 4:00:00	7.997	18.1
336	4/19/2007 4:10:00	7.996	18.1
337	4/19/2007 4:20:00	7.996	18.1
338	4/19/2007 4:30:00	7.992	18.1
339	4/19/2007 4:40:00	7.992	18.1
340	4/19/2007 4:50:00	7.991	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
341	4/19/2007 5:00:00	7.992	18.1
342	4/19/2007 5:10:00	7.992	18.1
343	4/19/2007 5:20:00	7.995	18.1
344	4/19/2007 5:30:00	7.998	18.1
345	4/19/2007 5:40:00	7.996	18.1
346	4/19/2007 5:50:00	7.996	18.1
347	4/19/2007 6:00:00	7.995	18.1
348	4/19/2007 6:10:00	7.996	18.1
349	4/19/2007 6:20:00	7.995	18.1
350	4/19/2007 6:30:00	7.991	18.1
351	4/19/2007 6:40:00	7.985	18.1
352	4/19/2007 6:50:00	7.983	18.1
353	4/19/2007 7:00:00	7.982	18.1
354	4/19/2007 7:10:00	7.981	18.1
355	4/19/2007 7:20:00	7.982	18.1
356	4/19/2007 7:30:00	7.988	18.1
357	4/19/2007 7:40:00	7.985	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
358	4/19/2007 7:50:00	7.983	18.1
359	4/19/2007 8:00:00	7.984	18.1
360	4/19/2007 8:10:00	7.982	18.1
361	4/19/2007 8:20:00	7.978	18.1
362	4/19/2007 8:30:00	7.98	18.1
363	4/19/2007 8:40:00	7.977	18.1
364	4/19/2007 8:50:00	7.977	18.1
365	4/19/2007 9:00:00	7.98	18.1
366	4/19/2007 9:10:00	7.99	18.1
367	4/19/2007 9:20:00	7.988	18.1
368	4/19/2007 9:30:00	7.988	18.1
369	4/19/2007 9:40:00	7.987	18.1
370	4/19/2007 9:50:00	7.983	18.1
371	4/19/2007 10:00:00	7.983	18.1
372	4/19/2007 10:10:00	7.987	18.1
373	4/19/2007 10:20:00	7.984	18.1
374	4/19/2007 10:30:00	7.981	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
375	4/19/2007 10:40:00	7.977	18.1
376	4/19/2007 10:50:00	7.975	18.1
377	4/19/2007 11:00:00	7.973	18.1
378	4/19/2007 11:10:00	7.973	18.1
379	4/19/2007 11:20:00	7.973	18.1
380	4/19/2007 11:30:00	7.974	18.1
381	4/19/2007 11:40:00	7.975	18.1
382	4/19/2007 11:50:00	7.976	18.1
383	4/19/2007 12:00:00	7.975	18.1
384	4/19/2007 12:10:00	7.98	18.1
385	4/19/2007 12:20:00	7.981	18.1
386	4/19/2007 12:30:00	7.983	18.1
387	4/19/2007 12:40:00	7.982	18.1
388	4/19/2007 12:50:00	7.982	18.1
389	4/19/2007 13:00:00	7.983	18.1
390	4/19/2007 13:10:00	7.982	18.1
391	4/19/2007 13:20:00	7.981	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
392	4/19/2007 13:30:00	7.98	18.1
393	4/19/2007 13:40:00	7.98	18.1
394	4/19/2007 13:50:00	7.978	18.1
395	4/19/2007 14:00:00	7.978	18.1
396	4/19/2007 14:10:00	7.978	18.1
397	4/19/2007 14:20:00	7.978	18.1
398	4/19/2007 14:30:00	7.981	18.1
399	4/19/2007 14:40:00	7.982	18.1
400	4/19/2007 14:50:00	7.983	18.1
401	4/19/2007 15:00:00	7.989	18.1
402	4/19/2007 15:10:00	7.991	18.1
403	4/19/2007 15:20:00	7.995	18.1
404	4/19/2007 15:30:00	7.998	18.1
405	4/19/2007 15:40:00	8.001	18.1
406	4/19/2007 15:50:00	7.999	18.1
407	4/19/2007 16:00:00	8.002	18.1
408	4/19/2007 16:10:00	8.002	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
409	4/19/2007 16:20:00	8.001	18.1
410	4/19/2007 16:30:00	7.999	18.1
411	4/19/2007 16:40:00	8.001	18.1
412	4/19/2007 16:50:00	8.002	18.1
413	4/19/2007 17:00:00	8.002	18.1
414	4/19/2007 17:10:00	8.002	18.1
415	4/19/2007 17:20:00	8.003	18.1
416	4/19/2007 17:30:00	8.001	18.1
417	4/19/2007 17:40:00	8.001	18.1
418	4/19/2007 17:50:00	8.002	18.1
419	4/19/2007 18:00:00	8.003	18.1
420	4/19/2007 18:10:00	8.003	18.1
421	4/19/2007 18:20:00	8.006	18.1
422	4/19/2007 18:30:00	8.009	18.1
423	4/19/2007 18:40:00	8.01	18.1
424	4/19/2007 18:50:00	8.01	18.1
425	4/19/2007 19:00:00	8.012	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
426	4/19/2007 19:10:00	8.013	18.1
427	4/19/2007 19:20:00	8.013	18.1
428	4/19/2007 19:30:00	8.012	18.1
429	4/19/2007 19:40:00	8.01	18.1
430	4/19/2007 19:50:00	8.008	18.1
431	4/19/2007 20:00:00	8.005	18.1
432	4/19/2007 20:10:00	8.002	18.1
433	4/19/2007 20:20:00	8.001	18.1
434	4/19/2007 20:30:00	7.997	18.1
435	4/19/2007 20:40:00	7.994	18.1
436	4/19/2007 20:50:00	7.992	18.1
437	4/19/2007 21:00:00	7.992	18.1
438	4/19/2007 21:10:00	7.995	18.1
439	4/19/2007 21:20:00	8.001	18.1
440	4/19/2007 21:30:00	8.013	18.1
441	4/19/2007 21:40:00	8.026	18.1
442	4/19/2007 21:50:00	8.046	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
443	4/19/2007 22:00:00	8.073	18.1
444	4/19/2007 22:10:00	8.1	18.1
445	4/19/2007 22:20:00	8.128	18.1
446	4/19/2007 22:30:00	8.154	18.1
447	4/19/2007 22:40:00	8.182	18.1
448	4/19/2007 22:50:00	8.207	18.1
449	4/19/2007 23:00:00	8.234	18.1
450	4/19/2007 23:10:00	8.262	18.1
451	4/19/2007 23:20:00	8.291	18.1
452	4/19/2007 23:30:00	8.319	18.1
453	4/19/2007 23:40:00	8.349	18.1
454	4/19/2007 23:50:00	8.373	18.1
455	4/20/2007 0:00:00	8.397	18.1
456	4/20/2007 0:10:00	8.422	18.1
457	4/20/2007 0:20:00	8.448	18.1
458	4/20/2007 0:30:00	8.472	18.1
459	4/20/2007 0:40:00	8.503	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
460	4/20/2007 0:50:00	8.536	18.1
461	4/20/2007 1:00:00	8.568	18.1
462	4/20/2007 1:10:00	8.601	18.1
463	4/20/2007 1:20:00	8.632	18.1
464	4/20/2007 1:30:00	8.665	18.1
465	4/20/2007 1:40:00	8.698	18.1
466	4/20/2007 1:50:00	8.733	18.1
467	4/20/2007 2:00:00	8.771	18.1
468	4/20/2007 2:10:00	8.81	18.1
469	4/20/2007 2:20:00	8.845	18.1
470	4/20/2007 2:30:00	8.873	18.1
471	4/20/2007 2:40:00	8.899	18.1
472	4/20/2007 2:50:00	8.919	18.1
473	4/20/2007 3:00:00	8.935	18.1
474	4/20/2007 3:10:00	8.949	18.1
475	4/20/2007 3:20:00	8.963	18.1
476	4/20/2007 3:30:00	8.977	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
477	4/20/2007 3:40:00	8.991	18.1
478	4/20/2007 3:50:00	9.005	18.1
479	4/20/2007 4:00:00	9.019	18.1
480	4/20/2007 4:10:00	9.031	18.1
481	4/20/2007 4:20:00	9.041	18.1
482	4/20/2007 4:30:00	9.052	18.1
483	4/20/2007 4:40:00	9.062	18.1
484	4/20/2007 4:50:00	9.07	18.1
485	4/20/2007 5:00:00	9.077	18.1
486	4/20/2007 5:10:00	9.086	18.1
487	4/20/2007 5:20:00	9.093	18.1
488	4/20/2007 5:30:00	9.1	18.1
489	4/20/2007 5:40:00	9.106	18.1
490	4/20/2007 5:50:00	9.109	18.1
491	4/20/2007 6:00:00	9.114	18.1
492	4/20/2007 6:10:00	9.118	18.1
493	4/20/2007 6:20:00	9.123	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
494	4/20/2007 6:30:00	9.125	18.1
495	4/20/2007 6:40:00	9.13	18.1
496	4/20/2007 6:50:00	9.131	18.1
497	4/20/2007 7:00:00	9.134	18.1
498	4/20/2007 7:10:00	9.136	18.1
499	4/20/2007 7:20:00	9.136	18.1
500	4/20/2007 7:30:00	9.136	18.1
501	4/20/2007 7:40:00	9.136	18.1
502	4/20/2007 7:50:00	9.135	18.1
503	4/20/2007 8:00:00	9.135	18.1
504	4/20/2007 8:10:00	9.136	18.1
505	4/20/2007 8:20:00	9.136	18.1
506	4/20/2007 8:30:00	9.135	18.1
507	4/20/2007 8:40:00	9.134	18.1
508	4/20/2007 8:50:00	9.132	18.1
509	4/20/2007 9:00:00	9.13	18.1
510	4/20/2007 9:10:00	9.128	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
511	4/20/2007 9:20:00	9.125	18.1
512	4/20/2007 9:30:00	9.125	18.1
513	4/20/2007 9:40:00	9.123	18.1
514	4/20/2007 9:50:00	9.122	18.1
515	4/20/2007 10:00:00	9.121	18.1
516	4/20/2007 10:10:00	9.121	18.1
517	4/20/2007 10:20:00	9.121	18.1
518	4/20/2007 10:30:00	9.116	18.1
519	4/20/2007 10:40:00	9.116	18.1
520	4/20/2007 10:50:00	9.113	18.1
521	4/20/2007 11:00:00	9.111	18.1
522	4/20/2007 11:10:00	9.109	18.1
523	4/20/2007 11:20:00	9.106	18.1
524	4/20/2007 11:30:00	9.102	18.1
525	4/20/2007 11:40:00	9.099	18.1
526	4/20/2007 11:50:00	9.096	18.1
527	4/20/2007 12:00:00	9.096	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
528	4/20/2007 12:10:00	9.093	18.1
529	4/20/2007 12:20:00	9.091	18.1
530	4/20/2007 12:30:00	9.09	18.1
531	4/20/2007 12:40:00	9.089	18.1
532	4/20/2007 12:50:00	9.086	18.1
533	4/20/2007 13:00:00	9.083	18.1
534	4/20/2007 13:10:00	9.08	18.1
535	4/20/2007 13:20:00	9.075	18.1
536	4/20/2007 13:30:00	9.072	18.1
537	4/20/2007 13:40:00	9.068	18.1
538	4/20/2007 13:50:00	9.067	18.1
539	4/20/2007 14:00:00	9.065	18.1
540	4/20/2007 14:10:00	9.063	18.1
541	4/20/2007 14:20:00	9.063	18.1
542	4/20/2007 14:30:00	9.063	18.1
543	4/20/2007 14:40:00	9.065	18.1
544	4/20/2007 14:50:00	9.063	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	704.6055908	1.00E-06	2.00E-06	1.003041029	-3711.693848	1.00E-05	3.70E-05	0.115123004
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609034
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M07A-10
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	7.712	18
Maximum	9.136	18.2
Mean	8.11	18.1
Variance	0.2061	0
Std Deviation	0.454	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
545	4/20/2007 15:00:00	9.063	18.1
546	4/20/2007 15:10:00	9.062	18.1
547	4/20/2007 15:20:00	9.061	18.1
548	4/20/2007 15:30:00	9.061	18.1
549	4/20/2007 15:40:00	9.062	18.1
550	4/20/2007 15:50:00	9.061	18.1
551	4/20/2007 16:00:00	9.06	18.1
552	4/20/2007 16:10:00	9.056	18.1
553	4/20/2007 16:20:00	9.054	18.1
554	4/20/2007 16:30:00	9.052	18.1
555	4/20/2007 16:40:00	9.047	18.1
556	4/20/2007 16:50:00	9.045	18.1
557	4/20/2007 17:00:00	9.041	18.1
558	4/20/2007 17:10:00	9.039	18.1
559	4/20/2007 17:20:00	9.037	18.1
560	4/20/2007 17:30:00	9.034	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/17/2007 19:30:00	10.245	16.9
2	4/17/2007 19:40:00	10.227	17.1
3	4/17/2007 19:50:00	10.224	17.1
4	4/17/2007 20:00:00	10.224	17.1
5	4/17/2007 20:10:00	10.221	17.1
6	4/17/2007 20:20:00	10.221	17.1
7	4/17/2007 20:30:00	10.223	17.1
8	4/17/2007 20:40:00	10.22	17.1
9	4/17/2007 20:50:00	10.218	17.1
10	4/17/2007 21:00:00	10.217	17.1
11	4/17/2007 21:10:00	10.211	17.1
12	4/17/2007 21:20:00	10.207	17.1
13	4/17/2007 21:30:00	10.206	17.1
14	4/17/2007 21:40:00	10.205	17.1
15	4/17/2007 21:50:00	10.205	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346025**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensors**
Session Name	**M25-01**
# Records	**432**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
16	4/17/2007 22:00:00	10.202	17.1
17	4/17/2007 22:10:00	10.199	17.1
18	4/17/2007 22:20:00	10.198	17.1
19	4/17/2007 22:30:00	10.202	17.1
20	4/17/2007 22:40:00	10.204	17.1
21	4/17/2007 22:50:00	10.204	17.1
22	4/17/2007 23:00:00	10.203	17.1
23	4/17/2007 23:10:00	10.202	17.1
24	4/17/2007 23:20:00	10.203	17.1
25	4/17/2007 23:30:00	10.203	17.1
26	4/17/2007 23:40:00	10.205	17.1
27	4/17/2007 23:50:00	10.206	17.1
28	4/18/2007 0:00:00	10.204	17.1
29	4/18/2007 0:10:00	10.206	17.1
30	4/18/2007 0:20:00	10.209	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
31	4/18/2007 0:30:00	10.209	17.1
32	4/18/2007 0:40:00	10.206	17.1
33	4/18/2007 0:50:00	10.205	17.1
34	4/18/2007 1:00:00	10.205	17.1
35	4/18/2007 1:10:00	10.202	17.1
36	4/18/2007 1:20:00	10.203	17.1
37	4/18/2007 1:30:00	10.203	17.1
38	4/18/2007 1:40:00	10.203	17.1
39	4/18/2007 1:50:00	10.205	17.1
40	4/18/2007 2:00:00	10.21	17.1
41	4/18/2007 2:10:00	10.214	17.1
42	4/18/2007 2:20:00	10.218	17.1
43	4/18/2007 2:30:00	10.219	17.1
44	4/18/2007 2:40:00	10.221	17.1
45	4/18/2007 2:50:00	10.227	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346025**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensors**
Session Name	**M25-01**
# Records	**432**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
46	4/18/2007 3:00:00	10.225	17.1
47	4/18/2007 3:10:00	10.226	17.1
48	4/18/2007 3:20:00	10.227	17.1
49	4/18/2007 3:30:00	10.232	17.1
50	4/18/2007 3:40:00	10.237	17.1
51	4/18/2007 3:50:00	10.237	17.1
52	4/18/2007 4:00:00	10.235	17.1
53	4/18/2007 4:10:00	10.237	17.1
54	4/18/2007 4:20:00	10.238	17.1
55	4/18/2007 4:30:00	10.239	17.1
56	4/18/2007 4:40:00	10.237	17.1
57	4/18/2007 4:50:00	10.238	17.1
58	4/18/2007 5:00:00	10.235	17.1
59	4/18/2007 5:10:00	10.237	17.1
60	4/18/2007 5:20:00	10.237	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346025**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensors**
Session Name	**M25-01**
# Records	**432**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
61	4/18/2007 5:30:00	10.237	17.1
62	4/18/2007 5:40:00	10.238	17.1
63	4/18/2007 5:50:00	10.238	17.1
64	4/18/2007 6:00:00	10.239	17.1
65	4/18/2007 6:10:00	10.238	17.1
66	4/18/2007 6:20:00	10.237	17.1
67	4/18/2007 6:30:00	10.239	17.1
68	4/18/2007 6:40:00	10.238	17.1
69	4/18/2007 6:50:00	10.238	17.1
70	4/18/2007 7:00:00	10.239	17.1
71	4/18/2007 7:10:00	10.238	17.1
72	4/18/2007 7:20:00	10.238	17.1
73	4/18/2007 7:30:00	10.235	17.1
74	4/18/2007 7:40:00	10.232	17.1
75	4/18/2007 7:50:00	10.23	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346025**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensors**
Session Name	**M25-01**
# Records	**432**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
76	4/18/2007 8:00:00	10.227	17.1
77	4/18/2007 8:10:00	10.227	17.1
78	4/18/2007 8:20:00	10.225	17.1
79	4/18/2007 8:30:00	10.223	17.1
80	4/18/2007 8:40:00	10.223	17.1
81	4/18/2007 8:50:00	10.218	17.1
82	4/18/2007 9:00:00	10.218	17.1
83	4/18/2007 9:10:00	10.217	17.1
84	4/18/2007 9:20:00	10.216	17.1
85	4/18/2007 9:30:00	10.216	17.1
86	4/18/2007 9:40:00	10.212	17.1
87	4/18/2007 9:50:00	10.211	17.1
88	4/18/2007 10:00:00	10.21	17.1
89	4/18/2007 10:10:00	10.211	17.1
90	4/18/2007 10:20:00	10.214	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
91	4/18/2007 10:30:00	10.216	17.1
92	4/18/2007 10:40:00	10.217	17.1
93	4/18/2007 10:50:00	10.214	17.1
94	4/18/2007 11:00:00	10.217	17.1
95	4/18/2007 11:10:00	10.218	17.1
96	4/18/2007 11:20:00	10.217	17.1
97	4/18/2007 11:30:00	10.218	17.1
98	4/18/2007 11:40:00	10.219	17.1
99	4/18/2007 11:50:00	10.22	17.1
100	4/18/2007 12:00:00	10.224	17.1
101	4/18/2007 12:10:00	10.226	17.1
102	4/18/2007 12:20:00	10.228	17.1
103	4/18/2007 12:30:00	10.23	17.1
104	4/18/2007 12:40:00	10.235	17.1
105	4/18/2007 12:50:00	10.237	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346025**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensors**
Session Name	**M25-01**
# Records	**432**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
106	4/18/2007 13:00:00	10.239	17.1
107	4/18/2007 13:10:00	10.244	17.1
108	4/18/2007 13:20:00	10.246	17.1
109	4/18/2007 13:30:00	10.25	17.1
110	4/18/2007 13:40:00	10.253	17.1
111	4/18/2007 13:50:00	10.255	17.1
112	4/18/2007 14:00:00	10.259	17.1
113	4/18/2007 14:10:00	10.262	17.1
114	4/18/2007 14:20:00	10.261	17.1
115	4/18/2007 14:30:00	10.267	17.1
116	4/18/2007 14:40:00	10.271	17.1
117	4/18/2007 14:50:00	10.274	17.1
118	4/18/2007 15:00:00	10.275	17.1
119	4/18/2007 15:10:00	10.278	17.1
120	4/18/2007 15:20:00	10.281	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
121	4/18/2007 15:30:00	10.283	17.1
122	4/18/2007 15:40:00	10.285	17.1
123	4/18/2007 15:50:00	10.287	17.1
124	4/18/2007 16:00:00	10.287	17.1
125	4/18/2007 16:10:00	10.289	17.1
126	4/18/2007 16:20:00	10.291	17.1
127	4/18/2007 16:30:00	10.294	17.1
128	4/18/2007 16:40:00	10.295	17.1
129	4/18/2007 16:50:00	10.3	17.1
130	4/18/2007 17:00:00	10.301	17.1
131	4/18/2007 17:10:00	10.302	17.1
132	4/18/2007 17:20:00	10.305	17.1
133	4/18/2007 17:30:00	10.307	17.1
134	4/18/2007 17:40:00	10.309	17.1
135	4/18/2007 17:50:00	10.312	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
136	4/18/2007 18:00:00	10.313	17.1
137	4/18/2007 18:10:00	10.313	17.1
138	4/18/2007 18:20:00	10.314	17.1
139	4/18/2007 18:30:00	10.314	17.1
140	4/18/2007 18:40:00	10.313	17.1
141	4/18/2007 18:50:00	10.31	17.1
142	4/18/2007 19:00:00	10.31	17.1
143	4/18/2007 19:10:00	10.31	17.1
144	4/18/2007 19:20:00	10.309	17.1
145	4/18/2007 19:30:00	10.307	17.1
146	4/18/2007 19:40:00	10.308	17.1
147	4/18/2007 19:50:00	10.307	17.1
148	4/18/2007 20:00:00	10.307	17.1
149	4/18/2007 20:10:00	10.308	17.1
150	4/18/2007 20:20:00	10.31	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
151	4/18/2007 20:30:00	10.31	17.1
152	4/18/2007 20:40:00	10.31	17.1
153	4/18/2007 20:50:00	10.309	17.1
154	4/18/2007 21:00:00	10.308	17.1
155	4/18/2007 21:10:00	10.31	17.1
156	4/18/2007 21:20:00	10.315	17.1
157	4/18/2007 21:30:00	10.314	17.1
158	4/18/2007 21:40:00	10.312	17.1
159	4/18/2007 21:50:00	10.315	17.1
160	4/18/2007 22:00:00	10.313	17.1
161	4/18/2007 22:10:00	10.315	17.1
162	4/18/2007 22:20:00	10.312	17.1
163	4/18/2007 22:30:00	10.308	17.1
164	4/18/2007 22:40:00	10.299	17.1
165	4/18/2007 22:50:00	10.298	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
166	4/18/2007 23:00:00	10.303	17.1
167	4/18/2007 23:10:00	10.313	17.1
168	4/18/2007 23:20:00	10.317	17.1
169	4/18/2007 23:30:00	10.321	17.1
170	4/18/2007 23:40:00	10.324	17.1
171	4/18/2007 23:50:00	10.324	17.1
172	4/19/2007 0:00:00	10.327	17.1
173	4/19/2007 0:10:00	10.33	17.1
174	4/19/2007 0:20:00	10.335	17.1
175	4/19/2007 0:30:00	10.336	17.1
176	4/19/2007 0:40:00	10.337	17.1
177	4/19/2007 0:50:00	10.342	17.1
178	4/19/2007 1:00:00	10.343	17.1
179	4/19/2007 1:10:00	10.347	17.1
180	4/19/2007 1:20:00	10.349	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
181	4/19/2007 1:30:00	10.35	17.1
182	4/19/2007 1:40:00	10.353	17.1
183	4/19/2007 1:50:00	10.361	17.1
184	4/19/2007 2:00:00	10.364	17.1
185	4/19/2007 2:10:00	10.367	17.1
186	4/19/2007 2:20:00	10.371	17.1
187	4/19/2007 2:30:00	10.374	17.1
188	4/19/2007 2:40:00	10.372	17.1
189	4/19/2007 2:50:00	10.372	17.1
190	4/19/2007 3:00:00	10.371	17.1
191	4/19/2007 3:10:00	10.37	17.1
192	4/19/2007 3:20:00	10.371	17.1
193	4/19/2007 3:30:00	10.371	17.1
194	4/19/2007 3:40:00	10.372	17.1
195	4/19/2007 3:50:00	10.371	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
196	4/19/2007 4:00:00	10.371	17.1
197	4/19/2007 4:10:00	10.371	17.1
198	4/19/2007 4:20:00	10.374	17.1
199	4/19/2007 4:30:00	10.371	17.1
200	4/19/2007 4:40:00	10.372	17.1
201	4/19/2007 4:50:00	10.374	17.1
202	4/19/2007 5:00:00	10.377	17.1
203	4/19/2007 5:10:00	10.379	17.1
204	4/19/2007 5:20:00	10.384	17.1
205	4/19/2007 5:30:00	10.385	17.1
206	4/19/2007 5:40:00	10.385	17.1
207	4/19/2007 5:50:00	10.384	17.1
208	4/19/2007 6:00:00	10.386	17.1
209	4/19/2007 6:10:00	10.39	17.1
210	4/19/2007 6:20:00	10.39	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
211	4/19/2007 6:30:00	10.389	17
212	4/19/2007 6:40:00	10.385	17.1
213	4/19/2007 6:50:00	10.384	17.1
214	4/19/2007 7:00:00	10.386	17.1
215	4/19/2007 7:10:00	10.388	17.1
216	4/19/2007 7:20:00	10.391	17.1
217	4/19/2007 7:30:00	10.39	17.1
218	4/19/2007 7:40:00	10.389	17.1
219	4/19/2007 7:50:00	10.39	17.1
220	4/19/2007 8:00:00	10.393	17
221	4/19/2007 8:10:00	10.392	17.1
222	4/19/2007 8:20:00	10.392	17.1
223	4/19/2007 8:30:00	10.397	17.1
224	4/19/2007 8:40:00	10.397	17.1
225	4/19/2007 8:50:00	10.397	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
226	4/19/2007 9:00:00	10.405	17.1
227	4/19/2007 9:10:00	10.401	17.1
228	4/19/2007 9:20:00	10.409	17.1
229	4/19/2007 9:30:00	10.405	17.1
230	4/19/2007 9:40:00	10.404	17.1
231	4/19/2007 9:50:00	10.404	17.1
232	4/19/2007 10:00:00	10.41	17.1
233	4/19/2007 10:10:00	10.413	17.1
234	4/19/2007 10:20:00	10.415	17.1
235	4/19/2007 10:30:00	10.412	17
236	4/19/2007 10:40:00	10.412	17.1
237	4/19/2007 10:50:00	10.411	17
238	4/19/2007 11:00:00	10.411	17.1
239	4/19/2007 11:10:00	10.41	17
240	4/19/2007 11:20:00	10.412	17

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
241	4/19/2007 11:30:00	10.415	17.1
242	4/19/2007 11:40:00	10.419	17.1
243	4/19/2007 11:50:00	10.42	17.1
244	4/19/2007 12:00:00	10.42	17.1
245	4/19/2007 12:10:00	10.424	17
246	4/19/2007 12:20:00	10.429	17.1
247	4/19/2007 12:30:00	10.43	17.1
248	4/19/2007 12:40:00	10.431	17
249	4/19/2007 12:50:00	10.437	17.1
250	4/19/2007 13:00:00	10.437	17
251	4/19/2007 13:10:00	10.44	17
252	4/19/2007 13:20:00	10.443	17
253	4/19/2007 13:30:00	10.441	17
254	4/19/2007 13:40:00	10.444	17.1
255	4/19/2007 13:50:00	10.451	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
256	4/19/2007 14:00:00	10.453	17
257	4/19/2007 14:10:00	10.451	17
258	4/19/2007 14:20:00	10.46	17
259	4/19/2007 14:30:00	10.463	17.1
260	4/19/2007 14:40:00	10.464	17
261	4/19/2007 14:50:00	10.474	17
262	4/19/2007 15:00:00	10.48	17
263	4/19/2007 15:10:00	10.487	17
264	4/19/2007 15:20:00	10.493	17
265	4/19/2007 15:30:00	10.499	17
266	4/19/2007 15:40:00	10.503	17
267	4/19/2007 15:50:00	10.505	17
268	4/19/2007 16:00:00	10.508	17
269	4/19/2007 16:10:00	10.512	17
270	4/19/2007 16:20:00	10.513	17

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
271	4/19/2007 16:30:00	10.512	17
272	4/19/2007 16:40:00	10.516	17
273	4/19/2007 16:50:00	10.519	17
274	4/19/2007 17:00:00	10.52	17
275	4/19/2007 17:10:00	10.526	17
276	4/19/2007 17:20:00	10.529	17
277	4/19/2007 17:30:00	10.528	17
278	4/19/2007 17:40:00	10.528	17
279	4/19/2007 17:50:00	10.534	17
280	4/19/2007 18:00:00	10.536	17.1
281	4/19/2007 18:10:00	10.54	17.1
282	4/19/2007 18:20:00	10.543	17
283	4/19/2007 18:30:00	10.547	17
284	4/19/2007 18:40:00	10.551	17
285	4/19/2007 18:50:00	10.554	17

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
286	4/19/2007 19:00:00	10.556	17.1
287	4/19/2007 19:10:00	10.557	17
288	4/19/2007 19:20:00	10.56	17
289	4/19/2007 19:30:00	10.561	17.1
290	4/19/2007 19:40:00	10.56	17.1
291	4/19/2007 19:50:00	10.557	17.1
292	4/19/2007 20:00:00	10.555	17.1
293	4/19/2007 20:10:00	10.554	17.1
294	4/19/2007 20:20:00	10.553	17.1
295	4/19/2007 20:30:00	10.548	17.1
296	4/19/2007 20:40:00	10.546	17.1
297	4/19/2007 20:50:00	10.543	17.1
298	4/19/2007 21:00:00	10.532	17.1
299	4/19/2007 21:10:00	10.518	17.1
300	4/19/2007 21:20:00	10.518	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346025**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensors**
Session Name	**M25-01**
# Records	**432**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
301	4/19/2007 21:30:00	10.52	17.1
302	4/19/2007 21:40:00	10.523	17.1
303	4/19/2007 21:50:00	10.533	17.1
304	4/19/2007 22:00:00	10.546	17.1
305	4/19/2007 22:10:00	10.549	17.1
306	4/19/2007 22:20:00	10.555	17.1
307	4/19/2007 22:30:00	10.555	17.1
308	4/19/2007 22:40:00	10.557	17.1
309	4/19/2007 22:50:00	10.557	17.1
310	4/19/2007 23:00:00	10.56	17.1
311	4/19/2007 23:10:00	10.561	17.1
312	4/19/2007 23:20:00	10.563	17.1
313	4/19/2007 23:30:00	10.567	17.1
314	4/19/2007 23:40:00	10.568	17.1
315	4/19/2007 23:50:00	10.568	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
316	4/20/2007 0:00:00	10.566	17.1
317	4/20/2007 0:10:00	10.565	17
318	4/20/2007 0:20:00	10.566	17.1
319	4/20/2007 0:30:00	10.563	17.1
320	4/20/2007 0:40:00	10.568	17.1
321	4/20/2007 0:50:00	10.563	17.1
322	4/20/2007 1:00:00	10.567	17.1
323	4/20/2007 1:10:00	10.567	17.1
324	4/20/2007 1:20:00	10.567	17.1
325	4/20/2007 1:30:00	10.571	17.1
326	4/20/2007 1:40:00	10.574	17
327	4/20/2007 1:50:00	10.576	17.1
328	4/20/2007 2:00:00	10.581	17
329	4/20/2007 2:10:00	10.584	17
330	4/20/2007 2:20:00	10.584	17

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
331	4/20/2007 2:30:00	10.583	17
332	4/20/2007 2:40:00	10.58	17
333	4/20/2007 2:50:00	10.58	17
334	4/20/2007 3:00:00	10.571	17.1
335	4/20/2007 3:10:00	10.569	17.1
336	4/20/2007 3:20:00	10.567	17.1
337	4/20/2007 3:30:00	10.563	17
338	4/20/2007 3:40:00	10.565	17
339	4/20/2007 3:50:00	10.562	17
340	4/20/2007 4:00:00	10.567	17.1
341	4/20/2007 4:10:00	10.567	17.1
342	4/20/2007 4:20:00	10.569	17.1
343	4/20/2007 4:30:00	10.567	17.1
344	4/20/2007 4:40:00	10.564	17
345	4/20/2007 4:50:00	10.556	17

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346025**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensors**
Session Name	**M25-01**
# Records	**432**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
346	4/20/2007 5:00:00	10.558	17
347	4/20/2007 5:10:00	10.554	17
348	4/20/2007 5:20:00	10.56	17
349	4/20/2007 5:30:00	10.558	17
350	4/20/2007 5:40:00	10.558	17
351	4/20/2007 5:50:00	10.56	17.1
352	4/20/2007 6:00:00	10.564	17
353	4/20/2007 6:10:00	10.561	17
354	4/20/2007 6:20:00	10.563	17
355	4/20/2007 6:30:00	10.561	17
356	4/20/2007 6:40:00	10.561	17
357	4/20/2007 6:50:00	10.556	17
358	4/20/2007 7:00:00	10.555	17
359	4/20/2007 7:10:00	10.555	17
360	4/20/2007 7:20:00	10.551	17

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
361	4/20/2007 7:30:00	10.549	17
362	4/20/2007 7:40:00	10.549	17
363	4/20/2007 7:50:00	10.543	17
364	4/20/2007 8:00:00	10.544	17
365	4/20/2007 8:10:00	10.544	17
366	4/20/2007 8:20:00	10.542	17
367	4/20/2007 8:30:00	10.539	17
368	4/20/2007 8:40:00	10.543	17
369	4/20/2007 8:50:00	10.54	17
370	4/20/2007 9:00:00	10.537	17
371	4/20/2007 9:10:00	10.536	17
372	4/20/2007 9:20:00	10.534	17
373	4/20/2007 9:30:00	10.533	17
374	4/20/2007 9:40:00	10.53	17
375	4/20/2007 9:50:00	10.532	17

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
376	4/20/2007 10:00:00	10.53	17
377	4/20/2007 10:10:00	10.532	17
378	4/20/2007 10:20:00	10.534	17
379	4/20/2007 10:30:00	10.533	17
380	4/20/2007 10:40:00	10.533	17
381	4/20/2007 10:50:00	10.532	17
382	4/20/2007 11:00:00	10.532	17
383	4/20/2007 11:10:00	10.532	17
384	4/20/2007 11:20:00	10.532	17
385	4/20/2007 11:30:00	10.53	17
386	4/20/2007 11:40:00	10.528	17
387	4/20/2007 11:50:00	10.527	17
388	4/20/2007 12:00:00	10.529	17
389	4/20/2007 12:10:00	10.527	17
390	4/20/2007 12:20:00	10.529	17

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
391	4/20/2007 12:30:00	10.529	17
392	4/20/2007 12:40:00	10.53	17
393	4/20/2007 12:50:00	10.529	17
394	4/20/2007 13:00:00	10.53	17
395	4/20/2007 13:10:00	10.528	17
396	4/20/2007 13:20:00	10.525	17
397	4/20/2007 13:30:00	10.525	17
398	4/20/2007 13:40:00	10.522	17
399	4/20/2007 13:50:00	10.522	17
400	4/20/2007 14:00:00	10.52	17
401	4/20/2007 14:10:00	10.52	17
402	4/20/2007 14:20:00	10.521	17
403	4/20/2007 14:30:00	10.523	17
404	4/20/2007 14:40:00	10.525	17
405	4/20/2007 14:50:00	10.525	17

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
406	4/20/2007 15:00:00	10.526	17
407	4/20/2007 15:10:00	10.527	17
408	4/20/2007 15:20:00	10.527	17
409	4/20/2007 15:30:00	10.53	17
410	4/20/2007 15:40:00	10.533	17
411	4/20/2007 15:50:00	10.536	17
412	4/20/2007 16:00:00	10.536	17
413	4/20/2007 16:10:00	10.535	17
414	4/20/2007 16:20:00	10.535	17
415	4/20/2007 16:30:00	10.534	17.1
416	4/20/2007 16:40:00	10.532	17
417	4/20/2007 16:50:00	10.529	17
418	4/20/2007 17:00:00	10.528	17
419	4/20/2007 17:10:00	10.527	17
420	4/20/2007 17:20:00	10.525	17

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.40E-07	1.68E-05	1.005057	-4060423	2.60E-06	2.46E-04	6.31E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346025
Sensor Type	PT2X
Sensor Name	INW Smart Sensors
Session Name	M25-01
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	16.9
Maximum	10.584	17.1
Mean	10.395	17
Variance	0.0178	0.01
Std Deviation	0.1334	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
421	4/20/2007 17:30:00	10.521	17
422	4/20/2007 17:40:00	10.519	17
423	4/20/2007 17:50:00	10.517	17
424	4/20/2007 18:00:00	10.514	17
425	4/20/2007 18:10:00	10.509	17
426	4/20/2007 18:20:00	10.506	17
427	4/20/2007 18:30:00	10.505	17
428	4/20/2007 18:40:00	10.502	17
429	4/20/2007 18:50:00	10.5	17
430	4/20/2007 19:00:00	10.5	17
431	4/20/2007 19:10:00	10.499	17
432	4/20/2007 19:20:00	10.498	17

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/17/2007 19:00:00	10.24	16.5
2	4/17/2007 19:10:00	10.251	16.4
3	4/17/2007 19:20:00	10.253	16.4
4	4/17/2007 19:30:00	10.255	16.4
5	4/17/2007 19:40:00	10.256	16.4
6	4/17/2007 19:50:00	10.256	16.4
7	4/17/2007 20:00:00	10.256	16.4
8	4/17/2007 20:10:00	10.256	16.4
9	4/17/2007 20:20:00	10.256	16.4
10	4/17/2007 20:30:00	10.256	16.4
11	4/17/2007 20:40:00	10.255	16.4
12	4/17/2007 20:50:00	10.255	16.4
13	4/17/2007 21:00:00	10.256	16.4
14	4/17/2007 21:10:00	10.253	16.4
15	4/17/2007 21:20:00	10.252	16.4
16	4/17/2007 21:30:00	10.252	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
17	4/17/2007 21:40:00	10.255	16.4
18	4/17/2007 21:50:00	10.253	16.4
19	4/17/2007 22:00:00	10.252	16.4
20	4/17/2007 22:10:00	10.252	16.4
21	4/17/2007 22:20:00	10.253	16.4
22	4/17/2007 22:30:00	10.255	16.4
23	4/17/2007 22:40:00	10.253	16.4
24	4/17/2007 22:50:00	10.253	16.4
25	4/17/2007 23:00:00	10.253	16.4
26	4/17/2007 23:10:00	10.253	16.4
27	4/17/2007 23:20:00	10.252	16.4
28	4/17/2007 23:30:00	10.253	16.4
29	4/17/2007 23:40:00	10.252	16.4
30	4/17/2007 23:50:00	10.253	16.4
31	4/18/2007 0:00:00	10.252	16.4
32	4/18/2007 0:10:00	10.255	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
33	4/18/2007 0:20:00	10.253	16.4
34	4/18/2007 0:30:00	10.252	16.4
35	4/18/2007 0:40:00	10.252	16.4
36	4/18/2007 0:50:00	10.253	16.4
37	4/18/2007 1:00:00	10.252	16.4
38	4/18/2007 1:10:00	10.251	16.4
39	4/18/2007 1:20:00	10.252	16.4
40	4/18/2007 1:30:00	10.252	16.4
41	4/18/2007 1:40:00	10.253	16.4
42	4/18/2007 1:50:00	10.255	16.4
43	4/18/2007 2:00:00	10.257	16.4
44	4/18/2007 2:10:00	10.257	16.4
45	4/18/2007 2:20:00	10.258	16.4
46	4/18/2007 2:30:00	10.258	16.4
47	4/18/2007 2:40:00	10.259	16.4
48	4/18/2007 2:50:00	10.262	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
49	4/18/2007 3:00:00	10.259	16.4
50	4/18/2007 3:10:00	10.26	16.4
51	4/18/2007 3:20:00	10.259	16.4
52	4/18/2007 3:30:00	10.263	16.4
53	4/18/2007 3:40:00	10.263	16.4
54	4/18/2007 3:50:00	10.262	16.4
55	4/18/2007 4:00:00	10.259	16.4
56	4/18/2007 4:10:00	10.26	16.4
57	4/18/2007 4:20:00	10.26	16.4
58	4/18/2007 4:30:00	10.259	16.4
59	4/18/2007 4:40:00	10.259	16.4
60	4/18/2007 4:50:00	10.259	16.4
61	4/18/2007 5:00:00	10.257	16.4
62	4/18/2007 5:10:00	10.258	16.4
63	4/18/2007 5:20:00	10.258	16.4
64	4/18/2007 5:30:00	10.257	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
65	4/18/2007 5:40:00	10.257	16.4
66	4/18/2007 5:50:00	10.259	16.4
67	4/18/2007 6:00:00	10.258	16.4
68	4/18/2007 6:10:00	10.257	16.4
69	4/18/2007 6:20:00	10.257	16.4
70	4/18/2007 6:30:00	10.257	16.4
71	4/18/2007 6:40:00	10.256	16.4
72	4/18/2007 6:50:00	10.257	16.4
73	4/18/2007 7:00:00	10.256	16.4
74	4/18/2007 7:10:00	10.256	16.4
75	4/18/2007 7:20:00	10.255	16.4
76	4/18/2007 7:30:00	10.255	16.4
77	4/18/2007 7:40:00	10.253	16.4
78	4/18/2007 7:50:00	10.252	16.4
79	4/18/2007 8:00:00	10.252	16.4
80	4/18/2007 8:10:00	10.252	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
81	4/18/2007 8:20:00	10.25	16.4
82	4/18/2007 8:30:00	10.251	16.4
83	4/18/2007 8:40:00	10.25	16.4
84	4/18/2007 8:50:00	10.249	16.4
85	4/18/2007 9:00:00	10.25	16.4
86	4/18/2007 9:10:00	10.249	16.4
87	4/18/2007 9:20:00	10.25	16.4
88	4/18/2007 9:30:00	10.249	16.4
89	4/18/2007 9:40:00	10.249	16.4
90	4/18/2007 9:50:00	10.249	16.4
91	4/18/2007 10:00:00	10.25	16.4
92	4/18/2007 10:10:00	10.25	16.4
93	4/18/2007 10:20:00	10.251	16.4
94	4/18/2007 10:30:00	10.251	16.4
95	4/18/2007 10:40:00	10.251	16.4
96	4/18/2007 10:50:00	10.251	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
97	4/18/2007 11:00:00	10.249	16.4
98	4/18/2007 11:10:00	10.25	16.4
99	4/18/2007 11:20:00	10.249	16.4
100	4/18/2007 11:30:00	10.251	16.4
101	4/18/2007 11:40:00	10.251	16.4
102	4/18/2007 11:50:00	10.251	16.4
103	4/18/2007 12:00:00	10.251	16.4
104	4/18/2007 12:10:00	10.252	16.4
105	4/18/2007 12:20:00	10.252	16.4
106	4/18/2007 12:30:00	10.252	16.4
107	4/18/2007 12:40:00	10.253	16.4
108	4/18/2007 12:50:00	10.253	16.4
109	4/18/2007 13:00:00	10.252	16.4
110	4/18/2007 13:10:00	10.253	16.4
111	4/18/2007 13:20:00	10.255	16.4
112	4/18/2007 13:30:00	10.255	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
113	4/18/2007 13:40:00	10.256	16.4
114	4/18/2007 13:50:00	10.255	16.4
115	4/18/2007 14:00:00	10.256	16.4
116	4/18/2007 14:10:00	10.256	16.4
117	4/18/2007 14:20:00	10.256	16.4
118	4/18/2007 14:30:00	10.257	16.4
119	4/18/2007 14:40:00	10.256	16.4
120	4/18/2007 14:50:00	10.258	16.4
121	4/18/2007 15:00:00	10.255	16.4
122	4/18/2007 15:10:00	10.259	16.4
123	4/18/2007 15:20:00	10.258	16.4
124	4/18/2007 15:30:00	10.258	16.4
125	4/18/2007 15:40:00	10.259	16.4
126	4/18/2007 15:50:00	10.258	16.4
127	4/18/2007 16:00:00	10.257	16.4
128	4/18/2007 16:10:00	10.257	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
129	4/18/2007 16:20:00	10.258	16.4
130	4/18/2007 16:30:00	10.258	16.4
131	4/18/2007 16:40:00	10.259	16.4
132	4/18/2007 16:50:00	10.259	16.4
133	4/18/2007 17:00:00	10.26	16.4
134	4/18/2007 17:10:00	10.259	16.4
135	4/18/2007 17:20:00	10.26	16.4
136	4/18/2007 17:30:00	10.263	16.4
137	4/18/2007 17:40:00	10.26	16.4
138	4/18/2007 17:50:00	10.262	16.4
139	4/18/2007 18:00:00	10.26	16.4
140	4/18/2007 18:10:00	10.26	16.4
141	4/18/2007 18:20:00	10.26	16.4
142	4/18/2007 18:30:00	10.26	16.4
143	4/18/2007 18:40:00	10.259	16.4
144	4/18/2007 18:50:00	10.258	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
145	4/18/2007 19:00:00	10.258	16.4
146	4/18/2007 19:10:00	10.258	16.4
147	4/18/2007 19:20:00	10.256	16.4
148	4/18/2007 19:30:00	10.256	16.4
149	4/18/2007 19:40:00	10.257	16.4
150	4/18/2007 19:50:00	10.256	16.4
151	4/18/2007 20:00:00	10.255	16.4
152	4/18/2007 20:10:00	10.256	16.4
153	4/18/2007 20:20:00	10.264	16.4
154	4/18/2007 20:30:00	10.263	16.4
155	4/18/2007 20:40:00	10.263	16.4
156	4/18/2007 20:50:00	10.263	16.4
157	4/18/2007 21:00:00	10.262	16.4
158	4/18/2007 21:10:00	10.263	16.4
159	4/18/2007 21:20:00	10.264	16.4
160	4/18/2007 21:30:00	10.263	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
161	4/18/2007 21:40:00	10.262	16.4
162	4/18/2007 21:50:00	10.263	16.4
163	4/18/2007 22:00:00	10.262	16.4
164	4/18/2007 22:10:00	10.263	16.4
165	4/18/2007 22:20:00	10.26	16.4
166	4/18/2007 22:30:00	10.26	16.4
167	4/18/2007 22:40:00	10.26	16.4
168	4/18/2007 22:50:00	10.262	16.4
169	4/18/2007 23:00:00	10.26	16.4
170	4/18/2007 23:10:00	10.262	16.4
171	4/18/2007 23:20:00	10.263	16.4
172	4/18/2007 23:30:00	10.262	16.4
173	4/18/2007 23:40:00	10.263	16.4
174	4/18/2007 23:50:00	10.262	16.4
175	4/19/2007 0:00:00	10.263	16.4
176	4/19/2007 0:10:00	10.265	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
177	4/19/2007 0:20:00	10.265	16.4
178	4/19/2007 0:30:00	10.265	16.4
179	4/19/2007 0:40:00	10.266	16.4
180	4/19/2007 0:50:00	10.265	16.4
181	4/19/2007 1:00:00	10.268	16.4
182	4/19/2007 1:10:00	10.268	16.4
183	4/19/2007 1:20:00	10.268	16.4
184	4/19/2007 1:30:00	10.268	16.4
185	4/19/2007 1:40:00	10.269	16.4
186	4/19/2007 1:50:00	10.272	16.4
187	4/19/2007 2:00:00	10.272	16.4
188	4/19/2007 2:10:00	10.272	16.4
189	4/19/2007 2:20:00	10.273	16.4
190	4/19/2007 2:30:00	10.273	16.4
191	4/19/2007 2:40:00	10.272	16.4
192	4/19/2007 2:50:00	10.273	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
193	4/19/2007 3:00:00	10.272	16.5
194	4/19/2007 3:10:00	10.271	16.4
195	4/19/2007 3:20:00	10.273	16.4
196	4/19/2007 3:30:00	10.273	16.4
197	4/19/2007 3:40:00	10.273	16.4
198	4/19/2007 3:50:00	10.273	16.4
199	4/19/2007 4:00:00	10.272	16.4
200	4/19/2007 4:10:00	10.272	16.4
201	4/19/2007 4:20:00	10.272	16.4
202	4/19/2007 4:30:00	10.272	16.4
203	4/19/2007 4:40:00	10.273	16.4
204	4/19/2007 4:50:00	10.272	16.4
205	4/19/2007 5:00:00	10.275	16.4
206	4/19/2007 5:10:00	10.275	16.4
207	4/19/2007 5:20:00	10.276	16.4
208	4/19/2007 5:30:00	10.276	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
209	4/19/2007 5:40:00	10.275	16.5
210	4/19/2007 5:50:00	10.275	16.4
211	4/19/2007 6:00:00	10.276	16.4
212	4/19/2007 6:10:00	10.276	16.4
213	4/19/2007 6:20:00	10.276	16.4
214	4/19/2007 6:30:00	10.273	16.4
215	4/19/2007 6:40:00	10.272	16.4
216	4/19/2007 6:50:00	10.271	16.4
217	4/19/2007 7:00:00	10.272	16.4
218	4/19/2007 7:10:00	10.273	16.4
219	4/19/2007 7:20:00	10.273	16.4
220	4/19/2007 7:30:00	10.273	16.4
221	4/19/2007 7:40:00	10.272	16.4
222	4/19/2007 7:50:00	10.273	16.4
223	4/19/2007 8:00:00	10.275	16.4
224	4/19/2007 8:10:00	10.272	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
225	4/19/2007 8:20:00	10.273	16.4
226	4/19/2007 8:30:00	10.273	16.4
227	4/19/2007 8:40:00	10.273	16.4
228	4/19/2007 8:50:00	10.275	16.4
229	4/19/2007 9:00:00	10.276	16.4
230	4/19/2007 9:10:00	10.276	16.4
231	4/19/2007 9:20:00	10.273	16.4
232	4/19/2007 9:30:00	10.275	16.4
233	4/19/2007 9:40:00	10.273	16.4
234	4/19/2007 9:50:00	10.273	16.4
235	4/19/2007 10:00:00	10.276	16.4
236	4/19/2007 10:10:00	10.278	16.4
237	4/19/2007 10:20:00	10.275	16.4
238	4/19/2007 10:30:00	10.275	16.4
239	4/19/2007 10:40:00	10.273	16.4
240	4/19/2007 10:50:00	10.273	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
241	4/19/2007 11:00:00	10.273	16.4
242	4/19/2007 11:10:00	10.273	16.4
243	4/19/2007 11:20:00	10.275	16.4
244	4/19/2007 11:30:00	10.276	16.4
245	4/19/2007 11:40:00	10.277	16.4
246	4/19/2007 11:50:00	10.276	16.4
247	4/19/2007 12:00:00	10.276	16.4
248	4/19/2007 12:10:00	10.277	16.4
249	4/19/2007 12:20:00	10.278	16.4
250	4/19/2007 12:30:00	10.278	16.4
251	4/19/2007 12:40:00	10.279	16.4
252	4/19/2007 12:50:00	10.278	16.4
253	4/19/2007 13:00:00	10.28	16.4
254	4/19/2007 13:10:00	10.28	16.4
255	4/19/2007 13:20:00	10.279	16.4
256	4/19/2007 13:30:00	10.279	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
257	4/19/2007 13:40:00	10.28	16.4
258	4/19/2007 13:50:00	10.28	16.4
259	4/19/2007 14:00:00	10.28	16.4
260	4/19/2007 14:10:00	10.283	16.5
261	4/19/2007 14:20:00	10.283	16.4
262	4/19/2007 14:30:00	10.284	16.4
263	4/19/2007 14:40:00	10.284	16.4
264	4/19/2007 14:50:00	10.285	16.4
265	4/19/2007 15:00:00	10.289	16.4
266	4/19/2007 15:10:00	10.288	16.4
267	4/19/2007 15:20:00	10.291	16.4
268	4/19/2007 15:30:00	10.291	16.4
269	4/19/2007 15:40:00	10.291	16.4
270	4/19/2007 15:50:00	10.291	16.4
271	4/19/2007 16:00:00	10.292	16.4
272	4/19/2007 16:10:00	10.292	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
273	4/19/2007 16:20:00	10.291	16.4
274	4/19/2007 16:30:00	10.291	16.4
275	4/19/2007 16:40:00	10.292	16.4
276	4/19/2007 16:50:00	10.293	16.4
277	4/19/2007 17:00:00	10.293	16.4
278	4/19/2007 17:10:00	10.293	16.4
279	4/19/2007 17:20:00	10.295	16.4
280	4/19/2007 17:30:00	10.293	16.4
281	4/19/2007 17:40:00	10.295	16.4
282	4/19/2007 17:50:00	10.296	16.4
283	4/19/2007 18:00:00	10.295	16.4
284	4/19/2007 18:10:00	10.297	16.4
285	4/19/2007 18:20:00	10.298	16.4
286	4/19/2007 18:30:00	10.298	16.4
287	4/19/2007 18:40:00	10.297	16.4
288	4/19/2007 18:50:00	10.298	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
289	4/19/2007 19:00:00	10.299	16.4
290	4/19/2007 19:10:00	10.299	16.4
291	4/19/2007 19:20:00	10.299	16.4
292	4/19/2007 19:30:00	10.298	16.4
293	4/19/2007 19:40:00	10.297	16.4
294	4/19/2007 19:50:00	10.295	16.4
295	4/19/2007 20:00:00	10.295	16.4
296	4/19/2007 20:10:00	10.295	16.4
297	4/19/2007 20:20:00	10.292	16.4
298	4/19/2007 20:30:00	10.29	16.4
299	4/19/2007 20:40:00	10.291	16.4
300	4/19/2007 20:50:00	10.29	16.4
301	4/19/2007 21:00:00	10.291	16.4
302	4/19/2007 21:10:00	10.291	16.4
303	4/19/2007 21:20:00	10.29	16.4
304	4/19/2007 21:30:00	10.291	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
305	4/19/2007 21:40:00	10.292	16.4
306	4/19/2007 21:50:00	10.292	16.5
307	4/19/2007 22:00:00	10.293	16.4
308	4/19/2007 22:10:00	10.295	16.5
309	4/19/2007 22:20:00	10.297	16.4
310	4/19/2007 22:30:00	10.297	16.4
311	4/19/2007 22:40:00	10.296	16.4
312	4/19/2007 22:50:00	10.297	16.4
313	4/19/2007 23:00:00	10.298	16.4
314	4/19/2007 23:10:00	10.298	16.4
315	4/19/2007 23:20:00	10.299	16.4
316	4/19/2007 23:30:00	10.301	16.4
317	4/19/2007 23:40:00	10.301	16.4
318	4/19/2007 23:50:00	10.301	16.4
319	4/20/2007 0:00:00	10.302	16.4
320	4/20/2007 0:10:00	10.302	16.5

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
321	4/20/2007 0:20:00	10.303	16.4
322	4/20/2007 0:30:00	10.304	16.4
323	4/20/2007 0:40:00	10.305	16.5
324	4/20/2007 0:50:00	10.306	16.4
325	4/20/2007 1:00:00	10.308	16.4
326	4/20/2007 1:10:00	10.311	16.4
327	4/20/2007 1:20:00	10.312	16.4
328	4/20/2007 1:30:00	10.316	16.4
329	4/20/2007 1:40:00	10.317	16.4
330	4/20/2007 1:50:00	10.318	16.4
331	4/20/2007 2:00:00	10.321	16.4
332	4/20/2007 2:10:00	10.323	16.4
333	4/20/2007 2:20:00	10.325	16.4
334	4/20/2007 2:30:00	10.327	16.5
335	4/20/2007 2:40:00	10.329	16.4
336	4/20/2007 2:50:00	10.331	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
337	4/20/2007 3:00:00	10.33	16.4
338	4/20/2007 3:10:00	10.331	16.4
339	4/20/2007 3:20:00	10.334	16.4
340	4/20/2007 3:30:00	10.336	16.4
341	4/20/2007 3:40:00	10.337	16.4
342	4/20/2007 3:50:00	10.339	16.4
343	4/20/2007 4:00:00	10.342	16.4
344	4/20/2007 4:10:00	10.343	16.4
345	4/20/2007 4:20:00	10.345	16.4
346	4/20/2007 4:30:00	10.347	16.4
347	4/20/2007 4:40:00	10.349	16.4
348	4/20/2007 4:50:00	10.349	16.4
349	4/20/2007 5:00:00	10.351	16.4
350	4/20/2007 5:10:00	10.352	16.5
351	4/20/2007 5:20:00	10.354	16.4
352	4/20/2007 5:30:00	10.355	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
353	4/20/2007 5:40:00	10.356	16.4
354	4/20/2007 5:50:00	10.356	16.4
355	4/20/2007 6:00:00	10.358	16.4
356	4/20/2007 6:10:00	10.359	16.4
357	4/20/2007 6:20:00	10.361	16.4
358	4/20/2007 6:30:00	10.362	16.4
359	4/20/2007 6:40:00	10.363	16.5
360	4/20/2007 6:50:00	10.362	16.4
361	4/20/2007 7:00:00	10.364	16.4
362	4/20/2007 7:10:00	10.364	16.4
363	4/20/2007 7:20:00	10.365	16.4
364	4/20/2007 7:30:00	10.367	16.4
365	4/20/2007 7:40:00	10.367	16.4
366	4/20/2007 7:50:00	10.367	16.4
367	4/20/2007 8:00:00	10.368	16.4
368	4/20/2007 8:10:00	10.37	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
369	4/20/2007 8:20:00	10.37	16.4
370	4/20/2007 8:30:00	10.371	16.4
371	4/20/2007 8:40:00	10.371	16.4
372	4/20/2007 8:50:00	10.373	16.5
373	4/20/2007 9:00:00	10.372	16.4
374	4/20/2007 9:10:00	10.372	16.4
375	4/20/2007 9:20:00	10.374	16.4
376	4/20/2007 9:30:00	10.374	16.5
377	4/20/2007 9:40:00	10.375	16.4
378	4/20/2007 9:50:00	10.376	16.4
379	4/20/2007 10:00:00	10.377	16.4
380	4/20/2007 10:10:00	10.378	16.4
381	4/20/2007 10:20:00	10.378	16.4
382	4/20/2007 10:30:00	10.378	16.4
383	4/20/2007 10:40:00	10.381	16.4
384	4/20/2007 10:50:00	10.38	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
385	4/20/2007 11:00:00	10.381	16.4
386	4/20/2007 11:10:00	10.381	16.4
387	4/20/2007 11:20:00	10.381	16.5
388	4/20/2007 11:30:00	10.382	16.4
389	4/20/2007 11:40:00	10.382	16.5
390	4/20/2007 11:50:00	10.382	16.4
391	4/20/2007 12:00:00	10.384	16.4
392	4/20/2007 12:10:00	10.382	16.5
393	4/20/2007 12:20:00	10.384	16.4
394	4/20/2007 12:30:00	10.384	16.4
395	4/20/2007 12:40:00	10.385	16.5
396	4/20/2007 12:50:00	10.385	16.4
397	4/20/2007 13:00:00	10.385	16.4
398	4/20/2007 13:10:00	10.384	16.4
399	4/20/2007 13:20:00	10.384	16.4
400	4/20/2007 13:30:00	10.385	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
401	4/20/2007 13:40:00	10.384	16.5
402	4/20/2007 13:50:00	10.385	16.4
403	4/20/2007 14:00:00	10.384	16.5
404	4/20/2007 14:10:00	10.384	16.4
405	4/20/2007 14:20:00	10.385	16.5
406	4/20/2007 14:30:00	10.387	16.4
407	4/20/2007 14:40:00	10.388	16.4
408	4/20/2007 14:50:00	10.387	16.4
409	4/20/2007 15:00:00	10.387	16.4
410	4/20/2007 15:10:00	10.388	16.5
411	4/20/2007 15:20:00	10.388	16.4
412	4/20/2007 15:30:00	10.39	16.4
413	4/20/2007 15:40:00	10.39	16.4
414	4/20/2007 15:50:00	10.39	16.5
415	4/20/2007 16:00:00	10.39	16.5
416	4/20/2007 16:10:00	10.391	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
417	4/20/2007 16:20:00	10.39	16.4
418	4/20/2007 16:30:00	10.392	16.4
419	4/20/2007 16:40:00	10.391	16.4
420	4/20/2007 16:50:00	10.39	16.4
421	4/20/2007 17:00:00	10.39	16.4
422	4/20/2007 17:10:00	10.389	16.5
423	4/20/2007 17:20:00	10.389	16.5
424	4/20/2007 17:30:00	10.389	16.4
425	4/20/2007 17:40:00	10.389	16.5
426	4/20/2007 17:50:00	10.389	16.4
427	4/20/2007 18:00:00	10.388	16.4
428	4/20/2007 18:10:00	10.385	16.4
429	4/20/2007 18:20:00	10.385	16.5
430	4/20/2007 18:30:00	10.387	16.4
431	4/20/2007 18:40:00	10.385	16.5
432	4/20/2007 18:50:00	10.385	16.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.30E-08	4.41E-05	1.012001038	-19982	1.50E-05	-1.88E-04	-0.143999994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609033
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-02
# Records	434

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.24	16.4
Maximum	10.392	16.5
Mean	10.294	16.4
Variance	0.0022	0
Std Deviation	0.0468	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
433	4/20/2007 19:00:00	10.387	16.4
434	4/20/2007 19:10:00	10.387	16.4

Statistical Data	Pressure(Ft H2O)
Sensor Range	15 psig
Minimum	9.917
Maximum	10.473
Mean	10.18
Variance	0.016
Std Deviation	0.1264

Rec #	Date/Time	Pressure(Ft H2O)								
		O(i)	O(i)/24	i	X(i)	X(i)/24	j	Y(j)	Y(j)/25	M(36)
132	4/17/2007 18:00:00	10.11	0.42125	1	10.11471	0.421446	1	10.13158	0.405263	
138	4/17/2007 19:00:00	10.062	0.41925	2	10.11713	0.421547	2	10.13294	0.405318	
144	4/17/2007 20:00:00	10.045	0.418542	3	10.1195	0.421646	3	10.13434	0.405374	
150	4/17/2007 21:00:00	10.068	0.4195	4	10.12117	0.421715	4	10.13585	0.405434	
156	4/17/2007 22:00:00	10.119	0.421625	5	10.12171	0.421738	5	10.1375	0.4055	
162	4/17/2007 23:00:00	10.175	0.423958	6	10.12171	0.421738	6	10.1393	0.405572	
168	4/18/2007 0:00:00	10.221	0.425875	7	10.12167	0.421736	7	10.14124	0.40565	
174	4/18/2007 1:00:00	10.255	0.427292	8	10.12179	0.421741	8	10.1433	0.405732	
180	4/18/2007 2:00:00	10.276	0.428167	9	10.12229	0.421762	9	10.14545	0.405818	
186	4/18/2007 3:00:00	10.286	0.428583	10	10.12325	0.421802	10	10.14766	0.405906	
192	4/18/2007 4:00:00	10.259	0.427458	11	10.12442	0.421851	11	10.14994	0.405998	
198	4/18/2007 5:00:00	10.182	0.42425	12	10.12629	0.421929	12	10.15236	0.406094	
204	4/18/2007 6:00:00	10.09	0.420417	13	10.12979	0.422075	13	10.15496	0.406199	
210	4/18/2007 7:00:00	10.014	0.41725	14	10.13396	0.422248	14	10.15778	0.406311	
216	4/18/2007 8:00:00	9.964	0.415167	15	10.13758	0.422399	15	10.16088	0.406435	
222	4/18/2007 9:00:00	9.931	0.413792	16	10.14063	0.422526	16	10.16431	0.406572	
228	4/18/2007 10:00:00	9.917	0.413208	17	10.14346	0.422644	17	10.16806	0.406722	
234	4/18/2007 11:00:00	9.95	0.414583	18	10.14583	0.422743	18	10.17208	0.406883	
240	4/18/2007 12:00:00	10.013	0.417208	19	10.14638	0.422766	19	10.17636	0.407054	
246	4/18/2007 13:00:00	10.084	0.420167	20	10.14571	0.422738	20	10.18093	0.407237	
252	4/18/2007 14:00:00	10.144	0.422667	21	10.14483	0.422701	21	10.18579	0.407432	
258	4/18/2007 15:00:00	10.183	0.424292	22	10.14425	0.422677	22	10.19089	0.407635	
264	4/18/2007 16:00:00	10.204	0.425167	23	10.14442	0.422684	23	10.19618	0.407847	
270	4/18/2007 17:00:00	10.201	0.425042	24	10.14542	0.422726	24	10.20165	0.408066	
276	4/18/2007 18:00:00	10.168	0.423667	25	10.14738	0.422807	25	10.20729	0.408292	
282	4/18/2007 19:00:00	10.119	0.421625	26	10.15079	0.42295	26			
288	4/18/2007 20:00:00	10.085	0.420208	27	10.15571	0.423155	27			

Statistical Data	Pressure(Ft H2O)
Sensor Range	15 psig
Minimum	9.917
Maximum	10.473
Mean	10.18
Variance	0.016
Std Deviation	0.1264

Rec #	Date/Time	Pressure(Ft H2O)								
		O(i)	O(i)/24	i	X(i)	X(i)/24	j	Y(j)	Y(j)/25	M(36)
294	4/18/2007 21:00:00	10.081	0.420042	28	10.16071	0.423363	28			
300	4/18/2007 22:00:00	10.119	0.421625	29	10.16496	0.42354	29			
306	4/18/2007 23:00:00	10.174	0.423917	30	10.16833	0.423681	30			
312	4/19/2007 0:00:00	10.224	0.426	31	10.171	0.423792	31			
318	4/19/2007 1:00:00	10.267	0.427792	32	10.17333	0.423889	32			
324	4/19/2007 2:00:00	10.299	0.429125	33	10.17542	0.423976	33			
330	4/19/2007 3:00:00	10.314	0.42975	34	10.17808	0.424087	34			
336	4/19/2007 4:00:00	10.304	0.429333	35	10.18238	0.424266	35			
342	4/19/2007 5:00:00	10.266	0.42775	36	10.18879	0.424533	36		10.16034	hour 36 pressure
348	4/19/2007 6:00:00	10.19	0.424583	37	10.19742	0.424892	37			
354	4/19/2007 7:00:00	10.101	0.420875	38	10.20825	0.425344	38			
360	4/19/2007 8:00:00	10.037	0.418208	39	10.21992	0.42583	39			
366	4/19/2007 9:00:00	9.999	0.416625	40	10.23063	0.426276	40			
372	4/19/2007 10:00:00	9.974	0.415583	41	10.24	0.426667	41			
378	4/19/2007 11:00:00	9.963	0.415125	42	10.24846	0.427019	42			
384	4/19/2007 12:00:00	9.997	0.416542	43	10.25621	0.427342	43			
390	4/19/2007 13:00:00	10.063	0.419292	44	10.26238	0.427599	44			
396	4/19/2007 14:00:00	10.13	0.422083	45	10.26708	0.427795	45			
402	4/19/2007 15:00:00	10.187	0.424458	46	10.27133	0.427972	46			
408	4/19/2007 16:00:00	10.228	0.426167	47	10.27575	0.428156	47			
414	4/19/2007 17:00:00	10.248	0.427	48	10.28063	0.428359	48			
420	4/19/2007 18:00:00	10.25	0.427083	49	10.28588	0.428578	49			
426	4/19/2007 19:00:00	10.237	0.426542	50	10.29154		50			
432	4/19/2007 20:00:00	10.205	0.425208	51	9.865		51			
438	4/19/2007 21:00:00	10.183	0.424292	52	9.439792		52			
444	4/19/2007 22:00:00	10.2	0.425	53	9.0155		53			
450	4/19/2007 23:00:00	10.238	0.426583	54	8.5905		54			
456	4/20/2007 0:00:00	10.28	0.428333	55	8.163917		55			

Statistical Data	Pressure(Ft H2O)
Sensor Range	15 psig
Minimum	9.917
Maximum	10.473
Mean	10.18
Variance	0.016
Std Deviation	0.1264

Rec #	Date/Time	Pressure(Ft H2O)								
		O(i)	O(i)/24	i	X(i)	X(i)/24	j	Y(j)	Y(j)/25	M(36)
462	4/20/2007 1:00:00	10.317	0.429875	56	7.735583		56			
468	4/20/2007 2:00:00	10.363	0.431792	57	7.305708		57			
474	4/20/2007 3:00:00	10.417	0.434042	58	6.873917		58			
480	4/20/2007 4:00:00	10.458	0.43575	59	6.439875		59			
486	4/20/2007 5:00:00	10.473	0.436375	60	6.004125		60			
492	4/20/2007 6:00:00	10.45	0.435417	61	5.56775		61			
498	4/20/2007 7:00:00	10.381	0.432542	62	5.132333		62			
504	4/20/2007 8:00:00	10.294	0.428917	63	4.699792		63			
510	4/20/2007 9:00:00	10.224	0.426	64	4.270875		64			
516	4/20/2007 10:00:00	10.177	0.424042	65	3.844875		65			
522	4/20/2007 11:00:00	10.149	0.422875	66	3.420833		66			
528	4/20/2007 12:00:00	10.145	0.422708	67	2.997958		67			
534	4/20/2007 13:00:00	10.176	0.424	68	2.57525		68			
540	4/20/2007 14:00:00	10.232	0.426333	69	2.15125		69			
546	4/20/2007 15:00:00	10.293	0.428875	70	1.724917		70			
552	4/20/2007 16:00:00	10.345	0.431042	71	1.296042		71			
558	4/20/2007 17:00:00	10.374	0.43225	72	0.865		72			
564	4/20/2007 18:00:00	10.386	0.43275							
			0							

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/16/2007 20:10:00	10.085	17.4
2	4/16/2007 20:20:00	10.091	17.4
3	4/16/2007 20:30:00	10.098	17.4
4	4/16/2007 20:40:00	10.108	17.4
5	4/16/2007 20:50:00	10.117	17.4
6	4/16/2007 21:00:00	10.126	17.4
7	4/16/2007 21:10:00	10.137	17.4
8	4/16/2007 21:20:00	10.147	17.4
9	4/16/2007 21:30:00	10.158	17.4
10	4/16/2007 21:40:00	10.168	17.4
11	4/16/2007 21:50:00	10.179	17.4
12	4/16/2007 22:00:00	10.187	17.4
13	4/16/2007 22:10:00	10.197	17.4
14	4/16/2007 22:20:00	10.208	17.4
15	4/16/2007 22:30:00	10.218	17.3
16	4/16/2007 22:40:00	10.227	17.3
17	4/16/2007 22:50:00	10.236	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
18	4/16/2007 23:00:00	10.245	17.4
19	4/16/2007 23:10:00	10.254	17.4
20	4/16/2007 23:20:00	10.261	17.4
21	4/16/2007 23:30:00	10.267	17.4
22	4/16/2007 23:40:00	10.274	17.3
23	4/16/2007 23:50:00	10.28	17.3
24	4/17/2007 0:00:00	10.287	17.4
25	4/17/2007 0:10:00	10.292	17.3
26	4/17/2007 0:20:00	10.297	17.4
27	4/17/2007 0:30:00	10.303	17.4
28	4/17/2007 0:40:00	10.308	17.3
29	4/17/2007 0:50:00	10.311	17.4
30	4/17/2007 1:00:00	10.316	17.4
31	4/17/2007 1:10:00	10.318	17.4
32	4/17/2007 1:20:00	10.322	17.4
33	4/17/2007 1:30:00	10.323	17.4
34	4/17/2007 1:40:00	10.324	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
35	4/17/2007 1:50:00	10.325	17.4
36	4/17/2007 2:00:00	10.328	17.3
37	4/17/2007 2:10:00	10.329	17.4
38	4/17/2007 2:20:00	10.329	17.4
39	4/17/2007 2:30:00	10.328	17.4
40	4/17/2007 2:40:00	10.324	17.4
41	4/17/2007 2:50:00	10.322	17.4
42	4/17/2007 3:00:00	10.318	17.4
43	4/17/2007 3:10:00	10.314	17.4
44	4/17/2007 3:20:00	10.306	17.3
45	4/17/2007 3:30:00	10.296	17.4
46	4/17/2007 3:40:00	10.287	17.3
47	4/17/2007 3:50:00	10.274	17.4
48	4/17/2007 4:00:00	10.262	17.4
49	4/17/2007 4:10:00	10.247	17.4
50	4/17/2007 4:20:00	10.233	17.4
51	4/17/2007 4:30:00	10.218	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
52	4/17/2007 4:40:00	10.201	17.4
53	4/17/2007 4:50:00	10.186	17.4
54	4/17/2007 5:00:00	10.17	17.3
55	4/17/2007 5:10:00	10.156	17.3
56	4/17/2007 5:20:00	10.142	17.3
57	4/17/2007 5:30:00	10.126	17.3
58	4/17/2007 5:40:00	10.111	17.4
59	4/17/2007 5:50:00	10.097	17.3
60	4/17/2007 6:00:00	10.084	17.4
61	4/17/2007 6:10:00	10.071	17.4
62	4/17/2007 6:20:00	10.06	17.4
63	4/17/2007 6:30:00	10.049	17.3
64	4/17/2007 6:40:00	10.039	17.3
65	4/17/2007 6:50:00	10.03	17.4
66	4/17/2007 7:00:00	10.02	17.4
67	4/17/2007 7:10:00	10.012	17.3
68	4/17/2007 7:20:00	10.003	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
69	4/17/2007 7:30:00	9.995	17.4
70	4/17/2007 7:40:00	9.988	17.4
71	4/17/2007 7:50:00	9.982	17.4
72	4/17/2007 8:00:00	9.976	17.3
73	4/17/2007 8:10:00	9.97	17.3
74	4/17/2007 8:20:00	9.965	17.3
75	4/17/2007 8:30:00	9.962	17.4
76	4/17/2007 8:40:00	9.961	17.4
77	4/17/2007 8:50:00	9.961	17.3
78	4/17/2007 9:00:00	9.963	17.4
79	4/17/2007 9:10:00	9.967	17.4
80	4/17/2007 9:20:00	9.969	17.4
81	4/17/2007 9:30:00	9.975	17.4
82	4/17/2007 9:40:00	9.983	17.4
83	4/17/2007 9:50:00	9.989	17.4
84	4/17/2007 10:00:00	9.996	17.4
85	4/17/2007 10:10:00	10.003	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
86	4/17/2007 10:20:00	10.011	17.4
87	4/17/2007 10:30:00	10.019	17.4
88	4/17/2007 10:40:00	10.031	17.4
89	4/17/2007 10:50:00	10.042	17.4
90	4/17/2007 11:00:00	10.055	17.4
91	4/17/2007 11:10:00	10.067	17.4
92	4/17/2007 11:20:00	10.08	17.4
93	4/17/2007 11:30:00	10.091	17.4
94	4/17/2007 11:40:00	10.101	17.4
95	4/17/2007 11:50:00	10.111	17.4
96	4/17/2007 12:00:00	10.12	17.4
97	4/17/2007 12:10:00	10.131	17.3
98	4/17/2007 12:20:00	10.143	17.4
99	4/17/2007 12:30:00	10.153	17.4
100	4/17/2007 12:40:00	10.162	17.4
101	4/17/2007 12:50:00	10.17	17.4
102	4/17/2007 13:00:00	10.177	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
103	4/17/2007 13:10:00	10.182	17.4
104	4/17/2007 13:20:00	10.19	17.4
105	4/17/2007 13:30:00	10.196	17.4
106	4/17/2007 13:40:00	10.201	17.4
107	4/17/2007 13:50:00	10.207	17.4
108	4/17/2007 14:00:00	10.21	17.4
109	4/17/2007 14:10:00	10.211	17.4
110	4/17/2007 14:20:00	10.214	17.3
111	4/17/2007 14:30:00	10.215	17.4
112	4/17/2007 14:40:00	10.216	17.4
113	4/17/2007 14:50:00	10.218	17.4
114	4/17/2007 15:00:00	10.221	17.4
115	4/17/2007 15:10:00	10.222	17.4
116	4/17/2007 15:20:00	10.222	17.4
117	4/17/2007 15:30:00	10.222	17.3
118	4/17/2007 15:40:00	10.221	17.4
119	4/17/2007 15:50:00	10.218	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
120	4/17/2007 16:00:00	10.216	17.4
121	4/17/2007 16:10:00	10.211	17.4
122	4/17/2007 16:20:00	10.207	17.4
123	4/17/2007 16:30:00	10.197	17.4
124	4/17/2007 16:40:00	10.19	17.4
125	4/17/2007 16:50:00	10.181	17.4
126	4/17/2007 17:00:00	10.17	17.4
127	4/17/2007 17:10:00	10.161	17.4
128	4/17/2007 17:20:00	10.152	17.4
129	4/17/2007 17:30:00	10.14	17.4
130	4/17/2007 17:40:00	10.13	17.4
131	4/17/2007 17:50:00	10.12	17.3
132	4/17/2007 18:00:00	10.11	17.3
133	4/17/2007 18:10:00	10.101	17.4
134	4/17/2007 18:20:00	10.091	17.4
135	4/17/2007 18:30:00	10.084	17.3
136	4/17/2007 18:40:00	10.076	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
137	4/17/2007 18:50:00	10.069	17.3
138	4/17/2007 19:00:00	10.062	17.3
139	4/17/2007 19:10:00	10.057	17.3
140	4/17/2007 19:20:00	10.053	17.4
141	4/17/2007 19:30:00	10.048	17.3
142	4/17/2007 19:40:00	10.046	17.4
143	4/17/2007 19:50:00	10.046	17.3
144	4/17/2007 20:00:00	10.045	17.3
145	4/17/2007 20:10:00	10.045	17.3
146	4/17/2007 20:20:00	10.048	17.3
147	4/17/2007 20:30:00	10.052	17.4
148	4/17/2007 20:40:00	10.055	17.4
149	4/17/2007 20:50:00	10.06	17.4
150	4/17/2007 21:00:00	10.068	17.3
151	4/17/2007 21:10:00	10.075	17.4
152	4/17/2007 21:20:00	10.081	17.3
153	4/17/2007 21:30:00	10.089	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
154	4/17/2007 21:40:00	10.099	17.4
155	4/17/2007 21:50:00	10.109	17.4
156	4/17/2007 22:00:00	10.119	17.4
157	4/17/2007 22:10:00	10.126	17.4
158	4/17/2007 22:20:00	10.137	17.3
159	4/17/2007 22:30:00	10.147	17.4
160	4/17/2007 22:40:00	10.159	17.4
161	4/17/2007 22:50:00	10.168	17.4
162	4/17/2007 23:00:00	10.175	17.4
163	4/17/2007 23:10:00	10.183	17.4
164	4/17/2007 23:20:00	10.191	17.4
165	4/17/2007 23:30:00	10.2	17.4
166	4/17/2007 23:40:00	10.203	17.4
167	4/17/2007 23:50:00	10.214	17.3
168	4/18/2007 0:00:00	10.221	17.4
169	4/18/2007 0:10:00	10.228	17.4
170	4/18/2007 0:20:00	10.236	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
171	4/18/2007 0:30:00	10.241	17.4
172	4/18/2007 0:40:00	10.246	17.4
173	4/18/2007 0:50:00	10.251	17.3
174	4/18/2007 1:00:00	10.255	17.4
175	4/18/2007 1:10:00	10.259	17.3
176	4/18/2007 1:20:00	10.262	17.4
177	4/18/2007 1:30:00	10.266	17.4
178	4/18/2007 1:40:00	10.268	17.4
179	4/18/2007 1:50:00	10.272	17.3
180	4/18/2007 2:00:00	10.276	17.4
181	4/18/2007 2:10:00	10.28	17.4
182	4/18/2007 2:20:00	10.282	17.3
183	4/18/2007 2:30:00	10.285	17.4
184	4/18/2007 2:40:00	10.285	17.4
185	4/18/2007 2:50:00	10.287	17.4
186	4/18/2007 3:00:00	10.286	17.4
187	4/18/2007 3:10:00	10.282	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
188	4/18/2007 3:20:00	10.279	17.4
189	4/18/2007 3:30:00	10.275	17.4
190	4/18/2007 3:40:00	10.273	17.4
191	4/18/2007 3:50:00	10.267	17.4
192	4/18/2007 4:00:00	10.259	17.4
193	4/18/2007 4:10:00	10.248	17.4
194	4/18/2007 4:20:00	10.238	17.4
195	4/18/2007 4:30:00	10.226	17.4
196	4/18/2007 4:40:00	10.212	17.4
197	4/18/2007 4:50:00	10.198	17.4
198	4/18/2007 5:00:00	10.182	17.4
199	4/18/2007 5:10:00	10.167	17.4
200	4/18/2007 5:20:00	10.152	17.4
201	4/18/2007 5:30:00	10.137	17.4
202	4/18/2007 5:40:00	10.12	17.4
203	4/18/2007 5:50:00	10.105	17.4
204	4/18/2007 6:00:00	10.09	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
205	4/18/2007 6:10:00	10.075	17.4
206	4/18/2007 6:20:00	10.061	17.4
207	4/18/2007 6:30:00	10.047	17.4
208	4/18/2007 6:40:00	10.035	17.4
209	4/18/2007 6:50:00	10.025	17.4
210	4/18/2007 7:00:00	10.014	17.4
211	4/18/2007 7:10:00	10.005	17.4
212	4/18/2007 7:20:00	9.997	17.4
213	4/18/2007 7:30:00	9.988	17.4
214	4/18/2007 7:40:00	9.979	17.4
215	4/18/2007 7:50:00	9.972	17.4
216	4/18/2007 8:00:00	9.964	17.4
217	4/18/2007 8:10:00	9.958	17.4
218	4/18/2007 8:20:00	9.95	17.4
219	4/18/2007 8:30:00	9.946	17.4
220	4/18/2007 8:40:00	9.941	17.3
221	4/18/2007 8:50:00	9.936	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
222	4/18/2007 9:00:00	9.931	17.4
223	4/18/2007 9:10:00	9.926	17.3
224	4/18/2007 9:20:00	9.922	17.4
225	4/18/2007 9:30:00	9.919	17.4
226	4/18/2007 9:40:00	9.918	17.4
227	4/18/2007 9:50:00	9.917	17.4
228	4/18/2007 10:00:00	9.917	17.4
229	4/18/2007 10:10:00	9.919	17.4
230	4/18/2007 10:20:00	9.921	17.4
231	4/18/2007 10:30:00	9.928	17.4
232	4/18/2007 10:40:00	9.933	17.4
233	4/18/2007 10:50:00	9.94	17.4
234	4/18/2007 11:00:00	9.95	17.4
235	4/18/2007 11:10:00	9.957	17.4
236	4/18/2007 11:20:00	9.967	17.4
237	4/18/2007 11:30:00	9.977	17.4
238	4/18/2007 11:40:00	9.988	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
239	4/18/2007 11:50:00	10.002	17.4
240	4/18/2007 12:00:00	10.013	17.4
241	4/18/2007 12:10:00	10.026	17.4
242	4/18/2007 12:20:00	10.039	17.4
243	4/18/2007 12:30:00	10.051	17.4
244	4/18/2007 12:40:00	10.062	17.4
245	4/18/2007 12:50:00	10.075	17.4
246	4/18/2007 13:00:00	10.084	17.4
247	4/18/2007 13:10:00	10.096	17.4
248	4/18/2007 13:20:00	10.105	17.4
249	4/18/2007 13:30:00	10.117	17.4
250	4/18/2007 13:40:00	10.125	17.4
251	4/18/2007 13:50:00	10.136	17.4
252	4/18/2007 14:00:00	10.144	17.4
253	4/18/2007 14:10:00	10.152	17.4
254	4/18/2007 14:20:00	10.159	17.4
255	4/18/2007 14:30:00	10.166	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
256	4/18/2007 14:40:00	10.172	17.4
257	4/18/2007 14:50:00	10.18	17.4
258	4/18/2007 15:00:00	10.183	17.4
259	4/18/2007 15:10:00	10.189	17.4
260	4/18/2007 15:20:00	10.194	17.4
261	4/18/2007 15:30:00	10.198	17.4
262	4/18/2007 15:40:00	10.201	17.4
263	4/18/2007 15:50:00	10.203	17.4
264	4/18/2007 16:00:00	10.204	17.3
265	4/18/2007 16:10:00	10.205	17.4
266	4/18/2007 16:20:00	10.207	17.3
267	4/18/2007 16:30:00	10.208	17.3
268	4/18/2007 16:40:00	10.205	17.3
269	4/18/2007 16:50:00	10.204	17.4
270	4/18/2007 17:00:00	10.201	17.4
271	4/18/2007 17:10:00	10.198	17.4
272	4/18/2007 17:20:00	10.193	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
273	4/18/2007 17:30:00	10.188	17.3
274	4/18/2007 17:40:00	10.181	17.4
275	4/18/2007 17:50:00	10.175	17.3
276	4/18/2007 18:00:00	10.168	17.3
277	4/18/2007 18:10:00	10.16	17.3
278	4/18/2007 18:20:00	10.151	17.3
279	4/18/2007 18:30:00	10.144	17.3
280	4/18/2007 18:40:00	10.135	17.3
281	4/18/2007 18:50:00	10.126	17.4
282	4/18/2007 19:00:00	10.119	17.4
283	4/18/2007 19:10:00	10.112	17.3
284	4/18/2007 19:20:00	10.105	17.4
285	4/18/2007 19:30:00	10.099	17.3
286	4/18/2007 19:40:00	10.095	17.3
287	4/18/2007 19:50:00	10.089	17.3
288	4/18/2007 20:00:00	10.085	17.4
289	4/18/2007 20:10:00	10.083	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
290	4/18/2007 20:20:00	10.08	17.4
291	4/18/2007 20:30:00	10.077	17.3
292	4/18/2007 20:40:00	10.077	17.3
293	4/18/2007 20:50:00	10.08	17.4
294	4/18/2007 21:00:00	10.081	17.4
295	4/18/2007 21:10:00	10.085	17.3
296	4/18/2007 21:20:00	10.09	17.4
297	4/18/2007 21:30:00	10.097	17.4
298	4/18/2007 21:40:00	10.104	17.4
299	4/18/2007 21:50:00	10.111	17.4
300	4/18/2007 22:00:00	10.119	17.4
301	4/18/2007 22:10:00	10.129	17.4
302	4/18/2007 22:20:00	10.137	17.4
303	4/18/2007 22:30:00	10.146	17.4
304	4/18/2007 22:40:00	10.155	17.4
305	4/18/2007 22:50:00	10.165	17.4
306	4/18/2007 23:00:00	10.174	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
307	4/18/2007 23:10:00	10.182	17.4
308	4/18/2007 23:20:00	10.191	17.4
309	4/18/2007 23:30:00	10.2	17.4
310	4/18/2007 23:40:00	10.209	17.4
311	4/18/2007 23:50:00	10.216	17.4
312	4/19/2007 0:00:00	10.224	17.4
313	4/19/2007 0:10:00	10.233	17.4
314	4/19/2007 0:20:00	10.24	17.4
315	4/19/2007 0:30:00	10.247	17.4
316	4/19/2007 0:40:00	10.254	17.4
317	4/19/2007 0:50:00	10.261	17.4
318	4/19/2007 1:00:00	10.267	17.4
319	4/19/2007 1:10:00	10.274	17.4
320	4/19/2007 1:20:00	10.28	17.4
321	4/19/2007 1:30:00	10.285	17.4
322	4/19/2007 1:40:00	10.289	17.4
323	4/19/2007 1:50:00	10.295	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
324	4/19/2007 2:00:00	10.299	17.4
325	4/19/2007 2:10:00	10.304	17.4
326	4/19/2007 2:20:00	10.309	17.4
327	4/19/2007 2:30:00	10.313	17.4
328	4/19/2007 2:40:00	10.313	17.4
329	4/19/2007 2:50:00	10.315	17.4
330	4/19/2007 3:00:00	10.314	17.4
331	4/19/2007 3:10:00	10.314	17.4
332	4/19/2007 3:20:00	10.314	17.4
333	4/19/2007 3:30:00	10.313	17.4
334	4/19/2007 3:40:00	10.31	17.4
335	4/19/2007 3:50:00	10.309	17.4
336	4/19/2007 4:00:00	10.304	17.4
337	4/19/2007 4:10:00	10.301	17.4
338	4/19/2007 4:20:00	10.296	17.4
339	4/19/2007 4:30:00	10.29	17.4
340	4/19/2007 4:40:00	10.283	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
341	4/19/2007 4:50:00	10.276	17.4
342	4/19/2007 5:00:00	10.266	17.4
343	4/19/2007 5:10:00	10.255	17.4
344	4/19/2007 5:20:00	10.245	17.4
345	4/19/2007 5:30:00	10.232	17.4
346	4/19/2007 5:40:00	10.219	17.4
347	4/19/2007 5:50:00	10.204	17.4
348	4/19/2007 6:00:00	10.19	17.4
349	4/19/2007 6:10:00	10.177	17.4
350	4/19/2007 6:20:00	10.162	17.4
351	4/19/2007 6:30:00	10.146	17.4
352	4/19/2007 6:40:00	10.13	17.4
353	4/19/2007 6:50:00	10.115	17.4
354	4/19/2007 7:00:00	10.101	17.4
355	4/19/2007 7:10:00	10.087	17.4
356	4/19/2007 7:20:00	10.075	17.4
357	4/19/2007 7:30:00	10.064	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
358	4/19/2007 7:40:00	10.054	17.4
359	4/19/2007 7:50:00	10.045	17.4
360	4/19/2007 8:00:00	10.037	17.4
361	4/19/2007 8:10:00	10.03	17.4
362	4/19/2007 8:20:00	10.021	17.4
363	4/19/2007 8:30:00	10.016	17.4
364	4/19/2007 8:40:00	10.009	17.4
365	4/19/2007 8:50:00	10.004	17.4
366	4/19/2007 9:00:00	9.999	17.4
367	4/19/2007 9:10:00	9.995	17.4
368	4/19/2007 9:20:00	9.991	17.4
369	4/19/2007 9:30:00	9.985	17.4
370	4/19/2007 9:40:00	9.982	17.4
371	4/19/2007 9:50:00	9.977	17.4
372	4/19/2007 10:00:00	9.974	17.4
373	4/19/2007 10:10:00	9.971	17.4
374	4/19/2007 10:20:00	9.969	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
375	4/19/2007 10:30:00	9.967	17.4
376	4/19/2007 10:40:00	9.964	17.4
377	4/19/2007 10:50:00	9.963	17.4
378	4/19/2007 11:00:00	9.963	17.4
379	4/19/2007 11:10:00	9.967	17.4
380	4/19/2007 11:20:00	9.97	17.4
381	4/19/2007 11:30:00	9.975	17.4
382	4/19/2007 11:40:00	9.982	17.4
383	4/19/2007 11:50:00	9.99	17.4
384	4/19/2007 12:00:00	9.997	17.4
385	4/19/2007 12:10:00	10.006	17.4
386	4/19/2007 12:20:00	10.017	17.4
387	4/19/2007 12:30:00	10.028	17.4
388	4/19/2007 12:40:00	10.039	17.4
389	4/19/2007 12:50:00	10.052	17.4
390	4/19/2007 13:00:00	10.063	17.4
391	4/19/2007 13:10:00	10.076	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
392	4/19/2007 13:20:00	10.087	17.4
393	4/19/2007 13:30:00	10.097	17.4
394	4/19/2007 13:40:00	10.109	17.4
395	4/19/2007 13:50:00	10.119	17.4
396	4/19/2007 14:00:00	10.13	17.4
397	4/19/2007 14:10:00	10.14	17.4
398	4/19/2007 14:20:00	10.151	17.4
399	4/19/2007 14:30:00	10.16	17.4
400	4/19/2007 14:40:00	10.169	17.4
401	4/19/2007 14:50:00	10.177	17.4
402	4/19/2007 15:00:00	10.187	17.4
403	4/19/2007 15:10:00	10.195	17.4
404	4/19/2007 15:20:00	10.203	17.4
405	4/19/2007 15:30:00	10.211	17.4
406	4/19/2007 15:40:00	10.218	17.4
407	4/19/2007 15:50:00	10.224	17.4
408	4/19/2007 16:00:00	10.228	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
409	4/19/2007 16:10:00	10.232	17.4
410	4/19/2007 16:20:00	10.237	17.4
411	4/19/2007 16:30:00	10.239	17.4
412	4/19/2007 16:40:00	10.243	17.4
413	4/19/2007 16:50:00	10.246	17.4
414	4/19/2007 17:00:00	10.248	17.4
415	4/19/2007 17:10:00	10.25	17.4
416	4/19/2007 17:20:00	10.251	17.4
417	4/19/2007 17:30:00	10.25	17.4
418	4/19/2007 17:40:00	10.251	17.4
419	4/19/2007 17:50:00	10.25	17.4
420	4/19/2007 18:00:00	10.25	17.4
421	4/19/2007 18:10:00	10.248	17.4
422	4/19/2007 18:20:00	10.247	17.4
423	4/19/2007 18:30:00	10.246	17.4
424	4/19/2007 18:40:00	10.244	17.4
425	4/19/2007 18:50:00	10.24	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
426	4/19/2007 19:00:00	10.237	17.4
427	4/19/2007 19:10:00	10.232	17.4
428	4/19/2007 19:20:00	10.228	17.4
429	4/19/2007 19:30:00	10.223	17.4
430	4/19/2007 19:40:00	10.216	17.4
431	4/19/2007 19:50:00	10.21	17.4
432	4/19/2007 20:00:00	10.205	17.4
433	4/19/2007 20:10:00	10.201	17.4
434	4/19/2007 20:20:00	10.196	17.4
435	4/19/2007 20:30:00	10.19	17.4
436	4/19/2007 20:40:00	10.187	17.4
437	4/19/2007 20:50:00	10.184	17.4
438	4/19/2007 21:00:00	10.183	17.4
439	4/19/2007 21:10:00	10.182	17.4
440	4/19/2007 21:20:00	10.184	17.4
441	4/19/2007 21:30:00	10.184	17.4
442	4/19/2007 21:40:00	10.187	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
443	4/19/2007 21:50:00	10.194	17.4
444	4/19/2007 22:00:00	10.2	17.4
445	4/19/2007 22:10:00	10.204	17.4
446	4/19/2007 22:20:00	10.211	17.4
447	4/19/2007 22:30:00	10.217	17.4
448	4/19/2007 22:40:00	10.223	17.4
449	4/19/2007 22:50:00	10.23	17.4
450	4/19/2007 23:00:00	10.238	17.4
451	4/19/2007 23:10:00	10.245	17.4
452	4/19/2007 23:20:00	10.253	17.4
453	4/19/2007 23:30:00	10.261	17.4
454	4/19/2007 23:40:00	10.267	17.4
455	4/19/2007 23:50:00	10.274	17.4
456	4/20/2007 0:00:00	10.28	17.4
457	4/20/2007 0:10:00	10.286	17.4
458	4/20/2007 0:20:00	10.293	17.4
459	4/20/2007 0:30:00	10.299	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
460	4/20/2007 0:40:00	10.304	17.4
461	4/20/2007 0:50:00	10.311	17.4
462	4/20/2007 1:00:00	10.317	17.4
463	4/20/2007 1:10:00	10.325	17.4
464	4/20/2007 1:20:00	10.332	17.4
465	4/20/2007 1:30:00	10.34	17.4
466	4/20/2007 1:40:00	10.346	17.4
467	4/20/2007 1:50:00	10.354	17.4
468	4/20/2007 2:00:00	10.363	17.4
469	4/20/2007 2:10:00	10.371	17.4
470	4/20/2007 2:20:00	10.38	17.4
471	4/20/2007 2:30:00	10.391	17.4
472	4/20/2007 2:40:00	10.399	17.4
473	4/20/2007 2:50:00	10.409	17.4
474	4/20/2007 3:00:00	10.417	17.4
475	4/20/2007 3:10:00	10.424	17.4
476	4/20/2007 3:20:00	10.434	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
477	4/20/2007 3:30:00	10.441	17.4
478	4/20/2007 3:40:00	10.446	17.4
479	4/20/2007 3:50:00	10.452	17.4
480	4/20/2007 4:00:00	10.458	17.4
481	4/20/2007 4:10:00	10.462	17.4
482	4/20/2007 4:20:00	10.466	17.4
483	4/20/2007 4:30:00	10.469	17.4
484	4/20/2007 4:40:00	10.471	17.4
485	4/20/2007 4:50:00	10.473	17.4
486	4/20/2007 5:00:00	10.473	17.4
487	4/20/2007 5:10:00	10.473	17.4
488	4/20/2007 5:20:00	10.473	17.4
489	4/20/2007 5:30:00	10.47	17.4
490	4/20/2007 5:40:00	10.465	17.4
491	4/20/2007 5:50:00	10.458	17.4
492	4/20/2007 6:00:00	10.45	17.4
493	4/20/2007 6:10:00	10.441	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
494	4/20/2007 6:20:00	10.431	17.4
495	4/20/2007 6:30:00	10.419	17.4
496	4/20/2007 6:40:00	10.407	17.4
497	4/20/2007 6:50:00	10.394	17.4
498	4/20/2007 7:00:00	10.381	17.4
499	4/20/2007 7:10:00	10.367	17.4
500	4/20/2007 7:20:00	10.352	17.4
501	4/20/2007 7:30:00	10.338	17.4
502	4/20/2007 7:40:00	10.323	17.4
503	4/20/2007 7:50:00	10.308	17.4
504	4/20/2007 8:00:00	10.294	17.4
505	4/20/2007 8:10:00	10.28	17.4
506	4/20/2007 8:20:00	10.267	17.4
507	4/20/2007 8:30:00	10.255	17.4
508	4/20/2007 8:40:00	10.245	17.4
509	4/20/2007 8:50:00	10.235	17.4
510	4/20/2007 9:00:00	10.224	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
511	4/20/2007 9:10:00	10.215	17.4
512	4/20/2007 9:20:00	10.207	17.4
513	4/20/2007 9:30:00	10.2	17.4
514	4/20/2007 9:40:00	10.191	17.4
515	4/20/2007 9:50:00	10.184	17.4
516	4/20/2007 10:00:00	10.177	17.4
517	4/20/2007 10:10:00	10.173	17.4
518	4/20/2007 10:20:00	10.168	17.4
519	4/20/2007 10:30:00	10.162	17.4
520	4/20/2007 10:40:00	10.158	17.4
521	4/20/2007 10:50:00	10.153	17.4
522	4/20/2007 11:00:00	10.149	17.4
523	4/20/2007 11:10:00	10.146	17.4
524	4/20/2007 11:20:00	10.144	17.4
525	4/20/2007 11:30:00	10.141	17.4
526	4/20/2007 11:40:00	10.14	17.4
527	4/20/2007 11:50:00	10.141	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
528	4/20/2007 12:00:00	10.145	17.4
529	4/20/2007 12:10:00	10.147	17.4
530	4/20/2007 12:20:00	10.151	17.4
531	4/20/2007 12:30:00	10.155	17.4
532	4/20/2007 12:40:00	10.161	17.4
533	4/20/2007 12:50:00	10.169	17.4
534	4/20/2007 13:00:00	10.176	17.4
535	4/20/2007 13:10:00	10.184	17.4
536	4/20/2007 13:20:00	10.194	17.4
537	4/20/2007 13:30:00	10.202	17.4
538	4/20/2007 13:40:00	10.211	17.4
539	4/20/2007 13:50:00	10.221	17.4
540	4/20/2007 14:00:00	10.232	17.4
541	4/20/2007 14:10:00	10.243	17.4
542	4/20/2007 14:20:00	10.252	17.4
543	4/20/2007 14:30:00	10.262	17.4
544	4/20/2007 14:40:00	10.273	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327015
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-04
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
545	4/20/2007 14:50:00	10.283	17.4
546	4/20/2007 15:00:00	10.293	17.4
547	4/20/2007 15:10:00	10.302	17.4
548	4/20/2007 15:20:00	10.311	17.4
549	4/20/2007 15:30:00	10.321	17.4
550	4/20/2007 15:40:00	10.329	17.4
551	4/20/2007 15:50:00	10.337	17.4
552	4/20/2007 16:00:00	10.345	17.4
553	4/20/2007 16:10:00	10.352	17.4
554	4/20/2007 16:20:00	10.357	17.4
555	4/20/2007 16:30:00	10.361	17.4
556	4/20/2007 16:40:00	10.366	17.4
557	4/20/2007 16:50:00	10.37	17.4
558	4/20/2007 17:00:00	10.374	17.4
559	4/20/2007 17:10:00	10.378	17.4
560	4/20/2007 17:20:00	10.38	17.4
561	4/20/2007 17:30:00	10.381	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	757.8250732	1.00E-06	-4.80E-05	1.001079082	6.23E+35	5.00E-06	1.95E-04	0.164171994
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2327015**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensor**
Session Name	**M25-04**
# Records	**567**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.917	17.3
Maximum	10.473	17.4
Mean	10.18	17.4
Variance	0.016	0
Std Deviation	0.1264	0.03

