Report

2008 Annual Progress Report

Former Raytheon Facilities
350 Ellis Street
Mountain View, California

Prepared for:
Raytheon Company

15 April 2009

Project No. 23016-2100

Locus TECHNOLOGIES

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15 April 2009

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RE: Raytheon Site Specific 2008 Annual Progress Report
Former Raytheon Facilities
350 Ellis Street, Mountain View, California
Project Number 23016-2100

Dear Ms. Lee:

Enclosed are three copies of the 2008 Annual Progress Report for the Raytheon site specific work performed from 1 January through 31 December 2008 at the groundwater treatment system located at 350 Ellis Street in Mountain View, California.

If you have any questions regarding this transmittal, please contact me.

Very truly yours,

Greg S. Taylor
Environmental Program Manager

GST/lm

Enclosure

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2008 Annual Progress Report

Former Raytheon Facilities
350 Ellis Street, Mountain View, California

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2008 ANNUAL PROGRESS REPORT
FORMER RAYTHEON FACILITIES
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA

1. INTRODUCTION

This Annual Progress Report was prepared by Locus Technologies on behalf of Raytheon Company (Raytheon) for the former Raytheon facilities located at 350 Ellis Street in Mountain View, California (Figure 1). This progress report contains a summary of site activities and data from January 1, 2008, through December 31, 2008. On May 6, 2005, the U.S. Environmental Protection Agency (EPA) agreed to change the reporting frequency for the Middlefield-Ellis-Whisman (MEW) site to annual, and requested specific items to be included in the report. This annual report fulfills the provisions specified in the May 6, 2005 EPA correspondence.

1.1. Site Background

The former Raytheon site located at 350 Ellis Street in Mountain View, California is approximately 18 acres (Figure 1). Mountain View is a town of approximately 70,000 residents, located in Santa Clara County. The former Raytheon facilities are part of the MEW site, where a number of companies were involved in activities requiring storage, handling, and use of chemicals. These companies are referred to as the MEW Companies in this document.

The facility at 350 Ellis Street was constructed around 1959 and was operated by Raytheon from 1961 to 1997 as a semiconductor manufacturing facility. Raytheon also occupied the property at 415 East Middlefield Road (Lot 5) from 1968 to 1983 as a semiconductor manufacturing facility. An acid neutralization system was located at 401 East Middlefield Road (Lot 4) and was jointly used by both Intel Corporation and Raytheon from 1968 to 1974, when Intel ceased the use of the system and commenced the use of its own system. Raytheon continued to use the acid neutralization system until approximately 1980. This document reports activities and data for the 350 Ellis Street site. Information on 401/415 East Middlefield Road can be found in the annual report submitted by Intel Corporation.

Agricultural development in this area began in the mid-1800s. Until about 1960, orchards, low crops, and greenhouse gardening dominated the area. North of U.S. Highway 101, Moffett Federal Airfield (Moffett Field) was commissioned in 1933. Ames Research Center, also north of the highway, was originally opened in 1940 adjacent to Moffett Field as a laboratory of the National Advisory Committee on Aeronautics.

Several buildings at the MEW site have changed ownership and occupancy. For the former Raytheon site at 350 Ellis Street, the property was sold to Fairchild Semiconductor Corporation in 1997. The facility was demolished in 2000, when Veritas Software Corporation purchased the property and built an office campus consisting of five buildings (A, B, C, D and E) and a multi-level garage. Symantec acquired Veritas in 2005 and now owns the property.

1.2. Local Hydrogeology

Aquifers in the MEW area include of shallow and deep aquifer systems separated by a laterally extensive aquitard approximately 40 feet thick. The shallow aquifer system is generally less than 160 feet below ground surface (bgs) south of U.S. Highway 101, and generally less than 100 feet bgs north of U.S. Highway 101. Subdivisions within the shallow aquifer have been designated the "A", "B1", "B2", and "B3" Aquifers. The regional aquitard is designated the "B/C" Aquitard. The water-bearing zones below the "B/C" Aquitard are termed the "C" Aquifer and the Deep Aquifer.

The direction of groundwater flow at the MEW site is generally to the north. However, the presence of various groundwater extraction systems near the former Raytheon sites and the slurry walls at 350 Ellis Street and 369 North Whisman Road has altered the local direction of the groundwater gradient. At 350 Ellis Street, the groundwater in the "A" and "B1" Aquifers is contained by the slurry wall enclosure and groundwater extraction wells RAY-1A and RAY-1B1 (Figure 2).

1.3. Summary of Onsite Remedial Actions

The record of decision (ROD) for the MEW site was issued in May 1989. Remedial Action Objectives (RAOs) were developed as a result of data collected during the Remedial Investigation (HLA, 1988) to aid in the development and screening of remedial alternatives to be considered for the ROD. The Feasibility Study (Canonie, 1988) for the MEW site lists the RAOs to be:

1. Protection of potential potable water supply;
2. Remediation or control of relatively elevated concentrations of chemicals present in localized vadose zone soils below the ground surface that could migrate into the shallow groundwater system;

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3. Remediation or control of groundwater, which contains elevated concentrations of chemicals, including control of discharge of such groundwater into surface water.

For the vadose soils, the ROD selects two remedial technologies: 1) in situ soil vapor extraction (SVE) with treatment by vapor-phase granular activated carbon (GAC), and/or 2) excavation with treatment by aeration. The cleanup levels for soils containing TCE have been established in the ROD to be 1 milligram per kilogram (mg/kg) for soils contained within slurry wall enclosures, and 0.5 mg/kg for soils outside slurry walls.

For groundwater, the ROD proposes remediation and hydraulic control using groundwater extraction and groundwater treatment by air stripping or liquid-phase GAC. The cleanup level for groundwater containing TCE at the site is 5 micrograms per liter (µg/L) in the shallow aquifers, and 0.8 µg/L in the deep aquifers.

Remediation at the former Raytheon facility locations includes mitigation measures that have addressed chemicals in the groundwater, soils, and air. These mitigation measures are implemented according to specifications.

1.3.1. Soil

Soil Vapor Extraction Pilot Test (1992): In November 1992, Raytheon conducted a soil vapor extraction **(**SVE) pilot study that involved both operation of individual wells and a combination of several wells. Following the study, SVE was selected for soil remediation at the site.

Soil Vapor Extraction: A SVE system was installed and began operating in 1996 at the 350 Ellis Street property and off the property, immediately north of the slurry wall. This system included 135 vapor extraction wells and a vapor treatment system consisting of two 8,000-pound vapor-phase GAC units (GT, 1996). The SVE system was decommissioned in 2000 after it had removed approximately 3,000 pounds of VOCs from the soils.

Soil Excavation: TCE contaminated soil was discovered adjacent to the eastern and southern walls of the former loading dock in March 2000, during the demolition of the slab and foundation of the former building. Approximately 438 tons of soil were excavated, characterized, and transported to Forward Landfill (a class II facility) for disposal.

1.3.2. Groundwater

Groundwater Extraction: Groundwater extraction wells were first installed at the site in the "B1" Aquifer in March 1986, and in the "A" Aquifer in July 1986. Until 2000, extracted groundwater was

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treated onsite using air stripping followed by a liquid-phase carbon adsorption system to remove volatile organic chemicals (VOCs). The air stripper operated under a permit from the BAAQMD, and discharge of the treated effluent was made pursuant to a National Pollutant Discharge Elimination System (NPDES) permit. Treated water was discharged to Stevens Creek via the storm sewer system.

In 1996, Raytheon added three additional extraction wells outside the slurry wall (RAY-1A, RAY-1B1, and I-1B2) as part of implementation of its facility-specific remedial design plans (GT, 1995). Due to the redevelopment of the area in year 2000, the groundwater treatment system was relocated to the southwest corner of the property. The relocated treatment system consisted of a low-profile air stripper with two liquid phase GAC vessels. The off-gas from the air stripper was treated through vapor phase GAC vessels. The locations of extraction wells, conveyance piping, and groundwater treatment system are shown on Figure 3.

On May 5, 2003, Raytheon received EPA's approval to shut down the air stripper and the carbon system so that the treatment train could be modified. Between May 20, 2003 and October 13, 2003, a temporary liquid phase carbon system consisting of two 5,000-pound (lb) vessels and one 2,000-lb vessel was operated to treat the extracted groundwater. The treatment compound was modified in fall 2003, and a new oxidation system was installed and began operations in December 2003. Because the system oxidizes the VOCs, no hazardous wastes are generated, and no VOCs are emitted into the air. The oxidation system is followed by a 2,000-lb liquid phase GAC vessel. Effluent is discharged under an NPDES permit to Stevens Creek via the storm sewer system.

To date, more than 14,596 lbs of VOCs have been removed from the groundwater at 350 Ellis Street. Influent concentrations have decreased since the current groundwater extraction regime (extraction well locations and pumping rates) was implemented in 2001 (Figure 4). Influent concentrations have been approaching asymptotic levels since 2005..

Slurry Wall: Slurry wall construction began at the site on June 12, 1987 and continued through the completion of backfilling on September 30, 1987. Details of the construction and test results are presented in the Raytheon Slurry Wall Construction Report (Golder, 1988). In summary, the wall was constructed to a depth of 100 feet below ground surface around the site perimeter, encompassing all potential chemical source areas at the facility. Backfill material consisted of a low permeability soil-bentonite mixture. The slurry wall penetrated the "A" and "B1" Aquifers, and partially penetrated the "B2" Aquifer. Laboratory permeability test results of over 190 backfill material samples ranged from 2×10^{-9} centimeters per second (cm/s) to 8×10^{-8} cm/s, indicating that the design specification of less than 1×10^{-7} cm/s was achieved.

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The integrity of the slurry wall was verified by a program of *in situ* testing conducted during February 1988 to determine the geotechnical and hydraulic properties of the barrier material. Permeabilities estimated from the dissipation of pore pressure range between 1.5×10^{-9} and 5.3×10^{-8} cm/s, significantly better than the specified design maximum of 1×10^{-7} cm/s.

Potassium Permanganate Injection: Two rounds of potassium permanganate ($KMnO_4$) injection tests were performed on April 21, 1999, and July 9, 1999 (IT, 2000). The objective was to evaluate the effectiveness of $KMnO_4$ in removing VOCs in groundwater and saturated soil using the SVE wells before the property redevelopment construction started. The test was implemented in the northwest corner of the 350 Ellis Street site. A total of six temporary wells, two vapor extraction wells, and three existing monitoring/extraction wells were used during this study. Soil and groundwater sampling was performed before and after the $KMnO_4$ injection to assess the changes in VOC concentrations.

On an average, the TCE concentrations in soil decreased by approximately 19 percent after the $KMnO_4$ injection. Reductions in TCE concentrations in groundwater were noticed in three of the wells while two of the wells showed only minor changes overall and others showed increasing TCE concentrations. The TCE concentration reduction in wells away from the injection points was less than expected in both magnitude and extent. The concentration of metals and most field parameters in soils and groundwater experienced little change after the $KMnO_4$ injection.

The results of the sampling events indicated that a 30% VOC reduction was achieved and no adverse effects on groundwater quality were observed.

1.3.3. Air

On October 3, 2002, the EPA requested a work plan "to conduct a human health risk assessment to evaluate the groundwater-to-indoor air exposure pathway." Subsequently, the MEW Companies submitted a unified work plan on December 2, 2002 (Locus, 2002), and a revision on April 16, 2003 (Locus, 2003a), to respond to EPA's February 17, 2003 comments.

A report documenting and interpreting the spring 2003 air sample results for the site was submitted to EPA on August 15, 2003 (Locus, 2003b); a report documenting the fall results was submitted on January 9, 2004 (Locus, 2004a). During the fall sampling event, some buildings showed indoor air concentrations slightly higher than EPA's interim action level for TCE of 2.7 $\mu g/m^3$ because these buildings were not ventilated (these buildings were either vacant or sampled on the weekend). In such instances, additional samples collected after the ventilation systems were re-started showed concentrations below the interim action level. Additional samples collected on weekdays during normal occupancy showed TCE concentrations significantly below the interim action level.

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Some pathway samples collected in unoccupied utility rooms at the Ellis Street property during the initial 2003 sampling showed concentrations of TCE above the interim action level. Although exposure in these utility rooms is infrequent and is limited in duration, Raytheon implemented voluntary mitigation measures in these utility rooms. Conduits in the utility rooms at the Ellis Street property are connected directly to vaults outside the buildings. Raytheon collected air samples from the vaults, and the results showed concentrations similar to those in the utility rooms, suggesting the outside vaults as the source. Accordingly, in August 2003 Raytheon sealed utility conduits entering the utility rooms from exterior vaults, and collected confirmation samples. This mitigation measure resulted in a significant decrease in concentrations in these utility rooms by up to two orders of magnitude. TCE concentrations in some utility rooms remained slightly above the interim action level. The action level, however, assumes an exposure period of 10 hours per day, 250 days per year, for 21 years, which is not representative of the usage of these utility rooms, where exposure is limited, and where the utility rooms are accessed only on an as-needed basis. Nonetheless, an evaluation of alternatives to further decrease concentrations was conducted. Air purification canisters were installed in the four utility rooms that showed TCE concentrations higher than the interim action level. The first unit was installed in 2004 as a trial phase; the additional three units were installed in 2005. Confirmation sampling has shown further decreases in TCE concentrations to below the interim action level.

Because the majority of the indoor air samples at the Ellis property were collected on the weekend while the ventilation system was off, an additional round of indoor, outdoor and pathway samples was collected on a weekday in September 2006. All indoor TCE concentrations were significantly below the interim action level.

To further confirm the results of weekday sampling, a total of 45 air samples were collected over a 10-hour period at 350-380 Ellis Street (Locus, 2008d) on February 20, 2008. This included 21 indoor, 10 outdoor, and 12 pathway samples. The analytical results confirmed previous findings that concentrations during normal weekday occupancy are below long-term exposure goals. One February 2008 sample collected in utility room D106 contained 6.4 $\mu g/m^3$ TCE, which is higher than the interim action level. Another air sample was collected from utility room D106 on July 9, 2008. The July 2008 sample contained only 1.7 $\mu g/m^3$ TCE, less than the interim action level of 2.7 $\mu g/m^3$. This utility room is not occupied. The results indicate that risks from inhalation exposure due to vapor intrusion of VOCs should not be concern to occupants of the property (Locus, 2008d). The results of 2008 indoor air sampling at 350-380 Ellis Street are reported in Table 13.

Appendix A, the annual remedy performance checklist, contains a summary of all past and current onsite remedial actions.