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
562	4/20/2007 17:40:00	10.385	17.4
563	4/20/2007 17:50:00	10.385	17.4
564	4/20/2007 18:00:00	10.386	17.4
565	4/20/2007 18:10:00	10.386	17.4
566	4/20/2007 18:20:00	10.386	17.4
567	4/20/2007 18:30:00	10.384	17.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346006**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensor**
Session Name	**M25-05**
# Records	**443**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/17/2007 17:10:00	2.188	17.7
2	4/17/2007 17:20:00	5.225	18.1
3	4/17/2007 17:30:00	5.415	18.1
4	4/17/2007 17:40:00	5.58	18.1
5	4/17/2007 17:50:00	5.722	18.1
6	4/17/2007 18:00:00	5.86	18.1
7	4/17/2007 18:10:00	5.986	18.1
8	4/17/2007 18:20:00	6.101	18.1
9	4/17/2007 18:30:00	6.205	18.1
10	4/17/2007 18:40:00	6.303	18.1
11	4/17/2007 18:50:00	6.395	18.1
12	4/17/2007 19:00:00	6.485	18.1
13	4/17/2007 19:10:00	6.568	18.1
14	4/17/2007 19:20:00	6.647	18.1
15	4/17/2007 19:30:00	6.723	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
16	4/17/2007 19:40:00	6.795	18.1
17	4/17/2007 19:50:00	6.856	18.2
18	4/17/2007 20:00:00	6.915	18.1
19	4/17/2007 20:10:00	6.971	18.2
20	4/17/2007 20:20:00	7.025	18.2
21	4/17/2007 20:30:00	7.074	18.2
22	4/17/2007 20:40:00	7.122	18.2
23	4/17/2007 20:50:00	7.167	18.2
24	4/17/2007 21:00:00	7.209	18.2
25	4/17/2007 21:10:00	7.249	18.2
26	4/17/2007 21:20:00	7.285	18.2
27	4/17/2007 21:30:00	7.322	18.2
28	4/17/2007 21:40:00	7.356	18.2
29	4/17/2007 21:50:00	7.388	18.2
30	4/17/2007 22:00:00	7.416	18.2
31	4/17/2007 22:10:00	7.445	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
32	4/17/2007 22:20:00	7.471	18.2
33	4/17/2007 22:30:00	7.494	18.2
34	4/17/2007 22:40:00	7.517	18.2
35	4/17/2007 22:50:00	7.54	18.2
36	4/17/2007 23:00:00	7.561	18.2
37	4/17/2007 23:10:00	7.579	18.2
38	4/17/2007 23:20:00	7.6	18.2
39	4/17/2007 23:30:00	7.619	18.2
40	4/17/2007 23:40:00	7.635	18.2
41	4/17/2007 23:50:00	7.653	18.2
42	4/18/2007 0:00:00	7.668	18.2
43	4/18/2007 0:10:00	7.682	18.2
44	4/18/2007 0:20:00	7.697	18.2
45	4/18/2007 0:30:00	7.71	18.2
46	4/18/2007 0:40:00	7.724	18.2
47	4/18/2007 0:50:00	7.736	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
48	4/18/2007 1:00:00	7.748	18.2
49	4/18/2007 1:10:00	7.759	18.2
50	4/18/2007 1:20:00	7.771	18.3
51	4/18/2007 1:30:00	7.78	18.3
52	4/18/2007 1:40:00	7.792	18.3
53	4/18/2007 1:50:00	7.802	18.3
54	4/18/2007 2:00:00	7.812	18.3
55	4/18/2007 2:10:00	7.821	18.3
56	4/18/2007 2:20:00	7.832	18.3
57	4/18/2007 2:30:00	7.841	18.3
58	4/18/2007 2:40:00	7.85	18.3
59	4/18/2007 2:50:00	7.858	18.3
60	4/18/2007 3:00:00	7.867	18.3
61	4/18/2007 3:10:00	7.875	18.3
62	4/18/2007 3:20:00	7.883	18.3
63	4/18/2007 3:30:00	7.891	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
64	4/18/2007 3:40:00	7.898	18.3
65	4/18/2007 3:50:00	7.905	18.3
66	4/18/2007 4:00:00	7.911	18.3
67	4/18/2007 4:10:00	7.917	18.3
68	4/18/2007 4:20:00	7.923	18.3
69	4/18/2007 4:30:00	7.929	18.3
70	4/18/2007 4:40:00	7.934	18.3
71	4/18/2007 4:50:00	7.939	18.3
72	4/18/2007 5:00:00	7.945	18.3
73	4/18/2007 5:10:00	7.95	18.3
74	4/18/2007 5:20:00	7.955	18.3
75	4/18/2007 5:30:00	7.959	18.3
76	4/18/2007 5:40:00	7.962	18.3
77	4/18/2007 5:50:00	7.967	18.3
78	4/18/2007 6:00:00	7.971	18.3
79	4/18/2007 6:10:00	7.975	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
80	4/18/2007 6:20:00	7.978	18.3
81	4/18/2007 6:30:00	7.982	18.3
82	4/18/2007 6:40:00	7.986	18.3
83	4/18/2007 6:50:00	7.988	18.3
84	4/18/2007 7:00:00	7.992	18.3
85	4/18/2007 7:10:00	7.995	18.3
86	4/18/2007 7:20:00	7.996	18.3
87	4/18/2007 7:30:00	8	18.3
88	4/18/2007 7:40:00	8.001	18.3
89	4/18/2007 7:50:00	8.003	18.3
90	4/18/2007 8:00:00	8.004	18.3
91	4/18/2007 8:10:00	8.007	18.3
92	4/18/2007 8:20:00	8.008	18.3
93	4/18/2007 8:30:00	8.007	18.3
94	4/18/2007 8:40:00	8.009	18.3
95	4/18/2007 8:50:00	8.01	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
96	4/18/2007 9:00:00	8.01	18.3
97	4/18/2007 9:10:00	8.011	18.3
98	4/18/2007 9:20:00	8.013	18.3
99	4/18/2007 9:30:00	8.013	18.3
100	4/18/2007 9:40:00	8.014	18.3
101	4/18/2007 9:50:00	8.014	18.3
102	4/18/2007 10:00:00	8.015	18.3
103	4/18/2007 10:10:00	8.015	18.3
104	4/18/2007 10:20:00	8.016	18.3
105	4/18/2007 10:30:00	8.018	18.3
106	4/18/2007 10:40:00	8.021	18.3
107	4/18/2007 10:50:00	8.021	18.3
108	4/18/2007 11:00:00	8.021	18.3
109	4/18/2007 11:10:00	8.024	18.3
110	4/18/2007 11:20:00	8.024	18.3
111	4/18/2007 11:30:00	8.025	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
112	4/18/2007 11:40:00	8.027	18.3
113	4/18/2007 11:50:00	8.028	18.3
114	4/18/2007 12:00:00	8.03	18.3
115	4/18/2007 12:10:00	8.031	18.3
116	4/18/2007 12:20:00	8.032	18.3
117	4/18/2007 12:30:00	8.036	18.3
118	4/18/2007 12:40:00	8.037	18.3
119	4/18/2007 12:50:00	8.039	18.3
120	4/18/2007 13:00:00	8.042	18.3
121	4/18/2007 13:10:00	8.043	18.3
122	4/18/2007 13:20:00	8.045	18.3
123	4/18/2007 13:30:00	8.048	18.3
124	4/18/2007 13:40:00	8.05	18.3
125	4/18/2007 13:50:00	8.052	18.3
126	4/18/2007 14:00:00	8.053	18.3
127	4/18/2007 14:10:00	8.058	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
128	4/18/2007 14:20:00	8.059	18.3
129	4/18/2007 14:30:00	8.063	18.3
130	4/18/2007 14:40:00	8.064	18.3
131	4/18/2007 14:50:00	8.068	18.3
132	4/18/2007 15:00:00	8.069	18.3
133	4/18/2007 15:10:00	8.071	18.3
134	4/18/2007 15:20:00	8.075	18.3
135	4/18/2007 15:30:00	8.077	18.3
136	4/18/2007 15:40:00	8.079	18.3
137	4/18/2007 15:50:00	8.082	18.3
138	4/18/2007 16:00:00	8.083	18.3
139	4/18/2007 16:10:00	8.085	18.3
140	4/18/2007 16:20:00	8.089	18.3
141	4/18/2007 16:30:00	8.091	18.3
142	4/18/2007 16:40:00	8.092	18.3
143	4/18/2007 16:50:00	8.094	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
144	4/18/2007 17:00:00	8.098	18.3
145	4/18/2007 17:10:00	8.099	18.3
146	4/18/2007 17:20:00	8.103	18.3
147	4/18/2007 17:30:00	8.105	18.3
148	4/18/2007 17:40:00	8.106	18.3
149	4/18/2007 17:50:00	8.11	18.3
150	4/18/2007 18:00:00	8.111	18.3
151	4/18/2007 18:10:00	8.114	18.3
152	4/18/2007 18:20:00	8.115	18.3
153	4/18/2007 18:30:00	8.115	18.3
154	4/18/2007 18:40:00	8.118	18.3
155	4/18/2007 18:50:00	8.118	18.3
156	4/18/2007 19:00:00	8.12	18.3
157	4/18/2007 19:10:00	8.121	18.3
158	4/18/2007 19:20:00	8.122	18.3
159	4/18/2007 19:30:00	8.122	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
160	4/18/2007 19:40:00	8.124	18.3
161	4/18/2007 19:50:00	8.125	18.3
162	4/18/2007 20:00:00	8.124	18.3
163	4/18/2007 20:10:00	8.122	18.3
164	4/18/2007 20:20:00	8.121	18.3
165	4/18/2007 20:30:00	8.121	18.3
166	4/18/2007 20:40:00	8.12	18.3
167	4/18/2007 20:50:00	8.12	18.3
168	4/18/2007 21:00:00	8.119	18.3
169	4/18/2007 21:10:00	8.119	18.3
170	4/18/2007 21:20:00	8.119	18.3
171	4/18/2007 21:30:00	8.119	18.3
172	4/18/2007 21:40:00	8.119	18.3
173	4/18/2007 21:50:00	8.12	18.3
174	4/18/2007 22:00:00	8.12	18.3
175	4/18/2007 22:10:00	8.121	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
176	4/18/2007 22:20:00	8.121	18.3
177	4/18/2007 22:30:00	8.12	18.3
178	4/18/2007 22:40:00	8.121	18.2
179	4/18/2007 22:50:00	8.121	18.3
180	4/18/2007 23:00:00	8.122	18.2
181	4/18/2007 23:10:00	8.124	18.3
182	4/18/2007 23:20:00	8.124	18.3
183	4/18/2007 23:30:00	8.125	18.3
184	4/18/2007 23:40:00	8.126	18.2
185	4/18/2007 23:50:00	8.127	18.2
186	4/19/2007 0:00:00	8.128	18.3
187	4/19/2007 0:10:00	8.129	18.2
188	4/19/2007 0:20:00	8.133	18.3
189	4/19/2007 0:30:00	8.134	18.3
190	4/19/2007 0:40:00	8.136	18.3
191	4/19/2007 0:50:00	8.138	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
192	4/19/2007 1:00:00	8.139	18.3
193	4/19/2007 1:10:00	8.14	18.3
194	4/19/2007 1:20:00	8.142	18.2
195	4/19/2007 1:30:00	8.142	18.2
196	4/19/2007 1:40:00	8.145	18.2
197	4/19/2007 1:50:00	8.147	18.2
198	4/19/2007 2:00:00	8.149	18.2
199	4/19/2007 2:10:00	8.153	18.2
200	4/19/2007 2:20:00	8.155	18.2
201	4/19/2007 2:30:00	8.156	18.2
202	4/19/2007 2:40:00	8.159	18.3
203	4/19/2007 2:50:00	8.16	18.2
204	4/19/2007 3:00:00	8.16	18.2
205	4/19/2007 3:10:00	8.162	18.2
206	4/19/2007 3:20:00	8.163	18.3
207	4/19/2007 3:30:00	8.165	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
208	4/19/2007 3:40:00	8.166	18.2
209	4/19/2007 3:50:00	8.166	18.2
210	4/19/2007 4:00:00	8.167	18.3
211	4/19/2007 4:10:00	8.167	18.2
212	4/19/2007 4:20:00	8.169	18.3
213	4/19/2007 4:30:00	8.169	18.2
214	4/19/2007 4:40:00	8.169	18.2
215	4/19/2007 4:50:00	8.17	18.2
216	4/19/2007 5:00:00	8.172	18.2
217	4/19/2007 5:10:00	8.173	18.2
218	4/19/2007 5:20:00	8.174	18.2
219	4/19/2007 5:30:00	8.176	18.2
220	4/19/2007 5:40:00	8.175	18.2
221	4/19/2007 5:50:00	8.177	18.2
222	4/19/2007 6:00:00	8.179	18.2
223	4/19/2007 6:10:00	8.18	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
224	4/19/2007 6:20:00	8.181	18.2
225	4/19/2007 6:30:00	8.181	18.2
226	4/19/2007 6:40:00	8.182	18.2
227	4/19/2007 6:50:00	8.182	18.2
228	4/19/2007 7:00:00	8.182	18.2
229	4/19/2007 7:10:00	8.182	18.2
230	4/19/2007 7:20:00	8.183	18.2
231	4/19/2007 7:30:00	8.183	18.2
232	4/19/2007 7:40:00	8.183	18.2
233	4/19/2007 7:50:00	8.184	18.2
234	4/19/2007 8:00:00	8.184	18.2
235	4/19/2007 8:10:00	8.186	18.2
236	4/19/2007 8:20:00	8.187	18.2
237	4/19/2007 8:30:00	8.188	18.2
238	4/19/2007 8:40:00	8.187	18.2
239	4/19/2007 8:50:00	8.188	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
240	4/19/2007 9:00:00	8.188	18.2
241	4/19/2007 9:10:00	8.188	18.2
242	4/19/2007 9:20:00	8.188	18.2
243	4/19/2007 9:30:00	8.188	18.2
244	4/19/2007 9:40:00	8.186	18.2
245	4/19/2007 9:50:00	8.186	18.2
246	4/19/2007 10:00:00	8.184	18.2
247	4/19/2007 10:10:00	8.183	18.2
248	4/19/2007 10:20:00	8.181	18.2
249	4/19/2007 10:30:00	8.179	18.2
250	4/19/2007 10:40:00	8.176	18.2
251	4/19/2007 10:50:00	8.173	18.2
252	4/19/2007 11:00:00	8.172	18.2
253	4/19/2007 11:10:00	8.168	18.2
254	4/19/2007 11:20:00	8.165	18.2
255	4/19/2007 11:30:00	8.162	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
256	4/19/2007 11:40:00	8.16	18.2
257	4/19/2007 11:50:00	8.157	18.2
258	4/19/2007 12:00:00	8.155	18.2
259	4/19/2007 12:10:00	8.155	18.2
260	4/19/2007 12:20:00	8.153	18.2
261	4/19/2007 12:30:00	8.15	18.2
262	4/19/2007 12:40:00	8.148	18.2
263	4/19/2007 12:50:00	8.144	18.1
264	4/19/2007 13:00:00	8.139	18.1
265	4/19/2007 13:10:00	8.133	18.1
266	4/19/2007 13:20:00	8.131	18.1
267	4/19/2007 13:30:00	8.124	18.1
268	4/19/2007 13:40:00	8.12	18.1
269	4/19/2007 13:50:00	8.112	18.1
270	4/19/2007 14:00:00	8.103	18.1
271	4/19/2007 14:10:00	8.094	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
272	4/19/2007 14:20:00	8.084	18.1
273	4/19/2007 14:30:00	8.071	18.1
274	4/19/2007 14:40:00	8.061	18.1
275	4/19/2007 14:50:00	8.051	18.1
276	4/19/2007 15:00:00	8.042	18.1
277	4/19/2007 15:10:00	8.035	18.2
278	4/19/2007 15:20:00	8.029	18.1
279	4/19/2007 15:30:00	8.023	18.1
280	4/19/2007 15:40:00	8.013	18.2
281	4/19/2007 15:50:00	8.006	18.1
282	4/19/2007 16:00:00	7.998	18.1
283	4/19/2007 16:10:00	7.989	18.1
284	4/19/2007 16:20:00	7.992	18.1
285	4/19/2007 16:30:00	7.986	18.1
286	4/19/2007 16:40:00	7.977	18.1
287	4/19/2007 16:50:00	7.965	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
288	4/19/2007 17:00:00	7.94	18.1
289	4/19/2007 17:10:00	7.934	18.1
290	4/19/2007 17:20:00	7.925	18.1
291	4/19/2007 17:30:00	7.918	18.1
292	4/19/2007 17:40:00	7.909	18.1
293	4/19/2007 17:50:00	7.896	18.1
294	4/19/2007 18:00:00	7.892	18.1
295	4/19/2007 18:10:00	7.878	18.1
296	4/19/2007 18:20:00	7.87	18.1
297	4/19/2007 18:30:00	7.868	18.1
298	4/19/2007 18:40:00	7.857	18.1
299	4/19/2007 18:50:00	7.854	18.1
300	4/19/2007 19:00:00	7.836	18.1
301	4/19/2007 19:10:00	7.822	18.1
302	4/19/2007 19:20:00	7.787	18.1
303	4/19/2007 19:30:00	7.676	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
304	4/19/2007 19:40:00	7.658	18.1
305	4/19/2007 19:50:00	7.641	18.1
306	4/19/2007 20:00:00	7.63	18.1
307	4/19/2007 20:10:00	7.627	18.1
308	4/19/2007 20:20:00	7.613	18.1
309	4/19/2007 20:30:00	7.586	18.1
310	4/19/2007 20:40:00	7.563	18.1
311	4/19/2007 20:50:00	7.547	18.1
312	4/19/2007 21:00:00	7.54	18.1
313	4/19/2007 21:10:00	7.528	18.1
314	4/19/2007 21:20:00	7.509	18.1
315	4/19/2007 21:30:00	7.495	18.1
316	4/19/2007 21:40:00	7.476	18.1
317	4/19/2007 21:50:00	7.457	18.1
318	4/19/2007 22:00:00	7.443	18.1
319	4/19/2007 22:10:00	7.409	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
320	4/19/2007 22:20:00	7.386	18.1
321	4/19/2007 22:30:00	7.374	18.1
322	4/19/2007 22:40:00	7.334	18.1
323	4/19/2007 22:50:00	7.297	18.1
324	4/19/2007 23:00:00	7.261	18.1
325	4/19/2007 23:10:00	7.263	18.1
326	4/19/2007 23:20:00	7.296	18.1
327	4/19/2007 23:30:00	7.269	18.1
328	4/19/2007 23:40:00	7.227	18.1
329	4/19/2007 23:50:00	7.193	18.1
330	4/20/2007 0:00:00	7.177	18.1
331	4/20/2007 0:10:00	7.219	18.1
332	4/20/2007 0:20:00	7.167	18.1
333	4/20/2007 0:30:00	7.199	18.1
334	4/20/2007 0:40:00	7.191	18.1
335	4/20/2007 0:50:00	7.108	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
336	4/20/2007 1:00:00	7.075	18.1
337	4/20/2007 1:10:00	7.148	18.1
338	4/20/2007 1:20:00	7.124	18.1
339	4/20/2007 1:30:00	7.038	18.1
340	4/20/2007 1:40:00	7.031	18.1
341	4/20/2007 1:50:00	7.008	18.1
342	4/20/2007 2:00:00	7.007	18.1
343	4/20/2007 2:10:00	6.964	18.1
344	4/20/2007 2:20:00	7.041	18.1
345	4/20/2007 2:30:00	7	18.1
346	4/20/2007 2:40:00	6.902	18.1
347	4/20/2007 2:50:00	6.889	18.1
348	4/20/2007 3:00:00	6.88	18.1
349	4/20/2007 3:10:00	6.852	18.1
350	4/20/2007 3:20:00	6.86	18.1
351	4/20/2007 3:30:00	6.86	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
352	4/20/2007 3:40:00	6.907	18.1
353	4/20/2007 3:50:00	6.813	18.1
354	4/20/2007 4:00:00	6.763	18.1
355	4/20/2007 4:10:00	6.748	18.1
356	4/20/2007 4:20:00	6.761	18.1
357	4/20/2007 4:30:00	6.708	18.1
358	4/20/2007 4:40:00	6.691	18.1
359	4/20/2007 4:50:00	6.667	18.1
360	4/20/2007 5:00:00	6.652	18.1
361	4/20/2007 5:10:00	6.645	18.1
362	4/20/2007 5:20:00	6.596	18.1
363	4/20/2007 5:30:00	6.569	18.1
364	4/20/2007 5:40:00	6.569	18.1
365	4/20/2007 5:50:00	6.52	18.1
366	4/20/2007 6:00:00	6.511	18.1
367	4/20/2007 6:10:00	6.475	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
368	4/20/2007 6:20:00	6.555	18.1
369	4/20/2007 6:30:00	6.459	18.1
370	4/20/2007 6:40:00	6.408	18.1
371	4/20/2007 6:50:00	6.403	18.1
372	4/20/2007 7:00:00	6.374	18.1
373	4/20/2007 7:10:00	6.351	18.1
374	4/20/2007 7:20:00	6.31	18.1
375	4/20/2007 7:30:00	6.375	18.1
376	4/20/2007 7:40:00	6.306	18.1
377	4/20/2007 7:50:00	6.237	18.1
378	4/20/2007 8:00:00	6.209	18.1
379	4/20/2007 8:10:00	6.206	18.1
380	4/20/2007 8:20:00	6.174	18.1
381	4/20/2007 8:30:00	6.155	18.1
382	4/20/2007 8:40:00	6.122	18.1
383	4/20/2007 8:50:00	6.073	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
384	4/20/2007 9:00:00	6.059	18.1
385	4/20/2007 9:10:00	5.945	18.1
386	4/20/2007 9:20:00	5.937	18.1
387	4/20/2007 9:30:00	5.948	18
388	4/20/2007 9:40:00	5.913	18.1
389	4/20/2007 9:50:00	5.86	18.1
390	4/20/2007 10:00:00	5.822	18.1
391	4/20/2007 10:10:00	5.796	18.1
392	4/20/2007 10:20:00	5.778	18.1
393	4/20/2007 10:30:00	5.746	18.1
394	4/20/2007 10:40:00	5.711	18.1
395	4/20/2007 10:50:00	5.682	18
396	4/20/2007 11:00:00	5.643	18
397	4/20/2007 11:10:00	5.62	18.1
398	4/20/2007 11:20:00	5.59	18.1
399	4/20/2007 11:30:00	5.562	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
400	4/20/2007 11:40:00	5.531	18
401	4/20/2007 11:50:00	5.505	18
402	4/20/2007 12:00:00	5.498	18
403	4/20/2007 12:10:00	5.464	18
404	4/20/2007 12:20:00	5.429	18
405	4/20/2007 12:30:00	5.421	18
406	4/20/2007 12:40:00	5.387	18
407	4/20/2007 12:50:00	5.37	18.1
408	4/20/2007 13:00:00	5.337	18.1
409	4/20/2007 13:10:00	5.304	18.1
410	4/20/2007 13:20:00	5.294	18
411	4/20/2007 13:30:00	5.259	18
412	4/20/2007 13:40:00	5.24	18
413	4/20/2007 13:50:00	5.198	18
414	4/20/2007 14:00:00	5.163	18
415	4/20/2007 14:10:00	5.162	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
416	4/20/2007 14:20:00	5.116	18
417	4/20/2007 14:30:00	5.092	18
418	4/20/2007 14:40:00	5.047	18
419	4/20/2007 14:50:00	5.025	18
420	4/20/2007 15:00:00	5.017	18
421	4/20/2007 15:10:00	4.982	18
422	4/20/2007 15:20:00	4.934	18
423	4/20/2007 15:30:00	4.925	18.1
424	4/20/2007 15:40:00	4.885	18.1
425	4/20/2007 15:50:00	4.845	18.1
426	4/20/2007 16:00:00	4.813	18.1
427	4/20/2007 16:10:00	4.777	18.1
428	4/20/2007 16:20:00	4.759	18.1
429	4/20/2007 16:30:00	4.728	18.1
430	4/20/2007 16:40:00	4.712	18.1
431	4/20/2007 16:50:00	4.678	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.90E-07	-2.32E-05	1.004076958	-11726364	3.25E-05	-1.37E-03	2.16E-04
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346006
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-05
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	2.188	17.7
Maximum	8.188	18.3
Mean	7.345	18.2
Variance	1.1589	0.01
Std Deviation	1.0765	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
432	4/20/2007 17:00:00	4.721	18.1
433	4/20/2007 17:10:00	4.716	18.1
434	4/20/2007 17:20:00	4.675	18.1
435	4/20/2007 17:30:00	4.635	18.1
436	4/20/2007 17:40:00	4.601	18.1
437	4/20/2007 17:50:00	4.496	18.1
438	4/20/2007 18:00:00	4.454	18.1
439	4/20/2007 18:10:00	4.414	18.1
440	4/20/2007 18:20:00	4.373	18.1
441	4/20/2007 18:30:00	4.352	18.1
442	4/20/2007 18:40:00	4.379	18.1
443	4/20/2007 18:50:00	4.274	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/16/2007 20:40:00	10.465	19.8
2	4/16/2007 20:50:00	10.467	19.7
3	4/16/2007 21:00:00	10.469	19.7
4	4/16/2007 21:10:00	10.471	19.7
5	4/16/2007 21:20:00	10.474	19.7
6	4/16/2007 21:30:00	10.476	19.7
7	4/16/2007 21:40:00	10.478	19.7
8	4/16/2007 21:50:00	10.48	19.7
9	4/16/2007 22:00:00	10.482	19.7
10	4/16/2007 22:10:00	10.483	19.7
11	4/16/2007 22:20:00	10.487	19.7
12	4/16/2007 22:30:00	10.489	19.7
13	4/16/2007 22:40:00	10.491	19.7
14	4/16/2007 22:50:00	10.495	19.7
15	4/16/2007 23:00:00	10.497	19.7
16	4/16/2007 23:10:00	10.501	19.8
17	4/16/2007 23:20:00	10.501	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
18	4/16/2007 23:30:00	10.504	19.7
19	4/16/2007 23:40:00	10.507	19.7
20	4/16/2007 23:50:00	10.509	19.7
21	4/17/2007 0:00:00	10.511	19.7
22	4/17/2007 0:10:00	10.514	19.7
23	4/17/2007 0:20:00	10.515	19.7
24	4/17/2007 0:30:00	10.517	19.7
25	4/17/2007 0:40:00	10.519	19.7
26	4/17/2007 0:50:00	10.521	19.7
27	4/17/2007 1:00:00	10.522	19.7
28	4/17/2007 1:10:00	10.523	19.8
29	4/17/2007 1:20:00	10.525	19.7
30	4/17/2007 1:30:00	10.528	19.7
31	4/17/2007 1:40:00	10.529	19.7
32	4/17/2007 1:50:00	10.531	19.7
33	4/17/2007 2:00:00	10.535	19.7
34	4/17/2007 2:10:00	10.537	19.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2609036**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensor**
Session Name	**M25-06**
# Records	**562**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
35	4/17/2007 2:20:00	10.537	19.7
36	4/17/2007 2:30:00	10.539	19.7
37	4/17/2007 2:40:00	10.542	19.7
38	4/17/2007 2:50:00	10.544	19.7
39	4/17/2007 3:00:00	10.545	19.8
40	4/17/2007 3:10:00	10.546	19.7
41	4/17/2007 3:20:00	10.545	19.8
42	4/17/2007 3:30:00	10.548	19.7
43	4/17/2007 3:40:00	10.549	19.7
44	4/17/2007 3:50:00	10.55	19.7
45	4/17/2007 4:00:00	10.551	19.7
46	4/17/2007 4:10:00	10.552	19.7
47	4/17/2007 4:20:00	10.552	19.8
48	4/17/2007 4:30:00	10.552	19.7
49	4/17/2007 4:40:00	10.551	19.7
50	4/17/2007 4:50:00	10.552	19.7
51	4/17/2007 5:00:00	10.555	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
52	4/17/2007 5:10:00	10.556	19.8
53	4/17/2007 5:20:00	10.555	19.7
54	4/17/2007 5:30:00	10.556	19.7
55	4/17/2007 5:40:00	10.556	19.7
56	4/17/2007 5:50:00	10.555	19.7
57	4/17/2007 6:00:00	10.556	19.7
58	4/17/2007 6:10:00	10.556	19.7
59	4/17/2007 6:20:00	10.557	19.7
60	4/17/2007 6:30:00	10.556	19.7
61	4/17/2007 6:40:00	10.556	19.7
62	4/17/2007 6:50:00	10.556	19.7
63	4/17/2007 7:00:00	10.557	19.7
64	4/17/2007 7:10:00	10.556	19.7
65	4/17/2007 7:20:00	10.557	19.7
66	4/17/2007 7:30:00	10.556	19.7
67	4/17/2007 7:40:00	10.556	19.7
68	4/17/2007 7:50:00	10.555	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
69	4/17/2007 8:00:00	10.553	19.7
70	4/17/2007 8:10:00	10.553	19.7
71	4/17/2007 8:20:00	10.553	19.7
72	4/17/2007 8:30:00	10.552	19.7
73	4/17/2007 8:40:00	10.552	19.7
74	4/17/2007 8:50:00	10.551	19.7
75	4/17/2007 9:00:00	10.552	19.7
76	4/17/2007 9:10:00	10.552	19.7
77	4/17/2007 9:20:00	10.553	19.7
78	4/17/2007 9:30:00	10.555	19.7
79	4/17/2007 9:40:00	10.556	19.7
80	4/17/2007 9:50:00	10.556	19.7
81	4/17/2007 10:00:00	10.556	19.7
82	4/17/2007 10:10:00	10.556	19.7
83	4/17/2007 10:20:00	10.556	19.7
84	4/17/2007 10:30:00	10.556	19.7
85	4/17/2007 10:40:00	10.556	19.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
86	4/17/2007 10:50:00	10.557	19.7
87	4/17/2007 11:00:00	10.559	19.7
88	4/17/2007 11:10:00	10.558	19.7
89	4/17/2007 11:20:00	10.559	19.7
90	4/17/2007 11:30:00	10.559	19.7
91	4/17/2007 11:40:00	10.562	19.7
92	4/17/2007 11:50:00	10.563	19.7
93	4/17/2007 12:00:00	10.565	19.7
94	4/17/2007 12:10:00	10.566	19.7
95	4/17/2007 12:20:00	10.567	19.7
96	4/17/2007 12:30:00	10.57	19.7
97	4/17/2007 12:40:00	10.571	19.7
98	4/17/2007 12:50:00	10.571	19.7
99	4/17/2007 13:00:00	10.573	19.7
100	4/17/2007 13:10:00	10.574	19.7
101	4/17/2007 13:20:00	10.576	19.7
102	4/17/2007 13:30:00	10.578	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
103	4/17/2007 13:40:00	10.577	19.8
104	4/17/2007 13:50:00	10.577	19.7
105	4/17/2007 14:00:00	10.578	19.7
106	4/17/2007 14:10:00	10.578	19.7
107	4/17/2007 14:20:00	10.578	19.7
108	4/17/2007 14:30:00	10.579	19.7
109	4/17/2007 14:40:00	10.579	19.7
110	4/17/2007 14:50:00	10.583	19.7
111	4/17/2007 15:00:00	10.581	19.7
112	4/17/2007 15:10:00	10.581	19.7
113	4/17/2007 15:20:00	10.584	19.7
114	4/17/2007 15:30:00	10.585	19.7
115	4/17/2007 15:40:00	10.587	19.7
116	4/17/2007 15:50:00	10.586	19.7
117	4/17/2007 16:00:00	10.59	19.7
118	4/17/2007 16:10:00	10.59	19.7
119	4/17/2007 16:20:00	10.59	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
120	4/17/2007 16:30:00	10.59	19.7
121	4/17/2007 16:40:00	10.591	19.7
122	4/17/2007 16:50:00	10.592	19.7
123	4/17/2007 17:00:00	10.592	19.7
124	4/17/2007 17:10:00	10.592	19.7
125	4/17/2007 17:20:00	10.593	19.7
126	4/17/2007 17:30:00	10.593	19.7
127	4/17/2007 17:40:00	10.594	19.7
128	4/17/2007 17:50:00	10.593	19.7
129	4/17/2007 18:00:00	10.593	19.7
130	4/17/2007 18:10:00	10.593	19.7
131	4/17/2007 18:20:00	10.592	19.7
132	4/17/2007 18:30:00	10.593	19.7
133	4/17/2007 18:40:00	10.593	19.7
134	4/17/2007 18:50:00	10.593	19.7
135	4/17/2007 19:00:00	10.592	19.7
136	4/17/2007 19:10:00	10.592	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
137	4/17/2007 19:20:00	10.593	19.7
138	4/17/2007 19:30:00	10.592	19.7
139	4/17/2007 19:40:00	10.592	19.7
140	4/17/2007 19:50:00	10.591	19.7
141	4/17/2007 20:00:00	10.591	19.7
142	4/17/2007 20:10:00	10.591	19.7
143	4/17/2007 20:20:00	10.59	19.7
144	4/17/2007 20:30:00	10.59	19.7
145	4/17/2007 20:40:00	10.59	19.7
146	4/17/2007 20:50:00	10.587	19.7
147	4/17/2007 21:00:00	10.587	19.7
148	4/17/2007 21:10:00	10.586	19.7
149	4/17/2007 21:20:00	10.584	19.7
150	4/17/2007 21:30:00	10.584	19.7
151	4/17/2007 21:40:00	10.583	19.7
152	4/17/2007 21:50:00	10.581	19.7
153	4/17/2007 22:00:00	10.581	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
154	4/17/2007 22:10:00	10.58	19.7
155	4/17/2007 22:20:00	10.581	19.7
156	4/17/2007 22:30:00	10.583	19.7
157	4/17/2007 22:40:00	10.583	19.7
158	4/17/2007 22:50:00	10.581	19.7
159	4/17/2007 23:00:00	10.583	19.7
160	4/17/2007 23:10:00	10.58	19.7
161	4/17/2007 23:20:00	10.58	19.7
162	4/17/2007 23:30:00	10.58	19.7
163	4/17/2007 23:40:00	10.58	19.7
164	4/17/2007 23:50:00	10.58	19.7
165	4/18/2007 0:00:00	10.58	19.8
166	4/18/2007 0:10:00	10.579	19.7
167	4/18/2007 0:20:00	10.58	19.7
168	4/18/2007 0:30:00	10.579	19.7
169	4/18/2007 0:40:00	10.579	19.7
170	4/18/2007 0:50:00	10.578	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
171	4/18/2007 1:00:00	10.578	19.7
172	4/18/2007 1:10:00	10.577	19.7
173	4/18/2007 1:20:00	10.577	19.7
174	4/18/2007 1:30:00	10.577	19.7
175	4/18/2007 1:40:00	10.577	19.8
176	4/18/2007 1:50:00	10.577	19.7
177	4/18/2007 2:00:00	10.578	19.8
178	4/18/2007 2:10:00	10.579	19.7
179	4/18/2007 2:20:00	10.58	19.8
180	4/18/2007 2:30:00	10.583	19.7
181	4/18/2007 2:40:00	10.583	19.7
182	4/18/2007 2:50:00	10.585	19.8
183	4/18/2007 3:00:00	10.584	19.8
184	4/18/2007 3:10:00	10.585	19.7
185	4/18/2007 3:20:00	10.586	19.8
186	4/18/2007 3:30:00	10.587	19.7
187	4/18/2007 3:40:00	10.588	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
188	4/18/2007 3:50:00	10.588	19.7
189	4/18/2007 4:00:00	10.587	19.7
190	4/18/2007 4:10:00	10.587	19.7
191	4/18/2007 4:20:00	10.587	19.8
192	4/18/2007 4:30:00	10.587	19.7
193	4/18/2007 4:40:00	10.587	19.7
194	4/18/2007 4:50:00	10.587	19.7
195	4/18/2007 5:00:00	10.586	19.7
196	4/18/2007 5:10:00	10.586	19.7
197	4/18/2007 5:20:00	10.587	19.8
198	4/18/2007 5:30:00	10.586	19.7
199	4/18/2007 5:40:00	10.586	19.7
200	4/18/2007 5:50:00	10.586	19.7
201	4/18/2007 6:00:00	10.586	19.7
202	4/18/2007 6:10:00	10.585	19.7
203	4/18/2007 6:20:00	10.585	19.8
204	4/18/2007 6:30:00	10.585	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
205	4/18/2007 6:40:00	10.586	19.7
206	4/18/2007 6:50:00	10.585	19.7
207	4/18/2007 7:00:00	10.585	19.8
208	4/18/2007 7:10:00	10.585	19.7
209	4/18/2007 7:20:00	10.584	19.7
210	4/18/2007 7:30:00	10.583	19.8
211	4/18/2007 7:40:00	10.582	19.8
212	4/18/2007 7:50:00	10.58	19.7
213	4/18/2007 8:00:00	10.579	19.7
214	4/18/2007 8:10:00	10.579	19.7
215	4/18/2007 8:20:00	10.577	19.8
216	4/18/2007 8:30:00	10.576	19.7
217	4/18/2007 8:40:00	10.576	19.7
218	4/18/2007 8:50:00	10.574	19.7
219	4/18/2007 9:00:00	10.573	19.8
220	4/18/2007 9:10:00	10.572	19.7
221	4/18/2007 9:20:00	10.572	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
222	4/18/2007 9:30:00	10.571	19.7
223	4/18/2007 9:40:00	10.57	19.8
224	4/18/2007 9:50:00	10.57	19.7
225	4/18/2007 10:00:00	10.57	19.7
226	4/18/2007 10:10:00	10.57	19.7
227	4/18/2007 10:20:00	10.57	19.8
228	4/18/2007 10:30:00	10.57	19.7
229	4/18/2007 10:40:00	10.571	19.7
230	4/18/2007 10:50:00	10.57	19.7
231	4/18/2007 11:00:00	10.571	19.7
232	4/18/2007 11:10:00	10.571	19.7
233	4/18/2007 11:20:00	10.571	19.8
234	4/18/2007 11:30:00	10.571	19.8
235	4/18/2007 11:40:00	10.571	19.8
236	4/18/2007 11:50:00	10.572	19.7
237	4/18/2007 12:00:00	10.573	19.7
238	4/18/2007 12:10:00	10.573	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
239	4/18/2007 12:20:00	10.574	19.7
240	4/18/2007 12:30:00	10.574	19.7
241	4/18/2007 12:40:00	10.577	19.8
242	4/18/2007 12:50:00	10.577	19.8
243	4/18/2007 13:00:00	10.579	19.7
244	4/18/2007 13:10:00	10.58	19.7
245	4/18/2007 13:20:00	10.582	19.8
246	4/18/2007 13:30:00	10.584	19.7
247	4/18/2007 13:40:00	10.584	19.8
248	4/18/2007 13:50:00	10.585	19.7
249	4/18/2007 14:00:00	10.586	19.8
250	4/18/2007 14:10:00	10.587	19.7
251	4/18/2007 14:20:00	10.588	19.7
252	4/18/2007 14:30:00	10.589	19.8
253	4/18/2007 14:40:00	10.59	19.7
254	4/18/2007 14:50:00	10.59	19.7
255	4/18/2007 15:00:00	10.591	19.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
256	4/18/2007 15:10:00	10.591	19.7
257	4/18/2007 15:20:00	10.592	19.7
258	4/18/2007 15:30:00	10.593	19.7
259	4/18/2007 15:40:00	10.593	19.7
260	4/18/2007 15:50:00	10.594	19.7
261	4/18/2007 16:00:00	10.593	19.7
262	4/18/2007 16:10:00	10.594	19.7
263	4/18/2007 16:20:00	10.597	19.7
264	4/18/2007 16:30:00	10.594	19.7
265	4/18/2007 16:40:00	10.596	19.8
266	4/18/2007 16:50:00	10.597	19.7
267	4/18/2007 17:00:00	10.595	19.7
268	4/18/2007 17:10:00	10.595	19.7
269	4/18/2007 17:20:00	10.597	19.7
270	4/18/2007 17:30:00	10.598	19.7
271	4/18/2007 17:40:00	10.598	19.7
272	4/18/2007 17:50:00	10.599	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
273	4/18/2007 18:00:00	10.598	19.8
274	4/18/2007 18:10:00	10.599	19.8
275	4/18/2007 18:20:00	10.598	19.7
276	4/18/2007 18:30:00	10.598	19.7
277	4/18/2007 18:40:00	10.597	19.8
278	4/18/2007 18:50:00	10.597	19.7
279	4/18/2007 19:00:00	10.597	19.7
280	4/18/2007 19:10:00	10.597	19.8
281	4/18/2007 19:20:00	10.595	19.7
282	4/18/2007 19:30:00	10.596	19.8
283	4/18/2007 19:40:00	10.594	19.7
284	4/18/2007 19:50:00	10.593	19.7
285	4/18/2007 20:00:00	10.591	19.7
286	4/18/2007 20:10:00	10.59	19.7
287	4/18/2007 20:20:00	10.591	19.7
288	4/18/2007 20:30:00	10.591	19.7
289	4/18/2007 20:40:00	10.59	19.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
290	4/18/2007 20:50:00	10.59	19.7
291	4/18/2007 21:00:00	10.588	19.7
292	4/18/2007 21:10:00	10.587	19.8
293	4/18/2007 21:20:00	10.589	19.8
294	4/18/2007 21:30:00	10.59	19.7
295	4/18/2007 21:40:00	10.589	19.8
296	4/18/2007 21:50:00	10.588	19.7
297	4/18/2007 22:00:00	10.589	19.8
298	4/18/2007 22:10:00	10.589	19.8
299	4/18/2007 22:20:00	10.587	19.7
300	4/18/2007 22:30:00	10.588	19.7
301	4/18/2007 22:40:00	10.587	19.8
302	4/18/2007 22:50:00	10.588	19.7
303	4/18/2007 23:00:00	10.588	19.7
304	4/18/2007 23:10:00	10.588	19.7
305	4/18/2007 23:20:00	10.59	19.8
306	4/18/2007 23:30:00	10.591	19.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
307	4/18/2007 23:40:00	10.593	19.8
308	4/18/2007 23:50:00	10.593	19.7
309	4/19/2007 0:00:00	10.594	19.8
310	4/19/2007 0:10:00	10.597	19.7
311	4/19/2007 0:20:00	10.598	19.8
312	4/19/2007 0:30:00	10.599	19.8
313	4/19/2007 0:40:00	10.6	19.8
314	4/19/2007 0:50:00	10.601	19.7
315	4/19/2007 1:00:00	10.604	19.7
316	4/19/2007 1:10:00	10.604	19.8
317	4/19/2007 1:20:00	10.605	19.7
318	4/19/2007 1:30:00	10.605	19.8
319	4/19/2007 1:40:00	10.606	19.8
320	4/19/2007 1:50:00	10.607	19.7
321	4/19/2007 2:00:00	10.608	19.8
322	4/19/2007 2:10:00	10.611	19.7
323	4/19/2007 2:20:00	10.611	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
324	4/19/2007 2:30:00	10.612	19.8
325	4/19/2007 2:40:00	10.613	19.8
326	4/19/2007 2:50:00	10.612	19.7
327	4/19/2007 3:00:00	10.612	19.7
328	4/19/2007 3:10:00	10.611	19.7
329	4/19/2007 3:20:00	10.611	19.8
330	4/19/2007 3:30:00	10.611	19.7
331	4/19/2007 3:40:00	10.61	19.8
332	4/19/2007 3:50:00	10.608	19.8
333	4/19/2007 4:00:00	10.608	19.8
334	4/19/2007 4:10:00	10.607	19.8
335	4/19/2007 4:20:00	10.607	19.8
336	4/19/2007 4:30:00	10.606	19.7
337	4/19/2007 4:40:00	10.606	19.7
338	4/19/2007 4:50:00	10.606	19.7
339	4/19/2007 5:00:00	10.606	19.8
340	4/19/2007 5:10:00	10.607	19.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
341	4/19/2007 5:20:00	10.608	19.7
342	4/19/2007 5:30:00	10.608	19.8
343	4/19/2007 5:40:00	10.608	19.8
344	4/19/2007 5:50:00	10.608	19.8
345	4/19/2007 6:00:00	10.608	19.8
346	4/19/2007 6:10:00	10.61	19.7
347	4/19/2007 6:20:00	10.608	19.8
348	4/19/2007 6:30:00	10.61	19.8
349	4/19/2007 6:40:00	10.607	19.7
350	4/19/2007 6:50:00	10.607	19.8
351	4/19/2007 7:00:00	10.607	19.8
352	4/19/2007 7:10:00	10.607	19.8
353	4/19/2007 7:20:00	10.608	19.8
354	4/19/2007 7:30:00	10.608	19.8
355	4/19/2007 7:40:00	10.607	19.7
356	4/19/2007 7:50:00	10.608	19.8
357	4/19/2007 8:00:00	10.608	19.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
358	4/19/2007 8:10:00	10.608	19.7
359	4/19/2007 8:20:00	10.608	19.8
360	4/19/2007 8:30:00	10.61	19.7
361	4/19/2007 8:40:00	10.61	19.8
362	4/19/2007 8:50:00	10.611	19.7
363	4/19/2007 9:00:00	10.612	19.8
364	4/19/2007 9:10:00	10.612	19.8
365	4/19/2007 9:20:00	10.613	19.7
366	4/19/2007 9:30:00	10.612	19.8
367	4/19/2007 9:40:00	10.612	19.8
368	4/19/2007 9:50:00	10.613	19.8
369	4/19/2007 10:00:00	10.613	19.8
370	4/19/2007 10:10:00	10.615	19.8
371	4/19/2007 10:20:00	10.614	19.8
372	4/19/2007 10:30:00	10.614	19.7
373	4/19/2007 10:40:00	10.613	19.7
374	4/19/2007 10:50:00	10.613	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
375	4/19/2007 11:00:00	10.612	19.8
376	4/19/2007 11:10:00	10.612	19.7
377	4/19/2007 11:20:00	10.612	19.7
378	4/19/2007 11:30:00	10.612	19.7
379	4/19/2007 11:40:00	10.613	19.8
380	4/19/2007 11:50:00	10.614	19.8
381	4/19/2007 12:00:00	10.613	19.8
382	4/19/2007 12:10:00	10.614	19.7
383	4/19/2007 12:20:00	10.615	19.8
384	4/19/2007 12:30:00	10.617	19.8
385	4/19/2007 12:40:00	10.618	19.8
386	4/19/2007 12:50:00	10.618	19.8
387	4/19/2007 13:00:00	10.619	19.7
388	4/19/2007 13:10:00	10.619	19.7
389	4/19/2007 13:20:00	10.619	19.8
390	4/19/2007 13:30:00	10.62	19.7
391	4/19/2007 13:40:00	10.62	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
392	4/19/2007 13:50:00	10.62	19.8
393	4/19/2007 14:00:00	10.62	19.8
394	4/19/2007 14:10:00	10.621	19.8
395	4/19/2007 14:20:00	10.621	19.8
396	4/19/2007 14:30:00	10.623	19.8
397	4/19/2007 14:40:00	10.623	19.8
398	4/19/2007 14:50:00	10.624	19.8
399	4/19/2007 15:00:00	10.626	19.8
400	4/19/2007 15:10:00	10.627	19.7
401	4/19/2007 15:20:00	10.63	19.8
402	4/19/2007 15:30:00	10.631	19.8
403	4/19/2007 15:40:00	10.632	19.8
404	4/19/2007 15:50:00	10.632	19.8
405	4/19/2007 16:00:00	10.633	19.7
406	4/19/2007 16:10:00	10.633	19.8
407	4/19/2007 16:20:00	10.633	19.8
408	4/19/2007 16:30:00	10.633	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
409	4/19/2007 16:40:00	10.633	19.7
410	4/19/2007 16:50:00	10.633	19.7
411	4/19/2007 17:00:00	10.634	19.8
412	4/19/2007 17:10:00	10.634	19.8
413	4/19/2007 17:20:00	10.634	19.8
414	4/19/2007 17:30:00	10.634	19.8
415	4/19/2007 17:40:00	10.633	19.8
416	4/19/2007 17:50:00	10.634	19.7
417	4/19/2007 18:00:00	10.634	19.7
418	4/19/2007 18:10:00	10.635	19.7
419	4/19/2007 18:20:00	10.635	19.8
420	4/19/2007 18:30:00	10.635	19.7
421	4/19/2007 18:40:00	10.635	19.8
422	4/19/2007 18:50:00	10.636	19.7
423	4/19/2007 19:00:00	10.637	19.8
424	4/19/2007 19:10:00	10.636	19.7
425	4/19/2007 19:20:00	10.636	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
426	4/19/2007 19:30:00	10.635	19.7
427	4/19/2007 19:40:00	10.634	19.8
428	4/19/2007 19:50:00	10.633	19.8
429	4/19/2007 20:00:00	10.632	19.8
430	4/19/2007 20:10:00	10.632	19.7
431	4/19/2007 20:20:00	10.629	19.7
432	4/19/2007 20:30:00	10.628	19.8
433	4/19/2007 20:40:00	10.626	19.7
434	4/19/2007 20:50:00	10.624	19.7
435	4/19/2007 21:00:00	10.62	19.7
436	4/19/2007 21:10:00	10.617	19.7
437	4/19/2007 21:20:00	10.613	19.8
438	4/19/2007 21:30:00	10.61	19.8
439	4/19/2007 21:40:00	10.607	19.8
440	4/19/2007 21:50:00	10.605	19.8
441	4/19/2007 22:00:00	10.603	19.7
442	4/19/2007 22:10:00	10.6	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
443	4/19/2007 22:20:00	10.598	19.7
444	4/19/2007 22:30:00	10.595	19.7
445	4/19/2007 22:40:00	10.593	19.7
446	4/19/2007 22:50:00	10.591	19.7
447	4/19/2007 23:00:00	10.587	19.8
448	4/19/2007 23:10:00	10.585	19.7
449	4/19/2007 23:20:00	10.583	19.7
450	4/19/2007 23:30:00	10.58	19.7
451	4/19/2007 23:40:00	10.578	19.7
452	4/19/2007 23:50:00	10.576	19.7
453	4/20/2007 0:00:00	10.573	19.7
454	4/20/2007 0:10:00	10.572	19.7
455	4/20/2007 0:20:00	10.571	19.7
456	4/20/2007 0:30:00	10.57	19.7
457	4/20/2007 0:40:00	10.569	19.7
458	4/20/2007 0:50:00	10.566	19.7
459	4/20/2007 1:00:00	10.566	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
460	4/20/2007 1:10:00	10.565	19.8
461	4/20/2007 1:20:00	10.565	19.7
462	4/20/2007 1:30:00	10.566	19.7
463	4/20/2007 1:40:00	10.565	19.7
464	4/20/2007 1:50:00	10.565	19.7
465	4/20/2007 2:00:00	10.565	19.7
466	4/20/2007 2:10:00	10.565	19.7
467	4/20/2007 2:20:00	10.565	19.7
468	4/20/2007 2:30:00	10.566	19.7
469	4/20/2007 2:40:00	10.566	19.7
470	4/20/2007 2:50:00	10.567	19.7
471	4/20/2007 3:00:00	10.569	19.7
472	4/20/2007 3:10:00	10.57	19.7
473	4/20/2007 3:20:00	10.571	19.7
474	4/20/2007 3:30:00	10.571	19.7
475	4/20/2007 3:40:00	10.573	19.7
476	4/20/2007 3:50:00	10.574	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
477	4/20/2007 4:00:00	10.577	19.7
478	4/20/2007 4:10:00	10.579	19.7
479	4/20/2007 4:20:00	10.581	19.7
480	4/20/2007 4:30:00	10.585	19.7
481	4/20/2007 4:40:00	10.587	19.7
482	4/20/2007 4:50:00	10.59	19.7
483	4/20/2007 5:00:00	10.593	19.7
484	4/20/2007 5:10:00	10.594	19.7
485	4/20/2007 5:20:00	10.598	19.7
486	4/20/2007 5:30:00	10.6	19.7
487	4/20/2007 5:40:00	10.604	19.7
488	4/20/2007 5:50:00	10.605	19.7
489	4/20/2007 6:00:00	10.607	19.7
490	4/20/2007 6:10:00	10.612	19.7
491	4/20/2007 6:20:00	10.614	19.7
492	4/20/2007 6:30:00	10.617	19.7
493	4/20/2007 6:40:00	10.62	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2609036**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensor**
Session Name	**M25-06**
# Records	**562**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
494	4/20/2007 6:50:00	10.624	19.7
495	4/20/2007 7:00:00	10.626	19.7
496	4/20/2007 7:10:00	10.629	19.7
497	4/20/2007 7:20:00	10.632	19.7
498	4/20/2007 7:30:00	10.634	19.7
499	4/20/2007 7:40:00	10.638	19.7
500	4/20/2007 7:50:00	10.641	19.7
501	4/20/2007 8:00:00	10.643	19.7
502	4/20/2007 8:10:00	10.647	19.7
503	4/20/2007 8:20:00	10.65	19.7
504	4/20/2007 8:30:00	10.654	19.7
505	4/20/2007 8:40:00	10.656	19.7
506	4/20/2007 8:50:00	10.66	19.7
507	4/20/2007 9:00:00	10.665	19.7
508	4/20/2007 9:10:00	10.667	19.7
509	4/20/2007 9:20:00	10.67	19.7
510	4/20/2007 9:30:00	10.674	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
511	4/20/2007 9:40:00	10.677	19.7
512	4/20/2007 9:50:00	10.682	19.7
513	4/20/2007 10:00:00	10.686	19.8
514	4/20/2007 10:10:00	10.689	19.7
515	4/20/2007 10:20:00	10.694	19.7
516	4/20/2007 10:30:00	10.697	19.7
517	4/20/2007 10:40:00	10.701	19.7
518	4/20/2007 10:50:00	10.704	19.7
519	4/20/2007 11:00:00	10.708	19.7
520	4/20/2007 11:10:00	10.712	19.7
521	4/20/2007 11:20:00	10.717	19.7
522	4/20/2007 11:30:00	10.722	19.7
523	4/20/2007 11:40:00	10.725	19.7
524	4/20/2007 11:50:00	10.729	19.7
525	4/20/2007 12:00:00	10.734	19.7
526	4/20/2007 12:10:00	10.738	19.7
527	4/20/2007 12:20:00	10.743	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
528	4/20/2007 12:30:00	10.748	19.7
529	4/20/2007 12:40:00	10.752	19.7
530	4/20/2007 12:50:00	10.756	19.7
531	4/20/2007 13:00:00	10.76	19.7
532	4/20/2007 13:10:00	10.764	19.7
533	4/20/2007 13:20:00	10.77	19.7
534	4/20/2007 13:30:00	10.775	19.7
535	4/20/2007 13:40:00	10.78	19.7
536	4/20/2007 13:50:00	10.785	19.7
537	4/20/2007 14:00:00	10.789	19.7
538	4/20/2007 14:10:00	10.792	19.7
539	4/20/2007 14:20:00	10.796	19.7
540	4/20/2007 14:30:00	10.799	19.7
541	4/20/2007 14:40:00	10.803	19.7
542	4/20/2007 14:50:00	10.806	19.7
543	4/20/2007 15:00:00	10.811	19.7
544	4/20/2007 15:10:00	10.814	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609036
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-06
# Records	562

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
545	4/20/2007 15:20:00	10.818	19.7
546	4/20/2007 15:30:00	10.82	19.7
547	4/20/2007 15:40:00	10.821	19.7
548	4/20/2007 15:50:00	10.822	19.7
549	4/20/2007 16:00:00	10.827	19.7
550	4/20/2007 16:10:00	10.831	19.7
551	4/20/2007 16:20:00	10.834	19.7
552	4/20/2007 16:30:00	10.835	19.7
553	4/20/2007 16:40:00	10.838	19.7
554	4/20/2007 16:50:00	10.84	19.7
555	4/20/2007 17:00:00	10.842	19.7
556	4/20/2007 17:10:00	10.846	19.7
557	4/20/2007 17:20:00	10.849	19.7
558	4/20/2007 17:30:00	10.852	19.7
559	4/20/2007 17:40:00	10.855	19.7
560	4/20/2007 17:50:00	10.866	19.7
561	4/20/2007 18:00:00	10.874	19.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.5852051	0	3.20E-05	1.004576921	-14723868	1.50E-05	3.70E-05	0.039452001
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2609036**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensor**
Session Name	**M25-06**
# Records	**562**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.465	19.7
Maximum	10.879	19.8
Mean	10.604	19.7
Variance	0.0044	0
Std Deviation	0.0666	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
562	4/20/2007 18:10:00	10.879	19.7

Statistical Data	Pressure(Ft H2O)
Sensor Range	15 psig
Minimum	0.014
Maximum	10.423
Mean	10.248
Variance	0.2478
Std Deviation	0.4978

Rec #	Date/Time	Pressure(Ft H2O)									
		O(i)	O(i)/24	i	X(i)	X(i)/24	j	Y(j)	Y(j)/25	M(36)
4	4/17/2007 18:00:00	10.047	0.418625	1	10.15508333	0.423128472	1	10.20149479	0.408059792	
10	4/17/2007 19:00:00	10.114	0.421416667	2	10.162625	0.423442708	2	10.20573611	0.408229444	
16	4/17/2007 20:00:00	10.135	0.422291667	3	10.16729167	0.423637153	3	10.20986806	0.408394722	
22	4/17/2007 21:00:00	10.139	0.422458333	4	10.17066667	0.423777778	4	10.21403993	0.408561597	
28	4/17/2007 22:00:00	10.136	0.422333333	5	10.17358333	0.423899306	5	10.21833333	0.408733333	
34	4/17/2007 23:00:00	10.14	0.4225	6	10.176625	0.424026042	6	10.22277083	0.408910833	
40	4/18/2007 0:00:00	10.147	0.422791667	7	10.1795	0.424145833	7	10.22734896	0.409093958	
46	4/18/2007 1:00:00	10.152	0.423	8	10.18245833	0.424269097	8	10.23207639	0.409283056	
52	4/18/2007 2:00:00	10.16	0.423333333	9	10.18575	0.42440625	9	10.23694097	0.409477639	
58	4/18/2007 3:00:00	10.173	0.423875	10	10.189375	0.424557292	10	10.24191319	0.409676528	
64	4/18/2007 4:00:00	10.183	0.424291667	11	10.19304167	0.424710069	11	10.24696528	0.409878611	
70	4/18/2007 5:00:00	10.184	0.424333333	12	10.19654167	0.424855903	12	10.25207986	0.410083194	
76	4/18/2007 6:00:00	10.181	0.424208333	13	10.20020833	0.425008681	13	10.25726736	0.410290694	
82	4/18/2007 7:00:00	10.175	0.423958333	14	10.20408333	0.425170139	14	10.26252083	0.410500833	
88	4/18/2007 8:00:00	10.165	0.423541667	15	10.20808333	0.425336806	15	10.26783854	0.410713542	
94	4/18/2007 9:00:00	10.157	0.423208333	16	10.212375	0.425515625	16	10.27322743	0.410929097	
100	4/18/2007 10:00:00	10.149	0.422875	17	10.21704167	0.425710069	17	10.27867708	0.411147083	
106	4/18/2007 11:00:00	10.141	0.422541667	18	10.222	0.425916667	18	10.28417708	0.411367083	
112	4/18/2007 12:00:00	10.137	0.422375	19	10.22720833	0.426133681	19	10.28973785	0.411589514	
118	4/18/2007 13:00:00	10.145	0.422708333	20	10.23245833	0.426352431	20	10.29535069	0.411814028	
124	4/18/2007 14:00:00	10.163	0.423458333	21	10.23775	0.426572917	21	10.30101215	0.412040486	
130	4/18/2007 15:00:00	10.183	0.424291667	22	10.24266667	0.426777778	22	10.30670486	0.412268194	
136	4/18/2007 16:00:00	10.199	0.424958333	23	10.24733333	0.426972222	23	10.31243229	0.412497292	
142	4/18/2007 17:00:00	10.217	0.425708333	24	10.252125	0.427171875	24	10.31817361	0.412726944	
148	4/18/2007 18:00:00	10.228	0.426166667	25	10.256875	0.427369792	25	10.32387153	0.412954861	
154	4/18/2007 19:00:00	10.226	0.426083333	26	10.26179167	0.427574653	26			
160	4/18/2007 20:00:00	10.216	0.425666667	27	10.26741667	0.427809028	27			

Statistical Data	Pressure(Ft H2O)
Sensor Range	15 psig
Minimum	0.014
Maximum	10.423
Mean	10.248
Variance	0.2478
Std Deviation	0.4978

Rec #	Date/Time	Pressure(Ft H2O) O(i)	O(i)/24	i	X(i)	X(i)/24	j	Y(j)	Y(j)/25	M(36)
166	4/18/2007 21:00:00	10.209	0.425375	28	10.27370833	0.428071181	28			
172	4/18/2007 22:00:00	10.209	0.425375	29	10.28008333	0.428336806	29			
178	4/18/2007 23:00:00	10.209	0.425375	30	10.2865	0.428604167	30			
184	4/19/2007 0:00:00	10.218	0.42575	31	10.29295833	0.428873264	31			
190	4/19/2007 1:00:00	10.231	0.426291667	32	10.29920833	0.429133681	32			
196	4/19/2007 2:00:00	10.247	0.426958333	33	10.30508333	0.429378472	33			
202	4/19/2007 3:00:00	10.261	0.427541667	34	10.310625	0.429609375	34			
208	4/19/2007 4:00:00	10.267	0.427791667	35	10.31579167	0.429824653	35			
214	4/19/2007 5:00:00	10.272	0.428	36	10.32104167	0.430043403	36		10.25922236	hour 36 pressure
220	4/19/2007 6:00:00	10.274	0.428083333	37	10.32629167	0.430262153	37			
226	4/19/2007 7:00:00	10.271	0.427958333	38	10.33170833	0.430487847	38			
232	4/19/2007 8:00:00	10.268	0.427833333	39	10.33741667	0.430725694	39			
238	4/19/2007 9:00:00	10.269	0.427875	40	10.34316667	0.430965278	40			
244	4/19/2007 10:00:00	10.268	0.427833333	41	10.34904167	0.431210069	41			
250	4/19/2007 11:00:00	10.266	0.42775	42	10.35545833	0.431477431	42			
256	4/19/2007 12:00:00	10.263	0.427625	43	10.36191667	0.431746528	43			
262	4/19/2007 13:00:00	10.272	0.428	44	10.36833333	0.432013889	44			
268	4/19/2007 14:00:00	10.281	0.428375	45	10.374375	0.432265625	45			
274	4/19/2007 15:00:00	10.295	0.428958333	46	10.380125	0.432505208	46			
280	4/19/2007 16:00:00	10.314	0.42975	47	10.385125	0.432713542	47			
286	4/19/2007 17:00:00	10.331	0.430458333	48	10.388875	0.432869792	48			
292	4/19/2007 18:00:00	10.346	0.431083333	49	10.39183333	0.432993056	49			
298	4/19/2007 19:00:00	10.361	0.431708333	50	10.39379167		50			
304	4/19/2007 20:00:00	10.367	0.431958333	51	10.39491667		51			
310	4/19/2007 21:00:00	10.362	0.43175	52	9.962958333		52			
316	4/19/2007 22:00:00	10.363	0.431791667	53	9.531208333		53			
322	4/19/2007 23:00:00	10.364	0.431833333	54	9.099416667		54			
328	4/20/2007 0:00:00	10.368	0.432	55	8.667583333		55			

Statistical Data	Pressure(Ft H2O)
Sensor Range	15 psig
Minimum	0.014
Maximum	10.423
Mean	10.248
Variance	0.2478
Std Deviation	0.4978

Rec #	Date/Time	Pressure(Ft H2O)								
		O(i)	O(i)/24	i	X(i)	X(i)/24	j	Y(j)	Y(j)/25	M(36)
334	4/20/2007 1:00:00	10.372	0.432166667	56	8.235583333		56			
340	4/20/2007 2:00:00	10.38	0.4325	57	7.803416667		57			
346	4/20/2007 3:00:00	10.385	0.432708333	58	7.370916667		58			
352	4/20/2007 4:00:00	10.393	0.433041667	59	6.938208333		59			
358	4/20/2007 5:00:00	10.398	0.43325	60	6.505166667		60			
364	4/20/2007 6:00:00	10.404	0.4335	61	6.071916667		61			
370	4/20/2007 7:00:00	10.408	0.433666667	62	5.638416667		62			
376	4/20/2007 8:00:00	10.406	0.433583333	63	5.20475		63			
382	4/20/2007 9:00:00	10.41	0.43375	64	4.771166667		64			
388	4/20/2007 10:00:00	10.422	0.43425	65	4.337416667		65			
394	4/20/2007 11:00:00	10.421	0.434208333	66	3.903166667		66			
400	4/20/2007 12:00:00	10.417	0.434041667	67	3.468958333		67			
406	4/20/2007 13:00:00	10.417	0.434041667	68	3.034916667		68			
412	4/20/2007 14:00:00	10.419	0.434125	69	2.600875		69			
418	4/20/2007 15:00:00	10.415	0.433958333	70	2.16675		70			
424	4/20/2007 16:00:00	10.404	0.4335	71	1.732791667		71			
430	4/20/2007 17:00:00	10.402	0.433416667	72	1.299291667		72			
436	4/20/2007 18:00:00	10.393	0.433041667							
442	4/20/2007 19:00:00	10.388	0.432833333							

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346017**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensor**
Session Name	**M25-07**
# Records	**442**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/17/2007 17:30:00	0.014	16.6
2	4/17/2007 17:40:00	9.994	17
3	4/17/2007 17:50:00	10.023	17.1
4	4/17/2007 18:00:00	10.047	17.1
5	4/17/2007 18:10:00	10.065	17.1
6	4/17/2007 18:20:00	10.079	17.1
7	4/17/2007 18:30:00	10.092	17.1
8	4/17/2007 18:40:00	10.1	17.1
9	4/17/2007 18:50:00	10.109	17.1
10	4/17/2007 19:00:00	10.114	17.1
11	4/17/2007 19:10:00	10.118	17.1
12	4/17/2007 19:20:00	10.123	17.1
13	4/17/2007 19:30:00	10.127	17.1
14	4/17/2007 19:40:00	10.13	17.1
15	4/17/2007 19:50:00	10.133	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346017**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensor**
Session Name	**M25-07**
# Records	**442**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
16	4/17/2007 20:00:00	10.135	17.1
17	4/17/2007 20:10:00	10.136	17.1
18	4/17/2007 20:20:00	10.137	17.1
19	4/17/2007 20:30:00	10.14	17.1
20	4/17/2007 20:40:00	10.139	17.1
21	4/17/2007 20:50:00	10.14	17.1
22	4/17/2007 21:00:00	10.139	17.1
23	4/17/2007 21:10:00	10.137	17.1
24	4/17/2007 21:20:00	10.137	17.1
25	4/17/2007 21:30:00	10.137	17.1
26	4/17/2007 21:40:00	10.136	17.1
27	4/17/2007 21:50:00	10.137	17.2
28	4/17/2007 22:00:00	10.136	17.1
29	4/17/2007 22:10:00	10.137	17.1
30	4/17/2007 22:20:00	10.137	17.2
31	4/17/2007 22:30:00	10.139	17.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346017**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensor**
Session Name	**M25-07**
# Records	**442**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
32	4/17/2007 22:40:00	10.139	17.2
33	4/17/2007 22:50:00	10.14	17.2
34	4/17/2007 23:00:00	10.14	17.2
35	4/17/2007 23:10:00	10.141	17.2
36	4/17/2007 23:20:00	10.143	17.2
37	4/17/2007 23:30:00	10.144	17.2
38	4/17/2007 23:40:00	10.145	17.2
39	4/17/2007 23:50:00	10.146	17.2
40	4/18/2007 0:00:00	10.147	17.2
41	4/18/2007 0:10:00	10.149	17.2
42	4/18/2007 0:20:00	10.15	17.2
43	4/18/2007 0:30:00	10.151	17.2
44	4/18/2007 0:40:00	10.151	17.2
45	4/18/2007 0:50:00	10.153	17.2
46	4/18/2007 1:00:00	10.152	17.2
47	4/18/2007 1:10:00	10.153	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346017**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensor**
Session Name	**M25-07**
# Records	**442**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
48	4/18/2007 1:20:00	10.154	17.2
49	4/18/2007 1:30:00	10.154	17.2
50	4/18/2007 1:40:00	10.157	17.2
51	4/18/2007 1:50:00	10.158	17.2
52	4/18/2007 2:00:00	10.16	17.2
53	4/18/2007 2:10:00	10.164	17.2
54	4/18/2007 2:20:00	10.166	17.2
55	4/18/2007 2:30:00	10.167	17.2
56	4/18/2007 2:40:00	10.17	17.2
57	4/18/2007 2:50:00	10.172	17.2
58	4/18/2007 3:00:00	10.173	17.2
59	4/18/2007 3:10:00	10.176	17.2
60	4/18/2007 3:20:00	10.177	17.2
61	4/18/2007 3:30:00	10.179	17.2
62	4/18/2007 3:40:00	10.182	17.2
63	4/18/2007 3:50:00	10.183	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
64	4/18/2007 4:00:00	10.183	17.2
65	4/18/2007 4:10:00	10.184	17.2
66	4/18/2007 4:20:00	10.184	17.2
67	4/18/2007 4:30:00	10.185	17.2
68	4/18/2007 4:40:00	10.184	17.2
69	4/18/2007 4:50:00	10.185	17.2
70	4/18/2007 5:00:00	10.184	17.2
71	4/18/2007 5:10:00	10.183	17.2
72	4/18/2007 5:20:00	10.183	17.2
73	4/18/2007 5:30:00	10.183	17.2
74	4/18/2007 5:40:00	10.181	17.2
75	4/18/2007 5:50:00	10.182	17.2
76	4/18/2007 6:00:00	10.181	17.2
77	4/18/2007 6:10:00	10.179	17.2
78	4/18/2007 6:20:00	10.178	17.2
79	4/18/2007 6:30:00	10.179	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
80	4/18/2007 6:40:00	10.177	17.2
81	4/18/2007 6:50:00	10.176	17.2
82	4/18/2007 7:00:00	10.175	17.2
83	4/18/2007 7:10:00	10.173	17.2
84	4/18/2007 7:20:00	10.172	17.2
85	4/18/2007 7:30:00	10.17	17.2
86	4/18/2007 7:40:00	10.169	17.2
87	4/18/2007 7:50:00	10.167	17.2
88	4/18/2007 8:00:00	10.165	17.2
89	4/18/2007 8:10:00	10.164	17.2
90	4/18/2007 8:20:00	10.162	17.2
91	4/18/2007 8:30:00	10.162	17.2
92	4/18/2007 8:40:00	10.16	17.2
93	4/18/2007 8:50:00	10.158	17.2
94	4/18/2007 9:00:00	10.157	17.2
95	4/18/2007 9:10:00	10.157	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346017**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensor**
Session Name	**M25-07**
# Records	**442**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
96	4/18/2007 9:20:00	10.154	17.2
97	4/18/2007 9:30:00	10.154	17.2
98	4/18/2007 9:40:00	10.152	17.2
99	4/18/2007 9:50:00	10.15	17.2
100	4/18/2007 10:00:00	10.149	17.2
101	4/18/2007 10:10:00	10.146	17.2
102	4/18/2007 10:20:00	10.145	17.2
103	4/18/2007 10:30:00	10.145	17.2
104	4/18/2007 10:40:00	10.144	17.2
105	4/18/2007 10:50:00	10.141	17.2
106	4/18/2007 11:00:00	10.141	17.2
107	4/18/2007 11:10:00	10.139	17.2
108	4/18/2007 11:20:00	10.138	17.2
109	4/18/2007 11:30:00	10.138	17.2
110	4/18/2007 11:40:00	10.137	17.2
111	4/18/2007 11:50:00	10.137	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
112	4/18/2007 12:00:00	10.137	17.2
113	4/18/2007 12:10:00	10.137	17.2
114	4/18/2007 12:20:00	10.138	17.2
115	4/18/2007 12:30:00	10.139	17.2
116	4/18/2007 12:40:00	10.141	17.2
117	4/18/2007 12:50:00	10.144	17.2
118	4/18/2007 13:00:00	10.145	17.2
119	4/18/2007 13:10:00	10.149	17.2
120	4/18/2007 13:20:00	10.151	17.2
121	4/18/2007 13:30:00	10.153	17.2
122	4/18/2007 13:40:00	10.156	17.2
123	4/18/2007 13:50:00	10.159	17.2
124	4/18/2007 14:00:00	10.163	17.2
125	4/18/2007 14:10:00	10.166	17.2
126	4/18/2007 14:20:00	10.17	17.2
127	4/18/2007 14:30:00	10.173	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346017**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensor**
Session Name	**M25-07**
# Records	**442**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
128	4/18/2007 14:40:00	10.176	17.2
129	4/18/2007 14:50:00	10.179	17.2
130	4/18/2007 15:00:00	10.183	17.2
131	4/18/2007 15:10:00	10.185	17.2
132	4/18/2007 15:20:00	10.188	17.2
133	4/18/2007 15:30:00	10.19	17.2
134	4/18/2007 15:40:00	10.194	17.2
135	4/18/2007 15:50:00	10.196	17.2
136	4/18/2007 16:00:00	10.199	17.2
137	4/18/2007 16:10:00	10.202	17.2
138	4/18/2007 16:20:00	10.204	17.2
139	4/18/2007 16:30:00	10.207	17.2
140	4/18/2007 16:40:00	10.211	17.2
141	4/18/2007 16:50:00	10.214	17.2
142	4/18/2007 17:00:00	10.217	17.2
143	4/18/2007 17:10:00	10.218	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
144	4/18/2007 17:20:00	10.221	17.2
145	4/18/2007 17:30:00	10.223	17.2
146	4/18/2007 17:40:00	10.226	17.2
147	4/18/2007 17:50:00	10.227	17.2
148	4/18/2007 18:00:00	10.228	17.2
149	4/18/2007 18:10:00	10.229	17.2
150	4/18/2007 18:20:00	10.229	17.2
151	4/18/2007 18:30:00	10.229	17.2
152	4/18/2007 18:40:00	10.228	17.2
153	4/18/2007 18:50:00	10.227	17.2
154	4/18/2007 19:00:00	10.226	17.2
155	4/18/2007 19:10:00	10.224	17.2
156	4/18/2007 19:20:00	10.223	17.2
157	4/18/2007 19:30:00	10.221	17.2
158	4/18/2007 19:40:00	10.218	17.2
159	4/18/2007 19:50:00	10.218	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
160	4/18/2007 20:00:00	10.216	17.2
161	4/18/2007 20:10:00	10.216	17.2
162	4/18/2007 20:20:00	10.215	17.2
163	4/18/2007 20:30:00	10.214	17.2
164	4/18/2007 20:40:00	10.213	17.2
165	4/18/2007 20:50:00	10.211	17.2
166	4/18/2007 21:00:00	10.209	17.2
167	4/18/2007 21:10:00	10.21	17.2
168	4/18/2007 21:20:00	10.21	17.2
169	4/18/2007 21:30:00	10.21	17.2
170	4/18/2007 21:40:00	10.209	17.2
171	4/18/2007 21:50:00	10.209	17.2
172	4/18/2007 22:00:00	10.209	17.2
173	4/18/2007 22:10:00	10.209	17.2
174	4/18/2007 22:20:00	10.208	17.2
175	4/18/2007 22:30:00	10.208	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
176	4/18/2007 22:40:00	10.209	17.2
177	4/18/2007 22:50:00	10.209	17.2
178	4/18/2007 23:00:00	10.209	17.2
179	4/18/2007 23:10:00	10.21	17.2
180	4/18/2007 23:20:00	10.211	17.2
181	4/18/2007 23:30:00	10.213	17.2
182	4/18/2007 23:40:00	10.215	17.2
183	4/18/2007 23:50:00	10.216	17.2
184	4/19/2007 0:00:00	10.218	17.2
185	4/19/2007 0:10:00	10.221	17.2
186	4/19/2007 0:20:00	10.223	17.2
187	4/19/2007 0:30:00	10.224	17.2
188	4/19/2007 0:40:00	10.227	17.2
189	4/19/2007 0:50:00	10.229	17.2
190	4/19/2007 1:00:00	10.231	17.2
191	4/19/2007 1:10:00	10.234	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
192	4/19/2007 1:20:00	10.236	17.2
193	4/19/2007 1:30:00	10.239	17.2
194	4/19/2007 1:40:00	10.24	17.2
195	4/19/2007 1:50:00	10.244	17.2
196	4/19/2007 2:00:00	10.247	17.2
197	4/19/2007 2:10:00	10.25	17.2
198	4/19/2007 2:20:00	10.254	17.2
199	4/19/2007 2:30:00	10.255	17.2
200	4/19/2007 2:40:00	10.258	17.2
201	4/19/2007 2:50:00	10.26	17.2
202	4/19/2007 3:00:00	10.261	17.2
203	4/19/2007 3:10:00	10.261	17.2
204	4/19/2007 3:20:00	10.263	17.2
205	4/19/2007 3:30:00	10.265	17.2
206	4/19/2007 3:40:00	10.266	17.2
207	4/19/2007 3:50:00	10.266	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346017**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensor**
Session Name	**M25-07**
# Records	**442**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
208	4/19/2007 4:00:00	10.267	17.2
209	4/19/2007 4:10:00	10.268	17.2
210	4/19/2007 4:20:00	10.268	17.2
211	4/19/2007 4:30:00	10.268	17.2
212	4/19/2007 4:40:00	10.269	17.2
213	4/19/2007 4:50:00	10.271	17.2
214	4/19/2007 5:00:00	10.272	17.2
215	4/19/2007 5:10:00	10.273	17.2
216	4/19/2007 5:20:00	10.275	17.2
217	4/19/2007 5:30:00	10.275	17.2
218	4/19/2007 5:40:00	10.275	17.2
219	4/19/2007 5:50:00	10.274	17.2
220	4/19/2007 6:00:00	10.274	17.2
221	4/19/2007 6:10:00	10.274	17.2
222	4/19/2007 6:20:00	10.274	17.2
223	4/19/2007 6:30:00	10.273	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
224	4/19/2007 6:40:00	10.272	17.2
225	4/19/2007 6:50:00	10.271	17.2
226	4/19/2007 7:00:00	10.271	17.2
227	4/19/2007 7:10:00	10.271	17.2
228	4/19/2007 7:20:00	10.271	17.2
229	4/19/2007 7:30:00	10.269	17.2
230	4/19/2007 7:40:00	10.269	17.2
231	4/19/2007 7:50:00	10.268	17.2
232	4/19/2007 8:00:00	10.268	17.2
233	4/19/2007 8:10:00	10.268	17.2
234	4/19/2007 8:20:00	10.267	17.2
235	4/19/2007 8:30:00	10.267	17.2
236	4/19/2007 8:40:00	10.267	17.2
237	4/19/2007 8:50:00	10.268	17.2
238	4/19/2007 9:00:00	10.269	17.2
239	4/19/2007 9:10:00	10.269	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346017**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensor**
Session Name	**M25-07**
# Records	**442**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
240	4/19/2007 9:20:00	10.269	17.2
241	4/19/2007 9:30:00	10.269	17.2
242	4/19/2007 9:40:00	10.268	17.2
243	4/19/2007 9:50:00	10.267	17.2
244	4/19/2007 10:00:00	10.268	17.2
245	4/19/2007 10:10:00	10.269	17.2
246	4/19/2007 10:20:00	10.268	17.2
247	4/19/2007 10:30:00	10.268	17.2
248	4/19/2007 10:40:00	10.267	17.2
249	4/19/2007 10:50:00	10.267	17.2
250	4/19/2007 11:00:00	10.266	17.2
251	4/19/2007 11:10:00	10.265	17.2
252	4/19/2007 11:20:00	10.265	17.2
253	4/19/2007 11:30:00	10.263	17.2
254	4/19/2007 11:40:00	10.263	17.2
255	4/19/2007 11:50:00	10.265	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
256	4/19/2007 12:00:00	10.263	17.2
257	4/19/2007 12:10:00	10.265	17.2
258	4/19/2007 12:20:00	10.265	17.2
259	4/19/2007 12:30:00	10.266	17.2
260	4/19/2007 12:40:00	10.267	17.2
261	4/19/2007 12:50:00	10.269	17.2
262	4/19/2007 13:00:00	10.272	17.2
263	4/19/2007 13:10:00	10.272	17.2
264	4/19/2007 13:20:00	10.273	17.2
265	4/19/2007 13:30:00	10.275	17.2
266	4/19/2007 13:40:00	10.278	17.2
267	4/19/2007 13:50:00	10.279	17.2
268	4/19/2007 14:00:00	10.281	17.2
269	4/19/2007 14:10:00	10.284	17.2
270	4/19/2007 14:20:00	10.286	17.2
271	4/19/2007 14:30:00	10.287	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	**2346017**
Sensor Type	**PT2X**
Sensor Name	**INW Smart Sensor**
Session Name	**M25-07**
# Records	**442**

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
272	4/19/2007 14:40:00	10.29	17.2
273	4/19/2007 14:50:00	10.292	17.2
274	4/19/2007 15:00:00	10.295	17.2
275	4/19/2007 15:10:00	10.298	17.2
276	4/19/2007 15:20:00	10.303	17.2
277	4/19/2007 15:30:00	10.306	17.2
278	4/19/2007 15:40:00	10.308	17.2
279	4/19/2007 15:50:00	10.311	17.2
280	4/19/2007 16:00:00	10.314	17.2
281	4/19/2007 16:10:00	10.317	17.2
282	4/19/2007 16:20:00	10.32	17.2
283	4/19/2007 16:30:00	10.321	17.2
284	4/19/2007 16:40:00	10.325	17.2
285	4/19/2007 16:50:00	10.329	17.2
286	4/19/2007 17:00:00	10.331	17.2
287	4/19/2007 17:10:00	10.335	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
288	4/19/2007 17:20:00	10.337	17.2
289	4/19/2007 17:30:00	10.339	17.2
290	4/19/2007 17:40:00	10.34	17.2
291	4/19/2007 17:50:00	10.344	17.2
292	4/19/2007 18:00:00	10.346	17.2
293	4/19/2007 18:10:00	10.349	17.2
294	4/19/2007 18:20:00	10.352	17.1
295	4/19/2007 18:30:00	10.355	17.2
296	4/19/2007 18:40:00	10.356	17.2
297	4/19/2007 18:50:00	10.359	17.1
298	4/19/2007 19:00:00	10.361	17.2
299	4/19/2007 19:10:00	10.362	17.2
300	4/19/2007 19:20:00	10.365	17.2
301	4/19/2007 19:30:00	10.365	17.2
302	4/19/2007 19:40:00	10.367	17.2
303	4/19/2007 19:50:00	10.367	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
304	4/19/2007 20:00:00	10.367	17.2
305	4/19/2007 20:10:00	10.365	17.2
306	4/19/2007 20:20:00	10.365	17.2
307	4/19/2007 20:30:00	10.364	17.2
308	4/19/2007 20:40:00	10.363	17.2
309	4/19/2007 20:50:00	10.362	17.2
310	4/19/2007 21:00:00	10.362	17.2
311	4/19/2007 21:10:00	10.361	17.2
312	4/19/2007 21:20:00	10.359	17.2
313	4/19/2007 21:30:00	10.359	17.2
314	4/19/2007 21:40:00	10.362	17.2
315	4/19/2007 21:50:00	10.361	17.2
316	4/19/2007 22:00:00	10.363	17.2
317	4/19/2007 22:10:00	10.363	17.2
318	4/19/2007 22:20:00	10.362	17.2
319	4/19/2007 22:30:00	10.364	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
320	4/19/2007 22:40:00	10.364	17.2
321	4/19/2007 22:50:00	10.364	17.2
322	4/19/2007 23:00:00	10.364	17.2
323	4/19/2007 23:10:00	10.367	17.2
324	4/19/2007 23:20:00	10.367	17.2
325	4/19/2007 23:30:00	10.365	17.2
326	4/19/2007 23:40:00	10.367	17.2
327	4/19/2007 23:50:00	10.367	17.2
328	4/20/2007 0:00:00	10.368	17.2
329	4/20/2007 0:10:00	10.369	17.2
330	4/20/2007 0:20:00	10.37	17.2
331	4/20/2007 0:30:00	10.369	17.2
332	4/20/2007 0:40:00	10.37	17.2
333	4/20/2007 0:50:00	10.371	17.2
334	4/20/2007 1:00:00	10.372	17.2
335	4/20/2007 1:10:00	10.372	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
336	4/20/2007 1:20:00	10.374	17.2
337	4/20/2007 1:30:00	10.376	17.2
338	4/20/2007 1:40:00	10.377	17.2
339	4/20/2007 1:50:00	10.377	17.2
340	4/20/2007 2:00:00	10.38	17.2
341	4/20/2007 2:10:00	10.38	17.2
342	4/20/2007 2:20:00	10.38	17.2
343	4/20/2007 2:30:00	10.382	17.2
344	4/20/2007 2:40:00	10.383	17.2
345	4/20/2007 2:50:00	10.384	17.2
346	4/20/2007 3:00:00	10.385	17.2
347	4/20/2007 3:10:00	10.387	17.2
348	4/20/2007 3:20:00	10.388	17.2
349	4/20/2007 3:30:00	10.389	17.2
350	4/20/2007 3:40:00	10.391	17.2
351	4/20/2007 3:50:00	10.393	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
352	4/20/2007 4:00:00	10.393	17.2
353	4/20/2007 4:10:00	10.393	17.2
354	4/20/2007 4:20:00	10.395	17.2
355	4/20/2007 4:30:00	10.396	17.2
356	4/20/2007 4:40:00	10.397	17.2
357	4/20/2007 4:50:00	10.397	17.2
358	4/20/2007 5:00:00	10.398	17.2
359	4/20/2007 5:10:00	10.4	17.2
360	4/20/2007 5:20:00	10.401	17.2
361	4/20/2007 5:30:00	10.402	17.2
362	4/20/2007 5:40:00	10.402	17.2
363	4/20/2007 5:50:00	10.403	17.2
364	4/20/2007 6:00:00	10.404	17.2
365	4/20/2007 6:10:00	10.407	17.2
366	4/20/2007 6:20:00	10.407	17.2
367	4/20/2007 6:30:00	10.408	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
368	4/20/2007 6:40:00	10.408	17.2
369	4/20/2007 6:50:00	10.408	17.2
370	4/20/2007 7:00:00	10.408	17.2
371	4/20/2007 7:10:00	10.407	17.2
372	4/20/2007 7:20:00	10.407	17.2
373	4/20/2007 7:30:00	10.407	17.2
374	4/20/2007 7:40:00	10.407	17.2
375	4/20/2007 7:50:00	10.407	17.2
376	4/20/2007 8:00:00	10.406	17.2
377	4/20/2007 8:10:00	10.406	17.2
378	4/20/2007 8:20:00	10.404	17.2
379	4/20/2007 8:30:00	10.404	17.2
380	4/20/2007 8:40:00	10.402	17.2
381	4/20/2007 8:50:00	10.401	17.2
382	4/20/2007 9:00:00	10.41	17.2
383	4/20/2007 9:10:00	10.414	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
384	4/20/2007 9:20:00	10.417	17.2
385	4/20/2007 9:30:00	10.42	17.2
386	4/20/2007 9:40:00	10.421	17.2
387	4/20/2007 9:50:00	10.421	17.2
388	4/20/2007 10:00:00	10.422	17.2
389	4/20/2007 10:10:00	10.423	17.2
390	4/20/2007 10:20:00	10.423	17.2
391	4/20/2007 10:30:00	10.422	17.2
392	4/20/2007 10:40:00	10.422	17.2
393	4/20/2007 10:50:00	10.421	17.2
394	4/20/2007 11:00:00	10.421	17.2
395	4/20/2007 11:10:00	10.42	17.2
396	4/20/2007 11:20:00	10.419	17.2
397	4/20/2007 11:30:00	10.419	17.2
398	4/20/2007 11:40:00	10.417	17.2
399	4/20/2007 11:50:00	10.416	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
400	4/20/2007 12:00:00	10.417	17.2
401	4/20/2007 12:10:00	10.416	17.2
402	4/20/2007 12:20:00	10.416	17.2
403	4/20/2007 12:30:00	10.415	17.2
404	4/20/2007 12:40:00	10.416	17.2
405	4/20/2007 12:50:00	10.417	17.2
406	4/20/2007 13:00:00	10.417	17.2
407	4/20/2007 13:10:00	10.419	17.2
408	4/20/2007 13:20:00	10.419	17.2
409	4/20/2007 13:30:00	10.419	17.2
410	4/20/2007 13:40:00	10.417	17.2
411	4/20/2007 13:50:00	10.419	17.2
412	4/20/2007 14:00:00	10.419	17.2
413	4/20/2007 14:10:00	10.417	17.2
414	4/20/2007 14:20:00	10.417	17.2
415	4/20/2007 14:30:00	10.417	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
416	4/20/2007 14:40:00	10.416	17.2
417	4/20/2007 14:50:00	10.415	17.2
418	4/20/2007 15:00:00	10.415	17.2
419	4/20/2007 15:10:00	10.415	17.2
420	4/20/2007 15:20:00	10.412	17.2
421	4/20/2007 15:30:00	10.409	17.2
422	4/20/2007 15:40:00	10.407	17.2
423	4/20/2007 15:50:00	10.406	17.2
424	4/20/2007 16:00:00	10.404	17.2
425	4/20/2007 16:10:00	10.403	17.2
426	4/20/2007 16:20:00	10.403	17.2
427	4/20/2007 16:30:00	10.403	17.2
428	4/20/2007 16:40:00	10.402	17.2
429	4/20/2007 16:50:00	10.401	17.2
430	4/20/2007 17:00:00	10.402	17.2
431	4/20/2007 17:10:00	10.4	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-1.40E-04	3.50E-03	0.998899698	-10417436	-3.04E-05	1.38E-03	6.89E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346017
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-07
# Records	442

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	0.014	16.6
Maximum	10.423	17.2
Mean	10.248	17.2
Variance	0.2478	0
Std Deviation	0.4978	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
432	4/20/2007 17:20:00	10.398	17.2
433	4/20/2007 17:30:00	10.396	17.2
434	4/20/2007 17:40:00	10.396	17.2
435	4/20/2007 17:50:00	10.394	17.2
436	4/20/2007 18:00:00	10.393	17.2
437	4/20/2007 18:10:00	10.393	17.2
438	4/20/2007 18:20:00	10.39	17.2
439	4/20/2007 18:30:00	10.39	17.2
440	4/20/2007 18:40:00	10.39	17.2
441	4/20/2007 18:50:00	10.389	17.2
442	4/20/2007 19:00:00	10.388	17.2

Statistical Data	Pressure(Ft H2O)
Sensor Range	15 psig
Minimum	9.775
Maximum	11.293
Mean	10.38
Variance	0.1576
Std Deviation	0.397

Rec #	Date/Time	Pressure(Ft H2O)								
		O(i)	O(i)/24	i	X(i)	X(i)/24	j	Y(j)	Y(j)/25	M(36)
3	4/17/2007 18:00:00	10.057	0.419041667	1	10.247125	0.426963542	1	10.28527951	0.411411181	
9	4/17/2007 19:00:00	9.921	0.413375	2	10.25495833	0.427289931	2	10.28836979	0.411534792	
15	4/17/2007 20:00:00	9.837	0.409875	3	10.26108333	0.427545139	3	10.29172569	0.411669028	
21	4/17/2007 21:00:00	9.864	0.411	4	10.26541667	0.427725694	4	10.29550174	0.411820069	
27	4/17/2007 22:00:00	10.073	0.419708333	5	10.26716667	0.427798611	5	10.29974826	0.411989931	
33	4/17/2007 23:00:00	10.346	0.431083333	6	10.26508333	0.427711806	6	10.30445139	0.412178056	
39	4/18/2007 0:00:00	10.613	0.442208333	7	10.26179167	0.427574653	7	10.30956944	0.412382778	
45	4/18/2007 1:00:00	10.839	0.451625	8	10.25841667	0.427434028	8	10.31499132	0.412599653	
51	4/18/2007 2:00:00	10.977	0.457375	9	10.25604167	0.427335069	9	10.32065799	0.412826319	
57	4/18/2007 3:00:00	10.961	0.456708333	10	10.25654167	0.427355903	10	10.32653472	0.413061389	
63	4/18/2007 4:00:00	10.726	0.446916667	11	10.26154167	0.427564236	11	10.33255556	0.413302222	
69	4/18/2007 5:00:00	10.419	0.434125	12	10.27254167	0.428022569	12	10.33865104	0.413546042	
75	4/18/2007 6:00:00	10.189	0.424541667	13	10.285	0.428541667	13	10.3448125	0.4137925	
81	4/18/2007 7:00:00	10.041	0.418375	14	10.294875	0.428953125	14	10.3513125	0.4140525	
87	4/18/2007 8:00:00	9.934	0.413916667	15	10.30216667	0.429256944	15	10.35828993	0.414331597	
93	4/18/2007 9:00:00	9.86	0.410833333	16	10.30845833	0.429519097	16	10.36570833	0.414628333	
99	4/18/2007 10:00:00	9.807	0.408625	17	10.314125	0.429755208	17	10.37345486	0.414938194	
105	4/18/2007 11:00:00	9.775	0.407291667	18	10.31916667	0.429965278	18	10.3814566	0.415258264	
111	4/18/2007 12:00:00	9.864	0.411	19	10.32329167	0.430137153	19	10.38968403	0.415587361	
117	4/18/2007 13:00:00	10.099	0.420791667	20	10.32270833	0.430112847	20	10.39815972	0.415926389	
123	4/18/2007 14:00:00	10.324	0.430166667	21	10.317	0.429875	21	10.40705903	0.416282361	
129	4/18/2007 15:00:00	10.474	0.436416667	22	10.31154167	0.429647569	22	10.41635417	0.416654167	
135	4/18/2007 16:00:00	10.513	0.438041667	23	10.30895833	0.429539931	23	10.42582986	0.417033194	
141	4/18/2007 17:00:00	10.418	0.434083333	24	10.31170833	0.429654514	24	10.43536285	0.417414514	
147	4/18/2007 18:00:00	10.245	0.426875	25	10.32129167	0.430053819	25	10.44483507	0.417793403	
153	4/18/2007 19:00:00	10.068	0.4195	26	10.3355	0.430645833	26			
159	4/18/2007 20:00:00	9.941	0.414208333	27	10.35170833	0.431321181	27			

Statistical Data	Pressure(Ft H2O)
Sensor Range	15 psig
Minimum	9.775
Maximum	11.293
Mean	10.38
Variance	0.1576
Std Deviation	0.397

Rec #	Date/Time	Pressure(Ft H2O)								
		O(i)	O(i)/24	i	X(i)	X(i)/24	j	Y(j)	Y(j)/25	M(36)
165	4/18/2007 21:00:00	9.906	0.41275	28	10.36733333	0.431972222	28			
171	4/18/2007 22:00:00	10.023	0.417625	29	10.38004167	0.432501736	29			
177	4/18/2007 23:00:00	10.267	0.427791667	30	10.38791667	0.432829861	30			
183	4/19/2007 0:00:00	10.532	0.438833333	31	10.39191667	0.432996528	31			
189	4/19/2007 1:00:00	10.782	0.44925	32	10.39441667	0.433100694	32			
195	4/19/2007 2:00:00	10.989	0.457875	33	10.39708333	0.433211806	33			
201	4/19/2007 3:00:00	11.081	0.461708333	34	10.40104167	0.433376736	34			
207	4/19/2007 4:00:00	10.99	0.457916667	35	10.40783333	0.433659722	35			
213	4/19/2007 5:00:00	10.718	0.446583333	36	10.42041667	0.434184028	36		10.35201424	hour 36 pressure
219	4/19/2007 6:00:00	10.426	0.434416667	37	10.441	0.435041667	37			
225	4/19/2007 7:00:00	10.216	0.425666667	38	10.46233333	0.435930556	38			
231	4/19/2007 8:00:00	10.085	0.420208333	39	10.48020833	0.436675347	39			
237	4/19/2007 9:00:00	9.996	0.4165	40	10.494375	0.437265625	40			
243	4/19/2007 10:00:00	9.928	0.413666667	41	10.50616667	0.437756944	41			
249	4/19/2007 11:00:00	9.874	0.411416667	42	10.516625	0.438192708	42			
255	4/19/2007 12:00:00	9.85	0.410416667	43	10.52670833	0.438612847	43			
261	4/19/2007 13:00:00	9.962	0.415083333	44	10.53629167	0.439012153	44			
267	4/19/2007 14:00:00	10.193	0.424708333	45	10.54008333	0.439170139	45			
273	4/19/2007 15:00:00	10.412	0.433833333	46	10.53895833	0.439123264	46			
279	4/19/2007 16:00:00	10.579	0.440791667	47	10.53775	0.439072917	47			
285	4/19/2007 17:00:00	10.648	0.443666667	48	10.53904167	0.439126736	48			
291	4/19/2007 18:00:00	10.586	0.441083333	49	10.54325	0.439302083	49			
297	4/19/2007 19:00:00	10.457	0.435708333	50	10.55220833		50			
303	4/19/2007 20:00:00	10.316	0.429833333	51	10.563875		51			
309	4/19/2007 21:00:00	10.211	0.425458333	52	10.13404167		52			
315	4/19/2007 22:00:00	10.212	0.4255	53	9.708583333		53			
321	4/19/2007 23:00:00	10.363	0.431791667	54	9.283083333		54			
327	4/20/2007 0:00:00	10.592	0.441333333	55	8.851291667		55			

Statistical Data	Pressure(Ft H2O)
Sensor Range	15 psig
Minimum	9.775
Maximum	11.293
Mean	10.38
Variance	0.1576
Std Deviation	0.397

Rec #	Date/Time	Pressure(Ft H2O)								
		O(i)	O(i)/24	i	X(i)	X(i)/24	j	Y(j)	Y(j)/25	M(36)
333	4/20/2007 1:00:00	10.846	0.451916667	56	8.409958333		56			
339	4/20/2007 2:00:00	11.084	0.461833333	57	7.958041667		57			
345	4/20/2007 3:00:00	11.244	0.4685	58	7.496208333		58			
351	4/20/2007 4:00:00	11.292	0.4705	59	7.027708333		59			
357	4/20/2007 5:00:00	11.212	0.467166667	60	6.557208333		60			
363	4/20/2007 6:00:00	10.938	0.45575	61	6.090041667		61			
369	4/20/2007 7:00:00	10.645	0.443541667	62	5.634291667		62			
375	4/20/2007 8:00:00	10.425	0.434375	63	5.19075		63			
381	4/20/2007 9:00:00	10.279	0.428291667	64	4.756375		64			
387	4/20/2007 10:00:00	10.179	0.424125	65	4.328083333		65			
393	4/20/2007 11:00:00	10.116	0.4215	66	3.903958333		66			
399	4/20/2007 12:00:00	10.08	0.42	67	3.482458333		67			
405	4/20/2007 13:00:00	10.053	0.418875	68	3.062458333		68			
411	4/20/2007 14:00:00	10.166	0.423583333	69	2.643583333		69			
417	4/20/2007 15:00:00	10.383	0.432625	70	2.22		70			
423	4/20/2007 16:00:00	10.61	0.442083333	71	1.787375		71			
429	4/20/2007 17:00:00	10.749	0.447875	72	1.345291667		72			
435	4/20/2007 18:00:00	10.801	0.450041667							
441	4/20/2007 19:00:00	10.737	0.447375							

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/17/2007 17:40:00	10.031	18.7
2	4/17/2007 17:50:00	10.086	18.4
3	4/17/2007 18:00:00	10.057	18.4
4	4/17/2007 18:10:00	10.03	18.4
5	4/17/2007 18:20:00	10.005	18.4
6	4/17/2007 18:30:00	9.983	18.4
7	4/17/2007 18:40:00	9.961	18.4
8	4/17/2007 18:50:00	9.941	18.4
9	4/17/2007 19:00:00	9.921	18.4
10	4/17/2007 19:10:00	9.905	18.4
11	4/17/2007 19:20:00	9.888	18.4
12	4/17/2007 19:30:00	9.874	18.4
13	4/17/2007 19:40:00	9.859	18.4
14	4/17/2007 19:50:00	9.846	18.4
15	4/17/2007 20:00:00	9.837	18.4
16	4/17/2007 20:10:00	9.831	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
17	4/17/2007 20:20:00	9.829	18.4
18	4/17/2007 20:30:00	9.831	18.4
19	4/17/2007 20:40:00	9.837	18.4
20	4/17/2007 20:50:00	9.846	18.4
21	4/17/2007 21:00:00	9.864	18.4
22	4/17/2007 21:10:00	9.884	18.4
23	4/17/2007 21:20:00	9.909	18.4
24	4/17/2007 21:30:00	9.944	18.4
25	4/17/2007 21:40:00	9.984	18.4
26	4/17/2007 21:50:00	10.03	18.4
27	4/17/2007 22:00:00	10.073	18.4
28	4/17/2007 22:10:00	10.117	18.4
29	4/17/2007 22:20:00	10.163	18.4
30	4/17/2007 22:30:00	10.211	18.4
31	4/17/2007 22:40:00	10.256	18.4
32	4/17/2007 22:50:00	10.302	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
33	4/17/2007 23:00:00	10.346	18.4
34	4/17/2007 23:10:00	10.391	18.4
35	4/17/2007 23:20:00	10.437	18.4
36	4/17/2007 23:30:00	10.482	18.4
37	4/17/2007 23:40:00	10.527	18.4
38	4/17/2007 23:50:00	10.572	18.4
39	4/18/2007 0:00:00	10.613	18.4
40	4/18/2007 0:10:00	10.655	18.4
41	4/18/2007 0:20:00	10.697	18.4
42	4/18/2007 0:30:00	10.735	18.4
43	4/18/2007 0:40:00	10.77	18.4
44	4/18/2007 0:50:00	10.805	18.4
45	4/18/2007 1:00:00	10.839	18.4
46	4/18/2007 1:10:00	10.867	18.4
47	4/18/2007 1:20:00	10.897	18.4
48	4/18/2007 1:30:00	10.921	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
49	4/18/2007 1:40:00	10.942	18.4
50	4/18/2007 1:50:00	10.962	18.4
51	4/18/2007 2:00:00	10.977	18.4
52	4/18/2007 2:10:00	10.989	18.4
53	4/18/2007 2:20:00	10.996	18.4
54	4/18/2007 2:30:00	10.996	18.4
55	4/18/2007 2:40:00	10.991	18.4
56	4/18/2007 2:50:00	10.983	18.4
57	4/18/2007 3:00:00	10.961	18.4
58	4/18/2007 3:10:00	10.934	18.4
59	4/18/2007 3:20:00	10.901	18.4
60	4/18/2007 3:30:00	10.865	18.4
61	4/18/2007 3:40:00	10.825	18.4
62	4/18/2007 3:50:00	10.779	18.4
63	4/18/2007 4:00:00	10.726	18.4
64	4/18/2007 4:10:00	10.677	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
65	4/18/2007 4:20:00	10.626	18.4
66	4/18/2007 4:30:00	10.573	18.4
67	4/18/2007 4:40:00	10.519	18.4
68	4/18/2007 4:50:00	10.468	18.4
69	4/18/2007 5:00:00	10.419	18.4
70	4/18/2007 5:10:00	10.373	18.4
71	4/18/2007 5:20:00	10.33	18.4
72	4/18/2007 5:30:00	10.29	18.4
73	4/18/2007 5:40:00	10.253	18.4
74	4/18/2007 5:50:00	10.22	18.4
75	4/18/2007 6:00:00	10.189	18.4
76	4/18/2007 6:10:00	10.159	18.4
77	4/18/2007 6:20:00	10.13	18.4
78	4/18/2007 6:30:00	10.107	18.4
79	4/18/2007 6:40:00	10.083	18.4
80	4/18/2007 6:50:00	10.062	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
81	4/18/2007 7:00:00	10.041	18.4
82	4/18/2007 7:10:00	10.023	18.4
83	4/18/2007 7:20:00	10.003	18.4
84	4/18/2007 7:30:00	9.985	18.4
85	4/18/2007 7:40:00	9.967	18.4
86	4/18/2007 7:50:00	9.953	18.4
87	4/18/2007 8:00:00	9.934	18.4
88	4/18/2007 8:10:00	9.925	18.4
89	4/18/2007 8:20:00	9.909	18.4
90	4/18/2007 8:30:00	9.898	18.4
91	4/18/2007 8:40:00	9.885	18.4
92	4/18/2007 8:50:00	9.871	18.4
93	4/18/2007 9:00:00	9.86	18.4
94	4/18/2007 9:10:00	9.85	18.4
95	4/18/2007 9:20:00	9.839	18.4
96	4/18/2007 9:30:00	9.83	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
97	4/18/2007 9:40:00	9.822	18.4
98	4/18/2007 9:50:00	9.814	18.4
99	4/18/2007 10:00:00	9.807	18.4
100	4/18/2007 10:10:00	9.801	18.4
101	4/18/2007 10:20:00	9.796	18.4
102	4/18/2007 10:30:00	9.79	18.4
103	4/18/2007 10:40:00	9.783	18.4
104	4/18/2007 10:50:00	9.779	18.4
105	4/18/2007 11:00:00	9.775	18.4
106	4/18/2007 11:10:00	9.777	18.4
107	4/18/2007 11:20:00	9.783	18.4
108	4/18/2007 11:30:00	9.795	18.4
109	4/18/2007 11:40:00	9.811	18.4
110	4/18/2007 11:50:00	9.835	18.4
111	4/18/2007 12:00:00	9.864	18.4
112	4/18/2007 12:10:00	9.9	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
113	4/18/2007 12:20:00	9.939	18.4
114	4/18/2007 12:30:00	9.979	18.4
115	4/18/2007 12:40:00	10.022	18.4
116	4/18/2007 12:50:00	10.059	18.4
117	4/18/2007 13:00:00	10.099	18.4
118	4/18/2007 13:10:00	10.142	18.4
119	4/18/2007 13:20:00	10.18	18.4
120	4/18/2007 13:30:00	10.22	18.4
121	4/18/2007 13:40:00	10.256	18.4
122	4/18/2007 13:50:00	10.29	18.4
123	4/18/2007 14:00:00	10.324	18.4
124	4/18/2007 14:10:00	10.353	18.4
125	4/18/2007 14:20:00	10.384	18.4
126	4/18/2007 14:30:00	10.411	18.4
127	4/18/2007 14:40:00	10.435	18.4
128	4/18/2007 14:50:00	10.455	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
129	4/18/2007 15:00:00	10.474	18.4
130	4/18/2007 15:10:00	10.488	18.4
131	4/18/2007 15:20:00	10.501	18.4
132	4/18/2007 15:30:00	10.51	18.4
133	4/18/2007 15:40:00	10.516	18.4
134	4/18/2007 15:50:00	10.517	18.4
135	4/18/2007 16:00:00	10.513	18.4
136	4/18/2007 16:10:00	10.506	18.4
137	4/18/2007 16:20:00	10.496	18.4
138	4/18/2007 16:30:00	10.481	18.4
139	4/18/2007 16:40:00	10.461	18.4
140	4/18/2007 16:50:00	10.442	18.4
141	4/18/2007 17:00:00	10.418	18.4
142	4/18/2007 17:10:00	10.391	18.4
143	4/18/2007 17:20:00	10.366	18.4
144	4/18/2007 17:30:00	10.337	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
145	4/18/2007 17:40:00	10.308	18.4
146	4/18/2007 17:50:00	10.277	18.4
147	4/18/2007 18:00:00	10.245	18.4
148	4/18/2007 18:10:00	10.214	18.4
149	4/18/2007 18:20:00	10.184	18.4
150	4/18/2007 18:30:00	10.154	18.4
151	4/18/2007 18:40:00	10.123	18.4
152	4/18/2007 18:50:00	10.094	18.4
153	4/18/2007 19:00:00	10.068	18.4
154	4/18/2007 19:10:00	10.045	18.4
155	4/18/2007 19:20:00	10.02	18.4
156	4/18/2007 19:30:00	9.998	18.4
157	4/18/2007 19:40:00	9.976	18.4
158	4/18/2007 19:50:00	9.958	18.4
159	4/18/2007 20:00:00	9.941	18.4
160	4/18/2007 20:10:00	9.93	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
161	4/18/2007 20:20:00	9.92	18.4
162	4/18/2007 20:30:00	9.909	18.4
163	4/18/2007 20:40:00	9.905	18.4
164	4/18/2007 20:50:00	9.904	18.4
165	4/18/2007 21:00:00	9.906	18.4
166	4/18/2007 21:10:00	9.913	18.4
167	4/18/2007 21:20:00	9.927	18.4
168	4/18/2007 21:30:00	9.942	18.4
169	4/18/2007 21:40:00	9.962	18.4
170	4/18/2007 21:50:00	9.992	18.4
171	4/18/2007 22:00:00	10.023	18.4
172	4/18/2007 22:10:00	10.06	18.4
173	4/18/2007 22:20:00	10.098	18.4
174	4/18/2007 22:30:00	10.138	18.4
175	4/18/2007 22:40:00	10.18	18.4
176	4/18/2007 22:50:00	10.225	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
177	4/18/2007 23:00:00	10.267	18.4
178	4/18/2007 23:10:00	10.31	18.4
179	4/18/2007 23:20:00	10.356	18.4
180	4/18/2007 23:30:00	10.4	18.4
181	4/18/2007 23:40:00	10.444	18.4
182	4/18/2007 23:50:00	10.487	18.4
183	4/19/2007 0:00:00	10.532	18.4
184	4/19/2007 0:10:00	10.575	18.4
185	4/19/2007 0:20:00	10.62	18.4
186	4/19/2007 0:30:00	10.661	18.4
187	4/19/2007 0:40:00	10.702	18.4
188	4/19/2007 0:50:00	10.744	18.4
189	4/19/2007 1:00:00	10.782	18.4
190	4/19/2007 1:10:00	10.822	18.4
191	4/19/2007 1:20:00	10.859	18.4
192	4/19/2007 1:30:00	10.894	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
193	4/19/2007 1:40:00	10.927	18.4
194	4/19/2007 1:50:00	10.962	18.4
195	4/19/2007 2:00:00	10.989	18.4
196	4/19/2007 2:10:00	11.015	18.4
197	4/19/2007 2:20:00	11.037	18.4
198	4/19/2007 2:30:00	11.056	18.4
199	4/19/2007 2:40:00	11.067	18.4
200	4/19/2007 2:50:00	11.078	18.4
201	4/19/2007 3:00:00	11.081	18.4
202	4/19/2007 3:10:00	11.08	18.4
203	4/19/2007 3:20:00	11.077	18.4
204	4/19/2007 3:30:00	11.065	18.4
205	4/19/2007 3:40:00	11.047	18.4
206	4/19/2007 3:50:00	11.022	18.4
207	4/19/2007 4:00:00	10.99	18.4
208	4/19/2007 4:10:00	10.953	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
209	4/19/2007 4:20:00	10.912	18.4
210	4/19/2007 4:30:00	10.864	18.4
211	4/19/2007 4:40:00	10.817	18.4
212	4/19/2007 4:50:00	10.767	18.4
213	4/19/2007 5:00:00	10.718	18.4
214	4/19/2007 5:10:00	10.668	18.4
215	4/19/2007 5:20:00	10.619	18.4
216	4/19/2007 5:30:00	10.568	18.4
217	4/19/2007 5:40:00	10.518	18.4
218	4/19/2007 5:50:00	10.469	18.4
219	4/19/2007 6:00:00	10.426	18.4
220	4/19/2007 6:10:00	10.386	18.4
221	4/19/2007 6:20:00	10.346	18.4
222	4/19/2007 6:30:00	10.31	18.4
223	4/19/2007 6:40:00	10.274	18.4
224	4/19/2007 6:50:00	10.242	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
225	4/19/2007 7:00:00	10.216	18.4
226	4/19/2007 7:10:00	10.19	18.4
227	4/19/2007 7:20:00	10.166	18.4
228	4/19/2007 7:30:00	10.143	18.4
229	4/19/2007 7:40:00	10.121	18.4
230	4/19/2007 7:50:00	10.102	18.4
231	4/19/2007 8:00:00	10.085	18.4
232	4/19/2007 8:10:00	10.067	18.4
233	4/19/2007 8:20:00	10.05	18.4
234	4/19/2007 8:30:00	10.034	18.4
235	4/19/2007 8:40:00	10.019	18.4
236	4/19/2007 8:50:00	10.006	18.4
237	4/19/2007 9:00:00	9.996	18.4
238	4/19/2007 9:10:00	9.982	18.4
239	4/19/2007 9:20:00	9.97	18.4
240	4/19/2007 9:30:00	9.957	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
241	4/19/2007 9:40:00	9.946	18.4
242	4/19/2007 9:50:00	9.936	18.4
243	4/19/2007 10:00:00	9.928	18.4
244	4/19/2007 10:10:00	9.923	18.4
245	4/19/2007 10:20:00	9.913	18.4
246	4/19/2007 10:30:00	9.902	18.4
247	4/19/2007 10:40:00	9.893	18.4
248	4/19/2007 10:50:00	9.885	18.4
249	4/19/2007 11:00:00	9.874	18.4
250	4/19/2007 11:10:00	9.866	18.4
251	4/19/2007 11:20:00	9.859	18.4
252	4/19/2007 11:30:00	9.854	18.4
253	4/19/2007 11:40:00	9.852	18.4
254	4/19/2007 11:50:00	9.85	18.4
255	4/19/2007 12:00:00	9.85	18.4
256	4/19/2007 12:10:00	9.854	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
257	4/19/2007 12:20:00	9.863	18.4
258	4/19/2007 12:30:00	9.884	18.4
259	4/19/2007 12:40:00	9.905	18.4
260	4/19/2007 12:50:00	9.929	18.4
261	4/19/2007 13:00:00	9.962	18.4
262	4/19/2007 13:10:00	9.996	18.4
263	4/19/2007 13:20:00	10.034	18.4
264	4/19/2007 13:30:00	10.074	18.4
265	4/19/2007 13:40:00	10.115	18.4
266	4/19/2007 13:50:00	10.154	18.4
267	4/19/2007 14:00:00	10.193	18.4
268	4/19/2007 14:10:00	10.234	18.4
269	4/19/2007 14:20:00	10.273	18.4
270	4/19/2007 14:30:00	10.309	18.4
271	4/19/2007 14:40:00	10.345	18.4
272	4/19/2007 14:50:00	10.379	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
273	4/19/2007 15:00:00	10.412	18.4
274	4/19/2007 15:10:00	10.448	18.4
275	4/19/2007 15:20:00	10.48	18.4
276	4/19/2007 15:30:00	10.511	18.4
277	4/19/2007 15:40:00	10.536	18.4
278	4/19/2007 15:50:00	10.558	18.4
279	4/19/2007 16:00:00	10.579	18.4
280	4/19/2007 16:10:00	10.595	18.4
281	4/19/2007 16:20:00	10.614	18.4
282	4/19/2007 16:30:00	10.627	18.4
283	4/19/2007 16:40:00	10.637	18.4
284	4/19/2007 16:50:00	10.644	18.4
285	4/19/2007 17:00:00	10.648	18.4
286	4/19/2007 17:10:00	10.645	18.4
287	4/19/2007 17:20:00	10.638	18.4
288	4/19/2007 17:30:00	10.628	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
289	4/19/2007 17:40:00	10.616	18.4
290	4/19/2007 17:50:00	10.601	18.4
291	4/19/2007 18:00:00	10.586	18.4
292	4/19/2007 18:10:00	10.567	18.4
293	4/19/2007 18:20:00	10.548	18.4
294	4/19/2007 18:30:00	10.529	18.4
295	4/19/2007 18:40:00	10.505	18.4
296	4/19/2007 18:50:00	10.482	18.4
297	4/19/2007 19:00:00	10.457	18.4
298	4/19/2007 19:10:00	10.433	18.4
299	4/19/2007 19:20:00	10.409	18.4
300	4/19/2007 19:30:00	10.385	18.4
301	4/19/2007 19:40:00	10.359	18.4
302	4/19/2007 19:50:00	10.337	18.4
303	4/19/2007 20:00:00	10.316	18.4
304	4/19/2007 20:10:00	10.295	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
305	4/19/2007 20:20:00	10.276	18.4
306	4/19/2007 20:30:00	10.26	18.4
307	4/19/2007 20:40:00	10.247	18.4
308	4/19/2007 20:50:00	10.23	18.4
309	4/19/2007 21:00:00	10.211	18.4
310	4/19/2007 21:10:00	10.196	18.4
311	4/19/2007 21:20:00	10.19	18.4
312	4/19/2007 21:30:00	10.187	18.4
313	4/19/2007 21:40:00	10.191	18.4
314	4/19/2007 21:50:00	10.196	18.4
315	4/19/2007 22:00:00	10.212	18.4
316	4/19/2007 22:10:00	10.228	18.4
317	4/19/2007 22:20:00	10.251	18.4
318	4/19/2007 22:30:00	10.274	18.4
319	4/19/2007 22:40:00	10.302	18.4
320	4/19/2007 22:50:00	10.331	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
321	4/19/2007 23:00:00	10.363	18.4
322	4/19/2007 23:10:00	10.402	18.4
323	4/19/2007 23:20:00	10.441	18.4
324	4/19/2007 23:30:00	10.48	18.4
325	4/19/2007 23:40:00	10.515	18.4
326	4/19/2007 23:50:00	10.555	18.4
327	4/20/2007 0:00:00	10.592	18.4
328	4/20/2007 0:10:00	10.634	18.4
329	4/20/2007 0:20:00	10.673	18.4
330	4/20/2007 0:30:00	10.719	18.4
331	4/20/2007 0:40:00	10.76	18.4
332	4/20/2007 0:50:00	10.802	18.4
333	4/20/2007 1:00:00	10.846	18.4
334	4/20/2007 1:10:00	10.891	18.4
335	4/20/2007 1:20:00	10.933	18.4
336	4/20/2007 1:30:00	10.973	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
337	4/20/2007 1:40:00	11.013	18.4
338	4/20/2007 1:50:00	11.047	18.4
339	4/20/2007 2:00:00	11.084	18.4
340	4/20/2007 2:10:00	11.113	18.4
341	4/20/2007 2:20:00	11.146	18.4
342	4/20/2007 2:30:00	11.172	18.4
343	4/20/2007 2:40:00	11.197	18.4
344	4/20/2007 2:50:00	11.221	18.4
345	4/20/2007 3:00:00	11.244	18.4
346	4/20/2007 3:10:00	11.258	18.4
347	4/20/2007 3:20:00	11.274	18.5
348	4/20/2007 3:30:00	11.286	18.4
349	4/20/2007 3:40:00	11.29	18.4
350	4/20/2007 3:50:00	11.293	18.5
351	4/20/2007 4:00:00	11.292	18.5
352	4/20/2007 4:10:00	11.287	18.5

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
353	4/20/2007 4:20:00	11.275	18.5
354	4/20/2007 4:30:00	11.261	18.5
355	4/20/2007 4:40:00	11.247	18.5
356	4/20/2007 4:50:00	11.231	18.5
357	4/20/2007 5:00:00	11.212	18.5
358	4/20/2007 5:10:00	11.177	18.5
359	4/20/2007 5:20:00	11.134	18.5
360	4/20/2007 5:30:00	11.088	18.5
361	4/20/2007 5:40:00	11.039	18.5
362	4/20/2007 5:50:00	10.987	18.5
363	4/20/2007 6:00:00	10.938	18.5
364	4/20/2007 6:10:00	10.886	18.5
365	4/20/2007 6:20:00	10.837	18.5
366	4/20/2007 6:30:00	10.785	18.5
367	4/20/2007 6:40:00	10.738	18.5
368	4/20/2007 6:50:00	10.688	18.5

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
369	4/20/2007 7:00:00	10.645	18.5
370	4/20/2007 7:10:00	10.605	18.5
371	4/20/2007 7:20:00	10.561	18.5
372	4/20/2007 7:30:00	10.524	18.5
373	4/20/2007 7:40:00	10.489	18.5
374	4/20/2007 7:50:00	10.455	18.5
375	4/20/2007 8:00:00	10.425	18.5
376	4/20/2007 8:10:00	10.397	18.5
377	4/20/2007 8:20:00	10.37	18.5
378	4/20/2007 8:30:00	10.346	18.5
379	4/20/2007 8:40:00	10.321	18.5
380	4/20/2007 8:50:00	10.298	18.5
381	4/20/2007 9:00:00	10.279	18.5
382	4/20/2007 9:10:00	10.258	18.5
383	4/20/2007 9:20:00	10.24	18.5
384	4/20/2007 9:30:00	10.223	18.5

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
385	4/20/2007 9:40:00	10.206	18.5
386	4/20/2007 9:50:00	10.193	18.5
387	4/20/2007 10:00:00	10.179	18.5
388	4/20/2007 10:10:00	10.168	18.5
389	4/20/2007 10:20:00	10.158	18.5
390	4/20/2007 10:30:00	10.145	18.4
391	4/20/2007 10:40:00	10.136	18.5
392	4/20/2007 10:50:00	10.126	18.5
393	4/20/2007 11:00:00	10.116	18.4
394	4/20/2007 11:10:00	10.108	18.4
395	4/20/2007 11:20:00	10.1	18.4
396	4/20/2007 11:30:00	10.094	18.4
397	4/20/2007 11:40:00	10.086	18.4
398	4/20/2007 11:50:00	10.083	18.4
399	4/20/2007 12:00:00	10.08	18.4
400	4/20/2007 12:10:00	10.068	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
401	4/20/2007 12:20:00	10.061	18.4
402	4/20/2007 12:30:00	10.051	18.4
403	4/20/2007 12:40:00	10.046	18.4
404	4/20/2007 12:50:00	10.051	18.4
405	4/20/2007 13:00:00	10.053	18.4
406	4/20/2007 13:10:00	10.061	18.4
407	4/20/2007 13:20:00	10.072	18.4
408	4/20/2007 13:30:00	10.089	18.4
409	4/20/2007 13:40:00	10.112	18.4
410	4/20/2007 13:50:00	10.138	18.4
411	4/20/2007 14:00:00	10.166	18.4
412	4/20/2007 14:10:00	10.198	18.4
413	4/20/2007 14:20:00	10.23	18.4
414	4/20/2007 14:30:00	10.268	18.4
415	4/20/2007 14:40:00	10.304	18.4
416	4/20/2007 14:50:00	10.343	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
417	4/20/2007 15:00:00	10.383	18.4
418	4/20/2007 15:10:00	10.421	18.4
419	4/20/2007 15:20:00	10.46	18.4
420	4/20/2007 15:30:00	10.502	18.4
421	4/20/2007 15:40:00	10.543	18.4
422	4/20/2007 15:50:00	10.578	18.4
423	4/20/2007 16:00:00	10.61	18.4
424	4/20/2007 16:10:00	10.64	18.4
425	4/20/2007 16:20:00	10.664	18.4
426	4/20/2007 16:30:00	10.686	18.4
427	4/20/2007 16:40:00	10.707	18.4
428	4/20/2007 16:50:00	10.728	18.4
429	4/20/2007 17:00:00	10.749	18.4
430	4/20/2007 17:10:00	10.767	18.4
431	4/20/2007 17:20:00	10.781	18.4
432	4/20/2007 17:30:00	10.792	18.4

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.40E-07	-8.40E-07	1.004059076	-12412188	2.03E-05	-3.43E-04	-0.182626784
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2404008
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-08
# Records	441

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.775	18.4
Maximum	11.293	18.7
Mean	10.38	18.4
Variance	0.1576	0
Std Deviation	0.397	0.04

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
433	4/20/2007 17:40:00	10.799	18.4
434	4/20/2007 17:50:00	10.802	18.4
435	4/20/2007 18:00:00	10.801	18.4
436	4/20/2007 18:10:00	10.796	18.4
437	4/20/2007 18:20:00	10.788	18.4
438	4/20/2007 18:30:00	10.779	18.5
439	4/20/2007 18:40:00	10.767	18.4
440	4/20/2007 18:50:00	10.752	18.5
441	4/20/2007 19:00:00	10.737	18.5

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/17/2007 19:40:00	9.892	18.7
2	4/17/2007 19:50:00	9.916	18.8
3	4/17/2007 20:00:00	9.914	18.9
4	4/17/2007 20:10:00	9.912	18.9
5	4/17/2007 20:20:00	9.911	18.9
6	4/17/2007 20:30:00	9.909	18.9
7	4/17/2007 20:40:00	9.906	18.9
8	4/17/2007 20:50:00	9.905	18.9
9	4/17/2007 21:00:00	9.902	18.9
10	4/17/2007 21:10:00	9.899	18.9
11	4/17/2007 21:20:00	9.896	18.9
12	4/17/2007 21:30:00	9.894	18.9
13	4/17/2007 21:40:00	9.893	18.9
14	4/17/2007 21:50:00	9.892	18.9
15	4/17/2007 22:00:00	9.889	18.9
16	4/17/2007 22:10:00	9.887	18.9
17	4/17/2007 22:20:00	9.886	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
18	4/17/2007 22:30:00	9.885	18.9
19	4/17/2007 22:40:00	9.884	18.9
20	4/17/2007 22:50:00	9.884	18.9
21	4/17/2007 23:00:00	9.88	18.9
22	4/17/2007 23:10:00	9.879	18.9
23	4/17/2007 23:20:00	9.878	18.9
24	4/17/2007 23:30:00	9.878	18.9
25	4/17/2007 23:40:00	9.875	18.9
26	4/17/2007 23:50:00	9.875	18.9
27	4/18/2007 0:00:00	9.873	18.9
28	4/18/2007 0:10:00	9.873	18.9
29	4/18/2007 0:20:00	9.872	18.9
30	4/18/2007 0:30:00	9.872	18.9
31	4/18/2007 0:40:00	9.87	18.9
32	4/18/2007 0:50:00	9.868	18.9
33	4/18/2007 1:00:00	9.867	18.9
34	4/18/2007 1:10:00	9.865	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
35	4/18/2007 1:20:00	9.864	18.9
36	4/18/2007 1:30:00	9.862	18.9
37	4/18/2007 1:40:00	9.861	18.9
38	4/18/2007 1:50:00	9.861	18.9
39	4/18/2007 2:00:00	9.861	18.9
40	4/18/2007 2:10:00	9.86	18.9
41	4/18/2007 2:20:00	9.86	18.9
42	4/18/2007 2:30:00	9.86	18.9
43	4/18/2007 2:40:00	9.86	18.9
44	4/18/2007 2:50:00	9.86	18.9
45	4/18/2007 3:00:00	9.86	18.9
46	4/18/2007 3:10:00	9.861	18.9
47	4/18/2007 3:20:00	9.86	18.9
48	4/18/2007 3:30:00	9.861	18.9
49	4/18/2007 3:40:00	9.861	18.9
50	4/18/2007 3:50:00	9.861	18.9
51	4/18/2007 4:00:00	9.862	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
52	4/18/2007 4:10:00	9.862	18.9
53	4/18/2007 4:20:00	9.862	18.9
54	4/18/2007 4:30:00	9.864	18.9
55	4/18/2007 4:40:00	9.862	18.9
56	4/18/2007 4:50:00	9.864	18.9
57	4/18/2007 5:00:00	9.864	18.9
58	4/18/2007 5:10:00	9.864	18.9
59	4/18/2007 5:20:00	9.864	18.9
60	4/18/2007 5:30:00	9.864	18.9
61	4/18/2007 5:40:00	9.862	18.9
62	4/18/2007 5:50:00	9.862	18.9
63	4/18/2007 6:00:00	9.862	18.9
64	4/18/2007 6:10:00	9.862	18.9
65	4/18/2007 6:20:00	9.861	18.9
66	4/18/2007 6:30:00	9.862	18.9
67	4/18/2007 6:40:00	9.861	18.9
68	4/18/2007 6:50:00	9.861	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
69	4/18/2007 7:00:00	9.86	18.9
70	4/18/2007 7:10:00	9.86	18.9
71	4/18/2007 7:20:00	9.86	18.9
72	4/18/2007 7:30:00	9.859	18.9
73	4/18/2007 7:40:00	9.857	18.9
74	4/18/2007 7:50:00	9.855	18.9
75	4/18/2007 8:00:00	9.854	18.9
76	4/18/2007 8:10:00	9.852	18.9
77	4/18/2007 8:20:00	9.85	18.9
78	4/18/2007 8:30:00	9.846	18.9
79	4/18/2007 8:40:00	9.844	18.9
80	4/18/2007 8:50:00	9.84	18.9
81	4/18/2007 9:00:00	9.838	18.9
82	4/18/2007 9:10:00	9.834	18.9
83	4/18/2007 9:20:00	9.831	18.9
84	4/18/2007 9:30:00	9.827	18.9
85	4/18/2007 9:40:00	9.825	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
86	4/18/2007 9:50:00	9.821	18.9
87	4/18/2007 10:00:00	9.818	18.9
88	4/18/2007 10:10:00	9.816	18.9
89	4/18/2007 10:20:00	9.813	18.9
90	4/18/2007 10:30:00	9.81	18.9
91	4/18/2007 10:40:00	9.809	18.9
92	4/18/2007 10:50:00	9.803	18.9
93	4/18/2007 11:00:00	9.802	18.9
94	4/18/2007 11:10:00	9.802	18.9
95	4/18/2007 11:20:00	9.8	18.9
96	4/18/2007 11:30:00	9.8	18.9
97	4/18/2007 11:40:00	9.8	18.9
98	4/18/2007 11:50:00	9.798	18.9
99	4/18/2007 12:00:00	9.799	18.9
100	4/18/2007 12:10:00	9.8	18.9
101	4/18/2007 12:20:00	9.798	18.9
102	4/18/2007 12:30:00	9.8	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
103	4/18/2007 12:40:00	9.802	18.9
104	4/18/2007 12:50:00	9.804	18.9
105	4/18/2007 13:00:00	9.805	18.9
106	4/18/2007 13:10:00	9.805	18.9
107	4/18/2007 13:20:00	9.807	18.9
108	4/18/2007 13:30:00	9.809	18.9
109	4/18/2007 13:40:00	9.81	18.9
110	4/18/2007 13:50:00	9.811	18.9
111	4/18/2007 14:00:00	9.811	18.9
112	4/18/2007 14:10:00	9.814	18.9
113	4/18/2007 14:20:00	9.817	18.9
114	4/18/2007 14:30:00	9.819	18.9
115	4/18/2007 14:40:00	9.819	18.9
116	4/18/2007 14:50:00	9.823	18.9
117	4/18/2007 15:00:00	9.824	18.9
118	4/18/2007 15:10:00	9.827	18.9
119	4/18/2007 15:20:00	9.831	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
120	4/18/2007 15:30:00	9.833	18.9
121	4/18/2007 15:40:00	9.836	18.9
122	4/18/2007 15:50:00	9.838	18.9
123	4/18/2007 16:00:00	9.839	18.9
124	4/18/2007 16:10:00	9.841	18.9
125	4/18/2007 16:20:00	9.844	18.9
126	4/18/2007 16:30:00	9.843	18.9
127	4/18/2007 16:40:00	9.841	18.9
128	4/18/2007 16:50:00	9.84	18.9
129	4/18/2007 17:00:00	9.837	18.9
130	4/18/2007 17:10:00	9.833	18.9
131	4/18/2007 17:20:00	9.83	18.9
132	4/18/2007 17:30:00	9.826	18.9
133	4/18/2007 17:40:00	9.82	18.9
134	4/18/2007 17:50:00	9.817	18.9
135	4/18/2007 18:00:00	9.812	18.9
136	4/18/2007 18:10:00	9.807	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
137	4/18/2007 18:20:00	9.802	18.9
138	4/18/2007 18:30:00	9.798	18.9
139	4/18/2007 18:40:00	9.792	18.9
140	4/18/2007 18:50:00	9.789	18.9
141	4/18/2007 19:00:00	9.785	18.9
142	4/18/2007 19:10:00	9.783	18.9
143	4/18/2007 19:20:00	9.779	18.9
144	4/18/2007 19:30:00	9.778	18.9
145	4/18/2007 19:40:00	9.776	18.9
146	4/18/2007 19:50:00	9.775	18.9
147	4/18/2007 20:00:00	9.773	18.9
148	4/18/2007 20:10:00	9.776	18.9
149	4/18/2007 20:20:00	9.775	18.9
150	4/18/2007 20:30:00	9.773	18.9
151	4/18/2007 20:40:00	9.772	18.9
152	4/18/2007 20:50:00	9.771	18.9
153	4/18/2007 21:00:00	9.77	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
154	4/18/2007 21:10:00	9.77	18.9
155	4/18/2007 21:20:00	9.771	18.9
156	4/18/2007 21:30:00	9.771	18.9
157	4/18/2007 21:40:00	9.771	18.9
158	4/18/2007 21:50:00	9.771	18.9
159	4/18/2007 22:00:00	9.77	18.9
160	4/18/2007 22:10:00	9.771	18.9
161	4/18/2007 22:20:00	9.77	18.9
162	4/18/2007 22:30:00	9.77	18.9
163	4/18/2007 22:40:00	9.77	18.9
164	4/18/2007 22:50:00	9.769	18.9
165	4/18/2007 23:00:00	9.77	18.9
166	4/18/2007 23:10:00	9.77	18.9
167	4/18/2007 23:20:00	9.771	18.9
168	4/18/2007 23:30:00	9.771	18.9
169	4/18/2007 23:40:00	9.771	18.9
170	4/18/2007 23:50:00	9.771	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
171	4/19/2007 0:00:00	9.771	18.9
172	4/19/2007 0:10:00	9.772	18.9
173	4/19/2007 0:20:00	9.772	18.9
174	4/19/2007 0:30:00	9.773	18.9
175	4/19/2007 0:40:00	9.775	18.9
176	4/19/2007 0:50:00	9.775	18.9
177	4/19/2007 1:00:00	9.776	18.9
178	4/19/2007 1:10:00	9.776	18.9
179	4/19/2007 1:20:00	9.777	18.9
180	4/19/2007 1:30:00	9.777	18.9
181	4/19/2007 1:40:00	9.778	18.9
182	4/19/2007 1:50:00	9.778	18.9
183	4/19/2007 2:00:00	9.779	18.9
184	4/19/2007 2:10:00	9.783	18.9
185	4/19/2007 2:20:00	9.785	18.9
186	4/19/2007 2:30:00	9.789	18.9
187	4/19/2007 2:40:00	9.792	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
188	4/19/2007 2:50:00	9.796	18.9
189	4/19/2007 3:00:00	9.799	18.9
190	4/19/2007 3:10:00	9.803	18.9
191	4/19/2007 3:20:00	9.807	18.9
192	4/19/2007 3:30:00	9.811	18.9
193	4/19/2007 3:40:00	9.814	18.9
194	4/19/2007 3:50:00	9.817	18.9
195	4/19/2007 4:00:00	9.821	18.9
196	4/19/2007 4:10:00	9.825	18.9
197	4/19/2007 4:20:00	9.827	18.9
198	4/19/2007 4:30:00	9.831	18.9
199	4/19/2007 4:40:00	9.833	18.9
200	4/19/2007 4:50:00	9.836	18.9
201	4/19/2007 5:00:00	9.838	18.9
202	4/19/2007 5:10:00	9.841	18.9
203	4/19/2007 5:20:00	9.845	18.9
204	4/19/2007 5:30:00	9.847	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
205	4/19/2007 5:40:00	9.85	18.9
206	4/19/2007 5:50:00	9.852	18.9
207	4/19/2007 6:00:00	9.854	18.9
208	4/19/2007 6:10:00	9.857	18.9
209	4/19/2007 6:20:00	9.859	18.9
210	4/19/2007 6:30:00	9.86	18.9
211	4/19/2007 6:40:00	9.861	18.9
212	4/19/2007 6:50:00	9.864	18.9
213	4/19/2007 7:00:00	9.864	18.9
214	4/19/2007 7:10:00	9.866	18.9
215	4/19/2007 7:20:00	9.866	18.9
216	4/19/2007 7:30:00	9.867	18.9
217	4/19/2007 7:40:00	9.868	18.9
218	4/19/2007 7:50:00	9.868	18.9
219	4/19/2007 8:00:00	9.868	18.9
220	4/19/2007 8:10:00	9.87	18.9
221	4/19/2007 8:20:00	9.87	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
222	4/19/2007 8:30:00	9.87	18.9
223	4/19/2007 8:40:00	9.87	18.9
224	4/19/2007 8:50:00	9.871	18.9
225	4/19/2007 9:00:00	9.871	18.9
226	4/19/2007 9:10:00	9.871	18.9
227	4/19/2007 9:20:00	9.871	18.9
228	4/19/2007 9:30:00	9.872	18.9
229	4/19/2007 9:40:00	9.871	18.9
230	4/19/2007 9:50:00	9.871	18.9
231	4/19/2007 10:00:00	9.871	18.9
232	4/19/2007 10:10:00	9.87	18.9
233	4/19/2007 10:20:00	9.871	18.9
234	4/19/2007 10:30:00	9.871	18.9
235	4/19/2007 10:40:00	9.871	18.9
236	4/19/2007 10:50:00	9.871	18.9
237	4/19/2007 11:00:00	9.871	18.9
238	4/19/2007 11:10:00	9.87	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
239	4/19/2007 11:20:00	9.868	18.9
240	4/19/2007 11:30:00	9.868	18.9
241	4/19/2007 11:40:00	9.867	18.9
242	4/19/2007 11:50:00	9.868	18.9
243	4/19/2007 12:00:00	9.868	18.9
244	4/19/2007 12:10:00	9.868	18.9
245	4/19/2007 12:20:00	9.867	18.9
246	4/19/2007 12:30:00	9.87	18.9
247	4/19/2007 12:40:00	9.87	18.9
248	4/19/2007 12:50:00	9.871	18.9
249	4/19/2007 13:00:00	9.872	18.9
250	4/19/2007 13:10:00	9.873	18.9
251	4/19/2007 13:20:00	9.875	18.9
252	4/19/2007 13:30:00	9.877	18.9
253	4/19/2007 13:40:00	9.878	18.9
254	4/19/2007 13:50:00	9.88	18.9
255	4/19/2007 14:00:00	9.881	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
256	4/19/2007 14:10:00	9.884	18.9
257	4/19/2007 14:20:00	9.885	18.9
258	4/19/2007 14:30:00	9.888	18.9
259	4/19/2007 14:40:00	9.891	18.9
260	4/19/2007 14:50:00	9.894	18.9
261	4/19/2007 15:00:00	9.896	18.9
262	4/19/2007 15:10:00	9.899	18.9
263	4/19/2007 15:20:00	9.902	18.9
264	4/19/2007 15:30:00	9.905	18.9
265	4/19/2007 15:40:00	9.908	18.9
266	4/19/2007 15:50:00	9.912	18.9
267	4/19/2007 16:00:00	9.914	18.9
268	4/19/2007 16:10:00	9.915	18.9
269	4/19/2007 16:20:00	9.919	18.9
270	4/19/2007 16:30:00	9.921	18.9
271	4/19/2007 16:40:00	9.925	18.9
272	4/19/2007 16:50:00	9.927	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
273	4/19/2007 17:00:00	9.93	18.9
274	4/19/2007 17:10:00	9.933	18.9
275	4/19/2007 17:20:00	9.934	18.9
276	4/19/2007 17:30:00	9.937	18.9
277	4/19/2007 17:40:00	9.94	18.9
278	4/19/2007 17:50:00	9.942	18.9
279	4/19/2007 18:00:00	9.945	18.9
280	4/19/2007 18:10:00	9.947	18.9
281	4/19/2007 18:20:00	9.95	18.9
282	4/19/2007 18:30:00	9.953	18.9
283	4/19/2007 18:40:00	9.956	18.9
284	4/19/2007 18:50:00	9.957	18.9
285	4/19/2007 19:00:00	9.959	18.9
286	4/19/2007 19:10:00	9.962	18.9
287	4/19/2007 19:20:00	9.966	18.9
288	4/19/2007 19:30:00	9.969	18.9
289	4/19/2007 19:40:00	9.971	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
290	4/19/2007 19:50:00	9.973	18.9
291	4/19/2007 20:00:00	9.976	18.9
292	4/19/2007 20:10:00	9.976	18.9
293	4/19/2007 20:20:00	9.978	18.9
294	4/19/2007 20:30:00	9.98	18.9
295	4/19/2007 20:40:00	9.982	18.9
296	4/19/2007 20:50:00	9.983	18.9
297	4/19/2007 21:00:00	9.986	18.9
298	4/19/2007 21:10:00	9.986	18.9
299	4/19/2007 21:20:00	9.988	18.9
300	4/19/2007 21:30:00	9.988	18.9
301	4/19/2007 21:40:00	9.989	18.9
302	4/19/2007 21:50:00	9.991	18.9
303	4/19/2007 22:00:00	9.991	18.9
304	4/19/2007 22:10:00	9.994	18.9
305	4/19/2007 22:20:00	9.996	18.9
306	4/19/2007 22:30:00	9.997	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
307	4/19/2007 22:40:00	10	18.9
308	4/19/2007 22:50:00	10.001	18.9
309	4/19/2007 23:00:00	10.002	18.9
310	4/19/2007 23:10:00	10.003	18.9
311	4/19/2007 23:20:00	10.005	18.9
312	4/19/2007 23:30:00	10.005	18.9
313	4/19/2007 23:40:00	10.007	18.9
314	4/19/2007 23:50:00	10.008	18.9
315	4/20/2007 0:00:00	10.009	18.9
316	4/20/2007 0:10:00	9.967	18.9
317	4/20/2007 0:20:00	9.967	18.9
318	4/20/2007 0:30:00	9.966	18.9
319	4/20/2007 0:40:00	9.964	18.9
320	4/20/2007 0:50:00	9.966	18.9
321	4/20/2007 1:00:00	9.967	18.9
322	4/20/2007 1:10:00	9.971	18.9
323	4/20/2007 1:20:00	9.974	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
324	4/20/2007 1:30:00	9.975	18.9
325	4/20/2007 1:40:00	9.98	18.9
326	4/20/2007 1:50:00	9.982	18.9
327	4/20/2007 2:00:00	9.981	18.9
328	4/20/2007 2:10:00	9.986	18.9
329	4/20/2007 2:20:00	9.989	18.9
330	4/20/2007 2:30:00	9.993	18.9
331	4/20/2007 2:40:00	9.995	18.9
332	4/20/2007 2:50:00	9.986	18.9
333	4/20/2007 3:00:00	9.981	18.9
334	4/20/2007 3:10:00	9.98	18.9
335	4/20/2007 3:20:00	9.976	18.9
336	4/20/2007 3:30:00	9.975	18.9
337	4/20/2007 3:40:00	9.977	18.9
338	4/20/2007 3:50:00	9.98	18.9
339	4/20/2007 4:00:00	9.981	18.9
340	4/20/2007 4:10:00	9.98	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
341	4/20/2007 4:20:00	9.983	18.9
342	4/20/2007 4:30:00	9.978	18.9
343	4/20/2007 4:40:00	9.978	18.9
344	4/20/2007 4:50:00	9.983	18.9
345	4/20/2007 5:00:00	9.981	18.9
346	4/20/2007 5:10:00	9.98	18.9
347	4/20/2007 5:20:00	9.986	18.9
348	4/20/2007 5:30:00	9.981	18.9
349	4/20/2007 5:40:00	9.986	18.9
350	4/20/2007 5:50:00	9.986	18.9
351	4/20/2007 6:00:00	9.983	18.9
352	4/20/2007 6:10:00	9.983	18.9
353	4/20/2007 6:20:00	9.987	18.9
354	4/20/2007 6:30:00	9.984	18.9
355	4/20/2007 6:40:00	9.98	18.9
356	4/20/2007 6:50:00	9.982	18.9
357	4/20/2007 7:00:00	9.983	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
358	4/20/2007 7:10:00	9.977	18.9
359	4/20/2007 7:20:00	9.976	18.9
360	4/20/2007 7:30:00	9.971	18.9
361	4/20/2007 7:40:00	9.974	18.9
362	4/20/2007 7:50:00	9.976	18.9
363	4/20/2007 8:00:00	9.967	18.9
364	4/20/2007 8:10:00	9.968	18.9
365	4/20/2007 8:20:00	9.969	18.9
366	4/20/2007 8:30:00	9.967	18.9
367	4/20/2007 8:40:00	9.96	18.9
368	4/20/2007 8:50:00	9.955	18.9
369	4/20/2007 9:00:00	9.95	18.9
370	4/20/2007 9:10:00	9.948	18.9
371	4/20/2007 9:20:00	9.939	18.9
372	4/20/2007 9:30:00	9.928	18.9
373	4/20/2007 9:40:00	9.919	18.9
374	4/20/2007 9:50:00	9.911	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
375	4/20/2007 10:00:00	9.899	18.9
376	4/20/2007 10:10:00	9.891	18.9
377	4/20/2007 10:20:00	9.882	18.9
378	4/20/2007 10:30:00	9.895	18.9
379	4/20/2007 10:40:00	9.885	18.9
380	4/20/2007 10:50:00	9.882	18.9
381	4/20/2007 11:00:00	9.877	18.9
382	4/20/2007 11:10:00	9.87	18.9
383	4/20/2007 11:20:00	9.866	18.9
384	4/20/2007 11:30:00	9.86	18.9
385	4/20/2007 11:40:00	9.86	18.9
386	4/20/2007 11:50:00	9.859	18.9
387	4/20/2007 12:00:00	9.862	18.9
388	4/20/2007 12:10:00	9.871	18.9
389	4/20/2007 12:20:00	9.87	18.9
390	4/20/2007 12:30:00	9.864	18.9
391	4/20/2007 12:40:00	9.861	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
392	4/20/2007 12:50:00	9.87	18.9
393	4/20/2007 13:00:00	9.874	18.9
394	4/20/2007 13:10:00	9.884	18.9
395	4/20/2007 13:20:00	9.891	18.9
396	4/20/2007 13:30:00	9.894	18.9
397	4/20/2007 13:40:00	9.899	18.9
398	4/20/2007 13:50:00	9.903	18.9
399	4/20/2007 14:00:00	9.908	18.9
400	4/20/2007 14:10:00	9.909	18.9
401	4/20/2007 14:20:00	9.903	18.9
402	4/20/2007 14:30:00	9.9	18.9
403	4/20/2007 14:40:00	9.9	18.9
404	4/20/2007 14:50:00	9.899	18.9
405	4/20/2007 15:00:00	9.892	18.9
406	4/20/2007 15:10:00	9.888	18.9
407	4/20/2007 15:20:00	9.884	18.9
408	4/20/2007 15:30:00	9.884	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
409	4/20/2007 15:40:00	9.886	18.9
410	4/20/2007 15:50:00	9.885	18.9
411	4/20/2007 16:00:00	9.885	18.9
412	4/20/2007 16:10:00	9.892	18.9
413	4/20/2007 16:20:00	9.895	18.9
414	4/20/2007 16:30:00	9.899	18.9
415	4/20/2007 16:40:00	9.907	18.9
416	4/20/2007 16:50:00	9.912	18.9
417	4/20/2007 17:00:00	9.915	18.9
418	4/20/2007 17:10:00	9.919	18.9
419	4/20/2007 17:20:00	9.923	18.9
420	4/20/2007 17:30:00	9.923	18.9
421	4/20/2007 17:40:00	9.926	18.9
422	4/20/2007 17:50:00	9.932	18.9
423	4/20/2007 18:00:00	9.941	18.9
424	4/20/2007 18:10:00	9.943	18.9
425	4/20/2007 18:20:00	9.949	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	6.70E-07	9.94E-07	1.00652504	-3998471	-9.05E-06	6.76E-04	0.052438997
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346022
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	M25-09
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.769	18.7
Maximum	10.009	19
Mean	9.881	18.9
Variance	0.0044	0
Std Deviation	0.0665	0.01

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
426	4/20/2007 18:30:00	9.942	18.9
427	4/20/2007 18:40:00	9.953	18.9
428	4/20/2007 18:50:00	9.956	18.9
429	4/20/2007 19:00:00	9.962	18.9
430	4/20/2007 19:10:00	9.968	18.9
431	4/20/2007 19:20:00	9.972	18.9
432	4/20/2007 19:30:00	9.972	19

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/16/2007 20:30:00	10.005	15.6
2	4/16/2007 20:40:00	10.007	15.6
3	4/16/2007 20:50:00	10.005	15.6
4	4/16/2007 21:00:00	10	15.6
5	4/16/2007 21:10:00	9.997	15.6
6	4/16/2007 21:20:00	9.995	15.6
7	4/16/2007 21:30:00	9.995	15.6
8	4/16/2007 21:40:00	9.994	15.6
9	4/16/2007 21:50:00	9.993	15.6
10	4/16/2007 22:00:00	9.992	15.6
11	4/16/2007 22:10:00	9.992	15.6
12	4/16/2007 22:20:00	9.991	15.6
13	4/16/2007 22:30:00	9.992	15.6
14	4/16/2007 22:40:00	9.991	15.6
15	4/16/2007 22:50:00	9.992	15.6
16	4/16/2007 23:00:00	9.992	15.6
17	4/16/2007 23:10:00	9.992	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
18	4/16/2007 23:20:00	9.99	15.6
19	4/16/2007 23:30:00	9.99	15.6
20	4/16/2007 23:40:00	9.987	15.6
21	4/16/2007 23:50:00	9.985	15.6
22	4/17/2007 0:00:00	9.984	15.6
23	4/17/2007 0:10:00	9.981	15.6
24	4/17/2007 0:20:00	9.98	15.6
25	4/17/2007 0:30:00	9.978	15.6
26	4/17/2007 0:40:00	9.976	15.6
27	4/17/2007 0:50:00	9.974	15.6
28	4/17/2007 1:00:00	9.972	15.6
29	4/17/2007 1:10:00	9.969	15.6
30	4/17/2007 1:20:00	9.965	15.6
31	4/17/2007 1:30:00	9.961	15.6
32	4/17/2007 1:40:00	9.957	15.6
33	4/17/2007 1:50:00	9.956	15.6
34	4/17/2007 2:00:00	9.952	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
35	4/17/2007 2:10:00	9.951	15.6
36	4/17/2007 2:20:00	9.953	15.6
37	4/17/2007 2:30:00	9.953	15.6
38	4/17/2007 2:40:00	9.953	15.6
39	4/17/2007 2:50:00	9.953	15.6
40	4/17/2007 3:00:00	9.952	15.6
41	4/17/2007 3:10:00	9.95	15.6
42	4/17/2007 3:20:00	9.942	15.6
43	4/17/2007 3:30:00	9.938	15.6
44	4/17/2007 3:40:00	9.937	15.6
45	4/17/2007 3:50:00	9.935	15.6
46	4/17/2007 4:00:00	9.932	15.6
47	4/17/2007 4:10:00	9.93	15.6
48	4/17/2007 4:20:00	9.928	15.6
49	4/17/2007 4:30:00	9.925	15.6
50	4/17/2007 4:40:00	9.922	15.6
51	4/17/2007 4:50:00	9.92	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
52	4/17/2007 5:00:00	9.922	15.6
53	4/17/2007 5:10:00	9.92	15.6
54	4/17/2007 5:20:00	9.919	15.6
55	4/17/2007 5:30:00	9.918	15.6
56	4/17/2007 5:40:00	9.924	15.6
57	4/17/2007 5:50:00	9.926	15.6
58	4/17/2007 6:00:00	9.928	15.6
59	4/17/2007 6:10:00	9.926	15.6
60	4/17/2007 6:20:00	9.928	15.6
61	4/17/2007 6:30:00	9.926	15.6
62	4/17/2007 6:40:00	9.928	15.6
63	4/17/2007 6:50:00	9.928	15.6
64	4/17/2007 7:00:00	9.929	15.6
65	4/17/2007 7:10:00	9.928	15.6
66	4/17/2007 7:20:00	9.928	15.6
67	4/17/2007 7:30:00	9.928	15.6
68	4/17/2007 7:40:00	9.929	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
69	4/17/2007 7:50:00	9.93	15.6
70	4/17/2007 8:00:00	9.931	15.6
71	4/17/2007 8:10:00	9.932	15.6
72	4/17/2007 8:20:00	9.933	15.6
73	4/17/2007 8:30:00	9.933	15.6
74	4/17/2007 8:40:00	9.937	15.6
75	4/17/2007 8:50:00	9.938	15.6
76	4/17/2007 9:00:00	9.939	15.6
77	4/17/2007 9:10:00	9.94	15.6
78	4/17/2007 9:20:00	9.942	15.6
79	4/17/2007 9:30:00	9.944	15.6
80	4/17/2007 9:40:00	9.946	15.6
81	4/17/2007 9:50:00	9.947	15.6
82	4/17/2007 10:00:00	9.947	15.6
83	4/17/2007 10:10:00	9.949	15.6
84	4/17/2007 10:20:00	9.949	15.6
85	4/17/2007 10:30:00	9.949	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
86	4/17/2007 10:40:00	9.95	15.6
87	4/17/2007 10:50:00	9.95	15.6
88	4/17/2007 11:00:00	9.951	15.6
89	4/17/2007 11:10:00	9.95	15.6
90	4/17/2007 11:20:00	9.952	15.6
91	4/17/2007 11:30:00	9.952	15.6
92	4/17/2007 11:40:00	9.952	15.6
93	4/17/2007 11:50:00	9.953	15.6
94	4/17/2007 12:00:00	9.953	15.6
95	4/17/2007 12:10:00	9.953	15.6
96	4/17/2007 12:20:00	9.953	15.6
97	4/17/2007 12:30:00	9.951	15.6
98	4/17/2007 12:40:00	9.952	15.6
99	4/17/2007 12:50:00	9.953	15.6
100	4/17/2007 13:00:00	9.952	15.6
101	4/17/2007 13:10:00	9.952	15.6
102	4/17/2007 13:20:00	9.95	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
103	4/17/2007 13:30:00	9.951	15.6
104	4/17/2007 13:40:00	9.949	15.6
105	4/17/2007 13:50:00	9.947	15.6
106	4/17/2007 14:00:00	9.945	15.6
107	4/17/2007 14:10:00	9.94	15.6
108	4/17/2007 14:20:00	9.939	15.6
109	4/17/2007 14:30:00	9.935	15.6
110	4/17/2007 14:40:00	9.935	15.6
111	4/17/2007 14:50:00	9.933	15.6
112	4/17/2007 15:00:00	9.932	15.6
113	4/17/2007 15:10:00	9.931	15.6
114	4/17/2007 15:20:00	9.929	15.6
115	4/17/2007 15:30:00	9.929	15.6
116	4/17/2007 15:40:00	9.929	15.6
117	4/17/2007 15:50:00	9.929	15.6
118	4/17/2007 16:00:00	9.928	15.6
119	4/17/2007 16:10:00	9.925	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
120	4/17/2007 16:20:00	9.923	15.6
121	4/17/2007 16:30:00	9.925	15.6
122	4/17/2007 16:40:00	9.924	15.6
123	4/17/2007 16:50:00	9.924	15.6
124	4/17/2007 17:00:00	9.924	15.6
125	4/17/2007 17:10:00	9.923	15.6
126	4/17/2007 17:20:00	9.923	15.6
127	4/17/2007 17:30:00	9.923	15.6
128	4/17/2007 17:40:00	9.92	15.6
129	4/17/2007 17:50:00	9.919	15.6
130	4/17/2007 18:00:00	9.918	15.6
131	4/17/2007 18:10:00	9.919	15.6
132	4/17/2007 18:20:00	9.912	15.6
133	4/17/2007 18:30:00	9.919	15.6
134	4/17/2007 18:40:00	9.918	15.6
135	4/17/2007 18:50:00	9.919	15.6
136	4/17/2007 19:00:00	9.919	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
137	4/17/2007 19:10:00	9.92	15.6
138	4/17/2007 19:20:00	9.923	15.6
139	4/17/2007 19:30:00	9.924	15.6
140	4/17/2007 19:40:00	9.928	15.6
141	4/17/2007 19:50:00	9.928	15.6
142	4/17/2007 20:00:00	9.929	15.6
143	4/17/2007 20:10:00	9.93	15.6
144	4/17/2007 20:20:00	9.931	15.6
145	4/17/2007 20:30:00	9.932	15.6
146	4/17/2007 20:40:00	9.933	15.6
147	4/17/2007 20:50:00	9.935	15.6
148	4/17/2007 21:00:00	9.935	15.6
149	4/17/2007 21:10:00	9.935	15.6
150	4/17/2007 21:20:00	9.935	15.6
151	4/17/2007 21:30:00	9.936	15.6
152	4/17/2007 21:40:00	9.937	15.6
153	4/17/2007 21:50:00	9.936	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
154	4/17/2007 22:00:00	9.936	15.6
155	4/17/2007 22:10:00	9.936	15.6
156	4/17/2007 22:20:00	9.937	15.6
157	4/17/2007 22:30:00	9.938	15.6
158	4/17/2007 22:40:00	9.939	15.6
159	4/17/2007 22:50:00	9.936	15.6
160	4/17/2007 23:00:00	9.932	15.6
161	4/17/2007 23:10:00	9.932	15.6
162	4/17/2007 23:20:00	9.932	15.6
163	4/17/2007 23:30:00	9.931	15.6
164	4/17/2007 23:40:00	9.933	15.6
165	4/17/2007 23:50:00	9.933	15.6
166	4/18/2007 0:00:00	9.931	15.6
167	4/18/2007 0:10:00	9.931	15.6
168	4/18/2007 0:20:00	9.931	15.6
169	4/18/2007 0:30:00	9.932	15.6
170	4/18/2007 0:40:00	9.93	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
171	4/18/2007 0:50:00	9.929	15.6
172	4/18/2007 1:00:00	9.926	15.6
173	4/18/2007 1:10:00	9.923	15.6
174	4/18/2007 1:20:00	9.92	15.6
175	4/18/2007 1:30:00	9.919	15.6
176	4/18/2007 1:40:00	9.92	15.6
177	4/18/2007 1:50:00	9.923	15.6
178	4/18/2007 2:00:00	9.922	15.6
179	4/18/2007 2:10:00	9.922	15.6
180	4/18/2007 2:20:00	9.92	15.6
181	4/18/2007 2:30:00	9.918	15.6
182	4/18/2007 2:40:00	9.917	15.6
183	4/18/2007 2:50:00	9.916	15.6
184	4/18/2007 3:00:00	9.913	15.6
185	4/18/2007 3:10:00	9.911	15.6
186	4/18/2007 3:20:00	9.91	15.6
187	4/18/2007 3:30:00	9.909	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
188	4/18/2007 3:40:00	9.911	15.6
189	4/18/2007 3:50:00	9.906	15.6
190	4/18/2007 4:00:00	9.906	15.6
191	4/18/2007 4:10:00	9.905	15.6
192	4/18/2007 4:20:00	9.906	15.6
193	4/18/2007 4:30:00	9.903	15.6
194	4/18/2007 4:40:00	9.899	15.6
195	4/18/2007 4:50:00	9.896	15.6
196	4/18/2007 5:00:00	9.885	15.6
197	4/18/2007 5:10:00	9.882	15.6
198	4/18/2007 5:20:00	9.879	15.6
199	4/18/2007 5:30:00	9.878	15.6
200	4/18/2007 5:40:00	9.878	15.6
201	4/18/2007 5:50:00	9.877	15.6
202	4/18/2007 6:00:00	9.877	15.6
203	4/18/2007 6:10:00	9.877	15.6
204	4/18/2007 6:20:00	9.876	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
205	4/18/2007 6:30:00	9.877	15.6
206	4/18/2007 6:40:00	9.878	15.6
207	4/18/2007 6:50:00	9.885	15.6
208	4/18/2007 7:00:00	9.886	15.6
209	4/18/2007 7:10:00	9.886	15.6
210	4/18/2007 7:20:00	9.889	15.6
211	4/18/2007 7:30:00	9.888	15.6
212	4/18/2007 7:40:00	9.89	15.6
213	4/18/2007 7:50:00	9.89	15.6
214	4/18/2007 8:00:00	9.891	15.6
215	4/18/2007 8:10:00	9.891	15.6
216	4/18/2007 8:20:00	9.894	15.6
217	4/18/2007 8:30:00	9.894	15.6
218	4/18/2007 8:40:00	9.894	15.6
219	4/18/2007 8:50:00	9.895	15.6
220	4/18/2007 9:00:00	9.89	15.6
221	4/18/2007 9:10:00	9.889	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
222	4/18/2007 9:20:00	9.889	15.6
223	4/18/2007 9:30:00	9.892	15.6
224	4/18/2007 9:40:00	9.892	15.6
225	4/18/2007 9:50:00	9.894	15.6
226	4/18/2007 10:00:00	9.895	15.6
227	4/18/2007 10:10:00	9.897	15.6
228	4/18/2007 10:20:00	9.898	15.6
229	4/18/2007 10:30:00	9.901	15.6
230	4/18/2007 10:40:00	9.904	15.6
231	4/18/2007 10:50:00	9.909	15.6
232	4/18/2007 11:00:00	9.912	15.6
233	4/18/2007 11:10:00	9.912	15.6
234	4/18/2007 11:20:00	9.913	15.6
235	4/18/2007 11:30:00	9.915	15.6
236	4/18/2007 11:40:00	9.916	15.6
237	4/18/2007 11:50:00	9.916	15.6
238	4/18/2007 12:00:00	9.917	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
239	4/18/2007 12:10:00	9.917	15.6
240	4/18/2007 12:20:00	9.917	15.6
241	4/18/2007 12:30:00	9.918	15.6
242	4/18/2007 12:40:00	9.918	15.6
243	4/18/2007 12:50:00	9.919	15.6
244	4/18/2007 13:00:00	9.918	15.6
245	4/18/2007 13:10:00	9.912	15.6
246	4/18/2007 13:20:00	9.912	15.6
247	4/18/2007 13:30:00	9.912	15.6
248	4/18/2007 13:40:00	9.912	15.6
249	4/18/2007 13:50:00	9.911	15.6
250	4/18/2007 14:00:00	9.913	15.6
251	4/18/2007 14:10:00	9.91	15.6
252	4/18/2007 14:20:00	9.91	15.6
253	4/18/2007 14:30:00	9.908	15.6
254	4/18/2007 14:40:00	9.91	15.6
255	4/18/2007 14:50:00	9.908	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
256	4/18/2007 15:00:00	9.909	15.6
257	4/18/2007 15:10:00	9.909	15.6
258	4/18/2007 15:20:00	9.906	15.6
259	4/18/2007 15:30:00	9.905	15.6
260	4/18/2007 15:40:00	9.905	15.6
261	4/18/2007 15:50:00	9.904	15.6
262	4/18/2007 16:00:00	9.902	15.6
263	4/18/2007 16:10:00	9.901	15.6
264	4/18/2007 16:20:00	9.897	15.6
265	4/18/2007 16:30:00	9.898	15.6
266	4/18/2007 16:40:00	9.897	15.6
267	4/18/2007 16:50:00	9.898	15.6
268	4/18/2007 17:00:00	9.896	15.6
269	4/18/2007 17:10:00	9.898	15.6
270	4/18/2007 17:20:00	9.897	15.6
271	4/18/2007 17:30:00	9.899	15.6
272	4/18/2007 17:40:00	9.901	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
273	4/18/2007 17:50:00	9.902	15.6
274	4/18/2007 18:00:00	9.903	15.6
275	4/18/2007 18:10:00	9.903	15.6
276	4/18/2007 18:20:00	9.904	15.6
277	4/18/2007 18:30:00	9.902	15.6
278	4/18/2007 18:40:00	9.902	15.6
279	4/18/2007 18:50:00	9.901	15.6
280	4/18/2007 19:00:00	9.901	15.6
281	4/18/2007 19:10:00	9.902	15.6
282	4/18/2007 19:20:00	9.902	15.6
283	4/18/2007 19:30:00	9.902	15.6
284	4/18/2007 19:40:00	9.902	15.6
285	4/18/2007 19:50:00	9.904	15.6
286	4/18/2007 20:00:00	9.904	15.6
287	4/18/2007 20:10:00	9.908	15.6
288	4/18/2007 20:20:00	9.91	15.6
289	4/18/2007 20:30:00	9.912	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
290	4/18/2007 20:40:00	9.913	15.6
291	4/18/2007 20:50:00	9.916	15.6
292	4/18/2007 21:00:00	9.918	15.6
293	4/18/2007 21:10:00	9.922	15.6
294	4/18/2007 21:20:00	9.925	15.6
295	4/18/2007 21:30:00	9.929	15.6
296	4/18/2007 21:40:00	9.928	15.6
297	4/18/2007 21:50:00	9.93	15.6
298	4/18/2007 22:00:00	9.932	15.6
299	4/18/2007 22:10:00	9.933	15.6
300	4/18/2007 22:20:00	9.935	15.6
301	4/18/2007 22:30:00	9.936	15.6
302	4/18/2007 22:40:00	9.937	15.6
303	4/18/2007 22:50:00	9.94	15.6
304	4/18/2007 23:00:00	9.94	15.6
305	4/18/2007 23:10:00	9.942	15.6
306	4/18/2007 23:20:00	9.944	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
307	4/18/2007 23:30:00	9.946	15.6
308	4/18/2007 23:40:00	9.946	15.6
309	4/18/2007 23:50:00	9.949	15.6
310	4/19/2007 0:00:00	9.95	15.6
311	4/19/2007 0:10:00	9.952	15.6
312	4/19/2007 0:20:00	9.953	15.6
313	4/19/2007 0:30:00	9.952	15.6
314	4/19/2007 0:40:00	9.956	15.6
315	4/19/2007 0:50:00	9.954	15.6
316	4/19/2007 1:00:00	9.957	15.6
317	4/19/2007 1:10:00	9.956	15.6
318	4/19/2007 1:20:00	9.956	15.6
319	4/19/2007 1:30:00	9.956	15.6
320	4/19/2007 1:40:00	9.954	15.6
321	4/19/2007 1:50:00	9.956	15.6
322	4/19/2007 2:00:00	9.957	15.6
323	4/19/2007 2:10:00	9.957	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
324	4/19/2007 2:20:00	9.956	15.6
325	4/19/2007 2:30:00	9.956	15.6
326	4/19/2007 2:40:00	9.95	15.6
327	4/19/2007 2:50:00	9.95	15.6
328	4/19/2007 3:00:00	9.946	15.6
329	4/19/2007 3:10:00	9.945	15.6
330	4/19/2007 3:20:00	9.943	15.6
331	4/19/2007 3:30:00	9.942	15.6
332	4/19/2007 3:40:00	9.939	15.6
333	4/19/2007 3:50:00	9.937	15.6
334	4/19/2007 4:00:00	9.936	15.6
335	4/19/2007 4:10:00	9.935	15.6
336	4/19/2007 4:20:00	9.935	15.6
337	4/19/2007 4:30:00	9.933	15.6
338	4/19/2007 4:40:00	9.932	15.6
339	4/19/2007 4:50:00	9.932	15.6
340	4/19/2007 5:00:00	9.929	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
341	4/19/2007 5:10:00	9.929	15.6
342	4/19/2007 5:20:00	9.924	15.6
343	4/19/2007 5:30:00	9.92	15.6
344	4/19/2007 5:40:00	9.917	15.6
345	4/19/2007 5:50:00	9.913	15.6
346	4/19/2007 6:00:00	9.912	15.6
347	4/19/2007 6:10:00	9.91	15.6
348	4/19/2007 6:20:00	9.909	15.6
349	4/19/2007 6:30:00	9.908	15.6
350	4/19/2007 6:40:00	9.905	15.6
351	4/19/2007 6:50:00	9.904	15.6
352	4/19/2007 7:00:00	9.904	15.6
353	4/19/2007 7:10:00	9.902	15.6
354	4/19/2007 7:20:00	9.905	15.6
355	4/19/2007 7:30:00	9.903	15.6
356	4/19/2007 7:40:00	9.903	15.6
357	4/19/2007 7:50:00	9.903	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
358	4/19/2007 8:00:00	9.904	15.6
359	4/19/2007 8:10:00	9.906	15.6
360	4/19/2007 8:20:00	9.905	15.6
361	4/19/2007 8:30:00	9.909	15.6
362	4/19/2007 8:40:00	9.909	15.6
363	4/19/2007 8:50:00	9.913	15.6
364	4/19/2007 9:00:00	9.916	15.6
365	4/19/2007 9:10:00	9.917	15.6
366	4/19/2007 9:20:00	9.919	15.6
367	4/19/2007 9:30:00	9.92	15.6
368	4/19/2007 9:40:00	9.922	15.6
369	4/19/2007 9:50:00	9.924	15.6
370	4/19/2007 10:00:00	9.928	15.6
371	4/19/2007 10:10:00	9.93	15.6
372	4/19/2007 10:20:00	9.932	15.6
373	4/19/2007 10:30:00	9.933	15.7
374	4/19/2007 10:40:00	9.936	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
375	4/19/2007 10:50:00	9.939	15.6
376	4/19/2007 11:00:00	9.939	15.6
377	4/19/2007 11:10:00	9.943	15.6
378	4/19/2007 11:20:00	9.945	15.7
379	4/19/2007 11:30:00	9.945	15.6
380	4/19/2007 11:40:00	9.947	15.6
381	4/19/2007 11:50:00	9.95	15.7
382	4/19/2007 12:00:00	9.951	15.6
383	4/19/2007 12:10:00	9.953	15.6
384	4/19/2007 12:20:00	9.957	15.6
385	4/19/2007 12:30:00	9.959	15.6
386	4/19/2007 12:40:00	9.961	15.6
387	4/19/2007 12:50:00	9.964	15.6
388	4/19/2007 13:00:00	9.967	15.6
389	4/19/2007 13:10:00	9.969	15.6
390	4/19/2007 13:20:00	9.97	15.6
391	4/19/2007 13:30:00	9.972	15.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
392	4/19/2007 13:40:00	9.976	15.6
393	4/19/2007 13:50:00	9.978	15.7
394	4/19/2007 14:00:00	9.98	15.6
395	4/19/2007 14:10:00	9.984	15.6
396	4/19/2007 14:20:00	9.985	15.6
397	4/19/2007 14:30:00	9.989	15.7
398	4/19/2007 14:40:00	9.991	15.7
399	4/19/2007 14:50:00	9.996	15.7
400	4/19/2007 15:00:00	10	15.6
401	4/19/2007 15:10:00	10	15.7
402	4/19/2007 15:20:00	10.003	15.7
403	4/19/2007 15:30:00	10.006	15.7
404	4/19/2007 15:40:00	10.01	15.6
405	4/19/2007 15:50:00	10.008	15.6
406	4/19/2007 16:00:00	10.012	15.6
407	4/19/2007 16:10:00	10.012	15.7
408	4/19/2007 16:20:00	10.012	15.6

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
409	4/19/2007 16:30:00	10.013	15.6
410	4/19/2007 16:40:00	10.014	15.6
411	4/19/2007 16:50:00	10.017	15.6
412	4/19/2007 17:00:00	10.018	15.7
413	4/19/2007 17:10:00	10.018	15.6
414	4/19/2007 17:20:00	10.02	15.6
415	4/19/2007 17:30:00	10.02	15.6
416	4/19/2007 17:40:00	10.021	15.7
417	4/19/2007 17:50:00	10.024	15.7
418	4/19/2007 18:00:00	10.027	15.6
419	4/19/2007 18:10:00	10.028	15.7
420	4/19/2007 18:20:00	10.031	15.7
421	4/19/2007 18:30:00	10.032	15.6
422	4/19/2007 18:40:00	10.035	15.7
423	4/19/2007 18:50:00	10.038	15.7
424	4/19/2007 19:00:00	10.041	15.7
425	4/19/2007 19:10:00	10.04	15.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
426	4/19/2007 19:20:00	10.044	15.7
427	4/19/2007 19:30:00	10.044	15.7
428	4/19/2007 19:40:00	10.044	15.7
429	4/19/2007 19:50:00	10.044	15.7
430	4/19/2007 20:00:00	10.045	15.7
431	4/19/2007 20:10:00	10.046	15.6
432	4/19/2007 20:20:00	10.046	15.7
433	4/19/2007 20:30:00	10.048	15.7
434	4/19/2007 20:40:00	10.049	15.7
435	4/19/2007 20:50:00	10.053	15.7
436	4/19/2007 21:00:00	10.054	15.7
437	4/19/2007 21:10:00	10.059	15.6
438	4/19/2007 21:20:00	10.06	15.6
439	4/19/2007 21:30:00	10.065	15.7
440	4/19/2007 21:40:00	10.068	15.7
441	4/19/2007 21:50:00	10.073	15.7
442	4/19/2007 22:00:00	10.079	15.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
443	4/19/2007 22:10:00	10.082	15.7
444	4/19/2007 22:20:00	10.089	15.7
445	4/19/2007 22:30:00	10.093	15.7
446	4/19/2007 22:40:00	10.099	15.7
447	4/19/2007 22:50:00	10.102	15.7
448	4/19/2007 23:00:00	10.106	15.7
449	4/19/2007 23:10:00	10.11	15.7
450	4/19/2007 23:20:00	10.114	15.7
451	4/19/2007 23:30:00	10.119	15.7
452	4/19/2007 23:40:00	10.123	15.7
453	4/19/2007 23:50:00	10.128	15.7
454	4/20/2007 0:00:00	10.13	15.7
455	4/20/2007 0:10:00	10.135	15.7
456	4/20/2007 0:20:00	10.137	15.6
457	4/20/2007 0:30:00	10.142	15.7
458	4/20/2007 0:40:00	10.146	15.7
459	4/20/2007 0:50:00	10.149	15.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
460	4/20/2007 1:00:00	10.153	15.7
461	4/20/2007 1:10:00	10.156	15.7
462	4/20/2007 1:20:00	10.161	15.7
463	4/20/2007 1:30:00	10.165	15.7
464	4/20/2007 1:40:00	10.17	15.7
465	4/20/2007 1:50:00	10.172	15.7
466	4/20/2007 2:00:00	10.182	15.7
467	4/20/2007 2:10:00	10.188	15.7
468	4/20/2007 2:20:00	10.19	15.7
469	4/20/2007 2:30:00	10.19	15.7
470	4/20/2007 2:40:00	10.19	15.7
471	4/20/2007 2:50:00	10.19	15.7
472	4/20/2007 3:00:00	10.182	15.7
473	4/20/2007 3:10:00	10.178	15.7
474	4/20/2007 3:20:00	10.177	15.7
475	4/20/2007 3:30:00	10.177	15.7
476	4/20/2007 3:40:00	10.177	15.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
477	4/20/2007 3:50:00	10.177	15.7
478	4/20/2007 4:00:00	10.178	15.7
479	4/20/2007 4:10:00	10.178	15.7
480	4/20/2007 4:20:00	10.181	15.7
481	4/20/2007 4:30:00	10.18	15.7
482	4/20/2007 4:40:00	10.181	15.7
483	4/20/2007 4:50:00	10.181	15.7
484	4/20/2007 5:00:00	10.182	15.7
485	4/20/2007 5:10:00	10.183	15.7
486	4/20/2007 5:20:00	10.184	15.7
487	4/20/2007 5:30:00	10.184	15.7
488	4/20/2007 5:40:00	10.184	15.7
489	4/20/2007 5:50:00	10.182	15.7
490	4/20/2007 6:00:00	10.181	15.7
491	4/20/2007 6:10:00	10.177	15.7
492	4/20/2007 6:20:00	10.174	15.7
493	4/20/2007 6:30:00	10.169	15.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
494	4/20/2007 6:40:00	10.165	15.7
495	4/20/2007 6:50:00	10.162	15.7
496	4/20/2007 7:00:00	10.161	15.7
497	4/20/2007 7:10:00	10.16	15.7
498	4/20/2007 7:20:00	10.158	15.7
499	4/20/2007 7:30:00	10.157	15.7
500	4/20/2007 7:40:00	10.156	15.7
501	4/20/2007 7:50:00	10.156	15.7
502	4/20/2007 8:00:00	10.156	15.7
503	4/20/2007 8:10:00	10.156	15.7
504	4/20/2007 8:20:00	10.158	15.7
505	4/20/2007 8:30:00	10.161	15.7
506	4/20/2007 8:40:00	10.162	15.7
507	4/20/2007 8:50:00	10.162	15.7
508	4/20/2007 9:00:00	10.163	15.7
509	4/20/2007 9:10:00	10.165	15.7
510	4/20/2007 9:20:00	10.167	15.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
511	4/20/2007 9:30:00	10.168	15.7
512	4/20/2007 9:40:00	10.169	15.7
513	4/20/2007 9:50:00	10.17	15.7
514	4/20/2007 10:00:00	10.171	15.7
515	4/20/2007 10:10:00	10.172	15.7
516	4/20/2007 10:20:00	10.175	15.7
517	4/20/2007 10:30:00	10.177	15.7
518	4/20/2007 10:40:00	10.181	15.7
519	4/20/2007 10:50:00	10.182	15.7
520	4/20/2007 11:00:00	10.184	15.7
521	4/20/2007 11:10:00	10.188	15.7
522	4/20/2007 11:20:00	10.188	15.7
523	4/20/2007 11:30:00	10.188	15.7
524	4/20/2007 11:40:00	10.19	15.7
525	4/20/2007 11:50:00	10.192	15.7
526	4/20/2007 12:00:00	10.197	15.7
527	4/20/2007 12:10:00	10.196	15.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
528	4/20/2007 12:20:00	10.197	15.7
529	4/20/2007 12:30:00	10.202	15.7
530	4/20/2007 12:40:00	10.201	15.7
531	4/20/2007 12:50:00	10.204	15.7
532	4/20/2007 13:00:00	10.203	15.7
533	4/20/2007 13:10:00	10.204	15.7
534	4/20/2007 13:20:00	10.204	15.7
535	4/20/2007 13:30:00	10.204	15.7
536	4/20/2007 13:40:00	10.204	15.7
537	4/20/2007 13:50:00	10.203	15.7
538	4/20/2007 14:00:00	10.206	15.7
539	4/20/2007 14:10:00	10.203	15.7
540	4/20/2007 14:20:00	10.205	15.7
541	4/20/2007 14:30:00	10.204	15.7
542	4/20/2007 14:40:00	10.206	15.7
543	4/20/2007 14:50:00	10.208	15.7
544	4/20/2007 15:00:00	10.204	15.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	7.40E-07	-5.07E-05	1.007398844	-3719815	3.33E-06	4.26E-04	-0.038220502
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346020
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-1
# Records	560

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.876	15.6
Maximum	10.208	15.7
Mean	9.99	15.6
Variance	0.0105	0
Std Deviation	0.1025	0.05

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
545	4/20/2007 15:10:00	10.205	15.7
546	4/20/2007 15:20:00	10.204	15.7
547	4/20/2007 15:30:00	10.204	15.7
548	4/20/2007 15:40:00	10.204	15.7
549	4/20/2007 15:50:00	10.204	15.7
550	4/20/2007 16:00:00	10.203	15.7
551	4/20/2007 16:10:00	10.202	15.7
552	4/20/2007 16:20:00	10.201	15.7
553	4/20/2007 16:30:00	10.202	15.7
554	4/20/2007 16:40:00	10.201	15.7
555	4/20/2007 16:50:00	10.199	15.7
556	4/20/2007 17:00:00	10.196	15.7
557	4/20/2007 17:10:00	10.194	15.7
558	4/20/2007 17:20:00	10.191	15.7
559	4/20/2007 17:30:00	10.188	15.7
560	4/20/2007 17:40:00	10.187	15.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/16/2007 20:20:00	9.979	18.8
2	4/16/2007 20:30:00	9.979	18.8
3	4/16/2007 20:40:00	9.98	18.8
4	4/16/2007 20:50:00	9.979	18.8
5	4/16/2007 21:00:00	9.979	18.8
6	4/16/2007 21:10:00	9.976	18.7
7	4/16/2007 21:20:00	9.979	18.8
8	4/16/2007 21:30:00	9.977	18.7
9	4/16/2007 21:40:00	9.977	18.8
10	4/16/2007 21:50:00	9.979	18.8
11	4/16/2007 22:00:00	9.977	18.8
12	4/16/2007 22:10:00	9.979	18.8
13	4/16/2007 22:20:00	9.979	18.8
14	4/16/2007 22:30:00	9.98	18.8
15	4/16/2007 22:40:00	9.981	18.8
16	4/16/2007 22:50:00	9.983	18.8
17	4/16/2007 23:00:00	9.983	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
18	4/16/2007 23:10:00	9.987	18.8
19	4/16/2007 23:20:00	9.983	18.8
20	4/16/2007 23:30:00	9.984	18.8
21	4/16/2007 23:40:00	9.984	18.8
22	4/16/2007 23:50:00	9.986	18.8
23	4/17/2007 0:00:00	9.986	18.8
24	4/17/2007 0:10:00	9.987	18.7
25	4/17/2007 0:20:00	9.987	18.8
26	4/17/2007 0:30:00	9.989	18.8
27	4/17/2007 0:40:00	9.988	18.8
28	4/17/2007 0:50:00	9.988	18.8
29	4/17/2007 1:00:00	9.988	18.8
30	4/17/2007 1:10:00	9.987	18.8
31	4/17/2007 1:20:00	9.989	18.7
32	4/17/2007 1:30:00	9.99	18.8
33	4/17/2007 1:40:00	9.989	18.8
34	4/17/2007 1:50:00	9.992	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
35	4/17/2007 2:00:00	9.995	18.8
36	4/17/2007 2:10:00	9.995	18.8
37	4/17/2007 2:20:00	9.994	18.8
38	4/17/2007 2:30:00	9.994	18.8
39	4/17/2007 2:40:00	9.995	18.8
40	4/17/2007 2:50:00	9.998	18.8
41	4/17/2007 3:00:00	9.996	18.8
42	4/17/2007 3:10:00	9.996	18.7
43	4/17/2007 3:20:00	9.991	18.8
44	4/17/2007 3:30:00	9.995	18.8
45	4/17/2007 3:40:00	9.995	18.8
46	4/17/2007 3:50:00	9.996	18.8
47	4/17/2007 4:00:00	9.997	18.8
48	4/17/2007 4:10:00	9.996	18.8
49	4/17/2007 4:20:00	9.995	18.8
50	4/17/2007 4:30:00	9.994	18.8
51	4/17/2007 4:40:00	9.989	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
52	4/17/2007 4:50:00	9.994	18.8
53	4/17/2007 5:00:00	9.997	18.8
54	4/17/2007 5:10:00	9.995	18.8
55	4/17/2007 5:20:00	9.993	18.8
56	4/17/2007 5:30:00	9.994	18.8
57	4/17/2007 5:40:00	9.992	18.7
58	4/17/2007 5:50:00	9.993	18.8
59	4/17/2007 6:00:00	9.995	18.8
60	4/17/2007 6:10:00	9.991	18.8
61	4/17/2007 6:20:00	9.994	18.8
62	4/17/2007 6:30:00	9.989	18.8
63	4/17/2007 6:40:00	9.991	18.8
64	4/17/2007 6:50:00	9.989	18.8
65	4/17/2007 7:00:00	9.991	18.8
66	4/17/2007 7:10:00	9.99	18.8
67	4/17/2007 7:20:00	9.989	18.8
68	4/17/2007 7:30:00	9.988	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
69	4/17/2007 7:40:00	9.988	18.8
70	4/17/2007 7:50:00	9.988	18.8
71	4/17/2007 8:00:00	9.987	18.7
72	4/17/2007 8:10:00	9.986	18.8
73	4/17/2007 8:20:00	9.984	18.8
74	4/17/2007 8:30:00	9.986	18.8
75	4/17/2007 8:40:00	9.987	18.8
76	4/17/2007 8:50:00	9.984	18.8
77	4/17/2007 9:00:00	9.988	18.8
78	4/17/2007 9:10:00	9.988	18.8
79	4/17/2007 9:20:00	9.99	18.8
80	4/17/2007 9:30:00	9.991	18.8
81	4/17/2007 9:40:00	9.993	18.8
82	4/17/2007 9:50:00	9.991	18.8
83	4/17/2007 10:00:00	9.99	18.8
84	4/17/2007 10:10:00	9.987	18.8
85	4/17/2007 10:20:00	9.987	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
86	4/17/2007 10:30:00	9.984	18.8
87	4/17/2007 10:40:00	9.987	18.8
88	4/17/2007 10:50:00	9.987	18.8
89	4/17/2007 11:00:00	9.989	18.8
90	4/17/2007 11:10:00	9.986	18.8
91	4/17/2007 11:20:00	9.986	18.8
92	4/17/2007 11:30:00	9.987	18.8
93	4/17/2007 11:40:00	9.987	18.7
94	4/17/2007 11:50:00	9.986	18.8
95	4/17/2007 12:00:00	9.986	18.8
96	4/17/2007 12:10:00	9.989	18.8
97	4/17/2007 12:20:00	9.99	18.8
98	4/17/2007 12:30:00	9.988	18.8
99	4/17/2007 12:40:00	9.99	18.7
100	4/17/2007 12:50:00	9.99	18.8
101	4/17/2007 13:00:00	9.989	18.8
102	4/17/2007 13:10:00	9.989	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
103	4/17/2007 13:20:00	9.993	18.8
104	4/17/2007 13:30:00	9.991	18.8
105	4/17/2007 13:40:00	9.988	18.8
106	4/17/2007 13:50:00	9.987	18.8
107	4/17/2007 14:00:00	9.982	18.8
108	4/17/2007 14:10:00	9.981	18.8
109	4/17/2007 14:20:00	9.983	18.8
110	4/17/2007 14:30:00	9.982	18.8
111	4/17/2007 14:40:00	9.985	18.7
112	4/17/2007 14:50:00	9.987	18.7
113	4/17/2007 15:00:00	9.988	18.8
114	4/17/2007 15:10:00	9.989	18.8
115	4/17/2007 15:20:00	9.989	18.8
116	4/17/2007 15:30:00	9.991	18.8
117	4/17/2007 15:40:00	9.994	18.7
118	4/17/2007 15:50:00	9.99	18.8
119	4/17/2007 16:00:00	9.992	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
120	4/17/2007 16:10:00	9.994	18.8
121	4/17/2007 16:20:00	9.993	18.8
122	4/17/2007 16:30:00	9.991	18.8
123	4/17/2007 16:40:00	9.993	18.8
124	4/17/2007 16:50:00	9.991	18.8
125	4/17/2007 17:00:00	9.99	18.7
126	4/17/2007 17:10:00	9.994	18.8
127	4/17/2007 17:20:00	9.992	18.7
128	4/17/2007 17:30:00	9.993	18.8
129	4/17/2007 17:40:00	9.991	18.7
130	4/17/2007 17:50:00	9.993	18.8
131	4/17/2007 18:00:00	9.991	18.8
132	4/17/2007 18:10:00	9.99	18.8
133	4/17/2007 18:20:00	9.99	18.8
134	4/17/2007 18:30:00	9.997	18.8
135	4/17/2007 18:40:00	9.997	18.7
136	4/17/2007 18:50:00	9.998	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
137	4/17/2007 19:00:00	9.996	18.8
138	4/17/2007 19:10:00	9.997	18.8
139	4/17/2007 19:20:00	9.998	18.8
140	4/17/2007 19:30:00	9.997	18.8
141	4/17/2007 19:40:00	9.997	18.7
142	4/17/2007 19:50:00	9.998	18.7
143	4/17/2007 20:00:00	9.998	18.8
144	4/17/2007 20:10:00	9.997	18.8
145	4/17/2007 20:20:00	9.998	18.8
146	4/17/2007 20:30:00	10	18.8
147	4/17/2007 20:40:00	9.997	18.8
148	4/17/2007 20:50:00	9.997	18.7
149	4/17/2007 21:00:00	9.996	18.7
150	4/17/2007 21:10:00	9.994	18.7
151	4/17/2007 21:20:00	9.994	18.7
152	4/17/2007 21:30:00	9.992	18.7
153	4/17/2007 21:40:00	9.994	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
154	4/17/2007 21:50:00	9.994	18.8
155	4/17/2007 22:00:00	9.993	18.8
156	4/17/2007 22:10:00	9.994	18.7
157	4/17/2007 22:20:00	9.995	18.7
158	4/17/2007 22:30:00	9.998	18.8
159	4/17/2007 22:40:00	9.998	18.8
160	4/17/2007 22:50:00	10.001	18.7
161	4/17/2007 23:00:00	9.998	18.8
162	4/17/2007 23:10:00	9.998	18.7
163	4/17/2007 23:20:00	9.999	18.7
164	4/17/2007 23:30:00	10.001	18.7
165	4/17/2007 23:40:00	10.003	18.7
166	4/17/2007 23:50:00	10.001	18.8
167	4/18/2007 0:00:00	9.999	18.7
168	4/18/2007 0:10:00	10.002	18.7
169	4/18/2007 0:20:00	10.003	18.7
170	4/18/2007 0:30:00	10.003	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
171	4/18/2007 0:40:00	10.001	18.8
172	4/18/2007 0:50:00	10.002	18.8
173	4/18/2007 1:00:00	9.999	18.7
174	4/18/2007 1:10:00	9.998	18.7
175	4/18/2007 1:20:00	10	18.8
176	4/18/2007 1:30:00	10.001	18.7
177	4/18/2007 1:40:00	10.002	18.7
178	4/18/2007 1:50:00	10.003	18.7
179	4/18/2007 2:00:00	10.009	18.8
180	4/18/2007 2:10:00	10.009	18.7
181	4/18/2007 2:20:00	10.011	18.7
182	4/18/2007 2:30:00	10.012	18.8
183	4/18/2007 2:40:00	10.014	18.8
184	4/18/2007 2:50:00	10.019	18.7
185	4/18/2007 3:00:00	10.012	18.7
186	4/18/2007 3:10:00	10.015	18.7
187	4/18/2007 3:20:00	10.015	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
188	4/18/2007 3:30:00	10.017	18.8
189	4/18/2007 3:40:00	10.019	18.8
190	4/18/2007 3:50:00	10.018	18.7
191	4/18/2007 4:00:00	10.014	18.8
192	4/18/2007 4:10:00	10.015	18.7
193	4/18/2007 4:20:00	10.016	18.7
194	4/18/2007 4:30:00	10.015	18.8
195	4/18/2007 4:40:00	10.013	18.7
196	4/18/2007 4:50:00	10.013	18.7
197	4/18/2007 5:00:00	10.011	18.7
198	4/18/2007 5:10:00	10.012	18.7
199	4/18/2007 5:20:00	10.013	18.7
200	4/18/2007 5:30:00	10.014	18.8
201	4/18/2007 5:40:00	10.014	18.8
202	4/18/2007 5:50:00	10.015	18.7
203	4/18/2007 6:00:00	10.012	18.8
204	4/18/2007 6:10:00	10.012	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
205	4/18/2007 6:20:00	10.012	18.8
206	4/18/2007 6:30:00	10.012	18.7
207	4/18/2007 6:40:00	10.012	18.7
208	4/18/2007 6:50:00	10.013	18.7
209	4/18/2007 7:00:00	10.013	18.7
210	4/18/2007 7:10:00	10.011	18.7
211	4/18/2007 7:20:00	10.011	18.8
212	4/18/2007 7:30:00	10.011	18.8
213	4/18/2007 7:40:00	10.008	18.7
214	4/18/2007 7:50:00	10.009	18.8
215	4/18/2007 8:00:00	10.008	18.7
216	4/18/2007 8:10:00	10.009	18.7
217	4/18/2007 8:20:00	10.008	18.7
218	4/18/2007 8:30:00	10.004	18.7
219	4/18/2007 8:40:00	10.005	18.7
220	4/18/2007 8:50:00	10.003	18.7
221	4/18/2007 9:00:00	10.002	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
222	4/18/2007 9:10:00	10.003	18.7
223	4/18/2007 9:20:00	10.002	18.7
224	4/18/2007 9:30:00	10.003	18.7
225	4/18/2007 9:40:00	9.999	18.7
226	4/18/2007 9:50:00	10.001	18.8
227	4/18/2007 10:00:00	10.001	18.8
228	4/18/2007 10:10:00	10.002	18.8
229	4/18/2007 10:20:00	10.002	18.7
230	4/18/2007 10:30:00	10.005	18.7
231	4/18/2007 10:40:00	10.003	18.8
232	4/18/2007 10:50:00	10.002	18.8
233	4/18/2007 11:00:00	10.001	18.8
234	4/18/2007 11:10:00	10.001	18.7
235	4/18/2007 11:20:00	9.998	18.7
236	4/18/2007 11:30:00	9.998	18.7
237	4/18/2007 11:40:00	10	18.8
238	4/18/2007 11:50:00	9.998	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
239	4/18/2007 12:00:00	9.998	18.8
240	4/18/2007 12:10:00	10.001	18.7
241	4/18/2007 12:20:00	9.998	18.7
242	4/18/2007 12:30:00	9.999	18.7
243	4/18/2007 12:40:00	10.002	18.7
244	4/18/2007 12:50:00	9.999	18.7
245	4/18/2007 13:00:00	10.002	18.8
246	4/18/2007 13:10:00	10.002	18.7
247	4/18/2007 13:20:00	10.002	18.7
248	4/18/2007 13:30:00	10.001	18.7
249	4/18/2007 13:40:00	10.003	18.7
250	4/18/2007 13:50:00	10.003	18.7
251	4/18/2007 14:00:00	10.002	18.8
252	4/18/2007 14:10:00	10.002	18.7
253	4/18/2007 14:20:00	10.002	18.8
254	4/18/2007 14:30:00	10.003	18.7
255	4/18/2007 14:40:00	10.002	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
256	4/18/2007 14:50:00	10.003	18.8
257	4/18/2007 15:00:00	10.003	18.7
258	4/18/2007 15:10:00	10.004	18.7
259	4/18/2007 15:20:00	10.003	18.7
260	4/18/2007 15:30:00	10.003	18.7
261	4/18/2007 15:40:00	10.002	18.7
262	4/18/2007 15:50:00	10.001	18.8
263	4/18/2007 16:00:00	10	18.8
264	4/18/2007 16:10:00	9.998	18.7
265	4/18/2007 16:20:00	10.001	18.8
266	4/18/2007 16:30:00	10.001	18.7
267	4/18/2007 16:40:00	9.999	18.7
268	4/18/2007 16:50:00	10.004	18.7
269	4/18/2007 17:00:00	10	18.8
270	4/18/2007 17:10:00	9.999	18.7
271	4/18/2007 17:20:00	10.002	18.7
272	4/18/2007 17:30:00	10.003	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
273	4/18/2007 17:40:00	10.002	18.7
274	4/18/2007 17:50:00	10.002	18.7
275	4/18/2007 18:00:00	10.003	18.7
276	4/18/2007 18:10:00	10.002	18.7
277	4/18/2007 18:20:00	10.002	18.7
278	4/18/2007 18:30:00	10.001	18.7
279	4/18/2007 18:40:00	10	18.8
280	4/18/2007 18:50:00	9.997	18.7
281	4/18/2007 19:00:00	9.997	18.7
282	4/18/2007 19:10:00	9.998	18.8
283	4/18/2007 19:20:00	9.996	18.7
284	4/18/2007 19:30:00	9.996	18.8
285	4/18/2007 19:40:00	9.997	18.7
286	4/18/2007 19:50:00	9.996	18.8
287	4/18/2007 20:00:00	9.997	18.7
288	4/18/2007 20:10:00	9.997	18.8
289	4/18/2007 20:20:00	10.001	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
290	4/18/2007 20:30:00	9.999	18.7
291	4/18/2007 20:40:00	9.999	18.7
292	4/18/2007 20:50:00	10.001	18.7
293	4/18/2007 21:00:00	10.001	18.7
294	4/18/2007 21:10:00	10.003	18.8
295	4/18/2007 21:20:00	10.005	18.8
296	4/18/2007 21:30:00	10.003	18.7
297	4/18/2007 21:40:00	10.002	18.8
298	4/18/2007 21:50:00	10.005	18.7
299	4/18/2007 22:00:00	10.003	18.7
300	4/18/2007 22:10:00	10.004	18.7
301	4/18/2007 22:20:00	10.003	18.7
302	4/18/2007 22:30:00	10.004	18.7
303	4/18/2007 22:40:00	10.005	18.7
304	4/18/2007 22:50:00	10.006	18.7
305	4/18/2007 23:00:00	10.005	18.8
306	4/18/2007 23:10:00	10.005	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
307	4/18/2007 23:20:00	10.006	18.7
308	4/18/2007 23:30:00	10.009	18.7
309	4/18/2007 23:40:00	10.01	18.7
310	4/18/2007 23:50:00	10.009	18.7
311	4/19/2007 0:00:00	10.011	18.7
312	4/19/2007 0:10:00	10.012	18.8
313	4/19/2007 0:20:00	10.015	18.7
314	4/19/2007 0:30:00	10.013	18.7
315	4/19/2007 0:40:00	10.015	18.7
316	4/19/2007 0:50:00	10.016	18.8
317	4/19/2007 1:00:00	10.016	18.7
318	4/19/2007 1:10:00	10.018	18.7
319	4/19/2007 1:20:00	10.018	18.7
320	4/19/2007 1:30:00	10.018	18.7
321	4/19/2007 1:40:00	10.019	18.7
322	4/19/2007 1:50:00	10.024	18.8
323	4/19/2007 2:00:00	10.025	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
324	4/19/2007 2:10:00	10.025	18.7
325	4/19/2007 2:20:00	10.025	18.7
326	4/19/2007 2:30:00	10.025	18.8
327	4/19/2007 2:40:00	10.024	18.7
328	4/19/2007 2:50:00	10.025	18.7
329	4/19/2007 3:00:00	10.023	18.8
330	4/19/2007 3:10:00	10.022	18.7
331	4/19/2007 3:20:00	10.023	18.7
332	4/19/2007 3:30:00	10.023	18.7
333	4/19/2007 3:40:00	10.022	18.7
334	4/19/2007 3:50:00	10.022	18.7
335	4/19/2007 4:00:00	10.022	18.7
336	4/19/2007 4:10:00	10.022	18.7
337	4/19/2007 4:20:00	10.022	18.7
338	4/19/2007 4:30:00	10.019	18.7
339	4/19/2007 4:40:00	10.02	18.7
340	4/19/2007 4:50:00	10.02	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
341	4/19/2007 5:00:00	10.024	18.7
342	4/19/2007 5:10:00	10.024	18.7
343	4/19/2007 5:20:00	10.026	18.7
344	4/19/2007 5:30:00	10.025	18.7
345	4/19/2007 5:40:00	10.024	18.7
346	4/19/2007 5:50:00	10.024	18.7
347	4/19/2007 6:00:00	10.025	18.7
348	4/19/2007 6:10:00	10.026	18.7
349	4/19/2007 6:20:00	10.025	18.7
350	4/19/2007 6:30:00	10.023	18.7
351	4/19/2007 6:40:00	10.02	18.7
352	4/19/2007 6:50:00	10.022	18.7
353	4/19/2007 7:00:00	10.022	18.7
354	4/19/2007 7:10:00	10.024	18.7
355	4/19/2007 7:20:00	10.024	18.7
356	4/19/2007 7:30:00	10.024	18.7
357	4/19/2007 7:40:00	10.023	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
358	4/19/2007 7:50:00	10.025	18.7
359	4/19/2007 8:00:00	10.026	18.7
360	4/19/2007 8:10:00	10.024	18.7
361	4/19/2007 8:20:00	10.026	18.7
362	4/19/2007 8:30:00	10.026	18.7
363	4/19/2007 8:40:00	10.026	18.7
364	4/19/2007 8:50:00	10.027	18.7
365	4/19/2007 9:00:00	10.032	18.7
366	4/19/2007 9:10:00	10.029	18.7
367	4/19/2007 9:20:00	10.029	18.7
368	4/19/2007 9:30:00	10.029	18.7
369	4/19/2007 9:40:00	10.026	18.7
370	4/19/2007 9:50:00	10.025	18.7
371	4/19/2007 10:00:00	10.026	18.7
372	4/19/2007 10:10:00	10.032	18.7
373	4/19/2007 10:20:00	10.029	18.7
374	4/19/2007 10:30:00	10.029	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
375	4/19/2007 10:40:00	10.026	18.7
376	4/19/2007 10:50:00	10.025	18.7
377	4/19/2007 11:00:00	10.025	18.7
378	4/19/2007 11:10:00	10.024	18.7
379	4/19/2007 11:20:00	10.024	18.8
380	4/19/2007 11:30:00	10.026	18.7
381	4/19/2007 11:40:00	10.029	18.7
382	4/19/2007 11:50:00	10.026	18.7
383	4/19/2007 12:00:00	10.026	18.7
384	4/19/2007 12:10:00	10.025	18.7
385	4/19/2007 12:20:00	10.027	18.7
386	4/19/2007 12:30:00	10.027	18.7
387	4/19/2007 12:40:00	10.029	18.7
388	4/19/2007 12:50:00	10.03	18.8
389	4/19/2007 13:00:00	10.029	18.8
390	4/19/2007 13:10:00	10.027	18.7
391	4/19/2007 13:20:00	10.026	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
392	4/19/2007 13:30:00	10.026	18.7
393	4/19/2007 13:40:00	10.027	18.7
394	4/19/2007 13:50:00	10.027	18.7
395	4/19/2007 14:00:00	10.027	18.7
396	4/19/2007 14:10:00	10.027	18.7
397	4/19/2007 14:20:00	10.029	18.7
398	4/19/2007 14:30:00	10.031	18.7
399	4/19/2007 14:40:00	10.03	18.7
400	4/19/2007 14:50:00	10.034	18.7
401	4/19/2007 15:00:00	10.036	18.8
402	4/19/2007 15:10:00	10.038	18.7
403	4/19/2007 15:20:00	10.039	18.7
404	4/19/2007 15:30:00	10.042	18.8
405	4/19/2007 15:40:00	10.04	18.7
406	4/19/2007 15:50:00	10.04	18.8
407	4/19/2007 16:00:00	10.04	18.7
408	4/19/2007 16:10:00	10.038	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
409	4/19/2007 16:20:00	10.037	18.7
410	4/19/2007 16:30:00	10.034	18.7
411	4/19/2007 16:40:00	10.037	18.7
412	4/19/2007 16:50:00	10.038	18.7
413	4/19/2007 17:00:00	10.038	18.7
414	4/19/2007 17:10:00	10.037	18.8
415	4/19/2007 17:20:00	10.036	18.7
416	4/19/2007 17:30:00	10.034	18.7
417	4/19/2007 17:40:00	10.036	18.7
418	4/19/2007 17:50:00	10.036	18.7
419	4/19/2007 18:00:00	10.037	18.7
420	4/19/2007 18:10:00	10.038	18.7
421	4/19/2007 18:20:00	10.04	18.7
422	4/19/2007 18:30:00	10.041	18.7
423	4/19/2007 18:40:00	10.04	18.7
424	4/19/2007 18:50:00	10.04	18.7
425	4/19/2007 19:00:00	10.042	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
426	4/19/2007 19:10:00	10.043	18.7
427	4/19/2007 19:20:00	10.041	18.7
428	4/19/2007 19:30:00	10.04	18.7
429	4/19/2007 19:40:00	10.038	18.7
430	4/19/2007 19:50:00	10.036	18.7
431	4/19/2007 20:00:00	10.035	18.8
432	4/19/2007 20:10:00	10.036	18.7
433	4/19/2007 20:20:00	10.032	18.7
434	4/19/2007 20:30:00	10.029	18.8
435	4/19/2007 20:40:00	10.03	18.7
436	4/19/2007 20:50:00	10.03	18.7
437	4/19/2007 21:00:00	10.031	18.7
438	4/19/2007 21:10:00	10.034	18.7
439	4/19/2007 21:20:00	10.036	18.7
440	4/19/2007 21:30:00	10.037	18.7
441	4/19/2007 21:40:00	10.038	18.7
442	4/19/2007 21:50:00	10.039	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
443	4/19/2007 22:00:00	10.043	18.7
444	4/19/2007 22:10:00	10.043	18.7
445	4/19/2007 22:20:00	10.045	18.7
446	4/19/2007 22:30:00	10.045	18.7
447	4/19/2007 22:40:00	10.045	18.7
448	4/19/2007 22:50:00	10.046	18.7
449	4/19/2007 23:00:00	10.047	18.7
450	4/19/2007 23:10:00	10.048	18.7
451	4/19/2007 23:20:00	10.05	18.8
452	4/19/2007 23:30:00	10.051	18.7
453	4/19/2007 23:40:00	10.051	18.8
454	4/19/2007 23:50:00	10.05	18.7
455	4/20/2007 0:00:00	10.05	18.7
456	4/20/2007 0:10:00	10.048	18.7
457	4/20/2007 0:20:00	10.048	18.7
458	4/20/2007 0:30:00	10.051	18.7
459	4/20/2007 0:40:00	10.053	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
460	4/20/2007 0:50:00	10.053	18.7
461	4/20/2007 1:00:00	10.055	18.7
462	4/20/2007 1:10:00	10.058	18.7
463	4/20/2007 1:20:00	10.06	18.8
464	4/20/2007 1:30:00	10.064	18.7
465	4/20/2007 1:40:00	10.064	18.7
466	4/20/2007 1:50:00	10.065	18.7
467	4/20/2007 2:00:00	10.066	18.8
468	4/20/2007 2:10:00	10.067	18.8
469	4/20/2007 2:20:00	10.066	18.7
470	4/20/2007 2:30:00	10.065	18.7
471	4/20/2007 2:40:00	10.066	18.7
472	4/20/2007 2:50:00	10.067	18.7
473	4/20/2007 3:00:00	10.064	18.7
474	4/20/2007 3:10:00	10.064	18.7
475	4/20/2007 3:20:00	10.064	18.7
476	4/20/2007 3:30:00	10.066	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
477	4/20/2007 3:40:00	10.066	18.7
478	4/20/2007 3:50:00	10.067	18.7
479	4/20/2007 4:00:00	10.069	18.7
480	4/20/2007 4:10:00	10.069	18.7
481	4/20/2007 4:20:00	10.07	18.8
482	4/20/2007 4:30:00	10.069	18.7
483	4/20/2007 4:40:00	10.071	18.7
484	4/20/2007 4:50:00	10.071	18.7
485	4/20/2007 5:00:00	10.071	18.7
486	4/20/2007 5:10:00	10.071	18.7
487	4/20/2007 5:20:00	10.072	18.7
488	4/20/2007 5:30:00	10.072	18.8
489	4/20/2007 5:40:00	10.072	18.7
490	4/20/2007 5:50:00	10.071	18.8
491	4/20/2007 6:00:00	10.072	18.7
492	4/20/2007 6:10:00	10.072	18.7
493	4/20/2007 6:20:00	10.072	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
494	4/20/2007 6:30:00	10.071	18.7
495	4/20/2007 6:40:00	10.073	18.7
496	4/20/2007 6:50:00	10.071	18.7
497	4/20/2007 7:00:00	10.072	18.7
498	4/20/2007 7:10:00	10.072	18.8
499	4/20/2007 7:20:00	10.072	18.7
500	4/20/2007 7:30:00	10.073	18.7
501	4/20/2007 7:40:00	10.072	18.7
502	4/20/2007 7:50:00	10.071	18.7
503	4/20/2007 8:00:00	10.072	18.7
504	4/20/2007 8:10:00	10.073	18.7
505	4/20/2007 8:20:00	10.072	18.7
506	4/20/2007 8:30:00	10.073	18.7
507	4/20/2007 8:40:00	10.073	18.8
508	4/20/2007 8:50:00	10.073	18.7
509	4/20/2007 9:00:00	10.073	18.7
510	4/20/2007 9:10:00	10.073	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
511	4/20/2007 9:20:00	10.069	18.7
512	4/20/2007 9:30:00	10.073	18.7
513	4/20/2007 9:40:00	10.072	18.7
514	4/20/2007 9:50:00	10.072	18.8
515	4/20/2007 10:00:00	10.074	18.7
516	4/20/2007 10:10:00	10.074	18.8
517	4/20/2007 10:20:00	10.076	18.7
518	4/20/2007 10:30:00	10.075	18.7
519	4/20/2007 10:40:00	10.075	18.7
520	4/20/2007 10:50:00	10.074	18.7
521	4/20/2007 11:00:00	10.073	18.7
522	4/20/2007 11:10:00	10.073	18.8
523	4/20/2007 11:20:00	10.072	18.7
524	4/20/2007 11:30:00	10.071	18.7
525	4/20/2007 11:40:00	10.068	18.7
526	4/20/2007 11:50:00	10.069	18.7
527	4/20/2007 12:00:00	10.073	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
528	4/20/2007 12:10:00	10.068	18.7
529	4/20/2007 12:20:00	10.069	18.7
530	4/20/2007 12:30:00	10.07	18.8
531	4/20/2007 12:40:00	10.069	18.7
532	4/20/2007 12:50:00	10.068	18.7
533	4/20/2007 13:00:00	10.068	18.7
534	4/20/2007 13:10:00	10.066	18.7
535	4/20/2007 13:20:00	10.064	18.7
536	4/20/2007 13:30:00	10.064	18.7
537	4/20/2007 13:40:00	10.061	18.7
538	4/20/2007 13:50:00	10.062	18.7
539	4/20/2007 14:00:00	10.061	18.7
540	4/20/2007 14:10:00	10.063	18.8
541	4/20/2007 14:20:00	10.061	18.8
542	4/20/2007 14:30:00	10.064	18.7
543	4/20/2007 14:40:00	10.064	18.7
544	4/20/2007 14:50:00	10.061	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	811.7216797	0	5.70E-05	1.001538038	3.13E-35	9.00E-06	-4.20E-05	0.025203999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2609035
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	MBG-2
# Records	561

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.976	18.7
Maximum	10.076	18.8
Mean	10.019	18.7
Variance	0.0008	0
Std Deviation	0.0283	0.06

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
545	4/20/2007 15:00:00	10.064	18.7
546	4/20/2007 15:10:00	10.062	18.7
547	4/20/2007 15:20:00	10.061	18.7
548	4/20/2007 15:30:00	10.064	18.7
549	4/20/2007 15:40:00	10.064	18.7
550	4/20/2007 15:50:00	10.062	18.7
551	4/20/2007 16:00:00	10.062	18.7
552	4/20/2007 16:10:00	10.06	18.7
553	4/20/2007 16:20:00	10.059	18.7
554	4/20/2007 16:30:00	10.059	18.8
555	4/20/2007 16:40:00	10.057	18.7
556	4/20/2007 16:50:00	10.054	18.8
557	4/20/2007 17:00:00	10.054	18.7
558	4/20/2007 17:10:00	10.051	18.7
559	4/20/2007 17:20:00	10.05	18.7
560	4/20/2007 17:30:00	10.05	18.7
561	4/20/2007 17:40:00	10.05	18.7