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1.4. Summary of 2008 Activities and Deliverables

The following activities were completed at the 350 Ellis Street facility during this reporting period:

January	• 7th – 2,000-lb liquid–phase GAC vessel was changed out; the system was shutdown for approximately 30 hours. • 21st - Monthly treatment system sampling. • 30th – 2007 Annual NPDES report was submitted to RWQCB (Locus, 2008a).
February	• 18th - Monthly treatment system sampling. • 20th - Raytheon collected an additional round of air samples on a weekday in all buildings at the Site while the ventilation system was operating.
March	• 17th - Monthly treatment system sampling. • 27th - Measured semiannual water elevations per the regional monitoring program. • 31st – Samples were collected from R-39B2, R-27B2, R-68B2, and RE-1B2, the B2 aquifer wells that are sampled every five years.
April	• 15th – 2007 Annual Report was submitted to EPA (Locus, 2008b). • 16th - Monthly treatment system sampling. • 30th – Submitted first quarter 2008 NPDES report to RWQCB (Locus, 2008c).
May	• 6th - 2,000-lb liquid–phase GAC vessel was changed out; the system was shutdown for approximately 30 hours. • 14th – MEW All Parties meeting attended by Raytheon and Locus representatives regarding vapor intrusion. • 20th - Monthly treatment system sampling.
June	• 5th - EPA requested a RPO Report from the MEW Companies (EPA, 2008b). EPA further defined their requirement in the June 12, 2008, All-Parties meeting. • 12th - MEW All Parties meeting attended by Raytheon and Locus representatives. • 16th - Monthly treatment system sampling. • 26th - MEW All Parties meeting attended by Raytheon and Locus representatives. • 27th - Submitted request to EPA for temporary shut down of groundwater treatment system for evaluation of steady-state conditions in the absence of groundwater extraction.
July	• 7th - 2,000 lb liquid–phase GAC vessel was changed out; the system was shutdown

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	for approximately 30 hours. • 9th - Monthly treatment system sampling. • 14th to September 22nd – Treatment system was shut down as part of the groundwater investigation approved by EPA. During this period water levels were measured at selected wells on Mondays, Wednesdays, and Fridays until steady-state conditions were reached. • 22nd - MEW All Parties teleconference meeting attended by Raytheon and Locus representatives. • 30th - Submitted second quarter 2008 NPDES report to RWQCB (Locus, 2008e).
August	• Treatment system remained shut down for the steady-state groundwater investigation. • 29th - Raytheon submitted the RPO Report for the site (Locus, 2008f).
September	• 22nd - The site-wide water levels appeared to have reached a steady state. Water levels were measured from all of the wells at the Site, and in wells within the capture zones of wells RAY-1A and RAY-1B1. • 23rd to October 16th - Extraction wells RAY-IB1, I-IB2, RAY-1A, and R-65B1B2 were restarted. Samples were collected from 14 wells (24A, R-27A, R-58A, R-69A, R-72A, RE-5A, RE-9A, RE-21A, RE-22A, RE-25A, RP-21B, RP-23B, and RP-24B) for geochemical analysis. • 29th - Groundwater elevations were measured site-wide to determine the influence of extraction wells RAY-IB1, I-IB2, RAY-1A, and R-65B1B2 in the "A" and "B1" Aquifers inside the slurry wall enclosure. • 29th - A pump test was conducted using RE-25A as the pumping well, and wells R-58A, R-69A, RE-5A, and R-72A as observation wells. Transducers set to record groundwater elevations every minute were placed in each of the 5 wells. A barometric logger was placed on a table in the aboveground treatment system enclosure to concurrently record atmospheric pressure. • 24th - Monthly treatment system sampling.
October	• 6th – A second pump test was conducted using RE-24A as the pumping well, and wells R-69A, R-72A, and RE-5A as the observation wells. The procedures for the previous pump test were also followed for this pump test. • 13th - Normal operation of the groundwater extraction and treatment system resumed. • 14th - Meeting attended by Raytheon and EPA. • 15th - Monthly treatment system sampling.

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	• 30th - Submitted third quarter 2008 NPDES report to RWQCB (Locus, 2008g). • 31st - Replaced carbon canisters on indoor air purification units in room B104, C110, and from one section of room A112.
November	• 3rd - 2,000-lb liquid–phase GAC vessel was changed out; the system was shutdown for approximately 30 hours. • 11th to 14th – MEW RGRP annual sampling event. • 17th - Monthly treatment system sampling. • 17th - Replaced carbon canister on air purification unit from 2nd section of room A112. • 20th - Measured semiannual water elevations per the regional monitoring program.
December	• 1st - Evaluation of Remedial Alternatives and Work Plan for the Pilot test was submitted to EPA (Locus, 2008h). • 3rd - MEW All Parties meeting attended by Raytheon and Locus representatives. • 8th - Annual site-specific monitoring well sampling. • 15th – Evaluation of the Physical and Chemical Properties of the "A" and "B1" Aquifers report was submitted to EPA (Locus, 2008i). • 17th - Monthly treatment system sampling.

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2. GROUNDWATER EXTRACTION AND TREATMENT SYSTEM

2.1. System Description and Performance

The groundwater treatment system consists of a hydrogen peroxide/ozone oxidation system and a liquid-phase GAC unit. The oxidation system consists of one skid-mounted high-pressure oxidation (HiPOx™) unit, designed and manufactured by Applied Process Technology, Inc., followed by one 2,000-lb liquid-phase GAC vessel. The hydrogen peroxide/ozone oxidation system operates by injecting 25% hydrogen peroxide and ozone generated from liquid oxygen into ten 2-inch pipeline reactors. During the oxidation process, the VOCs and 1,4-dioxane are oxidized. Following oxidation, the treated groundwater flows through a 2,000-lb GAC vessel for final polish. Treated effluent from the groundwater treatment system is conveyed to Stevens Creek for discharge under the NPDES permit.

The oxidation system was installed in late November 2003 and began full operation in December 2003. A start-up report was submitted to the RWQCB and EPA in January 2004. All sampling procedures and start-up procedures were in accordance with the RWQCB's *Self-Monitoring Program for Discharges of Extracted and Treated Groundwater Resulting From the Cleanup of Groundwater Polluted by Volatile Organic Compounds, NPDES No. CAG912003, Order No. 99-051*.

Groundwater is extracted from eight extraction wells and treated at the groundwater treatment system. Five extraction wells are located inside, and three outside, of the slurry wall enclosure (Figures 2 and 3). In 2008, the groundwater treatment system operated at approximately 30 gpm. Groundwater flow rates for the extraction wells and the average monthly treatment system flow rates are presented in Table 1.

2.1.1. Treatment System Sampling and Mass Removal

Monthly treatment system samples are collected from the influent (RAYINF), effluent of the HiPOx™ system (RAYMID), and system effluent (RAYEFT). Monthly samples are analyzed for VOCs using EPA Method 8260B for the EPA 8010 analyte list. The effluent sample collected at RAYEFT in November 2008 was analyzed for 1,4-dioxane and semi-volatile organic compounds using EPA

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Methods 8270C-SIM and 8270C, respectively. Results for the system influent and effluent sampling points are presented in Table 2.

Approximately 374 lbs of VOCs were removed by the treatment system in 2008. A total of 14,596 lbs of VOCs have been removed by the groundwater extraction system since 1986. Table 3 and Figures 5 and 6 present a summary of the VOC influent concentration and cumulative VOC mass removed for the Raytheon groundwater treatment system since 1986.