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/17/2007 19:20:00	10.236	18.2
2	4/17/2007 19:30:00	10.238	18.2
3	4/17/2007 19:40:00	10.24	18.2
4	4/17/2007 19:50:00	10.24	18.2
5	4/17/2007 20:00:00	10.242	18.2
6	4/17/2007 20:10:00	10.234	18.2
7	4/17/2007 20:20:00	10.242	18.2
8	4/17/2007 20:30:00	10.241	18.2
9	4/17/2007 20:40:00	10.241	18.2
10	4/17/2007 20:50:00	10.241	18.2
11	4/17/2007 21:00:00	10.242	18.2
12	4/17/2007 21:10:00	10.241	18.2
13	4/17/2007 21:20:00	10.243	18.2
14	4/17/2007 21:30:00	10.242	18.2
15	4/17/2007 21:40:00	10.245	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
16	4/17/2007 21:50:00	10.245	18.2
17	4/17/2007 22:00:00	10.245	18.2
18	4/17/2007 22:10:00	10.246	18.2
19	4/17/2007 22:20:00	10.248	18.2
20	4/17/2007 22:30:00	10.249	18.2
21	4/17/2007 22:40:00	10.245	18.2
22	4/17/2007 22:50:00	10.249	18.2
23	4/17/2007 23:00:00	10.249	18.2
24	4/17/2007 23:10:00	10.249	18.2
25	4/17/2007 23:20:00	10.252	18.2
26	4/17/2007 23:30:00	10.252	18.2
27	4/17/2007 23:40:00	10.249	18.2
28	4/17/2007 23:50:00	10.254	18.2
29	4/18/2007 0:00:00	10.254	18.2
30	4/18/2007 0:10:00	10.257	18.2
31	4/18/2007 0:20:00	10.257	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
32	4/18/2007 0:30:00	10.256	18.2
33	4/18/2007 0:40:00	10.256	18.2
34	4/18/2007 0:50:00	10.252	18.2
35	4/18/2007 1:00:00	10.257	18.2
36	4/18/2007 1:10:00	10.259	18.2
37	4/18/2007 1:20:00	10.26	18.2
38	4/18/2007 1:30:00	10.26	18.3
39	4/18/2007 1:40:00	10.262	18.3
40	4/18/2007 1:50:00	10.264	18.3
41	4/18/2007 2:00:00	10.267	18.2
42	4/18/2007 2:10:00	10.267	18.2
43	4/18/2007 2:20:00	10.27	18.3
44	4/18/2007 2:30:00	10.269	18.2
45	4/18/2007 2:40:00	10.268	18.2
46	4/18/2007 2:50:00	10.274	18.2
47	4/18/2007 3:00:00	10.271	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
48	4/18/2007 3:10:00	10.271	18.2
49	4/18/2007 3:20:00	10.271	18.2
50	4/18/2007 3:30:00	10.275	18.2
51	4/18/2007 3:40:00	10.27	18.2
52	4/18/2007 3:50:00	10.273	18.2
53	4/18/2007 4:00:00	10.271	18.2
54	4/18/2007 4:10:00	10.273	18.2
55	4/18/2007 4:20:00	10.273	18.2
56	4/18/2007 4:30:00	10.27	18.2
57	4/18/2007 4:40:00	10.271	18.2
58	4/18/2007 4:50:00	10.27	18.2
59	4/18/2007 5:00:00	10.27	18.3
60	4/18/2007 5:10:00	10.271	18.2
61	4/18/2007 5:20:00	10.27	18.2
62	4/18/2007 5:30:00	10.271	18.2
63	4/18/2007 5:40:00	10.27	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
64	4/18/2007 5:50:00	10.271	18.2
65	4/18/2007 6:00:00	10.269	18.2
66	4/18/2007 6:10:00	10.27	18.2
67	4/18/2007 6:20:00	10.269	18.2
68	4/18/2007 6:30:00	10.268	18.2
69	4/18/2007 6:40:00	10.268	18.2
70	4/18/2007 6:50:00	10.268	18.2
71	4/18/2007 7:00:00	10.263	18.3
72	4/18/2007 7:10:00	10.267	18.3
73	4/18/2007 7:20:00	10.263	18.3
74	4/18/2007 7:30:00	10.263	18.3
75	4/18/2007 7:40:00	10.261	18.2
76	4/18/2007 7:50:00	10.261	18.2
77	4/18/2007 8:00:00	10.261	18.2
78	4/18/2007 8:10:00	10.256	18.2
79	4/18/2007 8:20:00	10.254	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
80	4/18/2007 8:30:00	10.256	18.2
81	4/18/2007 8:40:00	10.255	18.2
82	4/18/2007 8:50:00	10.253	18.2
83	4/18/2007 9:00:00	10.255	18.2
84	4/18/2007 9:10:00	10.248	18.2
85	4/18/2007 9:20:00	10.253	18.2
86	4/18/2007 9:30:00	10.253	18.2
87	4/18/2007 9:40:00	10.253	18.2
88	4/18/2007 9:50:00	10.25	18.2
89	4/18/2007 10:00:00	10.252	18.2
90	4/18/2007 10:10:00	10.252	18.2
91	4/18/2007 10:20:00	10.243	18.2
92	4/18/2007 10:30:00	10.252	18.2
93	4/18/2007 10:40:00	10.248	18.2
94	4/18/2007 10:50:00	10.246	18.3
95	4/18/2007 11:00:00	10.25	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
96	4/18/2007 11:10:00	10.25	18.2
97	4/18/2007 11:20:00	10.25	18.2
98	4/18/2007 11:30:00	10.249	18.2
99	4/18/2007 11:40:00	10.249	18.2
100	4/18/2007 11:50:00	10.249	18.2
101	4/18/2007 12:00:00	10.252	18.2
102	4/18/2007 12:10:00	10.25	18.2
103	4/18/2007 12:20:00	10.252	18.2
104	4/18/2007 12:30:00	10.252	18.2
105	4/18/2007 12:40:00	10.249	18.2
106	4/18/2007 12:50:00	10.25	18.2
107	4/18/2007 13:00:00	10.249	18.2
108	4/18/2007 13:10:00	10.248	18.2
109	4/18/2007 13:20:00	10.252	18.2
110	4/18/2007 13:30:00	10.253	18.2
111	4/18/2007 13:40:00	10.252	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
112	4/18/2007 13:50:00	10.254	18.2
113	4/18/2007 14:00:00	10.254	18.2
114	4/18/2007 14:10:00	10.256	18.2
115	4/18/2007 14:20:00	10.246	18.2
116	4/18/2007 14:30:00	10.255	18.2
117	4/18/2007 14:40:00	10.255	18.2
118	4/18/2007 14:50:00	10.257	18.2
119	4/18/2007 15:00:00	10.255	18.2
120	4/18/2007 15:10:00	10.256	18.2
121	4/18/2007 15:20:00	10.257	18.2
122	4/18/2007 15:30:00	10.256	18.2
123	4/18/2007 15:40:00	10.26	18.2
124	4/18/2007 15:50:00	10.259	18.2
125	4/18/2007 16:00:00	10.257	18.2
126	4/18/2007 16:10:00	10.259	18.2
127	4/18/2007 16:20:00	10.262	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
128	4/18/2007 16:30:00	10.259	18.2
129	4/18/2007 16:40:00	10.26	18.2
130	4/18/2007 16:50:00	10.255	18.2
131	4/18/2007 17:00:00	10.261	18.2
132	4/18/2007 17:10:00	10.26	18.2
133	4/18/2007 17:20:00	10.261	18.2
134	4/18/2007 17:30:00	10.26	18.2
135	4/18/2007 17:40:00	10.261	18.2
136	4/18/2007 17:50:00	10.261	18.2
137	4/18/2007 18:00:00	10.262	18.2
138	4/18/2007 18:10:00	10.261	18.2
139	4/18/2007 18:20:00	10.259	18.2
140	4/18/2007 18:30:00	10.257	18.2
141	4/18/2007 18:40:00	10.257	18.2
142	4/18/2007 18:50:00	10.257	18.2
143	4/18/2007 19:00:00	10.256	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
144	4/18/2007 19:10:00	10.256	18.2
145	4/18/2007 19:20:00	10.255	18.2
146	4/18/2007 19:30:00	10.255	18.2
147	4/18/2007 19:40:00	10.256	18.2
148	4/18/2007 19:50:00	10.255	18.2
149	4/18/2007 20:00:00	10.256	18.2
150	4/18/2007 20:10:00	10.255	18.2
151	4/18/2007 20:20:00	10.254	18.2
152	4/18/2007 20:30:00	10.254	18.2
153	4/18/2007 20:40:00	10.255	18.2
154	4/18/2007 20:50:00	10.255	18.2
155	4/18/2007 21:00:00	10.252	18.2
156	4/18/2007 21:10:00	10.254	18.2
157	4/18/2007 21:20:00	10.255	18.2
158	4/18/2007 21:30:00	10.255	18.2
159	4/18/2007 21:40:00	10.254	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
160	4/18/2007 21:50:00	10.255	18.2
161	4/18/2007 22:00:00	10.253	18.2
162	4/18/2007 22:10:00	10.256	18.2
163	4/18/2007 22:20:00	10.253	18.2
164	4/18/2007 22:30:00	10.255	18.2
165	4/18/2007 22:40:00	10.255	18.2
166	4/18/2007 22:50:00	10.255	18.2
167	4/18/2007 23:00:00	10.256	18.2
168	4/18/2007 23:10:00	10.253	18.2
169	4/18/2007 23:20:00	10.259	18.2
170	4/18/2007 23:30:00	10.26	18.2
171	4/18/2007 23:40:00	10.26	18.2
172	4/18/2007 23:50:00	10.256	18.2
173	4/19/2007 0:00:00	10.262	18.2
174	4/19/2007 0:10:00	10.263	18.2
175	4/19/2007 0:20:00	10.263	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
176	4/19/2007 0:30:00	10.262	18.2
177	4/19/2007 0:40:00	10.266	18.2
178	4/19/2007 0:50:00	10.266	18.2
179	4/19/2007 1:00:00	10.267	18.2
180	4/19/2007 1:10:00	10.268	18.2
181	4/19/2007 1:20:00	10.264	18.2
182	4/19/2007 1:30:00	10.269	18.2
183	4/19/2007 1:40:00	10.271	18.2
184	4/19/2007 1:50:00	10.273	18.2
185	4/19/2007 2:00:00	10.274	18.2
186	4/19/2007 2:10:00	10.275	18.2
187	4/19/2007 2:20:00	10.273	18.2
188	4/19/2007 2:30:00	10.277	18.2
189	4/19/2007 2:40:00	10.276	18.2
190	4/19/2007 2:50:00	10.276	18.2
191	4/19/2007 3:00:00	10.276	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
192	4/19/2007 3:10:00	10.278	18.2
193	4/19/2007 3:20:00	10.278	18.2
194	4/19/2007 3:30:00	10.276	18.2
195	4/19/2007 3:40:00	10.278	18.2
196	4/19/2007 3:50:00	10.28	18.2
197	4/19/2007 4:00:00	10.277	18.2
198	4/19/2007 4:10:00	10.28	18.2
199	4/19/2007 4:20:00	10.277	18.2
200	4/19/2007 4:30:00	10.277	18.2
201	4/19/2007 4:40:00	10.278	18.2
202	4/19/2007 4:50:00	10.28	18.2
203	4/19/2007 5:00:00	10.283	18.2
204	4/19/2007 5:10:00	10.281	18.2
205	4/19/2007 5:20:00	10.28	18.2
206	4/19/2007 5:30:00	10.28	18.2
207	4/19/2007 5:40:00	10.28	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
208	4/19/2007 5:50:00	10.281	18.2
209	4/19/2007 6:00:00	10.282	18.2
210	4/19/2007 6:10:00	10.281	18.2
211	4/19/2007 6:20:00	10.281	18.2
212	4/19/2007 6:30:00	10.277	18.2
213	4/19/2007 6:40:00	10.277	18.2
214	4/19/2007 6:50:00	10.277	18.2
215	4/19/2007 7:00:00	10.28	18.2
216	4/19/2007 7:10:00	10.277	18.2
217	4/19/2007 7:20:00	10.278	18.2
218	4/19/2007 7:30:00	10.274	18.2
219	4/19/2007 7:40:00	10.277	18.2
220	4/19/2007 7:50:00	10.276	18.2
221	4/19/2007 8:00:00	10.278	18.2
222	4/19/2007 8:10:00	10.274	18.2
223	4/19/2007 8:20:00	10.267	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
224	4/19/2007 8:30:00	10.275	18.2
225	4/19/2007 8:40:00	10.269	18.2
226	4/19/2007 8:50:00	10.271	18.2
227	4/19/2007 9:00:00	10.276	18.2
228	4/19/2007 9:10:00	10.273	18.2
229	4/19/2007 9:20:00	10.273	18.2
230	4/19/2007 9:30:00	10.274	18.2
231	4/19/2007 9:40:00	10.271	18.2
232	4/19/2007 9:50:00	10.27	18.2
233	4/19/2007 10:00:00	10.271	18.2
234	4/19/2007 10:10:00	10.271	18.2
235	4/19/2007 10:20:00	10.269	18.2
236	4/19/2007 10:30:00	10.267	18.2
237	4/19/2007 10:40:00	10.264	18.2
238	4/19/2007 10:50:00	10.263	18.2
239	4/19/2007 11:00:00	10.264	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
240	4/19/2007 11:10:00	10.261	18.2
241	4/19/2007 11:20:00	10.263	18.2
242	4/19/2007 11:30:00	10.263	18.2
243	4/19/2007 11:40:00	10.262	18.2
244	4/19/2007 11:50:00	10.261	18.2
245	4/19/2007 12:00:00	10.261	18.2
246	4/19/2007 12:10:00	10.261	18.2
247	4/19/2007 12:20:00	10.262	18.2
248	4/19/2007 12:30:00	10.26	18.2
249	4/19/2007 12:40:00	10.261	18.2
250	4/19/2007 12:50:00	10.26	18.2
251	4/19/2007 13:00:00	10.261	18.2
252	4/19/2007 13:10:00	10.257	18.2
253	4/19/2007 13:20:00	10.257	18.2
254	4/19/2007 13:30:00	10.257	18.2
255	4/19/2007 13:40:00	10.256	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
256	4/19/2007 13:50:00	10.257	18.2
257	4/19/2007 14:00:00	10.259	18.2
258	4/19/2007 14:10:00	10.261	18.2
259	4/19/2007 14:20:00	10.26	18.2
260	4/19/2007 14:30:00	10.262	18.2
261	4/19/2007 14:40:00	10.261	18.2
262	4/19/2007 14:50:00	10.255	18.2
263	4/19/2007 15:00:00	10.263	18.2
264	4/19/2007 15:10:00	10.266	18.2
265	4/19/2007 15:20:00	10.268	18.2
266	4/19/2007 15:30:00	10.268	18.2
267	4/19/2007 15:40:00	10.268	18.2
268	4/19/2007 15:50:00	10.268	18.2
269	4/19/2007 16:00:00	10.261	18.2
270	4/19/2007 16:10:00	10.268	18.2
271	4/19/2007 16:20:00	10.267	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
272	4/19/2007 16:30:00	10.267	18.2
273	4/19/2007 16:40:00	10.27	18.2
274	4/19/2007 16:50:00	10.271	18.2
275	4/19/2007 17:00:00	10.27	18.2
276	4/19/2007 17:10:00	10.271	18.2
277	4/19/2007 17:20:00	10.273	18.2
278	4/19/2007 17:30:00	10.271	18.2
279	4/19/2007 17:40:00	10.273	18.2
280	4/19/2007 17:50:00	10.274	18.2
281	4/19/2007 18:00:00	10.274	18.2
282	4/19/2007 18:10:00	10.273	18.2
283	4/19/2007 18:20:00	10.274	18.2
284	4/19/2007 18:30:00	10.276	18.2
285	4/19/2007 18:40:00	10.275	18.2
286	4/19/2007 18:50:00	10.274	18.2
287	4/19/2007 19:00:00	10.275	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
288	4/19/2007 19:10:00	10.276	18.2
289	4/19/2007 19:20:00	10.276	18.2
290	4/19/2007 19:30:00	10.274	18.2
291	4/19/2007 19:40:00	10.273	18.2
292	4/19/2007 19:50:00	10.274	18.2
293	4/19/2007 20:00:00	10.271	18.2
294	4/19/2007 20:10:00	10.273	18.2
295	4/19/2007 20:20:00	10.27	18.2
296	4/19/2007 20:30:00	10.27	18.2
297	4/19/2007 20:40:00	10.27	18.2
298	4/19/2007 20:50:00	10.271	18.2
299	4/19/2007 21:00:00	10.27	18.2
300	4/19/2007 21:10:00	10.27	18.2
301	4/19/2007 21:20:00	10.274	18.2
302	4/19/2007 21:30:00	10.273	18.2
303	4/19/2007 21:40:00	10.273	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
304	4/19/2007 21:50:00	10.273	18.2
305	4/19/2007 22:00:00	10.275	18.2
306	4/19/2007 22:10:00	10.276	18.2
307	4/19/2007 22:20:00	10.278	18.2
308	4/19/2007 22:30:00	10.278	18.2
309	4/19/2007 22:40:00	10.278	18.2
310	4/19/2007 22:50:00	10.278	18.2
311	4/19/2007 23:00:00	10.278	18.2
312	4/19/2007 23:10:00	10.281	18.2
313	4/19/2007 23:20:00	10.282	18.2
314	4/19/2007 23:30:00	10.284	18.2
315	4/19/2007 23:40:00	10.283	18.2
316	4/19/2007 23:50:00	10.285	18.2
317	4/20/2007 0:00:00	10.283	18.2
318	4/20/2007 0:10:00	10.282	18.2
319	4/20/2007 0:20:00	10.285	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
320	4/20/2007 0:30:00	10.288	18.2
321	4/20/2007 0:40:00	10.287	18.2
322	4/20/2007 0:50:00	10.29	18.2
323	4/20/2007 1:00:00	10.292	18.2
324	4/20/2007 1:10:00	10.294	18.2
325	4/20/2007 1:20:00	10.297	18.2
326	4/20/2007 1:30:00	10.297	18.2
327	4/20/2007 1:40:00	10.301	18.2
328	4/20/2007 1:50:00	10.301	18.2
329	4/20/2007 2:00:00	10.302	18.2
330	4/20/2007 2:10:00	10.305	18.2
331	4/20/2007 2:20:00	10.305	18.2
332	4/20/2007 2:30:00	10.309	18.2
333	4/20/2007 2:40:00	10.308	18.2
334	4/20/2007 2:50:00	10.311	18.2
335	4/20/2007 3:00:00	10.31	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
336	4/20/2007 3:10:00	10.312	18.2
337	4/20/2007 3:20:00	10.315	18.2
338	4/20/2007 3:30:00	10.318	18.2
339	4/20/2007 3:40:00	10.314	18.2
340	4/20/2007 3:50:00	10.318	18.2
341	4/20/2007 4:00:00	10.322	18.2
342	4/20/2007 4:10:00	10.323	18.2
343	4/20/2007 4:20:00	10.325	18.2
344	4/20/2007 4:30:00	10.328	18.2
345	4/20/2007 4:40:00	10.329	18.2
346	4/20/2007 4:50:00	10.328	18.2
347	4/20/2007 5:00:00	10.33	18.2
348	4/20/2007 5:10:00	10.335	18.2
349	4/20/2007 5:20:00	10.335	18.2
350	4/20/2007 5:30:00	10.337	18.2
351	4/20/2007 5:40:00	10.335	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
352	4/20/2007 5:50:00	10.335	18.2
353	4/20/2007 6:00:00	10.339	18.2
354	4/20/2007 6:10:00	10.34	18.2
355	4/20/2007 6:20:00	10.343	18.2
356	4/20/2007 6:30:00	10.344	18.2
357	4/20/2007 6:40:00	10.337	18.2
358	4/20/2007 6:50:00	10.343	18.2
359	4/20/2007 7:00:00	10.346	18.2
360	4/20/2007 7:10:00	10.346	18.2
361	4/20/2007 7:20:00	10.345	18.2
362	4/20/2007 7:30:00	10.35	18.2
363	4/20/2007 7:40:00	10.346	18.2
364	4/20/2007 7:50:00	10.346	18.2
365	4/20/2007 8:00:00	10.35	18.2
366	4/20/2007 8:10:00	10.353	18.2
367	4/20/2007 8:20:00	10.352	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
368	4/20/2007 8:30:00	10.356	18.2
369	4/20/2007 8:40:00	10.354	18.2
370	4/20/2007 8:50:00	10.354	18.2
371	4/20/2007 9:00:00	10.353	18.2
372	4/20/2007 9:10:00	10.352	18.2
373	4/20/2007 9:20:00	10.354	18.2
374	4/20/2007 9:30:00	10.357	18.2
375	4/20/2007 9:40:00	10.354	18.2
376	4/20/2007 9:50:00	10.356	18.2
377	4/20/2007 10:00:00	10.358	18.2
378	4/20/2007 10:10:00	10.358	18.2
379	4/20/2007 10:20:00	10.359	18.2
380	4/20/2007 10:30:00	10.358	18.2
381	4/20/2007 10:40:00	10.351	18.2
382	4/20/2007 10:50:00	10.359	18.2
383	4/20/2007 11:00:00	10.358	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
384	4/20/2007 11:10:00	10.357	18.2
385	4/20/2007 11:20:00	10.357	18.2
386	4/20/2007 11:30:00	10.358	18.2
387	4/20/2007 11:40:00	10.354	18.2
388	4/20/2007 11:50:00	10.357	18.2
389	4/20/2007 12:00:00	10.357	18.2
390	4/20/2007 12:10:00	10.353	18.2
391	4/20/2007 12:20:00	10.358	18.2
392	4/20/2007 12:30:00	10.353	18.2
393	4/20/2007 12:40:00	10.357	18.2
394	4/20/2007 12:50:00	10.358	18.2
395	4/20/2007 13:00:00	10.357	18.2
396	4/20/2007 13:10:00	10.354	18.2
397	4/20/2007 13:20:00	10.352	18.2
398	4/20/2007 13:30:00	10.356	18.2
399	4/20/2007 13:40:00	10.353	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
400	4/20/2007 13:50:00	10.356	18.2
401	4/20/2007 14:00:00	10.356	18.2
402	4/20/2007 14:10:00	10.356	18.2
403	4/20/2007 14:20:00	10.353	18.2
404	4/20/2007 14:30:00	10.354	18.2
405	4/20/2007 14:40:00	10.357	18.2
406	4/20/2007 14:50:00	10.356	18.2
407	4/20/2007 15:00:00	10.357	18.2
408	4/20/2007 15:10:00	10.356	18.2
409	4/20/2007 15:20:00	10.358	18.2
410	4/20/2007 15:30:00	10.356	18.2
411	4/20/2007 15:40:00	10.36	18.2
412	4/20/2007 15:50:00	10.359	18.2
413	4/20/2007 16:00:00	10.359	18.2
414	4/20/2007 16:10:00	10.36	18.2
415	4/20/2007 16:20:00	10.359	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
416	4/20/2007 16:30:00	10.361	18.2
417	4/20/2007 16:40:00	10.359	18.2
418	4/20/2007 16:50:00	10.361	18.2
419	4/20/2007 17:00:00	10.356	18.2
420	4/20/2007 17:10:00	10.361	18.2
421	4/20/2007 17:20:00	10.361	18.2
422	4/20/2007 17:30:00	10.356	18.2
423	4/20/2007 17:40:00	10.363	18.2
424	4/20/2007 17:50:00	10.361	18.2
425	4/20/2007 18:00:00	10.359	18.2
426	4/20/2007 18:10:00	10.361	18.2
427	4/20/2007 18:20:00	10.361	18.2
428	4/20/2007 18:30:00	10.363	18.2
429	4/20/2007 18:40:00	10.363	18.2
430	4/20/2007 18:50:00	10.361	18.2
431	4/20/2007 19:00:00	10.363	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	2.00E-07	-5.77E-05	1.004038811	-12088348	4.02E-06	1.39E-04	1.51E-03
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2346009
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW46
# Records	432

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.234	18.2
Maximum	10.363	18.3
Mean	10.284	18.2
Variance	0.0014	0
Std Deviation	0.0379	0.02

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
432	4/20/2007 19:10:00	10.363	18.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/16/2007 20:00:00	10.106	18.9
2	4/16/2007 20:10:00	10.103	18.9
3	4/16/2007 20:20:00	10.101	18.9
4	4/16/2007 20:30:00	10.101	18.9
5	4/16/2007 20:40:00	10.105	18.9
6	4/16/2007 20:50:00	10.101	18.9
7	4/16/2007 21:00:00	10.099	18.9
8	4/16/2007 21:10:00	10.099	18.9
9	4/16/2007 21:20:00	10.101	18.9
10	4/16/2007 21:30:00	10.1	18.9
11	4/16/2007 21:40:00	10.101	18.9
12	4/16/2007 21:50:00	10.102	18.9
13	4/16/2007 22:00:00	10.099	18.9
14	4/16/2007 22:10:00	10.1	18.9
15	4/16/2007 22:20:00	10.101	18.9
16	4/16/2007 22:30:00	10.101	18.9
17	4/16/2007 22:40:00	10.102	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
18	4/16/2007 22:50:00	10.107	18.9
19	4/16/2007 23:00:00	10.103	18.9
20	4/16/2007 23:10:00	10.103	18.9
21	4/16/2007 23:20:00	10.103	18.9
22	4/16/2007 23:30:00	10.106	18.9
23	4/16/2007 23:40:00	10.106	18.9
24	4/16/2007 23:50:00	10.105	18.9
25	4/17/2007 0:00:00	10.105	18.9
26	4/17/2007 0:10:00	10.106	18.9
27	4/17/2007 0:20:00	10.11	18.9
28	4/17/2007 0:30:00	10.107	18.9
29	4/17/2007 0:40:00	10.108	18.9
30	4/17/2007 0:50:00	10.107	18.9
31	4/17/2007 1:00:00	10.106	18.9
32	4/17/2007 1:10:00	10.108	18.9
33	4/17/2007 1:20:00	10.11	18.9
34	4/17/2007 1:30:00	10.112	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
35	4/17/2007 1:40:00	10.112	18.9
36	4/17/2007 1:50:00	10.11	18.9
37	4/17/2007 2:00:00	10.114	18.9
38	4/17/2007 2:10:00	10.114	18.9
39	4/17/2007 2:20:00	10.112	18.9
40	4/17/2007 2:30:00	10.113	18.9
41	4/17/2007 2:40:00	10.116	18.9
42	4/17/2007 2:50:00	10.115	18.9
43	4/17/2007 3:00:00	10.115	18.9
44	4/17/2007 3:10:00	10.113	18.9
45	4/17/2007 3:20:00	10.11	18.9
46	4/17/2007 3:30:00	10.115	18.9
47	4/17/2007 3:40:00	10.116	18.9
48	4/17/2007 3:50:00	10.116	18.9
49	4/17/2007 4:00:00	10.114	18.9
50	4/17/2007 4:10:00	10.113	18.9
51	4/17/2007 4:20:00	10.113	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
52	4/17/2007 4:30:00	10.113	18.9
53	4/17/2007 4:40:00	10.11	18.9
54	4/17/2007 4:50:00	10.112	18.9
55	4/17/2007 5:00:00	10.116	18.9
56	4/17/2007 5:10:00	10.115	18.9
57	4/17/2007 5:20:00	10.114	18.9
58	4/17/2007 5:30:00	10.109	18.9
59	4/17/2007 5:40:00	10.109	18.9
60	4/17/2007 5:50:00	10.11	18.9
61	4/17/2007 6:00:00	10.11	18.9
62	4/17/2007 6:10:00	10.113	18.9
63	4/17/2007 6:20:00	10.11	18.9
64	4/17/2007 6:30:00	10.11	18.9
65	4/17/2007 6:40:00	10.11	18.9
66	4/17/2007 6:50:00	10.108	18.9
67	4/17/2007 7:00:00	10.109	18.9
68	4/17/2007 7:10:00	10.109	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
69	4/17/2007 7:20:00	10.108	18.9
70	4/17/2007 7:30:00	10.106	18.9
71	4/17/2007 7:40:00	10.108	18.9
72	4/17/2007 7:50:00	10.105	18.9
73	4/17/2007 8:00:00	10.107	18.9
74	4/17/2007 8:10:00	10.107	18.9
75	4/17/2007 8:20:00	10.105	18.9
76	4/17/2007 8:30:00	10.105	18.9
77	4/17/2007 8:40:00	10.107	18.9
78	4/17/2007 8:50:00	10.105	18.9
79	4/17/2007 9:00:00	10.107	18.9
80	4/17/2007 9:10:00	10.105	18.9
81	4/17/2007 9:20:00	10.106	18.9
82	4/17/2007 9:30:00	10.108	18.9
83	4/17/2007 9:40:00	10.107	18.9
84	4/17/2007 9:50:00	10.108	18.9
85	4/17/2007 10:00:00	10.105	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
86	4/17/2007 10:10:00	10.103	18.9
87	4/17/2007 10:20:00	10.101	18.9
88	4/17/2007 10:30:00	10.101	18.9
89	4/17/2007 10:40:00	10.106	18.9
90	4/17/2007 10:50:00	10.106	18.9
91	4/17/2007 11:00:00	10.106	18.9
92	4/17/2007 11:10:00	10.106	18.9
93	4/17/2007 11:20:00	10.105	18.9
94	4/17/2007 11:30:00	10.107	18.9
95	4/17/2007 11:40:00	10.106	18.9
96	4/17/2007 11:50:00	10.105	18.9
97	4/17/2007 12:00:00	10.105	18.9
98	4/17/2007 12:10:00	10.107	18.9
99	4/17/2007 12:20:00	10.107	18.9
100	4/17/2007 12:30:00	10.108	18.9
101	4/17/2007 12:40:00	10.108	18.9
102	4/17/2007 12:50:00	10.108	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
103	4/17/2007 13:00:00	10.108	18.9
104	4/17/2007 13:10:00	10.108	18.9
105	4/17/2007 13:20:00	10.109	18.9
106	4/17/2007 13:30:00	10.11	18.9
107	4/17/2007 13:40:00	10.109	18.9
108	4/17/2007 13:50:00	10.108	18.9
109	4/17/2007 14:00:00	10.105	18.9
110	4/17/2007 14:10:00	10.106	18.9
111	4/17/2007 14:20:00	10.108	18.9
112	4/17/2007 14:30:00	10.105	18.9
113	4/17/2007 14:40:00	10.106	18.9
114	4/17/2007 14:50:00	10.106	18.9
115	4/17/2007 15:00:00	10.11	18.9
116	4/17/2007 15:10:00	10.11	18.9
117	4/17/2007 15:20:00	10.11	18.9
118	4/17/2007 15:30:00	10.109	18.9
119	4/17/2007 15:40:00	10.11	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
120	4/17/2007 15:50:00	10.11	18.9
121	4/17/2007 16:00:00	10.11	18.9
122	4/17/2007 16:10:00	10.114	18.9
123	4/17/2007 16:20:00	10.109	18.9
124	4/17/2007 16:30:00	10.108	18.9
125	4/17/2007 16:40:00	10.107	18.9
126	4/17/2007 16:50:00	10.109	18.9
127	4/17/2007 17:00:00	10.11	18.9
128	4/17/2007 17:10:00	10.109	18.9
129	4/17/2007 17:20:00	10.109	18.9
130	4/17/2007 17:30:00	10.108	18.9
131	4/17/2007 17:40:00	10.108	18.9
132	4/17/2007 17:50:00	10.108	18.9
133	4/17/2007 18:00:00	10.107	18.9
134	4/17/2007 18:10:00	10.107	18.9
135	4/17/2007 18:20:00	10.106	18.9
136	4/17/2007 18:30:00	10.106	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
137	4/17/2007 18:40:00	10.104	18.8
138	4/17/2007 18:50:00	10.107	18.9
139	4/17/2007 19:00:00	10.107	18.9
140	4/17/2007 19:10:00	10.106	18.9
141	4/17/2007 19:20:00	10.106	18.9
142	4/17/2007 19:30:00	10.105	18.9
143	4/17/2007 19:40:00	10.107	18.9
144	4/17/2007 19:50:00	10.107	18.9
145	4/17/2007 20:00:00	10.106	18.9
146	4/17/2007 20:10:00	10.105	18.9
147	4/17/2007 20:20:00	10.107	18.9
148	4/17/2007 20:30:00	10.106	18.9
149	4/17/2007 20:40:00	10.103	18.9
150	4/17/2007 20:50:00	10.1	18.9
151	4/17/2007 21:00:00	10.103	18.9
152	4/17/2007 21:10:00	10.102	18.9
153	4/17/2007 21:20:00	10.1	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
154	4/17/2007 21:30:00	10.105	18.9
155	4/17/2007 21:40:00	10.102	18.9
156	4/17/2007 21:50:00	10.1	18.9
157	4/17/2007 22:00:00	10.102	18.9
158	4/17/2007 22:10:00	10.1	18.9
159	4/17/2007 22:20:00	10.101	18.8
160	4/17/2007 22:30:00	10.102	18.9
161	4/17/2007 22:40:00	10.105	18.9
162	4/17/2007 22:50:00	10.105	18.9
163	4/17/2007 23:00:00	10.106	18.9
164	4/17/2007 23:10:00	10.105	18.9
165	4/17/2007 23:20:00	10.105	18.9
166	4/17/2007 23:30:00	10.107	18.9
167	4/17/2007 23:40:00	10.106	18.8
168	4/17/2007 23:50:00	10.106	18.9
169	4/18/2007 0:00:00	10.106	18.9
170	4/18/2007 0:10:00	10.108	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
171	4/18/2007 0:20:00	10.109	18.9
172	4/18/2007 0:30:00	10.105	18.9
173	4/18/2007 0:40:00	10.106	18.9
174	4/18/2007 0:50:00	10.106	18.9
175	4/18/2007 1:00:00	10.104	18.8
176	4/18/2007 1:10:00	10.106	18.9
177	4/18/2007 1:20:00	10.108	18.9
178	4/18/2007 1:30:00	10.109	18.8
179	4/18/2007 1:40:00	10.107	18.9
180	4/18/2007 1:50:00	10.109	18.9
181	4/18/2007 2:00:00	10.113	18.8
182	4/18/2007 2:10:00	10.114	18.9
183	4/18/2007 2:20:00	10.117	18.9
184	4/18/2007 2:30:00	10.115	18.9
185	4/18/2007 2:40:00	10.117	18.9
186	4/18/2007 2:50:00	10.117	18.9
187	4/18/2007 3:00:00	10.119	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
188	4/18/2007 3:10:00	10.119	18.9
189	4/18/2007 3:20:00	10.117	18.9
190	4/18/2007 3:30:00	10.117	18.9
191	4/18/2007 3:40:00	10.122	18.8
192	4/18/2007 3:50:00	10.117	18.9
193	4/18/2007 4:00:00	10.116	18.9
194	4/18/2007 4:10:00	10.116	18.9
195	4/18/2007 4:20:00	10.117	18.9
196	4/18/2007 4:30:00	10.116	18.9
197	4/18/2007 4:40:00	10.115	18.9
198	4/18/2007 4:50:00	10.117	18.9
199	4/18/2007 5:00:00	10.115	18.8
200	4/18/2007 5:10:00	10.115	18.9
201	4/18/2007 5:20:00	10.116	18.9
202	4/18/2007 5:30:00	10.116	18.9
203	4/18/2007 5:40:00	10.119	18.9
204	4/18/2007 5:50:00	10.119	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
205	4/18/2007 6:00:00	10.115	18.9
206	4/18/2007 6:10:00	10.115	18.9
207	4/18/2007 6:20:00	10.115	18.9
208	4/18/2007 6:30:00	10.117	18.9
209	4/18/2007 6:40:00	10.115	18.9
210	4/18/2007 6:50:00	10.116	18.8
211	4/18/2007 7:00:00	10.115	18.8
212	4/18/2007 7:10:00	10.117	18.9
213	4/18/2007 7:20:00	10.114	18.9
214	4/18/2007 7:30:00	10.11	18.9
215	4/18/2007 7:40:00	10.111	18.8
216	4/18/2007 7:50:00	10.11	18.9
217	4/18/2007 8:00:00	10.113	18.9
218	4/18/2007 8:10:00	10.115	18.9
219	4/18/2007 8:20:00	10.11	18.8
220	4/18/2007 8:30:00	10.109	18.9
221	4/18/2007 8:40:00	10.108	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
222	4/18/2007 8:50:00	10.109	18.9
223	4/18/2007 9:00:00	10.108	18.9
224	4/18/2007 9:10:00	10.108	18.9
225	4/18/2007 9:20:00	10.106	18.8
226	4/18/2007 9:30:00	10.108	18.9
227	4/18/2007 9:40:00	10.107	18.9
228	4/18/2007 9:50:00	10.108	18.9
229	4/18/2007 10:00:00	10.106	18.9
230	4/18/2007 10:10:00	10.108	18.9
231	4/18/2007 10:20:00	10.108	18.9
232	4/18/2007 10:30:00	10.109	18.9
233	4/18/2007 10:40:00	10.11	18.8
234	4/18/2007 10:50:00	10.108	18.8
235	4/18/2007 11:00:00	10.11	18.8
236	4/18/2007 11:10:00	10.106	18.8
237	4/18/2007 11:20:00	10.107	18.9
238	4/18/2007 11:30:00	10.106	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
239	4/18/2007 11:40:00	10.106	18.9
240	4/18/2007 11:50:00	10.107	18.9
241	4/18/2007 12:00:00	10.108	18.9
242	4/18/2007 12:10:00	10.107	18.9
243	4/18/2007 12:20:00	10.104	18.8
244	4/18/2007 12:30:00	10.107	18.9
245	4/18/2007 12:40:00	10.109	18.8
246	4/18/2007 12:50:00	10.107	18.9
247	4/18/2007 13:00:00	10.11	18.8
248	4/18/2007 13:10:00	10.109	18.8
249	4/18/2007 13:20:00	10.11	18.8
250	4/18/2007 13:30:00	10.11	18.9
251	4/18/2007 13:40:00	10.109	18.9
252	4/18/2007 13:50:00	10.112	18.9
253	4/18/2007 14:00:00	10.109	18.9
254	4/18/2007 14:10:00	10.11	18.9
255	4/18/2007 14:20:00	10.112	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
256	4/18/2007 14:30:00	10.112	18.9
257	4/18/2007 14:40:00	10.113	18.9
258	4/18/2007 14:50:00	10.112	18.9
259	4/18/2007 15:00:00	10.11	18.9
260	4/18/2007 15:10:00	10.114	18.8
261	4/18/2007 15:20:00	10.113	18.9
262	4/18/2007 15:30:00	10.113	18.9
263	4/18/2007 15:40:00	10.114	18.8
264	4/18/2007 15:50:00	10.11	18.9
265	4/18/2007 16:00:00	10.114	18.8
266	4/18/2007 16:10:00	10.112	18.9
267	4/18/2007 16:20:00	10.114	18.8
268	4/18/2007 16:30:00	10.114	18.9
269	4/18/2007 16:40:00	10.113	18.8
270	4/18/2007 16:50:00	10.116	18.9
271	4/18/2007 17:00:00	10.115	18.9
272	4/18/2007 17:10:00	10.114	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
273	4/18/2007 17:20:00	10.114	18.8
274	4/18/2007 17:30:00	10.115	18.9
275	4/18/2007 17:40:00	10.115	18.9
276	4/18/2007 17:50:00	10.115	18.9
277	4/18/2007 18:00:00	10.115	18.9
278	4/18/2007 18:10:00	10.113	18.9
279	4/18/2007 18:20:00	10.115	18.9
280	4/18/2007 18:30:00	10.114	18.9
281	4/18/2007 18:40:00	10.11	18.9
282	4/18/2007 18:50:00	10.112	18.9
283	4/18/2007 19:00:00	10.111	18.8
284	4/18/2007 19:10:00	10.113	18.8
285	4/18/2007 19:20:00	10.109	18.9
286	4/18/2007 19:30:00	10.112	18.9
287	4/18/2007 19:40:00	10.109	18.9
288	4/18/2007 19:50:00	10.109	18.8
289	4/18/2007 20:00:00	10.11	18.8

Advanced Calibration Data		m3	m2	m1	m0	b3	b2	b1	b0
	Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
	Block 1	0	0	0	0	0	0	0	100

Field Calibration Data		m	b
	Pressure	1	0
	Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data		Pressure(Ft H2O)	Temperature(degC)
	Sensor Range	15 psig	-40 - +125 degC
	Minimum	10.099	18.8
	Maximum	10.174	18.9
	Mean	10.128	18.8
	Variance	0.0006	0.01
	Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
290	4/18/2007 20:10:00	10.109	18.9
291	4/18/2007 20:20:00	10.111	18.8
292	4/18/2007 20:30:00	10.116	18.9
293	4/18/2007 20:40:00	10.115	18.9
294	4/18/2007 20:50:00	10.111	18.8
295	4/18/2007 21:00:00	10.113	18.8
296	4/18/2007 21:10:00	10.115	18.9
297	4/18/2007 21:20:00	10.115	18.8
298	4/18/2007 21:30:00	10.113	18.9
299	4/18/2007 21:40:00	10.112	18.9
300	4/18/2007 21:50:00	10.113	18.9
301	4/18/2007 22:00:00	10.112	18.9
302	4/18/2007 22:10:00	10.112	18.9
303	4/18/2007 22:20:00	10.111	18.8
304	4/18/2007 22:30:00	10.11	18.9
305	4/18/2007 22:40:00	10.113	18.8
306	4/18/2007 22:50:00	10.115	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
307	4/18/2007 23:00:00	10.114	18.8
308	4/18/2007 23:10:00	10.113	18.9
309	4/18/2007 23:20:00	10.114	18.8
310	4/18/2007 23:30:00	10.114	18.8
311	4/18/2007 23:40:00	10.115	18.8
312	4/18/2007 23:50:00	10.114	18.9
313	4/19/2007 0:00:00	10.115	18.9
314	4/19/2007 0:10:00	10.116	18.8
315	4/19/2007 0:20:00	10.118	18.8
316	4/19/2007 0:30:00	10.12	18.9
317	4/19/2007 0:40:00	10.119	18.9
318	4/19/2007 0:50:00	10.119	18.9
319	4/19/2007 1:00:00	10.118	18.8
320	4/19/2007 1:10:00	10.122	18.8
321	4/19/2007 1:20:00	10.12	18.8
322	4/19/2007 1:30:00	10.122	18.9
323	4/19/2007 1:40:00	10.122	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
324	4/19/2007 1:50:00	10.124	18.9
325	4/19/2007 2:00:00	10.127	18.8
326	4/19/2007 2:10:00	10.127	18.9
327	4/19/2007 2:20:00	10.13	18.8
328	4/19/2007 2:30:00	10.129	18.9
329	4/19/2007 2:40:00	10.128	18.8
330	4/19/2007 2:50:00	10.128	18.9
331	4/19/2007 3:00:00	10.127	18.8
332	4/19/2007 3:10:00	10.127	18.8
333	4/19/2007 3:20:00	10.129	18.9
334	4/19/2007 3:30:00	10.129	18.9
335	4/19/2007 3:40:00	10.129	18.9
336	4/19/2007 3:50:00	10.128	18.8
337	4/19/2007 4:00:00	10.128	18.8
338	4/19/2007 4:10:00	10.13	18.8
339	4/19/2007 4:20:00	10.129	18.8
340	4/19/2007 4:30:00	10.129	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
341	4/19/2007 4:40:00	10.13	18.9
342	4/19/2007 4:50:00	10.131	18.9
343	4/19/2007 5:00:00	10.131	18.8
344	4/19/2007 5:10:00	10.131	18.8
345	4/19/2007 5:20:00	10.136	18.8
346	4/19/2007 5:30:00	10.134	18.9
347	4/19/2007 5:40:00	10.131	18.8
348	4/19/2007 5:50:00	10.131	18.8
349	4/19/2007 6:00:00	10.134	18.8
350	4/19/2007 6:10:00	10.136	18.9
351	4/19/2007 6:20:00	10.133	18.8
352	4/19/2007 6:30:00	10.134	18.9
353	4/19/2007 6:40:00	10.13	18.8
354	4/19/2007 6:50:00	10.133	18.9
355	4/19/2007 7:00:00	10.134	18.9
356	4/19/2007 7:10:00	10.133	18.8
357	4/19/2007 7:20:00	10.134	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
358	4/19/2007 7:30:00	10.133	18.8
359	4/19/2007 7:40:00	10.136	18.8
360	4/19/2007 7:50:00	10.134	18.9
361	4/19/2007 8:00:00	10.134	18.8
362	4/19/2007 8:10:00	10.134	18.9
363	4/19/2007 8:20:00	10.131	18.9
364	4/19/2007 8:30:00	10.135	18.9
365	4/19/2007 8:40:00	10.136	18.9
366	4/19/2007 8:50:00	10.135	18.9
367	4/19/2007 9:00:00	10.137	18.8
368	4/19/2007 9:10:00	10.138	18.9
369	4/19/2007 9:20:00	10.138	18.9
370	4/19/2007 9:30:00	10.136	18.8
371	4/19/2007 9:40:00	10.134	18.8
372	4/19/2007 9:50:00	10.133	18.8
373	4/19/2007 10:00:00	10.135	18.8
374	4/19/2007 10:10:00	10.138	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
375	4/19/2007 10:20:00	10.137	18.9
376	4/19/2007 10:30:00	10.136	18.9
377	4/19/2007 10:40:00	10.135	18.8
378	4/19/2007 10:50:00	10.135	18.9
379	4/19/2007 11:00:00	10.131	18.8
380	4/19/2007 11:10:00	10.131	18.8
381	4/19/2007 11:20:00	10.134	18.8
382	4/19/2007 11:30:00	10.133	18.9
383	4/19/2007 11:40:00	10.136	18.8
384	4/19/2007 11:50:00	10.135	18.8
385	4/19/2007 12:00:00	10.136	18.8
386	4/19/2007 12:10:00	10.135	18.8
387	4/19/2007 12:20:00	10.136	18.8
388	4/19/2007 12:30:00	10.137	18.9
389	4/19/2007 12:40:00	10.14	18.9
390	4/19/2007 12:50:00	10.138	18.9
391	4/19/2007 13:00:00	10.14	18.9

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
392	4/19/2007 13:10:00	10.137	18.9
393	4/19/2007 13:20:00	10.137	18.9
394	4/19/2007 13:30:00	10.136	18.8
395	4/19/2007 13:40:00	10.138	18.8
396	4/19/2007 13:50:00	10.141	18.8
397	4/19/2007 14:00:00	10.137	18.8
398	4/19/2007 14:10:00	10.138	18.9
399	4/19/2007 14:20:00	10.141	18.8
400	4/19/2007 14:30:00	10.14	18.9
401	4/19/2007 14:40:00	10.141	18.8
402	4/19/2007 14:50:00	10.142	18.8
403	4/19/2007 15:00:00	10.143	18.8
404	4/19/2007 15:10:00	10.144	18.8
405	4/19/2007 15:20:00	10.147	18.8
406	4/19/2007 15:30:00	10.148	18.9
407	4/19/2007 15:40:00	10.145	18.8
408	4/19/2007 15:50:00	10.145	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
409	4/19/2007 16:00:00	10.147	18.8
410	4/19/2007 16:10:00	10.147	18.9
411	4/19/2007 16:20:00	10.146	18.9
412	4/19/2007 16:30:00	10.144	18.9
413	4/19/2007 16:40:00	10.145	18.8
414	4/19/2007 16:50:00	10.149	18.8
415	4/19/2007 17:00:00	10.148	18.8
416	4/19/2007 17:10:00	10.149	18.8
417	4/19/2007 17:20:00	10.149	18.8
418	4/19/2007 17:30:00	10.147	18.8
419	4/19/2007 17:40:00	10.148	18.8
420	4/19/2007 17:50:00	10.147	18.9
421	4/19/2007 18:00:00	10.15	18.8
422	4/19/2007 18:10:00	10.148	18.8
423	4/19/2007 18:20:00	10.151	18.8
424	4/19/2007 18:30:00	10.153	18.9
425	4/19/2007 18:40:00	10.151	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
426	4/19/2007 18:50:00	10.15	18.8
427	4/19/2007 19:00:00	10.151	18.8
428	4/19/2007 19:10:00	10.151	18.8
429	4/19/2007 19:20:00	10.15	18.8
430	4/19/2007 19:30:00	10.151	18.8
431	4/19/2007 19:40:00	10.149	18.8
432	4/19/2007 19:50:00	10.147	18.8
433	4/19/2007 20:00:00	10.147	18.9
434	4/19/2007 20:10:00	10.144	18.9
435	4/19/2007 20:20:00	10.147	18.9
436	4/19/2007 20:30:00	10.143	18.8
437	4/19/2007 20:40:00	10.143	18.8
438	4/19/2007 20:50:00	10.142	18.9
439	4/19/2007 21:00:00	10.144	18.8
440	4/19/2007 21:10:00	10.146	18.9
441	4/19/2007 21:20:00	10.143	18.8
442	4/19/2007 21:30:00	10.143	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
443	4/19/2007 21:40:00	10.143	18.8
444	4/19/2007 21:50:00	10.147	18.8
445	4/19/2007 22:00:00	10.147	18.8
446	4/19/2007 22:10:00	10.148	18.9
447	4/19/2007 22:20:00	10.149	18.8
448	4/19/2007 22:30:00	10.145	18.8
449	4/19/2007 22:40:00	10.148	18.8
450	4/19/2007 22:50:00	10.149	18.9
451	4/19/2007 23:00:00	10.149	18.9
452	4/19/2007 23:10:00	10.149	18.8
453	4/19/2007 23:20:00	10.149	18.8
454	4/19/2007 23:30:00	10.15	18.8
455	4/19/2007 23:40:00	10.149	18.8
456	4/19/2007 23:50:00	10.149	18.8
457	4/20/2007 0:00:00	10.15	18.8
458	4/20/2007 0:10:00	10.147	18.9
459	4/20/2007 0:20:00	10.148	18.8

Advanced Calibration Data		m3	m2	m1	m0	b3	b2	b1	b0
	Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
	Block 1	0	0	0	0	0	0	0	100

Field Calibration Data		m	b
	Pressure	1	0
	Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data		Pressure(Ft H2O)	Temperature(degC)
	Sensor Range	15 psig	-40 - +125 degC
	Minimum	10.099	18.8
	Maximum	10.174	18.9
	Mean	10.128	18.8
	Variance	0.0006	0.01
	Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
460	4/20/2007 0:30:00	10.149	18.8
461	4/20/2007 0:40:00	10.151	18.9
462	4/20/2007 0:50:00	10.152	18.8
463	4/20/2007 1:00:00	10.151	18.8
464	4/20/2007 1:10:00	10.156	18.8
465	4/20/2007 1:20:00	10.158	18.8
466	4/20/2007 1:30:00	10.158	18.9
467	4/20/2007 1:40:00	10.158	18.8
468	4/20/2007 1:50:00	10.157	18.8
469	4/20/2007 2:00:00	10.158	18.8
470	4/20/2007 2:10:00	10.163	18.8
471	4/20/2007 2:20:00	10.162	18.8
472	4/20/2007 2:30:00	10.163	18.8
473	4/20/2007 2:40:00	10.163	18.8
474	4/20/2007 2:50:00	10.164	18.8
475	4/20/2007 3:00:00	10.163	18.8
476	4/20/2007 3:10:00	10.163	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
477	4/20/2007 3:20:00	10.164	18.8
478	4/20/2007 3:30:00	10.165	18.9
479	4/20/2007 3:40:00	10.165	18.8
480	4/20/2007 3:50:00	10.168	18.9
481	4/20/2007 4:00:00	10.167	18.8
482	4/20/2007 4:10:00	10.17	18.9
483	4/20/2007 4:20:00	10.168	18.8
484	4/20/2007 4:30:00	10.169	18.8
485	4/20/2007 4:40:00	10.171	18.8
486	4/20/2007 4:50:00	10.17	18.8
487	4/20/2007 5:00:00	10.17	18.8
488	4/20/2007 5:10:00	10.168	18.8
489	4/20/2007 5:20:00	10.171	18.8
490	4/20/2007 5:30:00	10.172	18.8
491	4/20/2007 5:40:00	10.172	18.8
492	4/20/2007 5:50:00	10.171	18.8
493	4/20/2007 6:00:00	10.169	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
494	4/20/2007 6:10:00	10.171	18.8
495	4/20/2007 6:20:00	10.17	18.8
496	4/20/2007 6:30:00	10.172	18.9
497	4/20/2007 6:40:00	10.171	18.8
498	4/20/2007 6:50:00	10.171	18.8
499	4/20/2007 7:00:00	10.171	18.9
500	4/20/2007 7:10:00	10.172	18.8
501	4/20/2007 7:20:00	10.17	18.8
502	4/20/2007 7:30:00	10.17	18.8
503	4/20/2007 7:40:00	10.172	18.8
504	4/20/2007 7:50:00	10.17	18.9
505	4/20/2007 8:00:00	10.171	18.8
506	4/20/2007 8:10:00	10.171	18.9
507	4/20/2007 8:20:00	10.172	18.8
508	4/20/2007 8:30:00	10.172	18.8
509	4/20/2007 8:40:00	10.171	18.8
510	4/20/2007 8:50:00	10.17	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
511	4/20/2007 9:00:00	10.17	18.8
512	4/20/2007 9:10:00	10.17	18.8
513	4/20/2007 9:20:00	10.169	18.8
514	4/20/2007 9:30:00	10.17	18.8
515	4/20/2007 9:40:00	10.172	18.8
516	4/20/2007 9:50:00	10.17	18.8
517	4/20/2007 10:00:00	10.171	18.8
518	4/20/2007 10:10:00	10.172	18.9
519	4/20/2007 10:20:00	10.172	18.8
520	4/20/2007 10:30:00	10.171	18.8
521	4/20/2007 10:40:00	10.17	18.8
522	4/20/2007 10:50:00	10.172	18.8
523	4/20/2007 11:00:00	10.17	18.8
524	4/20/2007 11:10:00	10.171	18.8
525	4/20/2007 11:20:00	10.174	18.8
526	4/20/2007 11:30:00	10.17	18.8
527	4/20/2007 11:40:00	10.172	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
528	4/20/2007 11:50:00	10.171	18.8
529	4/20/2007 12:00:00	10.17	18.8
530	4/20/2007 12:10:00	10.17	18.8
531	4/20/2007 12:20:00	10.174	18.8
532	4/20/2007 12:30:00	10.174	18.8
533	4/20/2007 12:40:00	10.172	18.8
534	4/20/2007 12:50:00	10.174	18.8
535	4/20/2007 13:00:00	10.172	18.8
536	4/20/2007 13:10:00	10.171	18.8
537	4/20/2007 13:20:00	10.169	18.8
538	4/20/2007 13:30:00	10.171	18.8
539	4/20/2007 13:40:00	10.17	18.8
540	4/20/2007 13:50:00	10.168	18.8
541	4/20/2007 14:00:00	10.169	18.8
542	4/20/2007 14:10:00	10.168	18.8
543	4/20/2007 14:20:00	10.167	18.8
544	4/20/2007 14:30:00	10.168	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
545	4/20/2007 14:40:00	10.17	18.8
546	4/20/2007 14:50:00	10.168	18.8
547	4/20/2007 15:00:00	10.169	18.8
548	4/20/2007 15:10:00	10.169	18.8
549	4/20/2007 15:20:00	10.17	18.8
550	4/20/2007 15:30:00	10.17	18.8
551	4/20/2007 15:40:00	10.172	18.8
552	4/20/2007 15:50:00	10.171	18.8
553	4/20/2007 16:00:00	10.17	18.8
554	4/20/2007 16:10:00	10.169	18.9
555	4/20/2007 16:20:00	10.168	18.8
556	4/20/2007 16:30:00	10.168	18.8
557	4/20/2007 16:40:00	10.169	18.8
558	4/20/2007 16:50:00	10.169	18.8
559	4/20/2007 17:00:00	10.169	18.8
560	4/20/2007 17:10:00	10.169	18.8
561	4/20/2007 17:20:00	10.169	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	831.578125	1.00E-06	-7.40E-05	1.007410049	-14491164	1.10E-05	4.20E-04	-1.13E-02
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2409000
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	P181-MW47
# Records	567

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.099	18.8
Maximum	10.174	18.9
Mean	10.128	18.8
Variance	0.0006	0.01
Std Deviation	0.0237	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
562	4/20/2007 17:30:00	10.167	18.8
563	4/20/2007 17:40:00	10.167	18.8
564	4/20/2007 17:50:00	10.165	18.8
565	4/20/2007 18:00:00	10.168	18.8
566	4/20/2007 18:10:00	10.164	18.8
567	4/20/2007 18:20:00	10.165	18.8

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/17/2007 19:50:00	10.124	17.9
2	4/17/2007 20:00:00	10.11	18.3
3	4/17/2007 20:10:00	10.097	18.3
4	4/17/2007 20:20:00	10.091	18.3
5	4/17/2007 20:30:00	10.089	18.3
6	4/17/2007 20:40:00	10.086	18.3
7	4/17/2007 20:50:00	10.085	18.3
8	4/17/2007 21:00:00	10.083	18.3
9	4/17/2007 21:10:00	10.083	18.3
10	4/17/2007 21:20:00	10.08	18.3
11	4/17/2007 21:30:00	10.08	18.3
12	4/17/2007 21:40:00	10.079	18.3
13	4/17/2007 21:50:00	10.08	18.3
14	4/17/2007 22:00:00	10.082	18.3
15	4/17/2007 22:10:00	10.08	18.3
16	4/17/2007 22:20:00	10.08	18.3
17	4/17/2007 22:30:00	10.083	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
18	4/17/2007 22:40:00	10.084	18.3
19	4/17/2007 22:50:00	10.087	18.3
20	4/17/2007 23:00:00	10.089	18.3
21	4/17/2007 23:10:00	10.09	18.3
22	4/17/2007 23:20:00	10.093	18.3
23	4/17/2007 23:30:00	10.093	18.3
24	4/17/2007 23:40:00	10.096	18.3
25	4/17/2007 23:50:00	10.098	18.3
26	4/18/2007 0:00:00	10.099	18.3
27	4/18/2007 0:10:00	10.102	18.3
28	4/18/2007 0:20:00	10.104	18.3
29	4/18/2007 0:30:00	10.109	18.3
30	4/18/2007 0:40:00	10.109	18.3
31	4/18/2007 0:50:00	10.112	18.3
32	4/18/2007 1:00:00	10.113	18.3
33	4/18/2007 1:10:00	10.114	18.3
34	4/18/2007 1:20:00	10.117	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
35	4/18/2007 1:30:00	10.12	18.3
36	4/18/2007 1:40:00	10.123	18.3
37	4/18/2007 1:50:00	10.125	18.3
38	4/18/2007 2:00:00	10.129	18.3
39	4/18/2007 2:10:00	10.133	18.3
40	4/18/2007 2:20:00	10.138	18.3
41	4/18/2007 2:30:00	10.14	18.3
42	4/18/2007 2:40:00	10.144	18.3
43	4/18/2007 2:50:00	10.146	18.3
44	4/18/2007 3:00:00	10.149	18.3
45	4/18/2007 3:10:00	10.15	18.3
46	4/18/2007 3:20:00	10.151	18.3
47	4/18/2007 3:30:00	10.152	18.3
48	4/18/2007 3:40:00	10.156	18.3
49	4/18/2007 3:50:00	10.154	18.3
50	4/18/2007 4:00:00	10.153	18.3
51	4/18/2007 4:10:00	10.153	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
52	4/18/2007 4:20:00	10.151	18.3
53	4/18/2007 4:30:00	10.15	18.3
54	4/18/2007 4:40:00	10.147	18.3
55	4/18/2007 4:50:00	10.149	18.3
56	4/18/2007 5:00:00	10.145	18.3
57	4/18/2007 5:10:00	10.143	18.3
58	4/18/2007 5:20:00	10.141	18.3
59	4/18/2007 5:30:00	10.139	18.3
60	4/18/2007 5:40:00	10.138	18.3
61	4/18/2007 5:50:00	10.137	18.3
62	4/18/2007 6:00:00	10.134	18.3
63	4/18/2007 6:10:00	10.133	18.3
64	4/18/2007 6:20:00	10.132	18.3
65	4/18/2007 6:30:00	10.13	18.3
66	4/18/2007 6:40:00	10.126	18.3
67	4/18/2007 6:50:00	10.126	18.3
68	4/18/2007 7:00:00	10.124	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
69	4/18/2007 7:10:00	10.121	18.3
70	4/18/2007 7:20:00	10.121	18.3
71	4/18/2007 7:30:00	10.119	18.3
72	4/18/2007 7:40:00	10.118	18.3
73	4/18/2007 7:50:00	10.116	18.3
74	4/18/2007 8:00:00	10.114	18.3
75	4/18/2007 8:10:00	10.112	18.3
76	4/18/2007 8:20:00	10.109	18.3
77	4/18/2007 8:30:00	10.107	18.3
78	4/18/2007 8:40:00	10.105	18.3
79	4/18/2007 8:50:00	10.104	18.3
80	4/18/2007 9:00:00	10.102	18.3
81	4/18/2007 9:10:00	10.102	18.3
82	4/18/2007 9:20:00	10.099	18.3
83	4/18/2007 9:30:00	10.098	18.3
84	4/18/2007 9:40:00	10.097	18.3
85	4/18/2007 9:50:00	10.094	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
86	4/18/2007 10:00:00	10.093	18.3
87	4/18/2007 10:10:00	10.094	18.3
88	4/18/2007 10:20:00	10.094	18.3
89	4/18/2007 10:30:00	10.094	18.3
90	4/18/2007 10:40:00	10.094	18.3
91	4/18/2007 10:50:00	10.094	18.3
92	4/18/2007 11:00:00	10.093	18.3
93	4/18/2007 11:10:00	10.094	18.3
94	4/18/2007 11:20:00	10.094	18.3
95	4/18/2007 11:30:00	10.092	18.3
96	4/18/2007 11:40:00	10.093	18.3
97	4/18/2007 11:50:00	10.093	18.3
98	4/18/2007 12:00:00	10.093	18.3
99	4/18/2007 12:10:00	10.096	18.3
100	4/18/2007 12:20:00	10.097	18.3
101	4/18/2007 12:30:00	10.097	18.3
102	4/18/2007 12:40:00	10.098	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
103	4/18/2007 12:50:00	10.1	18.3
104	4/18/2007 13:00:00	10.102	18.3
105	4/18/2007 13:10:00	10.103	18.3
106	4/18/2007 13:20:00	10.104	18.3
107	4/18/2007 13:30:00	10.107	18.3
108	4/18/2007 13:40:00	10.11	18.3
109	4/18/2007 13:50:00	10.112	18.3
110	4/18/2007 14:00:00	10.114	18.3
111	4/18/2007 14:10:00	10.116	18.3
112	4/18/2007 14:20:00	10.117	18.3
113	4/18/2007 14:30:00	10.119	18.3
114	4/18/2007 14:40:00	10.121	18.3
115	4/18/2007 14:50:00	10.124	18.3
116	4/18/2007 15:00:00	10.126	18.3
117	4/18/2007 15:10:00	10.127	18.3
118	4/18/2007 15:20:00	10.13	18.3
119	4/18/2007 15:30:00	10.13	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
120	4/18/2007 15:40:00	10.132	18.3
121	4/18/2007 15:50:00	10.133	18.3
122	4/18/2007 16:00:00	10.134	18.3
123	4/18/2007 16:10:00	10.134	18.3
124	4/18/2007 16:20:00	10.136	18.3
125	4/18/2007 16:30:00	10.134	18.3
126	4/18/2007 16:40:00	10.137	18.3
127	4/18/2007 16:50:00	10.136	18.3
128	4/18/2007 17:00:00	10.136	18.3
129	4/18/2007 17:10:00	10.136	18.3
130	4/18/2007 17:20:00	10.136	18.3
131	4/18/2007 17:30:00	10.136	18.3
132	4/18/2007 17:40:00	10.136	18.3
133	4/18/2007 17:50:00	10.137	18.3
134	4/18/2007 18:00:00	10.136	18.3
135	4/18/2007 18:10:00	10.133	18.3
136	4/18/2007 18:20:00	10.132	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
137	4/18/2007 18:30:00	10.13	18.3
138	4/18/2007 18:40:00	10.13	18.3
139	4/18/2007 18:50:00	10.129	18.3
140	4/18/2007 19:00:00	10.127	18.3
141	4/18/2007 19:10:00	10.125	18.3
142	4/18/2007 19:20:00	10.125	18.3
143	4/18/2007 19:30:00	10.121	18.3
144	4/18/2007 19:40:00	10.12	18.3
145	4/18/2007 19:50:00	10.12	18.3
146	4/18/2007 20:00:00	10.12	18.3
147	4/18/2007 20:10:00	10.118	18.3
148	4/18/2007 20:20:00	10.118	18.3
149	4/18/2007 20:30:00	10.12	18.3
150	4/18/2007 20:40:00	10.121	18.3
151	4/18/2007 20:50:00	10.119	18.3
152	4/18/2007 21:00:00	10.121	18.3
153	4/18/2007 21:10:00	10.121	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
154	4/18/2007 21:20:00	10.12	18.3
155	4/18/2007 21:30:00	10.119	18.3
156	4/18/2007 21:40:00	10.119	18.3
157	4/18/2007 21:50:00	10.12	18.3
158	4/18/2007 22:00:00	10.118	18.3
159	4/18/2007 22:10:00	10.119	18.3
160	4/18/2007 22:20:00	10.12	18.3
161	4/18/2007 22:30:00	10.12	18.3
162	4/18/2007 22:40:00	10.12	18.3
163	4/18/2007 22:50:00	10.119	18.3
164	4/18/2007 23:00:00	10.121	18.3
165	4/18/2007 23:10:00	10.123	18.3
166	4/18/2007 23:20:00	10.125	18.3
167	4/18/2007 23:30:00	10.126	18.3
168	4/18/2007 23:40:00	10.129	18.3
169	4/18/2007 23:50:00	10.13	18.3
170	4/19/2007 0:00:00	10.132	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
171	4/19/2007 0:10:00	10.134	18.3
172	4/19/2007 0:20:00	10.138	18.3
173	4/19/2007 0:30:00	10.14	18.3
174	4/19/2007 0:40:00	10.144	18.3
175	4/19/2007 0:50:00	10.146	18.3
176	4/19/2007 1:00:00	10.15	18.3
177	4/19/2007 1:10:00	10.152	18.3
178	4/19/2007 1:20:00	10.157	18.3
179	4/19/2007 1:30:00	10.16	18.3
180	4/19/2007 1:40:00	10.163	18.3
181	4/19/2007 1:50:00	10.167	18.3
182	4/19/2007 2:00:00	10.172	18.3
183	4/19/2007 2:10:00	10.177	18.3
184	4/19/2007 2:20:00	10.18	18.3
185	4/19/2007 2:30:00	10.184	18.3
186	4/19/2007 2:40:00	10.187	18.3
187	4/19/2007 2:50:00	10.19	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
188	4/19/2007 3:00:00	10.193	18.3
189	4/19/2007 3:10:00	10.193	18.3
190	4/19/2007 3:20:00	10.194	18.3
191	4/19/2007 3:30:00	10.198	18.3
192	4/19/2007 3:40:00	10.199	18.3
193	4/19/2007 3:50:00	10.2	18.3
194	4/19/2007 4:00:00	10.201	18.3
195	4/19/2007 4:10:00	10.199	18.3
196	4/19/2007 4:20:00	10.2	18.3
197	4/19/2007 4:30:00	10.199	18.3
198	4/19/2007 4:40:00	10.2	18.3
199	4/19/2007 4:50:00	10.198	18.3
200	4/19/2007 5:00:00	10.197	18.3
201	4/19/2007 5:10:00	10.198	18.3
202	4/19/2007 5:20:00	10.197	18.3
203	4/19/2007 5:30:00	10.195	18.3
204	4/19/2007 5:40:00	10.195	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
205	4/19/2007 5:50:00	10.193	18.3
206	4/19/2007 6:00:00	10.192	18.3
207	4/19/2007 6:10:00	10.19	18.3
208	4/19/2007 6:20:00	10.187	18.3
209	4/19/2007 6:30:00	10.185	18.3
210	4/19/2007 6:40:00	10.183	18.3
211	4/19/2007 6:50:00	10.181	18.3
212	4/19/2007 7:00:00	10.18	18.3
213	4/19/2007 7:10:00	10.179	18.3
214	4/19/2007 7:20:00	10.179	18.3
215	4/19/2007 7:30:00	10.176	18.3
216	4/19/2007 7:40:00	10.174	18.3
217	4/19/2007 7:50:00	10.173	18.3
218	4/19/2007 8:00:00	10.172	18.3
219	4/19/2007 8:10:00	10.171	18.3
220	4/19/2007 8:20:00	10.168	18.3
221	4/19/2007 8:30:00	10.167	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
222	4/19/2007 8:40:00	10.167	18.3
223	4/19/2007 8:50:00	10.166	18.3
224	4/19/2007 9:00:00	10.166	18.3
225	4/19/2007 9:10:00	10.167	18.3
226	4/19/2007 9:20:00	10.166	18.3
227	4/19/2007 9:30:00	10.166	18.3
228	4/19/2007 9:40:00	10.165	18.3
229	4/19/2007 9:50:00	10.163	18.3
230	4/19/2007 10:00:00	10.164	18.3
231	4/19/2007 10:10:00	10.163	18.3
232	4/19/2007 10:20:00	10.165	18.3
233	4/19/2007 10:30:00	10.163	18.3
234	4/19/2007 10:40:00	10.163	18.3
235	4/19/2007 10:50:00	10.161	18.3
236	4/19/2007 11:00:00	10.161	18.3
237	4/19/2007 11:10:00	10.161	18.3
238	4/19/2007 11:20:00	10.16	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
239	4/19/2007 11:30:00	10.159	18.3
240	4/19/2007 11:40:00	10.158	18.3
241	4/19/2007 11:50:00	10.157	18.3
242	4/19/2007 12:00:00	10.158	18.3
243	4/19/2007 12:10:00	10.157	18.3
244	4/19/2007 12:20:00	10.158	18.3
245	4/19/2007 12:30:00	10.159	18.3
246	4/19/2007 12:40:00	10.16	18.3
247	4/19/2007 12:50:00	10.161	18.3
248	4/19/2007 13:00:00	10.163	18.3
249	4/19/2007 13:10:00	10.163	18.3
250	4/19/2007 13:20:00	10.165	18.3
251	4/19/2007 13:30:00	10.165	18.3
252	4/19/2007 13:40:00	10.164	18.3
253	4/19/2007 13:50:00	10.166	18.3
254	4/19/2007 14:00:00	10.167	18.3
255	4/19/2007 14:10:00	10.17	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
256	4/19/2007 14:20:00	10.171	18.3
257	4/19/2007 14:30:00	10.173	18.3
258	4/19/2007 14:40:00	10.176	18.3
259	4/19/2007 14:50:00	10.179	18.3
260	4/19/2007 15:00:00	10.18	18.3
261	4/19/2007 15:10:00	10.184	18.3
262	4/19/2007 15:20:00	10.188	18.3
263	4/19/2007 15:30:00	10.192	18.3
264	4/19/2007 15:40:00	10.197	18.3
265	4/19/2007 15:50:00	10.198	18.3
266	4/19/2007 16:00:00	10.201	18.3
267	4/19/2007 16:10:00	10.204	18.3
268	4/19/2007 16:20:00	10.205	18.3
269	4/19/2007 16:30:00	10.206	18.3
270	4/19/2007 16:40:00	10.208	18.3
271	4/19/2007 16:50:00	10.21	18.3
272	4/19/2007 17:00:00	10.212	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
273	4/19/2007 17:10:00	10.214	18.3
274	4/19/2007 17:20:00	10.214	18.3
275	4/19/2007 17:30:00	10.215	18.3
276	4/19/2007 17:40:00	10.215	18.3
277	4/19/2007 17:50:00	10.215	18.3
278	4/19/2007 18:00:00	10.215	18.3
279	4/19/2007 18:10:00	10.217	18.3
280	4/19/2007 18:20:00	10.218	18.3
281	4/19/2007 18:30:00	10.218	18.3
282	4/19/2007 18:40:00	10.219	18.3
283	4/19/2007 18:50:00	10.22	18.3
284	4/19/2007 19:00:00	10.22	18.3
285	4/19/2007 19:10:00	10.221	18.3
286	4/19/2007 19:20:00	10.221	18.3
287	4/19/2007 19:30:00	10.221	18.3
288	4/19/2007 19:40:00	10.221	18.3
289	4/19/2007 19:50:00	10.219	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
290	4/19/2007 20:00:00	10.219	18.3
291	4/19/2007 20:10:00	10.217	18.3
292	4/19/2007 20:20:00	10.217	18.3
293	4/19/2007 20:30:00	10.213	18.3
294	4/19/2007 20:40:00	10.213	18.3
295	4/19/2007 20:50:00	10.211	18.3
296	4/19/2007 21:00:00	10.206	18.3
297	4/19/2007 21:10:00	10.201	18.3
298	4/19/2007 21:20:00	10.199	18.3
299	4/19/2007 21:30:00	10.194	18.3
300	4/19/2007 21:40:00	10.188	18.3
301	4/19/2007 21:50:00	10.191	18.3
302	4/19/2007 22:00:00	10.192	18.3
303	4/19/2007 22:10:00	10.192	18.3
304	4/19/2007 22:20:00	10.194	18.3
305	4/19/2007 22:30:00	10.193	18.3
306	4/19/2007 22:40:00	10.195	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
307	4/19/2007 22:50:00	10.195	18.3
308	4/19/2007 23:00:00	10.203	18.3
309	4/19/2007 23:10:00	10.198	18.3
310	4/19/2007 23:20:00	10.2	18.3
311	4/19/2007 23:30:00	10.201	18.3
312	4/19/2007 23:40:00	10.201	18.3
313	4/19/2007 23:50:00	10.204	18.3
314	4/20/2007 0:00:00	10.207	18.3
315	4/20/2007 0:10:00	10.205	18.3
316	4/20/2007 0:20:00	10.206	18.3
317	4/20/2007 0:30:00	10.205	18.3
318	4/20/2007 0:40:00	10.206	18.3
319	4/20/2007 0:50:00	10.21	18.3
320	4/20/2007 1:00:00	10.215	18.3
321	4/20/2007 1:10:00	10.219	18.3
322	4/20/2007 1:20:00	10.224	18.3
323	4/20/2007 1:30:00	10.228	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
324	4/20/2007 1:40:00	10.238	18.3
325	4/20/2007 1:50:00	10.244	18.3
326	4/20/2007 2:00:00	10.255	18.3
327	4/20/2007 2:10:00	10.257	18.3
328	4/20/2007 2:20:00	10.26	18.3
329	4/20/2007 2:30:00	10.264	18.3
330	4/20/2007 2:40:00	10.265	18.3
331	4/20/2007 2:50:00	10.272	18.3
332	4/20/2007 3:00:00	10.274	18.3
333	4/20/2007 3:10:00	10.278	18.3
334	4/20/2007 3:20:00	10.281	18.3
335	4/20/2007 3:30:00	10.286	18.3
336	4/20/2007 3:40:00	10.292	18.3
337	4/20/2007 3:50:00	10.293	18.3
338	4/20/2007 4:00:00	10.307	18.3
339	4/20/2007 4:10:00	10.307	18.3
340	4/20/2007 4:20:00	10.3	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
341	4/20/2007 4:30:00	10.302	18.3
342	4/20/2007 4:40:00	10.308	18.3
343	4/20/2007 4:50:00	10.309	18.3
344	4/20/2007 5:00:00	10.318	18.3
345	4/20/2007 5:10:00	10.316	18.3
346	4/20/2007 5:20:00	10.315	18.3
347	4/20/2007 5:30:00	10.316	18.3
348	4/20/2007 5:40:00	10.324	18.3
349	4/20/2007 5:50:00	10.331	18.3
350	4/20/2007 6:00:00	10.334	18.3
351	4/20/2007 6:10:00	10.336	18.3
352	4/20/2007 6:20:00	10.335	18.3
353	4/20/2007 6:30:00	10.333	18.3
354	4/20/2007 6:40:00	10.333	18.3
355	4/20/2007 6:50:00	10.332	18.3
356	4/20/2007 7:00:00	10.331	18.3
357	4/20/2007 7:10:00	10.329	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
358	4/20/2007 7:20:00	10.329	18.3
359	4/20/2007 7:30:00	10.328	18.3
360	4/20/2007 7:40:00	10.326	18.3
361	4/20/2007 7:50:00	10.326	18.3
362	4/20/2007 8:00:00	10.325	18.3
363	4/20/2007 8:10:00	10.324	18.3
364	4/20/2007 8:20:00	10.321	18.3
365	4/20/2007 8:30:00	10.321	18.3
366	4/20/2007 8:40:00	10.321	18.3
367	4/20/2007 8:50:00	10.321	18.3
368	4/20/2007 9:00:00	10.327	18.3
369	4/20/2007 9:10:00	10.324	18.3
370	4/20/2007 9:20:00	10.322	18.3
371	4/20/2007 9:30:00	10.32	18.3
372	4/20/2007 9:40:00	10.318	18.3
373	4/20/2007 9:50:00	10.318	18.3
374	4/20/2007 10:00:00	10.316	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
375	4/20/2007 10:10:00	10.315	18.3
376	4/20/2007 10:20:00	10.316	18.3
377	4/20/2007 10:30:00	10.316	18.3
378	4/20/2007 10:40:00	10.315	18.3
379	4/20/2007 10:50:00	10.314	18.3
380	4/20/2007 11:00:00	10.315	18.3
381	4/20/2007 11:10:00	10.315	18.3
382	4/20/2007 11:20:00	10.314	18.3
383	4/20/2007 11:30:00	10.315	18.3
384	4/20/2007 11:40:00	10.315	18.3
385	4/20/2007 11:50:00	10.314	18.3
386	4/20/2007 12:00:00	10.315	18.3
387	4/20/2007 12:10:00	10.315	18.3
388	4/20/2007 12:20:00	10.315	18.3
389	4/20/2007 12:30:00	10.314	18.3
390	4/20/2007 12:40:00	10.314	18.3
391	4/20/2007 12:50:00	10.314	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
392	4/20/2007 13:00:00	10.316	18.3
393	4/20/2007 13:10:00	10.316	18.3
394	4/20/2007 13:20:00	10.315	18.3
395	4/20/2007 13:30:00	10.314	18.3
396	4/20/2007 13:40:00	10.313	18.3
397	4/20/2007 13:50:00	10.312	18.3
398	4/20/2007 14:00:00	10.312	18.3
399	4/20/2007 14:10:00	10.312	18.3
400	4/20/2007 14:20:00	10.319	18.3
401	4/20/2007 14:30:00	10.32	18.3
402	4/20/2007 14:40:00	10.319	18.3
403	4/20/2007 14:50:00	10.318	18.3
404	4/20/2007 15:00:00	10.316	18.3
405	4/20/2007 15:10:00	10.318	18.3
406	4/20/2007 15:20:00	10.319	18.3
407	4/20/2007 15:30:00	10.32	18.3
408	4/20/2007 15:40:00	10.321	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
409	4/20/2007 15:50:00	10.325	18.3
410	4/20/2007 16:00:00	10.326	18.3
411	4/20/2007 16:10:00	10.328	18.3
412	4/20/2007 16:20:00	10.328	18.3
413	4/20/2007 16:30:00	10.329	18.3
414	4/20/2007 16:40:00	10.331	18.3
415	4/20/2007 16:50:00	10.332	18.3
416	4/20/2007 17:00:00	10.333	18.3
417	4/20/2007 17:10:00	10.334	18.3
418	4/20/2007 17:20:00	10.334	18.3
419	4/20/2007 17:30:00	10.334	18.3
420	4/20/2007 17:40:00	10.332	18.3
421	4/20/2007 17:50:00	10.332	18.3
422	4/20/2007 18:00:00	10.333	18.3
423	4/20/2007 18:10:00	10.332	18.3
424	4/20/2007 18:20:00	10.331	18.3
425	4/20/2007 18:30:00	10.331	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-6.40E-07	-3.39E-05	1.009901047	-9927196	1.35E-05	-9.99E-05	-0.176037908
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2327010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	PW-12
# Records	431

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.079	17.9
Maximum	10.336	18.3
Mean	10.191	18.2
Variance	0.0064	0.01
Std Deviation	0.0803	0.1

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
426	4/20/2007 18:40:00	10.329	18.3
427	4/20/2007 18:50:00	10.328	18.3
428	4/20/2007 19:00:00	10.327	18.3
429	4/20/2007 19:10:00	10.328	18.3
430	4/20/2007 19:20:00	10.327	18.3
431	4/20/2007 19:30:00	10.326	18.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/17/2007 17:00:00	10.198	18
2	4/17/2007 17:10:00	10.3	18
3	4/17/2007 17:20:00	10.404	18
4	4/17/2007 17:30:00	10.485	18
5	4/17/2007 17:40:00	10.561	18
6	4/17/2007 17:50:00	10.631	18.1
7	4/17/2007 18:00:00	10.695	18
8	4/17/2007 18:10:00	10.749	18.1
9	4/17/2007 18:20:00	10.802	18
10	4/17/2007 18:30:00	10.85	18
11	4/17/2007 18:40:00	10.894	18
12	4/17/2007 18:50:00	10.928	18
13	4/17/2007 19:00:00	10.964	18
14	4/17/2007 19:10:00	10.999	18
15	4/17/2007 19:20:00	11.034	18
16	4/17/2007 19:30:00	11.059	18
17	4/17/2007 19:40:00	11.089	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
18	4/17/2007 19:50:00	11.107	18
19	4/17/2007 20:00:00	11.13	18
20	4/17/2007 20:10:00	11.157	18.1
21	4/17/2007 20:20:00	11.178	18.1
22	4/17/2007 20:30:00	11.198	18.1
23	4/17/2007 20:40:00	11.215	18
24	4/17/2007 20:50:00	11.236	18.1
25	4/17/2007 21:00:00	11.247	18.1
26	4/17/2007 21:10:00	11.264	18.1
27	4/17/2007 21:20:00	11.275	18.1
28	4/17/2007 21:30:00	11.286	18
29	4/17/2007 21:40:00	11.301	18.1
30	4/17/2007 21:50:00	11.309	18.1
31	4/17/2007 22:00:00	11.316	18.1
32	4/17/2007 22:10:00	11.328	18.1
33	4/17/2007 22:20:00	11.334	18.1
34	4/17/2007 22:30:00	11.351	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
35	4/17/2007 22:40:00	11.359	18.1
36	4/17/2007 22:50:00	11.368	18.1
37	4/17/2007 23:00:00	11.372	18.1
38	4/17/2007 23:10:00	11.381	18.1
39	4/17/2007 23:20:00	11.392	18.1
40	4/17/2007 23:30:00	11.394	18.1
41	4/17/2007 23:40:00	11.406	18.1
42	4/17/2007 23:50:00	11.411	18.1
43	4/18/2007 0:00:00	11.418	18.1
44	4/18/2007 0:10:00	11.424	18.1
45	4/18/2007 0:20:00	11.429	18.1
46	4/18/2007 0:30:00	11.432	18.1
47	4/18/2007 0:40:00	11.437	18.1
48	4/18/2007 0:50:00	11.442	18.1
49	4/18/2007 1:00:00	11.445	18.1
50	4/18/2007 1:10:00	11.449	18.1
51	4/18/2007 1:20:00	11.452	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
52	4/18/2007 1:30:00	11.459	18.1
53	4/18/2007 1:40:00	11.465	18.1
54	4/18/2007 1:50:00	11.469	18.1
55	4/18/2007 2:00:00	11.475	18.1
56	4/18/2007 2:10:00	11.48	18.1
57	4/18/2007 2:20:00	11.491	18.1
58	4/18/2007 2:30:00	11.493	18.1
59	4/18/2007 2:40:00	11.496	18.1
60	4/18/2007 2:50:00	11.503	18.1
61	4/18/2007 3:00:00	11.506	18.1
62	4/18/2007 3:10:00	11.506	18.1
63	4/18/2007 3:20:00	11.51	18.1
64	4/18/2007 3:30:00	11.518	18.1
65	4/18/2007 3:40:00	11.527	18.1
66	4/18/2007 3:50:00	11.527	18.1
67	4/18/2007 4:00:00	11.528	18.1
68	4/18/2007 4:10:00	11.535	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
69	4/18/2007 4:20:00	11.536	18.1
70	4/18/2007 4:30:00	11.536	18.1
71	4/18/2007 4:40:00	11.538	18.1
72	4/18/2007 4:50:00	11.541	18.1
73	4/18/2007 5:00:00	11.537	18.1
74	4/18/2007 5:10:00	11.539	18
75	4/18/2007 5:20:00	11.541	18
76	4/18/2007 5:30:00	11.545	18.1
77	4/18/2007 5:40:00	11.548	18.1
78	4/18/2007 5:50:00	11.55	18.1
79	4/18/2007 6:00:00	11.553	18.1
80	4/18/2007 6:10:00	11.555	18.1
81	4/18/2007 6:20:00	11.556	18.1
82	4/18/2007 6:30:00	11.56	18.1
83	4/18/2007 6:40:00	11.557	18.1
84	4/18/2007 6:50:00	11.557	18
85	4/18/2007 7:00:00	11.56	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
86	4/18/2007 7:10:00	11.561	18.1
87	4/18/2007 7:20:00	11.562	18.1
88	4/18/2007 7:30:00	11.563	18.1
89	4/18/2007 7:40:00	11.566	18.1
90	4/18/2007 7:50:00	11.561	18.1
91	4/18/2007 8:00:00	11.566	18
92	4/18/2007 8:10:00	11.564	18.1
93	4/18/2007 8:20:00	11.563	18.1
94	4/18/2007 8:30:00	11.561	18.1
95	4/18/2007 8:40:00	11.566	18.1
96	4/18/2007 8:50:00	11.564	18.1
97	4/18/2007 9:00:00	11.563	18.1
98	4/18/2007 9:10:00	11.562	18.1
99	4/18/2007 9:20:00	11.569	18.1
100	4/18/2007 9:30:00	11.564	18.1
101	4/18/2007 9:40:00	11.566	18.1
102	4/18/2007 9:50:00	11.564	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
103	4/18/2007 10:00:00	11.566	18.1
104	4/18/2007 10:10:00	11.567	18.1
105	4/18/2007 10:20:00	11.569	18.1
106	4/18/2007 10:30:00	11.573	18.1
107	4/18/2007 10:40:00	11.573	18.1
108	4/18/2007 10:50:00	11.576	18.1
109	4/18/2007 11:00:00	11.57	18.1
110	4/18/2007 11:10:00	11.571	18.1
111	4/18/2007 11:20:00	11.574	18.1
112	4/18/2007 11:30:00	11.574	18.1
113	4/18/2007 11:40:00	11.58	18.1
114	4/18/2007 11:50:00	11.584	18.1
115	4/18/2007 12:00:00	11.582	18.1
116	4/18/2007 12:10:00	11.586	18.1
117	4/18/2007 12:20:00	11.584	18.1
118	4/18/2007 12:30:00	11.588	18.1
119	4/18/2007 12:40:00	11.593	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
120	4/18/2007 12:50:00	11.592	18.1
121	4/18/2007 13:00:00	11.588	18.1
122	4/18/2007 13:10:00	11.594	18.1
123	4/18/2007 13:20:00	11.595	18.1
124	4/18/2007 13:30:00	11.596	18.1
125	4/18/2007 13:40:00	11.599	18.1
126	4/18/2007 13:50:00	11.6	18.1
127	4/18/2007 14:00:00	11.605	18.1
128	4/18/2007 14:10:00	11.605	18.1
129	4/18/2007 14:20:00	11.608	18.1
130	4/18/2007 14:30:00	11.615	18.1
131	4/18/2007 14:40:00	11.613	18.1
132	4/18/2007 14:50:00	11.618	18.1
133	4/18/2007 15:00:00	11.62	18.1
134	4/18/2007 15:10:00	11.62	18.1
135	4/18/2007 15:20:00	11.619	18.1
136	4/18/2007 15:30:00	11.62	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
137	4/18/2007 15:40:00	11.623	18.1
138	4/18/2007 15:50:00	11.62	18.1
139	4/18/2007 16:00:00	11.618	18.1
140	4/18/2007 16:10:00	11.621	18.1
141	4/18/2007 16:20:00	11.628	18.1
142	4/18/2007 16:30:00	11.628	18.1
143	4/18/2007 16:40:00	11.628	18.1
144	4/18/2007 16:50:00	11.633	18.1
145	4/18/2007 17:00:00	11.627	18.1
146	4/18/2007 17:10:00	11.632	18.1
147	4/18/2007 17:20:00	11.635	18.1
148	4/18/2007 17:30:00	11.636	18.1
149	4/18/2007 17:40:00	11.635	18.1
150	4/18/2007 17:50:00	11.636	18.1
151	4/18/2007 18:00:00	11.634	18.1
152	4/18/2007 18:10:00	11.635	18.1
153	4/18/2007 18:20:00	11.636	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
154	4/18/2007 18:30:00	11.638	18.1
155	4/18/2007 18:40:00	11.64	18.1
156	4/18/2007 18:50:00	11.639	18.1
157	4/18/2007 19:00:00	11.641	18.1
158	4/18/2007 19:10:00	11.642	18.1
159	4/18/2007 19:20:00	11.641	18.1
160	4/18/2007 19:30:00	11.642	18.1
161	4/18/2007 19:40:00	11.647	18.1
162	4/18/2007 19:50:00	11.645	18.1
163	4/18/2007 20:00:00	11.645	18.1
164	4/18/2007 20:10:00	11.649	18.1
165	4/18/2007 20:20:00	11.648	18.1
166	4/18/2007 20:30:00	11.652	18.1
167	4/18/2007 20:40:00	11.654	18.1
168	4/18/2007 20:50:00	11.657	18.1
169	4/18/2007 21:00:00	11.66	18.1
170	4/18/2007 21:10:00	11.657	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
171	4/18/2007 21:20:00	11.662	18.1
172	4/18/2007 21:30:00	11.662	18.1
173	4/18/2007 21:40:00	11.661	18.1
174	4/18/2007 21:50:00	11.659	18.1
175	4/18/2007 22:00:00	11.659	18.1
176	4/18/2007 22:10:00	11.66	18.1
177	4/18/2007 22:20:00	11.661	18.1
178	4/18/2007 22:30:00	11.655	18.1
179	4/18/2007 22:40:00	11.661	18.1
180	4/18/2007 22:50:00	11.661	18.1
181	4/18/2007 23:00:00	11.668	18.1
182	4/18/2007 23:10:00	11.668	18.1
183	4/18/2007 23:20:00	11.668	18.1
184	4/18/2007 23:30:00	11.666	18.1
185	4/18/2007 23:40:00	11.671	18.1
186	4/18/2007 23:50:00	11.668	18.1
187	4/19/2007 0:00:00	11.665	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
188	4/19/2007 0:10:00	11.67	18.1
189	4/19/2007 0:20:00	11.671	18.1
190	4/19/2007 0:30:00	11.673	18.1
191	4/19/2007 0:40:00	11.677	18.1
192	4/19/2007 0:50:00	11.68	18.1
193	4/19/2007 1:00:00	11.679	18.1
194	4/19/2007 1:10:00	11.68	18.1
195	4/19/2007 1:20:00	11.685	18.1
196	4/19/2007 1:30:00	11.685	18.1
197	4/19/2007 1:40:00	11.685	18.1
198	4/19/2007 1:50:00	11.692	18.1
199	4/19/2007 2:00:00	11.692	18.1
200	4/19/2007 2:10:00	11.697	18.1
201	4/19/2007 2:20:00	11.701	18.1
202	4/19/2007 2:30:00	11.699	18.1
203	4/19/2007 2:40:00	11.701	18.1
204	4/19/2007 2:50:00	11.701	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
205	4/19/2007 3:00:00	11.701	18.1
206	4/19/2007 3:10:00	11.703	18.1
207	4/19/2007 3:20:00	11.704	18.1
208	4/19/2007 3:30:00	11.703	18.1
209	4/19/2007 3:40:00	11.705	18.1
210	4/19/2007 3:50:00	11.703	18.1
211	4/19/2007 4:00:00	11.701	18.1
212	4/19/2007 4:10:00	11.705	18.1
213	4/19/2007 4:20:00	11.701	18.1
214	4/19/2007 4:30:00	11.698	18.1
215	4/19/2007 4:40:00	11.7	18.1
216	4/19/2007 4:50:00	11.698	18.1
217	4/19/2007 5:00:00	11.699	18.1
218	4/19/2007 5:10:00	11.694	18.1
219	4/19/2007 5:20:00	11.7	18.1
220	4/19/2007 5:30:00	11.7	18.1
221	4/19/2007 5:40:00	11.699	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
222	4/19/2007 5:50:00	11.701	18.1
223	4/19/2007 6:00:00	11.704	18.1
224	4/19/2007 6:10:00	11.703	18.1
225	4/19/2007 6:20:00	11.703	18.1
226	4/19/2007 6:30:00	11.698	18.1
227	4/19/2007 6:40:00	11.697	18.1
228	4/19/2007 6:50:00	11.698	18.1
229	4/19/2007 7:00:00	11.699	18.1
230	4/19/2007 7:10:00	11.701	18.1
231	4/19/2007 7:20:00	11.701	18.1
232	4/19/2007 7:30:00	11.698	18.1
233	4/19/2007 7:40:00	11.7	18.1
234	4/19/2007 7:50:00	11.703	18.1
235	4/19/2007 8:00:00	11.706	18.1
236	4/19/2007 8:10:00	11.703	18
237	4/19/2007 8:20:00	11.701	18.1
238	4/19/2007 8:30:00	11.704	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
239	4/19/2007 8:40:00	11.705	18.1
240	4/19/2007 8:50:00	11.706	18.1
241	4/19/2007 9:00:00	11.706	18.1
242	4/19/2007 9:10:00	11.707	18.1
243	4/19/2007 9:20:00	11.709	18.1
244	4/19/2007 9:30:00	11.712	18.1
245	4/19/2007 9:40:00	11.71	18.1
246	4/19/2007 9:50:00	11.71	18.1
247	4/19/2007 10:00:00	11.714	18.1
248	4/19/2007 10:10:00	11.716	18.1
249	4/19/2007 10:20:00	11.714	18.1
250	4/19/2007 10:30:00	11.716	18.1
251	4/19/2007 10:40:00	11.712	18.1
252	4/19/2007 10:50:00	11.712	18.1
253	4/19/2007 11:00:00	11.713	18.1
254	4/19/2007 11:10:00	11.714	18.1
255	4/19/2007 11:20:00	11.713	18.1

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
256	4/19/2007 11:30:00	11.713	18.1
257	4/19/2007 11:40:00	11.716	18.1
258	4/19/2007 11:50:00	11.719	18.1
259	4/19/2007 12:00:00	11.714	18.1
260	4/19/2007 12:10:00	11.718	18.1
261	4/19/2007 12:20:00	11.72	18.1
262	4/19/2007 12:30:00	11.723	18.1
263	4/19/2007 12:40:00	11.729	18.1
264	4/19/2007 12:50:00	11.731	18.1
265	4/19/2007 13:00:00	11.731	18.1
266	4/19/2007 13:10:00	11.73	18.1
267	4/19/2007 13:20:00	11.734	18.1
268	4/19/2007 13:30:00	11.733	18
269	4/19/2007 13:40:00	11.737	18
270	4/19/2007 13:50:00	11.739	18
271	4/19/2007 14:00:00	11.739	18
272	4/19/2007 14:10:00	11.742	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
273	4/19/2007 14:20:00	11.741	18
274	4/19/2007 14:30:00	11.746	18
275	4/19/2007 14:40:00	11.747	18
276	4/19/2007 14:50:00	11.75	18
277	4/19/2007 15:00:00	11.755	18.1
278	4/19/2007 15:10:00	11.761	18
279	4/19/2007 15:20:00	11.764	18.1
280	4/19/2007 15:30:00	11.767	18
281	4/19/2007 15:40:00	11.769	18
282	4/19/2007 15:50:00	11.774	18
283	4/19/2007 16:00:00	11.774	18
284	4/19/2007 16:10:00	11.779	18
285	4/19/2007 16:20:00	11.781	18
286	4/19/2007 16:30:00	11.781	18
287	4/19/2007 16:40:00	11.786	18
288	4/19/2007 16:50:00	11.789	18
289	4/19/2007 17:00:00	11.791	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
290	4/19/2007 17:10:00	11.792	18.1
291	4/19/2007 17:20:00	11.793	18
292	4/19/2007 17:30:00	11.796	18.1
293	4/19/2007 17:40:00	11.797	18.1
294	4/19/2007 17:50:00	11.801	18.1
295	4/19/2007 18:00:00	11.798	18.1
296	4/19/2007 18:10:00	11.802	18.1
297	4/19/2007 18:20:00	11.805	18.1
298	4/19/2007 18:30:00	11.805	18.1
299	4/19/2007 18:40:00	11.81	18.1
300	4/19/2007 18:50:00	11.811	18
301	4/19/2007 19:00:00	11.811	18
302	4/19/2007 19:10:00	11.812	18
303	4/19/2007 19:20:00	11.815	18
304	4/19/2007 19:30:00	11.815	18
305	4/19/2007 19:40:00	11.813	18
306	4/19/2007 19:50:00	11.817	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
307	4/19/2007 20:00:00	11.814	18
308	4/19/2007 20:10:00	11.817	18
309	4/19/2007 20:20:00	11.812	18
310	4/19/2007 20:30:00	11.811	18
311	4/19/2007 20:40:00	11.817	18
312	4/19/2007 20:50:00	11.812	18
313	4/19/2007 21:00:00	11.811	18
314	4/19/2007 21:10:00	11.815	18
315	4/19/2007 21:20:00	11.817	18
316	4/19/2007 21:30:00	11.817	18
317	4/19/2007 21:40:00	11.813	18
318	4/19/2007 21:50:00	11.815	18
319	4/19/2007 22:00:00	11.814	18
320	4/19/2007 22:10:00	11.822	18
321	4/19/2007 22:20:00	11.821	18
322	4/19/2007 22:30:00	11.817	18
323	4/19/2007 22:40:00	11.82	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
324	4/19/2007 22:50:00	11.82	18
325	4/19/2007 23:00:00	11.826	18
326	4/19/2007 23:10:00	11.82	18
327	4/19/2007 23:20:00	11.827	18
328	4/19/2007 23:30:00	11.828	18
329	4/19/2007 23:40:00	11.828	18
330	4/19/2007 23:50:00	11.83	18
331	4/20/2007 0:00:00	11.825	18
332	4/20/2007 0:10:00	11.826	18
333	4/20/2007 0:20:00	11.827	18
334	4/20/2007 0:30:00	11.827	18
335	4/20/2007 0:40:00	11.83	18
336	4/20/2007 0:50:00	11.826	18
337	4/20/2007 1:00:00	11.831	18
338	4/20/2007 1:10:00	11.832	18
339	4/20/2007 1:20:00	11.834	18
340	4/20/2007 1:30:00	11.837	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
341	4/20/2007 1:40:00	11.838	18
342	4/20/2007 1:50:00	11.84	18
343	4/20/2007 2:00:00	11.84	18
344	4/20/2007 2:10:00	11.845	18
345	4/20/2007 2:20:00	11.843	18
346	4/20/2007 2:30:00	11.843	18
347	4/20/2007 2:40:00	11.844	18
348	4/20/2007 2:50:00	11.845	18
349	4/20/2007 3:00:00	11.843	18
350	4/20/2007 3:10:00	11.841	18
351	4/20/2007 3:20:00	11.843	18
352	4/20/2007 3:30:00	11.839	18
353	4/20/2007 3:40:00	11.843	18
354	4/20/2007 3:50:00	11.839	18
355	4/20/2007 4:00:00	11.844	18
356	4/20/2007 4:10:00	11.84	18
357	4/20/2007 4:20:00	11.841	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
358	4/20/2007 4:30:00	11.843	18
359	4/20/2007 4:40:00	11.841	18
360	4/20/2007 4:50:00	11.844	18
361	4/20/2007 5:00:00	11.841	18
362	4/20/2007 5:10:00	11.851	18
363	4/20/2007 5:20:00	11.852	18
364	4/20/2007 5:30:00	11.853	18
365	4/20/2007 5:40:00	11.85	18
366	4/20/2007 5:50:00	11.846	18
367	4/20/2007 6:00:00	11.844	18
368	4/20/2007 6:10:00	11.844	18
369	4/20/2007 6:20:00	11.843	18
370	4/20/2007 6:30:00	11.843	18
371	4/20/2007 6:40:00	11.838	18
372	4/20/2007 6:50:00	11.837	18
373	4/20/2007 7:00:00	11.837	18
374	4/20/2007 7:10:00	11.83	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
375	4/20/2007 7:20:00	11.832	18
376	4/20/2007 7:30:00	11.833	18
377	4/20/2007 7:40:00	11.831	18
378	4/20/2007 7:50:00	11.827	18
379	4/20/2007 8:00:00	11.822	18
380	4/20/2007 8:10:00	11.82	18
381	4/20/2007 8:20:00	11.821	18
382	4/20/2007 8:30:00	11.818	18
383	4/20/2007 8:40:00	11.817	18
384	4/20/2007 8:50:00	11.814	18
385	4/20/2007 9:00:00	11.815	18
386	4/20/2007 9:10:00	11.815	18
387	4/20/2007 9:20:00	11.815	18
388	4/20/2007 9:30:00	11.806	18
389	4/20/2007 9:40:00	11.806	18
390	4/20/2007 9:50:00	11.804	18
391	4/20/2007 10:00:00	11.806	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
392	4/20/2007 10:10:00	11.805	18
393	4/20/2007 10:20:00	11.804	18
394	4/20/2007 10:30:00	11.802	18
395	4/20/2007 10:40:00	11.804	18
396	4/20/2007 10:50:00	11.805	18
397	4/20/2007 11:00:00	11.802	18
398	4/20/2007 11:10:00	11.804	18
399	4/20/2007 11:20:00	11.799	18
400	4/20/2007 11:30:00	11.799	18
401	4/20/2007 11:40:00	11.801	18
402	4/20/2007 11:50:00	11.798	18
403	4/20/2007 12:00:00	11.801	18
404	4/20/2007 12:10:00	11.8	18
405	4/20/2007 12:20:00	11.799	18
406	4/20/2007 12:30:00	11.799	18
407	4/20/2007 12:40:00	11.796	18
408	4/20/2007 12:50:00	11.799	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
409	4/20/2007 13:00:00	11.801	18
410	4/20/2007 13:10:00	11.798	18
411	4/20/2007 13:20:00	11.796	18
412	4/20/2007 13:30:00	11.798	18
413	4/20/2007 13:40:00	11.798	18
414	4/20/2007 13:50:00	11.796	18
415	4/20/2007 14:00:00	11.795	18
416	4/20/2007 14:10:00	11.792	18
417	4/20/2007 14:20:00	11.792	18
418	4/20/2007 14:30:00	11.793	18
419	4/20/2007 14:40:00	11.791	18
420	4/20/2007 14:50:00	11.789	18
421	4/20/2007 15:00:00	11.788	18
422	4/20/2007 15:10:00	11.788	18
423	4/20/2007 15:20:00	11.791	18
424	4/20/2007 15:30:00	11.791	18
425	4/20/2007 15:40:00	11.785	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
426	4/20/2007 15:50:00	11.791	18
427	4/20/2007 16:00:00	11.793	18
428	4/20/2007 16:10:00	11.789	18
429	4/20/2007 16:20:00	11.789	18
430	4/20/2007 16:30:00	11.788	18
431	4/20/2007 16:40:00	11.788	18
432	4/20/2007 16:50:00	11.788	18
433	4/20/2007 17:00:00	11.786	18
434	4/20/2007 17:10:00	11.788	18
435	4/20/2007 17:20:00	11.785	18
436	4/20/2007 17:30:00	11.781	18
437	4/20/2007 17:40:00	11.781	18
438	4/20/2007 17:50:00	11.782	18
439	4/20/2007 18:00:00	11.781	18
440	4/20/2007 18:10:00	11.775	18
441	4/20/2007 18:20:00	11.774	18
442	4/20/2007 18:30:00	11.776	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	0	-8.02E-06	4.50E-04	1.009454966	-12879644	4.66E-05	2.22E-03	-0.139412314
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	631003
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-16R
# Records	443

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	10.198	18
Maximum	11.853	18.1
Mean	11.645	18
Variance	0.0554	0.01
Std Deviation	0.2354	0.08

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
443	4/20/2007 18:40:00	11.775	18

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
1	4/16/2007 20:10:00	9.955	17.3
2	4/16/2007 20:20:00	9.955	17.3
3	4/16/2007 20:30:00	9.954	17.3
4	4/16/2007 20:40:00	9.955	17.3
5	4/16/2007 20:50:00	9.954	17.3
6	4/16/2007 21:00:00	9.953	17.3
7	4/16/2007 21:10:00	9.951	17.3
8	4/16/2007 21:20:00	9.951	17.3
9	4/16/2007 21:30:00	9.953	17.3
10	4/16/2007 21:40:00	9.95	17.3
11	4/16/2007 21:50:00	9.951	17.3
12	4/16/2007 22:00:00	9.951	17.3
13	4/16/2007 22:10:00	9.95	17.3
14	4/16/2007 22:20:00	9.951	17.3
15	4/16/2007 22:30:00	9.953	17.3
16	4/16/2007 22:40:00	9.953	17.3
17	4/16/2007 22:50:00	9.955	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
18	4/16/2007 23:00:00	9.954	17.3
19	4/16/2007 23:10:00	9.954	17.3
20	4/16/2007 23:20:00	9.954	17.3
21	4/16/2007 23:30:00	9.954	17.3
22	4/16/2007 23:40:00	9.955	17.3
23	4/16/2007 23:50:00	9.954	17.3
24	4/17/2007 0:00:00	9.953	17.3
25	4/17/2007 0:10:00	9.954	17.3
26	4/17/2007 0:20:00	9.954	17.3
27	4/17/2007 0:30:00	9.955	17.3
28	4/17/2007 0:40:00	9.956	17.3
29	4/17/2007 0:50:00	9.956	17.3
30	4/17/2007 1:00:00	9.955	17.3
31	4/17/2007 1:10:00	9.955	17.3
32	4/17/2007 1:20:00	9.955	17.3
33	4/17/2007 1:30:00	9.957	17.3
34	4/17/2007 1:40:00	9.955	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
35	4/17/2007 1:50:00	9.958	17.3
36	4/17/2007 2:00:00	9.958	17.3
37	4/17/2007 2:10:00	9.958	17.3
38	4/17/2007 2:20:00	9.958	17.3
39	4/17/2007 2:30:00	9.957	17.3
40	4/17/2007 2:40:00	9.96	17.3
41	4/17/2007 2:50:00	9.962	17.3
42	4/17/2007 3:00:00	9.96	17.3
43	4/17/2007 3:10:00	9.96	17.3
44	4/17/2007 3:20:00	9.958	17.3
45	4/17/2007 3:30:00	9.96	17.3
46	4/17/2007 3:40:00	9.96	17.3
47	4/17/2007 3:50:00	9.96	17.3
48	4/17/2007 4:00:00	9.96	17.3
49	4/17/2007 4:10:00	9.96	17.3
50	4/17/2007 4:20:00	9.957	17.3
51	4/17/2007 4:30:00	9.956	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
52	4/17/2007 4:40:00	9.955	17.3
53	4/17/2007 4:50:00	9.958	17.3
54	4/17/2007 5:00:00	9.96	17.3
55	4/17/2007 5:10:00	9.958	17.3
56	4/17/2007 5:20:00	9.955	17.3
57	4/17/2007 5:30:00	9.956	17.3
58	4/17/2007 5:40:00	9.955	17.3
59	4/17/2007 5:50:00	9.954	17.3
60	4/17/2007 6:00:00	9.954	17.3
61	4/17/2007 6:10:00	9.953	17.3
62	4/17/2007 6:20:00	9.954	17.3
63	4/17/2007 6:30:00	9.948	17.3
64	4/17/2007 6:40:00	9.95	17.3
65	4/17/2007 6:50:00	9.948	17.3
66	4/17/2007 7:00:00	9.95	17.3
67	4/17/2007 7:10:00	9.949	17.3
68	4/17/2007 7:20:00	9.947	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
69	4/17/2007 7:30:00	9.947	17.3
70	4/17/2007 7:40:00	9.948	17.3
71	4/17/2007 7:50:00	9.947	17.3
72	4/17/2007 8:00:00	9.947	17.3
73	4/17/2007 8:10:00	9.944	17.3
74	4/17/2007 8:20:00	9.943	17.3
75	4/17/2007 8:30:00	9.943	17.3
76	4/17/2007 8:40:00	9.944	17.3
77	4/17/2007 8:50:00	9.943	17.3
78	4/17/2007 9:00:00	9.946	17.3
79	4/17/2007 9:10:00	9.944	17.3
80	4/17/2007 9:20:00	9.946	17.3
81	4/17/2007 9:30:00	9.944	17.3
82	4/17/2007 9:40:00	9.948	17.3
83	4/17/2007 9:50:00	9.943	17.3
84	4/17/2007 10:00:00	9.944	17.3
85	4/17/2007 10:10:00	9.941	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
86	4/17/2007 10:20:00	9.941	17.3
87	4/17/2007 10:30:00	9.941	17.3
88	4/17/2007 10:40:00	9.943	17.3
89	4/17/2007 10:50:00	9.944	17.3
90	4/17/2007 11:00:00	9.946	17.3
91	4/17/2007 11:10:00	9.943	17.3
92	4/17/2007 11:20:00	9.944	17.3
93	4/17/2007 11:30:00	9.943	17.3
94	4/17/2007 11:40:00	9.944	17.3
95	4/17/2007 11:50:00	9.947	17.3
96	4/17/2007 12:00:00	9.941	17.3
97	4/17/2007 12:10:00	9.946	17.3
98	4/17/2007 12:20:00	9.947	17.3
99	4/17/2007 12:30:00	9.943	17.3
100	4/17/2007 12:40:00	9.949	17.3
101	4/17/2007 12:50:00	9.949	17.3
102	4/17/2007 13:00:00	9.948	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
103	4/17/2007 13:10:00	9.948	17.3
104	4/17/2007 13:20:00	9.949	17.3
105	4/17/2007 13:30:00	9.949	17.3
106	4/17/2007 13:40:00	9.949	17.3
107	4/17/2007 13:50:00	9.951	17.3
108	4/17/2007 14:00:00	9.947	17.3
109	4/17/2007 14:10:00	9.947	17.3
110	4/17/2007 14:20:00	9.947	17.3
111	4/17/2007 14:30:00	9.948	17.3
112	4/17/2007 14:40:00	9.948	17.3
113	4/17/2007 14:50:00	9.953	17.3
114	4/17/2007 15:00:00	9.951	17.3
115	4/17/2007 15:10:00	9.95	17.3
116	4/17/2007 15:20:00	9.951	17.3
117	4/17/2007 15:30:00	9.947	17.3
118	4/17/2007 15:40:00	9.956	17.3
119	4/17/2007 15:50:00	9.954	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
120	4/17/2007 16:00:00	9.951	17.3
121	4/17/2007 16:10:00	9.951	17.3
122	4/17/2007 16:20:00	9.949	17.3
123	4/17/2007 16:30:00	9.951	17.3
124	4/17/2007 16:40:00	9.953	17.3
125	4/17/2007 16:50:00	9.953	17.3
126	4/17/2007 17:00:00	9.953	17.3
127	4/17/2007 17:10:00	9.954	17.3
128	4/17/2007 17:20:00	9.953	17.3
129	4/17/2007 17:30:00	9.954	17.3
130	4/17/2007 17:40:00	9.951	17.3
131	4/17/2007 17:50:00	9.954	17.3
132	4/17/2007 18:00:00	9.954	17.3
133	4/17/2007 18:10:00	9.95	17.3
134	4/17/2007 18:20:00	9.949	17.3
135	4/17/2007 18:30:00	9.951	17.3
136	4/17/2007 18:40:00	9.95	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
137	4/17/2007 18:50:00	9.95	17.3
138	4/17/2007 19:00:00	9.948	17.3
139	4/17/2007 19:10:00	9.948	17.3
140	4/17/2007 19:20:00	9.951	17.4
141	4/17/2007 19:30:00	9.951	17.3
142	4/17/2007 19:40:00	9.953	17.3
143	4/17/2007 19:50:00	9.951	17.3
144	4/17/2007 20:00:00	9.949	17.3
145	4/17/2007 20:10:00	9.95	17.3
146	4/17/2007 20:20:00	9.949	17.3
147	4/17/2007 20:30:00	9.949	17.3
148	4/17/2007 20:40:00	9.947	17.3
149	4/17/2007 20:50:00	9.947	17.3
150	4/17/2007 21:00:00	9.947	17.3
151	4/17/2007 21:10:00	9.946	17.3
152	4/17/2007 21:20:00	9.944	17.3
153	4/17/2007 21:30:00	9.946	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
154	4/17/2007 21:40:00	9.946	17.3
155	4/17/2007 21:50:00	9.946	17.3
156	4/17/2007 22:00:00	9.944	17.3
157	4/17/2007 22:10:00	9.943	17.3
158	4/17/2007 22:20:00	9.946	17.3
159	4/17/2007 22:30:00	9.948	17.3
160	4/17/2007 22:40:00	9.946	17.3
161	4/17/2007 22:50:00	9.948	17.3
162	4/17/2007 23:00:00	9.946	17.3
163	4/17/2007 23:10:00	9.947	17.3
164	4/17/2007 23:20:00	9.946	17.3
165	4/17/2007 23:30:00	9.947	17.3
166	4/17/2007 23:40:00	9.947	17.3
167	4/17/2007 23:50:00	9.947	17.3
168	4/18/2007 0:00:00	9.947	17.3
169	4/18/2007 0:10:00	9.948	17.3
170	4/18/2007 0:20:00	9.949	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
171	4/18/2007 0:30:00	9.949	17.3
172	4/18/2007 0:40:00	9.947	17.3
173	4/18/2007 0:50:00	9.948	17.3
174	4/18/2007 1:00:00	9.948	17.3
175	4/18/2007 1:10:00	9.947	17.3
176	4/18/2007 1:20:00	9.948	17.3
177	4/18/2007 1:30:00	9.949	17.3
178	4/18/2007 1:40:00	9.949	17.3
179	4/18/2007 1:50:00	9.95	17.3
180	4/18/2007 2:00:00	9.953	17.3
181	4/18/2007 2:10:00	9.955	17.3
182	4/18/2007 2:20:00	9.955	17.3
183	4/18/2007 2:30:00	9.956	17.3
184	4/18/2007 2:40:00	9.957	17.3
185	4/18/2007 2:50:00	9.96	17.3
186	4/18/2007 3:00:00	9.956	17.3
187	4/18/2007 3:10:00	9.957	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
188	4/18/2007 3:20:00	9.957	17.3
189	4/18/2007 3:30:00	9.961	17.3
190	4/18/2007 3:40:00	9.961	17.3
191	4/18/2007 3:50:00	9.958	17.3
192	4/18/2007 4:00:00	9.958	17.3
193	4/18/2007 4:10:00	9.958	17.3
194	4/18/2007 4:20:00	9.96	17.3
195	4/18/2007 4:30:00	9.957	17.2
196	4/18/2007 4:40:00	9.956	17.3
197	4/18/2007 4:50:00	9.957	17.2
198	4/18/2007 5:00:00	9.956	17.2
199	4/18/2007 5:10:00	9.956	17.3
200	4/18/2007 5:20:00	9.957	17.3
201	4/18/2007 5:30:00	9.956	17.2
202	4/18/2007 5:40:00	9.956	17.3
203	4/18/2007 5:50:00	9.956	17.3
204	4/18/2007 6:00:00	9.956	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
205	4/18/2007 6:10:00	9.955	17.3
206	4/18/2007 6:20:00	9.954	17.2
207	4/18/2007 6:30:00	9.953	17.2
208	4/18/2007 6:40:00	9.953	17.3
209	4/18/2007 6:50:00	9.953	17.3
210	4/18/2007 7:00:00	9.953	17.3
211	4/18/2007 7:10:00	9.95	17.3
212	4/18/2007 7:20:00	9.95	17.3
213	4/18/2007 7:30:00	9.95	17.3
214	4/18/2007 7:40:00	9.947	17.2
215	4/18/2007 7:50:00	9.948	17.3
216	4/18/2007 8:00:00	9.947	17.2
217	4/18/2007 8:10:00	9.946	17.3
218	4/18/2007 8:20:00	9.943	17.3
219	4/18/2007 8:30:00	9.943	17.3
220	4/18/2007 8:40:00	9.943	17.3
221	4/18/2007 8:50:00	9.941	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
222	4/18/2007 9:00:00	9.942	17.3
223	4/18/2007 9:10:00	9.941	17.3
224	4/18/2007 9:20:00	9.942	17.3
225	4/18/2007 9:30:00	9.941	17.2
226	4/18/2007 9:40:00	9.941	17.3
227	4/18/2007 9:50:00	9.94	17.3
228	4/18/2007 10:00:00	9.94	17.3
229	4/18/2007 10:10:00	9.94	17.3
230	4/18/2007 10:20:00	9.941	17.3
231	4/18/2007 10:30:00	9.942	17.3
232	4/18/2007 10:40:00	9.941	17.3
233	4/18/2007 10:50:00	9.941	17.3
234	4/18/2007 11:00:00	9.941	17.3
235	4/18/2007 11:10:00	9.941	17.3
236	4/18/2007 11:20:00	9.941	17.2
237	4/18/2007 11:30:00	9.941	17.2
238	4/18/2007 11:40:00	9.942	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
239	4/18/2007 11:50:00	9.941	17.3
240	4/18/2007 12:00:00	9.943	17.3
241	4/18/2007 12:10:00	9.944	17.3
242	4/18/2007 12:20:00	9.943	17.3
243	4/18/2007 12:30:00	9.943	17.3
244	4/18/2007 12:40:00	9.944	17.3
245	4/18/2007 12:50:00	9.944	17.3
246	4/18/2007 13:00:00	9.947	17.3
247	4/18/2007 13:10:00	9.947	17.3
248	4/18/2007 13:20:00	9.947	17.3
249	4/18/2007 13:30:00	9.947	17.3
250	4/18/2007 13:40:00	9.948	17.3
251	4/18/2007 13:50:00	9.948	17.2
252	4/18/2007 14:00:00	9.948	17.3
253	4/18/2007 14:10:00	9.95	17.3
254	4/18/2007 14:20:00	9.95	17.3
255	4/18/2007 14:30:00	9.95	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
256	4/18/2007 14:40:00	9.951	17.3
257	4/18/2007 14:50:00	9.951	17.2
258	4/18/2007 15:00:00	9.951	17.3
259	4/18/2007 15:10:00	9.954	17.3
260	4/18/2007 15:20:00	9.953	17.2
261	4/18/2007 15:30:00	9.955	17.2
262	4/18/2007 15:40:00	9.956	17.3
263	4/18/2007 15:50:00	9.955	17.3
264	4/18/2007 16:00:00	9.954	17.3
265	4/18/2007 16:10:00	9.956	17.3
266	4/18/2007 16:20:00	9.958	17.3
267	4/18/2007 16:30:00	9.955	17.3
268	4/18/2007 16:40:00	9.953	17.3
269	4/18/2007 16:50:00	9.96	17.3
270	4/18/2007 17:00:00	9.957	17.3
271	4/18/2007 17:10:00	9.958	17.3
272	4/18/2007 17:20:00	9.957	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
273	4/18/2007 17:30:00	9.961	17.3
274	4/18/2007 17:40:00	9.961	17.3
275	4/18/2007 17:50:00	9.961	17.2
276	4/18/2007 18:00:00	9.961	17.3
277	4/18/2007 18:10:00	9.961	17.3
278	4/18/2007 18:20:00	9.96	17.3
279	4/18/2007 18:30:00	9.958	17.3
280	4/18/2007 18:40:00	9.958	17.2
281	4/18/2007 18:50:00	9.957	17.3
282	4/18/2007 19:00:00	9.958	17.3
283	4/18/2007 19:10:00	9.96	17.2
284	4/18/2007 19:20:00	9.956	17.3
285	4/18/2007 19:30:00	9.956	17.2
286	4/18/2007 19:40:00	9.956	17.3
287	4/18/2007 19:50:00	9.955	17.3
288	4/18/2007 20:00:00	9.956	17.3
289	4/18/2007 20:10:00	9.957	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
290	4/18/2007 20:20:00	9.957	17.3
291	4/18/2007 20:30:00	9.958	17.3
292	4/18/2007 20:40:00	9.957	17.3
293	4/18/2007 20:50:00	9.958	17.3
294	4/18/2007 21:00:00	9.957	17.2
295	4/18/2007 21:10:00	9.96	17.2
296	4/18/2007 21:20:00	9.96	17.2
297	4/18/2007 21:30:00	9.958	17.3
298	4/18/2007 21:40:00	9.96	17.2
299	4/18/2007 21:50:00	9.96	17.3
300	4/18/2007 22:00:00	9.958	17.3
301	4/18/2007 22:10:00	9.96	17.2
302	4/18/2007 22:20:00	9.957	17.3
303	4/18/2007 22:30:00	9.958	17.3
304	4/18/2007 22:40:00	9.961	17.2
305	4/18/2007 22:50:00	9.96	17.2
306	4/18/2007 23:00:00	9.96	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
307	4/18/2007 23:10:00	9.96	17.3
308	4/18/2007 23:20:00	9.961	17.2
309	4/18/2007 23:30:00	9.961	17.2
310	4/18/2007 23:40:00	9.962	17.2
311	4/18/2007 23:50:00	9.962	17.3
312	4/19/2007 0:00:00	9.964	17.3
313	4/19/2007 0:10:00	9.965	17.3
314	4/19/2007 0:20:00	9.965	17.3
315	4/19/2007 0:30:00	9.967	17.2
316	4/19/2007 0:40:00	9.968	17.3
317	4/19/2007 0:50:00	9.968	17.3
318	4/19/2007 1:00:00	9.969	17.2
319	4/19/2007 1:10:00	9.97	17.2
320	4/19/2007 1:20:00	9.97	17.3
321	4/19/2007 1:30:00	9.97	17.3
322	4/19/2007 1:40:00	9.971	17.3
323	4/19/2007 1:50:00	9.975	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
324	4/19/2007 2:00:00	9.975	17.3
325	4/19/2007 2:10:00	9.976	17.3
326	4/19/2007 2:20:00	9.976	17.3
327	4/19/2007 2:30:00	9.976	17.3
328	4/19/2007 2:40:00	9.975	17.3
329	4/19/2007 2:50:00	9.976	17.3
330	4/19/2007 3:00:00	9.975	17.3
331	4/19/2007 3:10:00	9.975	17.3
332	4/19/2007 3:20:00	9.976	17.3
333	4/19/2007 3:30:00	9.976	17.3
334	4/19/2007 3:40:00	9.976	17.3
335	4/19/2007 3:50:00	9.976	17.3
336	4/19/2007 4:00:00	9.976	17.3
337	4/19/2007 4:10:00	9.977	17.3
338	4/19/2007 4:20:00	9.976	17.3
339	4/19/2007 4:30:00	9.975	17.3
340	4/19/2007 4:40:00	9.977	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
341	4/19/2007 4:50:00	9.976	17.3
342	4/19/2007 5:00:00	9.978	17.3
343	4/19/2007 5:10:00	9.978	17.3
344	4/19/2007 5:20:00	9.98	17.3
345	4/19/2007 5:30:00	9.98	17.3
346	4/19/2007 5:40:00	9.98	17.3
347	4/19/2007 5:50:00	9.978	17.3
348	4/19/2007 6:00:00	9.981	17.3
349	4/19/2007 6:10:00	9.98	17.3
350	4/19/2007 6:20:00	9.98	17.3
351	4/19/2007 6:30:00	9.977	17.3
352	4/19/2007 6:40:00	9.976	17.3
353	4/19/2007 6:50:00	9.976	17.3
354	4/19/2007 7:00:00	9.976	17.3
355	4/19/2007 7:10:00	9.977	17.3
356	4/19/2007 7:20:00	9.977	17.3
357	4/19/2007 7:30:00	9.976	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
358	4/19/2007 7:40:00	9.975	17.3
359	4/19/2007 7:50:00	9.976	17.3
360	4/19/2007 8:00:00	9.976	17.3
361	4/19/2007 8:10:00	9.974	17.3
362	4/19/2007 8:20:00	9.975	17.3
363	4/19/2007 8:30:00	9.975	17.3
364	4/19/2007 8:40:00	9.975	17.3
365	4/19/2007 8:50:00	9.976	17.3
366	4/19/2007 9:00:00	9.977	17.3
367	4/19/2007 9:10:00	9.976	17.2
368	4/19/2007 9:20:00	9.975	17.3
369	4/19/2007 9:30:00	9.975	17.2
370	4/19/2007 9:40:00	9.974	17.3
371	4/19/2007 9:50:00	9.974	17.2
372	4/19/2007 10:00:00	9.975	17.2
373	4/19/2007 10:10:00	9.977	17.3
374	4/19/2007 10:20:00	9.974	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
375	4/19/2007 10:30:00	9.974	17.3
376	4/19/2007 10:40:00	9.97	17.3
377	4/19/2007 10:50:00	9.972	17.3
378	4/19/2007 11:00:00	9.971	17.3
379	4/19/2007 11:10:00	9.972	17.3
380	4/19/2007 11:20:00	9.971	17.3
381	4/19/2007 11:30:00	9.974	17.3
382	4/19/2007 11:40:00	9.974	17.3
383	4/19/2007 11:50:00	9.972	17.2
384	4/19/2007 12:00:00	9.972	17.2
385	4/19/2007 12:10:00	9.974	17.2
386	4/19/2007 12:20:00	9.975	17.2
387	4/19/2007 12:30:00	9.975	17.3
388	4/19/2007 12:40:00	9.974	17.3
389	4/19/2007 12:50:00	9.976	17.3
390	4/19/2007 13:00:00	9.977	17.3
391	4/19/2007 13:10:00	9.977	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
392	4/19/2007 13:20:00	9.976	17.2
393	4/19/2007 13:30:00	9.977	17.2
394	4/19/2007 13:40:00	9.978	17.3
395	4/19/2007 13:50:00	9.979	17.2
396	4/19/2007 14:00:00	9.98	17.3
397	4/19/2007 14:10:00	9.982	17.3
398	4/19/2007 14:20:00	9.982	17.2
399	4/19/2007 14:30:00	9.983	17.2
400	4/19/2007 14:40:00	9.983	17.3
401	4/19/2007 14:50:00	9.987	17.2
402	4/19/2007 15:00:00	9.988	17.3
403	4/19/2007 15:10:00	9.988	17.2
404	4/19/2007 15:20:00	9.991	17.2
405	4/19/2007 15:30:00	9.991	17.2
406	4/19/2007 15:40:00	9.991	17.3
407	4/19/2007 15:50:00	9.991	17.2
408	4/19/2007 16:00:00	9.994	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
409	4/19/2007 16:10:00	9.994	17.2
410	4/19/2007 16:20:00	9.994	17.3
411	4/19/2007 16:30:00	9.992	17.2
412	4/19/2007 16:40:00	9.996	17.2
413	4/19/2007 16:50:00	9.997	17.2
414	4/19/2007 17:00:00	9.997	17.2
415	4/19/2007 17:10:00	9.996	17.2
416	4/19/2007 17:20:00	9.997	17.2
417	4/19/2007 17:30:00	9.997	17.2
418	4/19/2007 17:40:00	9.998	17.3
419	4/19/2007 17:50:00	9.999	17.2
420	4/19/2007 18:00:00	10.002	17.2
421	4/19/2007 18:10:00	10.001	17.3
422	4/19/2007 18:20:00	10.003	17.2
423	4/19/2007 18:30:00	10.004	17.2
424	4/19/2007 18:40:00	10.003	17.2
425	4/19/2007 18:50:00	10.004	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
426	4/19/2007 19:00:00	10.005	17.2
427	4/19/2007 19:10:00	10.006	17.2
428	4/19/2007 19:20:00	10.006	17.2
429	4/19/2007 19:30:00	10.005	17.2
430	4/19/2007 19:40:00	10.004	17.2
431	4/19/2007 19:50:00	10.004	17.2
432	4/19/2007 20:00:00	10.004	17.2
433	4/19/2007 20:10:00	10.002	17.2
434	4/19/2007 20:20:00	10.001	17.2
435	4/19/2007 20:30:00	10.001	17.2
436	4/19/2007 20:40:00	9.999	17.2
437	4/19/2007 20:50:00	9.999	17.2
438	4/19/2007 21:00:00	10.001	17.2
439	4/19/2007 21:10:00	10.002	17.3
440	4/19/2007 21:20:00	10.002	17.2
441	4/19/2007 21:30:00	10.003	17.2
442	4/19/2007 21:40:00	10.002	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
443	4/19/2007 21:50:00	10.003	17.2
444	4/19/2007 22:00:00	10.004	17.2
445	4/19/2007 22:10:00	10.005	17.2
446	4/19/2007 22:20:00	10.005	17.2
447	4/19/2007 22:30:00	10.006	17.2
448	4/19/2007 22:40:00	10.006	17.2
449	4/19/2007 22:50:00	10.006	17.2
450	4/19/2007 23:00:00	10.006	17.2
451	4/19/2007 23:10:00	10.008	17.2
452	4/19/2007 23:20:00	10.009	17.2
453	4/19/2007 23:30:00	10.01	17.3
454	4/19/2007 23:40:00	10.009	17.2
455	4/19/2007 23:50:00	10.009	17.2
456	4/20/2007 0:00:00	10.009	17.2
457	4/20/2007 0:10:00	10.008	17.2
458	4/20/2007 0:20:00	10.009	17.2
459	4/20/2007 0:30:00	10.01	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
460	4/20/2007 0:40:00	10.01	17.2
461	4/20/2007 0:50:00	10.011	17.3
462	4/20/2007 1:00:00	10.012	17.2
463	4/20/2007 1:10:00	10.014	17.2
464	4/20/2007 1:20:00	10.015	17.2
465	4/20/2007 1:30:00	10.016	17.2
466	4/20/2007 1:40:00	10.016	17.2
467	4/20/2007 1:50:00	10.016	17.2
468	4/20/2007 2:00:00	10.018	17.2
469	4/20/2007 2:10:00	10.018	17.2
470	4/20/2007 2:20:00	10.018	17.2
471	4/20/2007 2:30:00	10.018	17.2
472	4/20/2007 2:40:00	10.018	17.2
473	4/20/2007 2:50:00	10.018	17.2
474	4/20/2007 3:00:00	10.016	17.3
475	4/20/2007 3:10:00	10.017	17.2
476	4/20/2007 3:20:00	10.017	17.2

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
477	4/20/2007 3:30:00	10.018	17.2
478	4/20/2007 3:40:00	10.018	17.2
479	4/20/2007 3:50:00	10.019	17.2
480	4/20/2007 4:00:00	10.019	17.2
481	4/20/2007 4:10:00	10.021	17.2
482	4/20/2007 4:20:00	10.021	17.2
483	4/20/2007 4:30:00	10.021	17.2
484	4/20/2007 4:40:00	10.021	17.2
485	4/20/2007 4:50:00	10.021	17.2
486	4/20/2007 5:00:00	10.021	17.2
487	4/20/2007 5:10:00	10.021	17.2
488	4/20/2007 5:20:00	10.022	17.2
489	4/20/2007 5:30:00	10.022	17.2
490	4/20/2007 5:40:00	10.022	17.2
491	4/20/2007 5:50:00	10.021	17.2
492	4/20/2007 6:00:00	10.021	17.2
493	4/20/2007 6:10:00	10.021	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
494	4/20/2007 6:20:00	10.021	17.2
495	4/20/2007 6:30:00	10.021	17.3
496	4/20/2007 6:40:00	10.022	17.3
497	4/20/2007 6:50:00	10.018	17.3
498	4/20/2007 7:00:00	10.021	17.3
499	4/20/2007 7:10:00	10.019	17.3
500	4/20/2007 7:20:00	10.019	17.3
501	4/20/2007 7:30:00	10.018	17.3
502	4/20/2007 7:40:00	10.017	17.3
503	4/20/2007 7:50:00	10.016	17.3
504	4/20/2007 8:00:00	10.017	17.3
505	4/20/2007 8:10:00	10.017	17.3
506	4/20/2007 8:20:00	10.016	17.3
507	4/20/2007 8:30:00	10.017	17.3
508	4/20/2007 8:40:00	10.016	17.3
509	4/20/2007 8:50:00	10.015	17.3
510	4/20/2007 9:00:00	10.014	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
511	4/20/2007 9:10:00	10.011	17.3
512	4/20/2007 9:20:00	10.012	17.3
513	4/20/2007 9:30:00	10.014	17.3
514	4/20/2007 9:40:00	10.011	17.3
515	4/20/2007 9:50:00	10.011	17.2
516	4/20/2007 10:00:00	10.012	17.3
517	4/20/2007 10:10:00	10.012	17.3
518	4/20/2007 10:20:00	10.011	17.3
519	4/20/2007 10:30:00	10.011	17.2
520	4/20/2007 10:40:00	10.01	17.3
521	4/20/2007 10:50:00	10.01	17.2
522	4/20/2007 11:00:00	10.01	17.3
523	4/20/2007 11:10:00	10.01	17.3
524	4/20/2007 11:20:00	10.009	17.2
525	4/20/2007 11:30:00	10.009	17.2
526	4/20/2007 11:40:00	10.006	17.2
527	4/20/2007 11:50:00	10.006	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
528	4/20/2007 12:00:00	10.01	17.2
529	4/20/2007 12:10:00	10.008	17.3
530	4/20/2007 12:20:00	10.006	17.2
531	4/20/2007 12:30:00	10.008	17.3
532	4/20/2007 12:40:00	10.008	17.2
533	4/20/2007 12:50:00	10.008	17.2
534	4/20/2007 13:00:00	10.005	17.2
535	4/20/2007 13:10:00	10.006	17.2
536	4/20/2007 13:20:00	10.005	17.3
537	4/20/2007 13:30:00	10.005	17.3
538	4/20/2007 13:40:00	10.004	17.2
539	4/20/2007 13:50:00	10.005	17.2
540	4/20/2007 14:00:00	10.004	17.2
541	4/20/2007 14:10:00	10.004	17.2
542	4/20/2007 14:20:00	10.004	17.3
543	4/20/2007 14:30:00	10.005	17.2
544	4/20/2007 14:40:00	10.005	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
545	4/20/2007 14:50:00	10.005	17.2
546	4/20/2007 15:00:00	10.005	17.2
547	4/20/2007 15:10:00	10.006	17.2
548	4/20/2007 15:20:00	10.006	17.2
549	4/20/2007 15:30:00	10.009	17.3
550	4/20/2007 15:40:00	10.009	17.2
551	4/20/2007 15:50:00	10.01	17.2
552	4/20/2007 16:00:00	10.01	17.3
553	4/20/2007 16:10:00	10.01	17.3
554	4/20/2007 16:20:00	10.009	17.3
555	4/20/2007 16:30:00	10.009	17.3
556	4/20/2007 16:40:00	10.008	17.3
557	4/20/2007 16:50:00	10.008	17.3
558	4/20/2007 17:00:00	10.008	17.3
559	4/20/2007 17:10:00	10.008	17.3
560	4/20/2007 17:20:00	10.006	17.3
561	4/20/2007 17:30:00	10.006	17.3

Advanced Calibration Data	m3	m2	m1	m0	b3	b2	b1	b0
Block 0	810.5112305	0	-8.00E-06	1.00753212	-16114972	1.50E-05	-2.71E-04	0.119516999
Block 1	0	0	0	0	0	0	0	100

Field Calibration Data	m	b
Pressure	1	0
Temperature	1	0

SensorSN	2710010
Sensor Type	PT2X
Sensor Name	INW Smart Sensor
Session Name	S-35R-2
# Records	566

Statistical Data	Pressure(Ft H2O)	Temperature(degC)
Sensor Range	15 psig	-40 - +125 degC
Minimum	9.94	17.2
Maximum	10.022	17.4
Mean	9.972	17.2
Variance	0.0007	0.01
Std Deviation	0.0258	0.09

Rec #	Date/Time	Pressure(Ft H2O)	Temperature(degC)
562	4/20/2007 17:40:00	10.005	17.2
563	4/20/2007 17:50:00	10.006	17.3
564	4/20/2007 18:00:00	10.005	17.3
565	4/20/2007 18:10:00	10.001	17.3
566	4/20/2007 18:20:00	10.008	17.3

WELL ID	SCREEN	PROB #	PROBE DEPTH	DEPTH	INSTALLATION TIME	DATE	17-Apr TIME	DEPTH	18-Apr TIME	DEPTH	19-Apr TIME	DEPTH	20-Apr TIME	DEPTH
MO7A-10	2.5 - 10.5	2609034	7.989	1.3	18:20	16-Apr	18:33	1.79	20:50	1.72	SEALED	DUE	17:33	0.72
MBG-2		2609035	9.945	4.62	18:33	16-Apr	18:25	4.63	20:56	4.6	TO	RAIN	17:40	4.55
MBG-1		2346020	9.979	3.53	18:05	16-Apr	18:16	3.63	21:03	3.63			17:45	3.34
28SW01	6 - 16	2346005	10.072	5.3	19:10	16-Apr	19:58	5.12	20:37	5.05			17:54	4.53
28SW03	6.2 - 16.3	2346004	6.526	8.81	19:21	16-Apr	20:03	8.63	20:41	8.45			17:54	6.47
28SW04	5.4 - 15.7	949011	7.874	8.43	19:40	16-Apr	20:05	6.45	20:46	6.46			18:06	6.33
M25-07	10 - 19.5	2346017	9.953	5.76	17:32	17-Apr	17:26	5.76	19:50	5.41			19:04	5.23
M25-08	10 - 19.5	2404008	10.031	3.96	17:40	17-Apr	17:30	3.96	20:09	4.2			19:08	3.39
M25-02	10 - 20	2609033	10.24	5.93	19:00	17-Apr	18:55	5.93	20:13	5.97			19:11	5.8
P181-MW46	9 - 19	2346009	10.198	5.57	19:13	17-Apr	19:13	5.57	20:31	5.58			19:15	5.48
P181-MW47	13.5 - 18.5	2409000	10.109	7.6	16:00	16-Apr	19:13	7.63	20:24	7.6			18:23	7.55
S-35R-2	10 - 19.5	2710010	9.974	6.3	16:14	16-Apr	19:16	5.32	20:27	6.32			18:20	6.26
M25-04	10 - 20	2327015	10.117	4.88	17:33	16-Apr	19:22	4.98	20:18	4.9			18:30	4.63
M25-01	10 - 20	2346025	10.244	6.89	19:26	17-Apr	19:26	6.89	19:58	6.78			19:27	6.58
M25-06	10 - 19.5	2609036	10.134	9.25	16:39	16-Apr			19:55	8.85			18:10	8.58
M25-09	10 - 19.5	2346022	9.892	7.31	19:34	17-Apr	19:34	7.31	20:01	7.41			19:30	7.24
PW-12	12 - 17	2327010	10.124	10.25	19:50	17-Apr	19:50	10.25	20:08	10.28			19:49	10.04
S-16-R	9 - 19	631003	10.102	8.72	16:54	17-Apr	16:54	8.72	19:34	6.88			18:43	6.76
M25-05	9 - 19	2346006	5.056	13.45	17:12	17-Apr	17:06	13.45	19:41	10.35			18:48	10.18
M07A-07	10 - 19.5						18:30	2.87	16:36	2.84	18:44	2.62	15:50	1.65
M07A-08	10 - 19.5						18:40	1.53	16:46	1.6	18:21	1.62	17:02	0.8
M07A-11	2.5 - 10.5						18:44	1.53	16:46	2.08	18:23	2.08	17:04	1.65
28SW02	6.2 - 16.3						20:00	7.72	17:02	7.16	18:38	7.13	15:10	6.79
P181-MW45	16 - 18.5						19:05	4.3	17:13	4.27	18:32	4.35	15:14	3.91

??

ALA137A

	NAD83 Zn3 Coordinates		NAD27 Zn3 Coordinates		NAVD88 Elevations			NGVD29 Elevations		
PT ID	***NORTH***	***EAST***	***NORTH***	***EAST***	***PVC***	***RIM***	***GRND***	***PVC***	***RIM***	***GRND***
28SW01	2115174.4	6042357.0	474766.6	1480990.7	9.11	9.66	9.4	6.41	6.96	6.7
28SW02	2115235.8	6042716.9	474828.1	1481350.6	10.83	11.40	11.1	8.13	8.70	8.4
28SW03	2115334.2	6043088.3	474926.5	1481721.9	10.71	11.24	10.8	8.01	8.54	8.1
28SW04	2115128.2	6043043.8	474720.5	1481677.5	10.56	10.92	10.9	7.86	8.22	8.2
M07A-07	2112734.4	6043766.6	472326.7	1482400.3	9.69	9.94	9.9	6.99	7.24	7.2
M07A-08	2112633.4	6044040.6	472225.7	1482674.3	7.52	7.79	7.7	4.82	5.09	5.0
M07A-10	2112790.1	6043924.6	472382.4	1482558.3	8.08	8.40	8.4	5.38	5.70	5.7
M07A-11	2112798.2	6044041.9	472390.5	1482675.6	7.31	7.90	7.9	4.61	5.20	5.2
M25-01	2113658.6	6044831.0	473250.9	1483464.7	11.70	11.91	11.8	9.00	9.21	9.1
M25-02	2114294.8	6045466.6	473887.0	1484100.3	10.78	11.07	11.1	8.08	8.37	8.4
M25-04	2114507.7	6046209.3	474099.9	1484842.9	9.73	10.32	10.2	7.03	7.62	7.5
M25-05	2113273.6	6046987.2	472865.9	1485620.9	15.06	15.41	15.3	12.36	12.71	12.6
M25-06	2113345.9	6044191.2	472938.2	1482824.9	10.14	10.49	10.5	7.44	7.79	7.8
M25-07	2113932.5	6044360.3	473524.8	1482993.9	9.63	10.01	10.0	6.93	7.31	7.3
M25-08	2114209.7	6044662.3	473801.9	1483296.0	8.10	8.54	8.5	5.40	5.84	5.8
M25-09	2113250.3	6045202.4	472842.6	1483836.1	13.11	13.46	13.4	10.41	10.76	10.7
MBG-1	2114797.9	6042379.6	474390.2	1481013.3	7.27	7.88	7.8	4.57	5.18	5.1
MBG-2	2113597.3	6043287.7	473189.6	1481921.4	10.31	10.74	10.7	7.61	8.04	8.0
P181-MW45	2113962.4	6045375.7	473554.7	1484009.4	9.21	9.89	9.8	6.51	7.19	7.1
P181-MW46	2113970.5	6045965.9	473562.8	1484599.6	10.29	10.62	10.5	7.59	7.92	7.8
P181-MW47	2113707.6	6046255.2	473299.9	1484888.8	12.39	12.63	12.6	9.69	9.93	9.9
PW-12	2113460.9	6045725.9	473053.2	1484359.6	15.38	15.34	13.2	12.68	12.64	10.5
S-16-R	2112758.8	6046885.8	472351.1	1485519.5	14.48	14.95	14.9	11.78	12.25	12.2
S-35R-2	2113909.9	6046420.5	473502.1	1485054.2	11.53	11.96	11.8	8.83	9.26	9.1

APPENDIX B

GORE-SORBER® SURVEYS FINAL REPORT
(CD ONLY)

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W. L. GORE & ASSOCIATES, INC.

Creative Technologies Worldwide

100 CHESAPEAKE BLVD., P.O. BOX 10 • ELKTON, MARYLAND 21922-0010
PHONE: 410.392.7600 • FAX: 410.506.4780

GORE™ EXPLORATION SURVEY

GORE™ ENVIRONMENTAL SURVEY

July 12, 2007

Mr. Pete Everds
Tetra Tech ECI
1230 Columbia St
Suite 640
San Diego, CA 92101

Site Reference: Alameda Point OU5/12-02, Alameda, CA
Gore Production Order Number: 13175262

Dear Mr. Everds:

Thank you for choosing a GORE™ Survey.

The attached package consists of the following information (in duplicate):

- **Final report**
- **Chain of custody and analytical data table (included in Appendix A)**
- **Stacked total ion chromatograms (included in Appendix A)**
- **Contour maps (included in Appendix A)**

Please contact our office if you have any questions or comments concerning this report. We appreciate this opportunity to be of service to Tetra Tech ECI, and look forward to working with you again in the future.

Sincerely,
W.L. Gore & Associates, Inc.

Jay W. Hodny, Ph.D.
Product Specialist

Attachments

cc: ABROWN (W.L. Gore & Associates, Inc.)

S:\ENVIRONMENTAL\GORE SURVEYS\PROJECTS IN PROGRESS\13175262\070712R.DOC

GORE AND DESIGNS ARE TRADEMARKS OF W. L. GORE & ASSOCIATES, INC.

GORE-SORBER® SURVEYS

FINAL REPORT

GORE™ Surveys
Final Report

Alameda Point OU5/12-02
Alameda, CA

July 12, 2007

W. L. Gore & Associates, Inc.
Survey Products Group

GORE
Creative Technologies Worldwide

W. L. GORE & ASSOCIATES, INC.

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PHONE: 410.392.7600 • FAX: 410.506.4780

GORE™ EXPLORATION SURVEY

GORE™ ENVIRONMENTAL SURVEY

GORE™ Surveys
Final Report

Alameda Point OU5/12-02
Alameda, CA

July 12, 2007

Prepared For:
Tetra Tech ECI
1230 Columbia St
Suite 640
San Diego, CA, 92101

W.L. Gore & Associates, Inc.

Written/Submitted by:
Jay W. Hodny, Ph.D., Product Specialist

Reviewed/Approved by:
Jim E. Whetzel, Project Manager

Analytical Data Reviewed by:
Jim E. Whetzel, Chemist

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GORE™ Surveys - Final Report

REPORT DATE: 07/12/2007 **AUTHOR:** JWH

SITE INFORMATION

Site Reference: Alameda Point OU5/12-02, Alameda, CA
Gore Production Order Number: 13175262 **Gore Site Code:** DTK

FIELD PROCEDURES

 # Modules shipped: 118
Installation Date(s): 5/23, 24, 25, 29, 30, 31/07 and 6/4/07
 # Modules Installed: 89
Field work performed by: Tetra Tech ECI

Retrieval date(s): 6-16-07
 # Modules Retrieved: 87
 # Modules Lost in Field: 2
 # Modules Not Returned: 25

Exposure Time: 23 **[days]**
 # Trip Blanks Returned: 4
 # Unused Modules Returned: 0

Date/Time Received by Gore: 6/19/2007 12:00:00 PM By: MM
Chain of Custody Form attached: Yes
Chain of Custody discrepancies: Modules #532277 and -278 were listed as trip blanks. These modules were not returned. Installation and Retrieval Log indicated modules #523227 and -228 were designated as trip blanks.

Comments:
Modules #532177, -178, 227, and -228 were identified as trip blanks.
Modules #532165 and -261 were not retrieved and considered lost from the field.
The balance of the GORE™ Modules (25) was not returned and remains with Tetra Tech ECI for use in future sampling at this site.

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GORE™ Surveys - Final Report

ANALYTICAL PROCEDURES

W.L. Gore & Associates' Screening Module Laboratory operates under the guidelines of its Quality Assurance Manual, Operating Procedures and Methods. The quality assurance program is consistent with Good Laboratory Practices (GLP) and ISO Guide 25, "General Requirements for the Competence of Calibration and Testing Laboratories", third edition, 1990.

Instrumentation consists of state of the art gas chromatographs equipped with mass selective detectors, coupled with automated thermal desorption units. Sample preparation simply involves cutting the tip off the bottom of the sample module and transferring one or more exposed sorbent containers (sorbers, each containing engineered adsorbents) to a thermal desorption tube for analysis. Sorbers remain clean and protected from dirt, soil, and ground water by the insertion/retrieval cord, and require no further sample preparation.

Analytical Method Quality Assurance:
The analytical method employed is a modified EPA method 8260/8270. Before each run sequence, two instrument blanks, a sorber containing 5µg BFB (Bromofluorobenzene), and a method blank are analyzed. The BFB mass spectra must meet the criteria set forth in the method before samples can be analyzed. A method blank and a sorber containing BFB are also analyzed after every 30 samples and/or trip blanks. Standards containing the selected target compounds at five calibration levels are analyzed at the beginning of each run. The criterion for each target compound is less than 25% RSD (relative standard deviation). If this criterion is not met for any target compound, the analyst has the option of generating second- or third-order standard curves, as appropriate. A second-source reference standard, at a level of 10µg per target compound, is analyzed after every ten samples and/or trip blanks, and at the end of the run sequence. Positive identification of target compounds is determined by 1) the presence of the target ion and at least two secondary ions; 2) retention time versus reference standard; and, 3) the analyst's judgment.

NOTE: All data have been archived. Any replicate sorbers not used in the initial analysis will be discarded fifteen (15) days from the date of analysis.

Laboratory analysis: thermal desorption, gas chromatography, mass selective detection
Instrument ID: # 5 **Chemist:** SE\JW
Compounds/mixtures requested: A2
Deviations from Standard Method: None
Comments: Soil vapor analytes and abbreviations are tabulated in the Data Table Key (page 6).

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GORE™ Surveys - Final Report

DATA TABULATION

 # CONTOUR MAPS ENCLOSED: Two (2) B-sized color contour maps
LIST OF MAPS ENCLOSED:

- Benzene
- Naphthalene

NOTE: All data values presented in Appendix A represent masses of compound(s) desorbed from the GORE™ Modules received and analyzed by W.L. Gore & Associates, Inc., as identified in the Chain of Custody (Appendix A). The measurement traceability and instrument performance are reproducible and accurate for the measurement process documented. Semi-quantitation of the compound mass is based on a five-level standard calibration.

General Comments:

- This survey reports soil gas mass levels present in the vapor phase. Vapors are subject to a variety of attenuation factors during migration away from the source concentration to the module. Thus, mass levels reported from the module will often be less than concentrations reported in soil and groundwater matrix data. In most instances, the soil gas masses reported on the modules compare favorably with concentrations reported in the soil or groundwater (e.g., where soil gas levels are reported at greater levels relative to other sampled locations on the site, matrix data should reveal the same pattern, and vice versa). However, due to a variety of factors, a perfect comparison between matrix data and soil gas levels can rarely be achieved.
- Soil gas signals reported by this method cannot be identified specifically to soil adsorbed, groundwater, and/or free-product contamination. The soil gas signal reported from each module can evolve from all of these sources. Differentiation between soil and groundwater contamination can only be achieved with prior knowledge of the site history (i.e., the site is known to have groundwater contamination only).
- QA/QC trip blank modules were provided to document potential exposures that were not part of the soil gas signal of interest (i.e., impact during module shipment, installation and retrieval, and storage). The trip blanks are identically manufactured and packaged soil gas modules to those modules placed in the subsurface. However, the trip blanks remain unopened during all phases of the soil gas survey. Levels reported on the trip blanks may indicate potential impact to modules other than the contaminant source of interest.

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- Unresolved peak envelopes (UPEs) are represented as a series of compound peaks clustered together around a central gas chromatograph elution time in the total ion chromatogram. Typically, UPEs are indicative of complex fluid mixtures that are present in the subsurface. UPEs observed early in the chromatogram are considered to indicate the presence of more volatile fluids, while UPEs observed later in the chromatogram may indicate the presence of less volatile fluids. Multiple UPEs may indicate the presence of multiple complex fluids.
- Stacked total ion chromatograms (TICs) are included in Appendix A. The six-digit serial number of each module is incorporated into the TIC identification (e.g.: 123456S.D represents module #123456).

Project Specific Comments:

- The minimum (gray) contour level, for each mapped analyte or group of analytes, was set at the maximum blank level observed or the method detection limit, whichever was greater. When target compounds are summed together (i.e., BTEX), the contour minimum is arbitrarily set at 0.02 μg or the maximum blank level, whichever is greater. The maximum contour level was set at the maximum value observed.
- No target compounds were detected on the trip blanks and/or the method blanks. Thus, target analyte levels reported for the field-installed modules that exceed trip and method blank levels, and the analyte method detection limit, are more likely to have originated from on-site sources.
- Fuel-related target compounds were observed in low to moderate soil gas mass levels. Naphthalene was the most prevalent target compound. The mapped spatial patterns indicated some well-defined soil gas plumes with embedded "hot spots."
- If the objective of the soil gas survey was to delineate the nature and extent of the contamination, then additional soil gas sampling is recommended in those areas where the color contours appear to extend into unsampled areas. Subsequent sampling events can be combined with the data from this event and mapped together to provide greater coverage.

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GORE™ Surveys - Final Report

KEY TO DATA TABLE
Alameda Point OU5/12-02, Alameda, CA

UNITS

μg	micrograms (per sorber), reported for compounds
MDL	method detection limit
bdl	below detection limit
nd	non-detect

ANALYTES

TPH	total petroleum hydrocarbons
BTEX	combined masses of benzene, toluene, ethylbenzene and total xylenes (Gasoline Range Aromatics)
BENZ	benzene
TOL	toluene
EtBENZ	ethylbenzene
mpXYL	m-, p-xylene
oXYL	o-xylene
C11,C13&C15	combined masses of undecane, tridecane, and pentadecane (C11+C13+C15) (Diesel Range Alkanes)
UNDEC	undecane
TRIDEC	tridecane
PENTADEC	pentadecane
TMBs	combined masses of 1,3,5-trimethylbenzene and 1,2,4-trimethylbenzene
135TMB	1,3,5-trimethylbenzene
124TMB	1,2,4-trimethylbenzene
NAPH&2-MN	combined masses of naphthalene and 2-methyl naphthalene
NAPH	naphthalene
2MeNAPH	2-methyl naphthalene
MTBE	methyl t-butyl ether
OCT	octane

BLANKS

TBn	unexposed trip blanks, travels with the exposed modules
method blank	QA/QC module, documents analytical conditions during analysis

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APPENDIX A:

1. CHAIN OF CUSTODY
2. DATA TABLE
3. STACKED TOTAL ION CHROMATOGRAMS
4. COLOR CONTOUR MAPS

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GORE-SORBER® Screening Survey Chain of Custody

For W.L. Gore & Associates use only
Production Order # 13175262

W. L. Gore & Associates, Inc., Survey Products Group
100 Chesapeake Boulevard • Elkton, Maryland 21921 • Tel: (410) 392-7600 • Fax (410) 506-4780

Instructions: Customer must complete ALL shaded cells

Customer Name:	TETRA TECH EC INC	Site Name:	25 FRR NAS
Address:	1230 COLUMBIA ST	Site Address:	ALAMEDA CA
	SUITE 650		
	SAN DIEGO CA 92101 U.S.A.	Project Manager:	BILL OGLE
Phone:	(650) 450-2982	Customer Project No.:	12257113
FAX:		Customer P.O. #: 062006	Quote #: 224738

Serial # of Modules Shipped

# 532165	# 532232	#	#
# 532239	# 532288	#	#
#	#	#	#
#	#	#	#
#	#	#	#
#	#	#	#
#	#	#	#
#	#	#	#
#	#	#	#
#	#	#	#

# of Modules for Installation 112 # of Trip Blanks 6

Total Modules Shipped:	118	Pieces
Total Modules Received:	118	Pieces
Total Modules Installed:	89	Pieces

Serial # of Trip Blanks (*Client Decides*)		
# 532177	#	#
# 532178	#	#
# 53277	#	#
# 53278	#	#
#	#	#
#	#	#
#	#	#
#	#	#
#	#	#

Prepared By: Marlene Yellowdy
Verified By: Clarence Whitaker

Installation Performed By:
Name (*please print*): [redacted] LARRY DUDDS
Company/Affiliation: T+EC

Installation Method(s) (*circle those that apply*):
Slide Hammer (Hammer Drill) Auger
Other:

Installation Start Date and Time: 5/23/07 / / : 1200 AM (PM)
Installation Complete Date and Time: 5 / 31 / 07 : 4:00 AM (PM)

Retrieval Performed By:
Name (*please print*): LARRY DUDDS
Company/Affiliation: T+EC

Total Modules Retrieved: 87 Pieces
Total Modules Lost in Field: 2 Pieces
Total Unused Modules Returned: 4 Pieces TRIP BLANKS SEE NOTE

Retrieval Start Date and Time: 6 / 16 / 07 : 7:15 (AM) PM
Retrieval Complete Date and Time: 6 / 16 / 07 : 11:47 (AM) PM

Relinquished By: Marlene Yellowdy Affiliation: W.L. Gore & Associates, Inc.	Date: 5/11/07	Time: 10:30	Received By: Affiliation: T+EC	Date: 5/15/07	Time: 12:06
Relinquished By: Affiliation: T+EC	Date: 6/18	Time: 1300	Received By: Affiliation:	Date	Time
Relinquished By: Affiliation:	Date	Time	Received By: Marylane Neiche Affiliation: W.L. Gore & Associates, Inc.	Date: 6-19-07	Time: 12:00

GORE-SORBER ® Screening Survey is a registered service mark of W.L. Gore & Associates, Inc.

DEAR GORE

WE WILL BE HANGING ON TO
25 SORRERS PENDING NOTIFICATION
TO PROCEED FROM CLIENT. THANKS

ANY QUESTIONS CALL ME @
619 981 4145
LARRY DOOS

GORE-SORBER® Screening Survey Installation and Retrieval Log

Page 1 of 3

SITE NAME & LOCATION
ALAMEDA POINT OU5/~~RC4~~ IR-02
PRE-DESIGN
ALAMEDA, CA.

LINE #	MODULE #	INSTALLATION DATE/TIME	RETRIEVAL DATE/TIME	EVIDENCE OF LIQUID HYDROCARBONS (LPH) or HYDROCARBON ODOR (Check as appropriate) LPH	ODOR	NONE	MODULE IN WATER (check one) YES	NO	COMMENTS
1.	532165	5/23/07 1200	MISSING			✓		✓	G1-1 WET SOIL
2.	532166	1233	6/16/07 1117			✓		✓	G1-2
3.	532167	1247	6/16/07 1118			✓		✓	G1-3
4.	532168	1255	6/16/07 1114			✓		✓	G1-4
5.	532169	1308	6/16/07 1128			✓		✓	G1-5
6.	532170	5/23/07 334	6/16/07 1127			✓		✓	G1-6
7.	532171	5/24/07 1030	6/16/07 1138			✓	✓	~~✓~~	G1-7
8.	532172	1057	6/16/07 1131			✓		✓	G1-8
9.	532173	1120	6/16/07 1129			✓	✓	~~✓~~	G1-9
10.	532174	1125	6/16/07 1037			✓		✓	G1-10
11.	532175	~~5/24/07~~ 1234	6/16/07 1136			✓		✓	G1-11
12.	532176	RO ~~5/23/07~~ 1247	6/16/07 1133			✓		✓	G1-12
13.	532177	—	—	—	—	—	—	—	TRIP BLANK
14.	532178	—	—	—	—	—	—	—	TRIP BLANK
15.	532179	5/24/07 1300	6/16/07 0715			✓		✓	G2-1
16.	532180	1308	6/16/07 0725			✓		✓	G2-2
17.	532181	1314	6/16/07 0726			✓		✓	G2-~~4~~3
18.	532182	1322	6/16/07 0731			✓		✓	G2-4
19.	532183	1325	6/16/07 0733			✓		✓	G2-5
20.	532184	1336	6/16/07 0734			✓		✓	G2-6
21.	532185	1340	6/16/07 0737			✓		✓	G2-7
22.	532186	1356	6/16/07 0736			✓		✓	G2-8
23.	532187	1410	6/16/07 0738			✓		✓	G2-9
24.	532188	5/24/07 1418	6/16/07 0739			✓		✓	G2-10
25.	532189	5/30/07 1537	6/16/07 0826			✓		✓	G2-11
26.	532190	5/30/07 1551	6/16/07 0828			✓	✓	~~✓~~	G2-12
27.	532191	5/30/07 1602	6/16/07 0830			✓		✓	G2-13
28.	532192	5/30/07 1606	6/16/07 0832			✓		✓	G2-14
29.	532193	5/31/07 1608	6/16/07 0834			✓		✓	G2-15
30.	532194	5/31/07 1605	6/16/07 0836			✓		✓	G2-16
31.	532195	5/24/07 1505	6/16/07 0752			✓		✓	G2-17
32.	532196	5/24/07 1450	6/16/07 0749			✓		✓	G2-18
33.	532197	5/24/07 1442	6/16/07 0748			✓		✓	G2-19
34.	532198	5/24/07 1432	6/16/07 0747			✓		✓	G2-20
35.	532199	5/30/07 1636	6/16/07 0843			✓		✓	G2-21
36.	532200	5/30/07 1627	6/16/07 0842			✓	✓	~~✓~~	G2-22
37.	532201	5/30/07 1611	6/16/07 0840			✓	✓	~~✓~~	G2-23
38.	532202	5/31/07 1611	6/16/07 ~~0756~~ 0838			✓		✓	G2-24
39.	532203	5/31/07 1603	6/16/07 0837			✓		✓	G2-25
40.	532204	5/25/07 6:49	6/16/07 0756			✓		✓	G2-26
41.	532205	5/25/07 7:47	6/16/07 0805			✓		✓	G2-27
42.	532206	5/25/07 7:52	6/16/07 806			✓		✓	G2-28

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GORE-SORBER® Screening Survey
Installation and Retrieval Log

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SITE NAME & LOCATION
ALAMEDA POINT 005/12-02
PRE DESIGN
ALAMEDA CA

LINE #	MODULE #	INSTALLATION DATE/TIME	RETRIEVAL DATE/TIME	EVIDENCE OF LIQUID HYDROCARBONS (LPH) or HYDROCARBON ODOR (Check as appropriate) LPH	ODOR	NONE	MODULE IN WATER (check one) YES	NO	COMMENTS
43.	532207	5/25/07 8:02	6/16/07 0808			✓	✓	✓	G2-29 MOIST SOIL
44.	532208	5/30/07 1647	6/16/07 0855			✓	✓		G2-30
45.	532209	5/30/07 1642	6/16/07 0856			✓	✓		G2-31
46.	532210	5/30/07 1624	6/16/07 0857			✓		✓	G2-32
47.	532211	5/30/07 1617	6/16/07 0859			✓		✓	G2-33
48.	532212	5/31/07 1556	6/16/07 0900			✓		✓	G2-34
49.	532213	5/31/07 1600	6/16/07 0901			✓		✓	G2-35
50.	532214	5/25/07 8:41	6/16/07 0800			✓	✓	✓	G2-36 BURN AREA
51.	532215	5/25/07 8:35	6/16/07 0810			✓	✓	✓	G2-37
52.	532216	5/25/07 8:26	6/16/07 0811			✓	✓	✓	G2-38
53.	532217	5/25/07 8:10	6/16/07 0812			✓	✓	✓	G2-39 5' FROM BURN AREA
54.	532218	5/25/07 10:36	6/16/07 0918			✓	✓	✓	G2-40
55.	532219	5/25/07 10:03	6/16/07 0923			✓	✓	✓	G2-41 MOIST SOIL
56.	532220	5/25/07 10:08	6/16/07 0924			✓	✓	✓	G2-42
57.	532221	5/25/07 10:18	6/16/07 0925			✓	✓	✓	G2-43
58.	532222	5/25/07 10:22	6/16/07 0926			✓	✓	✓	G2-44
59.	532223	5/25/07 11:30	6/16/07 0946			✓	✓	✓	G2-45
60.	532224	5/25/07 11:40	6/16/07 0947			✓	✓	✓	G2-46
61.	532225	5/25/07 10:48	6/16/07 0930			✓	✓	✓	G2-47
62.	532226	5/25/07 10:57	6/16/07 0929			✓	✓	✓	G2-48
63.	532227								TRIP BLANK
64.	532228								TRIP BLANK
65.	532229	5/29/07 1440	6/16/07 0928			✓		✓	G3-1
66.	532230	5/29/07 1530	6/16/07 0948			✓		✓	G3-2
67.	532231	5/29/07 1536	6/16/07 0949			✓		✓	G3-3
68.	532232	5/29/07 1545	6/16/07 0951			✓		✓	G3-4
69.	532239	5/29/07 1550	6/16/07 0952			✓		✓	G3-5
70.	532240	5/29/07 1557	6/16/07 0953			✓		✓	G3-6
71.	532241	5/29/07 1605	6/16/07 1017			✓		✓	G3-7
72.	532242	5/29/07 1610	6/16/07 1027			✓	✓		G3-8
73.	532243	5/29/07 1445	6/16/07 0934			✓		✓	G3-9
74.	532244	5/29/07 1620	6/16/07 1055			✓		✓	G3-10
75.	532245	5/29/07 1643	6/16/07 1056			✓	✓		G3-11
76.	532246	5/29/07 1646	6/16/07 1057			✓		✓	G3-12
77.	532247	5/29/07 1654	6/16/07 1058			✓		✓	G3-13
78.	532248	5/29/07 1702	6/16/07 1100			✓		✓	G3-14
79.	532249	5/29/07 1708	6/16/07 1101			✓		✓	G3-15
80.	532250	5/29/07 1715	6/16/07 1102			✓		✓	G3-16
81.	532251	5/29/07 1722	6/16/07 1038			✓		✓	G3-17
82.	532252	5/29/07 1730	6/16/07 1032			✓		✓	G3-18
83.	532253	5/29/07 1507	6/16/07 0935			✓		✓	G3-19
	532254	5/29/07 1735	6/16/07 1053			✓	✓		G3-20

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GORE-SORBER® Screening Survey Installation and Retrieval Log

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SITE NAME & LOCATION
ALAMEDA POINT OU5 | IR-02
PRE DESIGN
ALAMEDA, CA

LINE #	MODULE #	INSTALLATION DATE/TIME	RETRIEVAL DATE/TIME	EVIDENCE OF LIQUID HYDROCARBONS (LPH) or HYDROCARBON ODOR (Check as appropriate)			MODULE IN WATER (check one)		COMMENTS
				LPH	ODOR	NONE	YES	NO	
85.	532255	5/29/07 1744	6/16/07 1051			✓		✓	G3-21
86.	532256	5/29/07 1750	6/16/07 1050			✓		✓	G3-22
87.	532257	5/29/07 1800	6/16/07 1048			✓		✓	G3-23
88.	532258	5/29/07 1808	6/16/07 1045			✓		✓	G3-24
89.	532259	5/29/07 1812	6/16/07 1044			✓		✓	G3-25
90.	532260	5/29/07 1818	6/16/07 1042			✓		✓	G3-26
91.	532261	5/29/07 1825	NO RECOVERY - ASPHALT			✓		✓	G3-27
92.	532262	5/29/07 1834	6/16/07 1033			✓		✓	G3-28
93.	532263	6/4/07 1155	6/16/07 1147			✓		✓	G3-29
94.	532264								
95.	532265								
96.	532266								
97.	532267								
98.	532268								
99.	532269								
100.	532270								
101.	532271								
102.	532272								
103.	532273								
104.	532274								
105.	532275								
106.	532276								
107.	532277								
108.	532278								
109.	532279								
110.	532280								
111.	532281								
112.	532282								
113.	532283								
114.	532284								
115.	532285								
116.	532286								
117.	532287								
118.	532288								
119.									
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126.									

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GORE(TM) SURVEYS ANALYTICAL RESULTS
TETRA TECH, SAN DIEGO, CA
GORE FUEL HYDROCARBONS (A2)
ALAMEDA POINT OU5/ 12-02, ALAMEDA, CA
SITE DTK - PRODUCTION ORDER #13175262

DATE ANALYZED	SAMPLE NAME	TPH, ug	BTEX, ug	BENZ, ug	TOL, ug	EtBENZ, ug	mpXYL, ug	oXYL, ug	C11, C13, &C15, ug	UNDEC, ug	TRIDEC, ug
	MDL=			0.01	0.01	0.01	0.01	0.01		0.01	0.01
06-26-07	532166	3.80	nd	nd	nd	nd	nd	nd	0.10	0.08	0.03
06-26-07	532167	1.10	0.36	nd	0.03	0.03	0.11	0.18	0.00	bdl	nd
06-27-07	532168	3.51	0.06	nd	nd	nd	0.03	0.03	0.15	0.12	0.03
06-27-07	532169	0.23	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-27-07	532170	0.71	0.09	nd	nd	nd	0.09	nd	0.00	bdl	nd
06-27-07	532171	2.25	0.03	0.03	nd	nd	nd	nd	0.02	0.02	nd
06-25-07	532172	10.23	0.14	nd	nd	0.02	0.08	0.04	0.66	0.42	0.20
06-25-07	532173	0.43	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-26-07	532174	9.85	0.07	nd	nd	nd	0.05	0.03	0.62	0.46	0.11
06-26-07	532175	2.84	0.02	nd	nd	nd	0.02	nd	0.19	0.10	0.05
06-26-07	532176	2.55	nd	nd	nd	nd	nd	nd	0.11	0.09	0.02
06-27-07	532179	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-27-07	532180	1.37	0.00	nd	nd	nd	nd	bdl	0.00	bdl	nd
06-25-07	532181	0.82	0.02	nd	nd	nd	0.02	nd	0.00	bdl	nd
06-28-07	532182	6.35	0.03	nd	nd	nd	0.02	0.02	0.35	0.10	0.19
06-27-07	532183	0.60	0.01	nd	nd	nd	nd	0.01	0.02	0.02	nd
06-25-07	532184	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-27-07	532185	2.85	0.22	nd	0.03	0.03	0.10	0.07	0.29	0.29	bdl
06-26-07	532186	0.98	0.05	nd	nd	nd	0.03	0.02	0.06	0.06	nd
06-27-07	532187	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-25-07	532188	0.04	nd	nd	nd	nd	nd	nd	0.00	bdl	nd
06-26-07	532189	4.09	0.14	0.04	0.05	0.02	0.02	0.02	0.02	0.02	bdl
06-27-07	532190	0.60	0.02	nd	nd	nd	0.02	nd	nd	nd	nd
06-27-07	532191	3.52	nd	nd	nd	nd	nd	nd	0.02	nd	nd
06-26-07	532192	8.52	0.04	nd	nd	nd	0.02	0.02	0.13	0.04	0.05
06-25-07	532193	70.63	0.02	nd	0.02	nd	nd	nd	0.26	0.10	0.06
06-26-07	532194	39.25	0.12	nd	0.08	nd	0.02	0.02	0.13	0.07	nd
06-28-07	532195	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-26-07	532196	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-27-07	532197	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-28-07	532198	0.41	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-26-07	532199	2.83	nd	nd	nd	nd	nd	nd	0.00	bdl	nd
06-27-07	532200	2.31	0.41	0.02	0.28	0.02	0.06	0.03	0.00	bdl	nd
06-28-07	532201	0.27	0.06	nd	nd	nd	0.04	0.02	0.00	bdl	nd

No mdl is available for summed combinations of analytes. In summed columns (eg., BTEX), the reported values should be considered ESTIMATED if any of the individual compounds were reported as bdl.

GORE(TM) SURVEYS ANALYTICAL RESULTS
TETRA TECH, SAN DIEGO, CA
GORE FUEL HYDROCARBONS (A2)
ALAMEDA POINT OU5/ 12-02, ALAMEDA, CA
SITE DTK - PRODUCTION ORDER #13175262

DATE ANALYZED	SAMPLE NAME	TPH, ug	BTEX, ug	BENZ, ug	TOL, ug	EtBENZ, ug	mpXYL, ug	oXYL, ug	C11, C13, &C15, ug	UNDEC, ug	TRIDEC, ug
	MDL=			0.01	0.01	0.01	0.01	0.01		0.01	0.01
06-27-07	532202	3.19	0.29	nd	0.03	0.04	0.13	0.08	0.02	0.01	bdl
06-26-07	532203	15.19	4.61	nd	1.07	0.68	2.02	0.85	0.25	0.17	0.04
06-26-07	532204	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-26-07	532205	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-26-07	532206	0.08	nd	nd	nd	nd	nd	nd	0.00	bdl	bdl
06-28-07	532207	0.70	0.11	nd	nd	0.02	0.06	0.03	0.02	0.02	nd
06-26-07	532208	0.11	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-26-07	532209	0.57	nd	nd	nd	nd	nd	nd	0.00	bdl	nd
06-27-07	532210	0.54	0.08	nd	0.07	nd	0.01	nd	0.01	0.01	nd
06-27-07	532211	13.01	0.66	nd	0.55	0.02	0.05	0.04	0.24	0.13	0.05
06-26-07	532212	1.90	0.06	nd	nd	0.01	0.03	0.02	0.01	0.01	bdl
06-26-07	532213	6.92	0.25	nd	nd	0.03	0.12	0.10	0.13	0.11	0.03
06-25-07	532214	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-27-07	532215	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-26-07	532216	0.05	nd	nd	nd	nd	nd	nd	0.01	0.01	nd
06-26-07	532217	2.94	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-28-07	532218	0.79	0.01	nd	nd	nd	0.01	nd	0.00	bdl	nd
06-26-07	532219	0.81	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-26-07	532220	1.11	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-27-07	532221	0.04	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-27-07	532222	0.11	nd	nd	nd	nd	nd	nd	0.00	bdl	nd
06-27-07	532223	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-27-07	532224	0.66	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-26-07	532225	6.38	0.00	bdl	nd	nd	nd	nd	0.06	0.05	0.01
06-27-07	532226	4.68	0.14	0.04	0.02	nd	0.05	0.03	0.14	0.11	0.03
06-25-07	532229	0.52	0.02	nd	nd	nd	0.02	nd	nd	nd	nd
06-27-07	532230	0.57	nd	nd	nd	nd	nd	nd	0.06	0.06	nd
06-26-07	532231	13.04	nd	nd	nd	nd	nd	nd	0.14	0.10	0.04
06-26-07	532232	9.68	0.07	nd	nd	nd	0.04	0.03	1.90	1.88	0.01
06-26-07	532239	10.83	nd	nd	nd	nd	nd	nd	0.14	0.14	nd
06-27-07	532240	5.66	0.01	nd	nd	nd	0.01	nd	0.13	0.04	0.04
06-26-07	532241	1.98	nd	nd	nd	nd	nd	nd	0.06	0.03	0.02
06-26-07	532242	8.45	0.07	0.03	nd	nd	0.02	0.02	0.07	0.04	0.01
06-26-07	532243	32.40	0.02	nd	nd	nd	nd	0.02	0.35	0.05	0.05

No mdl is available for summed combinations of analytes. In summed columns (eg., BTEX), the reported values should be considered ESTIMATED if any of the individual compounds were reported as bdl.

GORE(TM) SURVEYS ANALYTICAL RESULTS
TETRA TECH, SAN DIEGO, CA
GORE FUEL HYDROCARBONS (A2)
ALAMEDA POINT OU5/ 12-02, ALAMEDA, CA
SITE DTK - PRODUCTION ORDER #13175262

DATE ANALYZED	SAMPLE NAME	TPH, ug	BTEX, ug	BENZ, ug	TOL, ug	EtBENZ, ug	mpXYL, ug	oXYL, ug	C11, C13, &C15, ug	UNDEC, ug	TRIDEC, ug
	MDL=			0.01	0.01	0.01	0.01	0.01		0.01	0.01
06-26-07	532244	4.13	0.03	nd	nd	nd	0.02	0.02	0.82	0.80	0.02
06-26-07	532245	1.07	nd	nd	nd	nd	nd	nd	0.05	0.05	nd
06-26-07	532246	12.66	0.02	nd	nd	nd	0.02	nd	0.08	0.05	0.02
06-26-07	532247	1.87	nd	nd	nd	nd	nd	nd	0.08	0.08	nd
06-25-07	532248	32.22	0.10	nd	0.03	nd	0.04	0.03	0.93	0.05	0.16
06-26-07	532249	1.61	nd	nd	nd	nd	nd	nd	0.04	0.02	bdl
06-27-07	532250	9.99	0.15	0.06	0.03	nd	0.03	0.02	0.22	0.15	0.05
06-27-07	532251	3.67	0.05	0.02	nd	nd	0.02	0.01	0.00	bdl	nd
06-26-07	532252	0.74	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-26-07	532253	3.16	0.13	0.05	0.05	nd	0.01	0.01	0.01	0.01	bdl
06-25-07	532254	0.70	0.07	nd	nd	0.01	0.03	0.03	0.02	0.02	nd
06-26-07	532255	0.73	nd	nd	nd	nd	nd	nd	0.03	0.03	bdl
06-27-07	532256	0.69	nd	nd	nd	nd	nd	nd	0.01	0.01	nd
06-27-07	532257	8.57	nd	nd	nd	nd	nd	nd	0.32	0.18	0.10
06-27-07	532258	0.25	nd	nd	nd	nd	nd	nd	0.07	0.07	nd
06-25-07	532259	14.55	0.21	0.15	0.02	nd	0.02	0.02	0.04	0.03	0.01
06-25-07	532260	0.03	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-26-07	532262	1.31	nd	nd	nd	nd	nd	nd	0.02	0.02	bdl
06-27-07	532263	1.03	nd	nd	nd	nd	nd	nd	0.02	bdl	0.02
06-27-07	532177	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-25-07	532178	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-26-07	532227	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-27-07	532228	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-25-07	method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-26-07	method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-27-07	method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
06-28-07	method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Maximum	70.63	4.61	0.15	1.07	0.68	2.02	0.85	1.90	1.88	0.20
	Standard Dev.	9.99	0.50	0.02	0.13	0.07	0.22	0.09	0.26	0.23	0.04
	Mean	4.88	0.10	0.01	0.03	0.01	0.04	0.02	0.11	0.08	0.02

No mdl is available for summed combinations of analytes. In summed columns (eg., BTEX), the reported values should be considered ESTIMATED if any of the individual compounds were reported as bdl.

GORE(TM) SURVEYS ANALYTICAL RESULTS
TETRA TECH, SAN DIEGO, CA
GORE FUEL HYDROCARBONS (A2)
ALAMEDA POINT OU5/ 12-02, ALAMEDA, CA
SITE DTK - PRODUCTION ORDER #13175262

SAMPLE NAME	PENTADEC, ug	TMBs, ug	124TMB, ug	135TMB, ug	NAPH&2-MN, ug	NAPH, ug	2MeNAPH, ug	MTBE, ug	OCT, ug
MDL=	0.01		0.01	0.01		0.02	0.01	0.02	0.01
532166	bdl	0.02	0.02	nd	0.91	0.70	0.22	nd	nd
532167	nd	0.03	0.03	nd	nd	nd	nd	nd	nd
532168	bdl	0.02	0.02	nd	nd	nd	nd	nd	nd
532169	nd	nd	nd	nd	nd	nd	nd	nd	nd
532170	nd	nd	nd	nd	nd	nd	nd	nd	nd
532171	nd	nd	nd	nd	nd	nd	nd	nd	0.03
532172	0.04	0.17	0.11	0.05	0.06	0.04	0.02	nd	0.02
532173	nd	nd	nd	nd	nd	nd	nd	nd	nd
532174	0.04	0.14	0.10	0.04	0.06	0.03	0.03	nd	0.02
532175	0.04	0.02	0.02	nd	nd	nd	nd	nd	nd
532176	bdl	0.01	0.01	nd	0.00	nd	bdl	nd	nd
532179	nd	nd	nd	nd	nd	nd	nd	nd	nd
532180	nd	nd	nd	nd	nd	nd	nd	nd	nd
532181	nd	nd	nd	nd	0.03	0.03	nd	nd	nd
532182	0.06	nd	nd	nd	nd	nd	nd	nd	nd
532183	nd	nd	nd	nd	nd	nd	nd	nd	nd
532184	nd	nd	nd	nd	nd	nd	nd	nd	nd
532185	nd	0.00	bdl	nd	0.02	0.02	nd	nd	nd
532186	nd	0.00	bdl	nd	0.02	0.02	nd	nd	nd
532187	nd	nd	nd	nd	nd	nd	nd	nd	nd
532188	nd	nd	nd	nd	0.53	0.35	0.17	nd	nd
532189	bdl	0.00	bdl	nd	0.08	0.07	0.01	nd	nd
532190	nd	nd	nd	nd	nd	nd	nd	nd	nd
532191	0.02	nd	nd	nd	0.04	0.04	bdl	nd	nd
532192	0.05	0.00	bdl	nd	0.02	nd	0.02	nd	nd
532193	0.10	nd	nd	nd	0.03	0.03	bdl	nd	0.02
532194	0.06	0.00	bdl	nd	0.02	0.02	bdl	nd	nd
532195	nd	nd	nd	nd	nd	nd	nd	nd	nd
532196	nd	nd	nd	nd	nd	nd	nd	nd	nd
532197	nd	nd	nd	nd	nd	nd	nd	nd	nd
532198	nd	nd	nd	nd	0.05	0.03	0.01	nd	nd
532199	nd	nd	nd	nd	nd	nd	nd	nd	nd
532200	nd	nd	nd	nd	0.03	0.03	bdl	bdl	nd
532201	nd	nd	nd	nd	nd	nd	nd	nd	nd

No mdl is available for summed combinations of analytes. In summed columns (eg., BTEX), the reported values should be considered ESTIMATED if any of the individual compounds were reported as bdl.

GORE(TM) SURVEYS ANALYTICAL RESULTS
TETRA TECH, SAN DIEGO, CA
GORE FUEL HYDROCARBONS (A2)
ALAMEDA POINT OU5/ 12-02, ALAMEDA, CA
SITE DTK - PRODUCTION ORDER #13175262

SAMPLE NAME	PENTADEC, ug	TMBs, ug	124TMB, ug	135TMB, ug	NAPH&2-MN, ug	NAPH, ug	2MeNAPH, ug	MTBE, ug	OCT, ug
MDL=	0.01		0.01	0.01		0.02	0.01	0.02	0.01
532202	0.01	0.01	0.01	nd	0.00	nd	bdl	nd	nd
532203	0.04	0.08	0.05	0.03	0.02	bdl	0.02	nd	0.03
532204	nd	nd	nd	nd	nd	nd	nd	nd	nd
532205	nd	nd	nd	nd	nd	nd	nd	nd	nd
532206	nd	nd	nd	nd	nd	nd	nd	nd	nd
532207	nd	nd	nd	nd	0.04	0.04	bdl	nd	nd
532208	nd	nd	nd	nd	nd	nd	nd	nd	nd
532209	nd	nd	nd	nd	0.06	0.06	bdl	nd	nd
532210	nd	nd	nd	nd	nd	nd	nd	nd	nd
532211	0.05	0.00	bdl	nd	0.02	nd	0.02	nd	0.01
532212	bdl	0.00	bdl	nd	0.04	0.02	0.02	nd	nd
532213	nd	nd	nd	nd	0.00	nd	bdl	nd	nd
532214	nd	nd	nd	nd	nd	nd	nd	nd	nd
532215	nd	nd	nd	nd	nd	nd	nd	nd	nd
532216	nd	nd	nd	nd	nd	nd	nd	nd	nd
532217	nd	nd	nd	nd	nd	nd	nd	nd	nd
532218	nd	nd	nd	nd	nd	nd	nd	nd	nd
532219	nd	nd	nd	nd	nd	nd	nd	nd	nd
532220	nd	nd	nd	nd	nd	nd	nd	nd	nd
532221	nd	nd	nd	nd	nd	nd	nd	nd	nd
532222	nd	nd	nd	nd	nd	nd	nd	nd	nd
532223	nd	nd	nd	nd	nd	nd	nd	nd	nd
532224	nd	nd	nd	nd	nd	nd	nd	nd	nd
532225	bdl	0.01	0.01	bdl	0.00	nd	bdl	nd	0.03
532226	bdl	0.07	0.05	0.02	0.04	0.02	0.02	nd	0.04
532229	nd	nd	nd	nd	nd	nd	nd	nd	nd
532230	nd	nd	nd	nd	nd	nd	nd	nd	nd
532231	bdl	0.03	0.02	0.01	0.07	0.05	0.02	nd	nd
532232	0.01	0.07	0.05	0.02	0.09	0.06	0.03	nd	nd
532239	nd	nd	nd	nd	0.00	nd	bdl	nd	nd
532240	0.05	0.02	0.02	nd	0.06	0.02	0.04	nd	0.01
532241	0.01	nd	nd	nd	0.00	bdl	bdl	nd	nd
532242	0.02	0.13	0.07	0.07	25.57	22.26	3.31	nd	nd
532243	0.25	0.14	0.07	0.07	0.15	0.05	0.10	nd	nd

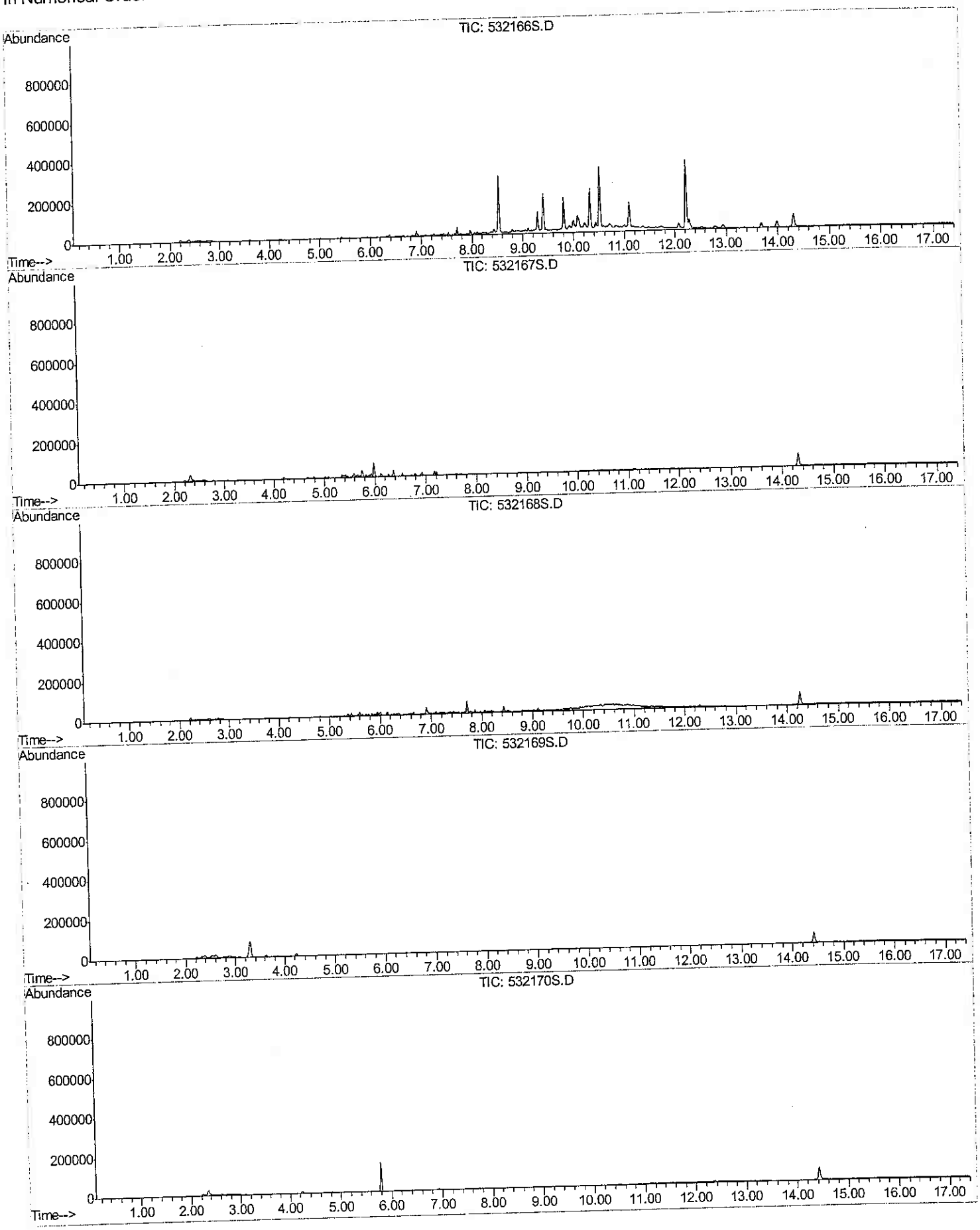
No mdl is available for summed combinations of analytes. In summed columns (eg., BTEX), the reported values should be considered ESTIMATED if any of the individual compounds were reported as bdl.

GORE(TM) SURVEYS ANALYTICAL RESULTS
TETRA TECH, SAN DIEGO, CA
GORE FUEL HYDROCARBONS (A2)
ALAMEDA POINT OU5/ 12-02, ALAMEDA, CA
SITE DTK - PRODUCTION ORDER #13175262

SAMPLE NAME	PENTADEC, ug	TMBs, ug	124TMB, ug	135TMB, ug	NAPH&2-MN, ug	NAPH, ug	2MeNAPH, ug	MTBE, ug	OCT, ug
MDL=	0.01		0.01	0.01		0.02	0.01	0.02	0.01
532244	nd	0.00	bdl	nd	0.02	0.02	nd	nd	nd
532245	nd	nd	nd	nd	0.00	nd	bdl	nd	nd
532246	0.02	0.02	0.02	bdl	0.10	0.07	0.03	nd	nd
532247	nd	nd	nd	nd	nd	nd	nd	nd	nd
532248	0.73	0.03	0.01	0.02	0.07	0.04	0.03	nd	0.02
532249	0.02	0.00	bdl	nd	nd	nd	nd	nd	nd
532250	0.02	0.05	0.03	0.02	0.07	0.05	0.02	nd	0.05
532251	nd	nd	nd	nd	0.07	0.06	0.01	nd	nd
532252	nd	nd	nd	nd	nd	nd	nd	nd	nd
532253	nd	0.02	0.02	bdl	0.00	nd	bdl	nd	nd
532254	nd	nd	nd	nd	nd	nd	nd	nd	nd
532255	nd	0.00	bdl	nd	0.00	bdl	bdl	nd	nd
532256	nd	nd	nd	nd	nd	nd	nd	nd	nd
532257	0.04	0.05	0.03	0.02	0.06	0.02	0.04	nd	nd
532258	nd	nd	nd	nd	nd	nd	nd	nd	nd
532259	nd	0.24	0.11	0.14	15.46	12.84	2.63	nd	0.03
532260	nd	nd	nd	nd	nd	nd	nd	nd	nd
532262	nd	nd	nd	nd	nd	nd	nd	nd	nd
532263	nd	nd	nd	nd	nd	nd	nd	nd	nd
532177	nd	nd	nd	nd	nd	nd	nd	nd	nd
532178	nd	nd	nd	nd	nd	nd	nd	nd	nd
532227	nd	nd	nd	nd	nd	nd	nd	nd	nd
532228	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd
Maximum	0.73	0.24	0.11	0.14	25.57	22.26	3.31	0.00	0.05
Standard Dev.	0.08	0.04	0.02	0.02	3.18	2.74	0.45	0.00	0.01
Mean	0.02	0.02	0.01	0.01	0.50	0.43	0.08	0.00	0.00

No mdl is available for summed combinations of analytes. In summed columns (eg., BTEX), the reported values should be considered ESTIMATED if any of the individual compounds were reported as bdl.

TIC - SITE DTK - PRODUCTION ORDER #13175262
In Numerical Order



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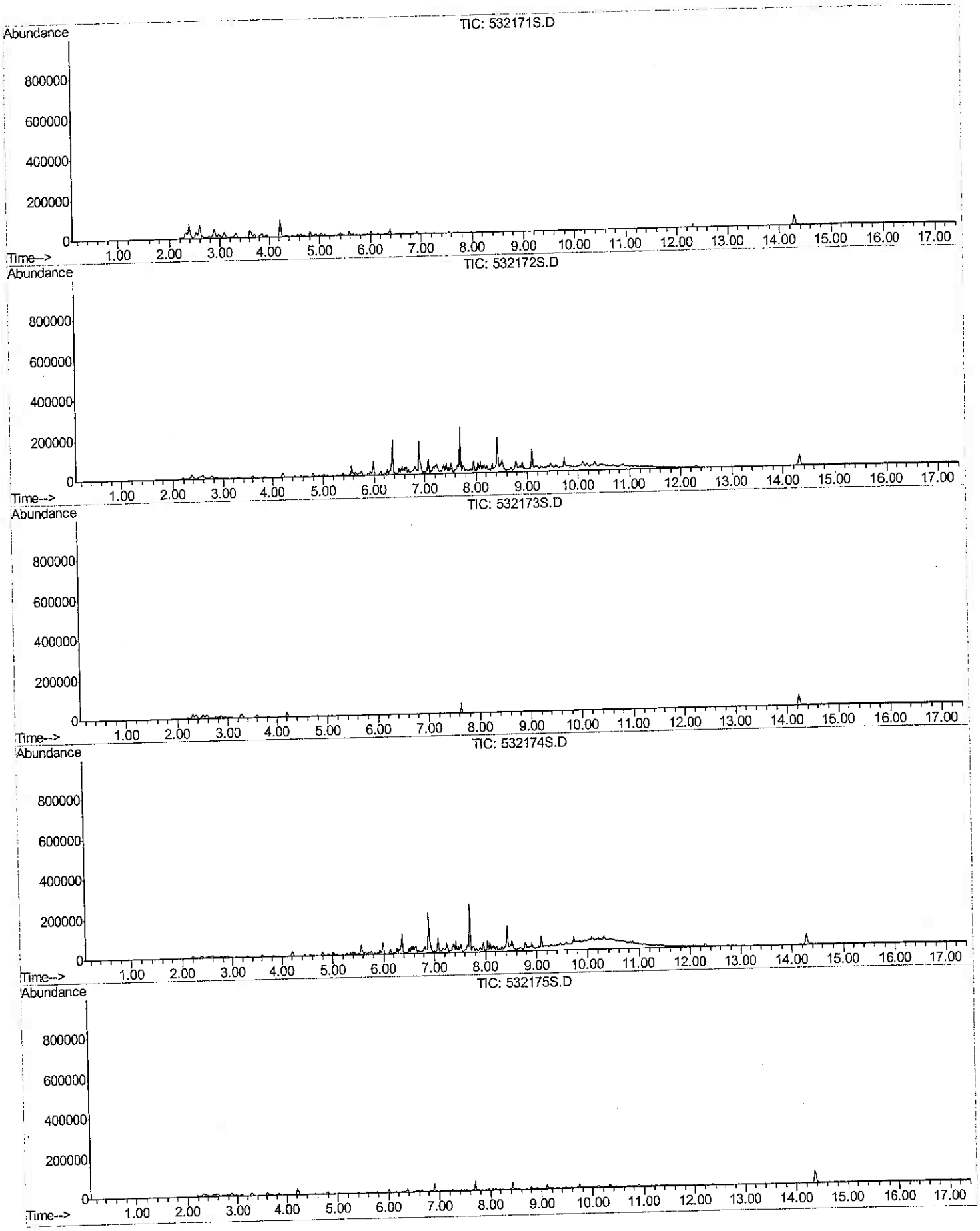
In Numerical Order



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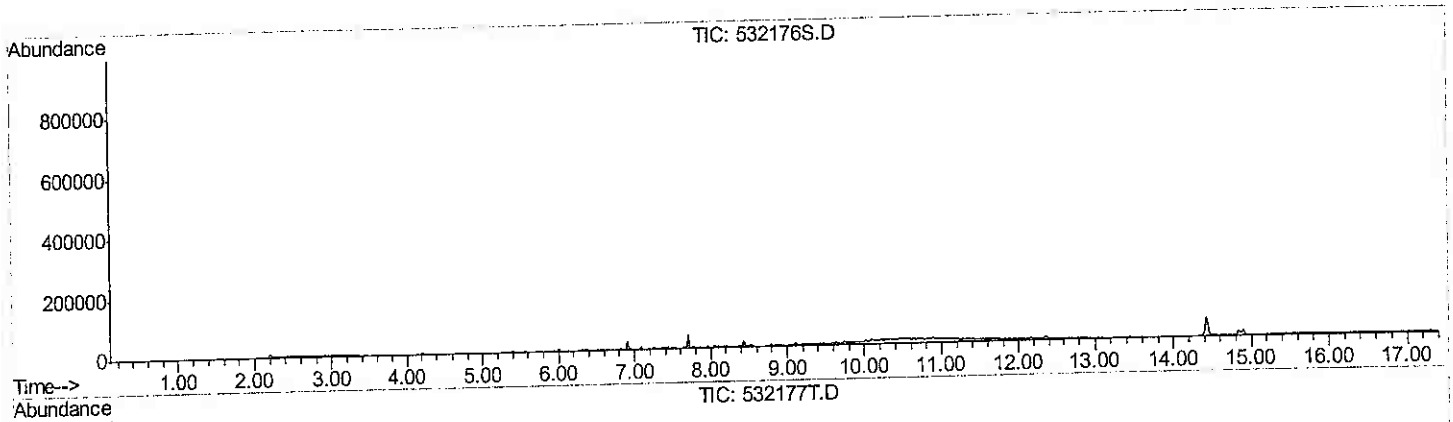
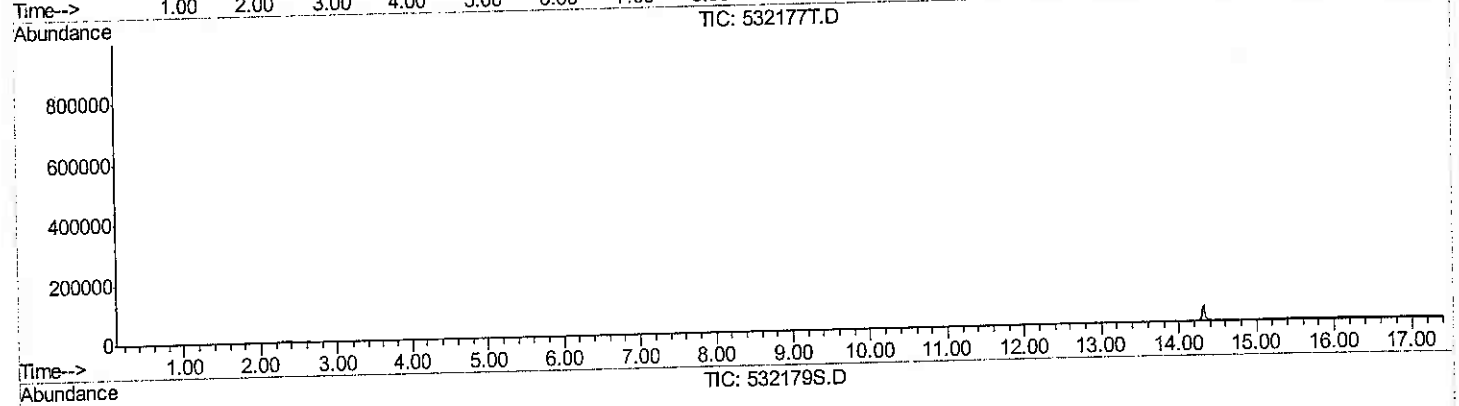
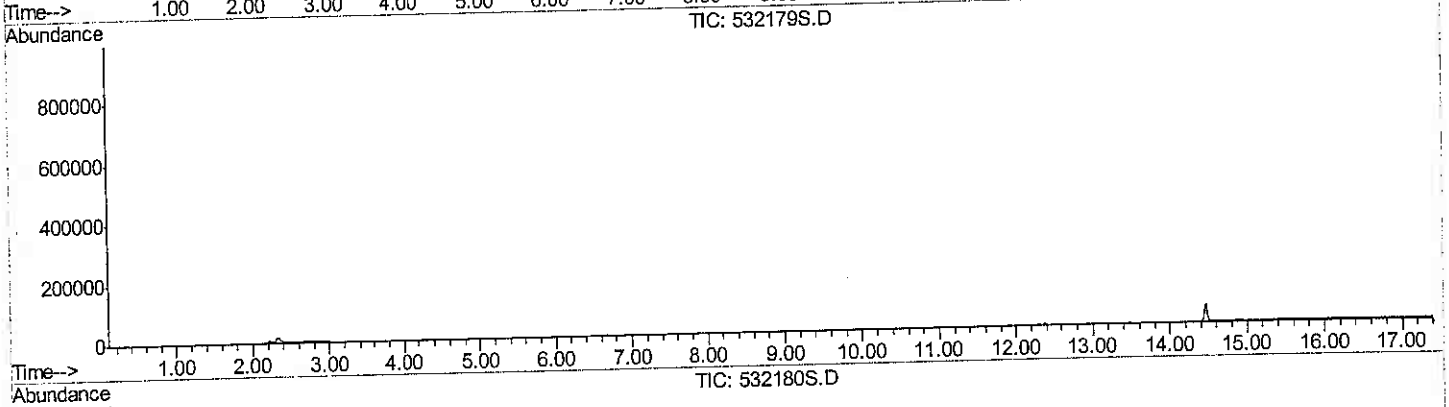
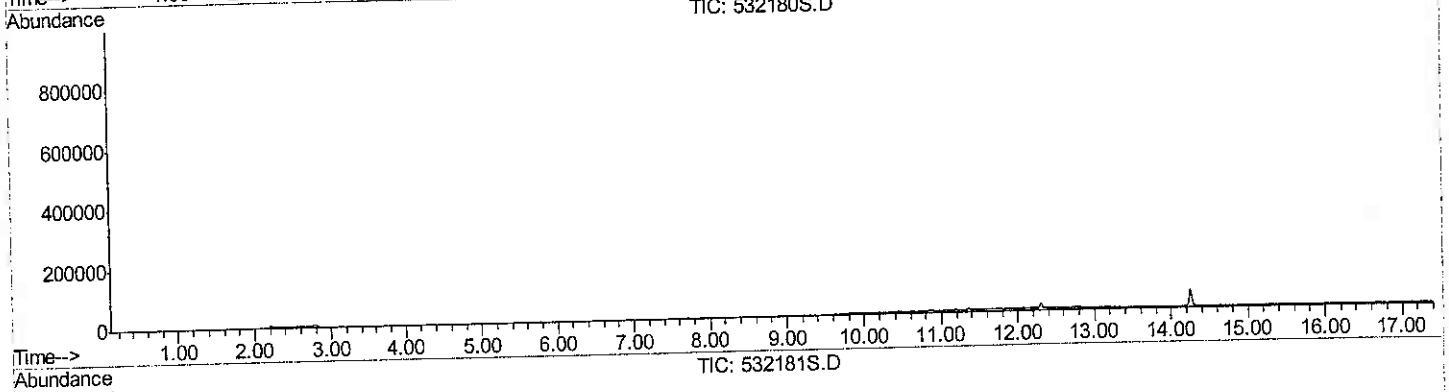
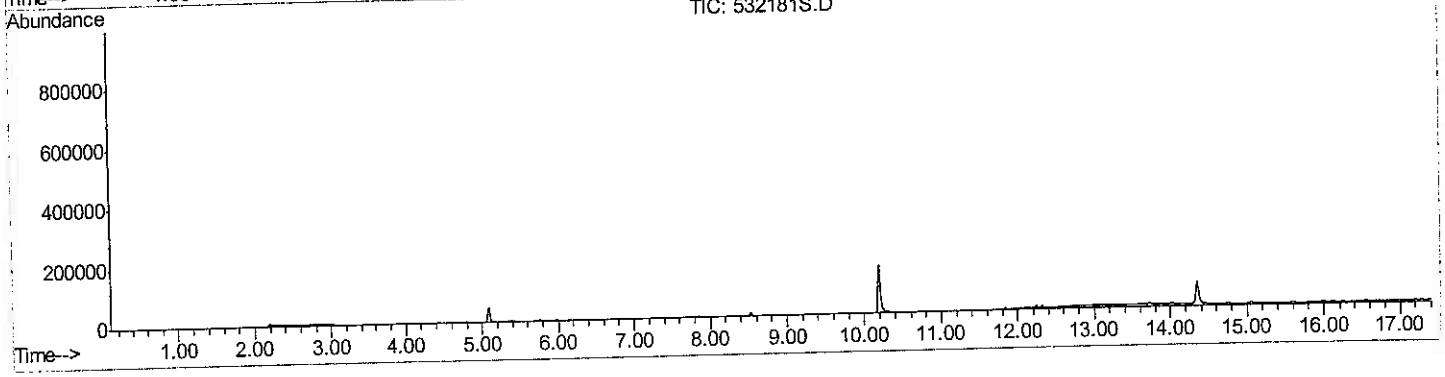
In Numerical Order











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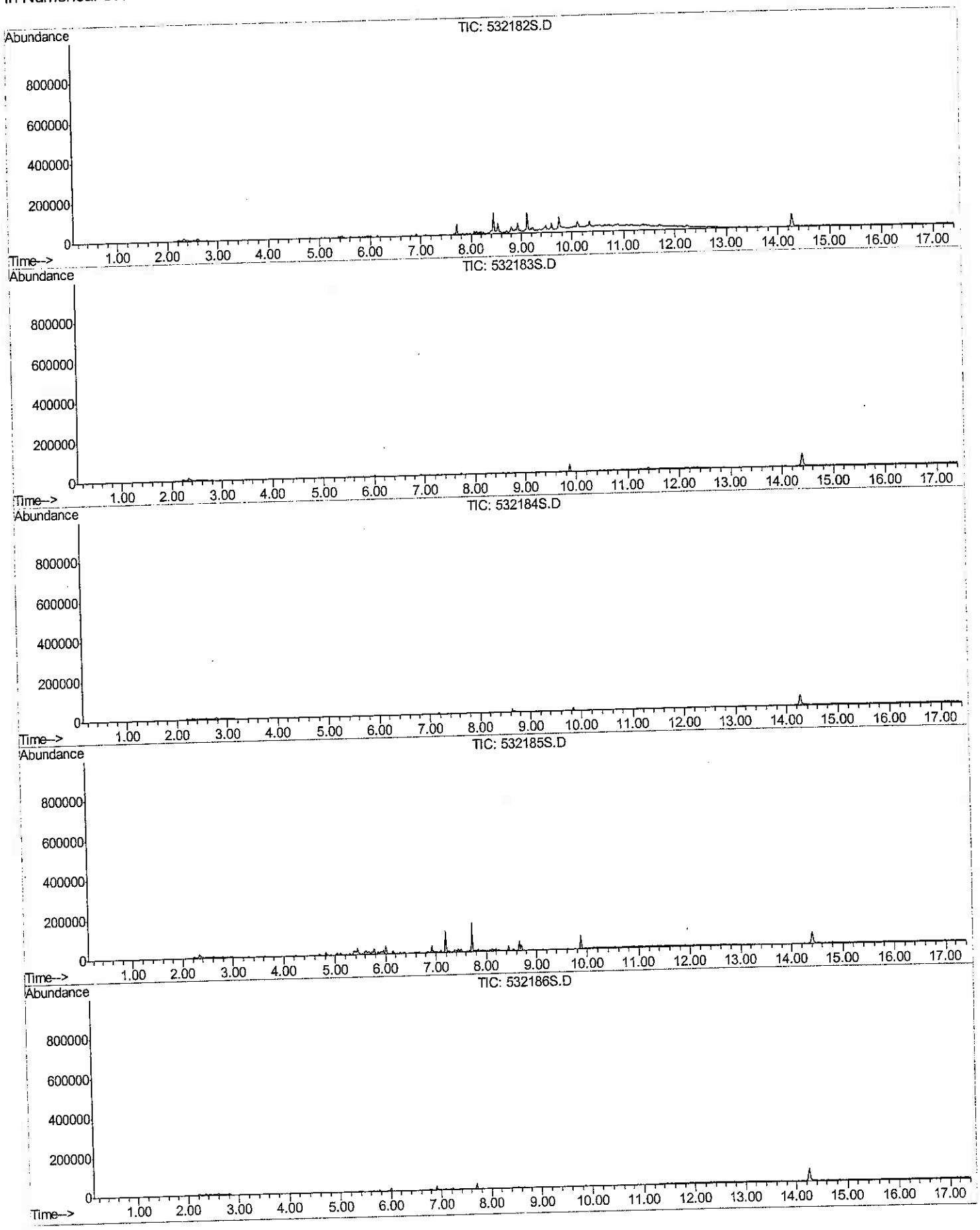