2.1.2. System Performance

The treatment system was shutdown from July 14, 2008, to September 22, 2008, as part of an investigation approved by EPA. The system was also shutdown during the scheduled carbon change-outs, system maintenance, and unexpected shutdowns for well and/or system repairs during 2008.

2.2. Treatment System Operations and Maintenance

Raytheon is conducting long-term monitoring and maintenance activities in accordance with the current operation and maintenance (O&M) manual (Locus, 2004b). The primary activities associated with O&M include:

- Monthly groundwater treatment system sampling, in accordance with NPDES permit requirements. Laboratory analytical reports for sampling conducted in 2008 are included in Appendix B.
- Semiannual groundwater elevation measurements of all accessible monitoring wells, and quarterly groundwater elevation measurements of slurry wall well pairs (defined as a pair of wells, one on the inside and one on the outside of the wall to monitor direction of groundwater gradient across the wall), and vertical well clusters (wells located near each other but screened in different hydraulic units to monitor the direction of the groundwater gradient between the units). Historical well hydrographs are included in Appendix C.
- Groundwater sampling of a network of monitoring wells. Laboratory analytical reports are included in Appendix B. Historical water quality concentrations from 1992 to the present are included in Appendix D for the chemicals of concern. Also included in Appendix D are concentration trend plots for TCE, cis-1,2-DCE and vinyl chloride.
- Inspecting the conditions of the groundwater monitoring and extraction wells (Figures 2 and 3).
- Inspecting and monitoring the treatment system operation.

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Soil cleanup was achieved by implementing a SVE system. The system met its cleanup objective and was decommissioned in 2000. In 2004, EPA confirmed that soil cleanup at the MEW site is complete (EPA, 2004). Therefore, there are no ongoing O&M activities for SVE or the soil cleanup actions. The remaining component of the cleanup is groundwater extraction, as chemicals still remain in the groundwater at the site. The primary O&M activities include monitoring the groundwater and inspecting and maintaining the groundwater treatment system.

Raytheon has historically maintained inward hydraulic gradients across the slurry wall. Since 2000, when the property was developed, an outward gradient has been observed across the northern slurry wall. Although outward gradients have been observed, the RAOs will not be impacted for the following reasons:

1. Raytheon has installed extraction wells in the "A" and "B1" Aquifers immediately downgradient of the slurry wall (RAY-1A and RAY-1B1). Capture zone analyses have demonstrated that these wells provide an adequate capture of the groundwater immediately downgradient of the slurry wall.
2. The slurry wall is a low-permeability wall that results in minimal chemical migration across its walls, even if the gradient is outward. The flux of chemicals across a low-permeability wall is small. Furthermore, groundwater and chemicals tend migrate along easier pathways: inside the slurry wall enclosure, chemicals would preferentially move towards extraction wells RE-23A, RE-24A, RE-25A, and RE-5A rather than through the low-permeability slurry wall.

The slurry wall and the pumping activities within its enclosure and the groundwater extraction wells immediately downgradient of the slurry wall physically contain chemicals.

2.3. Hydraulic Control and Capture Zone Analysis

2.3.1. Methodology

Hydraulic control and groundwater capture at 350 Ellis Street is evaluated according to EPA's 2008 guidance, *A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems, Final Project Report* (EPA, 2008a). Multiple lines of evidence are used in this evaluation:

- Groundwater elevations are used to assess slurry wall gradients within the same aquifer and to assess vertical gradients across aquitards;
- Comparison of interpreted capture zone to target capture zone using potentiometric surface maps, capture zone width calculations, and flow budget calculations; and
- Groundwater concentration trends.

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2.3.2. Estimated Capture Zones

Table 4 summarizes the groundwater level measurement data for this reporting period. Groundwater elevation contours for the semiannual measurements, collected in March and November 2008, are included on Figures 7 through 10 for the "A" and "B1" Aquifers and Figures 11 through 16 for the Upper "B2", Lower "B2", and "B3" Aquifers.

The capture zones for March and November 2008 were estimated using capture zone width calculations (and evaluation of the groundwater elevation contours.

The extent of a capture zone upgradient of an extraction well (X_0) is determined by (EPA, 2008a):

$$X_0 = \frac{-Q}{2\pi Ti};$$

Where:

Q is the well's extraction rate (gpd),
T is the transmissivity of the aquifer (gpd/ft),
i is the hydraulic gradient of the aquifer (unitless).

The distance from the well to the lateral extent of the capture zone (Y_{well}), perpendicular to the direction of groundwater flow, is determined by (EPA, 2008a):

$$Y_{well} = \frac{\pm Q}{4Ti}.$$

The width of the capture zone at the well location is $2Y_{well}$. EPA (2008a) also describes an equation to determine the maximum width of the capture zone. However, this calculation is not applicable to this site because of the presence of the slurry wall upgradient of the well. The results of the capture zone width calculations are shown in Table 5. The capture zones of wells RAY-1A and RAY-1B1 are depicted on Figures 7 through 10.

RAY-1A and RAY-1B1 were placed to capture groundwater along the downgradient boundary of the Raytheon slurry wall (GT, 1995). In general, these wells capture the groundwater along the northern slurry well boundary. In November 2008, the extraction rate from RAY-1A was lower than usual, resulting in a smaller capture zone. During an inspection of the extraction well, field personnel

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reported that the well flow meter required maintenance. The meter was replaced immediately after the November water elevation monitoring event, and the pump was replaced in January 2009. These modifications resulted in some improvement in the extraction well flow rate. Additional well maintenance, including redevelopment of the well, is planned for April 2009. After the required maintenance has been performed, the extraction rate at RAY-1A is anticipated to return to previous values, and the capture zone is anticipated to widen to be similar to the March 2008 capture zone.

2.3.2.1.Flow Budget Calculations

Water balance calculations were performed to verify the estimated capture zones for the 350 Ellis Street site by comparing the groundwater flux flowing into the site with the volume of groundwater removed from extraction wells RAY-1A and RAY-1B1.

Theoretically, inflow to the aquifer could be caused by aerial recharge from precipitation, recharge from surface water bodies, lateral inflow from upgradient areas, or vertical flow between aquifer zones. Outflow is the rate of groundwater flow being removed from the aquifer. Outflow of water from the aquifer system could be caused by vertical leakage between aquifers and groundwater extraction.

As demonstrated in the Feasibility Study for the MEW site (Canonie, 1988), aerial recharge is considered to be negligible at the MEW site because most of the surface is covered by impermeable features such as paving and buildings. Infiltration is further limited by clays, which extend to a depth of approximately 10 to 15 feet at the site. With other inflow pathways being negligible, groundwater flow at the site is mostly attributed to the lateral flow from upgradient areas.

The estimated hydraulic gradients used in the water balance calculations are shown on Figures 7 through 10. The estimated groundwater flow into the aquifer and the estimated pumping required for adequate capture are calculated in Table 6. The estimated flow rate into the capture zone is calculated from (EPA, 2008a):

$$Q = K \cdot (b \cdot w) \cdot i \cdot \mathit{factor} \ .$$

The variables are defined as follows:

Q = flow rate (gpd);
K = hydraulic conductivity (gpd/ft);
b = saturated aquifer thickness (ft). Note that transmissivity $T = K \cdot b$;
w = width of capture zone (ft);
i = hydraulic gradient (unitless);

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factor = 1.5 - 2 is the "rule of thumb" value used to account for other contributions to the pumping well, such as flux from a river or induced vertical flow from another groundwater unit.