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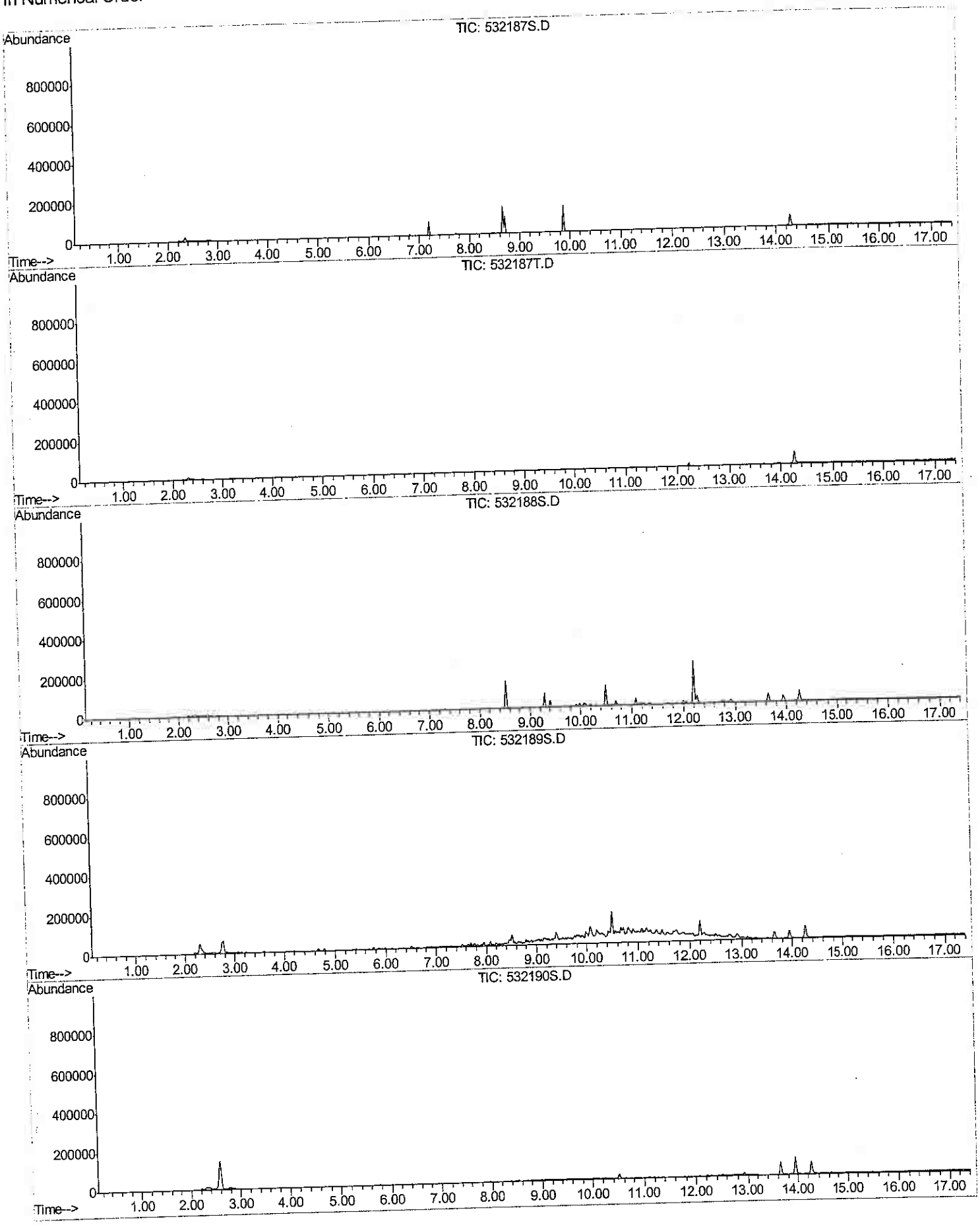

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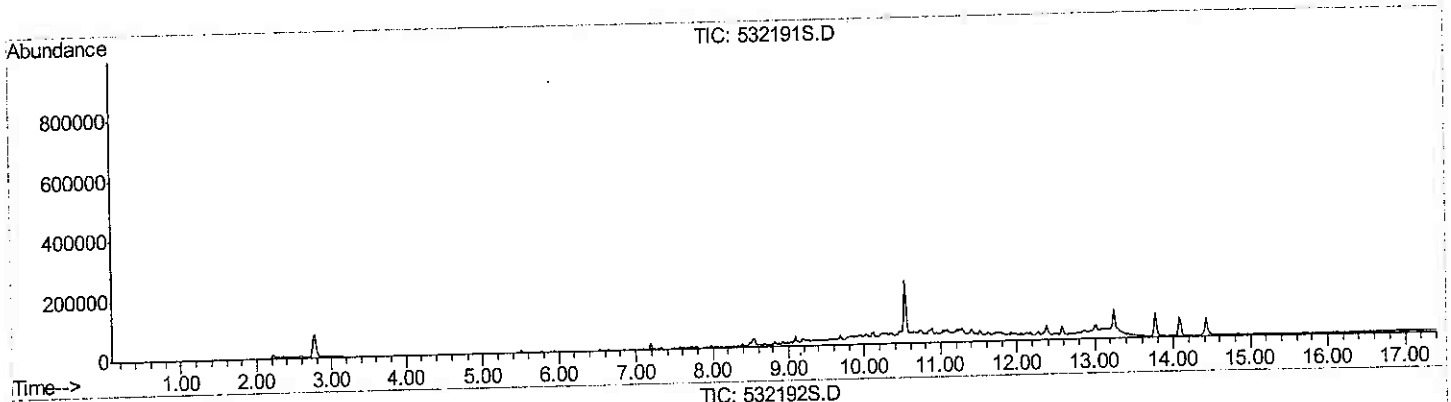

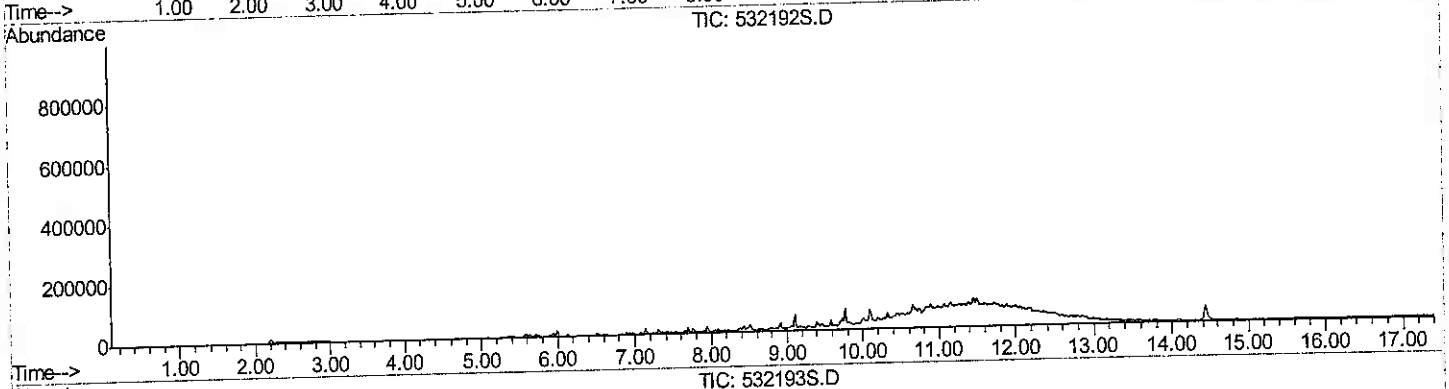

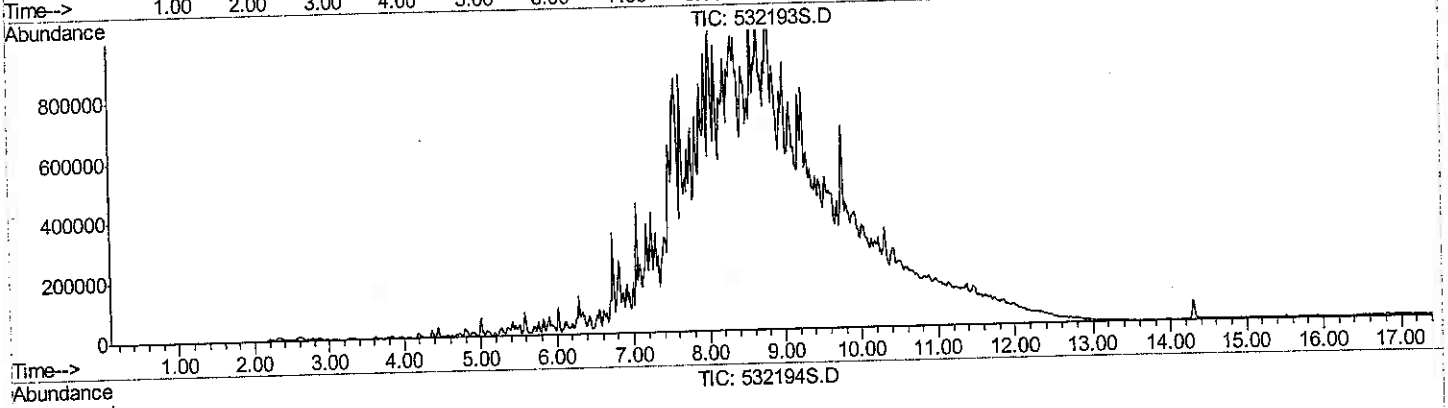

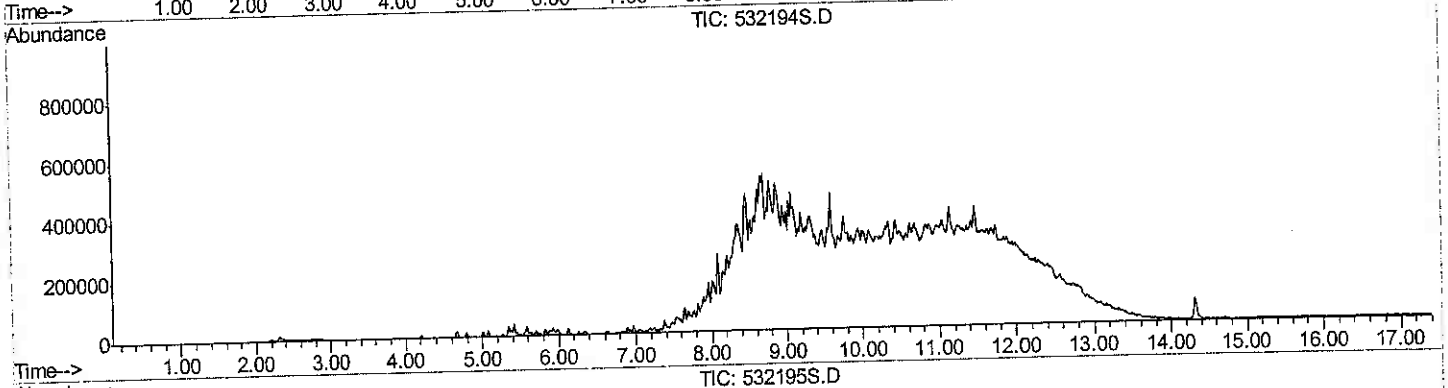

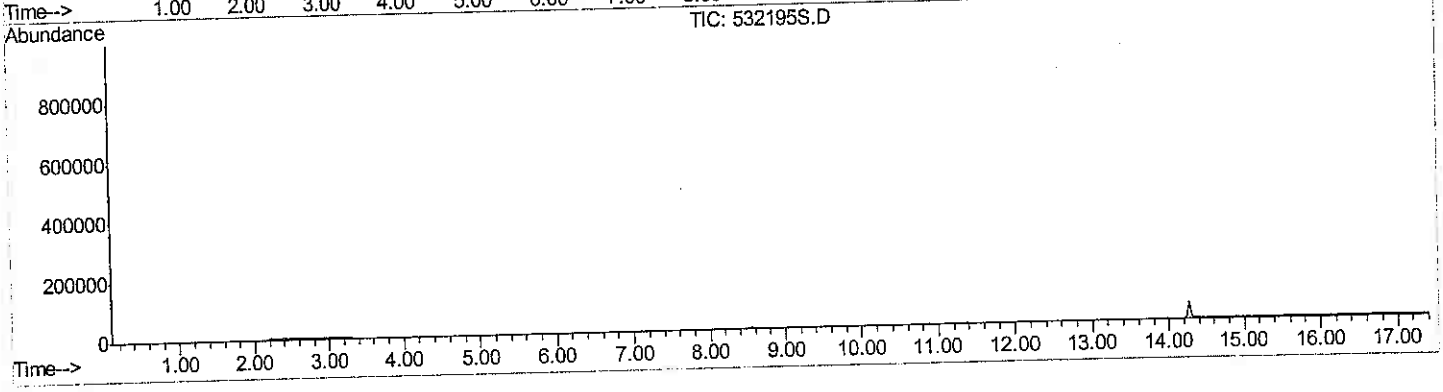

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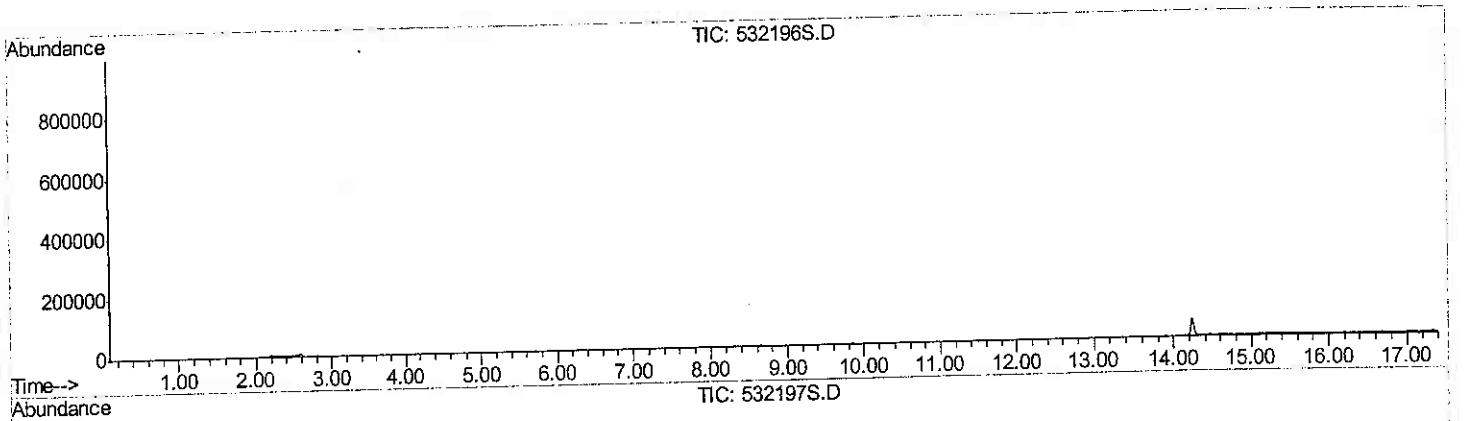

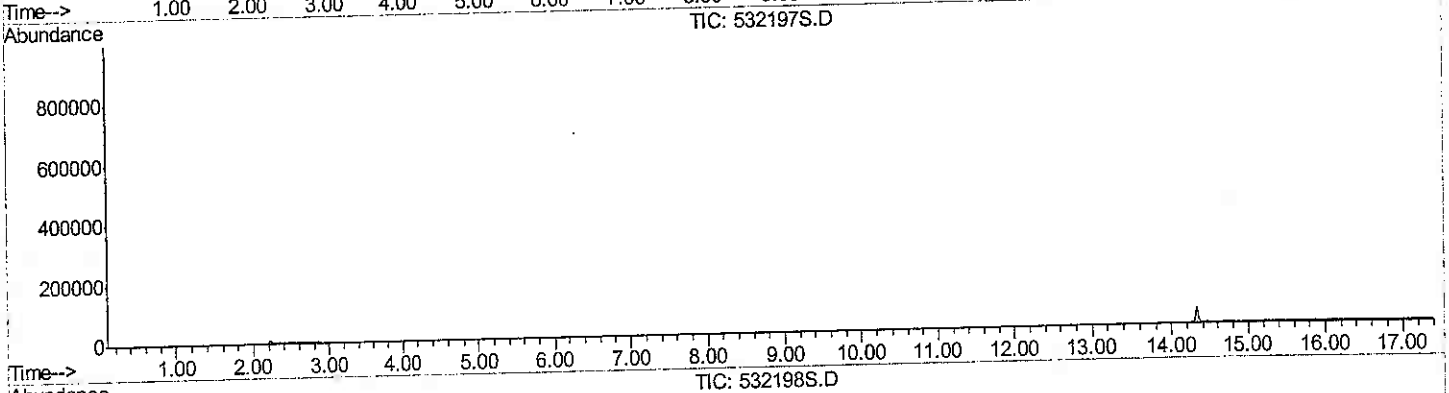

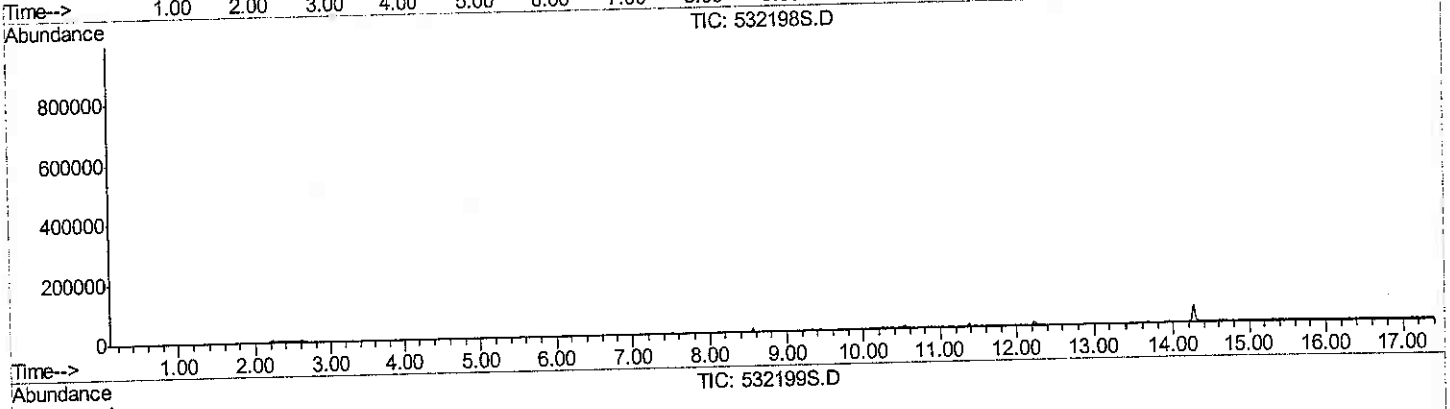

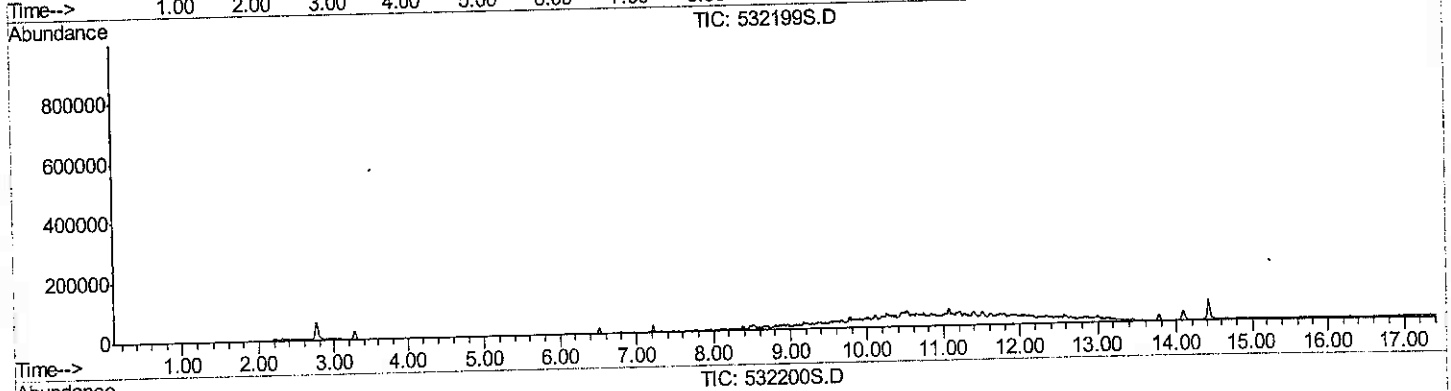

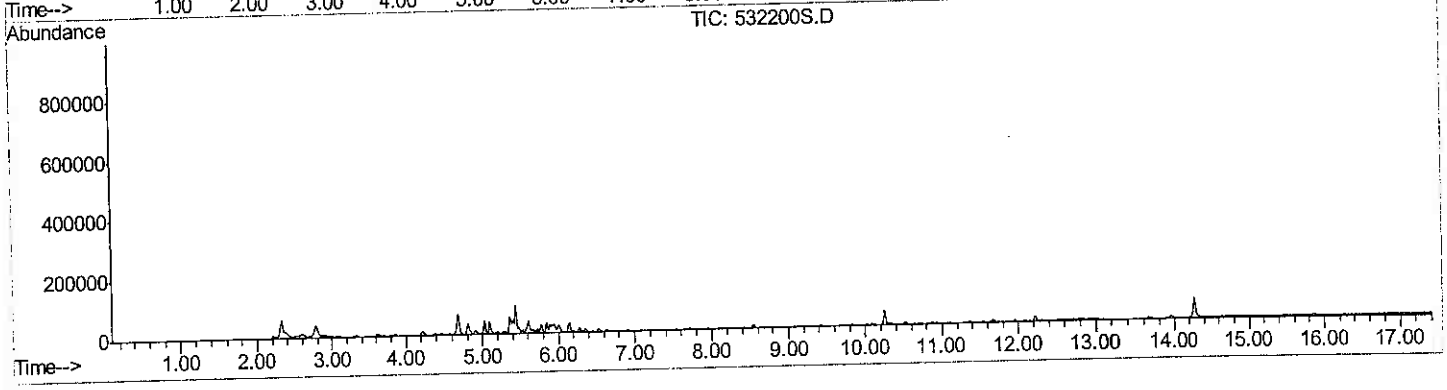

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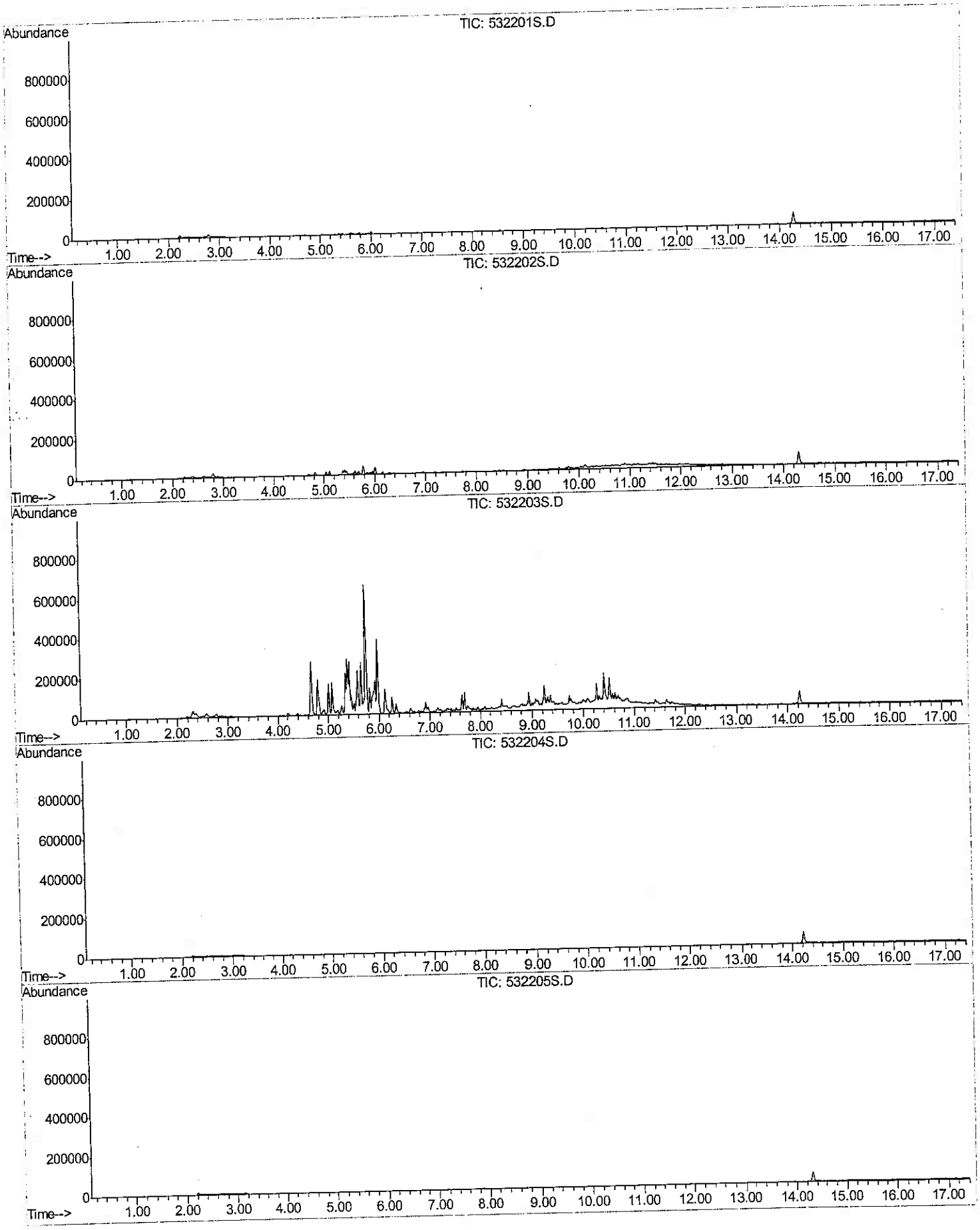

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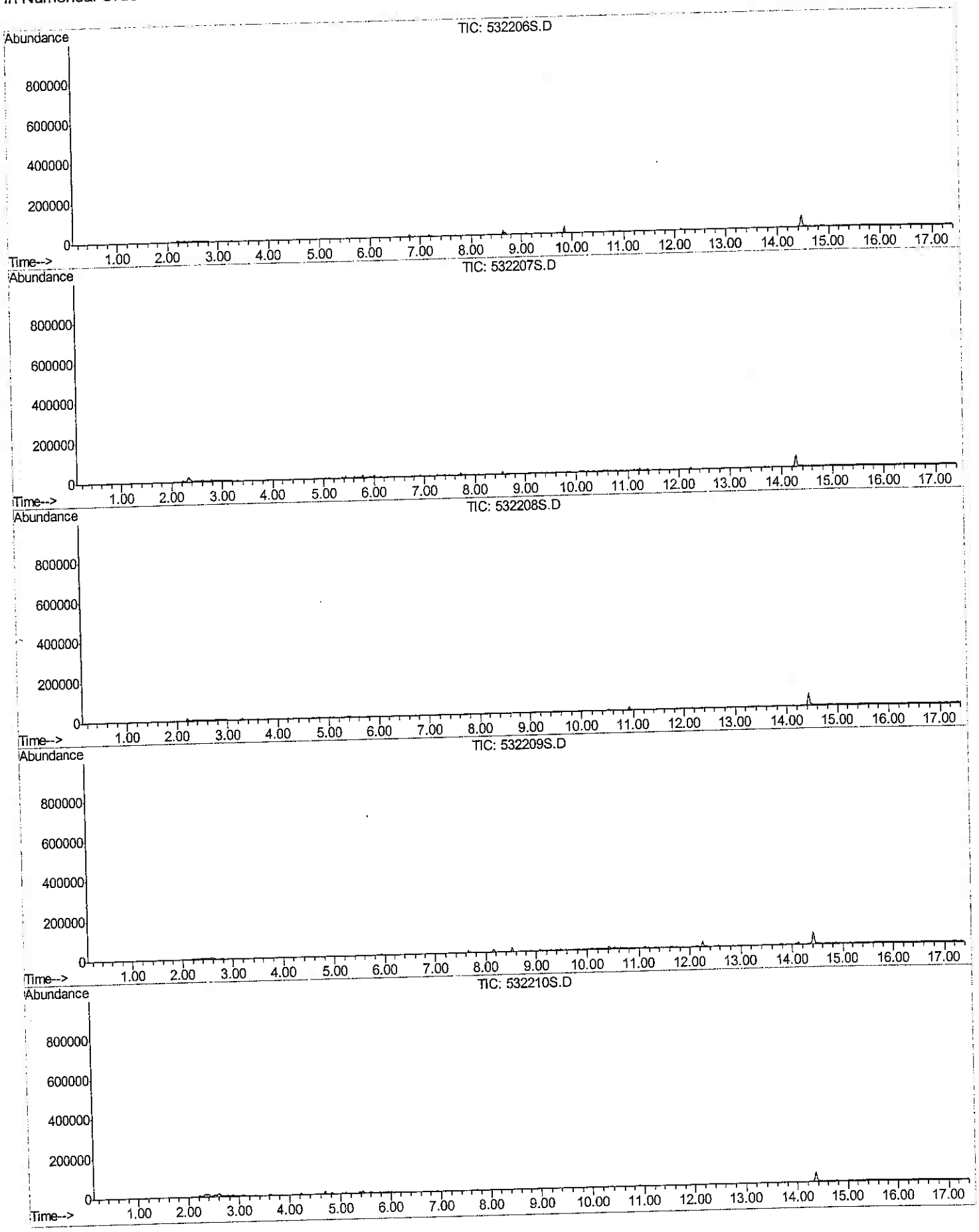

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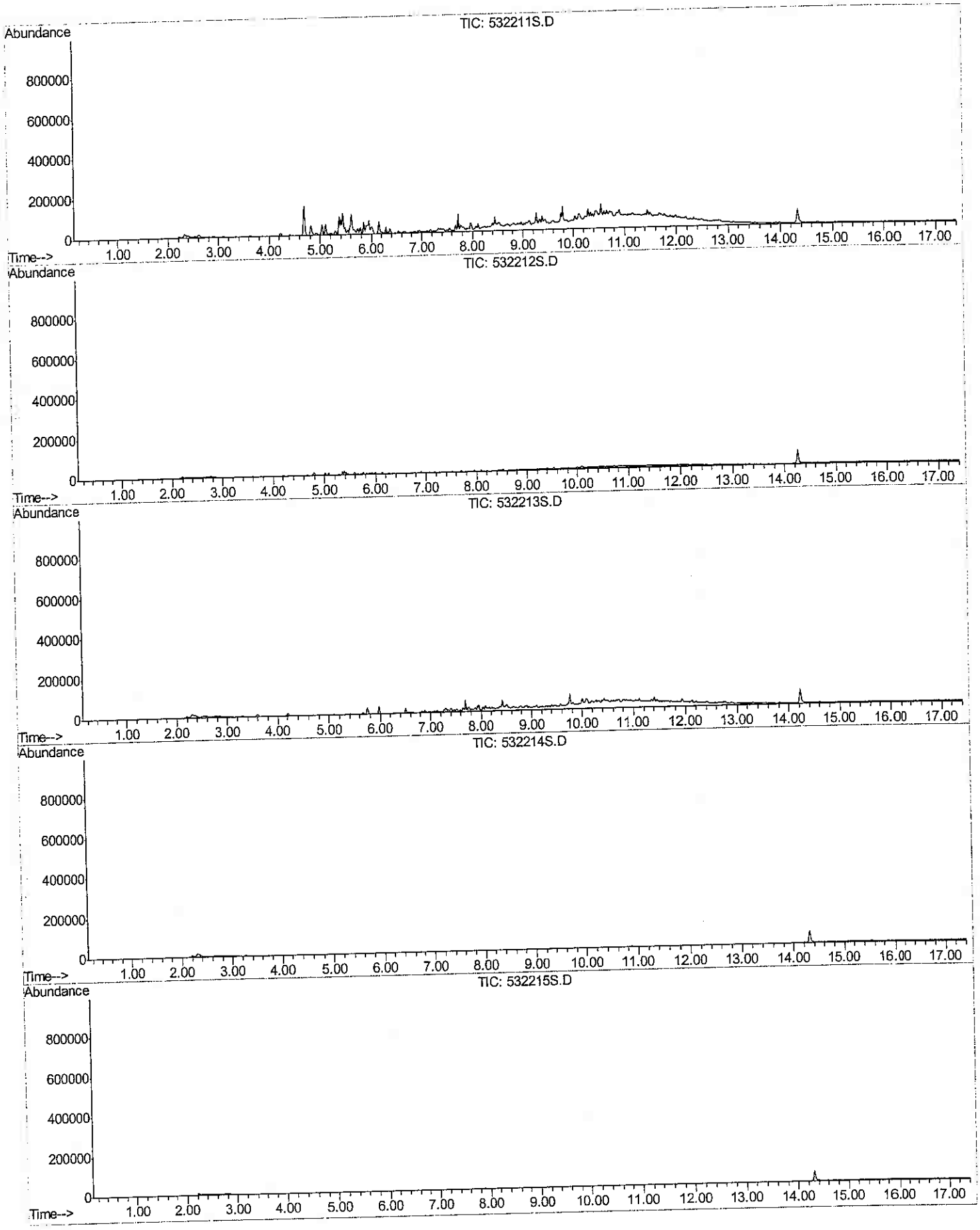

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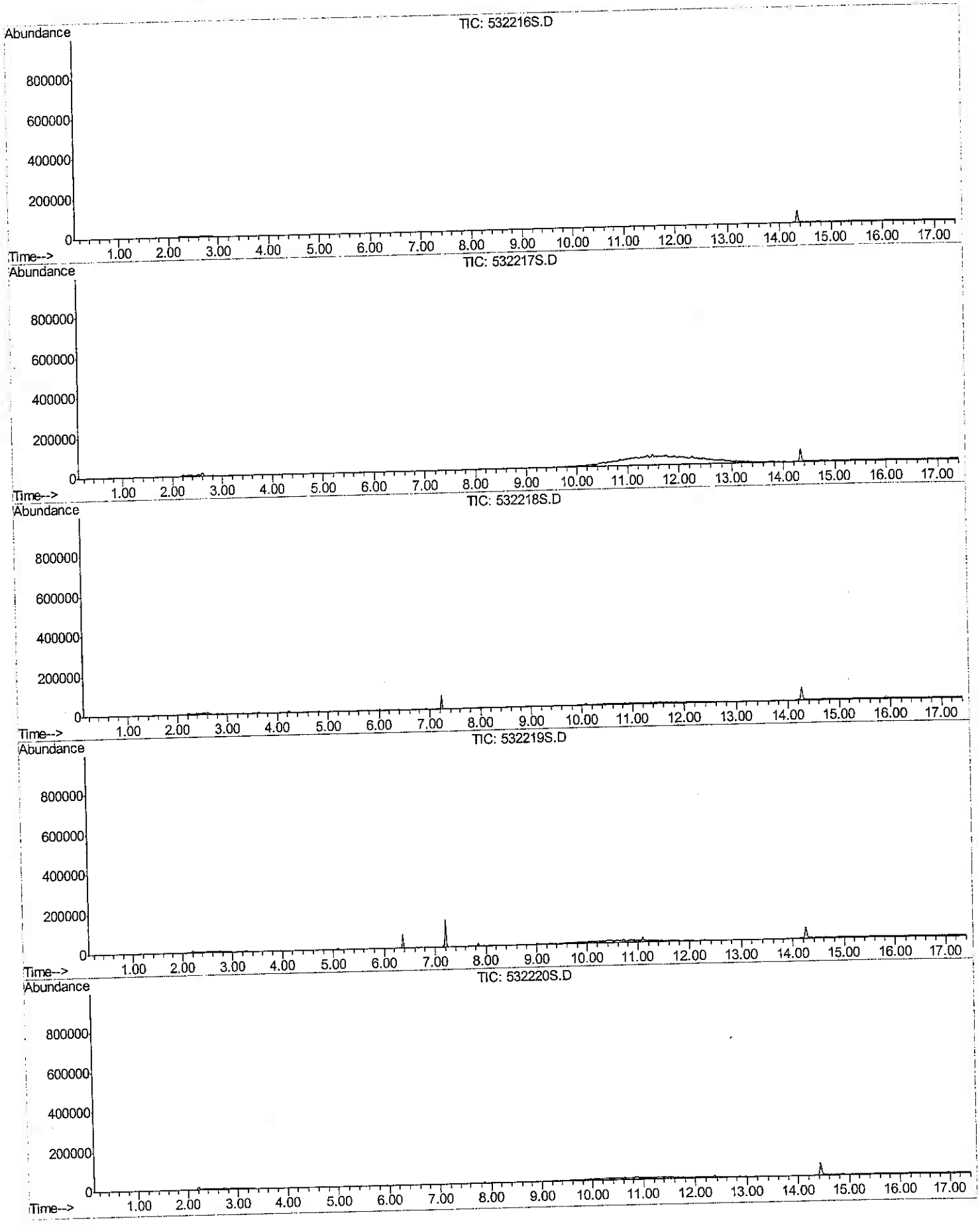
In Numerical Order



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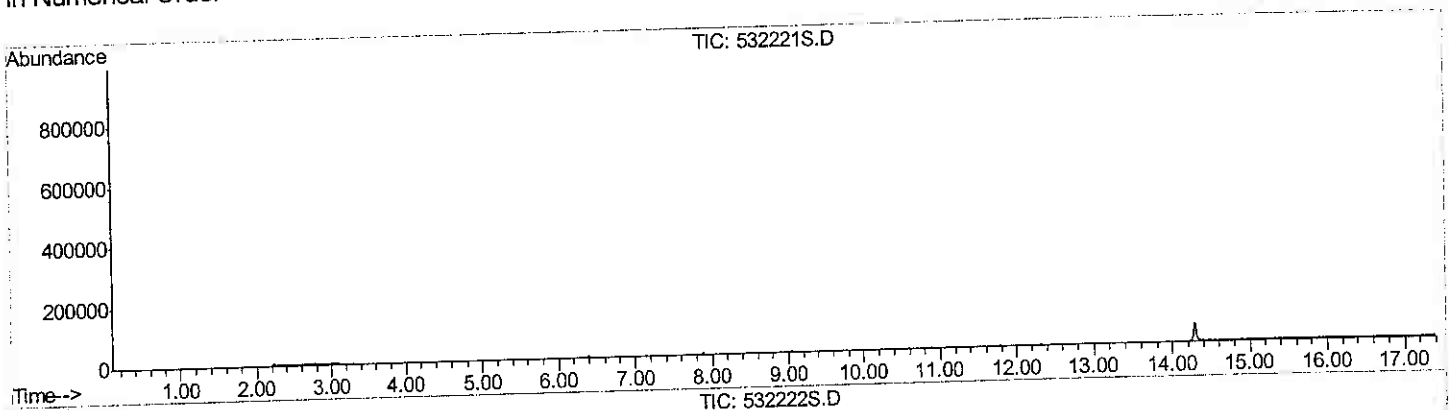
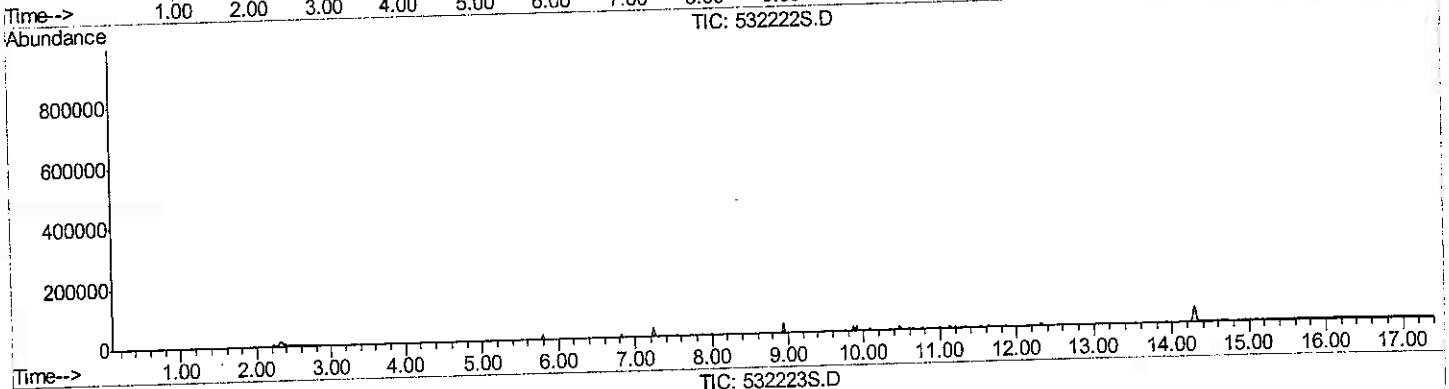
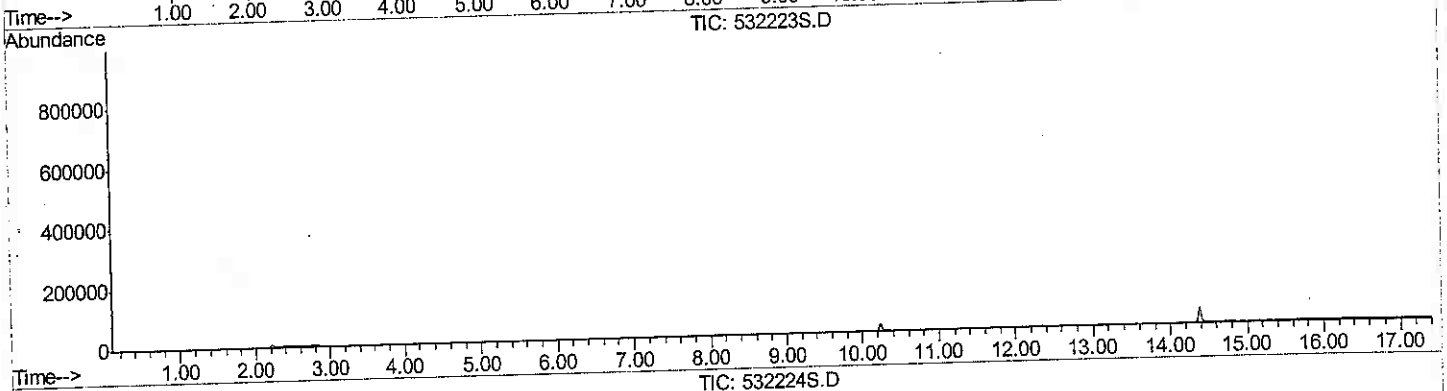
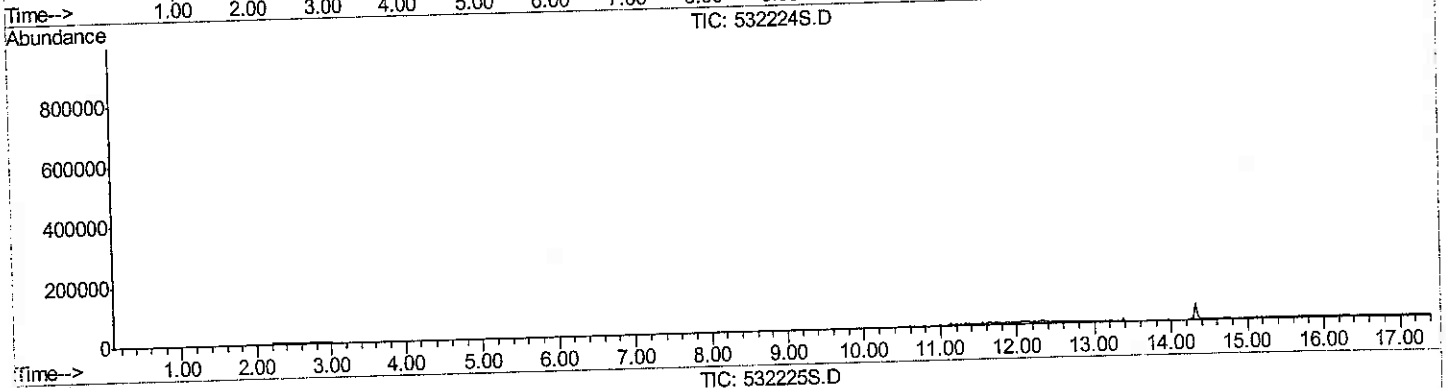
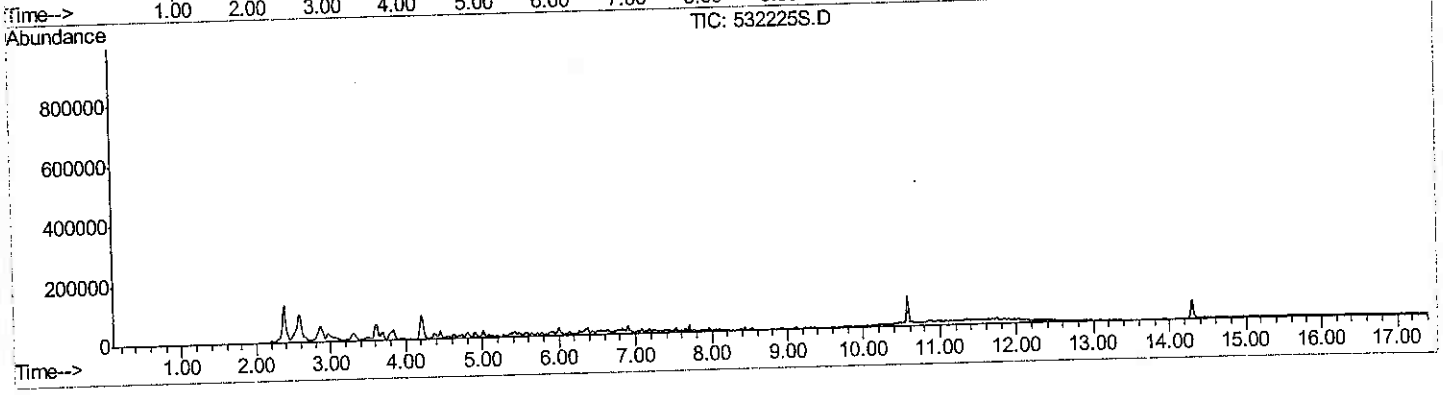


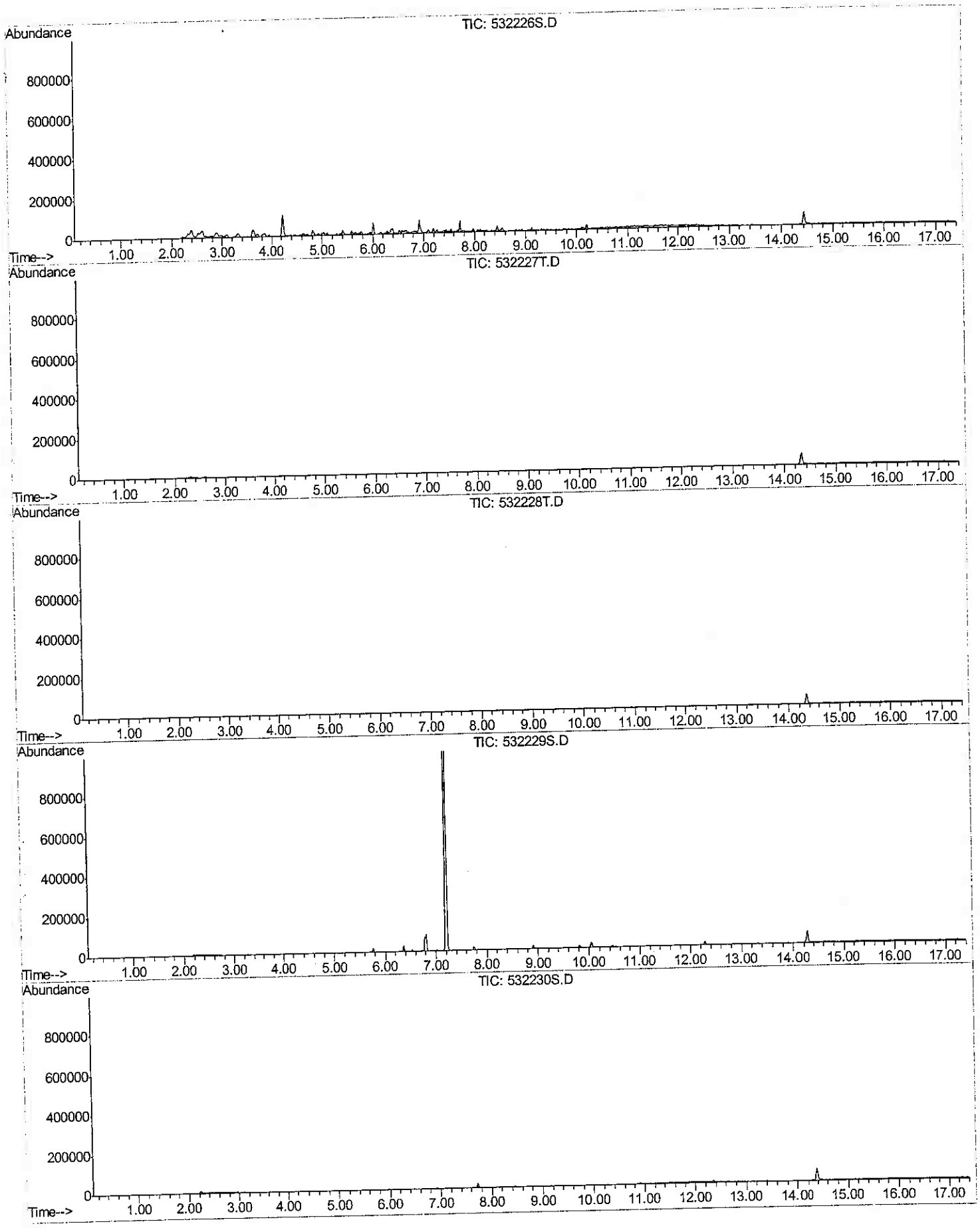








TIC - SITE DTK - PRODUCTION ORDER #13175262
In Numerical Order



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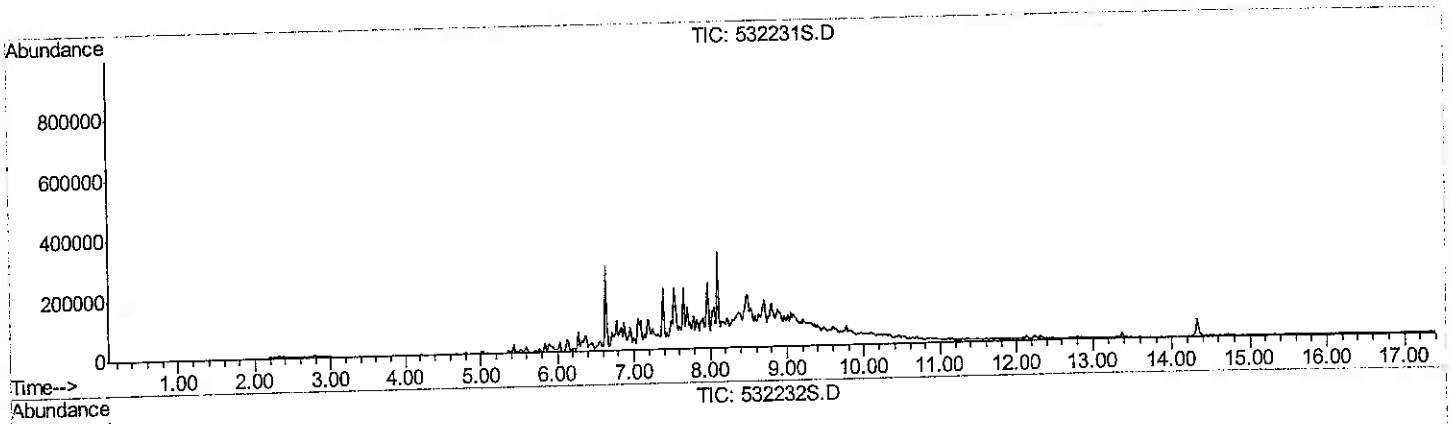
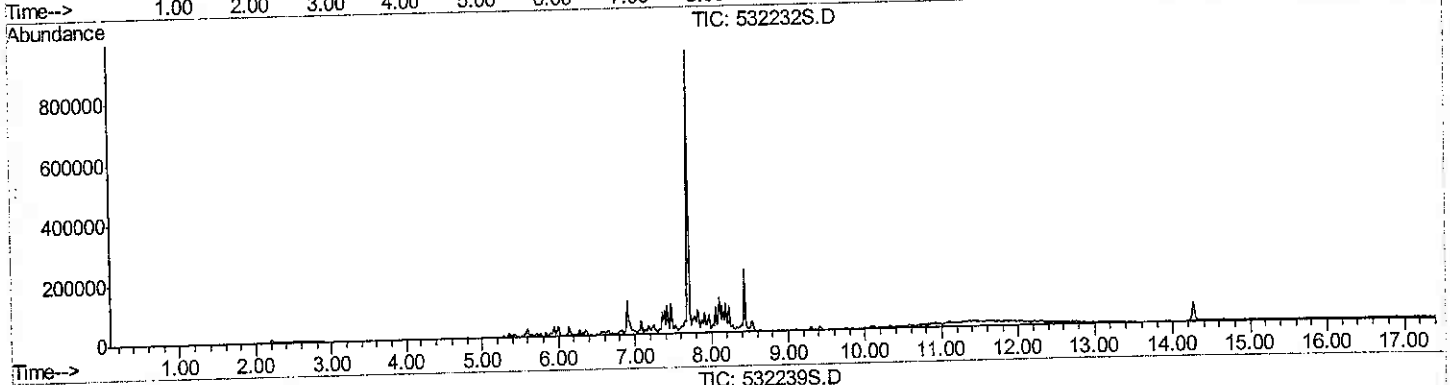
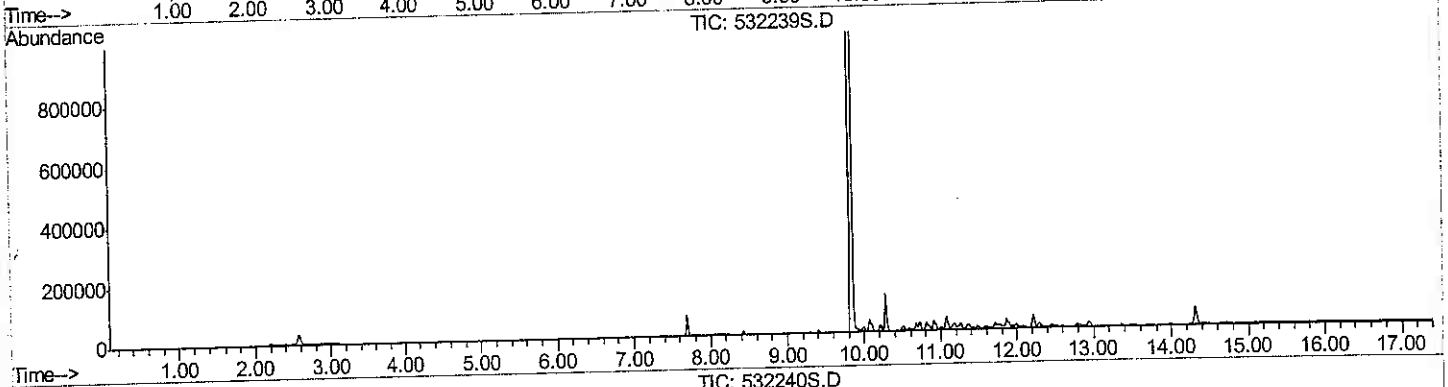
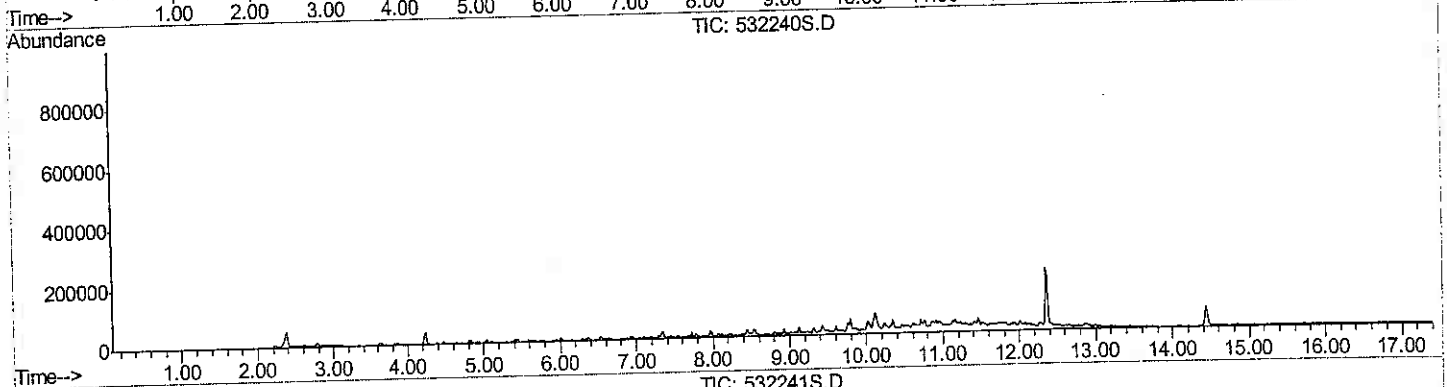
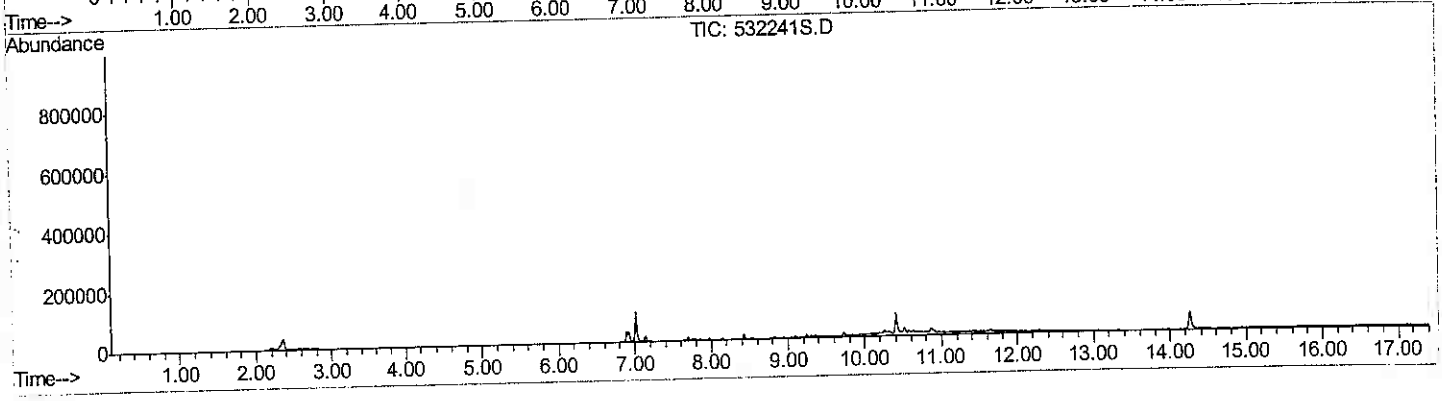
In Numerical Order



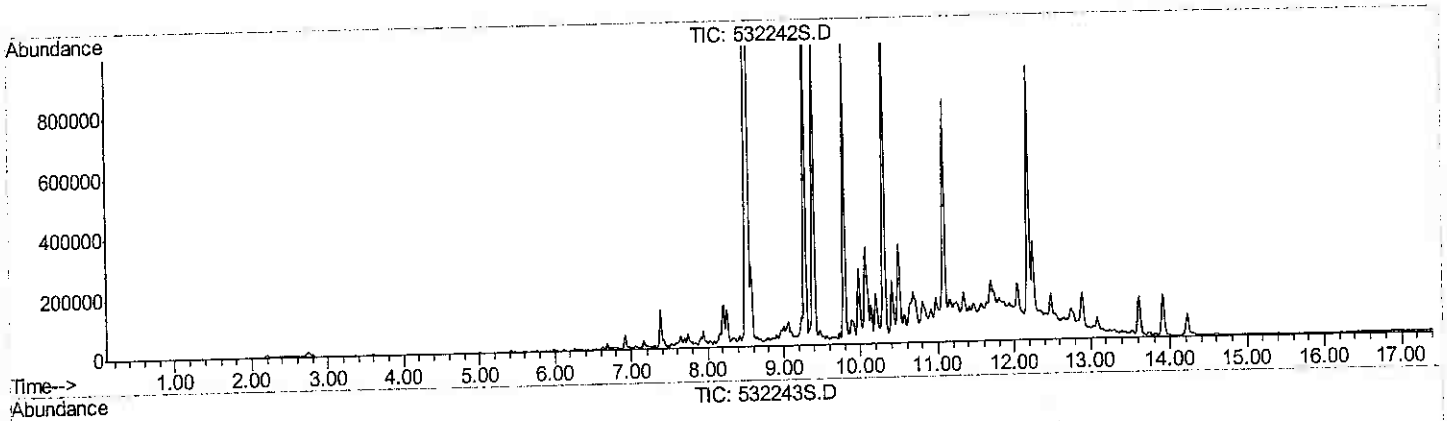


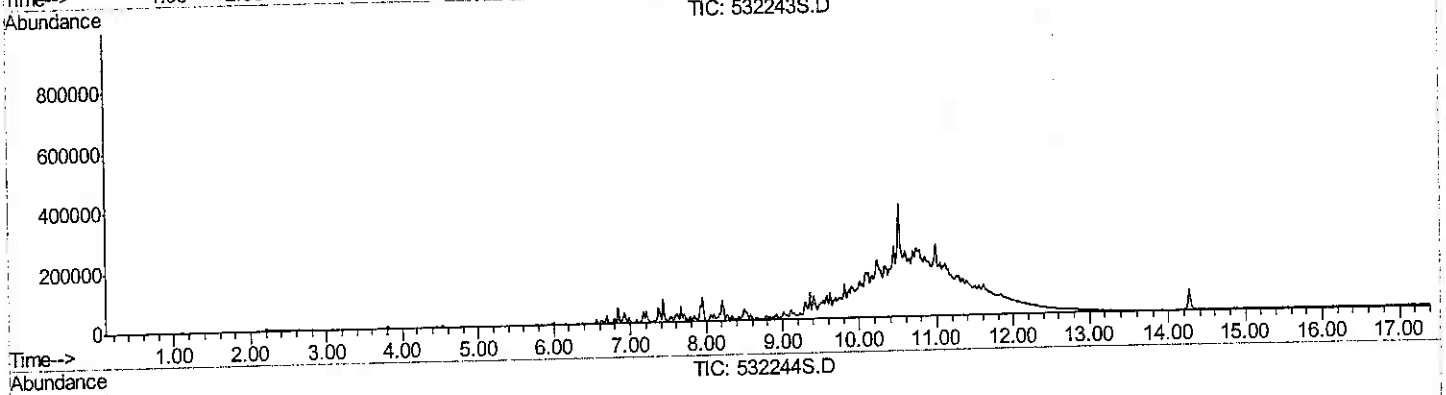


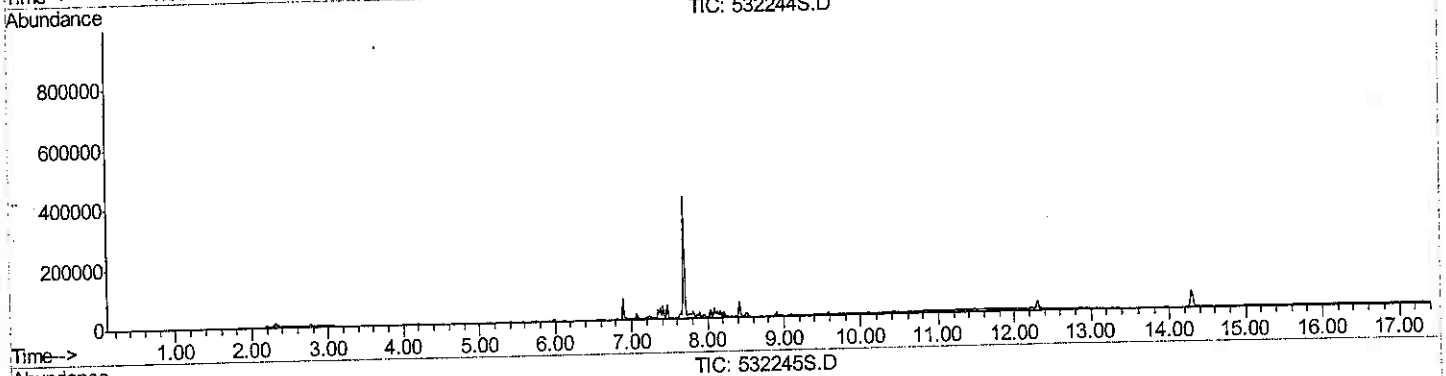


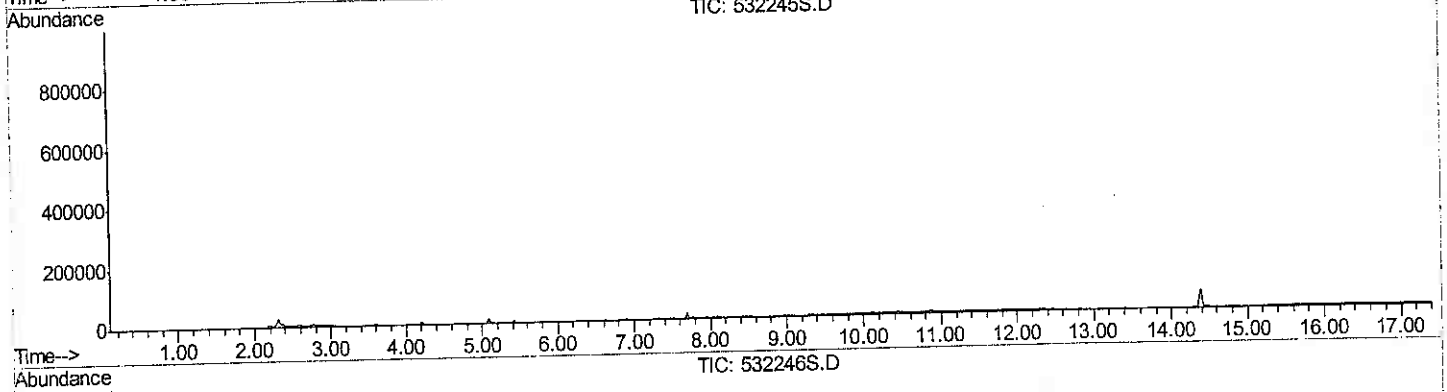


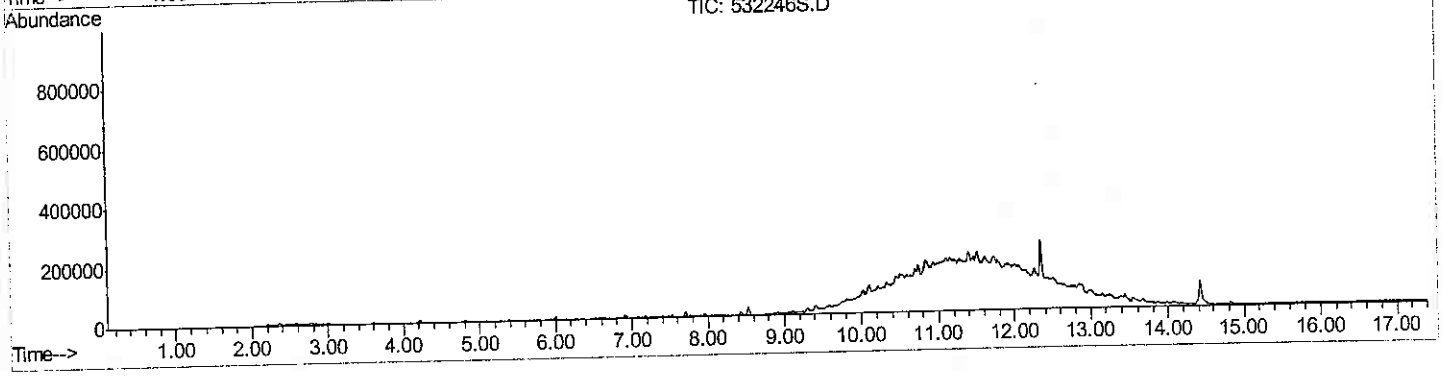
TIC - SITE DTK - PRODUCTION ORDER #13175262
In Numerical Order



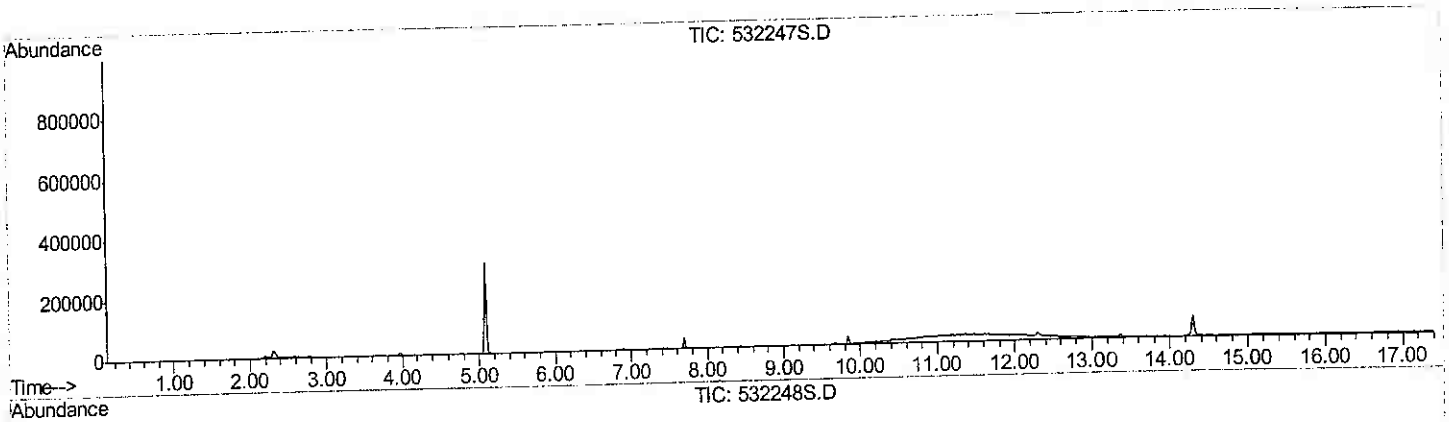


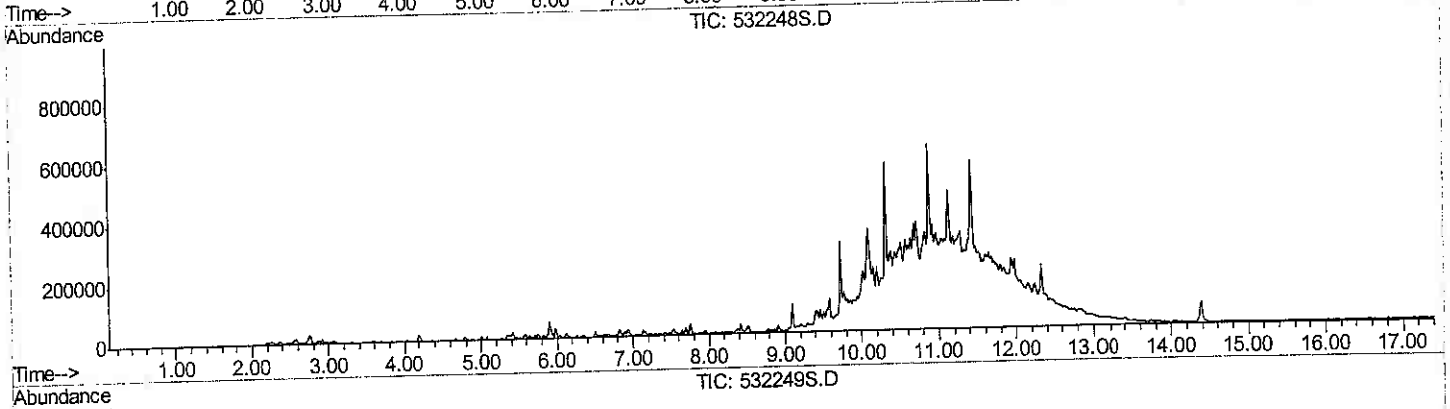


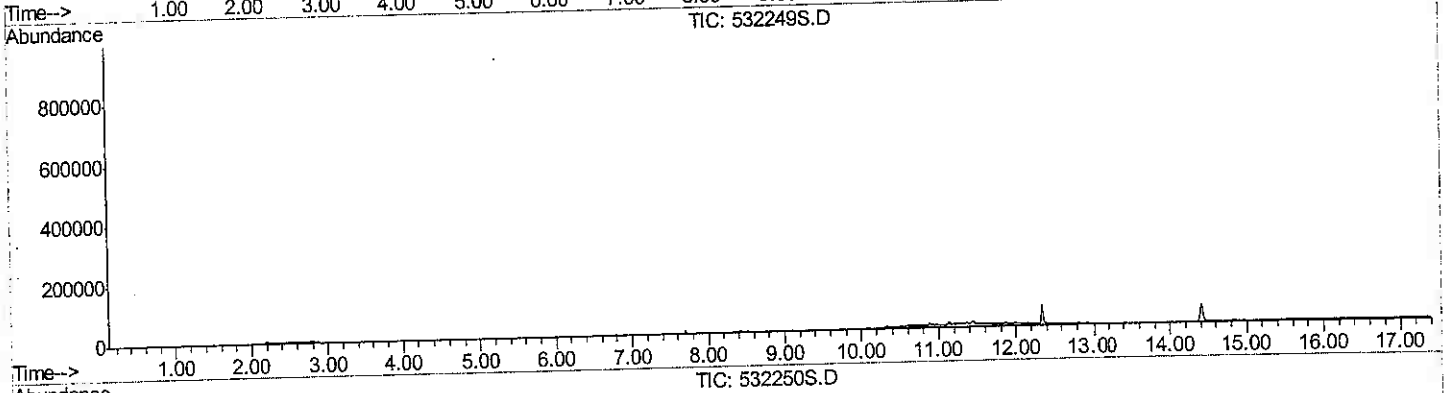


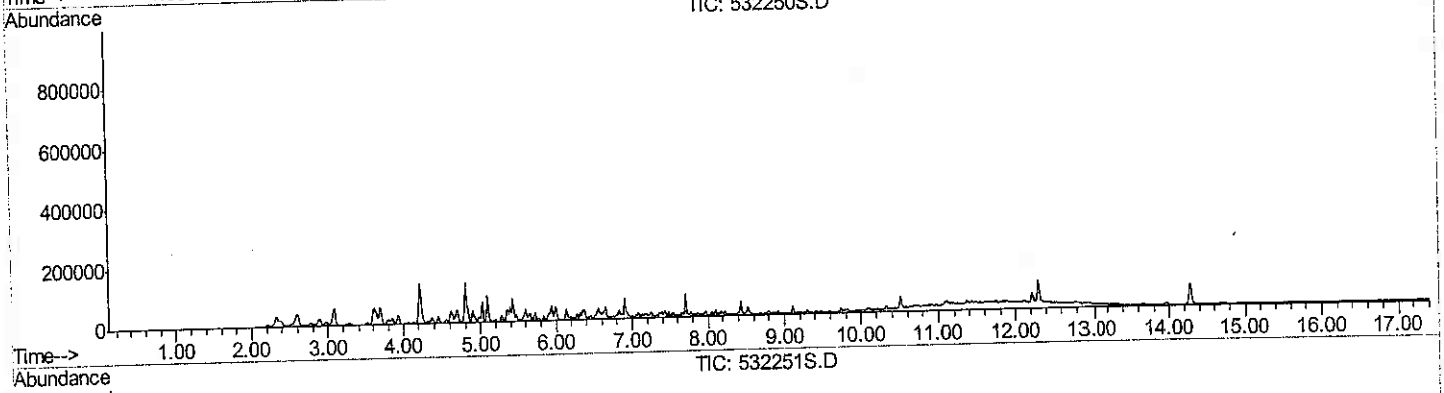


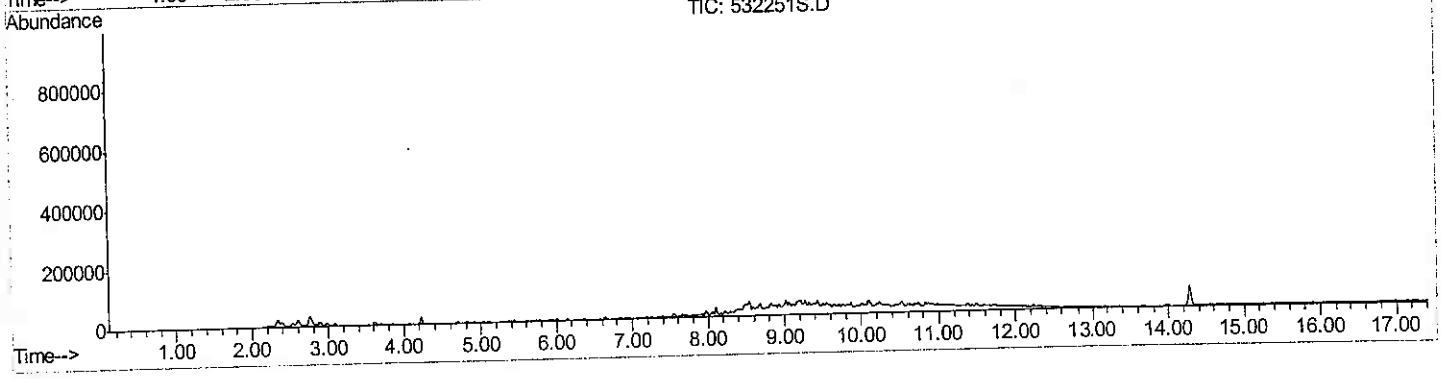
TIC - SITE DTK - PRODUCTION ORDER #13175262
In Numerical Order



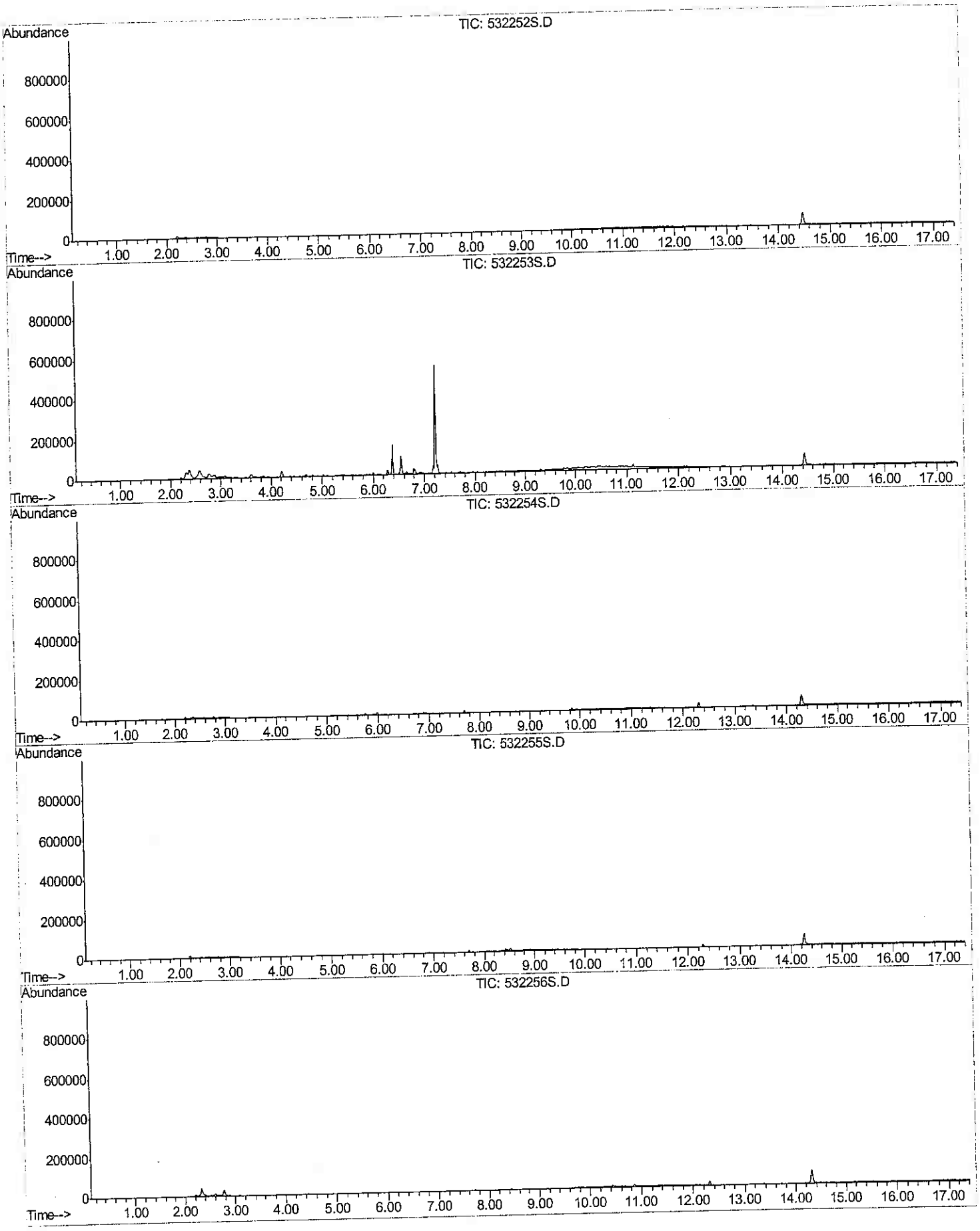








TIC - SITE DTK - PRODUCTION ORDER #13175262
In Numerical Order



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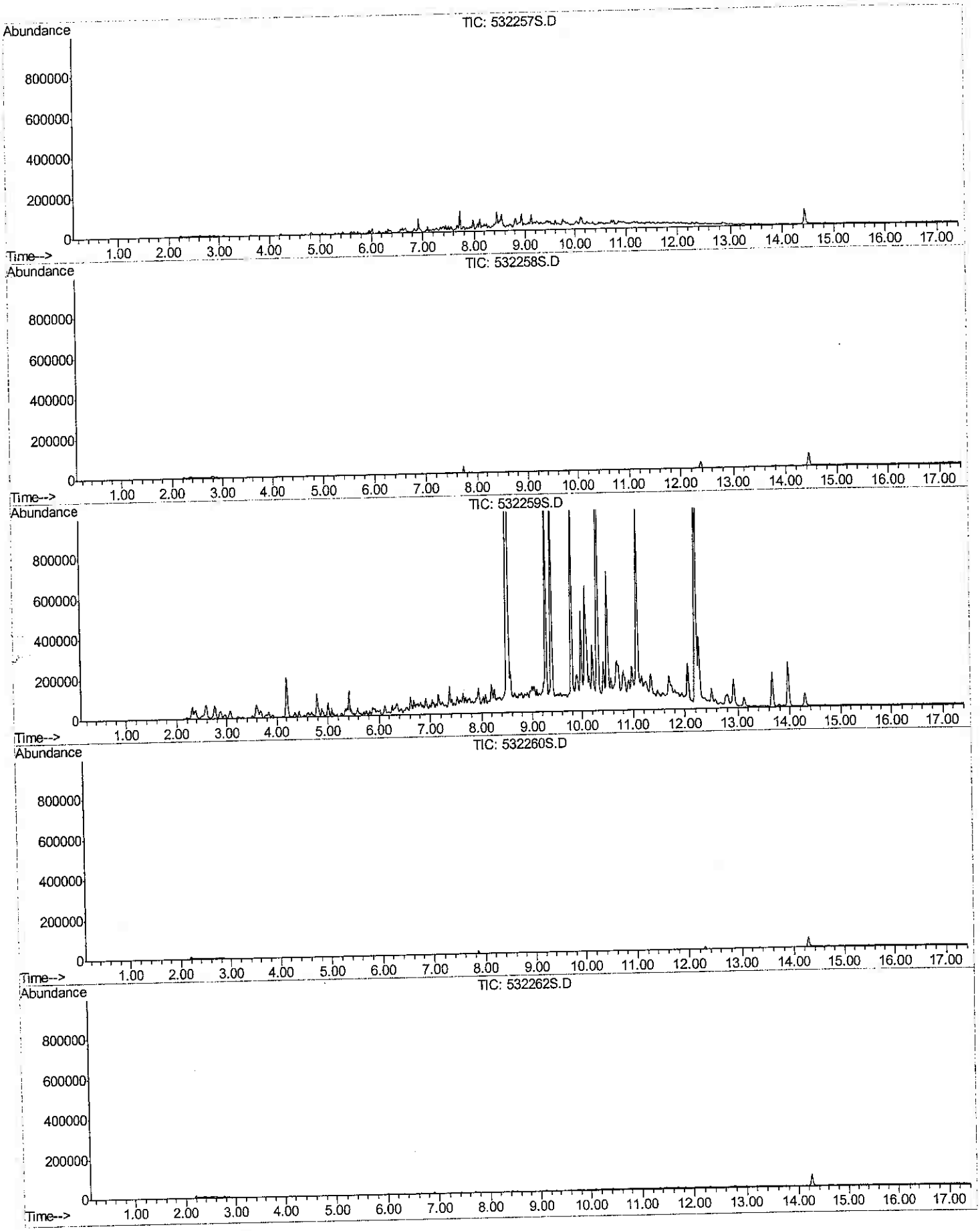
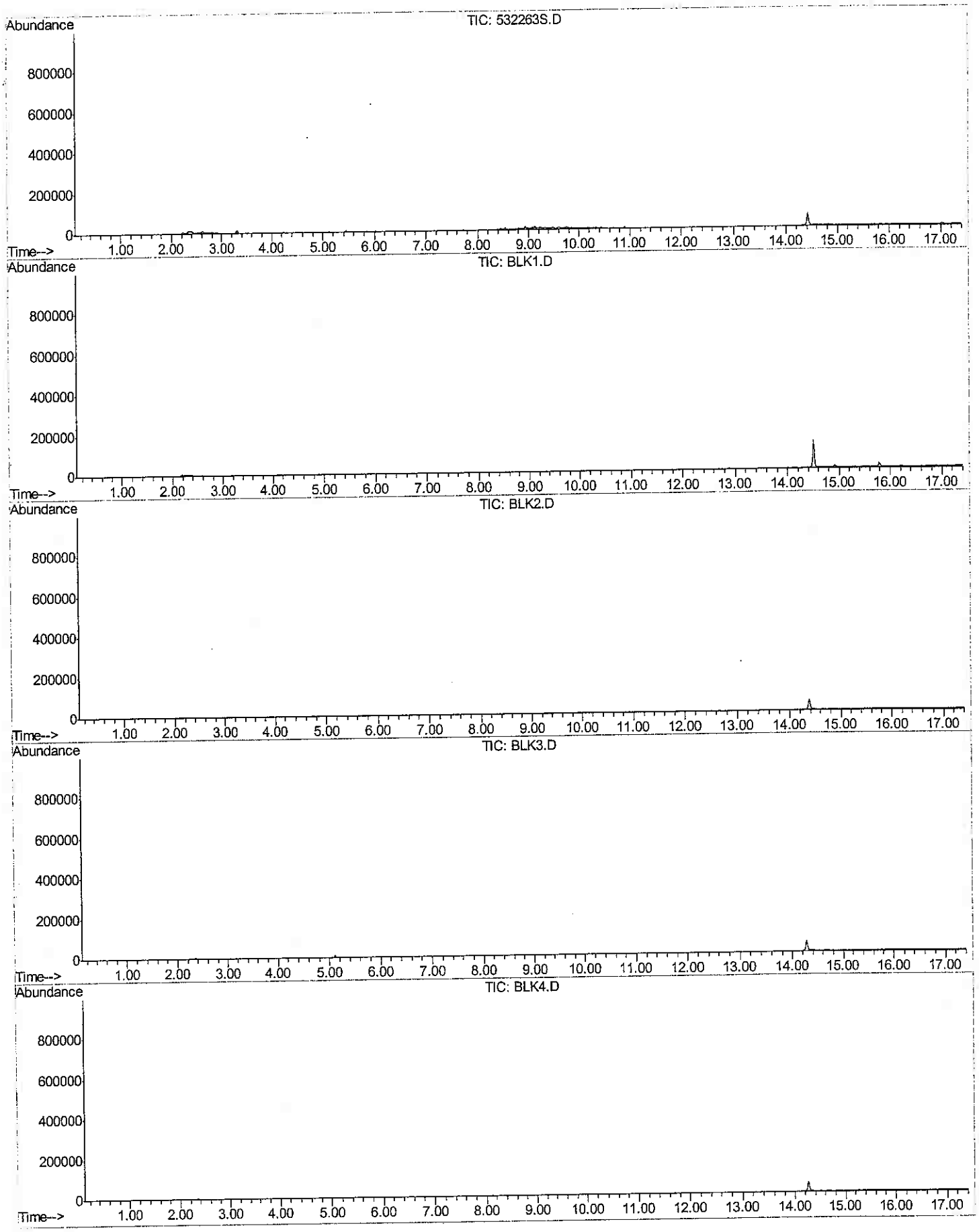
In Numerical Order



TIC - SITE DTK - PRODUCTION ORDER #13175262
In Numerical Order



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W.L. GORE & ASSOCIATES, INC.
100 CHESAPEAKE BOULEVARD
ELKTON, MD, USA 21921
USA
(410) 392-7600

Creative Technologies Worldwide

Tetra Tech EC, Inc., San Diego, CA
Alameda Point OU5/ 12-02, Almeda, CA
Benzene

Scale 1:3000

100 0 100 200 300 400 500 600

US survey foot

DATE DRAWN: 09 July 2007	DRAWN BY: JH	ORIG. CAD:	SITE CODE: DTK
REV. DATE:	REV. #	PROJECT NUMBER: 13175262	

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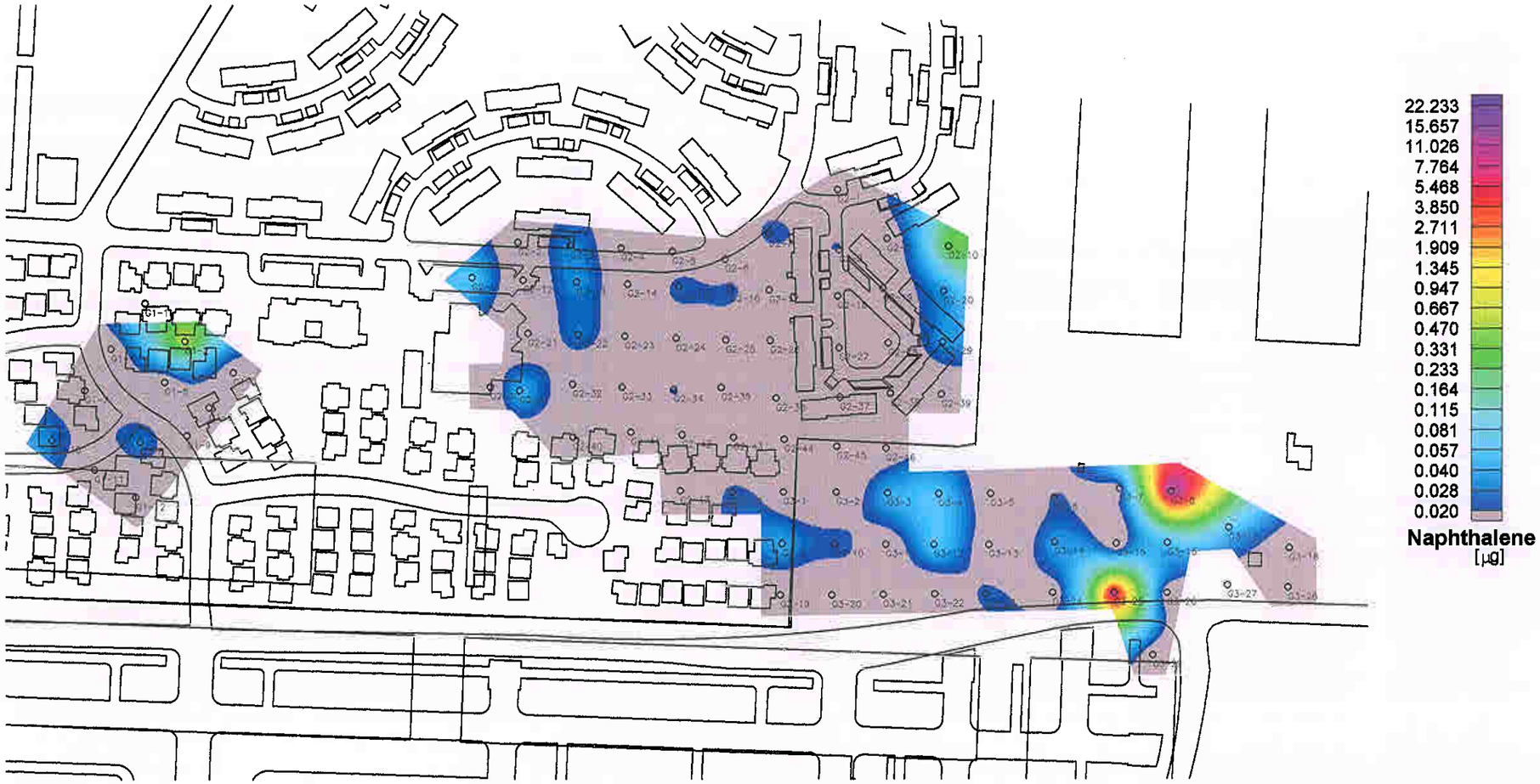

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Tetra Tech EC, Inc., San Diego, CA
Alameda Point OU5/ 12-02, Almeda, CA
Naphthalene

Scale 1:3000

100 0 100 200 300 400 500 600

US survey foot

DATE DRAWN: 09 July 2007	DRAWN BY: JH	ORIG. CAD:	SITE CODE: DTK
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21	**soil and groundwater samples**	Section 2.3.2	Final Remedial Design/Remedial Action Work Plan, OU-5/IR-02 Groundwater, Revision 2. Section 3.3, Page 3-3, Figure 3-8. TtEC. 2010.

3.3 PLUME CENTER SOIL AND GROUNDWATER SAMPLING

Three groundwater benzene and naphthalene "hot spots" or plume centers were identified and proposed for remediation in the RI/FS (ERRG, 2004) as shown on Figure 2-4. Further characterization of these plume centers was required to develop the full-scale remediation system design. Samples were also collected to evaluate the source of plume center groundwater contamination. Plume center sampling results are described in the following sections and include:

- Soil sampling for benzene, naphthalene, microbes, and nutrients
- Water sampling for benzene, naphthalene, microbes, and nutrients
- Water and soil sampling for hydrocarbon fingerprint and stable isotope ratio analysis for contaminant source evaluation

3.3.1 Plume Center Soil Sampling

Soil samples were collected to evaluate the following:

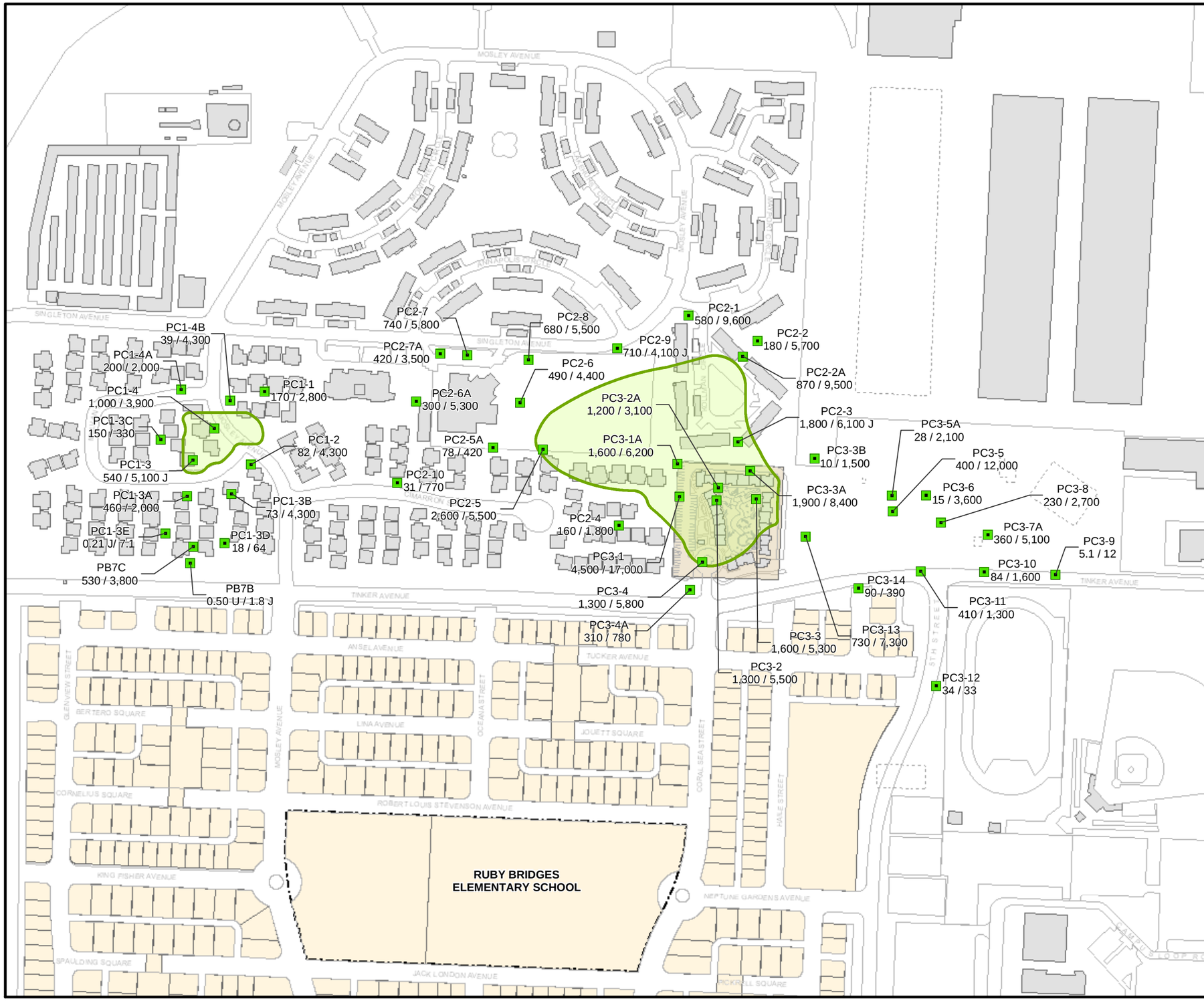
- The horizontal and vertical distribution of benzene and naphthalene
- The potential source or sources of groundwater contamination
- The presence of microbes and nutrients needed for bioremediation of site hydrocarbons

All soil sample locations were continuously cored and logged. Soil samples were selected for analysis based on visible contamination, elevated photoionization detector (PID) detections, or their origin from the Marsh Crust. Soil sample location survey reports are provided in Appendix A. Geologic soil boring logs for soil sample locations are presented in Appendix C. Laboratory analytical results reports are provided in Appendix D.

3.3.1.1 Benzene and Naphthalene Distribution

Soil sampling locations and maximum benzene and naphthalene concentrations are shown on Figures 3-4 and 3-5, respectively. Analytical results including sample depth intervals are presented in Table 3-1. Samples with the highest benzene and naphthalene concentrations were collected from the Marsh Crust (18 to 19 ft bgs) at sample locations PC3-1 and PC2-5.

At 26 of 28 locations, the Marsh Crust was observed as visibly contaminated sediments (stained, tarry, occasionally brittle, with an oily sheen, strong hydrocarbon odor, and high PID readings) at the native BSU contact. The Marsh Crust was approximately 0.5- to 1.0-inch thick. Samples for benzene and naphthalene analysis were collected directly from this relatively thin zone. Therefore, benzene and naphthalene concentrations in Table 3-1 and on Figures 3-4 and 3-5 are indicative of the thin (0.5- to 1-inch) zone of contamination and not the surrounding formation.



LEGEND

PC3-5A 28 / 2,100 — HYDROPUNCH GROUNDWATER SAMPLE LOCATION AND BENZENE/NAPHTHALENE CONCENTRATION (µg/L)

ROAD

PROPOSED BIOSPARGE ZONE

BAYPORT DEVELOPMENT

SHINSEI GARDENS HOUSING DEVELOPMENT

RUBY BRIDGES ELEMENTARY SCHOOL BOUNDARY

BUILDING

FORMER BUILDING

NOTES:

µg/L - MICROGRAMS PER LITER

BGS - BELOW GROUND SURFACE

FISCA - FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, ALAMEDA FACILITY/ALAMEDA ANNEX

FT - FEET

IR - INSTALLATION RESTORATION (PROGRAM)

J - ESTIMATED DATA

OU - OPERABLE UNIT

U - NOT DETECTED AT LABORATORY REPORTING LIMIT

GROUNDWATER SAMPLE COLLECTED FROM 3 FT HYDROPUNCH SCREEN AT MARSH CRUST APPROXIMATELY 12-15 TO 15-18 FT BGS.

150 0 150 300 Feet

Scale: 1" = 300'

N

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

REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA

FIGURE 3-8

PROPOSED BIOSPARGE ZONE

ALAMEDA, CALIFORNIA

REVISION: 0
AUTHOR: RKH
DCN: ECSD-2201-0011-0009
FILE NUMBER: 080794L3100.mxd

TETRA TECH EC, INC.

22	Groundwater monitoring results	Section 2.3.2	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 3, Page 11, Attachment 2. TtEC. 2012.

monitored within the plume and at the plume perimeters, as well as the monitoring for the biosparging of the plume centers. The groundwater treatment system was installed between October 2008 and October 2009. Biosparging and groundwater monitoring were initiated in March 2009, and are continuing as of the writing of this Technical Memorandum. Approximately 4.33 kilograms (9.55 pounds) of benzene and 39.04 kilograms (86.07 pounds) of naphthalene have been removed. The calculations are included in Attachment 1. Semiannual biosparge area groundwater monitoring results are included in Attachment 2.

3.0 GROUNDWATER QUALITY

Groundwater samples were collected from HydroPunch and monitoring well locations along the plume center and along the plume boundary in 2007 and 2008 as part of a predesign investigation and as described in the RD/RAWP (TtEC 2010). The groundwater quality data generated by this sampling are discussed below.

3.1 Benzene and Naphthalene

Benzene and naphthalene analyses were conducted on HydroPunch and monitoring well groundwater samples (Tables 2 and 3). HydroPunch locations with benzene and naphthalene concentrations are shown on Figures 14 and 15 respectively (Figures 3-6 and 3-7 of the RD/RAWP). Samples from 48 and 45 percent of OU-5 groundwater sampling locations had benzene or naphthalene concentrations, respectively, exceeding their ROD criteria. The typical HydroPunch included a 3-foot-long well screen. The typical monitoring well was constructed with a 10-foot screen interval. Plume boundary monitoring well locations with benzene and naphthalene concentrations are shown on Figure 16 (Figure 3-12 of the RD/RAWP). Annual plume boundary monitoring well results from 2009 to 2012 are included in Attachment 2.

Pursuant to the remedial design, plume center groundwater sampling also was conducted to evaluate the vertical distribution or gradients of benzene and naphthalene concentrations across the FWBZ. Multi-depth HydroPunch groundwater samples were collected from seven locations (see Table 4). At each of the seven locations, the groundwater sample spanning the Marsh Crust had benzene and naphthalene concentrations one to four orders of magnitude greater than samples collected above the Marsh Crust. These post-ROD multi-depth groundwater sampling results correlated well with the multi-depth soil sampling results and confirm the pre-ROD investigation results that groundwater contamination increases with depth and proximity to the Marsh Crust. COC concentrations at the top of the FWBZ at the time of this sampling were near or below the respective reporting limits for benzene and naphthalene at 6 of 7 multi-depth sampling locations (see Table 4).

3.2 Total Dissolved Solids Distribution

The TDS analytical method measures the total amount of dissolved minerals in water. The solids are typically iron, chlorides, sulfates, calcium, or other minerals. The dissolved minerals can

ATTACHMENT 2

BIOSPARGE AREA AND PLUME BOUNDARY MONITORING WELL RESULTS

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BIOSPARGE AREA MONITORING WELL SEMIANNUAL RESULTS
BASELINE THROUGH AUGUST 2012

Table 1
Biosparge Zone Monitoring Well Results

	Method	EPA 8260B	EPA 8260B	EPA 300.0	EPA 300.0	EPA 300.0	EPA 350.2	EPA 351.3	EPA 9060	NA
	Analyte	BENZENE	NAPHTHALENE	NITRATE	ORTHO-PHOSPHATE	SULFATE	AMMONIA	TKN	TOC	DISSOLVED OXYGEN[a]
	Unit	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L
Location	Collection Date									
BZMW1	2/12/2009	790	3,900	244	1,000 U	115,000	16.0	20.4	25.5	0.3
BZMW1	7/22/2009	630	740	803	518 J	427,000	13.6	16.5	33.2	0.1
BZMW1	2/17/2010	280	2.0 U	107	500U	1,150,000	12.2	16.9	35.6	0.1
BZMW1	8/18/2010	760	1,600	67.2 J	500U	2,290,000	7.66	10.6	24.2	0.2
BZMW1	2/16/2011	0.26 J	0.88 J	67.2 J	2,500 U	2,340,000	5.31	7.80	17.5	1.3
BZMW1	8/17/2011	310	460	1,220	2,500 U	1,870,000	3.95	7.01	15.6	3.8
BZMW1	2/29/2012	450	460	990	500 U	2,170,000	1.29	5.48	18.9	2.7
BZMW1	8/29/2012	367	823	40 U	2,150	1,990,000	8.08	7.45	15.6	0.8
BZMW2	2/12/2009	44	3,700	165	2,090	563,000	6.70	6.68	17.8	0.3
BZMW2	7/23/2009	210	1,000	200 U	1,000 U	1,170,000	13.7	15.3	23.1	0.1
BZMW2	2/17/2010	330	730	604	500 U	383,000	17.6	22.2	30.7	1.9
BZMW2	8/18/2010	300	390	350	500U	493,000	7.66	11.0	20.9	0.2
BZMW2	2/16/2011	270	210	500 U	2,460 J	968,000	21.8	22.1	40.3	0.3
BZMW2	8/17/2011	500	690	500 U	2,500 U	758,000	15.1	19.8	16.1	4.2
BZMW2	2/29/2012	27	38	203	426 J	1,140,000	13.3	13.4	20.6	5.8
BZMW2	8/29/2012	201	42.1	40 U	4,230	906,000	13.5	14.0	19.3	1.0
BZMW3	2/12/2009	230	4,100	167	500 U	4,410	5.07	5.56	7.65	0.2
BZMW3	7/22/2009	150	290	258	1,000 U	4,830,000	4.06	5.74	10.1	0.1
BZMW3	2/16/2010	1.3	31	16,200	500 U	776,000	0.217	0.899	6.85	0.3
BZMW3	8/17/2010	140	270	100 U	500 UJ	1,420,000	0.923 J	1.62	5.36	0.3
BZMW3	2/15/2011	29	210	94.5 J	500 U	3,250,000	2.66	2.76	5.03	0.4
BZMW3	8/16/2011	150	81	100 U	500 U	1,170,000	0.407	0.819	5.21	4.1
BZMW3	2/29/2012	55	67	144	500 U	1,600,000	0.479	1.05	4.57	4.1
BZMW3	8/29/2012	35	37.2	20 J	10,000 U	1,010,000	0.604	0.994	8.13	0.9
BZMW4	2/12/2009	0.69 J	430 J	155	10,700	426,000	4.61	6.12	12.0	0.4
BZMW4	7/23/2009	0.56	51	117	500 U	2,810,000	6.59	7.88	12.4	0.3
BZMW4	2/17/2010	0.20 J	3.4	417	847	1,100,000	0.368	1.50	8.13	9.0
BZMW4	8/18/2010	22	280	1,150	1,000U	4,720,000	4.50	6.15	6.98	4.0
BZMW4	2/15/2011	86	840	500 U	2,500 U	6,040,000	26.5	29.8	13.9	0.7
BZMW4	8/17/2011	0.50 U	2.0 U	1,430	394 J	1,290,000	0.169	0.883	7.55	–
BZMW4	2/29/2012	0.50 U	2.0 U	1,380	457 J	895,000	0.0957 J	0.457	5.56	8.0
BZMW4	8/30/2012	0.50 U	2.0 U	2,710	716	1,630,000	0.026 U	0.545 J	9.23	7.1

Table 1
Biosparge Zone Monitoring Well Results

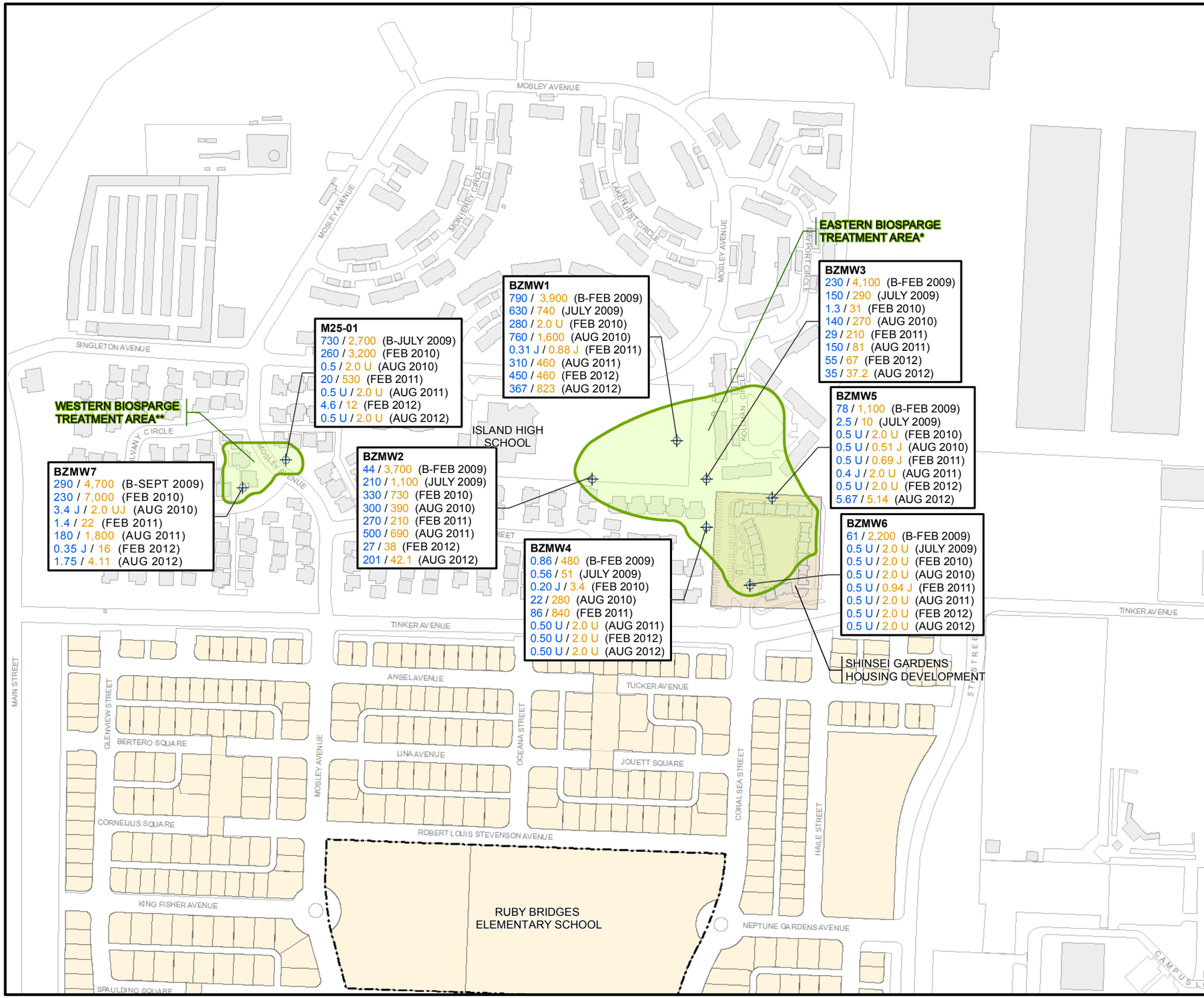
	Method	EPA 8260B	EPA 8260B	EPA 300.0	EPA 300.0	EPA 300.0	EPA 350.2	EPA 351.3	EPA 9060	NA
	Analyte	BENZENE	NAPHTHALENE	NITRATE	ORTHO-PHOSPHATE	SULFATE	AMMONIA	TKN	TOC	DISSOLVED OXYGEN[a]
	Unit	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L
Location	Collection Date									
BZMW5	2/12/2009	78	1,100	149	260 J	173,000	2.41	2.58	8.19	0.3
BZMW5	7/23/2009	2.5	10	11,200	500 U	389,000	0.727	0.742	4.74	3.8
BZMW5	2/16/2010	0.50 U	2.0 U	18,600	500 U	1,090,000	0.158	0.665	5.66	8.0
BZMW5	8/17/2010	0.50 U	0.51 J	2,110	500 UJ	1,130,000	0.100 UJ	0.474	4.14	7.1
BZMW5	2/15/2011	0.50 U	0.69 J	6,480	500 U	775,000	0.100 U	0.373	3.12	7.1
BZMW5	8/16/2011	0.40 J	2.0 U	6,200	500 U	998,000	0.100 U	1.08	3.66	9.6
BZMW5	2/29/2012	0.50 U	2.0 U	10,400	500 U	1,070,000	0.284	0.42	4.15	8.0
BZMW5	8/29/2012	5.67	5.14	6.63 J	10,000 U	1,120,000	0.206	0.734	12.8	1.8
BZMW6	2/12/2009	61	2,200	185 J	13,000	361,000	9.52	10.9	17.9	0.2
BZMW6	7/23/2009	0.50 U	2.0 U	22,200	297 J	1,060,000	0.410	1.14	17.3	5.6
BZMW6	2/16/2010	0.50 U	2.0 U	19,100	500 U	2,210,000	0.174	0.643	12.8	8.2
BZMW6	8/17/2010	0.50 U	2.0 U	2,430	500 UJ	1,740,000	0.103 J	0.672	11.3	8.3
BZMW6	2/16/2011	0.50 U	0.94 J	9,680	319 J	1,790,000	0.100 U	0.662	9.28	7.6
BZMW6	8/16/2011	0.50 U	2.0 U	5,440	500 U	2,010,000	0.100 U	0.633	8.75	9.8
BZMW6	2/29/2012	0.50 U	2.0 U	10,100	500 U	1,850,000	0.399	0.677	7.34	8.2
BZMW6	8/29/2012	0.50 U	2.0 U	3,290	10,000 U	2,680,000	0.05 U	0.607	9.11	7.9
BZMW7	9/17/2009	290	4,700	248	2,880	490,000	36	41.5	54.7	0.3
BZMW7	2/16/2010	230	7,000	200 U	1,480	636,000	26.6	32.6	44.9	0.2
BZMW7	8/17/2010	3.4 J	2.0 UJ	200 U	1,000 UJ	142,000	0.408 J	7.78	63	0.5
BZMW7	2/16/2011	1.4	22	500 U	2,500 U	154,000	22.3	23.1	33.2	0.1
BZMW7	8/16/2011	180	1,800	500 U	1,460 J	1,920 J	31.9	32.1	35.3	5.2
BZMW7	2/29/2012	0.35 J	16	1590	2,500 U	287,000	15.5	21.3	43.1	6.1
BZMW7	8/30/2012	1.75	4.11	1,000 U	4,000 U	103,000	0.547	9.77	58.6	3.0
M25-01	7/23/2009	730	2,700	448	2,880	642 J	37.0	38.7	53.7	0.4
M25-01	2/17/2010	260	3,200	225	830 J	1,070,000	38.4	43.5	96.1	0.1
M25-01	8/18/2010	0.50 UJ	2.0 UJ	30,500	1,680 J	1,200,000	1.74	3.44	49.1	5.1
M25-01	2/15/2011	20	530	4,500	2,500 U	2,950,000	27.5	29.0	35.8	1.9
M25-01	8/17/2011	0.50 U	2.0 U	34,100	2,500 U	1,620,000	1.64	5.42	34.6	8.4
M25-01	2/29/2012	4.6	12	21,900	2,500 U	1,520,000	0.806	3.87	47.4	7.5
M25-01	8/30/2012	0.5 U	2.0 U	2,350	4,000 U	3,960,000	0.142	10.0	82.5	4.5

Notes:

[a] Dissolved oxygen measured using field instruments during pre-sampling well purging.

Abbreviations and Acronyms:

µg/L – micrograms per liter
J – estimated value
NA – not applicable
U – analyte not detected above project reporting limit
EPA – U.S. Environmental Protection Agency
mg/L – milligrams per liter
TKN – total Kjeldahl nitrogen
TOC – total organic carbon



LEGEND

- GROUNDWATER MONITORING WELL
- ROAD
- BIOSPARGE TREATMENT AREA
- BAYPORT DEVELOPMENT
- BUILDING

SAMPLE RESULTS

POINT ID	BZMW1
PRE-REMEDIATION BASELINE DATA (SAMPLE DATE)	790 / 3,900 (B-FEB 2009)
SEMI-ANNUAL DATA (SAMPLE DATE)	630 / 740 (JULY 2009)
SEMI-ANNUAL DATA (SAMPLE DATE)	280 / 2.0 U (FEB 2010)
SEMI-ANNUAL DATA (SAMPLE DATE)	76 / 1,600 (AUG 2010)
SEMI-ANNUAL DATA (SAMPLE DATE)	0.31 J / 0.88 J (FEB 2011)
SEMI-ANNUAL DATA (SAMPLE DATE)	310 / 460 (AUG 2011)
SEMI-ANNUAL DATA (SAMPLE DATE)	450 / 460 (FEB 2012)
SEMI-ANNUAL DATA (SAMPLE DATE)	367 / 823 (AUG 2012)

BENZENE RESULTS

NAPHTHALENE RESULTS

NOTES:

µg/L - MICROGRAMS PER LITER

B - BASELINE (PRE-REMEDIATION) DATA

BENZENE RESULTS IN µg/L

J - ESTIMATED VALUE

NAPHTHALENE RESULTS IN µg/L

U - NOT DETECTED ABOVE SCREENING LIMIT

* NON-SHINSEI GARDENS PORTION OF TREATMENT SYSTEM START-UP IN MARCH 2009
SHINSEI GARDENS PORTION OF TREATMENT SYSTEM START-UP MAY 2009.

** SYSTEM START-UP OCTOBER 2009

N

150 0 150 300 Feet

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

BIOSPARGE/SVE SYSTEMS
OPERABLE UNIT 5/FISCA IR-02 GROUNDWATER

FIGURE 1

BASELINE AND SEMI-ANNUAL BENZENE
AND NAPHTHALENE RESULTS
ALAMEDA, CALIFORNIA

REVIEW: A
AUTHOR: MS
DCN: ECSD-3211-0007-0015
FILE NUMBER: 120301A7584.mxd

TETRA TECH EC, INC.

23	**Final Quality Assurance Project Plan**	Section 2.3.2	Final Quality Assurance Project Plan for Sampling and Analysis of Indoor Air, Outdoor Air, and Sub-Slab Gas, Alameda Point Operable Unit 5/Installation Restoration Site 2, Alameda, California. Pages 14-20. EPA. September 19, 2013.

QAPP Worksheet #10 Problem Definition

The Data Quality Objective (DQO) process is a strategic planning approach based on the Scientific Method that is used to prepare for a data collection activity. It provides a systematic procedure for defining the criteria that a data collection design should satisfy, including when to collect samples, where to collect samples, the tolerable level of decision errors for the study and how many samples to collect (EPA/600/R-96/055). The following discussion presents the DQO process for this study.

Step 1: Problem Definition

The Alameda Point Operable Unit (OU) 5 /Installation Restoration (IR) Site 2 (EPA ID CA2170023236) is located within two former Department of Navy installations in Alameda, Alameda County, California. OU-5 is located on the former Naval Air Station Alameda and IR-2 is located on the former Fleet and Industrial Supply Center Oakland, Alameda Facility/Alameda Annex (FISCA). A release of benzene and naphthalene has impacted the shallow groundwater at the OU-5/IR-2 site and may be impacting indoor air quality in overlying buildings. Potentially affected buildings include the Island High School and Woodstock Child Care Center. Figure 2 shows the location of the benzene plume and results from August 2012 for benzene and naphthalene in groundwater.

A one-time field sampling investigation will be conducted to evaluate the worst case scenario for vapor intrusion based on accessible buildings and constraints on drilling). The sampling event will not be comprehensive, but will screen for potential vapor intrusion that may impact these buildings. If there is evidence of vapor intrusion, EPA will recommend more extensive sampling. The purpose of this field sampling investigation will be to:

- Assess levels of chemicals of concern in indoor and outdoor air.
- Determine sub-slab gas concentrations for use in evaluating the groundwater-to-indoor air (vapor intrusion) pathway.
- Compare the indoor air data to outdoor air data to determine if elevated concentrations exist that may require that actions be taken.

EPA's activities will consist primarily of the collection of indoor air samples in the breathing zone and samples where potential preferential pathways may exist (e.g., cracks in floors, crawlspaces, utility conduits, etc.). Outdoor air samples will also be collected concurrently with the indoor air samples to compare outdoor air results to indoor air results. Sub-slab samples will be collected to determine if benzene and naphthalene are present beneath concrete foundations or slabs.

EPA has tasked TechLaw with conducting indoor and outdoor air sampling to support the assessment of the potential for vapor intrusion into the buildings overlying the shallow groundwater plume. EPA contractor Lockheed Martin will perform concurrent sub-slab sampling. Information pertaining to the sub-slab sampling can be found in a separate QAPP prepared by Lockheed Martin. All samples will be analyzed

by the EPA Region 9 Laboratory.

Observations from any site reconnaissance reports/A synopsis of secondary data or information from site reports:

Pre-sampling walkthroughs of the site were conducted March 15 and August 2, 2013. No volatile organic compound (VOC) sources in potential sampling locations were identified during the initial site visit on March 15. On August 2, 2013 sampling locations were selected and marked using white paint as required by USA North for outdoor locations and white chalk for indoor locations so that there would not be a source of VOCs (i.e., from spray paint) to indoor air.

The buildings have been unoccupied for several years, so interior vapor sources are unlikely. All furniture and contents (including cleaning chemicals, art supplies, etc.) have been removed. The only remaining features are built-in structures such as cabinets, sinks, and bathrooms (e.g., stalls, toilets, and sinks). Some rooms are carpeted or partially carpeted, but the carpet is noted to be old. No urinal cakes were noted in the boys' bathrooms,\ and no VOC sources were identified inside buildings, other than potential sewer gases from sinks if the water in the sink traps has evaporated. The heating, ventilation, and air conditioning (HVAC) system at Island High School runs on low to minimize mildew, and the HVAC system at the Woodstock Child Care Center is not operating.

Conceptual Site Model

Sources of Contaminants:

- Volatilization from groundwater into a building structure.
- Potential indoor exposure to benzene and naphthalene could result from one or a combination of the following sources: contribution from outdoor air moving into a building through opened doors or windows or air intakes of mechanical ventilation systems. This outdoor air can include contributions from off-site background concentrations, nearby industrial emissions (e.g., from the Port of Oakland), and volatilization from the subsurface to outdoor air near the building.

Potential Chemicals of Concern: The potential chemicals of concern for the vapor intrusion pathway are benzene and naphthalene, based on known shallow groundwater contamination at the site.

Pathways: Chemicals may volatilize from the groundwater, migrate upward through voids and cracks in the floors, dry conduits, or subsurface structures (e.g., utility vaults), and enter buildings. Receptors inside the buildings could inhale these vapors.

Potential Receptors: Potential receptors are persons occupying buildings that overly shallow groundwater contamination at the site.

Step 2: Identify the Decisions

Indoor air, outdoor air, and sub-slab gas sample data and meteorological data will be used:

- To evaluate the potential for vapor intrusion into these buildings
- To evaluate if the groundwater-to-indoor air pathway is complete
- To evaluate if chemicals of concern in outdoor air are impacting indoor air

Step 3: Identify Inputs to Decisions

The following inputs will be used for decision-making:

- Observations from pre-sampling walkthroughs conducted March 13 and August 2 (see discussion above and Worksheet #14, Pre-Sampling Tasks)
- Analysis of indoor and outdoor air and sub-slab gas samples for contaminants using procedures modified to achieve lower reporting limits
- Meteorological data
- HVAC operational information, as appropriate; these systems will be turned off at least 72 hours prior to sampling
- Structural information such as cracks in floors, basements, crawlspaces or locations of piping or conduits penetrating the building foundation
- Chemical toxicity data

The possible classes of contaminants and the affected matrices:

Shallow groundwater at the site has been impacted by a release of benzene and naphthalene resulting in a groundwater plume. Therefore, indoor air and sub-slab gas samples will be collected and analyzed for VOCs to determine whether the subsurface to indoor air pathway (vapor intrusion) is impacting the indoor air quality of the overlying buildings. In addition, outdoor air samples will be collected and analyzed for VOCs to compare outdoor air results to indoor air results.

The rationale for inclusion of chemical and nonchemical analyses:

Indoor air, outdoor air, and sub-slab gas samples will be collected and analyzed for VOCs to evaluate vapor intrusion associated with a shallow groundwater plume at the site containing benzene and naphthalene.

Step 4: Define the Study Boundaries

Samples will be collected from indoor, outdoor, and sub-slab locations associated with buildings overlying shallow groundwater contamination at the OU-5/IR-2 site (see Figure 1) as needed.

Information concerning various environmental indicators:
The lateral extent of the study area is the building and parking lot areas associated with the Island High School and Woodstock Child Care Center that are overlying the plume. The vertical extent is the depth of the sub-slab areas to be sampled (see Lockheed Martin QAPP, Worksheet #10).

Step 5: Develop Decision Rules
Project decision conditions ("If..., then..." statements):

Decision rules have been broken into two categories as discussed below: 1) Sampling/Data Collection, and 2) Health Risks.

1. <u>Sampling/Data Collection</u>
   - If sample duplicate results are roughly equivalent (i.e., for detected concentrations greater than reporting limits, relative percent difference (RPD) is less than 25%), results obtained by EPA will be considered representative.

TO15 canisters:
- If the initial vacuum gauge reads less than -26 inches of Hg, the canister will be replaced prior to sample collection.
- If the final vacuum gauge reads greater than -3 inches of Hg, the sample results will be considered estimated.
- If the final vacuum gauge reads less than -10 inches of Hg, the sample results may be considered estimated.
- Sample durations will be 8 hours for Outdoor Air and Indoor Air samples and; subslab samples will be grab samples.
- Sampling of outdoor background samples will begin before the indoor air samples are initiated and will be collected for a duration that is at least as long as the longest indoor air sampling duration for which it serves as a background.

2. Health Risks (Indoor Air)
   - Tier 1: Indoor air sample results will be compared to outdoor concentrations to determine if a groundwater-to-indoor air pathway may be complete.
     - If indoor air levels of the compounds of concern are present at elevated sub-slab concentrations, vapor intrusion may contribute to the indoor air concentrations. If there is evidence of vapor intrusion, EPA will recommend more extensive sampling.
     - If indoor air levels of the compounds of concern are not detected and sub-slab sample concentrations are elevated, there is the possibility of future vapor intrusion, especially if a building is modified.
     - If levels of the compounds of concern in the sub-slab are lower than screening levels and levels in indoor air are elevated, indoor air may be impacted by a background source.
     - If outdoor air sample results are approximately the same as indoor air and/or sub-slab results, the results for multiple chemicals will be evaluated to consider whether regional air quality impacted the indoor air and sub-slab results.
   - Tier 2: Indoor air sample results will be compared to short-term health risk-based criteria. If indoor air concentrations exceed the short-term health risk based criteria, appropriate action will be recommended to prevent or reduce levels of exposure.
   - Tier 3: Indoor air sample results will be compared to long-term health risk-based criteria. If indoor air concentrations exceed the long-term health risk-based criteria and appear to be related to site contamination, additional sampling will be recommended so that potential sources can be evaluated and appropriate mitigation measures can be recommended to prevent or reduce levels of exposure, if necessary.

The following screening levels for benzene and naphthalene will be used for these comparisons:

EPA Regional Screening Levels for Residential Air (May 2013)
Benzene: 0.31 micrograms per cubic meter (ug/m^3)
Naphthalene: 0.072 ug/m^3

California Human Health Screening Levels for Indoor Air (January 2005)
Benzene: 0.084 ug/m^3
Naphthalene: 0.072 ug/m^3

Step 6: Specify Limits on Decision Errors

Collected data will be evaluated for precision, accuracy, representativeness, completeness, comparability, and sensitivity. If data collected do

not meet the QA/QC criteria established in this QAPP, it may be necessary to collect additional samples to ensure a complete and valid data set.

1. If a long-term health risk exists, but inadequate or incorrect data indicate that there is no long-term health risk, public exposure could exceed levels considered safe. This may or may not result in a short-term or long-term health risk.

2. If there is no long-term health risk, but inadequate or incorrect data indicate that there is a long-term health risk, EPA may collect additional data and/or mitigate the exposure unnecessarily, with implications regarding further data collection and or remediation at cost to EPA

Step 7: Optimize the Design for Obtaining Data

See Worksheets #17 and #18 for discussion of the sampling design and rationale.

QAPP Worksheet #11 Project Quality Objectives/Systematic Planning Process Statements

Who will use the data? The EPA, California Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, California Department of Toxic Substances Control (DTSC), City of Alameda, Naval Facilities Engineering Command (NAVFAC), and contractors will use the data. This data will also be made available for use by the State of California and the general public.
What will the data be used for? The data will be used to determine if the subsurface to indoor air pathway (vapor intrusion) is impacting the indoor air quality of the overlying buildings. In addition, outdoor air samples will be collected and analyzed for VOCs to compare outdoor air results to indoor air results to determine if an outdoor source is impacting indoor air.
What types of data are needed? (target analytes, analytical groups, field screening, on-site analytical or off-site laboratory techniques, sampling techniques) To accomplish the objectives of this QAPP, a one-time screening event using biased sampling locations will be performed to evaluate potential worst case scenarios. Indoor air, outdoor air, and sub-slab gas samples will be collected and analyzed for VOCs by Method TO-15 SIM to achieve lower reporting limits. In addition, meteorological data, HVAC operational information, structural information such as cracks in floors, basements, crawlspaces or locations of piping or conduits penetrating the building foundation, and chemical toxicity data will be used for the assessment of indoor air impacts. Worksheets #12, #14, #19 and #20 of this QAPP present additional information that identifies the number of samples, field and laboratory parameters, analytical methods, recommended sample containers, matrices, holding times, and preservatives for these sampling activities.
How "good" do the data need to be in order to support the environmental decision? QA/quality control (QC) criteria are defined in Worksheet #12 and the laboratory standard operation procedures (SOPs) listed in Worksheet #23.
How much data are needed? (number of samples for each analytical group, matrix, and concentration) See Worksheet #17 and #18.
Where, when, and how should the data be collected/generated? It is anticipated that sampling will be completed in September 2013. See Figure 1 for sample locations and Worksheet #14 for sampling procedures. All air and gas samples will be collected and shipped to the laboratory for analysis.
Who will collect and generate the data? Indoor and outdoor air samples will be collected by EPA contractor TechLaw personnel. Sub-slab gas samples will be collected by EPA contractor Lockheed Martin personnel. All samples collected will be analyzed by the EPA Region 9 laboratory.
How will the data be reported? The EPA Region 9 laboratory will prepare a standard report per their SOPs and submit this report to Chris Lichens, EPA Region 9. The results will be shared with the Navy and Base Realignment and Closure (BRAC) Cleanup Team (BCT), including a cover letter with suggestions for next steps.
How will the data be archived? Electronic copies will be backed up and stored on CD. Paper copies will be maintained as per contract requirements.

24	**Alameda Point General Plan Amendment**	Section 2.4	Alameda Point General Plan Amendment. City of Alameda. May 2003.

9 ALAMEDA POINT

9.1 CHALLENGES AND ISSUES

This element addresses the redevelopment of Alameda Point, formerly the Alameda Naval Air Station (NAS). The Navy closed this base in 1997, and, as of late 2000, is still in the process of transferring the property to the City of Alameda. Figure 9-1 illustrates the planning boundaries of Alameda Point. Redevelopment of Alameda Point presents the City with unique and challenging opportunities.

Successful redevelopment of Alameda Point will include:

Seamless integration of Alameda Point with the rest of the City. Policies in the General Plan encourage development that is community-oriented and in keeping with Alameda's traditional character and scale.

Fostering a vibrant new neighborhood. The General Plan seeks to create new and energetic areas, encompassing a variety of uses. However, policies ensure that new development will not unduly impact established neighborhoods.

Maximizing waterfront accessibility. With an emphasis on a perimeter shoreline trail along the San Francisco Bay and Oakland Estuary, the policies aim to provide a publicly accessible waterfront.

- **De-emphasizing the automobile and making new development compatible with transportation capacity.** Policies promote the use of alternative modes of transportation—such as bicycles, shuttles and water taxis—to reduce present and potential future congestion.

- **Ensuring economic development.** The envisioned long-term reuse of Alameda Point will result in replacement of jobs lost due to cessation of Naval operations, and will foster economic growth and development that benefits the community at large.

- **Creating a mixed-use environment.** The General Plan encourages development of a variety of uses in Alameda Point that promote transit and a pedestrian-friendly environment. A mixed-use approach will allow for the development of transit friendly neighborhoods with a strong pedestrian character that will foster the development of the desired small town feeling.

- **Establishing neighborhood centers.** Each neighborhood in Alameda Point should have a neighborhood center as a focal point that allows for commercial, civic, community support services, cultural and recreational uses. Centers should allow for human interaction and public events. Centers should be distributed so all residents can walk to accomplish multiple purposes and have an access point to local transit. Integration of multiple forms of transportation is essential to a

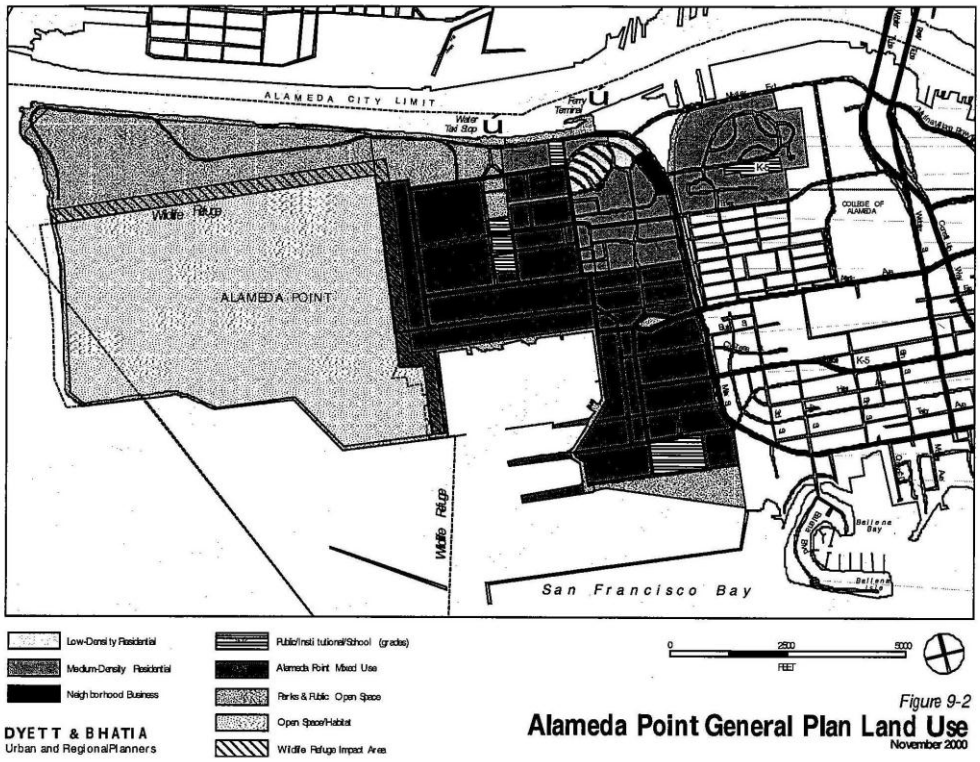


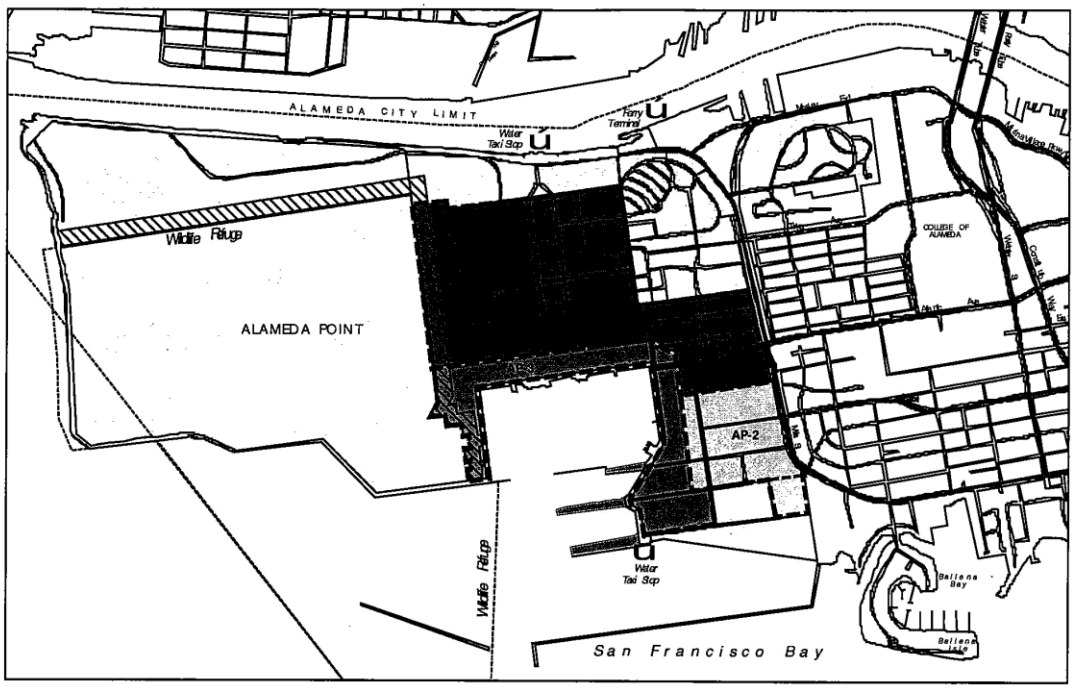
Figure 9-2
Alameda Point General Plan Land Use
November 2000

successful neighborhood center design. Similar to existing neighborhood business districts, these centers should provide critical local services, such as grocery stores, launderettes/cleaners and small restaurants that can rely mainly on customers who walk from their homes. The General Plan land use diagram for Alameda Point is shown in Figure 9-2.

9.2 LAND USE AND DISTRICT-WIDE POLICIES

The General Plan envisions Alameda Point as a vibrant neighborhood, with a variety of land uses and sub-areas. Six sub-areas, including three mixed-use ones, as shown in Figure 9-3, are envisioned:

- Civic Core
- Marina
- Inner Harbor
- West Neighborhood
- Northwest Territories
- Wildlife Refuge



Alameda Point Mixed Use 1
AP-2 Alameda Point Mixed Use 2
Alameda Point Mixed Use 3
Wildlife Refuge Impact Area
Planning Area

0 2500 5000 FEET

DYETT & BHATIA
Urban and Regional Planners

Figure 9-3
Alameda Point General Plan
Mixed Use Areas
November 2000

The six Alameda Point sub-areas are displayed in Figure 9-4.

This section provides land use classifications and policies that apply to two or more sub-areas; policies applicable to individual sub-areas are discussed in the next section.

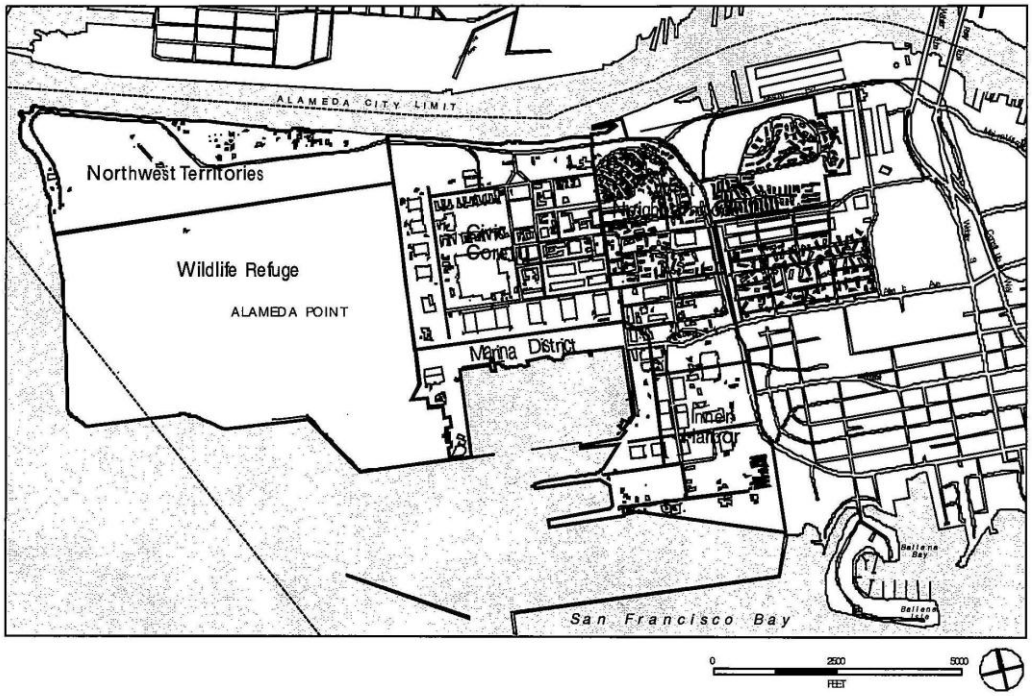


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Figure 9-4
Alameda Point Sub-areas
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LAND USE CLASSIFICATIONS

Alameda Point includes a variety of land use designations that are common to other areas of the City; descriptions of these land use classifications are included in Chapter 2: Land Use Element. In addition, Alameda Point includes three mixed-use areas – Civic Core, Inner Harbor, and Marina. These mixed-use areas allow the development of two or more uses on a single site or within one structure. Specific models of uses encouraged include: residential and office above or adjacent to retail and other commercial, and retail and service commercial uses intermingled with research and development or light industrial uses. Encouraging a mix of uses, specifically at residential and business-oriented neighborhood centers, will help develop the transit-accessible, pedestrian-friendly urban fabric common in Alameda.

The following describes each of the three mixed-use areas within Alameda Point:

AP1 Civic Core: Located in the center of Alameda Point, the Civic Core encompasses much of the NAS Historic District and many of the historic buildings of the former Naval Air Station. The Civic Core is envisioned with a major emphasis on public serving and civic uses. Business park, office, civic, residential, public/institutional, parks and public open space, commercial, and other supporting uses are allowed within the district.

AP2 Inner Harbor: The Inner Harbor is a mixed-use area with major emphasis on research & development and light industrial uses. Light industry, office and supporting retail, commercial, and residential uses are allowed within the district. Supporting uses should be focused in or around a mixed-use neighborhood center along the extension of Pacific Avenue, associated with patterns of use in the adjoining Marina district.

AP3 Marina: Marine-related industry, office, commercial, residential, recreation, and supporting retail are allowable uses within the district. Uses should be structured to promote waterfront activity and vitality along the open space spine located along the bay.

The following policies apply to all of the sub-areas in Alameda Point. Policies specific to the mixed-use sub-areas, as well as policies for the other sub-areas in Alameda Point, are included in Section 9.3.

Guiding Policies: Alameda Point Sub-Areas

9.2.a Create a series of neighborhoods, each with a central focus of mixed-use development, including local serving commercial and recreational uses and a mixture of housing types and densities serving all income levels.

9.2.b Provide diverse and creative development and architectural styles to achieve distinctive neighborhoods.

9.2.c Create a district that is well integrated with the surrounding neighborhoods and has a high level of accessibility via a variety of transportation modes.

9.2.d Preserve scenic views from the district and the area's cultural landscape.

9.2.e Achieve human-scale transit-oriented development

Implementing Policies: Alameda Point Sub-Areas

9.2.f Focus uses that create pedestrian traffic in all areas.

9.2.g Integrate Alameda Point into the community by creating transit and physical connections to adjacent community centers such as Marina Village and Webster Street.

9.2.h Encourage architecture and design in Alameda Point that are compatible with existing neighborhoods east of Main Street, and that do not divide the neighborhoods with the use of physical barriers.

9.2.i Encourage a mix of uses that are compatible, rather than competitive, with existing uses in adjacent areas.

9.2.j Maintain overall development in Alameda Point in accordance with Table 2-7 while permitting flexibility in the location and mix of development types within Alameda Point, provided that the development types are consistent with the sub-area policies and land use designations.

9.2.k Establish zoning regulations for Alameda Point that regulate future development consistent with the development intensity and density shown in Table 2-7.

9.2.l Observe boundaries and restriction of Public Trust Land, including housing limitations.

9.2.m Encourage and support the development of community-based cultural and other facilities such as places of worship, childcare, youth activity centers, and senior activities in Alameda Point.

9.2.n As part of the development or landscaping approval process, define view corridors and develop criteria so that views may be preserved.

9.2.o Explore the feasibility of creating an outdoor site for cultural celebrations, ceremonies, and exhibitions.

9.2.p Create mixed-use development that locates service-oriented uses near residences and offices.

9.2.q Create neighborhood centers similar to Alameda's neighborhood business districts, with supporting uses such as retail and local serving office and civic uses in mixed-use neighborhood centers that are acceptable for nearby residents.

Table 2-7: Alameda Point Buildout, 2000-2020

Land Use Categories	*Units*	*Civic Core (AP1)*	*Inner Harbor (AP2)*	*Marina (AP3)*	*West Neighbor-hoods*	*NW Territories*	**Alameda Point Total**
Lt.Industry/BusinessPark/Office	sq.ft.	740,000	400,000	0	0	0	**1,140,000**
Industrial/Warehousing	sq.ft.	277,500	76,500	76,500	0	0	**430,500**
Marina-Related Industry	sq.ft.	0	0	44,250	0	0	**44,250**
Civic/Institutional Buildings	sq.ft.	100,000	0[1]	0	30,000[1]	0	**130,000[1]**
Commercial	sq.ft.	52,000	0	0	52,000	0	**104,000**
Visitor-Serving Recreation/Commercial	sq.ft.	0	0	130,000	0	0	**130,000**
Golf Clubhouse/Conference Facilities	sq.ft.	0	0	0	0	26,000	**26,000**
Sports Complex	acres	40	0	0	0	17	**57**
Golf Course	acres	0	0	0	0	214	**214**
Marina slips	slips	0	0	530	0	0	**530**
Live Aboards	slips	0	0	53	0	0	**53**
Low Density Residential	units	0	0	0	50	0	**50**
Medium Density Residential	units	863[2]	0	525	490	0	**1,878**
Hotel/Conference Center	rooms	0	0	300	0	300	**600**

1. Does not include square footage for Alameda Unified School District.
2. Does not include 210 units of senior housing to be provided in the former Bachelor Officers Quarters.

NOTE: This table represents the maximum build-out for Alameda Point. While development intensities have been assigned to each Planning Area, the development increments can be moved from one Planning Area to another to optimize development opportunities.

9.3 ALAMEDA POINT SUB-AREA POLICIES

As evident in Figure 9-4, the General Plan vision for Alameda Point includes six sub-areas. Three of these sub-areas – the Civic Core, the Inner Harbor, and the Marina – will be mixed-use areas. Although there will be flexibility between the three mixed-use areas, each will have its own unique character and will emphasize a slightly different mix of development. Alameda Point also contains the primarily residential West Neighborhood; the Northwest Territories, designated for Parks and Open Space; and the Alameda National Wildlife Refuge, harboring the endangered California least tern.

Policies for each of the sub-areas follow.

Civic Core (AP1)

The Civic Core served as the central administrative and industrial core of NAS Alameda. This core will remain a central point of activity, and is envisioned to

be a mixed-use area with a variety of uses. The emphasis in the area is to provide public serving and civic uses while providing ample opportunity for job creation, along with recreational opportunities such as a potential sports complex. Redevelopment of the Civic Core will also prioritize preservation of historic buildings. The western edge of the Civic Core area is adjacent to the Wildlife Refuge, and therefore, is subject to the certain restrictions with respect to building size and location, parking, lighting, and landscaping.

Guiding Policy: Civic Core

9.3.a Develop the Civic Core as a major new center of the City, and a focus of the Alameda Point district.

Implementing Policies: Civic Core

9.3.b Develop housing to serve workplaces and public and institutional uses anticipated in the Civic Core. Focus residential development adjacent to the Shoreline open space promenade to create opportunities for pedestrian centers and foster a transit orientation.

9.3.c Improve public transit service, including connections to ferry service to serve the public, institutional, and workplace uses in the Civic Core.

9.3.d Provide for cultural and civic places, through the development or reuse of key civic structures, libraries, churches, plazas, public art, or other major landmarks to provide a sense of center and unique character.

9.3.e Ensure that development is consistent with the recommendations developed to implement the Wildlife Refuge Impact Area, mapped in Figure 9-5.

The Wildlife Refuge Impact Area is land that is in proximity to the Alameda National Wildlife Refuge and therefore subject to additional policies and regulations. See Policies 9.3.rr to 9.3.uu.

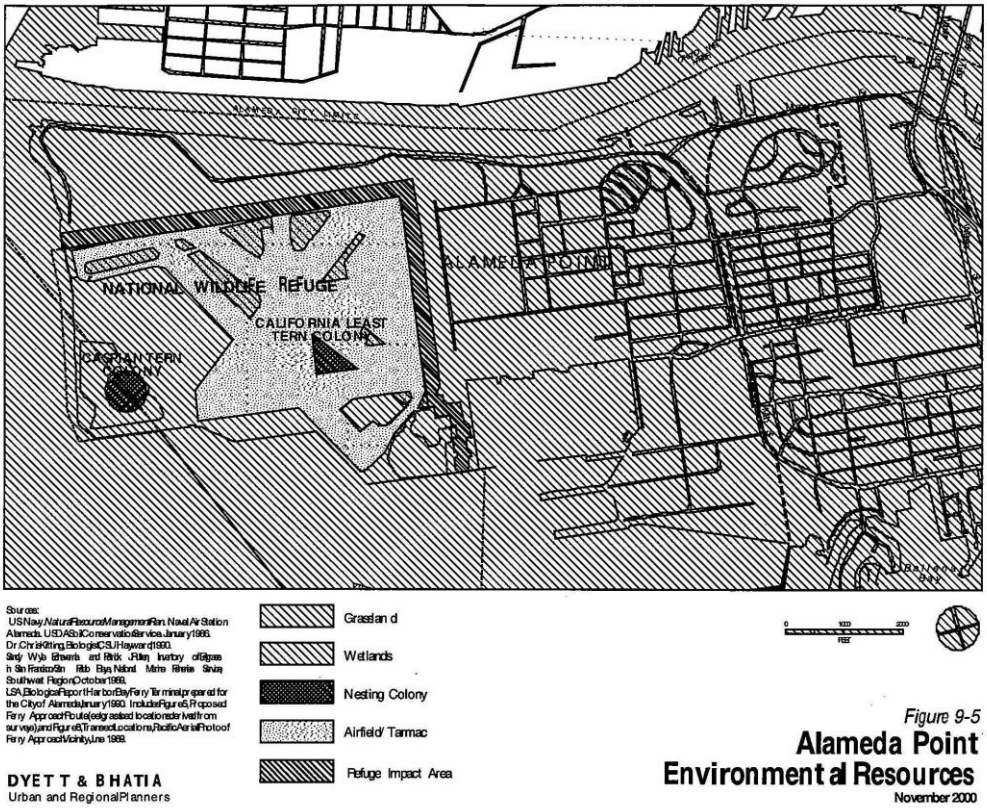


Figure 9-5
Alameda Point Environmental Resources
November 2000

Inner Harbor (AP2)

The Inner Harbor currently contains primarily industrial uses. Future development of this area reflects the existing industrial character of the site. Redevelopment will result in a mixed-use area with an emphasis on light industry and research & development. Although the existing industrial nature of the Inner Harbor area presents constraints in terms of immediate residential reuse, longer-term residential development is a possibility. This area may also include office space, restaurants, and cafes.

Guiding Policy: Inner Harbor

9.3.f Foster cohesion between development of this new mixed-use area and existing surrounding neighborhoods and the City of Alameda.

Implementing Policies: Inner Harbor

9.3.g Review the East Bay Regional Park District's plans for a regional park prior to approval and implementation.

9.3.h Encourage development along Main Street that visually and physically connects the existing residential neighborhood to development in the Inner Harbor area. Do not permit perimeter walls that insulate development from the surrounding neighborhoods.

9.3.i Cluster mixed-use residential, retail commercial, and other supporting uses in a neighborhood center along the extension of Pacific Avenue.

9.3.j Encourage development of Pacific Avenue as a landscaped boulevard with separated bike paths and pedestrian routes.

Marina (AP3)

The Marina sub-area currently contains a variety of uses, primarily industrial, research and development, and marine-related industrial uses. The General Plan envisions this area to develop, over time, into a vital mixed-use area, with an emphasis on public access to the waterfront. Like the rest of Alameda Point, the Marina will have a continuous shoreline open space promenade, which will be supported over time by residential, commercial, retail, and other supporting uses that foster pedestrian activity. The western edge of the Marina district is adjacent to the Wildlife Refuge, and therefore, is subject to certain restrictions with respect to building size and location, parking, lighting and landscaping.

Guiding Policies: Marina

9.3.k Create a mixed-use area that is sensitive to the restrictions and recommendations regarding the neighboring Wildlife Refuge.

9.3.l Foster development of residential, commercial, and retail uses that promote vitality and pedestrian activity along the waterfront.

Implementing Policies: Marina

9.3.m Limit housing development in the Marina district to the eastern and northeastern portions of the marina to avoid proximity to the Wildlife Refuge.

9.3.n On the western shore of the marina, encourage industrial and marine-related industrial uses that are consistent with the Public Trust and sensitive to the Wildlife Refuge.

9.3.o Ensure that development is consistent with the recommendations developed to implement the Wildlife Refuge Impact Area, as mapped in Figure 9-5.

The Wildlife Refuge Impact Area is land that is in proximity to the Alameda National Wildlife Refuge and therefore subject to additional policies and regulations. See Policies 9.3.rr to 9.3.uu.

9.3.p In case of redevelopment or replacement of existing structures, encourage development of uses that promote pedestrian vitality and are oriented to the marina.

9.3.q Educate boat owners and users of the marina about restrictions to Breakwater Island and install signs that warn boaters about the

sensitivity of the wildlife at and around Alameda Point and about prohibitions for disturbing protected bird and mammal species.

9.3.r Provide signs, pamphlets, public education and outreach activities advising boaters and marina users to eliminate any discharges or pollutants to receiving waters.

WEST NEIGHBORHOOD

The West Neighborhood, which formed the residential portion of NAS Alameda and is becoming an established neighborhood, is an existing residential area that will continue with a major residential-use emphasis. Some of the existing homes, known as the Big Whites, are spacious, historic homes previously occupied by higher-ranking Navy personnel. This area is being preserved, along with units that are leased by the Homeless Collaborative and used as affordable housing. Other areas of former Navy housing will be redeveloped for Medium-Density housing. New residential development should provide diversity in housing types and opportunities. In addition to

residential uses a variety of other uses, such as parks and neighborhood businesses will be used to promote a balanced neighborhood. Residential, parks and public open space, public, institutional, and neighborhood business uses are allowed within the district. Community-oriented institutions such as places of worship and nonprofit organizations are also considered allowable and desirable uses.

Guiding Policies: West Neighborhood

9.3.s Guide further development of this primarily residential area to improve quality of life for residents, accessibility for pedestrians, and supporting uses to promote a balanced neighborhood.

9.3.t Consider the need for workforce housing and childcare.

Implementing Policies: West Neighborhood

9.3.u Encourage clustered and pedestrian- and bicycle friendly development, in conjunction with greenways and open space.

9.3.v Integrate interim users into planning for redevelopment of existing housing areas. Honor commitments to the Homeless Collaborative, U.S. Coast Guard, or other potential interim users, while developing transition plans to provide for appropriate, cost-effective, long-term redevelopment solutions.

9.3.w Incorporate small, intermittent parks into residential development.

9.3.x Preserve the Big Whites for their historical significance, and encourage surrounding development that is complementary.

9.3.y Encourage higher density residential development in the vicinity of the multi-modal transit centers, along with parks and community serving businesses and institutions, such as child care and family child care homes, in order to promote accessibility via alternative modes of transit.

9.3.z Where new residential development occurs along the waterfront, limit development to the south side of Main Street or the Mosley Extension in order to protect public access to the waterfront.

9.3.aa Cluster supporting uses such as retail and local serving office and civic uses in mixed-use neighborhood centers.

9.3.bb Consider the preservation of the Admiral's House for community and City use.

NORTHWEST TERRITORIES

Allowable Uses

The Northwest Territories are designated as Parks and Public Open Space. Plans for a sports complex are being discussed, and development of a golf course/hotel-resort in this area is underway. The southern border of the Northwest Territories is adjacent to the Wildlife Refuge, and therefore, portions of the Northwest Territories will be within the Wildlife Refuge Impact Area and subject to certain restrictions with respect to building size and location, roads, parking, lighting, and landscaping.

GUIDING POLICIES: NORTHWEST TERRITORIES

9.3.cc Preserve the Northwest Territories for parks and open space, which may include a golf course/hotel-resort, pedestrian and bicycle trails, and public access.

9.3.dd Incorporate recommendations and regulations regarding the Wildlife Refuge into development in the Northwest Territories.

IMPLEMENTING POLICIES: NORTHWEST TERRITORIES

9.3.ee Develop a perimeter trail along the north and west boundaries of this area.

9.3.ff Develop a public park, called Alameda Point Park, in this area.

9.3.gg Use reclaimed wastewater from EBMUD to irrigate the planned golf course, if feasible.

9.3.hh Explore using elements of the golf course design such as roads, retention/drainage collection ponds, or bunkers as physical barriers between the golf course and the Wildlife Refuge.

9.3.ii Maintain grassland foraging areas for raptors in the golf course design.

9.3.jj Ensure that development is consistent with the recommendations developed to implement the Wildlife Refuge Impact Area, as mapped in Figure 9-5.

Wildlife REFUGE

The Wildlife Refuge Impact Area is land that is in proximity to the Alameda National Wildlife Refuge and therefore subject to additional policies and regulations. See Policies 9.3.rr to 9.3.uu.

Designation of the Alameda National Wildlife Refuge

Most of the area formerly used as runways in the former NAS Alameda will be transferred to the U.S. Fish and Wildlife Service (USFWS) for use as a National Wildlife Refuge. Approximately 50 acres of this area, located in the southwest corner of the current Wildlife Refuge, are within the City and County of San Francisco. The Wildlife Refuge contains two wetlands areas and provides habitat for the endangered California least tern, as well as the Caspian tern, as shown in Figure 9-5. Also shown is the Wildlife Refuge Impact Area, which is subject to special policies and regulations due to its proximity to the Wildlife Refuge.

The USFWS has written a Comprehensive Conservation Plan (1998) for management of the Alameda National Wildlife Refuge. These policies are

intended to facilitate implementation of this Comprehensive Conservation Plan, as well as of the recommendations written by the USFWS in their 1999 Biological Opinion.

Guiding Policy: Wildlife Refuge

9.3.kk Help maintain a Wildlife Refuge that balances natural conservation with public access, education, and ship navigation.

Implementing Policies: Wildlife Refuge

9.3.ll Support implementation of the U.S. Fish and Wildlife Service's Comprehensive Conservation Plan for Alameda National Wildlife Refuge (1998).

9.3.mm Support a system of trails that provide public access to and within the Wildlife Refuge.

9.3.nn Support education facilities and programs, similar to other conservation areas such as the Elsie D. Roemer Bird Sanctuary, in conjunction with either Point Alameda Park or the Wildlife Refuge.

9.3.oo Establish continued access for ships, ferries, and water-taxis within the deep-water channel to the Alameda Point piers and the Seaplane Lagoon through the southern bay waters of the Refuge through agreements with the U.S. Fish and Wildlife Service.

9.3.pp Maintain the breakwater gap and isolation of the Island Breakwater.

9.3.qq Work with the City and County of San Francisco and appropriate agencies to transfer the jurisdiction of the southwest corner of the Wildlife Refuge from the City and County of San Francisco to the City of Alameda and Alameda County.

Implementing Policies: Wildlife Refuge Impact Area

9.3.rr Prepare and adopt development regulations that implement the Biological Opinion (1999) prepared by the U.S. Fish and Wildlife Service to guide development within the Wildlife Refuge Impact Area (see Figure 9-5).

Ensure that the regulations contain specific requirements regarding, but not limited to:

- *Building size, height, design and location*
- *Appropriate uses adjacent to the Refuge*
- *Predator management*
- *Parking restrictions*
- *Lighting provisions*

- *Landscaping restrictions, and*
- *Stormwater management.*

Ensure that development in all areas adjoining the Wildlife Refuge adheres to the Wildlife Refuge Management Plan's guidelines regarding pets, predator control and landscaping.

9.3.ss Encourage funding and implementation of the Comprehensive Conservation Plan by the U.S. Fish and Wildlife Service.

9.3.tt Work with the U.S. Fish and Wildlife Service and the U.S. Department of Agriculture Wildlife Services, to develop informational materials and an educational program for occupants in Alameda Point and marina users or tenants describing the importance of animal control for protection of the least tern colony.

9.3.uu Develop detailed stormwater management and monitoring plans for the Northwest Territories in coordination with the U.S. Fish and Wildlife Service to protect open-water foraging areas for least terns and brown pelicans. Ensure that the plans are reviewed and approved by the Service contemporaneously with the City environmental review process and prior to development within this area.

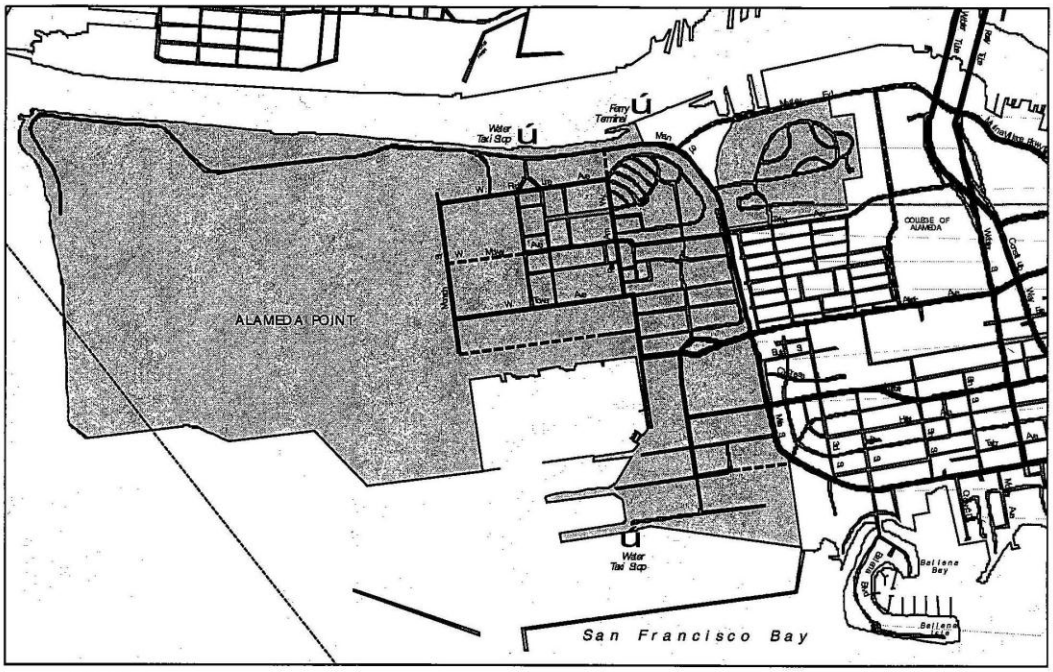


Figure 9-6
Alameda Point Street System
November 2000

9.4 TRANSPORTATION

As Alameda Point grows over the next twenty years, additional trips will be generated both on and off the island due to the planned new land uses. Roadway improvements within Alameda Point will address local congestion, but because Alameda is an island with limited access routes to Oakland, the success of Alameda Point's transportation system depends increasingly on alternative modes of transportation within the Planning Area, throughout the City, and between Alameda and Oakland.

9.4a Explore feasibility of establishing shuttle service to the ferry terminal(s), Civic Core, Webster Street Marina Village, and Oakland BART stations.

9.4b Develop and implement design guidelines and standards to assure that new development at Alameda Point facilitates transit use and consult with AC Transit to assure that roadway improvements at Alameda Point are transit compatible.

9.4c Create innovative new funding mechanisms to subsidize transit service operations at Alameda Point

9.4d Develop a transit center at Alameda Point to facilitate efficient transfers between transportation modes and enhance regional transportation connections.

<u>Pedestrian Routes and Biking</u>

Guiding Policy: Pedestrian Routes and Biking

9.4e Integrate pedestrian and bicycle uses into the design of the roadway system and fabric of neighborhoods.

Implementing Policies: Pedestrian Routes and Biking

9.4f Provide a system of connections for pedestrians and bicyclists including sidewalks, crosswalks, bike lanes and multi-use paths connecting residential, schools, parks, transit stops, employment, commercial districts, and other areas of community activity on Alameda Point.

9.4g Develop Tinker Avenue, Atlantic Avenue, and Main Street with pedestrian and bicycle oriented paths and bus facilities and landscaping as a means to maximize alternative modes of transportation and minimize impacts of vehicle traffic and noise to the residential neighborhood.

Roadway Vistas

Guiding Policy: Roadway Vistas

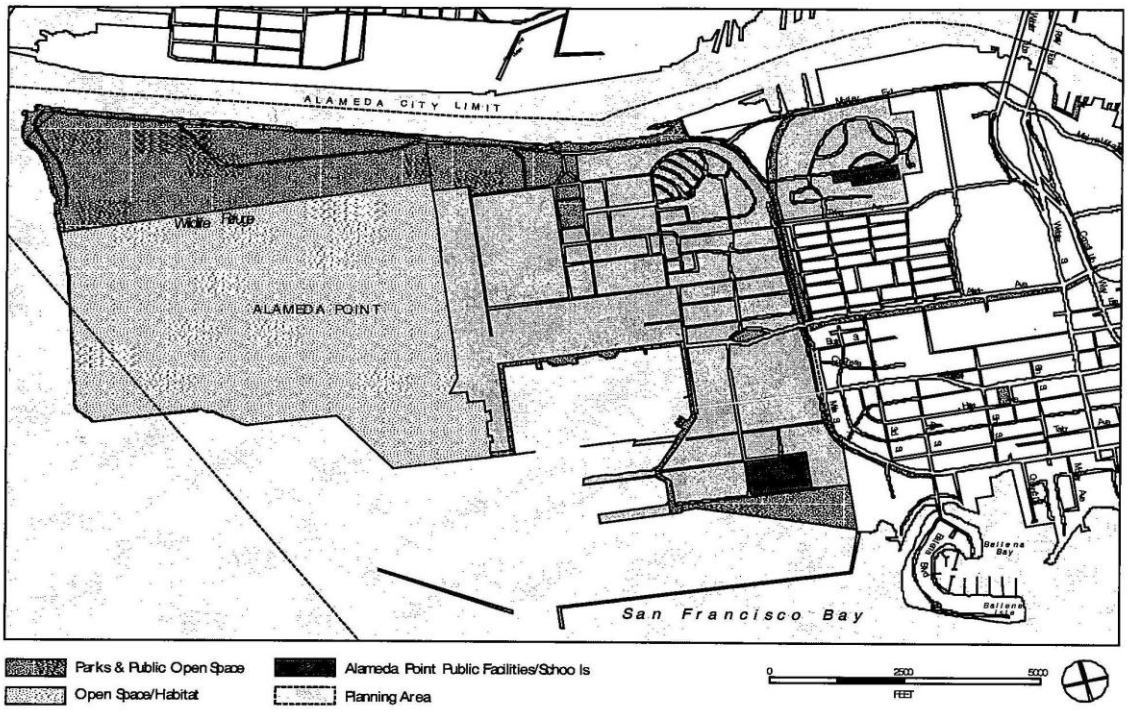
9.4h Preserve view corridors in the layout and landscaping of the roadway system, particularly along the waterfront.

Implementing Policy: Roadway Vistas

9.4i Where possible, align roadways to frame important views.

9.5 OPEN SPACE, CONSERVATION AND CULTURAL RESOURCES

Specialized natural resources, historical resources, urban open space, and focal points will be preserved throughout Alameda Point and will include a full array of active and passive recreational opportunities. Water facilities, including a continuous shoreline trail and marina, will be included. A National Wildlife Refuge has been established in the western portion of Alameda Point. Public parks and plazas will be dispersed throughout the island. Historical buildings and other historical resources, as well as focal points, will be maintained and showcased. The goal is to provide a family-friendly environment serving all members of the community of all age groups, including individuals with special needs, children, teens, and seniors.



DYETT & BHATIA
Urban and Regional Planners

Figure 9-7
Alameda Point Parks and Open Space
November 2000

Figure 9-7 illustrates the parks and open space in Alameda Point, and Figure 9-8 displays the Alameda Point Historic District, including historically significant, or contributing, buildings.

Open Space and Urban Habitat

Guiding Policy: Open Space and Urban Habitat

9.5a Provide open space and recreational opportunities to serve new residents and employees of Alameda Point.

Implementing Policies: Open Space and Urban Habitat:

9.5b Integrate parks and plazas into new development at Alameda Point.

9.5c Provide for community recreation opportunities throughout Alameda Point.

9.5d Establish a pedestrian- and bicycle-accessible perimeter shoreline trail throughout Alameda Point. Ensure that this trail is open year round, that the trail meets minimum multi-use trail standards, and that landscape treatment of the open spaces adjacent to the Estuary and the San Francisco Bay does not block distant views.

9.5e Establish a public plaza at the marina that will serve as a focus for public uses on the waterfront.

9.5f Pursue an aggressive tree-planting program at Alameda Point to bring it up to par with Alameda-wide forestation levels/standards.

Guiding Policy: Historic Resources

9.5g Preserve Alameda Point's Historic District, buildings, development patterns, and open spaces.

Historic Resources:

Implementing Policies: Historic Resources

9.5h Preserve to the greatest extent possible buildings within the Alameda Point Historic District (boundaries shown in Figure 9-8) to maintain the neighborhood and historic character.

9.5.i Provide a mechanism for timely and expedient reviews to ensure that contributing buildings in the Historic District are not left vacant and are managed in compliance with all applicable regulations.

Care for contributing buildings of the NAS Historic District using the standards presented in the National Park Service Preservation Brief 31, Mothballing Historic Buildings.

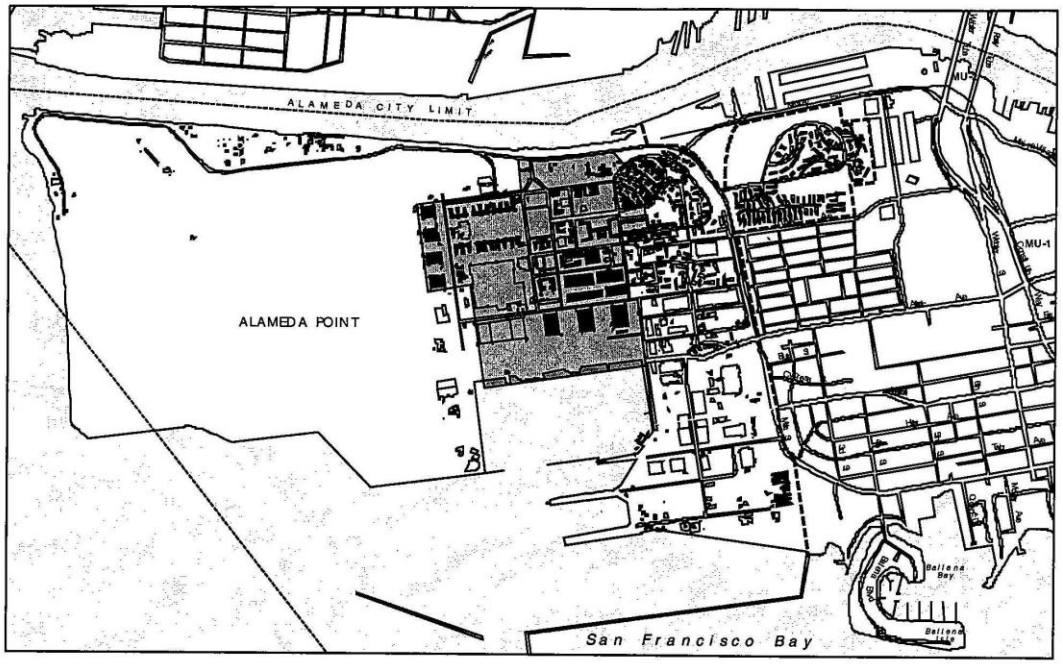
9.5.j Preserve the historic sense of place of the Historic District by preserving the historic pattern of streets and open spaces in the area.

9.5.k Minimize impacts on the architectural integrity of individual contributing buildings and structures.

9.5.l Make every reasonable effort to incorporate compatible adaptive uses or uses for which the buildings were originally designed. Address impacts related to rehabilitation of historic buildings when proposals are submitted and tenants are selected. In addition, identify methods to eliminate hazardous materials (such as asbestos and lead paint), secure and protect vacant buildings, provide for fire detection and suppression, and correct deficiencies in access for people with disabilities with minimal impact on the buildings using the State Historic Building Code.

Advise tenants and property owners within the Historic District of the financial tools and economic incentives that are available, including, but not limited to, the State Historic Building Code and Federal and State tax incentives for the preservation and adaptive rehabilitation of historic properties.

9.5.m Prepare design guidelines and specifications for new construction within and adjacent to the Historic District that ensures compatibility of new construction with the character of the Historic District.



Contributing Building

0 2500 5000 FEET

DYETT & BHATIA
Urban and Regional Planners

Figure 9-8
Alameda Point Historic District
November 2000

9.6 HEALTH AND SAFETY

State law requires a safety element to outline policies that will protect the community from both natural and human-induced disasters. Many of the Health and Safety policies applicable to Alameda Point are common to other parts of Alameda as well, and are addressed in the Health and Safety Element. This section considers water quality and flooding hazards, fire hazards, environmental cleanup, and emergency management, in the specific context of Alameda Point.

One of the greatest health and safety issues at Alameda Point concerns environmental cleanup of the former Naval base. Alameda Point has been designated a federal Superfund site, which establishes the U.S. Environmental Protection Agency (EPA) as the lead agency for the coordination of cleanup of the site. A Federal Facilities Agreement has been signed between the Navy and the U.S. EPA in which the parties agree to a schedule and funding program for cleanup of the site.

Addressing Alameda Point's flooding hazards and emergency management largely requires smooth integration of Alameda Point into the City's existing programs and methods for dealing with these issues.

Water Quality and Flooding Hazards:

Guiding Policies: Water Quality and Flooding Hazards

9.6a Integrate the management of Alameda Point's runoff management into the City's existing programs.

9.6b Support improvement programs that address water quality, urban runoff and flooding.

Implementing Policies: Water Quality and Flooding Hazards

9.6c Integrate Alameda Point into the City of Alameda's Storm Water Management and Discharge Control Program.

9.6d Require all proposed reuse activity in Alameda Point to be in compliance with the Regional Water Quality Control Board storm water recommendations.

9.6e Restrict the installation of water supply wells in the uppermost aquifer at Alameda Point to reduce the potential use, or migration of, groundwater affected by the release of hazardous materials.

9.6f Support development of a water-quality testing program for all existing water supply wells in Alameda Point to determine the safe uses or appropriate discharge of pumped water.

9.6g Support preparation of a Flood Insurance Study by FEMA to cover Alameda Point.

9.6h Coordinate incorporation of Alameda Point into the City of Alameda Urban Runoff Program to reduce potential water quality degradation related to urban runoff.

9.6i Identify and implement improvement programs to address periodic flooding at Alameda Point.

9.6j Establish an assessment mechanism to provide for capital costs for construction, maintenance, and operation of urban runoff Best Management Practices and costs associated with inspection, monitoring, and reporting that could be incurred by the City in incorporation of the Alameda Point into the Urban Runoff Program.

Fire Hazards:

Guiding Policy: Fire Hazards

9.6k Mitigate factors and conditions in Alameda Point that are conducive to fire hazards.

9.6l Identify effective means of dealing with fire disasters should they occur.

Implementing Policies: Fire Hazards

9.6m Maintain and expand the City's fire prevention and fire-fighting capability into Alameda Point by establishing a station with two fire companies to service the emergency needs of all residents and businesses of the area.

9.6n Extend Alameda's current level of emergency medical service into Alameda Point as reuse activities and residential buildout proceed.

Environmental Cleanup:

Guiding Policy: Environmental Cleanup

9.6o Continue to support cleanup of contaminated lands.

Implementing Policies: Environmental Clean-up

9.6p Maintain information about contamination and clean-up activities and make the information available to the public.

9.6q Require environmental restrictions (i.e., deed restrictions) regarding Marsh Crust/subtidal zone excavation and shallow groundwater use.

9.6r Create a land use and construction permitting program that requires consideration of residual contamination. The permitting program should include:

- A means for tracking deed restrictions
- A means for tracking remediation to help ensure that future land uses are compatible
- A method for classifying land uses by exposure scenario
- Identification of areas that might require special construction precautions
- A system for ongoing communication with the environmental regulatory agencies.

Emergency Management:

Guiding Policies: Emergency Management

9.6s Support integration of Alameda Point into the City of Alameda's Emergency Operations Plan.

Implementing Policies: Emergency Management

9.6t Create and integrate provisions for emergency management in Alameda Point into the City of Alameda's Emergency Operations Plan.

9.6u Identify "critical facilities" in Alameda Point area, as defined in Alameda's 1976 Safety Element, and integrate them to the City's existing "critical facilities" list and emergency provision plan.

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25	federal and state beneficial use criteria	Section 2.4	Final Technical Memorandum, OU-5/FISCA IR-02 Groundwater Data Evaluation. Section 4.3, Page 18. TtEC. 2012.

4.3 Evaluation of Groundwater Classification for the FWBZ

The current classification of the FWBZ in the OU-5 area as a potential source of drinking water (Class II or MUN) was based on a limited or incomplete evaluation of groundwater quality parameters. Data collected during the predesign investigation indicate that groundwater quality is not adequate for potable use due to average TDS concentrations in excess of both the state (3,000 mg/L) and federal (10,000 mg/L) thresholds. In addition, several other groundwater quality parameters are incompatible with domestic use, including sulfate, iron, and alkalinity (see Section 3.7). The presence of these groundwater contaminants is due in part to salt water intrusion and is not associated with any identified contaminant source. Neither TDS nor sulfate can be economically removed from domestic drinking water or small to medium-sized industrial water supplies using conventional techniques.

Agricultural supply (AGR) use was identified as a potential use for the central region groundwater (TtEMI 2000). Use of groundwater for crop irrigation or landscape watering was determined not to be feasible because of the TDS concentration. Livestock water was considered to be an improbable use, based on the assumption that TDS was less than 5,000 mg/L (TtEMI 2000). This use is also not likely to be associated with the reasonably anticipated future use of this site. Acceptable TDS concentrations for turf grass irrigation range from 200 to 500 mg/L. TDS concentrations higher than 2,000 mg/L can damage turf grasses (PennState 2012). As the average TDS concentration in the groundwater (16,075 mg/L) significantly exceeds acceptable levels for crop irrigation or livestock watering (i.e., below 5,000 mg/L) or landscape watering (i.e., below 2,000 mg/L), agricultural supply is not a potential beneficial use of the FWBZ groundwater.

Industrial supply (IND) was determined to not be a potential beneficial use of the FWBZ groundwater due to TDS concentrations greater than 1,000 mg/L and insufficient sustainable yield (TtEMI 2000).

Based on an evaluation of the groundwater quality information presented in Section 3.0 in the context of the federal and state beneficial use criteria, the FWBZ at this site is not a potential source of drinking water and, therefore, should be considered Class III groundwater instead of Class II groundwater. This evaluation also found that the FWBZ groundwater was not suitable for uses like wash water for a car wash or water for irrigating crops or landscaping on a routine basis.

5.0 RISK ASSESSMENT SUMMARY AND UPDATE

5.1 Summary of 2004 BHHRA

The RI BHHRA for OU-5/FISCA IR-02 evaluated potential risks from direct and indirect exposures to chemicals in groundwater associated with potential future beneficial uses that involve bringing groundwater to the surface and using it in commercial and/or industrial

26	CSM	Section 2.5	Final Remedial Design/Remedial Action Work Plan, OU-5/IR-02 Groundwater, Revision 2. Section 3.8, Page 3-14, Figure 3-10. TtEC. 2010.

3.8 CONCEPTUAL SITE MODEL

Pre-design investigation data and historical information were used to develop the following conceptual site model.

From 1866 to 1904, an MGP formerly located across San Antonio Creek at the present-day Jack London Square (approximately 1 mile from the site) used a coal carbonization process (not petroleum) to manufacture gas (see Figure 3-10). The MGP discharged coal carbonization process residue into San Antonio Creek. (Another MGP facility active during the late 1800s, formerly located at the present-day Alameda Marina, may have also discharged coal carbonization process residue into San Antonio Creek.) Coal tar residuals (such as dissolved-phase BTEX and naphthalene, suspended microglobules of coal tar, and suspended sediment particulates with adsorbed PAHs) migrated with the tidal currents and winds and were deposited on the historic shoreline, marshland, and tidal channels, up to the high water mark, as a thin layer of contaminated sediments (the Marsh Crust). The Marsh Crust would not have been deposited in upland areas. Natural estuarine processes (sediment transport, erosion, and accretion), storm events, and human activity (dredging and filling) reshaped the tidally influenced marshland areas, resulting in nonuniform distribution of Marsh Crust sediments. The uniformity of the Marsh Crust contaminant distribution was also affected by the coal carbonization process itself, which produced two different waste product streams: coal tar and benzol. Manufacturing, by-product segregation, and disposal practices typically resulted in differential distributions of different constituents. Nonuniform contaminant distribution is common at MGP sites.

The Marsh Crust was buried when the tidal flats were filled (hydraulically, with material derived from the Merritt Sand), followed by a layer of fill clay and a final layer of silty sand or gravel and cobbles. Cross sections based on continuously cored and logged soil borings show stratigraphy that is consistent with these events. Natural occurring microorganisms began using Marsh Crust hydrocarbons as a food source, consuming it along with oxygen. The process continued until the oxygen dissolved in groundwater was consumed. The presence of hydrocarbon-degrading microorganisms, very low groundwater DO concentrations, depleted oxygen, and elevated carbon dioxide soil gas concentrations are all evidence of this process. The process is continuing but is oxygen limited. Injecting air through biosparging wells screened at the Marsh Crust will increase oxygen availability and increase the rate at which the microorganisms degrade Marsh Crust hydrocarbons.

3.9 OU-5 GROUNDWATER BENEFICIAL USE EVALUATION

OU-5 area groundwater samples were analyzed for TDS to evaluate whether site groundwater met municipal or domestic supply criteria. California State Water Resources Control Board (SWRCB) Resolution No. 88-63, *Sources of Drinking Water,* states that groundwater is considered to be suitable, or potentially suitable, for municipal or domestic water supply with the exception of groundwater where TDS exceeds 3,000 mg/L (and other restrictions) (SWRCB,

LEGEND

- OU-5 BOUNDARY
- ALAMEDA BASE BOUNDARY
- MODERN COASTLINE

NOTES:

MGP - MANUFACTURED GAS PLANT

OU - OPERABLE UNIT

ALAMEDA 1908 HISTORICAL MAP

1,000 0 1,000 2,000 Feet

Scale: 1" = 2000'

N

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

REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
OPERABLE UNIT 5/IR-02 GROUNDWATER
ALAMEDA POINT AND FISCA

FIGURE 3-10

MGP SITE LOCATION MAP

ALAMEDA, CALIFORNIA

REVISION: 0
AUTHOR: RKH
DCN: ECSD-2201-0011-0009
FILE NUMBER: 080794L3107.mxd

TETRA TECH EC, INC.

6. RISK ASSESSMENT

As part of this RI/FS, a HHRA was conducted to evaluate potential risks to human health posed by chemical substances detected in groundwater at the Site. This HHRA is based on groundwater and soil gas data only. This section summarizes the findings of the HHRA. A complete copy of the assessment is provided in Appendix E. The risk assessment was performed in accordance with the USEPA's *Risk Assessment Guidance for Superfund: Volume I Human Health Evaluation Manual* (USEPA, 1989), and California Department of Toxic Substances Control (DTSC) *Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities* (DTSC, 1992), and includes summary tables per these guidance documents. Total risk, including risk due to soil exposure for Alameda Point Site 25 (Parcels 181, 182, and 183) will be presented in the OU-5 Proposed Plan. Cumulative risk at Alameda Point Site 30 (Parcels 179 and 180) and Site 31 (Parcels 178 and 184) will be included in future documents associated with those IR sites.

The HHRA performed for this report used the latest available analytical data to evaluate all applicable exposure pathways for the Site, including the use of shallow groundwater as a potable drinking water supply. Specifically, higher benzene concentrations were used than in previous HHRAs performed for both Alameda Point OU-5 and the Alameda Annex. The higher concentrations of benzene were found during the Alameda Point OU-5 RI (IT et al., 2002) in Hydropunch™ samples collected at approximately 20 feet bgs. The Hydropunch™ samples contained higher concentrations than historically have been detected in site monitoring wells, because the wells' screened intervals often included shallower depths.

The following sections describe the HHRA results, exposure pathways, fate and transport assumptions, and exposure point concentration data. The subsequent sections describe ecological risk assessment (ERA) methodologies and results.

6.1. SUMMARY OF HHRA RESULTS

As shown in Table 6-1, carcinogenic and non-carcinogenic risks for non-potable uses were within USEPA's risk management range (10^{-4} to 10^{-6}). As expected, risks for scenarios including domestic potable water use exceeded USEPA's risk management range. The results of this HHRA are similar to those of the previous HHRA performed for the Alameda Annex, with risk levels within USEPA's risk management range for all non-ingestion pathways.

The findings of this HHRA indicate that, under current land use scenarios, risks to residents, students, and workers at the site are within the USEPA'a risk management range. If groundwater wells were installed, use of groundwater would not pose an unacceptable cancer risk to car wash and landscape workers if used as non-potable water. Under the non-potable water use scenarios, the non-carcinogenic HIs ranged from 0.29 to 0.99. Because the entire range is below the acceptable level of 1.0, adverse health effects to

workers are considered unlikely. Additionally, potential inhalation of VOCs in indoor air by residential and school receptors does not pose an unacceptable risk. Assuming no domestic potable water use, benzene contributed approximately 95 percent of the cancer risk, and benzene and naphthalene combined contributed approximately 98 percent of the non-cancer risks; the remainder of the risk was attributable to other contaminants. These calculations rely on multiple conservative assumptions and overestimate the actual risks posed by the Site.

Table 6-1
Summary of Tier 2 HHRA Results
Alameda Point Site 25/Alameda Annex IR-02 Groundwater RI/FS

Exposure Scenario	Non-Carcinogenic Hazard Index		Carcinogenic Risk	
	Average Exposure	Reasonable Maximum Exposure	Average Exposure	Reasonable Maximum Exposure
Assuming No Domestic Potable Water Use (500-foot radius Kriging)				
Car Wash Worker	0.38	0.99	2×10^{-6}	2×10^{-5}
Landscape Worker	0.66	0.98	3×10^{-6}	3×10^{-5}
Resident	0.29	0.29	1×10^{-5}	1×10^{-5}
School Worker	0.29	0.29	$7 \times 10^{--6}$	7×10^{-6}
School Student	0.29	0.29	2×10^{-6}	2×10^{-6}
Assuming Domestic Potable Water Use (500-foot radius Kriging)				
Resident	88	145	5×10^{-3}	2×10^{-2}

The hypothetical ingestion of groundwater under any of the resident scenario would present unacceptable risks. Non-carcinogenic HIs ranged from 88 to 145, and carcinogenic risks ranged from 5×10^{-3} to 2×10^{-2}, due primarily to the benzene and naphthalene concentrations in groundwater. However, use of groundwater as a potable water supply is an unlikely scenario.

The following sections describe the methodology and parameters used in calculating the risks. Additional detail is presented in Appendix E.

6.2. EXPOSURE PATHWAYS

Risk assessments calculate risk only for complete source-pathway-receptor relationships. Four prerequisites are required for a source-pathway-receptor relationship to be considered complete:

1. A chemical source (such as dissolved-phase benzene in shallow groundwater);
2. A release mechanism and transport pathway to a point of contact (e.g., volatilization of benzene in groundwater and migration as soil gas);
3. An exposure medium (such as vapors or contact with groundwater); and
4. An exposure route (e.g., inhalation, dermal contact).

The exposure scenarios with the greatest potential for completion are:

- On-site residents, students, and school-workers theoretically exposed to vapor intrusion into indoor air.
- Workers theoretically exposed to contamination in groundwater during the operation of a commercial car wash.
- Maintenance/landscape workers theoretically exposed to contaminants in groundwater through irrigation activities.

Direct exposure to groundwater under a potable water supply was also considered based on input from stakeholders. Although the RWQCB concurred that groundwater beneath Alameda Annex IR-02 is exempted, groundwater ingestion has been included in the HHRA for completeness. Direct exposure pathways to groundwater as a potable water supply are:

- Ingestion of water by commercial workers and residential receptors.
- Inhalation of contaminants from water by residential receptors resulting from household use (showering, etc.).

It is important to note that groundwater at the site is currently not used as a potable water supply, and that any future development at the site will include connecting the developments to the existing municipal water supply.

6.3. FATE AND TRANSPORT ASSUMPTIONS

Under both the car wash and landscape worker scenarios, the theoretical inhalation of contamination was based on volatilization of water during operation of spray jets and sprinklers. The air concentrations resulting from these water use scenarios are based on activity-specific water use rates, chemical transfer efficiency from air to water, and ambient air dilution.

The estimated use of water during a car wash, as provided by two car wash manufacturers, averaged 0.14 liters per second, with a maximum of 0.22 liters per second. The portion of the day spent continuously spraying water was conservatively estimated at 3 to 5 hours per day. To estimate the amount of chemical that volatilizes during water spraying, the efficiency at which a chemical transfers from water to air was calculated using DTSC guidelines that have been developed for estimating chemical transfer during domestic showering (described in detail in Appendix E). Once the amount of chemical volatilized during an event was estimated, an air concentration was derived based on simple mixing and diffusion with ambient outdoor air.

Under the lawn irrigation/landscape worker scenario, the water use rate was based on the water needs for growing lawn in the Alameda area. This water use rate was estimated using methods developed by the Center for Irrigation Technology, California State University – Fresno, and the U.S. Bureau of Reclamation. Eight different turf crops were considered: Bentgrass, Bermuda, Bluegrass, Kikuyu,

Paspalm, Ryegrass, St. Augustine, and Tall Fescue. The average irrigation need per workday was determined to be 0.0033 cubic meters per square meters per day (m^3/m^2-d), with a maximum of 0.0076 m^3/m^2-d. An application rate was derived based on the irrigation rate, an 8-hour workday, and a 100-foot by 100-feet area (929 m^2). The chemical air emission rate was then based on the application rate, transfer efficiency, and groundwater concentration. Once the amount of chemical volatilized during an event was estimated, an air concentration was derived based on simple mixing and diffusion with ambient outdoor air.

For the residential exposure scenario, the volatilization of groundwater constituents into soil gas that migrates into indoor air was estimated using a heuristic model known as the Johnson and Ettinger model, which was also used for previous HHRAs. The Johnson and Ettinger model, as modified by DTSC to include California Environmental Protection Agency (Cal/EPA) toxicity criteria, was used for this HHRA to provide an output of predicted health risks associated with groundwater concentrations in indoor air. The default chemical properties provided in USEPA guidance were used where available. A slab-on-grade construction was assumed, and a default value of 15 centimeters was used for the depth below grade to the bottom of the enclosed space floor. The depth to groundwater was assumed to be 7.2 feet bgs based on observed depths to groundwater at Alameda Annex IR-02 (depths to groundwater within OU-5 are comparable). Soil properties taken from soil boring logs collected at the site identified the subsurface soil as a sandy loam. These parameters were the basis of the Johnson and Ettinger model as described in further detail in Appendix E.

To test the validity of the Johnson and Ettinger model, a second risk assessment was performed using actual soil gas data rather than modeled concentrations assumed to volatilize from contaminated groundwater. Benzene concentrations detected in soil gas are lower than concentrations predicted by the Johnson and Ettinger model. This may be due to areas of clay material in the vadose zone limiting vapor migration to the surface, or to the weathered nature of the groundwater contamination. In addition, benzene concentrations in soil gas were higher at Alameda Annex than at Alameda Point; thus, separate calculations were performed using the maximum detected concentration of benzene in each area to further refine estimated risks to human receptors. Table 6-2 summarizes the risks to residents, school workers, and school students modeled from exposure to soil gas in each area.

Actual concentrations of benzene in soil gas are lower than predicted by the Johnson and Ettinger model; therefore, the calculated risks were more than 1 order of magnitude lower, and the Tier 2 HHRA was overly conservative. The findings of this revised risk assessment indicate that soil gas exposure does not pose an unacceptable cancer or non-cancer risk to current or potential future residents, students, or school workers at Alameda Point or Alameda Annex. At Alameda Point, the non-carcinogenic HIs and carcinogenic risks for all three receptors were 0.0076 and 5×10^{-8}, respectively, well below the acceptable

Table 6-2
Summary of Tier 2 HHRA Results Modeled from Soil Gas Data
Alameda Point Site 25/Alameda Annex IR-02 Groundwater RI/FS

Exposure Scenario	Location	Non-Carcinogenic Hazard Index		Carcinogenic Risk	
		Average Exposure	Reasonable Maximum Exposure	Average Exposure	Reasonable Maximum Exposure
Assuming No Domestic Potable Water Use					
Resident	Alameda Annex	0.0092	0.0092	1×10^{-6}	1×10^{-6}
	Alameda Point	0.0076	0.0076	5×10^{-8}	5×10^{-8}
School Worker	Alameda Annex	0.0087	0.0087	8×10^{-7}	8×10^{-7}
	Alameda Point	0.0076	0.0076	5×10^{-8}	5×10^{-8}
School Student	Alameda Annex	0.0084	0.0084	2×10^{-7}	2×10^{-7}
	Alameda Point	0.0076	0.0076	5×10^{-8}	5×10^{-8}

levels of 1.0 and 1×10^{-6}. This indicates that, under current land use conditions at Alameda Point with no domestic potable water use, there are no unacceptable risks to current residents, students, or school workers.

Likewise, at Alameda Annex, the non-carcinogenic HI ranges from 0.0084 to 0.0092 for these receptors, well below the acceptable level. The carcinogenic risk at Alameda Annex to these receptors ranges from 2×10^{-7} to 1×10^{-6}, at or below the USEPA's risk management range. Therefore, as Alameda Annex is redeveloped, adverse health effects to current or future residents, students, or school workers are considered unlikely.

6.4. EXPOSURE POINT CONCENTRATION DATA

This HHRA is based on accumulated data from both Alameda Point and the Alameda Annex. The most recent groundwater data, which were collected during the field-sampling program in 2001 and quarterly sampling events through 2003, have been incorporated into the data used for this analysis.

The HHRA was completed in a two-tiered stepwise manner. The Tier 1 evaluation, based on maximum detected concentrations for each constituent, was performed prior to a more site-specific Tier 2 evaluation. Exposure point concentrations in the Tier 2 assessment were adjusted to account for the following factors:

- Sampling methodologies (Hydropunch™ samples were not filtered in the field; the highest benzene concentrations detected were from Hydropunch™ samples).

- Organic carbon content – PAHs tend to adsorb onto organic carbon; USEPA default values were used in the adjustment.
- Geospatial considerations utilizing block kriging was performed for both a 500-foot radius and a 725-foot radius. Rationale for selection of these kriging radii is provided in the following section.

In both tiers of the analysis, data were included from all depths of the FWBZ, and from both the Alameda Point OU-5 and the Alameda Annex areas. Tier 2 Exposure point concentrations are presented as Table 6-3.

Table 6-3
Summary of Tier 2 HHRA Exposure Point Concentrations
Alameda Point Site 25/Alameda Annex IR-02 Groundwater RI/FS

Exposure Point	Contaminant of Concern	Exposure Point Concentration		Units	Statistic[1]
		Average Exposure	Maximum Reasonable		
Groundwater	Benzene	322	322	µg/L	725 feet
		494	494	µg/L	500 feet
	Naphthalene	3,231	3,231	µg/L	725 feet
		4,171	4,171	µg/L	500 feet
Indoor Air	Benzene	0.59	0.59	µg/m^3	Modeled – 725 feet
		0.91	0.91	µg/m^3	Modeled – 500 feet
	Naphthalene	2.1	2.1	µg/m^3	Modeled – maximum
Carwash Worker Air	Benzene	0.060	0.18	µg/m^3	Modeled – 725 feet
		0.093	0.28	µg/m^3	Modeled – 500 feet
	Naphthalene	0.48	1.5	µg/m^3	Modeled – 725 feet
		0.62	1.9	µg/m^3	Modeled – 500 feet
Landscape Workplace Air	Benzene	0.18	0.41	µg/m^3	Modeled – 725 feet
		0.27	0.63	µg/m^3	Modeled – 500 feet
	Naphthalene	1.4	3.3	µg/m^3	Modeled – 725 feet
		1.9	4.2	µg/m^3	Modeled – 500 feet

[1] *Groundwater concentration or calculated concentration in air based on a 95 percent upper confidence level calculated with the kriging radius shown.*

According to USEPA guidance, chemicals with a frequency of detection less than or equal to 5 percent may be considered for elimination (USEPA, 1989). The exception for this risk assessment was n-butylbenzene, because of the relative magnitude of one of the groundwater n-butylbenzene results. Therefore, n-butylbenzene was the only analyte with a detection frequency less than 5 percent that retained a COPC for this risk assessment. Detection limits were also examined, to identify if high detection limits were an issue in selecting COPCs. Detection limits for several compounds were elevated (2,000 µg/L) in a single sample; however, detection limits for the remaining samples are lower by an

order of magnitude or more. As discussed in Section 4.5.4, detection limits have typically been below their respective project required reporting limits.

6.5. SELECTION OF BLOCK KRIGING RADII

Because cancer risks and HIs for reasonably foreseeable complete exposure pathways were driven by the estimated exposures to benzene and naphthalene, respectively, Tier 2 concentrations were calculated for benzene and naphthalene in groundwater and benzene in soil gas. As described in further detail in Appendix E, Section 2.6.1, block kriging was used as a geostatistical method to calculate the exposure concentration over an area. If groundwater wells were installed and groundwater pumped for industrial or domestic potable water use, groundwater would be drawn down and a "cone of depression" would be created. The kriging radius selected for an HHRA is usually an approximation of the radius of this cone of depression.

Shallow aquifer, constant discharge pump testing was completed on wells S22 and S9 in August 1994. The results were reported in Volume I of the final Alameda Annex RI (PRC and Versar, 1996).

The shallow aquifer was capable of providing a sustained yield of 0.5 gallons per minute (gpm) during constant discharge pump testing at wells S22 and S9. Equilibrium appeared to be reached approximately 18 hours into the pump tests, with discharge durations of 74 and 68 hours for wells S22 and S9, respectively. The maximum radius of influence for the cone of depression is assumed to have extended approximately 100 feet beyond the pumping well in both instances (the S22 radius was between 90 and 110 feet, and the S9 radius was slightly greater than 90 feet).

To obtain a water supply in excess of 0.5 gpm from the shallow aquifer, a group of wells or a well field would be needed. The number of wells needed to supply the desired flow and optimal spacing for production is directly dependent on the required amount of groundwater discharge. For example, if a flow rate of 5 gpm is needed, a well field consisting of 10 wells installed on 200-foot centers would be needed; if a flow rate of 50 gpm is needed, the well field would contain 100 wells installed on 200-foot centers. The 50 gpm well field would draw groundwater from a minimum distance (radius) of 1,000 feet from the center of the well field, assuming the most efficient well placement. A well field designed to produce approximately 26 gpm would draw groundwater from a minimum radius of 725 feet. A well field designed to produce approximately 12 gpm would draw from a minimum radius of 500 feet. This analysis assumes that each well in the well field is 100 percent efficient, and no additional contingency wells are needed to provide a continuous water supply at the desired production rate.

Based on the water usage assumptions presented in Section 6.3, the flow rate required for landscape irrigation is 17 gpm per acre of lawn. Therefore, a well field with a radius of 725 feet would provide irrigation water for 1.5 acres of grass, and a well field with a radius of 500 feet would provide irrigation water for 0.75 acres of grass.

Based on this evaluation, although it may technically be possible to produce groundwater flows from the shallow aquifer adequate to meet or augment gray water requirements for the Site, it is neither practical nor feasible to install the large number of wells needed to achieve reasonable production rates. The kriging distances of 500 and 725 feet were chosen as conservative estimates.

6.6. ECOLOGICAL RISK ASSESSMENT

ERAs have been conducted quantitatively and qualitatively for Alameda Point and the Alameda Annex. Summaries of these assessments are provided in the following subsections.

6.6.1. Alameda Point ERA Summary

A screening level ERA was conducted for Alameda Point OU-5. The results were published as part of the draft RI report for Alameda Point OU-2, which included the parcels currently identified as OU-5 (TtEMI, 1999d). The ERA included identification of potentially complete exposure pathways, COPCs for soil based on a comparison to screening benchmarks, and refinement of the contaminants list through evaluation of risk to two upper-trophic level receptors likely to occur in the limited habitat in Alameda Point OU-5. After completing the screening process, no risk to small mammals was identified. Based on the results of this preliminary evaluation and the marginal nature of the ecological habitat at Alameda Point OU-5, no further ecological investigations of the terrestrial habitat have been conducted.

An assessment of the potential ecological risk to aquatic habitat (Section 5.8.2) concluded that receptors in the Oakland Inner Harbor are not being impacted by contaminated groundwater from the Site via either lateral groundwater movement or through the existing storm sewer system.

6.6.2. Alameda Annex ERA Summary

To date, the Navy has conducted a qualitative ERA of the Alameda Annex terrestrial habitat, and a quantitative ERA to evaluate the possible effects of stormwater discharge into the nearby Oakland Inner Harbor which were presented in the final Alameda Annex RI (PRC and Versar, 1996). The qualitative ERA did not find potential risks because:

- The Alameda Annex has a limited and unsuitable terrestrial habitat.
- No endangered species feed or nest on the facility.
- There is a scarcity of mammalian receptors.

The quantitative ERA concluded that storm drain discharges to sediments pose no ecological risk. Sediment bioassay results found no significant ecological effects above those found for the rest of the San Francisco Bay.

A groundwater fate and transport study was also conducted for the Alameda Annex and part of Alameda Point (TtEMI, 1998a) to evaluate potential migration of benzene contamination into the Bay. Benzene

was selected as the primary COPC because of its toxicity and mobility. Other contaminants, such as PAHs and SVOCs, are much less soluble and fairly immobile. The modeling concluded that benzene would not migrate beyond the boundaries of the Site, and ongoing groundwater monitoring has confirmed this conclusion. These findings further support the conclusion from Section 5.8.2, specifically that aquatic receptors in the Oakland Inner Harbor are not being impacted by contaminated groundwater from the Site via either lateral groundwater movement or through the existing storm sewer system.

6.6.3. ERA Summary

Results of the previous ERAs conducted for both Alameda Point and the Alameda Annex concluded that there is no significant risk to terrestrial ecological receptors, and there is no ecological risk to the Bay due to lateral groundwater movement or storm sewer system discharge. A large factor in the ERAs was the marginal quality of the general area with respect to terrestrial ecological receptors. Based on current reuse plans, this can be assumed to be true for future scenarios as well.

28	for 30-year exposure, the residential risk	Section 2.5.1	Residential Risk Evaluation for U.S. Coast Guard Housing. Appendix A, Tables A-11 and A-18. Tetra Tech EM, Inc. 2002.

Table A-11
Risk Estimates for Future Resident (30 yrs exposure)
Soil Vapor Source[1]
USCG Housing
Alameda, California

	Risk Probabilities	
Carcinogen	Indoor Vapor Inhalation	Percent Contribution
Benzene	8.27E-09	6%
Chloroethane	2.60E-10	0%
Chloroform	1.18E-07	81%
MTBE	4.74E-09	3%
Tetrachloroethene	2.46E-09	2%
Trichloroethene	1.18E-08	8%
Summation:	1.46E-07	

	Hazard Index (HI)	
Noncarcinogen	Indoor Vapor Inhalation	Percent Contribution
Acetone	1.13E-04	0%
Benzene	4.21E-04	1%
2-Butanone	2.88E-05	0%
Chlorobenzene	5.37E-05	0%
Chloroethane	7.23E-08	0%
Chloroform	3.92E-02	84%
1,1-Dichloroethane	1.00E-05	0%
cis-1,2-Dichloroethene	6.91E-05	0%
Ethylbenzene	4.33E-05	0%
4-Methyl-2-pentanone	1.02E-04	0%
MTBE	7.14E-06	0%
Naphthalene	5.87E-03	13%
Styrene	7.83E-07	0%
Tetrachloroethene	2.61E-05	0%
Toluene	9.24E-05	0%
1,1,1-Trichloroethane	3.39E-06	0%
Trichloroethene	6.23E-04	1%
Vinyl acetate	4.58E-05	0%
Xylene	4.49E-05	0%
Summation:	0.05	

Notes:

1 - Risk estimates are based on the maximum detected concentration of each COPC, regardless of location.

Table A-18
Risk Estimates for Future Resident (30 yrs exposure)
Hydropunch Source[1]
USCG Housing
Alameda, California

	Risk Probabilities	
Carcinogen	Indoor Vapor Inhalation	Percent Contribution
Benzene	9.55E-07	87%
Bromodichloromethane	1.60E-09	0%
Dibromochloromethane	4.26E-09	0%
Methylene chloride	4.59E-09	0%
MTBE	3.00E-10	0%
Vinyl chloride	1.34E-07	12%
Summation:	1.10E-06	

	Hazard Index (HI)	
Noncarcinogen	Indoor Vapor Inhalation	Percent Contribution
Acenaphthene	2.12E-05	0%
Acenaphthylene	2.92E-03	3%
Anthracene	1.63E-07	0%
Benzene	4.86E-02	49%
Bromodichloromethane	3.02E-06	0%
Dibromochloromethane	5.92E-06	0%
cis-1,2-Dichloroethene	1.61E-04	0%
trans-1,2-Dichloroethene	3.77E-05	0%
Ethylbenzene	1.89E-04	0%
Fluorene	5.60E-07	0%
Isopropylbenzene (cumene)	7.25E-04	1%
4-Isopropyltoluene	1.04E-03	1%
Methylene chloride	7.79E-06	0%
MTBE	4.52E-07	0%
Naphthalene	3.97E-02	40%
Phenanthrene	8.46E-04	1%
Toluene	6.18E-05	0%
1,2,4-Trimethylbenzene	1.60E-03	2%
1,3,5-Trimethylbenzene	2.16E-03	2%
Vinyl chloride	3.48E-04	0%
Xylene	2.31E-05	0%
Summation:	0.1	

Notes:

1 - Risk estimates are based on the maximum detected concentration of each COPC, regardless of location.