Because RAY-1A and RAY-1B1 are immediately downgradient of the slurry wall, groundwater removed from these wells must originate from incoming groundwater flux around the slurry wall. Consequently, the "w" factor in the formula above is interpreted as the width of the groundwater pathway to the east and west of the slurry wall that is eventually captured by the wells.

RAY-1A: Pumping rates in March and November were 1.87 gpm and 0.60 gpm, respectively. With an estimated width of the groundwater pathway around the approximately 850-ft wide slurry wall and an assumed factor of 1.5, the interpreted capture zone for March 2008 corresponds to estimated pumping rate of 1.81 gpm, in March is in good agreement with actual pumping rate. The estimated pumping rate for November 2008 based on the capture zone evaluation was approximately 1.11 gpm, which is higher than the measured pumping rate. However, the actual pumping rate for RAY-1A is expected to be higher than the measured flow rate because of the reported problems with the well meter in November (Table 6).

RAY-1B1: In March and November 2008, pumping rates were 3.47 and 5.18 gpm, respectively. The interpreted capture zones correspond to estimated pumping rates of 3.44 gpm in March and 5.46 gpm in November, which is in good agreement with actual pumping rates (Table 6).

2.3.2.2. Well Loss Calculations

The two factors used to determine well loss are the extraction rate and the well loss coefficient, which is dependent on well condition. RAY-1A and RAY-1B1 were properly designed and well developed, but it is possible that mild deterioration has occurred. Given the conditions of the wells, the well loss coefficient, C, is estimated to range from 0.5 – 1 min^2/m^5. In 2008, extraction rates ranged from 0.6 to 2.4 gpm in RAY-1A and 3.2 to 18 gpm in RAY-1B1. Table 7 presents potential losses in each well assuming a range of extraction rates and loss coefficients. For all cases, the well losses are not significant and adjustments to groundwater levels in the two extraction wells are not necessary.

2.3.3. Horizontal (Slurry Wall) and Vertical (Aquitard) Groundwater Gradients

In March, September, and November, groundwater levels were measured to monitor the direction of the groundwater gradient across the slurry wall and the aquitards. A total of 7 well pairs are used to evaluate groundwater gradient directions across the slurry wall, and 15 well pairs are used to evaluate the vertical gradient directions across the aquitards (Figure 17).

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Although outward gradients have been observed, the RAOs are not impacted because Raytheon has installed extraction wells in the "A" and "B1" Aquifers immediately downgradient of the slurry wall (RAY-1A and RAY-1B1). Capture zone analyses have demonstrated that these wells provide an adequate capture of the groundwater immediately downgradient of the slurry wall. Furthermore, the slurry wall is a low-permeability wall that results in minimal chemical migration across its walls, even if the gradient is outward. The flux of chemicals across a low-permeability wall is small. Groundwater and chemicals tend migrate along easier pathways: inside the slurry wall enclosure, chemicals would preferentially move towards extraction wells RE-23A, RE-24A, RE-25A, and RE-5A rather than through the low-permeability slurry wall. The slurry wall, the pumping activities within its enclosure, and the groundwater extraction wells immediately downgradient of the slurry wall physically contain chemicals.

Slurry Wall: In March and November, the groundwater extraction system and all eight extraction wells were operating normally. The water level measurements from these months show that an inward gradient across the slurry wall has been maintained except in well pairs R-55A/RE-07A and R-05B1/RP-23B, which are located along the northern slurry wall (Table 8). In September, the water levels were measured during the temporary shutdown of the groundwater extraction system. The water level measurements show an inward gradient across the slurry wall except in well pairs R-55A/RE-07A and R-05B1/RP-23B, which are located along the northern slurry wall, and a nominal outward gradient in well pair R-57A/R-60A, located along the eastern slurry wall. The November data show that the gradient in well pair R-57A/R-60A was corrected, becoming inward, after the groundwater extraction system operation was resumed. Plots of the differences in hydraulic head across the slurry wall are provided on Figures 18 and 19.

Vertical Gradient Directions: The differences in water elevations between the "B1" and "A" Aquifers are shown in Table 9 and on Figure 20. Upward gradients were observed in eight of the ten well pairs that are used to monitor the "A/B1" Aquitard gradient directions in the March, September, and November events. Slight downward gradients are observed in well pairs R-60A/R-63B1, RE-08A/R-67B1 for the March event, and R-67A/R-68B1, and RE-08A/R-67B1 for the November event. In September, the difference in head between R-63B1 and R-60A was 0.00 ft, indicating no gradient. For each event, the gradient across the "B1/B2" Aquitard and between the Upper "B2" and Lower "B2" Aquifers were consistently upward. Onsite, the "A" Aquifer and "B1" Aquifer are entirely enclosed within the slurry wall, and the upward gradients across the "B1/B2" Aquitard (Table 9, Figure 21) and between the upper "B2" and lower "B2" Aquifers (Table 9, Figure 22) indicate that groundwater (and chemicals) will flow upward from the "B2" Aquifer into the "B1" Aquifer, and not downwards from

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the "B1" Aquifer to the "B2" Aquifer. Therefore, the chemicals present in the "A" and "B1" Aquifers are contained onsite.

2.4. Onsite VOC Concentrations

Eleven Raytheon site-specific monitoring wells are sampled annually, and twenty-four are sampled on five-year intervals (Table 10). The annual sampling event for the Raytheon site-specific wells was conducted in December 2008. The 5-year "A" Aquifer and "B1" Aquifer site-specific wells inside the slurry wall were sampled in December 2006, and the results were included in the 2007 annual report. The 5-year "B2" Aquifer site-specific wells were sampled on March 31, 2008. The analytical results for the samples are summarized in Table 11. A total of 16 site-specific wells on the monitoring plan were sampled and analyzed for VOCs using EPA Method 8260, following the QA/QC procedures specified in the 1991 Unified Quality Assurance Project Plan (UQAPP).

2.4.1. Chemical Data Evaluation and Trend Analysis

The concentrations in monitored wells sampled in 2008 are consistent with or lower than the concentrations measured in recent years. Table 11 summarizes the analytical results for the annual sampling event. TCE concentrations and contours for the "A", "B1" and "B2" Aquifers are shown on Figures 23 through 26. Appendix D shows concentration trends for TCE, cis-1,2-dichloroethene, and vinyl chloride for selected wells in each aquifer since 1992.

2.4.2. Historical Data Summary

Groundwater monitoring has been conducted at Raytheon's former facility since the early 1980s. In general, most concentrations were detected at their highest levels early in the investigation and removal period. These levels were followed by a significant drop in concentrations in the "A", "B1", and "B2" Aquifers as a result of mitigation measures that have contained and/or removed sources in the groundwater and the unsaturated soils.

Influent treatment system data indicate that TCE comprises the majority of the chemicals being treated. Historical VOC concentrations are included in Appendix D.

2.5. Quality Assurance/ Quality Control

A total of 48 water samples, three field blanks, three field duplicates, thirteen trip blanks, and three rinseate blank were collected and analyzed for VOCs using EPA Methods 8260B, during this reporting period. The rinseate blanks were collected from the site-specific well 83A and RGRP wells R-22B1

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and R-40B1B2. No rinseate blanks were collected with treatment system samples because no sampling equipment other than the collection container was used to retrieve these samples. All quality assurance/quality control (QA/QC) followed the procedures specified in the 1991 UQAPP (Canonie, 1991). One trip blank was disqualified due to a detection of chloroform. Laboratory contamination was suspected, but not confirmed. The quality of the entire data during this reporting period is still acceptable and valid. Appendix E presents the QA/QC report for this reporting period.

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3. ADDITIONAL ACTIVITIES CONDUCTED IN 2008

As mentioned in Section 1.4, on August 29, 2008, Raytheon submitted the Remedial Process Optimization Report (RPO) subsequent to a June 5, 2008 request from EPA (Locus, 2008f; EPA, 2008b). The RPO report outlines modifications to the existing groundwater extraction system that could optimize its function, and recommends preparation of a site-specific technology evaluation report with an evaluation of remedial technologies potentially applicable for the Site. To date, Raytheon has not received comments from EPA on this report.

On December 1, 2008, Raytheon submitted *Evaluation of Remedial Alternatives and Work Plan for Pilot Test* to EPA. This report evaluates the alternative remedial technologies discussed in the RPO, and presents a work plan to conduct a pilot test for the selected technology, *in situ* chemical oxidation (ISCO). To date, Raytheon has not received comments from EPA on this report.

The following activities were conducted at the site to prepare these reports:

- With EPA's approval, the groundwater extraction system was shut down from July 14, 2008 to September 22, 2008 to determine steady-state groundwater levels and gradients in the absence of groundwater extraction.
- During the temporary treatment system shutdown, water levels were measured at selected wells on Mondays, Wednesdays, and Fridays until steady-state conditions were reached.
- On September 22, 2008, after site-wide water levels appeared to have reached a steady state, water levels were measured from all of the site-specific wells.
- After the completion of the site-wide groundwater elevation measurements, extraction wells RAY-1B1, I-1B2, RAY-1A, and R-65B1B2 were restarted. The extraction system was adjusted as needed until the treatment system operated continuously. After one week, another set of site-wide groundwater elevation measurements were collected to determine the influence of pumping from these four wells on groundwater elevations in the "A" and "B1" Aquifers inside the slurry wall enclosure.
- Two pump tests were conducted to evaluate the hydraulic properties of the "A" Aquifer at the site, and to determine the maximum yields possible for RE-25A and RE-24A. For the first pump test, well RE-25A was used as the pumping well, and wells R-58A, R-69A, RE-5A, and R-72A were used as observation wells. For the second pump test, well RE-24A was used as the pumping well, and wells R-69A, RE-5A, RE-23A, and RE-25A were used as observations.

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Locus submitted the data and analyses from the pump tests to EPA on December 15, 2008 (Locus, 2008i).

- Samples were collected from 14 wells, which include 24A, R-27A, R-58A, R-69A, R-72A, RE-5A, RE-9A, RE-21A, RE-22A, RE-25A, RP-21B, RP-23B, and RP-24B, and were analyzed for geochemical parameters. These analyses were performed to evaluate the "A" Aquifer and "B1" Aquifer conditions important for evaluating potential remedial alternatives. The data for these samples were reported to EPA on December 15, 2008 (Locus, 2008i).

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4. PROBLEMS ENCOUNTERED

This section documents specific issues encountered over 2008.

4.1. Extraction well flow rates

Over the first half of 2008, decreasing extraction rates were observed in RE-23A and RE-25A. Upon inspection of the wells, field personnel determined that the pumps in those wells needed to be replaced. The pumps were replaced during the temporary system shutdown approved by EPA, minimizing the system's downtime. Recommendations in the RPO include operating RE-25A at a higher flow rate. To increase the extraction capacity in RE-25A, where the highest TCE concentrations in groundwater have been observed, the more powerful pump from well RE-05A was decontaminated and installed in RE-25A. New pumps with capacities similar to the older pumps in RE-23A and RE-25A were installed in wells RE-23A and RE-05A. After the system was restarted, the wells were returned to their previous pumping rates, as Raytheon awaits EPA's approval of the recommendations in the RPO report.

In late October 2008, a reduced flow rate was measured for extraction well RAY-1A. After inspection, this appeared to be caused in part by the flow meter, which was not accurately measuring the extracted volume. The meter was replaced in November, which resulted in improvement to the flow rate measurements. To further increase the flow rate for RAY-1A, the pump was replaced in January 2009, and well redevelopment is planned for April 2009.

4.2. Treatment System Operation

With the exception of treatment system shutdown as part of the EPA approved investigation from July 14, 2008, to September 22, 2008, the treatment system operated approximately 87% of the time . On September 22, 2008, the valves in R-65B1B2, I-1B2, RAY-1A, and RAY-1B1 were fully opened for the system startup. Shortly following this modification, the influent filters were getting clogged and needed replacement frequently. This problem is not unusual for a system being reactivated after an extended shutdown period, as some sediment may collect in the wells while they are inactive. After the wells are reactivated, the pumping activities extract the excess sediment from the wells with the groundwater, which quickly clogs the filters. Over time, the excess sediment is removed from the wells, so the filters do not need to be changed as frequently.

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5. TECHNICAL ASSESSMENT

5.1. Is the Remedy Functioning as Intended?

The review of documents, ARARs, risk assumptions, and the results of the site inspection indicate that the remedy is functioning as intended by the ROD, as modified by the Explanation of Significant Differences. The Feasibility Study (Canonie, 1988) for the MEW site lists the RAOs to be:

1. Protection of potential potable water supply;
2. Remediation or control of relatively elevated concentrations of chemicals present in localized vadose zone soils below the ground surface that could migrate to enter into the shallow groundwater system;
3. Remediation or control of groundwater, which contains elevated concentrations of chemicals, including control of discharge of such groundwater into surface water.

Several mitigation measures have been implemented at the 350 Ellis Street property to protect potential potable water supply in the shallow aquifer zone. The SVE system installed and operated at the 350 Ellis Street property achieved soil cleanup goals by remediating chemicals present in the vadose zone soils. The installation of a slurry wall at 350 Ellis Street effectively isolated the source areas, and, combined with pumping actions, resulted in a significant decrease in concentrations in the areas within and outside the slurry walls. The slurry wall and the pumping activities inside and outside the slurry wall achieved the third RAO by controlling sources.

In January 2003, 1,4-dioxane concentrations above RWQCB criteria were detected in the effluent of the treatment system. The treatment system was modified in the fall of 2003 by replacing the air stripper with an oxidation system that is capable of destroying 1,4-dioxane, and reducing the overall concentrations to below the RWQCB criteria.

The ROD for the MEW site defines cleanup goals for the soils and groundwater. Soil remediation goals were achieved through the implementation of the SVE system. Groundwater remediation goals have not yet been achieved, so groundwater extraction and treatment is ongoing.

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5.2. Are Capture Zones Adequate?

Comprehensive water level measurements were collected semiannually. Capture zones are determined as recommended in the 2008 EPA guidance, by calculating plume widths, evaluation of flow lines based on groundwater elevation contours, and by water-balance calculations. If a pumping well does not provide adequate capture, the pumping rate is increased. If a capture zone exceeds the design requirements, then the pumping rate may be reduced.

Field measurements of water elevations from monitoring wells reflect site conditions. These data would translate the actual conditions of the aquifer into water elevation data from which water elevation contours and capture zones are estimated. These estimates are dynamic in that they reflect hydrological changes in the aquifer (such as seasonal changes to water elevations and flow direction, and changes to pumping rates in regional and source control recovery wells).