29	**cancer risks for residential use based on the soil gas data**	Section 1.3	Final OU-5 Remedial Investigation, Alameda Point. Section 5.9.2.2, Page 5-40, Section 5.9.3.2, Page 5-43, Tables 5-52 to 5-57. Neptune and others. 2002.

5.9.2.2 Subsurface Soil/Shallow Groundwater

Exposure to chemicals in subsurface soil and shallow groundwater is limited to the inhalation of VOCs that have migrated through the overlying soil into indoor and ambient air. Only the inhalation of VOCs in indoor air was modeled for residential populations since outdoor concentrations of VOCs will be lower than indoor air concentrations due to higher mixing in the ambient environment.

As discussed in Section 5.7, soil gas data collected at the site was used to evaluate potential VOCs migrating from subsurface soil and groundwater. The screening evaluation was conducted using the maximum detected concentration for each chemical detected. The estimated cancer risks and noncancer HIs were shown in Tables 5-52 and 53 for the maximum concentrations detected in Parcel 181. Table 5-52 provides these results based on EPA methodology and Table 5-53 provides these results based on CalEPA methodology.

As shown in Table 5-52 and Table 5-53, the cancer risk for the maximum soil gas concentrations detected in Parcel 181 is 1×10^{-8} (EPA methodology – child) and 3×10^{-9} (CalEPA methodology – adult). The estimated HIs are below one for both methodologies. As these estimated cancer risks are below the low end of the target range and the noncancer HIs are well below one, no further refinement of the risk calculations was conducted for the residential scenario.

5.9.3 Cancer Risks and Chronic Noncancer Hazard Indices for Future Residents

This section presents the results of the risk calculations for the potential future residents. Potential media of concern for these populations include surface soil, subsurface soil, and shallow groundwater. Section 5.9.3.1 discusses the estimated cancer and noncancer HIs for surface soil. Subsurface soil and groundwater are combined in Section 5.9.3.2 that discusses potential migration of VOCs into indoor air.

5.9.3.1 Surface Soil

As discussed in Section 5.5, future on-site residents could be exposed directly to PAHs and metals remaining in surface soil on site. Potential routes of exposure for these populations would include incidental ingestion, dermal contact, and inhalation of windblown particulates. The exposure duration for a future resident is 30 years. For future residents, the 0 to 0.5 feet bgs interval is the most likely depth for direct contact if the current buildings remain. The 0 to 2 foot interval and 0 to 4 foot interval were evaluated assuming that soils may be mixed to these depths during redevelopment activities. Although the 0 to 8 foot depth interval has been included in this assessment, it is considered unlikely that future redevelopment activities would mix soils to this

methodology. These estimated noncancer HIs are presented by chemical and depth in Appendix C, Tables C2-39 through C2-42 (EPA methodology) and Tables C3-39 through C3-42 (CalEPA methodology). All estimated noncancer HIs were at or below the target of one. In addition, the maximum detected concentration of lead, 92.6 mg/kg, was well below the EPA Region 9 PRG for lead of 400 mg/kg for residential soil. For metals, incidental ingestion is the major pathway of concern.

5.9.3.2 Subsurface Soil/Shallow Groundwater

Exposure to chemicals in subsurface soil and shallow groundwater is limited to the inhalation of VOCs that have migrated through the overlying soil into indoor and ambient air. Only the inhalation of VOCs in indoor air was modeled for residential populations since outdoor concentrations of VOCs will be lower than indoor air concentrations due to higher mixing in the ambient environment.

Soil gas data collected at the site was used to evaluate potential VOCs migrating from subsurface soil and groundwater. Because the soil gas samples are distributed both on-site and off site, a screening evaluation was conducted to determine the significance of this potential exposure pathway. The screening evaluation was conducted using the maximum detected concentration for each chemical detected. The estimated cancer risks and noncancer HIs were shown in Tables 5-54 and 5-55 for the maximum concentrations detected in Parcel 181 and in Tables 5-56 and 5-57 for the maximum concentration detected off site. Tables 5-54 and 5-56 provide these results based on EPA methodology and Tables 5-55 and 5-57 provide these results based on CalEPA methodology.

As shown in Table 5-54 and Table 5-55, the cancer risk for the maximum soil gas concentrations detected in Parcel 181 is 4×10^{-8} (EPA methodology and 2×10^{-8} (CalEPA methodology). The HIs are below one for both methodologies. As shown in Table 5-56 and Table 5-57, the cancer risk for the maximum soil gas concentrations detected in off site properties is 9×10^{-8} (EPA methodology) and 4×10^{-8} (CalEPA methodology). The HIs are below one for both methodologies. As these estimated cancer risks are below the low end of the target range and the noncancer HIs are well below one, no further refinement of the risk calculations was conducted for a future residential on-site or off site scenario.

5.9.4 Cancer Risks and Noncancer Hazard Indices for Construction Workers

This section presents the results of the risk calculations for the construction worker. Similar to the residents, potential media of concern for this population includes surface soil, subsurface soil, and shallow groundwater. Section 5.9.4.1 discusses the estimated cancer and noncancer HIs for

Table 5-52
Maximum Estimated Cancer Risks and Noncancer Hazard Indices for Volatile Organic Compounds in Soil Gas - Parcel 181 - Current Residents - EPA Methodology (VLEACH)

Chemical	Maximum Concentration* (ug/m^3)	Estimated Cancer Risk		Estimated Noncancer Hazard Index	
		Current Resident (adult)	Current Resident (child)	Current Resident (adult)	Current Resident (child)
Acetone	180	NC	NC	$4x10^{-5}$	0.0001
2-Butanone	28	NC	NC	$2x10^{-6}$	$4x10^{-6}$
Benzene	13	$4.8x10^{-10}$	$1.1x10^{-9}$	0.0001	0.0003
Chlorobenzene	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND
Chloroform	35	$4.6x10^{-9}$	$1.1x10^{-8}$	0.008	0.02
1,1-Dichloroethane	ND	ND	ND	ND	ND
1,1-Dichloroethene	3.9	$9.6x10^{-10}$	$2.2x10^{-9}$	$7x10^{-6}$	$2x10^{-5}$
cis-1,2-Dichloroethene	4	NC	NC	$5x10^{-6}$	$1x10^{-5}$
Ethylbenzene	86	NC	NC	$4x10^{-6}$	$1x10^{-5}$
2-Hexanone	4.1	NC	NC	NA	NA
4-Methyl-2-Pentanone	12	NC	NC	$7x10^{-6}$	$2x10^{-5}$
Methyl tert-Butyl Ether	77	$1.7x10^{-10}$	$4.0x10^{-10}$	$1x10^{-6}$	$3x10^{-6}$
Naphthalene	54	NA	NA	0.0007	0.002
Styrene	2.9	NC	NC	$1x10^{-7}$	$3x10^{-7}$
Tetrachloroethene	22	$5.0x10^{-11}$	$1.2x10^{-10}$	$3x10^{-6}$	$6x10^{-6}$
Toluene	230	NC	NC	$3x10^{-5}$	$8x10^{-5}$
1,1,1-Trichloroethane	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND
Vinyl Acetate	26	NC	NC	$7x10^{-6}$	$2x10^{-5}$
Xylenes (total)	430	NC	NC	$3x10^{-6}$	$7x10^{-6}$
Total		**$6x10^{-9}$**	**$1x10^{-8}$**	**0.009**	**0.02**

** Maximum concentration detected for each chemical in samples from Parcel 181 used to calculate risks and hazard indices*
ug/m^3 denotes micrograms per cubic meter
NA denotes Not available
NC denotes Not known to be a carcinogen
ND denotes Not detected within Parcel 181

Table 5-53
Maximum Estimated Cancer Risks and Noncancer Hazard Indices for Volatile Organic Compounds in Soil Gas - Parcel 181 - Current Residents - CalEPA Methodology (Johnson and Ettinger)

Chemical	Maximum Concentration* (ug/m^3)	Cancer Risk Current Resident (adult)	Noncancer Hazard Index Current Resident (adult)
Acetone	180	NC	5.5E-06
2-Butanone	28	NC	2.9E-07
Benzene	13	1.6E-09	2.2E-06
Chlorobenzene	ND	ND	ND
Chloroethane	ND	ND	ND
Chloroform	35	8.2E-10	1.2E-06
1,1-Dichloroethane	ND	ND	ND
1,1-Dichloroethene	3.9	NA	5.6E-07
cis-1,2-Dichloroethene	4	NC	1.1E-06
Ethylbenzene	86	NC	4.2E-07
2-Hexanone	4.1	NA	NA
4-Methyl-2-Pentanone	12	NC	1.5E-06
Methyl tert-Butyl Ether	77	8.8E-11	9.9E-08
Naphthalene	54	NA	5.7E-05
Styrene	2.9	NA	3.2E-08
Tetrachloroethene	22	5.5E-10	6.2E-06
Toluene	230	NC	7.7E-06
1,1,1-Trichloroethane	ND	ND	ND
Trichloroethene	ND	ND	ND
Vinyl Acetate	26	NA	1.3E-06
Xylenes (total)	430	NC	6.2E-06
Total		**3E-09**	**0.00009**

** Maximum concentration detected for each chemical in samples from Parcel 181 used to calculate risks and hazard indices*
ug/m^3 denotes micrograms per cubic meter
NA denotes Not available
NC denotes Not known to be a carcinogen
ND denotes Not detected within Parcel 181

Table 5-54
Maximum Estimated Cancer Risks and Noncancer Hazard Indices for Volatile Organic Compounds in Soil Gas - Parcel 181 - Future Residents - EPA Methodology (VLEACH)

Chemical	Maximum Concentration* (ug/m^3)	Estimated Cancer Risk	Estimated Noncancer Hazard Index	
		Future Resident (age-adjusted)	Future Resident (adult)	Future Resident (child)
Acetone	180	NC	$4x10^{-5}$	0.0001
2-Butanone	28	NC	$2x10^{-6}$	$4x10^{-6}$
Benzene	13	$3.1x10^{-9}$	0.0001	0.0003
Chlorobenzene	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
Chloroform	35	$2.9x10^{-8}$	0.008	0.02
1,1-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	3.9	$6.1x10^{-9}$	$7x10^{-6}$	$2x10^{-5}$
cis-1,2-Dichloroethene	4	NC	$5x10^{-6}$	$1x10^{-5}$
Ethylbenzene	86	NC	$4x10^{-6}$	$1x10^{-5}$
2-Hexanone	4.1	NC	NA	NA
4-Methyl-2-Pentanone	12	NC	$7x10^{-6}$	$2x10^{-5}$
Methyl tert-Butyl Ether	77	$1.1x10^{-9}$	$1x10^{-6}$	$3x10^{-6}$
Naphthalene	54	NA	0.0007	0.002
Styrene	2.9	NC	$1x10^{-7}$	$3x10^{-7}$
Tetrachloroethene	22	$3.1x10^{-10}$	$3x10^{-6}$	$6x10^{-6}$
Toluene	230	NC	$3x10^{-5}$	$8x10^{-5}$
1,1,1-Trichloroethane	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
Vinyl Acetate	26	NC	$7x10^{-6}$	$2x10^{-5}$
Xylenes (total)	430	NC	$3x10^{-6}$	$7x10^{-6}$
Total		**$4x10^{-8}$**	**0.009**	**0.02**

** Maximum concentration detected for each chemical in samples from Parcel 181 used to calculate risks and hazard indices*

ug/m^3 denotes micrograms per cubic meter

NA denotes Not available

NC denotes Not known to be a carcinogen

ND denotes Not detected within Parcel 181

Table 5-55
Maximum Estimated Cancer Risks and Noncancer Hazard Indices for Volatile Organic Compounds in Soil Gas - Parcel 181 - Future Residents - CalEPA Methodology (Johnson and Ettinger)

Chemical	Maximum* Concentration (ug/m^3)	Estimated Cancer Risk Future Resident (adult)	Estimated Noncancer Hazard Index Future Resident (adult)
Acetone	180	NC	$2.8x10^{-5}$
2-Butanone	28	NC	$1.5x10^{-6}$
Benzene	13	$8.2x10^{-9}$	$1.1x10^{-5}$
Chlorobenzene	ND	ND	ND
Chloroethane	ND	ND	ND
Chloroform	35	$4.1x10^{-9}$	$6.0x10^{-6}$
1,1-Dichloroethane	ND	ND	ND
1,1-Dichloroethene	3.9	NA	$2.8x10^{-6}$
cis-1,2-Dichloroethene	4	NC	$5.6x10^{-6}$
Ethylbenzene	86	NC	$2.1x10^{-6}$
2-Hexanone	4.1	NA	NA
4-Methyl-2-Pentanone	12	NC	$7.4x10^{-6}$
Methyl tert-Butyl Ether	77	$4.4x10^{-10}$	$5.0x10^{-7}$
Naphthalene	54	NA	$2.9x10^{-4}$
Styrene	2.9	NA	$1.6x10^{-7}$
Tetrachloroethene	22	$2.7x10^{-9}$	$3.1x10^{-5}$
Toluene	230	NC	$3.9x10^{-5}$
1,1,1-Trichloroethane	ND	ND	ND
Trichloroethene	ND	ND	ND
Vinyl Acetate	26	NA	$6.6x10^{-6}$
Xylenes (total)	430	NC	$3.1x10^{-5}$
Total		**$2x10^{-8}$**	**0.0005**

** Maximum concentration detected for each chemical in samples from Parcel 181 used to calculate risks and hazard indices*
ug/m^3 denotes micrograms per cubic meter
NA denotes Not available
NC denotes Not known to be a carcinogen
ND denotes Not detected within Parcel 181

Table 5-56
Maximum Estimated Cancer Risks and Noncancer Hazard Indices for Volatile Organic Compounds in Soil Gas - Off Site Properties - Future Residents - EPA Methodology (VLEACH)

Chemical	Maximum Concentration* (ug/m^3)	Estimated Cancer Risk	Estimated Noncancer Hazard Index	
		Future Resident (age-adjusted)	Future Resident (adult)	Future Resident (child)
Acetone	310	NC	$7x10^{-5}$	0.0002
2-Butanone	240	NC	$1x10^{-5}$	$3x10^{-5}$
Benzene	20	$4.7x10^{-9}$	0.0002	0.0004
Chlorobenzene	28	NC	$2x10^{-5}$	$5x10^{-5}$
Chloroethane	5.2	$1.5x10^{-10}$	$3x10^{-8}$	$8x10^{-8}$
Chloroform	92	$7.7x10^{-8}$	0.02	0.05
1,1-Dichloroethane	38	NC	$4x10^{-6}$	$9x10^{-6}$
1,1-Dichloroethene	ND	ND	ND	ND
cis-1,2-Dichloroethene	19	NC	$3x10^{-5}$	$6x10^{-5}$
Ethylbenzene	390	NC	$2x10^{-5}$	$4x10^{-5}$
2-Hexanone	29	NC	NA	NA
4-Methyl-2-Pentanone	78	NC	$5x10^{-5}$	0.0001
Methyl tert-Butyl Ether	170	$2.4x10^{-9}$	$3x10^{-6}$	$7x10^{-6}$
Naphthalene	180	NA	0.002	0.006
Styrene	7.2	NC	$3x10^{-7}$	$8x10^{-7}$
Tetrachloroethene	86	$1.2x10^{-9}$	$1x10^{-5}$	$2x10^{-5}$
Toluene	300	NC	$4x10^{-5}$	0.0001
1,1,1-Trichloroethane	27	NC	$1x10^{-6}$	$3x10^{-6}$
Trichloroethene	130	$6.1x10^{-9}$	0.0003	0.0006
Vinyl Acetate	76	NC	$2x10^{-5}$	$5x10^{-5}$
Xylenes (total)	2810	NC	$2x10^{-5}$	$5x10^{-5}$
Total		**$9x10^{-8}$**	**0.02**	**0.06**

** Maximum concentration detected for each chemical in samples from outside Parcel 181 used to calculate risks and hazard indices*

ug/m^3 denotes micrograms per cubic meter

NA denotes Not available

NC denotes Not known to be a carcinogen

ND denotes Not detected in off-site properties

Table 5-57
Maximum Estimated Cancer Risks and Noncancer Hazard Indices for Volatile Organic Compounds in Soil Gas - Off Site Properties - Future Residents - CalEPA Methodology (Johnson and Ettinger)

Chemical	Maximum* Concentration (ug/m^3)	Cancer Risk Future Resident (adult)	Noncancer Hazard Index Future Resident (adult)
Acetone	310	NC	$4.8x10^{-5}$
2-Butanone	240	NC	$1.3x10^{-5}$
Benzene	20	$1.3x10^{-8}$	$1.7x10^{-5}$
Chlorobenzene	28	NC	$1.4x10^{-6}$
Chloroethane	5.2	$9.5x10^{-11}$	$8.9x10^{-9}$
Chloroform	92	$1.1x10^{-8}$	$1.6x10^{-5}$
1,1-Dichloroethane	38	$1.3x10^{-9}$	$3.7x10^{-6}$
1,1-Dichloroethene	ND	ND	ND
cis-1,2-Dichloroethene	19	NC	$2.7x10^{-5}$
Ethylbenzene	390	NC	$9.6x10^{-6}$
2-Hexanone	29	NA	NA
4-Methyl-2-Pentanone	78	NC	$4.8x10^{-5}$
Methyl tert-Butyl Ether	170	$9.8x10^{-10}$	$1.1x10^{-6}$
Naphthalene	180	NA	$9.6x10^{-4}$
Styrene	7.2	NA	$3.9x10^{-7}$
Tetrachloroethene	86	$1.1x10^{-8}$	$1.2x10^{-4}$
Toluene	300	NC	$5.0x10^{-5}$
1,1,1-Trichloroethane	27	NC	$1.3x10^{-6}$
Trichloroethene	130	$5.5x10^{-9}$	$1.1x10^{-5}$
Vinyl Acetate	76	NA	$1.9x10^{-5}$
Xylenes (total)	2810	NC	$2.0x10^{-4}$
Total		**$4x10^{-8}$**	**0.002**

** Maximum concentration detected for each chemical in samples from outside Parcel 181 used to calculate risks and hazard indices*

ug/m^3 denotes micrograms per cubic meter

NA denotes Not available

NC denotes Not known to be a carcinogen

ND denotes Not detected in off-site properties

31	**groundwater as the potential source of indoor air vapors**	Section 2.5.1	Final Soil Remedial Investigation Report, IR Site 30. Appendix I, Tables I6-1 and I6-2 for groundwater. Bechtel Environmental, Inc. 2005.

Table I6-1
Calculation of Cancer Risks
Reasonable Maximum Exposure – U.S. EPA (Residential)

Scenario Time Frame: Future
Exposure Medium: Vadose Zone Soil (0–5 feet bgs) and Groundwater
Exposure Point: Site 30
Receptor Population: Residential
Receptor Age: Child/Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake mg/kg-day	Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk
	phenanthrene	5.44E-01	mg/kg	7.77E-07	mg/m³	7.77E-07	—	—	—
	pyrene	1.67E+00	mg/kg	4.39E-07	mg/m³	4.39E-07	—	—	—
	1,1,2,2-tetrachloroethane	1.78E-02	mg/kg	1.27E-06	mg/m³	1.27E-06	1.89E-07	2.0E-01	3E-08
	tetrachloroethene	4.70E-03	mg/kg	1.81E-06	mg/m³	1.81E-06	2.69E-07	2.1E-02	6E-09
	toluene	3.40E-03	mg/kg	8.50E-07	mg/m³	8.50E-07	—	—	—
	1,2,3-trichlorobenzene	1.70E-03	mg/kg	3.95E-08	mg/m³	3.95E-08	—	—	—
	1,2,4-trichlorobenzene	1.50E-03	mg/kg	3.49E-08	mg/m³	3.49E-08	—	—	—
								TOTAL	**5E-08**
Inhalation of Indoor Air from Groundwater	**Volatile Organic Compounds**								
	acenaphthylene	7.66E+00	µg/L	1.80E-06	mg/m³	1.80E-06	—	—	—
	acetone	1.70E+01	µg/L	4.82E-06	mg/m³	4.82E-06	—	—	—
	anthracene	4.10E+00	µg/L	7.88E-07	mg/m³	7.88E-07	—	—	—
	benzene	1.89E+01	µg/L	1.38E-05	mg/m³	1.38E-05	2.05E-06	2.7E-02	6E-08
	benzo(g,h,i)perylene	3.70E+00	µg/L	2.83E-07	mg/m³	2.83E-07	—	—	—
	n-butylbenzene	2.00E-01	µg/L	1.65E-07	mg/m³	1.65E-07	—	—	—
	ethylbenzene	1.17E+01	µg/L	8.42E-06	mg/m³	8.42E-06	—	—	—
	fluorene	4.00E+00	µg/L	8.00E-07	mg/m³	8.00E-07	—	—	—
	isopropylbenzene	2.30E-01	µg/L	1.25E-05	mg/m³	1.25E-05	—	—	—
	p-isopropyltoluene	3.40E-01	µg/L	1.85E-05	mg/m³	1.85E-05	—	—	—
	methylene chloride	3.40E+00	µg/L	1.97E-06	mg/m³	1.97E-06	2.93E-07	1.6E-03	5E-10
	2-methylnaphthalene	5.47E+00	µg/L	1.48E-06	mg/m³	1.48E-06	—	—	—
	naphthalene	2.88E+02	µg/L	7.66E-05	mg/m³	7.66E-05	—	—	—
	phenanthrene	1.23E+01	µg/L	2.37E-06	mg/m³	2.37E-06	—	—	—
	n-propylbenzene	3.20E-01	µg/L	2.38E-07	mg/m³	2.38E-07	—	—	—

Table I6-1
Calculation of Cancer Risks
Reasonable Maximum Exposure – U.S. EPA (Residential)

Scenario Time Frame: Future
Exposure Medium: Vadose Zone Soil (0–5 feet bgs) and Groundwater
Exposure Point: Site 30
Receptor Population: Residential
Receptor Age: Child/Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake mg/kg-day	Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk
	pyrene	9.58E+00	µg/L	7.31E-07	mg/m³	7.31E-07	—	—	—
	styrene	2.90E+00	µg/L	1.21E-06	mg/m³	1.21E-06	—	—	—
	toluene	2.39E+00	µg/L	1.78E-06	mg/m³	1.78E-06	—	—	—
	1,2,4-trimethylbenzene	1.81E+00	µg/L	9.80E-07	mg/m³	9.80E-07	—	—	—
	1,3,5-trimethylbenzene	1.10E+00	µg/L	6.09E-07	mg/m³	6.09E-07	—	—	—
	m-, p-xylene	5.71E+00	µg/L	4.21E-06	mg/m³	4.21E-06	—	—	—
	o-xylene	2.62E+00	µg/L	1.79E-06	mg/m³	1.79E-06	—	—	—
	total xylenes	2.30E+01	µg/L	1.70E-05	mg/m³	1.70E-05	—	—	—
								TOTAL	**6E-08**
Inhalation of Outdoor Air from Groundwater	**Volatile Organic Compounds**								
	acenaphthylene	7.66E+00	µg/L	1.83E-07	mg/m³	1.83E-07	—	—	—
	acetone	1.70E+01	µg/L	5.63E-07	mg/m³	5.63E-07	—	—	—
	anthracene	4.10E+00	µg/L	8.68E-08	mg/m³	8.68E-08	—	—	—
	benzene	1.89E+01	µg/L	1.47E-06	mg/m³	1.47E-06	2.18E-07	2.7E-02	6E-09
	benzo(g,h,i)perylene	3.70E+00	µg/L	3.94E-08	mg/m³	3.94E-08	—	—	—
	n-butylbenzene	2.00E-01	µg/L	1.94E-08	mg/m³	1.94E-08	—	—	—
	ethylbenzene	1.17E+01	µg/L	9.49E-07	mg/m³	9.49E-07	—	—	—
	fluorene	4.00E+00	µg/L	8.72E-08	mg/m³	8.72E-08	—	—	—
	isopropylbenzene	2.30E-01	µg/L	1.65E-06	mg/m³	1.65E-06	—	—	—
	p-isopropyltoluene	3.40E-01	µg/L	2.44E-06	mg/m³	2.44E-06	—	—	—
	methylene chloride	3.40E+00	µg/L	1.98E-07	mg/m³	1.98E-07	2.95E-08	1.6E-03	5E-11
	2-methylnaphthalene	5.47E+00	µg/L	1.48E-07	mg/m³	1.48E-07	—	—	—
	naphthalene	2.88E+02	µg/L	7.59E-06	mg/m³	7.59E-06	—	—	—
	phenanthrene	1.23E+01	µg/L	2.61E-07	mg/m³	2.61E-07	—	—	—

Table I6-2
Calculation of Cancer Risks
Reasonable Maximum Exposure – Cal/EPA (Residential)

Scenario Time Frame: Future
Exposure Medium: Vadose Zone Soil (0–5 feet bgs) and Groundwater
Exposure Point: Site 30
Receptor Population: Residential
Receptor Age: Child/Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake mg/kg-day	Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk
	phenanthrene	5.44E-01	mg/kg	7.77E-07	mg/m³	7.77E-07	—	—	—
	pyrene	1.67E+00	mg/kg	4.39E-07	mg/m³	4.39E-07	—	—	—
	1,1,2,2-tetrachloroethane	1.78E-02	mg/kg	1.27E-06	mg/m³	1.27E-06	1.89E-07	2.0E-01	3E-08
	tetrachloroethene	4.70E-03	mg/kg	1.81E-06	mg/m³	1.81E-06	2.69E-07	2.1E-02	6E-09
	toluene	3.40E-03	mg/kg	8.50E-07	mg/m³	8.50E-07	—	—	—
	1,2,3-trichlorobenzene	1.70E-03	mg/kg	3.95E-08	mg/m³	3.95E-08	—	—	—
	1,2,4-trichlorobenzene	1.50E-03	mg/kg	3.49E-08	mg/m³	3.49E-08	—	—	—
								TOTAL	**1E-07**
Inhalation of Indoor Air from Groundwater	**Volatile Organic Compounds**								
	acenaphthylene	7.66E+00	µg/L	1.80E-06	mg/m³	1.80E-06	—	—	—
	acetone	1.70E+01	µg/L	4.82E-06	mg/m³	4.82E-06	—	—	—
	anthracene	4.10E+00	µg/L	7.88E-07	mg/m³	7.88E-07	—	—	—
	benzene	1.89E+01	µg/L	1.38E-05	mg/m³	1.38E-05	2.05E-06	1.0E-01	2E-07
	benzo(g,h,i)perylene	3.70E+00	µg/L	2.83E-07	mg/m³	2.83E-07	—	—	—
	n-butylbenzene	2.00E-01	µg/L	1.65E-07	mg/m³	1.65E-07	—	—	—
	ethylbenzene	1.17E+01	µg/L	8.42E-06	mg/m³	8.42E-06	—	—	—
	fluorene	4.00E+00	µg/L	8.00E-07	mg/m³	8.00E-07	—	—	—
	isopropylbenzene	2.30E-01	µg/L	1.25E-05	mg/m³	1.25E-05	—	—	—
	p-isopropyltoluene	3.40E-01	µg/L	1.85E-05	mg/m³	1.85E-05	—	—	—
	methylene chloride	3.40E+00	µg/L	1.97E-06	mg/m³	1.97E-06	2.93E-07	3.5E-03	1E-09
	2-methylnaphthalene	5.47E+00	µg/L	1.48E-06	mg/m³	1.48E-06	—	—	—
	naphthalene	2.88E+02	µg/L	7.66E-05	mg/m³	7.66E-05	1.14E-05	1.2E-01	1E-06
	phenanthrene	1.23E+01	µg/L	2.37E-06	mg/m³	2.37E-06	—	—	—
	n-propylbenzene	3.20E-01	µg/L	2.38E-07	mg/m³	2.38E-07	—	—	—

Table I6-2
Calculation of Cancer Risks
Reasonable Maximum Exposure – Cal/EPA (Residential)

Scenario Time Frame: Future
Exposure Medium: Vadose Zone Soil (0–5 feet bgs) and Groundwater
Exposure Point: Site 30
Receptor Population: Residential
Receptor Age: Child/Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake mg/kg-day	Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk
	pyrene	9.58E+00	µg/L	7.31E-07	mg/m³	7.31E-07	—	—	—
	styrene	2.90E+00	µg/L	1.21E-06	mg/m³	1.21E-06	—	—	—
	toluene	2.39E+00	µg/L	1.78E-06	mg/m³	1.78E-06	—	—	—
	1,2,4-trimethylbenzene	1.81E+00	µg/L	9.80E-07	mg/m³	9.80E-07	—	—	—
	1,3,5-trimethylbenzene	1.10E+00	µg/L	6.09E-07	mg/m³	6.09E-07	—	—	—
	m-, p-xylene	5.71E+00	µg/L	4.21E-06	mg/m³	4.21E-06	—	—	—
	o-xylene	2.62E+00	µg/L	1.79E-06	mg/m³	1.79E-06	—	—	—
	total xylenes	2.30E+01	µg/L	1.70E-05	mg/m³	1.70E-05	—	—	—
								TOTAL	**2E-06**
Inhalation of Outdoor Air from Groundwater	**Volatile Organic Compounds**								
	acenaphthylene	7.66E+00	µg/L	1.83E-07	mg/m³	1.83E-07	—	—	—
	acetone	1.70E+01	µg/L	5.63E-07	mg/m³	5.63E-07	—	—	—
	anthracene	4.10E+00	µg/L	8.68E-08	mg/m³	8.68E-08	—	—	—
	benzene	1.89E+01	µg/L	1.47E-06	mg/m³	1.47E-06	2.18E-07	1.0E-01	2E-08
	benzo(g,h,i)perylene	3.70E+00	µg/L	3.94E-08	mg/m³	3.94E-08	—	—	—
	n-butylbenzene	2.00E-01	µg/L	1.94E-08	mg/m³	1.94E-08	—	—	—
	ethylbenzene	1.17E+01	µg/L	9.49E-07	mg/m³	9.49E-07	—	—	—
	fluorene	4.00E+00	µg/L	8.72E-08	mg/m³	8.72E-08	—	—	—
	isopropylbenzene	2.30E-01	µg/L	1.65E-06	mg/m³	1.65E-06	—	—	—
	p-isopropyltoluene	3.40E-01	µg/L	2.44E-06	mg/m³	2.44E-06	—	—	—
	methylene chloride	3.40E+00	µg/L	1.98E-07	mg/m³	1.98E-07	2.95E-08	3.5E-03	1E-10
	2-methylnaphthalene	5.47E+00	µg/L	1.48E-07	mg/m³	1.48E-07	—	—	—
	naphthalene	2.88E+02	µg/L	7.59E-06	mg/m³	7.59E-06	1.13E-06	1.2E-01	1E-07
	phenanthrene	1.23E+01	µg/L	2.61E-07	mg/m³	2.61E-07	—	—	—

32	**For groundwater, the total RME residential cancer risk**	Section 2.5.1	Final Soil Remedial Investigation Report, IR Site 31. Appendix I, Tables I6-1 and I6-2 for groundwater. CDM Federal Programs Corporation. 2007.

Table I6-1
Calculation of Cancer Risks, Reasonable Maximum Exposure
U.S. EPA (Sitewide, Current Residential)

Scenario Time Frame: Current
Exposure Medium: Vadose Zone Soil (0–2 feet bgs), and Groundwater
Exposure Point: IRP Site 31, Sitewide
Receptor Population: Residential
Receptor Age: Child/Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake mg/kg-day	Cancer Slope Factor (mg/kg-day)$^{-1}$	Cancer Risk
	2-Methylnaphthalene	2.23E-02	mg/kg	8.22E-06	mg/m³	8.22E-06	—	—	—
	Naphthalene	3.77E-02	mg/kg	1.83E-05	mg/m³	1.83E-05	—	—	—
	Phenanthrene	2.65E-01	mg/kg	2.67E-06	mg/m³	2.67E-06	—	—	—
	Pyrene	7.82E-01	mg/kg	3.92E-07	mg/m³	3.92E-07	—	—	—
	Xylenes (total)	3.00E-03	mg/kg	1.18E-05	mg/m³	1.18E-05	—	—	—
								TOTAL	**5E-08**
Inhalation of Indoor Air from Groundwater	**Volatile Organic Compounds**								
	Acenaphthene	1.00E-01	mg/L	9.62E-06	mg/m³	9.62E-06	—	—	—
	Acenaphthylene	1.30E-01	mg/L	1.25E-05	mg/m³	1.25E-05	—	—	—
	Acetone	3.00E-03	mg/L	3.12E-07	mg/m³	3.12E-07	—	—	—
	Anthracene	5.90E-02	mg/L	2.20E-06	mg/m³	2.20E-06	—	—	—
	Benzene	1.37E-01	mg/L	1.84E-04	mg/m³	1.84E-04	2.74E-05	2.73E-02	8E-07
	Benzo(g,h,i)perylene	3.70E-02	mg/L	1.01E-06	mg/m³	1.01E-06	—	—	—
	Carbon disulfide	9.60E-04	mg/L	5.46E-06	mg/m³	5.46E-06	—	—	—
	Dibenzofuran	6.00E-03	mg/L	7.86E-08	mg/m³	7.86E-08	—	—	—
	1,2-Dichloroethane	3.00E-03	mg/L	1.84E-06	mg/m³	1.84E-06	2.73E-07	9.10E-02	3E-08
	Dichloromethane	3.10E-04	mg/L	3.05E-07	mg/m³	3.05E-07	4.54E-08	1.65E-03	8E-11
	Ethylbenzene	5.20E-02	mg/L	6.94E-05	mg/m³	6.94E-05	—	—	—
	Fluorene	4.50E-02	mg/L	2.46E-06	mg/m³	2.46E-06	—	—	—
	4-Isopropyltoluene	1.50E-04	mg/L	2.57E-07	mg/m³	2.57E-07	—	—	—
	Methane	3.00E+00	mg/L	1.44E-04	mg/m³	1.44E-04	—	—	—
	Methylnaphthalene	1.00E-03	mg/L	2.39E-07	mg/m³	2.39E-07	—	—	—
	MTBE	1.00E-03	mg/L	5.13E-07	mg/m³	5.13E-07	7.63E-08	9.10E-04	7E-11
	Naphthalene	2.03E+00	mg/L	5.26E-04	mg/m³	5.26E-04	—	—	—
	Phenanthrene	2.50E-01	mg/L	2.20E-06	mg/m³	2.20E-06	—	—	—
	Pyrene	2.00E-01	mg/L	5.47E-06	mg/m³	5.47E-06	—	—	—
	Styrene	5.00E-03	mg/L	3.62E-06	mg/m³	3.62E-06	—	—	—
	Toluene	4.00E-02	mg/L	5.56E-05	mg/m³	5.56E-05	—	—	—
	1,2,4-Trimethylbenzene	9.00E-03	mg/L	8.89E-06	mg/m³	8.89E-06	—	—	—

Table I6-1
Calculation of Cancer Risks, Reasonable Maximum Exposure
U.S. EPA (Sitewide, Current Residential)

Scenario Time Frame: Current
Exposure Medium: Vadose Zone Soil (0–2 feet bgs), and Groundwater
Exposure Point: IRP Site 31, Sitewide
Receptor Population: Residential
Receptor Age: Child/Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake mg/kg-day	Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk
	1,3,5-Trimethylbenzene	4.00E-03	mg/L	4.00E-06	mg/m³	4.00E-06	—	—	—
	Xylenes (total)	7.00E-02	mg/L	9.57E-05	mg/m³	9.57E-05	—	—	—
								TOTAL	8E-07
								Total Risk Across All Exposure Routes/Pathways	6E-05

Acronyms/Abbreviations:
bgs – below ground surface
DDD – dichlorodiphenyldichloroethane
DDE – dichlorodiphenyldichloroethene
DDT – dichlorodiphenyltrichloroethane
EPC – exposure point concentration
IRP – Installation Restoration Program
$(mg/kg\text{-}day)^{-1}$ – kilogram-day per milligram
mg/kg – milligrams per kilogram
mg/kg-day – milligrams per kilogram-day
mg/L – milligrams per liter
mg/m³ – milligrams per cubic meter
MTBE – methyl tert-butyl ether
U.S. EPA – United States Environmental Protection Agency

Table I6-2
Calculation of Cancer Risks, Reasonable Maximum Exposure
Cal/EPA (Sitewide, Current Residential)

Scenario Time Frame: Current
Exposure Medium: Vadose Zone Soil (0–2 feet bgs), and Groundwater
Exposure Point: IRP Site 31, Sitewide
Receptor Population: Residential
Receptor Age: Child/Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake mg/kg-day	Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk
	2-Methylnaphthalene	2.23E-02	mg/kg	8.22E-06	mg/m³	8.22E-06	—	—	—
	Naphthalene	3.77E-02	mg/kg	1.83E-05	mg/m³	1.83E-05	2.72E-06	1.20E-01	3E-07
	Phenanthrene	2.65E-01	mg/kg	2.67E-06	mg/m³	2.67E-06	—	—	—
	Pyrene	7.82E-01	mg/kg	3.92E-07	mg/m³	3.92E-07	—	—	—
	Xylenes (total)	3.00E-03	mg/kg	1.18E-05	mg/m³	1.18E-05	—	—	—
								TOTAL	5E-07
Inhalation of Indoor Air from Groundwater	**Volatile Organic Compounds**								
	Acenaphthene	1.00E-01	mg/L	9.62E-06	mg/m³	9.62E-06	—	—	—
	Acenaphthylene	1.30E-01	mg/L	1.25E-05	mg/m³	1.25E-05	—	—	—
	Acetone	3.00E-03	mg/L	3.12E-07	mg/m³	3.12E-07	—	—	—
	Anthracene	5.90E-02	mg/L	2.20E-06	mg/m³	2.20E-06	—	—	—
	Benzene	1.37E-01	mg/L	1.84E-04	mg/m³	1.84E-04	2.74E-05	1.00E-01	3E-06
	Benzo(g,h,i)perylene	3.70E-02	mg/L	1.01E-06	mg/m³	1.01E-06	—	—	—
	Carbon disulfide	9.60E-04	mg/L	5.46E-06	mg/m³	5.46E-06	—	—	—
	Dibenzofuran	6.00E-03	mg/L	7.86E-08	mg/m³	7.86E-08	—	—	—
	1,2-Dichloroethane	3.00E-03	mg/L	1.84E-06	mg/m³	1.84E-06	2.73E-07	7.20E-02	2E-08
	Dichloromethane	3.10E-04	mg/L	3.05E-07	mg/m³	3.05E-07	4.54E-08	3.50E-03	2E-10
	Ethylbenzene	5.20E-02	mg/L	6.94E-05	mg/m³	6.94E-05	—	—	—
	Fluorene	4.50E-02	mg/L	2.46E-06	mg/m³	2.46E-06	—	—	—
	4-Isopropyltoluene	1.50E-04	mg/L	2.57E-07	mg/m³	2.57E-07	—	—	—
	Methane	3.00E+00	mg/L	1.44E-04	mg/m³	1.44E-04	—	—	—
	Methylnaphthalene	1.00E-03	mg/L	2.39E-07	mg/m³	2.39E-07	—	—	—
	MTBE	1.00E-03	mg/L	5.13E-07	mg/m³	5.13E-07	7.63E-08	9.10E-04	7E-11
	Naphthalene	2.03E+00	mg/L	5.26E-04	mg/m³	5.26E-04	7.82E-05	1.20E-01	9E-06
	Phenanthrene	2.50E-01	mg/L	2.20E-06	mg/m³	2.20E-06	—	—	—
	Pyrene	2.00E-01	mg/L	5.47E-06	mg/m³	5.47E-06	—	—	—
	Styrene	5.00E-03	mg/L	3.62E-06	mg/m³	3.62E-06	—	—	—
	Toluene	4.00E-02	mg/L	5.56E-05	mg/m³	5.56E-05	—	—	—
	1,2,4-Trimethylbenzene	9.00E-03	mg/L	8.89E-06	mg/m³	8.89E-06	—	—	—

Table I6-2
Calculation of Cancer Risks, Reasonable Maximum Exposure
Cal/EPA (Sitewide, Current Residential)

Scenario Time Frame: Current
Exposure Medium: Vadose Zone Soil (0–2 feet bgs), and Groundwater
Exposure Point: IRP Site 31, Sitewide
Receptor Population: Residential
Receptor Age: Child/Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake mg/kg-day	Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk
	1,3,5-Trimethylbenzene	4.00E-03	mg/L	4.00E-06	mg/m³	4.00E-06	—	—	—
	Xylenes (total)	7.00E-02	mg/L	9.57E-05	mg/m³	9.57E-05	—	—	—
								TOTAL	1E-05
								Total Risk Across All Exposure Routes/Pathways	4E-04

Acronyms/Abbreviations:
bgs – below ground surface
Cal/EPA – California Environmental Protection Agency
DDD – dichlorodiphenyldichloroethane
DDE – dichlorodiphenyldichloroethene
DDT – dichlorodiphenyltrichloroethane
EPC – exposure point concentration
IRP – Installation Restoration Program
$(mg/kg\text{-}day)^{-1}$ – kilogram-day per milligram
mg/kg – milligrams per kilogram
mg/kg-day – milligrams per kilogram-day
mg/L – milligrams per liter
mg/m³ – milligrams per cubic meter
MTBE – methyl tert-butyl ether

6. RISK ASSESSMENT

As part of this RI/FS, a HHRA was conducted to evaluate potential risks to human health posed by chemical substances detected in groundwater at the Site. This HHRA is based on groundwater and soil gas data only. This section summarizes the findings of the HHRA. A complete copy of the assessment is provided in Appendix E. The risk assessment was performed in accordance with the USEPA's *Risk Assessment Guidance for Superfund: Volume I Human Health Evaluation Manual* (USEPA, 1989), and California Department of Toxic Substances Control (DTSC) *Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities* (DTSC, 1992), and includes summary tables per these guidance documents. Total risk, including risk due to soil exposure for Alameda Point Site 25 (Parcels 181, 182, and 183) will be presented in the OU-5 Proposed Plan. Cumulative risk at Alameda Point Site 30 (Parcels 179 and 180) and Site 31 (Parcels 178 and 184) will be included in future documents associated with those IR sites.

The HHRA performed for this report used the latest available analytical data to evaluate all applicable exposure pathways for the Site, including the use of shallow groundwater as a potable drinking water supply. Specifically, higher benzene concentrations were used than in previous HHRAs performed for both Alameda Point OU-5 and the Alameda Annex. The higher concentrations of benzene were found during the Alameda Point OU-5 RI (IT et al., 2002) in Hydropunch™ samples collected at approximately 20 feet bgs. The Hydropunch™ samples contained higher concentrations than historically have been detected in site monitoring wells, because the wells' screened intervals often included shallower depths.

The following sections describe the HHRA results, exposure pathways, fate and transport assumptions, and exposure point concentration data. The subsequent sections describe ecological risk assessment (ERA) methodologies and results.

6.1. SUMMARY OF HHRA RESULTS

As shown in Table 6-1, carcinogenic and non-carcinogenic risks for non-potable uses were within USEPA's risk management range (10^{-4} to 10^{-6}). As expected, risks for scenarios including domestic potable water use exceeded USEPA's risk management range. The results of this HHRA are similar to those of the previous HHRA performed for the Alameda Annex, with risk levels within USEPA's risk management range for all non-ingestion pathways.

The findings of this HHRA indicate that, under current land use scenarios, risks to residents, students, and workers at the site are within the USEPA'a risk management range. If groundwater wells were installed, use of groundwater would not pose an unacceptable cancer risk to car wash and landscape workers if used as non-potable water. Under the non-potable water use scenarios, the non-carcinogenic HIs ranged from 0.29 to 0.99. Because the entire range is below the acceptable level of 1.0, adverse health effects to

workers are considered unlikely. Additionally, potential inhalation of VOCs in indoor air by residential and school receptors does not pose an unacceptable risk. Assuming no domestic potable water use, benzene contributed approximately 95 percent of the cancer risk, and benzene and naphthalene combined contributed approximately 98 percent of the non-cancer risks; the remainder of the risk was attributable to other contaminants. These calculations rely on multiple conservative assumptions and overestimate the actual risks posed by the Site.

Table 6-1
Summary of Tier 2 HHRA Results
Alameda Point Site 25/Alameda Annex IR-02 Groundwater RI/FS

Exposure Scenario	Non-Carcinogenic Hazard Index		Carcinogenic Risk	
	Average Exposure	Reasonable Maximum Exposure	Average Exposure	Reasonable Maximum Exposure
Assuming No Domestic Potable Water Use (500-foot radius Kriging)				
Car Wash Worker	0.38	0.99	2×10^{-6}	2×10^{-5}
Landscape Worker	0.66	0.98	3×10^{-6}	3×10^{-5}
Resident	0.29	0.29	1×10^{-5}	1×10^{-5}
School Worker	0.29	0.29	$7 \times 10^{--6}$	7×10^{-6}
School Student	0.29	0.29	2×10^{-6}	2×10^{-6}
Assuming Domestic Potable Water Use (500-foot radius Kriging)				
Resident	88	145	5×10^{-3}	2×10^{-2}

The hypothetical ingestion of groundwater under any of the resident scenario would present unacceptable risks. Non-carcinogenic HIs ranged from 88 to 145, and carcinogenic risks ranged from 5×10^{-3} to 2×10^{-2}, due primarily to the benzene and naphthalene concentrations in groundwater. However, use of groundwater as a potable water supply is an unlikely scenario.

The following sections describe the methodology and parameters used in calculating the risks. Additional detail is presented in Appendix E.

6.2. EXPOSURE PATHWAYS

Risk assessments calculate risk only for complete source-pathway-receptor relationships. Four prerequisites are required for a source-pathway-receptor relationship to be considered complete:

1. A chemical source (such as dissolved-phase benzene in shallow groundwater);
2. A release mechanism and transport pathway to a point of contact (e.g., volatilization of benzene in groundwater and migration as soil gas);
3. An exposure medium (such as vapors or contact with groundwater); and
4. An exposure route (e.g., inhalation, dermal contact).

The exposure scenarios with the greatest potential for completion are:

- On-site residents, students, and school-workers theoretically exposed to vapor intrusion into indoor air.
- Workers theoretically exposed to contamination in groundwater during the operation of a commercial car wash.
- Maintenance/landscape workers theoretically exposed to contaminants in groundwater through irrigation activities.

Direct exposure to groundwater under a potable water supply was also considered based on input from stakeholders. Although the RWQCB concurred that groundwater beneath Alameda Annex IR-02 is exempted, groundwater ingestion has been included in the HHRA for completeness. Direct exposure pathways to groundwater as a potable water supply are:

- Ingestion of water by commercial workers and residential receptors.
- Inhalation of contaminants from water by residential receptors resulting from household use (showering, etc.).

It is important to note that groundwater at the site is currently not used as a potable water supply, and that any future development at the site will include connecting the developments to the existing municipal water supply.

6.3. FATE AND TRANSPORT ASSUMPTIONS

Under both the car wash and landscape worker scenarios, the theoretical inhalation of contamination was based on volatilization of water during operation of spray jets and sprinklers. The air concentrations resulting from these water use scenarios are based on activity-specific water use rates, chemical transfer efficiency from air to water, and ambient air dilution.

The estimated use of water during a car wash, as provided by two car wash manufacturers, averaged 0.14 liters per second, with a maximum of 0.22 liters per second. The portion of the day spent continuously spraying water was conservatively estimated at 3 to 5 hours per day. To estimate the amount of chemical that volatilizes during water spraying, the efficiency at which a chemical transfers from water to air was calculated using DTSC guidelines that have been developed for estimating chemical transfer during domestic showering (described in detail in Appendix E). Once the amount of chemical volatilized during an event was estimated, an air concentration was derived based on simple mixing and diffusion with ambient outdoor air.

Under the lawn irrigation/landscape worker scenario, the water use rate was based on the water needs for growing lawn in the Alameda area. This water use rate was estimated using methods developed by the Center for Irrigation Technology, California State University – Fresno, and the U.S. Bureau of Reclamation. Eight different turf crops were considered: Bentgrass, Bermuda, Bluegrass, Kikuyu,

Paspalm, Ryegrass, St. Augustine, and Tall Fescue. The average irrigation need per workday was determined to be 0.0033 cubic meters per square meters per day (m^3/m^2-d), with a maximum of 0.0076 m^3/m^2-d. An application rate was derived based on the irrigation rate, an 8-hour workday, and a 100-foot by 100-feet area (929 m^2). The chemical air emission rate was then based on the application rate, transfer efficiency, and groundwater concentration. Once the amount of chemical volatilized during an event was estimated, an air concentration was derived based on simple mixing and diffusion with ambient outdoor air.

For the residential exposure scenario, the volatilization of groundwater constituents into soil gas that migrates into indoor air was estimated using a heuristic model known as the Johnson and Ettinger model, which was also used for previous HHRAs. The Johnson and Ettinger model, as modified by DTSC to include California Environmental Protection Agency (Cal/EPA) toxicity criteria, was used for this HHRA to provide an output of predicted health risks associated with groundwater concentrations in indoor air. The default chemical properties provided in USEPA guidance were used where available. A slab-on-grade construction was assumed, and a default value of 15 centimeters was used for the depth below grade to the bottom of the enclosed space floor. The depth to groundwater was assumed to be 7.2 feet bgs based on observed depths to groundwater at Alameda Annex IR-02 (depths to groundwater within OU-5 are comparable). Soil properties taken from soil boring logs collected at the site identified the subsurface soil as a sandy loam. These parameters were the basis of the Johnson and Ettinger model as described in further detail in Appendix E.

To test the validity of the Johnson and Ettinger model, a second risk assessment was performed using actual soil gas data rather than modeled concentrations assumed to volatilize from contaminated groundwater. Benzene concentrations detected in soil gas are lower than concentrations predicted by the Johnson and Ettinger model. This may be due to areas of clay material in the vadose zone limiting vapor migration to the surface, or to the weathered nature of the groundwater contamination. In addition, benzene concentrations in soil gas were higher at Alameda Annex than at Alameda Point; thus, separate calculations were performed using the maximum detected concentration of benzene in each area to further refine estimated risks to human receptors. Table 6-2 summarizes the risks to residents, school workers, and school students modeled from exposure to soil gas in each area.

Actual concentrations of benzene in soil gas are lower than predicted by the Johnson and Ettinger model; therefore, the calculated risks were more than 1 order of magnitude lower, and the Tier 2 HHRA was overly conservative. The findings of this revised risk assessment indicate that soil gas exposure does not pose an unacceptable cancer or non-cancer risk to current or potential future residents, students, or school workers at Alameda Point or Alameda Annex. At Alameda Point, the non-carcinogenic HIs and carcinogenic risks for all three receptors were 0.0076 and 5×10^{-8}, respectively, well below the acceptable

Table 6-2
Summary of Tier 2 HHRA Results Modeled from Soil Gas Data
Alameda Point Site 25/Alameda Annex IR-02 Groundwater RI/FS

Exposure Scenario	Location	Non-Carcinogenic Hazard Index		Carcinogenic Risk	
		Average Exposure	Reasonable Maximum Exposure	Average Exposure	Reasonable Maximum Exposure
Assuming No Domestic Potable Water Use					
Resident	Alameda Annex	0.0092	0.0092	1×10^{-6}	1×10^{-6}
	Alameda Point	0.0076	0.0076	5×10^{-8}	5×10^{-8}
School Worker	Alameda Annex	0.0087	0.0087	8×10^{-7}	8×10^{-7}
	Alameda Point	0.0076	0.0076	5×10^{-8}	5×10^{-8}
School Student	Alameda Annex	0.0084	0.0084	2×10^{-7}	2×10^{-7}
	Alameda Point	0.0076	0.0076	5×10^{-8}	5×10^{-8}

levels of 1.0 and 1×10^{-6}. This indicates that, under current land use conditions at Alameda Point with no domestic potable water use, there are no unacceptable risks to current residents, students, or school workers.

Likewise, at Alameda Annex, the non-carcinogenic HI ranges from 0.0084 to 0.0092 for these receptors, well below the acceptable level. The carcinogenic risk at Alameda Annex to these receptors ranges from 2×10^{-7} to 1×10^{-6}, at or below the USEPA's risk management range. Therefore, as Alameda Annex is redeveloped, adverse health effects to current or future residents, students, or school workers are considered unlikely.

6.4. EXPOSURE POINT CONCENTRATION DATA

This HHRA is based on accumulated data from both Alameda Point and the Alameda Annex. The most recent groundwater data, which were collected during the field-sampling program in 2001 and quarterly sampling events through 2003, have been incorporated into the data used for this analysis.

The HHRA was completed in a two-tiered stepwise manner. The Tier 1 evaluation, based on maximum detected concentrations for each constituent, was performed prior to a more site-specific Tier 2 evaluation. Exposure point concentrations in the Tier 2 assessment were adjusted to account for the following factors:

- Sampling methodologies (Hydropunch™ samples were not filtered in the field; the highest benzene concentrations detected were from Hydropunch™ samples).

- Organic carbon content – PAHs tend to adsorb onto organic carbon; USEPA default values were used in the adjustment.
- Geospatial considerations utilizing block kriging was performed for both a 500-foot radius and a 725-foot radius. Rationale for selection of these kriging radii is provided in the following section.

In both tiers of the analysis, data were included from all depths of the FWBZ, and from both the Alameda Point OU-5 and the Alameda Annex areas. Tier 2 Exposure point concentrations are presented as Table 6-3.

Table 6-3
Summary of Tier 2 HHRA Exposure Point Concentrations
Alameda Point Site 25/Alameda Annex IR-02 Groundwater RI/FS

Exposure Point	Contaminant of Concern	Exposure Point Concentration		Units	Statistic[1]
		Average Exposure	Maximum Reasonable		
Groundwater	Benzene	322	322	µg/L	725 feet
		494	494	µg/L	500 feet
	Naphthalene	3,231	3,231	µg/L	725 feet
		4,171	4,171	µg/L	500 feet
Indoor Air	Benzene	0.59	0.59	µg/m^3	Modeled – 725 feet
		0.91	0.91	µg/m^3	Modeled – 500 feet
	Naphthalene	2.1	2.1	µg/m^3	Modeled – maximum
Carwash Worker Air	Benzene	0.060	0.18	µg/m^3	Modeled – 725 feet
		0.093	0.28	µg/m^3	Modeled – 500 feet
	Naphthalene	0.48	1.5	µg/m^3	Modeled – 725 feet
		0.62	1.9	µg/m^3	Modeled – 500 feet
Landscape Workplace Air	Benzene	0.18	0.41	µg/m^3	Modeled – 725 feet
		0.27	0.63	µg/m^3	Modeled – 500 feet
	Naphthalene	1.4	3.3	µg/m^3	Modeled – 725 feet
		1.9	4.2	µg/m^3	Modeled – 500 feet

[1] *Groundwater concentration or calculated concentration in air based on a 95 percent upper confidence level calculated with the kriging radius shown.*

According to USEPA guidance, chemicals with a frequency of detection less than or equal to 5 percent may be considered for elimination (USEPA, 1989). The exception for this risk assessment was n-butylbenzene, because of the relative magnitude of one of the groundwater n-butylbenzene results. Therefore, n-butylbenzene was the only analyte with a detection frequency less than 5 percent that retained a COPC for this risk assessment. Detection limits were also examined, to identify if high detection limits were an issue in selecting COPCs. Detection limits for several compounds were elevated (2,000 µg/L) in a single sample; however, detection limits for the remaining samples are lower by an

order of magnitude or more. As discussed in Section 4.5.4, detection limits have typically been below their respective project required reporting limits.

6.5. SELECTION OF BLOCK KRIGING RADII

Because cancer risks and HIs for reasonably foreseeable complete exposure pathways were driven by the estimated exposures to benzene and naphthalene, respectively, Tier 2 concentrations were calculated for benzene and naphthalene in groundwater and benzene in soil gas. As described in further detail in Appendix E, Section 2.6.1, block kriging was used as a geostatistical method to calculate the exposure concentration over an area. If groundwater wells were installed and groundwater pumped for industrial or domestic potable water use, groundwater would be drawn down and a "cone of depression" would be created. The kriging radius selected for an HHRA is usually an approximation of the radius of this cone of depression.

Shallow aquifer, constant discharge pump testing was completed on wells S22 and S9 in August 1994. The results were reported in Volume I of the final Alameda Annex RI (PRC and Versar, 1996).

The shallow aquifer was capable of providing a sustained yield of 0.5 gallons per minute (gpm) during constant discharge pump testing at wells S22 and S9. Equilibrium appeared to be reached approximately 18 hours into the pump tests, with discharge durations of 74 and 68 hours for wells S22 and S9, respectively. The maximum radius of influence for the cone of depression is assumed to have extended approximately 100 feet beyond the pumping well in both instances (the S22 radius was between 90 and 110 feet, and the S9 radius was slightly greater than 90 feet).

To obtain a water supply in excess of 0.5 gpm from the shallow aquifer, a group of wells or a well field would be needed. The number of wells needed to supply the desired flow and optimal spacing for production is directly dependent on the required amount of groundwater discharge. For example, if a flow rate of 5 gpm is needed, a well field consisting of 10 wells installed on 200-foot centers would be needed; if a flow rate of 50 gpm is needed, the well field would contain 100 wells installed on 200-foot centers. The 50 gpm well field would draw groundwater from a minimum distance (radius) of 1,000 feet from the center of the well field, assuming the most efficient well placement. A well field designed to produce approximately 26 gpm would draw groundwater from a minimum radius of 725 feet. A well field designed to produce approximately 12 gpm would draw from a minimum radius of 500 feet. This analysis assumes that each well in the well field is 100 percent efficient, and no additional contingency wells are needed to provide a continuous water supply at the desired production rate.

Based on the water usage assumptions presented in Section 6.3, the flow rate required for landscape irrigation is 17 gpm per acre of lawn. Therefore, a well field with a radius of 725 feet would provide irrigation water for 1.5 acres of grass, and a well field with a radius of 500 feet would provide irrigation water for 0.75 acres of grass.

Based on this evaluation, although it may technically be possible to produce groundwater flows from the shallow aquifer adequate to meet or augment gray water requirements for the Site, it is neither practical nor feasible to install the large number of wells needed to achieve reasonable production rates. The kriging distances of 500 and 725 feet were chosen as conservative estimates.

6.6. ECOLOGICAL RISK ASSESSMENT

ERAs have been conducted quantitatively and qualitatively for Alameda Point and the Alameda Annex. Summaries of these assessments are provided in the following subsections.

6.6.1. Alameda Point ERA Summary

A screening level ERA was conducted for Alameda Point OU-5. The results were published as part of the draft RI report for Alameda Point OU-2, which included the parcels currently identified as OU-5 (TtEMI, 1999d). The ERA included identification of potentially complete exposure pathways, COPCs for soil based on a comparison to screening benchmarks, and refinement of the contaminants list through evaluation of risk to two upper-trophic level receptors likely to occur in the limited habitat in Alameda Point OU-5. After completing the screening process, no risk to small mammals was identified. Based on the results of this preliminary evaluation and the marginal nature of the ecological habitat at Alameda Point OU-5, no further ecological investigations of the terrestrial habitat have been conducted.

An assessment of the potential ecological risk to aquatic habitat (Section 5.8.2) concluded that receptors in the Oakland Inner Harbor are not being impacted by contaminated groundwater from the Site via either lateral groundwater movement or through the existing storm sewer system.

6.6.2. Alameda Annex ERA Summary

To date, the Navy has conducted a qualitative ERA of the Alameda Annex terrestrial habitat, and a quantitative ERA to evaluate the possible effects of stormwater discharge into the nearby Oakland Inner Harbor which were presented in the final Alameda Annex RI (PRC and Versar, 1996). The qualitative ERA did not find potential risks because:

- The Alameda Annex has a limited and unsuitable terrestrial habitat.
- No endangered species feed or nest on the facility.
- There is a scarcity of mammalian receptors.

The quantitative ERA concluded that storm drain discharges to sediments pose no ecological risk. Sediment bioassay results found no significant ecological effects above those found for the rest of the San Francisco Bay.

A groundwater fate and transport study was also conducted for the Alameda Annex and part of Alameda Point (TtEMI, 1998a) to evaluate potential migration of benzene contamination into the Bay. Benzene

was selected as the primary COPC because of its toxicity and mobility. Other contaminants, such as PAHs and SVOCs, are much less soluble and fairly immobile. The modeling concluded that benzene would not migrate beyond the boundaries of the Site, and ongoing groundwater monitoring has confirmed this conclusion. These findings further support the conclusion from Section 5.8.2, specifically that aquatic receptors in the Oakland Inner Harbor are not being impacted by contaminated groundwater from the Site via either lateral groundwater movement or through the existing storm sewer system.

6.6.3. ERA Summary

Results of the previous ERAs conducted for both Alameda Point and the Alameda Annex concluded that there is no significant risk to terrestrial ecological receptors, and there is no ecological risk to the Bay due to lateral groundwater movement or storm sewer system discharge. A large factor in the ERAs was the marginal quality of the general area with respect to terrestrial ecological receptors. Based on current reuse plans, this can be assumed to be true for future scenarios as well.

34	**DTSC attenuation factor for existing residential buildings**	Section 2.5.1	Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air. Table 2, Appendix B, Page B-1. DTSC. 2011.

TABLE 2 - Attenuation Factors for Preliminary Screening Evaluations (Step 5)

Building Scenario	Building Type	Sample Location	Attenuation Factor
Existing	Residential	Contaminant Source	0.002
		Crawl Space	1.0
		Subslab	0.05
	Commercial	Contaminant Source	0.001
		Subslab	0.05
Future	Residential	Contaminant Source	0.001
	Commercial	Contaminant Source	0.0005

Note: The basis for the attenuation factors can be found in Appendix B.

APPENDIX B – PRELIMINARY SCREENING ATTENUATION FACTORS

This appendix describes the basis for the selection of attenuation factors (α) for preliminary vapor intrusion screening evaluations.

Existing or Future Residential Structures: Soil Gas Samples Near the Contaminant Source

Pursuant to Senate Bill 32, the California Land Environmental Restoration and Reuse Act, the Office of Environmental Health Hazard Assessment (OEHHA) published a list of risk-based screening numbers, known as the CHHSLs (Cal/EPA, 2005). Numerous exposure pathways were evaluated in calculating the CHHSLs, one of which included vapor intrusion to indoor air. To evaluate vapor intrusion for existing or future residential buildings, OEHHA used the J&E model (1991) as programmed into Microsoft EXCEL™ by USEPA (2003). The conceptual site model and the rationale for selection of J&E model input parameters can be found in the OEHHA document, along with the California-specific toxicity factors. For the default attenuation factors for residential structures, DTSC averaged the OEHHA attenuation factors for 16 volatile organic compounds, including ethyl benzene (Cal/EPA, 2010) but excluding mercury and tetraethyl lead. The average attenuation factors for existing and future residential buildings are 0.002 and 0.001, respectively.

Existing Residential Structures: Crawl Space Air Samples

No vapor attenuation should be assumed between a building's crawl space and indoor air. This implies that the attenuation for crawl space air is 1.0 and this approach is consistent with USEPA (2002). Likewise, the national empirical vapor attenuation database indicates that attenuation of crawl space vapors to indoor air is minimal (USEPA, 2008).

Existing Residential or Commercial Structures: Subslab Soil Gas Samples

The national empirical vapor intrusion database (USEPA, 2008) was used to select a default subslab attenuation factor. The paired subslab soil vapor and indoor air measurements from the database were filtered to exclude data where one or both of the paired results were equal to or less than the reporting limit. The paired measurements were also filtered to exclude data for which measured indoor air concentrations at vapor intrusion sites were less than the 95th percentile of background indoor air concentrations for the respective analyte. Indoor air concentrations greater than background were considered more likely to be the result of vapor intrusion rather than fugitive indoor sources. For determination of background, USEPA used a comprehensive compilation of indoor air quality studies for North American residences. The statistics for indoor air background were based on studies for which samples were collected after 1990. Before 1990, background concentrations for many VOCs in indoor air were typically higher.

The resulting data set consisted of 311 paired subslab-indoor air samples representing 13 sites. An attenuation factor of 0.05, representing approximately the 90th percentile of the data, was selected as an appropriate subslab attenuation factor for screening purposes for residential structures. The national database lacks sufficient information concerning commercial buildings to conclusively infer a subslab attenuation factor for this building scenario. Hence, the residential subslab attenuation factor of 0.05 should also be used for commercial buildings. This attenuation factor also applies to subslab samples for buildings with basements.

- DTSC Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities (DTSC, 1992)
- DTSC Preliminary Endangerment Assessment Guidance Manual (DTSC, 1994)
- USEPA Soil Screening Guidance (USEPA, 1996)

OVERVIEW OF THE HUMAN HEALTH RISK ASSESSMENT PROCESS

The human health risk assessment process for a site has four parts: 1) data collection and evaluation, 2) exposure assessment, 3) toxicity assessment, and 4) risk characterization. In data collection and evaluation, site conditions are characterized, chemicals of potential concern (COPCs) are identified, and the nature and extent of contamination are delineated in all appropriate environmental media.

The exposure assessment builds on the results of the site investigation. The concentrations of the COPCs in environmental media (soil, soil gas, air, and groundwater) are evaluated in the framework of the possible land uses and receptor scenarios (residential, commercial, industrial, recreational, etc.). Exposure pathways that would be associated with each land use are identified, and the exposure to each COPC is estimated. In addition to environmental sampling, exposure assessment often involves environmental fate and transport modeling of contaminants to estimate exposure, including chemical and physical transformation, compartmental partitioning, and contaminant migration from the point of release to the point of exposure. With respect to the indoor air exposure pathway, fate and transport modeling may be used to simulate: (1) the upward diffusion of a chemical as it migrates as a vapor through soil pores toward the surface; and (2) the pressure-driven flow of a vapor from soil through a building foundation into indoor air.

Toxicity assessment refers to the identification of a chemical as one that may cause an adverse health effect under certain exposure conditions and the dose of that chemical necessary to cause that effect. For chemicals commonly found at release sites, numeric criteria that define the toxicity of the chemical have been developed by regulatory agencies. A reference dose (RfD) or reference concentration in air (RfC) for a chemical is a daily exposure level for a human that will not result in an adverse noncancer health effect. A cancer slope factor (CSF) or unit risk factor (URF) for a chemical is an expression of the potency of that chemical to cause cancer. The CSF or URF represents the probability (risk) of the chemical to cause cancer after a lifetime of exposure. For inhaled contaminants, the unit risk factor is expressed as the inhalation unit risk (IUR).

In risk characterization, the exposure and toxicity assessment are summarized and integrated into quantitative and qualitative expressions of risk (USEPA, 1989). The estimated exposure and toxicity criteria are brought together to develop an estimate of hazard (noncarcinogenic effects) and risk (probability of an individual developing cancer over a lifetime as a result of exposure to the chemical). The risk equations are described below. The quantitative expressions of risk must be accompanied by a discussion of the interpretation and qualification of the results, including a description of uncertainties.

RISK EQUATIONS FOR INDOOR AIR INHALATION EXPOSURE

Equations for estimating excess cancer risks and hazard quotients (HQs) from inhaled contaminants are given below and are consistent with USEPA methodology for inhalation exposure assessment and for development of inhalation toxicity values (USEPA RAGS, Part F, 2009). The equation used to calculate the theoretical excess cancer risk from inhalation exposure to a volatile chemical may be expressed as:

$$\text{Risk} = EC_c \times IUR$$

The equation used to calculate the HQ for noncancer toxic effects from inhalation exposure to a volatile chemical may be expressed as:

$$HQ = EC_{nc} / RfC$$

where:

EC_c	=	exposure concentration for assessing cancer risk (µg/m^3)
EC_{nc}	=	exposure concentration for assessing hazard (µg/m^3)
IUR	=	inhalation unit risk, representing the increase in lifetime cancer risk per microgram of chemical inhaled per cubic meter ((µg/m^3)$^{-1}$)
RfC	=	reference concentration, the concentration to which humans may be exposed without risk of adverse health effects (µg/m^3)

The equations for estimating the exposure concentration for inhalation exposure to volatile chemicals in indoor air for cancer risk and for hazard, respectively, are:

$$EC_c = \frac{C_{indoor\ air} \times ET \times EF \times ED}{AT_c \times 365\ \text{days/year} \times 24\ \text{hours/day}}$$

$$EC_{nc} = \frac{C_{indoor\ air} \times ET \times EF \times ED}{AT_{nc} \times 365\ \text{days/year} \times 24\ \text{hours/day}}$$

where:

$C_{indoor\ air}$	=	contaminant concentration in indoor air (µg/m^3)
ET	=	exposure time (hours per day)
EF	=	exposure frequency (days per year)
ED	=	exposure duration (years)
AT	=	period of time over which exposure is averaged (years)
AT_c	=	averaging time for carcinogens (years)
AT_{nc}	=	average time for noncancer toxic effects, equal to the exposure duration (years)

Combining the above equations yields the following:

$$\text{Risk} = \frac{C_{indoor\ air} \times ET \times EF \times ED \times IUR}{AT_{nc} \times 365\ \text{days/year} \times 24\ \text{hours/day}}$$

$$\text{Hazard Quotient} = \frac{C_{indoor\ air} \times ET \times EF \times ED}{AT_{nc} \times 365\ \text{days/year} \times 24\ \text{hours/day} \times RfC}$$

These equations may be rearranged to calculate the indoor concentration for the target risk (usually one-in-a-million, 10^{-6}) and target HQ (usually one or less). A fate and transport model, or appropriate attenuation factor, may then be used to estimate the concentration in soil gas or groundwater that would result in the target concentration for indoor air.

EXPOSURE ASSESSMENT

The indoor air concentration of a volatile contaminant that has migrated or is predicted to migrate from the subsurface into indoor air can be estimated by fate and transport modeling or by use of an appropriate default vapor attenuation factor, such as those described in Appendix B. As appropriate for some sites, the volatile contaminant concentration may be measured directly by indoor air sampling that has been carefully planned and conducted, as described in this document.

Using the USEPA Vapor Intrusion Model

In the USEPA Vapor Intrusion Model (USEPA, 2003), as modified by DTSC, concentrations in soil gas or groundwater are input into the spreadsheet along with default or site-specific input parameters describing the characteristics of the subsurface. The overall objective of the model is to calculate the attenuation factor "alpha" (α), which is the ratio of contaminant concentration in indoor air to the vapor phase concentration in soil gas. The model uses subsurface concentration data and simulates the migration of the contaminant vapor upward through the soil and building foundation into indoor air. The predicted indoor air concentration, "$C_{indoor\ air}$", represents the concentration in the exposure medium in the above equations. The USEPA Vapor Intrusion Model also performs the risk calculations to provide the quantitative estimates of risk and hazard posed by the chemical. A discussion of the fate and transport part of this model is found in Appendix D.

Exposure Parameters and Land Use Assumptions

The default exposure scenario when evaluating vapor intrusion is the residential home dweller. The resident is assumed to remain at home 24 hours per day and live in the same home for 30 years. The DTSC version of the USEPA Vapor Intrusion Model assumes a residential building of relatively small size with a conservative air exchange rate for California residences (see Appendix D). The indoor worker is the most common alternative site-specific exposure scenario. In this scenario, it is assumed that the work day is eight hours and the worker remains at the same job location or facility for 25 years. Office buildings and other indoor work spaces are generally assumed to have higher air exchange rates than residential buildings.

The exposure parameter values recommended by DTSC for the evaluation of vapor intrusion are the same as those recommended by USEPA in various guidance documents (USEPA, 1989, 1996, 1997, and 2009), and those used by OEHHA in development of human health risk-based soil gas screening numbers (Cal/EPA, 2005). The relevant default exposure parameter values assumed for residential land use in the USEPA Vapor Intrusion Model are:

ET	=	exposure time, 24 hours per day
EF	=	exposure frequency, 350 days per year
ED	=	exposure duration, 30 years
AT_c	=	averaging time for carcinogens, 70 years
AT_{nc}	=	averaging time for non-carcinogens, 30 years

Two other exposure parameter values, body weight (70 kg) and contact or intake rate (breathing rate of 20 cubic meters per day) are intrinsic to the URF and RfC.

Site-Specific Exposure Parameters

In some circumstances, site-specific inputs for human exposure parameters may be used to estimate chemical intake with appropriate documentation. For example, in an occupational setting where it is expected that current operations will continue into the foreseeable future, employment records for the facility may be used to estimate a reasonable, representative exposure duration based on duration of employment.

TOXICITY ASSESSMENT

OEHHA and USEPA have conducted toxicity assessments for numerous chemicals and developed numeric toxicity criteria values for specific chemicals.

Toxicity Criteria

An inhalation unit risk (IUR, risk per $\mu g/m^3$ or $(\mu g/m^3)^{-1}$) is the toxicity criterion defining the potency of a carcinogenic chemical when inhaled. A chronic RfC ($\mu g/m^3$) for a chemical is derived from the threshold concentration at which no adverse noncarcinogenic health effects are expected to occur from long-term exposure to that chemical. The DTSC version of the USEPA Vapor Intrusion Model uses the toxicity criteria values acceptable to DTSC for the risk calculation component of the model. Generally, the OEHHA inhalation unit risk values should be used for evaluating cancer risk. For noncarcinogenic effects, the USEPA Integrated Risk Information System (IRIS) RfC values should be used. When an RfC (IRIS or USEPA Peer-Reviewed Provisional Toxicity Value, PPRTV) is not available for a chemical, the OEHHA chronic inhalation Reference Exposure Level (REL) should be used. These criteria are automatically selected by the model when the chemical is identified, and may also be used to estimate risks when a default attenuation factor is used instead of the model to estimate indoor air concentration or when indoor air sampling data are available. A DTSC toxicologist should be consulted regarding exceptions to the values in the updated DTSC version of the model.

Occupational Standards versus Risk-Based Standards

OSHA Permissible Exposure Limits (PELs) are not appropriate criteria for evaluating risks associated with vapor intrusion. OSHA sets PELs to regulate worker exposures to hazardous vapors and gases present in workplace air from chemical handling or use, not exposure to air contaminants originating from the subsurface. OSHA PELs are not indices of toxicity and are not intended to protect against “continuous, uninterrupted exposures or other extended work periods” (American Conference of Governmental Industrial Hygienists, 1994). OSHA PELs are based on an assumption that the potentially exposed worker is healthy, has been trained in workplace regulations and procedures regarding chemical exposures, and is subjected to routine biomedical monitoring, as necessary. This means that PELs may not be sufficiently protective for office workers or other workers at the site. The California Health and Safety Code dictates that chemical releases in California should be characterized and mitigated based upon risk to human and ecological receptors. Accordingly, the health risk assessment approach as described in this guidance should be utilized for all vapor intrusion exposure scenarios, including the indoor worker scenario. See Appendix F for more information about OSHA PELs.

RISK CHARACTERIZATION

Chemical-specific toxicity criteria and the estimated exposure are used to quantify risk and hazard. Risk is estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen. The hazard potential posed by a

37	**groundwater concentrations at the water table dictate the volatilization of dissolved constituents out of the liquid phase and into soil gas**	Section 2.5.1	Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air. Pages 1 and 9. DTSC. 2011.

INTRODUCTION

Volatile chemicals in the subsurface, whether in soil or groundwater, can migrate upward through the soil and enter into buildings, causing unacceptable chemical exposure for building occupants. The California Department of Toxic Substances Control (DTSC) requires that the human health risk be evaluated at sites under its oversight and, if volatile chemicals are present, exposure from vapor intrusion should be included in the human health risk evaluation. Evaluation of the indoor air exposure pathway involves characterizing the nature and extent of subsurface volatile chemical contamination, obtaining appropriate environmental data, using fate and transport models to predict indoor air concentrations from vapor intrusion, and conducting indoor air sampling, if necessary. This Guidance outlines the technical aspects of evaluating this exposure pathway and provides recommendations on elements that should be included in a site investigation. Due to the complexity of vapor intrusion, many professional disciplines may be needed to evaluate and mitigate exposure. Accordingly, a multi-disciplinary project team should be gathered to provide professional and sound scientific judgment when evaluating vapor intrusion issues and to make decisions concerning potential human exposure.

DTSC anticipates that this Guidance will be used by regulators, responsible parties, environmental consultants, community groups, and property developers. The intent of this Guidance is to help stakeholders understand and evaluate the vapor intrusion exposure pathway. Use of the Guidance is optional, as other technically sound approaches may be available. If local regulators or Certified Unified Program Agencies need assistance with vapor intrusion issues, DTSC, Regional Water Quality Control Boards (RWQCBs), and the Office of Environmental Health Hazard Assessment (OEHHA) are available for consultation. Because vapor intrusion is a developing field, it is anticipated that many of the procedures and practices within this Guidance will change as our understanding of vapor intrusion progresses. DTSC will update this document as needed to accommodate refinements and advances in our understanding.

SCOPE

This Guidance, along with the vapor intrusion guidance from the United States Environmental Protection Agency (USEPA, 2002a), describes technically defensible and consistent approaches for evaluating vapor intrusion, based upon the current understanding of this exposure pathway. This Guidance is not a regulation and does not impose any requirements or obligations on the regulated community, but provides a technical framework for evaluating vapor intrusion. Other technically equivalent procedures may exist. This Guidance is not intended to exclude alternate approaches or methodologies for evaluating exposure nor is it intended to provide prescriptive or inflexible requirements.

This Guidance addresses the following questions:

- What sites are candidates for vapor intrusion?
- What site characterization data are needed to conduct a vapor intrusion evaluation?
- What are the data requirements for an evaluation of indoor air exposure?
- What sites pose an imminent threat and warrant immediate action due to vapor intrusion?
- What is the estimated human health risk associated with vapor intrusion?
- When should indoor air sampling be conducted?
- When are long-term soil gas and indoor air monitoring required?
- What are the available remedies to alleviate vapor intrusion exposure?

This Guidance only addresses the single exposure pathway of vapor intrusion. However, when evaluating the human and ecological risk associated with releases of hazardous chemicals to the environment, all potential exposure pathways should be evaluated and the results reported to the appropriate oversight agency, such as DTSC. In addition to the inhalation of vapors intruding indoors, potential exposure pathways include the incidental ingestion of soil contaminated with hazardous chemicals, dermal contact with such soils, inhalation of contaminated soil particles, and inhalation of vapors diffusing from soil to outdoor air. The impact of vadose zone contamination on groundwater quality should also be evaluated. This latter exposure pathway is known as the soil to groundwater pathway. Remedies that eliminate contaminant exposure must be conducted with an understanding of all exposure pathways, not just the vapor intrusion pathway. As such, this Guidance supplements DTSC's Preliminary Endangerment Assessment (PEA) Guidance Manual and USEPA's Risk Assessment Guidance for Superfund (RAGS; USEPA, 1989).

Assembly Bill 422 (AB 422) amended Section 25356.1.5 of the California Health and Safety Code and added Section 13304.2 to the Water Code. AB 422 requires that human and ecological exposure assessments prepared in conjunction with a response action, or approved pursuant to the "California Superfund Act", include reasonable maximum estimates of exposure to volatile chemicals that may enter existing or proposed buildings due to vapor intrusion.

VAPOR INTRUSION ASSESSMENT OVERVIEW

Figure 1 shows the step-wise approach for evaluating vapor intrusion and these steps are described in the following text. DTSC recommends that a team of technical professionals be assembled when evaluating this exposure pathway. The core team may include environmental scientists, geologists, toxicologists, and engineers, as needed. Consultation with other experts such as analytical chemists may also be necessary. The team can provide technical and management judgment when encountering unusual or complex issues outside the scope of this Guidance. The step-wise approach in this Guidance document is meant to be flexible and may be tailored to site-specific circumstances.

If volatile chemicals do not enter the building, the exposure pathway from the subsurface contaminant source to the building occupant (receptor) is deemed incomplete, and the receptors cannot be considered at risk for vapor intrusion, even though volatile chemicals may be present in the subsurface beneath the building. Likewise, subsurface vapors may enter the building but be present at such low concentrations that the risk is negligible. Figure 2 provides a simplified conceptual diagram and description of vapor intrusion.

The use of a single line of scientific evidence to determine whether vapor intrusion is occurring is challenging due to the complexity of the exposure pathway. In many cases, multiple lines of evidence may be advisable to avoid potential biases inherent in any single line. Multiple lines of evidence are one way to reduce the uncertainties imposed by spatial and temporal variability of data. For this reason, this Guidance attempts to provide investigators with many different approaches for evaluating vapor intrusion.

Methane is not specifically addressed in this Guidance, although some of the procedures described may apply to its evaluation and mitigation. See DTSC's Advisory on Methane Assessment and Common Remedies at School Sites and DTSC's forthcoming guidance, Evaluation of Biogenic Methane, for more information concerning methane.

VAPOR INTRUSION ASSESSMENT

For sites with existing buildings, DTSC recommends that Steps 1 – 11 be followed. For sites where no buildings exist but may potentially be built, DTSC recommends that Steps 1 – 3, 5, 6, 7, and 11 be followed (Figure 1). While the assessment process is presented in a step-wise fashion, the vapor intrusion pathway may be evaluated in an iterative manner.

Step 1: Site History and Identification of Spills and/or Releases

A comprehensive evaluation of the current and historical features, structures, and activities at a site should be conducted. Compilation of complete site information is essential for identifying all exposure pathways. All historical documents should also be reviewed to identify the potential locations of releases of the hazardous chemicals to the environment. These documents include, but are not limited to:

- Regulatory Agency Files. Agency files contain information on hazardous chemical releases to the environment. Relevant agencies to contact are DTSC, USEPA, State Water Resources Control Board (SWRCB), RWQCBs, county environmental health departments, air quality management agencies, sewerage agencies, city environmental health departments, and local fire departments.

- Site Owner and Operator Records. Site records are the primary source of information concerning the handling of hazardous chemicals. Owner/operator files may include such records as product purchase invoices, waste manifests, permits, material safety data sheets (MSDS), safety plans, spill prevention plans, regulatory violations, and product inventory reports.

- Maps and Photographs. Maps and photographs should be reviewed to determine the physical setting of a site and to identify prior property uses. Aerial photographs, historical photographs, and insurance maps should be checked to determine prior site use.

Site visits should be conducted to locate areas where chemicals were potentially released into the environment. The site visit should include a walk-through of all known and potential areas of operation. Observations during the site visit should focus on identifying hazardous materials and wastes, associated handling and storage areas, and possible discharge locations. Some of the physical features that are indicative of chemical releases are:

- Storage tanks and storage areas
- Areas with odors or stressed vegetation
- Waste piles
- Pools of liquid
- Electrical or hydraulic equipment
- Unidentified containers
- Drains and sumps
- Stained soil and pavement
- Degraded floors and walls
- Pits, ponds, and lagoons
- Dry wells and injection wells
- Wash racks and oil/water separators
- Septic systems

- Loading docks or waste transfer areas
- Waste processing areas
- Solvent dipping tanks and spray booths
- Production lines

All physical features that are unique to the vapor intrusion pathway should be noted in characterization reports. All buildings at a site should be inventoried along with their foundation types (basement, slab-on-grade, crawl space, or earthen floor) and foundation condition. For commercial buildings, office space within the structure should be differentiated from non-office space. The building dimensions should be noted along with the building construction date. All potential preferential pathways for vapor migration should be documented. Examples of preferential pathways include piping and utility corridors, floor drains, foundation construction joints, and elevator shafts. Uses of adjacent properties should be determined in order to evaluate potential exposure associated with offsite migration of subsurface contamination. Additional guidance on the evaluation of site history and the identification of spill and releases can be found in the DTSC PEA Guidance Manual.

Step 2: Site Characterization

Subsurface contamination warrants three-dimensional characterization so that the impact to human health and the environment can be evaluated. Subsurface sampling activities should define contaminant source concentrations and identify potential contaminant migration pathways pursuant to the conceptual site model (CSM) for the project. Typically, these subsurface sampling activities include the collection of soil matrix, soil gas, and groundwater samples. Multiple lines of evidence should be used, along with professional judgment, to render technically sound risk-based decisions concerning vapor intrusion. Considering multiple sources of data and information together rather than relying on a single dataset will yield a more comprehensive understanding of vapor intrusion. The following are some lines of evidence to consider, listed in no particular order:

- Open field soil gas data
- Subslab soil gas data
- Passive soil gas data
- Groundwater data
- Soil matrix data
- Spatial and temporal variability of data
- Site-specific fate and transport modeling
- Building construction configuration
- Crawl space air data
- Indoor air data
- Outdoor air data
- Radon data
- Comparison of constituent ratios in soil gas and indoor air

Not all of these lines of evidence are needed to make site management decisions, but it is important to obtain multiple lines of evidence to evaluate vapor intrusion exposure. Lines of evidence may be weighted differently, depending on its nature and quality. In general, the closer the sampled medium is to the receptor, the more relevant the data are for estimating exposure and greater its weight of evidence. Some lines of evidence may conflict with others and this should be anticipated in the project planning process. Ideally, if the contaminant

concentrations in the affected media (such as soil gas and groundwater) are in equilibrium, the estimated vapor intrusion risk associated with different contaminated media should be approximately the same. If not, a reasonable risk management decision should be made based on an interpretation of the data and the CSM. All lines of evidence should be considered in the decision-making process.

The magnitude of any sampling effort is determined by site-specific conditions. Under certain conditions, site characterization activities can be less rigorous with available resources allotted to mitigation and remediation to alleviate human exposure. When evaluating exposure to subsurface contamination, a CSM should be developed and submitted to the oversight agency for approval. Site characterization data needed for vapor intrusion evaluation and the associated CSM are described below.

Public outreach should begin as soon as volatile chemicals are detected in the subsurface at locations near or adjacent to existing or proposed buildings. See DTSC's Vapor Intrusion Public Participation Advisory for guidance on public outreach during this step.

Conceptual Site Model

The CSM is a component of all site investigations. A CSM provides a conceptual understanding of the potential for exposure to contamination at a site and should include a diagrammatic or schematic presentation that relates the source of contamination to human receptors and identifies all the potential sources of contamination, the potentially contaminated media, and exposure pathways. The CSM organizes and communicates information about the site characteristics and is a necessary component of any health risk assessment. If volatile chemicals have been released to environmental media at the site, the vapor intrusion pathway should be included as part of the overall site-specific CSM. DTSC recommends that the following items related to the vapor intrusion pathway be included in a CSM (see the DTSC PEA Guidance Manual and USEPA RAGS Part A for other contaminants and exposure pathways):

- Primary Sources of Contamination. For each potential contaminant source, describe the industrial settings or other site activities that potentially caused the contamination and provide a list of chemicals possibly released into the environment for all such settings.

- Primary Release Mechanism. For each potential contaminant source, describe the means by which the release, or suspected release, is thought to have occurred.

- Secondary Sources of Contamination. Include all the environmental media potentially contaminated by the primary sources, such as surface soil, subsurface soil, and groundwater. Areas contaminated with non-aqueous phase liquid (NAPL) should be identified. Include contaminated building materials, such as concrete floors and foundations, which can also be a source for vapors in indoor air.

- Contaminant Transport Mechanisms. For each potentially contaminated medium, describe the transport mechanisms to indoor air, which are usually advection and diffusion through the vadose zone. Include a description of the physical characteristics of the subsurface through which the contaminants must move.

- Environmental Exposure Media and Exposure Routes. At sites where buildings exist, describe the buildings where vapors may migrate and any preferential contaminant migration pathways associated with the buildings, such as foundation seams or cracks,

voids, utility ports, pipes, elevator shafts, sumps, and drain holes. All subsurface volatile chemicals should be evaluated for vapor intrusion. Ambient air data are not used as the basis for excluding contaminants from the indoor air pathway analysis but help guide the risk management decisions to determine if a response action is warranted. If subsurface data indicate an unacceptable human health risk, then indoor air should be sampled at least twice to evaluate the seasonality of vapor migration, concentrations in indoor air, and resulting exposure.

- Potential Receptors. List all the current and future receptors that could potentially contact contaminated media.

In documenting current site conditions, a CSM should be supported by maps, subsurface cross sections, foundation details, and site diagrams. The narrative description should clearly describe known site conditions and state what assumptions were made to generate the CSM. The narrative should include a description of ambient sources and nearby potential sources of volatile chemicals. As additional data are collected and analyzed for vapor intrusion, the CSM should be updated and distributed to interested parties. The CSM should be an essential decision-making and communication tool for all interested parties. Additional information on the development of a CSM can be found in USEPA (1996), USEPA (2008a), and DTSC (2008a). Also, the CSM for the behavior of chlorinated volatile organic compounds (VOCs) in the subsurface can be found in Appendix A of DTSC (2010).

Data Quality Objective Process

The scope and objectives of all sampling should be established before the field work is conducted and documented in an appropriate work plan. The data quality objective (DQO) process is a planning method that establishes the basis for collecting data of sufficient quality and quantity to support project goals and decision-making. The DQOs are qualitative and quantitative statements that:

- Define the problem or hypothesis.
- Clarify the study objective.
- Identify chemicals of potential concern (COPCs).
- Define the type, quantity, and quality of data for the study.
- Identify the type of data as qualitative or quantitative information.
- Define how each sample will be used to determine if vapors are intruding into buildings.
- Determine the most appropriate locations, sampling method, and sampling duration for data collection.
- Describe how sources of uncertainty will be addressed.
- Specify how the data will be used to test the exposure hypothesis.

While DQOs are developed prior to commencement of field sampling, the process is flexible to allow for field contingencies or phased investigations. All vapor intrusion projects should have site-specific DQOs. Additional information on the DQO process can be found in USEPA (2006).

Soil Gas

Soil gas data represent a direct measurement of the contamination that may intrude into indoor air. For sites subject to vapor intrusion, permanent vadose monitoring points for sample collection should be installed to evaluate the long-term behavior of contaminated soil gas. Soil gas may need to be monitored through time, in a fashion similar to groundwater, to ascertain

representative subsurface concentrations, to detect seasonal variations and other temporal changes, and to determine long-term stability of contaminant concentrations. California Environmental Protection Agency's (Cal/EPA) Active Soil Gas Investigation Advisory provides procedures for obtaining high-quality soil gas samples for use in risk assessments. Conditions warranting the installation of long-term soil gas monitoring wells may include the following:

- Shallow groundwater conditions make the collection of soil gas samples from a temporary well difficult.
- Barometric pressure fluctuations influence the vadose zone. Barometric pumping can be significant when groundwater is deep and when soils have high air permeability.
- Soil gas concentrations indicate vapor intrusion may pose a human health risk approaching one-in-a-million risk (1×10^{-6}).
- Contamination has not reached steady-state conditions in the subsurface.
- Soil gas samples from temporary wells produce an irregular distribution of subsurface contamination.
- Contamination has migrated offsite under occupied structures.
- Soil matrix sampling indicates a large mass of volatile chemicals in the subsurface.
- Groundwater is influenced by tides (Erskine, 1991).

Soil gas samples should be collected to delineate the lateral and vertical extent of the subsurface contamination. Contaminant source areas at sites should be sampled first, and the sampling should continue towards buildings as indicated by the field data. When contaminated soil gas is encountered near buildings, soil gas samples should be collected around the perimeter of the building, as close as possible to the foundation. Soil gas samples from preferential pathways, such as utility corridors and geological discontinuities (fault zones, sand channels, etc.) should also be collected. Characterization should continue until the extent of VOC contamination has been delineated in the subsurface, both laterally and vertically, to analytical detection limits. The DQO process might establish that contaminant characterization to risk-based concentrations or other criteria, rather than to detection limits, is adequate for the project. For example, if adjusted for updated toxicity criteria and for cumulative health effects from multiple contaminants and exposure pathways, CHHSLs might be used to delineate subsurface soil gas plumes.[2] Soil gas samples should be analyzed using the methods discussed in the Cal/EPA's Active Soil Gas Investigation Advisory. Volatile chemicals known or likely to be present in the subsurface, whether determined through direct measurement, historical records review, or possible chemical transformation, should be evaluated for vapor intrusion.

Sampling soil gas immediately adjacent to a building's foundation may be a viable option for assessing vapor intrusion if the samples are collected near the contaminant source. Shallow soil gas measurements collected at five feet below grade rather than immediately above the contaminant source may result in risk that is biased low when using the Johnson and Ettinger

[2] This approach may not be appropriate for sites with multiple exposure pathways. For example, risk-based concentrations for vapor intrusion characterization may not be protective of groundwater quality.

(1991) model. Soil gas samples collected immediately above the source of contamination are more likely to be representative of what may be in contact with the building's foundation (Hers et al., 2006; DiGiulio and Cody, 2006; Wertz, 2006). Numerical modeling also suggests this relationship where soil vapor concentrations under a building may be higher than soil vapor concentrations beside a building at the same depth (Abreu and Johnson, 2005; Abreu et al., 2006). Therefore, DTSC recommends the collection of soil gas samples near contaminant sources for vapor intrusion modeling. The source of subsurface contamination should be determined by collecting soil gas samples with depth. Ideally, numerous vertical profiles of soil gas and stratigraphy should be developed to accurately locate subsurface sources at the site. Once located, soil gas collection can be targeted at these depth intervals sitewide, as appropriate. Typically, the areas of highest soil gas concentrations are adjacent to contaminant sources.

The density and frequency of soil gas collection should be based on site-specific conditions. The following should be considered when collecting soil gas samples:

1) Sampling Density. For sites seeking regulatory closure with unrestricted land use, the residual concentrations of volatile chemicals in the subsurface should be protective of residential receptors. Therefore, soil gas sampling locations should be sufficiently dense to effectively evaluate residential building scenarios. Ideally, there should be a soil gas sample location for every potential future residential building. The parcel size for most residential housing tracts in California is approximately one-eighth to one-quarter acre. Hence, the density of soil gas collection for future residential developments should be based on this type of spacing. Soil gas samples should be collected until the soil gas contaminant plume is fully delineated and a 100-foot buffer zone beyond the extent of the soil gas plume is demonstrated (see Step 3, Criterion Two). This 100-foot buffer is warranted due to uncertainty about future soil gas migration upon redevelopment. For sites where future building size will be restricted by a land use covenant, the soil gas sampling density can be increased as a function of the size of the future buildings.

2) Sampling Frequency. Soil gas may need to be monitored through time to ascertain representative subsurface concentrations, to detect seasonal variations and other temporal changes, and to determine long-term stability of contaminant concentrations. After vapor well installation, DTSC recommends that samples be collected quarterly for the first year and sampling thereafter should be based on site-specific conditions.

3) Analytical Detection Limits. Analytical detection limits for the soil gas samples should be sufficiently low to adequately evaluate potential health risks associated with the vapor intrusion pathway. At a minimum, the method reporting limits should be lower than health protective levels as corrected for cumulative health effects.

4) Low Flow Conditions. Even when low flow conditions are encountered, such as sites underlain with clay-rich soil or with a saturated vadose zone due to a shallow water table, soil gas samples can usually be collected. Permanent soil gas wells should be installed and sampled using the low flow protocols described in Cal/EPA's Active Soil Gas Investigation Advisory.

5) Soil Matrix Sampling. If soil gas samples cannot be obtained by active methods, then passive soil gas samples should be collected, along with soil matrix samples using USEPA Method 5035 (see Step 2, Soil Matrix Section). The vapor intrusion pathway should then be evaluated using soil matrix data along with groundwater, subslab, and passive soil gas

data, as appropriate. Furthermore, during routine soil gas sampling, it may be appropriate to collect soil matrix samples to determine the physical character of the subsurface, such as total porosity, soil moisture, and dry bulk density (see Step 6 - Additional Site Characterization), and for the evaluating other exposure pathways (dermal contact, soil ingestion, soil leaching to groundwater, etc.).

6) Encountering Groundwater. If groundwater is encountered during the collection of soil gas samples and it appears that the soil contamination is in close proximity to the water table, groundwater grab samples should be collected pursuant to USEPA (1997a) to evaluate the potential contaminant impact to the aquifer. If groundwater contamination exists at a site as documented by groundwater grab samples, the installation and sampling of permanent groundwater monitoring wells may be required by the oversight agency.

7) Soil Gas Samples from Groundwater Monitoring Wells. Water table monitoring wells are often installed with screened intervals that extend above the static water level to allow for water table fluctuations. Due to the open screen within the vadose zone, these wells can be an inexpensive alternative to deep soil gas well installation. When sampling, the applied vacuum of the sampling purge pump should be sufficiently low to avoid significant upwelling of the water table that might cover the screen available for sampling. See Cal/EPA's Active Soil Gas Investigation Advisory for more information about sampling protocols.

Groundwater

Only the uppermost water bearing zone encountered in the subsurface has the potential to produce a vapor intrusion risk. While deeper water bearing zones might be contaminated, potential upward volatile chemical migration from these units is potentially blocked by shallower water bearing zones. Hence, characterization activities associated with vapor intrusion should focus on the shallowest groundwater in the subsurface at the site.

When buildings exist over or near contaminated groundwater, the risk associated with emissions of volatile chemicals from groundwater into the vapor phase should be evaluated. Soil gas samples should be collected over areas of the contaminated groundwater, and the vapor intrusion risk associated with the contaminated soil gas should be estimated, along with the vapor intrusion risk from the contamination in the groundwater itself. Quantification of risks from both media is a method of evaluating which contaminated media, soil gas or groundwater, provides the greater health threat. If the media are in equilibrium, the associated vapor intrusion risk should be approximately the same.

Cal/EPA (1995), DTSC (2008b) and USEPA (2002b) provide procedures for the installation of groundwater monitoring wells and the acquisition of groundwater samples that are representative of aquifer conditions. Some of the recommendations for data acquisition are:

1) Screen Placement. Contaminants at the top of the water table are responsible for causing potential vapor intrusion problems rather than contaminants present at deeper intervals. Hence, monitoring wells used to collect groundwater samples for vapor intrusion evaluations should be screened across the saturated/unsaturated interface.

2) Screen Lengths. Monitoring wells with long well screens should not be used to make vapor intrusion evaluations, regardless of screen placement. When sampling from wells with long screens, clean water entering the well screen at depth may dilute the contaminated groundwater near the top of the screen, biasing the sampling results and the associated

Site-Specific Exposure Parameters

In some circumstances, site-specific inputs for human exposure parameters may be used to estimate chemical intake with appropriate documentation. For example, in an occupational setting where it is expected that current operations will continue into the foreseeable future, employment records for the facility may be used to estimate a reasonable, representative exposure duration based on duration of employment.

TOXICITY ASSESSMENT

OEHHA and USEPA have conducted toxicity assessments for numerous chemicals and developed numeric toxicity criteria values for specific chemicals.

Toxicity Criteria

An inhalation unit risk (IUR, risk per $\mu g/m^3$ or $(\mu g/m^3)^{-1}$) is the toxicity criterion defining the potency of a carcinogenic chemical when inhaled. A chronic RfC ($\mu g/m^3$) for a chemical is derived from the threshold concentration at which no adverse noncarcinogenic health effects are expected to occur from long-term exposure to that chemical. The DTSC version of the USEPA Vapor Intrusion Model uses the toxicity criteria values acceptable to DTSC for the risk calculation component of the model. Generally, the OEHHA inhalation unit risk values should be used for evaluating cancer risk. For noncarcinogenic effects, the USEPA Integrated Risk Information System (IRIS) RfC values should be used. When an RfC (IRIS or USEPA Peer-Reviewed Provisional Toxicity Value, PPRTV) is not available for a chemical, the OEHHA chronic inhalation Reference Exposure Level (REL) should be used. These criteria are automatically selected by the model when the chemical is identified, and may also be used to estimate risks when a default attenuation factor is used instead of the model to estimate indoor air concentration or when indoor air sampling data are available. A DTSC toxicologist should be consulted regarding exceptions to the values in the updated DTSC version of the model.

Occupational Standards versus Risk-Based Standards

OSHA Permissible Exposure Limits (PELs) are not appropriate criteria for evaluating risks associated with vapor intrusion. OSHA sets PELs to regulate worker exposures to hazardous vapors and gases present in workplace air from chemical handling or use, not exposure to air contaminants originating from the subsurface. OSHA PELs are not indices of toxicity and are not intended to protect against “continuous, uninterrupted exposures or other extended work periods” (American Conference of Governmental Industrial Hygienists, 1994). OSHA PELs are based on an assumption that the potentially exposed worker is healthy, has been trained in workplace regulations and procedures regarding chemical exposures, and is subjected to routine biomedical monitoring, as necessary. This means that PELs may not be sufficiently protective for office workers or other workers at the site. The California Health and Safety Code dictates that chemical releases in California should be characterized and mitigated based upon risk to human and ecological receptors. Accordingly, the health risk assessment approach as described in this guidance should be utilized for all vapor intrusion exposure scenarios, including the indoor worker scenario. See Appendix F for more information about OSHA PELs.

RISK CHARACTERIZATION

Chemical-specific toxicity criteria and the estimated exposure are used to quantify risk and hazard. Risk is estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen. The hazard potential posed by a

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PUBLIC MEETING

ALAMEDA POINT OPERABLE UNIT-5/FISCA

ALAMEDA PUBLIC LIBRARY

1550 OAK STREET

ALAMEDA, CALIFORNIA 94501

5:00 TO 7:00 P.M.

May 20, 2014

REPORTED BY:
JOYCE D. CALVERT
California CSR# 13541

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Meeting Opened at 5:07 p.m., May 20, 2014.

DEREK ROBINSON: Today is the meeting of the UR-5 proposed plan. My name is Derek Robinson. I'm the Navy's representative and the BRAC environmental coordinator for Alameda. The proposed plan being discussed today is to amend the remedy selected in the 2007 proposed plan -- or, excuse me, 2007 record decision for this area.

So we're changing the remedy, and changing the remedy is never easy, and it's not desirable. But after extensive evaluation, multiple rounds of sampling after the record decision, the Navy and the EPA, the EPA and the water board agree that changing the remedy is the best path forward. This is the meeting where we are proposing and giving information to the public.

Up front there's a sign-in table, and if you don't have a copy of the proposed plan already you can get the proposed plan there. Today's meeting is an open house format, so you'll see poster boards around the room. There will be experts in front of those poster boards. Please go and ask them questions and if you have any specific questions on their poster boards,

especially.

We also have a court reporter, and the court reporter is here not only to record the introduction and closure of the meeting, but also any official comments that need to be made for the record. That will all happen throughout the entire meeting, that the court reporter is available. The comment period for this record for this proposed plan is May 5th through June 5th, so today isn't your only opportunity to make comments. You can -- at the back of the proposed plan flyer there is a comment sheet, and you can mail that to the Navy. There's instructions right on it, as well as there are comment sheets at the sign-in table that you can write comments on and hand those to any one of the people here today.

In addition to myself for the Navy, we have Mary Parker who is the project manager as well as contractors, Larry Dudis answering questions at the back from Tetra Tech and Scott Lowe from Sealaska. We also have representatives from the EPA, DTSC and water board. From the EPA we have Mr. Lichens. From the Department of Toxic Substances & Control we have James Fyfe. And from the water board we have David Elias. We also have Wayne Hagan from the Department of Toxic Substances & Control.

At this point, I'd like to start the open house portion of this meeting. Welcome.

POSTER BOARD DISCUSSIONS - 5:11 p.m. to 6:30 p.m.

FORMAL PUBLIC COMMENTS - NONE.

WRITTEN QUESTIONS ANSWERED - NONE.

DEREK ROBINSON: At this point, we'd like to close -- officially close the UR-5 proposed plan meeting due to -- it is being closed 30 minutes early due to no people from the public in attendance. I'd like to thank the agencies and the contractors for coming today.

Meeting closed at 6:31 p.m., May 20, 2014.

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STATE OF CALIFORNIA) SS

I do hereby certify that said proceedings was taken at the time and place therein stated; that said proceeding was correctly reported by me, a certified shorthand reporter and a disinterested person, and was under my supervision thereafter transcribed.

And I further certify that I am not related to any party to said proceeding nor in any way interested in the outcome of the proceeding in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 21st day of May, 2014.

Joyce D. Calvert

Joyce D. Calvert
Certified Shorthand Reporter
CSR #13541