As depicted in Figures 7 through 10, and calculated in Tables 5 and 6, the overall capture of the plume at the former Raytheon facilities continues to be adequate.

5.3. Are Vertical Gradients Inside and Gradients Across the Slurry Walls Appropriate?

In general, upward gradients are observed across the "A/B1" Aquitard except in two locations in each of the March, September, and November events, and a difference between the R-63B1/R-60A wells of 0.00 was observed in September. In each event, the gradient across the "B1/B2" Aquitard and between the upper "B2" and Lower "B2" Aquifers were consistently upward. Onsite, the "A" Aquifer and "B1" Aquifer are entirely enclosed within the slurry wall, and the upward gradients across the "B1/B2" Aquitard (Table 9, Figure 21) and between the upper "B2" and lower "B2" Aquifers (Table 9, Figure 22) indicate that water (and chemicals) will flow upward from the "B2" Aquifer into the "B1" Aquifer, and not downwards from the "B1" Aquifer to the "B2" Aquifer. Therefore, the chemicals present in the "A" and "B1" Aquifers are contained onsite.

It is generally desirable that the hydraulic gradient across slurry walls be inward. Until 2000, gradients had been mostly inward with a few exceptions that may have been due to the temporary shutdown of some extraction wells. During property redevelopment in 2000, several extraction wells were relocated. Since then, outward gradients have been observed in well pairs along the northern (downgradient) portion of the slurry wall. Although outward gradients have been observed, the RAOs will not be impacted because Raytheon has installed extraction wells in the "A" and "B1" Aquifers immediately downgradient of the slurry wall (RAY-1A and RAY-1B1). Capture zone analyses have

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demonstrated that these wells provide an adequate capture of the groundwater immediately downgradient of the slurry wall. Also, the slurry wall is a low-permeability wall that results in minimal chemical migration across its walls, even if the gradient is outward. The flux of chemicals across a low-permeability wall is small. Furthermore, groundwater and chemicals tend to migrate along easier pathways: inside the slurry wall enclosure, chemicals would preferentially move towards extraction wells RE-23A, RE-24A, RE-25A, and RE-5A rather than through the low-permeability slurry wall.

The slurry wall, the pumping activities within its enclosure, and the groundwater extraction wells immediately downgradient of the slurry wall physically contain chemicals.

5.4. Are Concentrations Decreasing Over Time?

Decreasing TCE concentrations have been observed in most wells. Increases in TCE concentrations have been observed in four wells in the "B1" Aquifer: R-67B1, RP-19B, RP-21B, and RP-24B. The slurry wall surrounding the site prevents lateral migration of chemicals offsite, and the upward gradient across the "B1/B2" Aquifer indicates that chemicals are unlikely to migrate into the "B2" Aquifer. Thus, the RAOs are not negatively impacted by this observation. Appendix D provides concentration plots for wells on the monitoring schedule.

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6. CONCLUSIONS AND RECOMMENDATIONS

The current remedial actions at Raytheon's former facilities are protective of human health and the environment. Soil remediation is complete and the ongoing groundwater remediation has removed more than 14,596 pounds of VOCs. Since 2005, the groundwater treatment system has operated approximately 93% of the time. The capture zone evaluations at the site have shown that the extraction wells provide adequate capture. Outward gradients have been observed in the wells pairs along the northern (downgradient) portion of the slurry wall, but inward gradients persist along the west, east, and south walls. Upward gradients are observed across the aquitards and between the upper and lower "B2" Aquifer. In some locations, downward gradients are observed across the "A/B1" Aquitard. The monthly treatment system sampling reveals that the effluent consistently meets NPDES requirements, and there have been no violations since the current treatment system started operations in December 2003. The system also operates within the design flow rate. Overall, the current treatment system is functioning as intended.

In summary, the VOC concentrations in the site have generally decreased, but appear to have reached asymptotic levels in many wells. The rate of removal is expected to decrease annually, and the costs to operate the system are expected to increase by the inflation rate. Therefore, the cost per pound removed is expected to increase in future. The life-cycle assessment of the existing remedy indicates that many decades would be required to achieve the cleanup standards established in the ROD. Therefore, a pilot test of an alternative remedial technology is recommended. A workplan for an ISCO pilot test was submitted to EPA on December 1, 2008 (Locus, 2008h).

Air sampling conducted during February 2008 and July 2008 demonstrated that the TCE concentrations at the site were below EPA's interim action level of 2.7 $\mu g/m^3$, and the implementation of the interim remedial actions targeting the vapor intrusion pathway have reduced indoor air concentrations to below vapor intrusion long-term exposure goals (Locus, 2008b). The results indicate that the interim remedial actions implemented at the Site have successfully reduced the TCE concentrations to below the interim action level (Locus, 2008d).

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7. ACTIVITIES PLANNED FOR 2009

The following site-specific activities are planned for 2009:

- Continued operation and maintenance of the groundwater treatment system.
- Continued well pair groundwater level measurements to evaluate the direction of the hydraulic gradient across the slurry wall and the aquitards.
- Collection of semiannual groundwater elevation measurements (in March and November) as part of the regional groundwater monitoring program.
- Collection of groundwater samples will be conducted in November for the Raytheon site-specific program and the regional groundwater monitoring program.
- Implementation of RPO recommendations, pending EPA approval.
- Implementation of the ISCO pilot test and associated activities described in the December 1, 2008 workplan (Locus, 2008h), pending EPA approval.

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TABLES

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TABLE 1
AVERAGE EXTRACTION WELL FLOW RATES
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Extraction Wells	January	February	March	April	May	June	July	August	September	October	November	December
RAY-1A	2.37	2.07	1.92	1.50	1.39	1.32	1.31	*	*	0.70	0.09	0.38
RAY-1B1	3.81	3.67	4.26	4.56	4.61	4.60	4.69	*	*	12.96	5.34	5.28
I-1B2	2.09	1.90	2.19	1.97	2.15	2.70	2.64	*	*	2.94	2.11	2.88
R-65B2	4.13	3.74	4.07	3.97	3.98	4.27	3.24	*	*	5.09	5.06	5.00
RE-05A	13.99	12.89	14.12	13.80	13.72	13.23	13.24	*	*	2.59	5.69	5.66
RE-23A	2.96	2.44	2.39	1.92	1.54	1.25	1.05	*	*	1.72	3.78	3.72
RE-24A	11.22	10.21	10.88	10.41	10.61	10.25	10.93	*	*	9.19	14.04	14.21
RE-25A	4.77	3.23	2.13	1.07	1.20	1.90	1.90	*	*	1.80	2.39	0.73
Average GWTS Discharge Flow Rate	31	28	31	30	30	30	29	*	*	30	31	31

Notes:
1. Flow rates are calculated averages based on the total monthly flow from each well and through the treatment system, in gallons per minute (gpm).
* The treatment system was shutdown from July 14, 2008 to Septemeber 22, 2008, as part of an investigation approved by US EPA.

TABLE 2
2008 GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Parameter	Date Locatio Sample Units	1/21/2008 RAYEFT REG	1/21/2008 RAYINF FD	1/21/2008 RAYINF REG	2/18/2008 RAYEFT REG	2/18/2008 RAYINF REG	3/17/2008 RAYEFT REG	3/17/2008 RAYINF REG	4/16/2008 RAYEFT REG	4/16/2008 RAYINF REG	5/20/2008 RAYEFT REG	5/20/2008 RAYINF REG
Analytical Method: EPA 8260B												
1,1,1,2-TETRACHLOROETHANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,1,1-TRICHLOROETHANE	mg/l	ND 0.0005	0.0040	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
1,1,2,2-TETRACHLOROETHANE	mg/l	ND 0.0005	ND 0.0005	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
1,1,2-TRICHLOROETHANE	mg/l	ND 0.0005	ND 0.0005	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
1,1-DICHLOROETHANE	mg/l	ND 0.0005	0.017	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	0.0030	ND 0.020	ND 0.0005	ND 0.025
1,1-DICHLOROETHENE	mg/l	ND 0.0005	0.019	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
1,1-DICHLOROPROPENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,2,3-TRICHLOROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,2,3-TRICHLOROPROPANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,2,4-TRICHLOROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,2,4-TRIMETHYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,2-DIBROMO-3-CHLOROPROPANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,2-DIBROMOETHANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,2-DICHLOROBENZENE	mg/l	ND 0.0005	0.022	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
1,2-DICHLOROETHANE	mg/l	ND 0.0005	ND 0.0005	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
1,2-DICHLOROPROPANE	mg/l	ND 0.0005	ND 0.0005	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
1,3,5-TRIMETHYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,3-DICHLOROBENZENE	mg/l	ND 0.0005	0.0007	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
1,3-DICHLOROPROPANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,4-DICHLOROBENZENE	mg/l	ND 0.0005	0.0050	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
2,2-DICHLOROPROPANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
2-BUTANONE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.010	ND 0.50
2-CHLOROETHYL VINYL ETHER	mg/l	ND 0.0010	ND 0.0010	ND 0.050	ND 0.0010	ND 0.050	ND 0.0010	ND 0.040	ND 0.0010	ND 0.040	ND 0.010	ND 0.50
2-HEXANONE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.010	ND 0.50
4-CHLOROTOLUENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
4-METHYL-2-PENTANONE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.010	ND 0.50
ACETONE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.010	ND 0.50
BENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
BROMOBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
BROMOCHLOROMETHANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025

Notes:

ND - denotes result was below the detection limit

NT - sample not tested for the given parameter

TABLE 2
2008 GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Parameter	Date Locatio Sample Units	1/21/2008 RAYEFT REG	1/21/2008 RAYINF FD	1/21/2008 RAYINF REG	2/18/2008 RAYEFT REG	2/18/2008 RAYINF REG	3/17/2008 RAYEFT REG	3/17/2008 RAYINF REG	4/16/2008 RAYEFT REG	4/16/2008 RAYINF REG	5/20/2008 RAYEFT REG	5/20/2008 RAYINF REG
Analytical Method: EPA 8260B												
BROMODICHLOROMETHANE	mg/l	ND 0.0005	ND 0.0005	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
BROMOFORM	mg/l	ND 0.0005	ND 0.0005	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0010	ND 0.050
BROMOMETHANE	mg/l	ND 0.0010	ND 0.0010	ND 0.050	ND 0.0010	ND 0.050	ND 0.0010	ND 0.040	ND 0.0010	ND 0.040	ND 0.0010	ND 0.050
CARBON DISULFIDE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
CARBON TETRACHLORIDE	mg/l	ND 0.0005	ND 0.0005	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
CHLOROBENZENE	mg/l	ND 0.0005	ND 0.0005	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
CHLOROETHANE	mg/l	ND 0.0010	ND 0.0010	ND 0.050	ND 0.0010	ND 0.050	ND 0.0010	ND 0.040	ND 0.0010	ND 0.040	ND 0.0010	ND 0.050
CHLOROFORM	mg/l	ND 0.0005	0.0006	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
CHLOROMETHANE	mg/l	ND 0.0010	ND 0.0010	ND 0.050	ND 0.0010	ND 0.050	ND 0.0010	ND 0.040	ND 0.0010	ND 0.040	ND 0.0010	ND 0.050
CIS-1,2-DICHLOROETHENE	mg/l	ND 0.0005	1.0	1.1	ND 0.0005	0.95	ND 0.0005	1.1	ND 0.0005	0.94	ND 0.0005	0.86
CIS-1,3-DICHLOROPROPENE	mg/l	ND 0.0005	ND 0.0005	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
DIBROMOCHLOROMETHANE	mg/l	ND 0.0005	ND 0.0005	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
DIBROMOMETHANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
DICHLORODIFLUOROMETHANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0010	ND 0.050
ETHYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
FREON 113	mg/l	ND 0.0050	0.034	ND 0.25	ND 0.0050	ND 0.25	ND 0.0050	ND 0.20	ND 0.0050	ND 0.20	ND 0.0050	ND 0.25
HEXACHLOROBUTADIENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
ISOPROPYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
m,p-XYLENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
METHYL-T-BUTYL ETHER	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
METHYLENE CHLORIDE	mg/l	ND 0.0050	ND 0.0050	ND 0.25	ND 0.0050	ND 0.25	ND 0.0050	ND 0.20	ND 0.0050	ND 0.20	ND 0.0050	ND 0.25
N-BUTYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
N-PROPYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
NAPHTHALENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
o-XYLENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
PARA-ISOPROPYL TOLUENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
SEC-BUTYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
STYRENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
TERT- BUTYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
TETRACHLOROETHENE	mg/l	ND 0.0005	0.0079	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025

Notes:

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TABLE 2
2008 GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Parameter	Date Locatio Sample Units	1/21/2008 RAYEFT REG	1/21/2008 RAYINF FD	1/21/2008 RAYINF REG	2/18/2008 RAYEFT REG	2/18/2008 RAYINF REG	3/17/2008 RAYEFT REG	3/17/2008 RAYINF REG	4/16/2008 RAYEFT REG	4/16/2008 RAYINF REG	5/20/2008 RAYEFT REG	5/20/2008 RAYINF REG
Analytical Method: EPA 8260B												
TOLUENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
TRANS-1,2-DICHLOROETHENE	mg/l	ND 0.0005	0.094	0.075	ND 0.0005	0.074	ND 0.0005	0.081	ND 0.0005	0.079	ND 0.0005	0.067
TRANS-1,3-DICHLOROPROPENE	mg/l	ND 0.0005	ND 0.0005	ND 0.025	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.0005	ND 0.020	ND 0.0005	ND 0.025
TRICHLOROETHENE	mg/l	ND 0.0005	3.4	3.8	ND 0.0005	3.0	ND 0.0005	3.2	ND 0.0005	3.0	ND 0.0005	2.8
TRICHLOROFLUOROMETHANE	mg/l	ND 0.0010	ND 0.0010	ND 0.050	ND 0.0010	ND 0.050	ND 0.0010	ND 0.040	ND 0.0010	ND 0.040	ND 0.0010	ND 0.050
VINYL ACETATE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.010	ND 0.50
VINYL CHLORIDE	mg/l	ND 0.0005	0.068	0.078	ND 0.0005	0.034	ND 0.0005	0.035	ND 0.0005	0.058	ND 0.0005	0.059
Analytical Method: EPA 8270C-SIM												
1,4-DIOXANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Analytical Method: EPA 8270C												
1,2,4-TRICHLOROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2-DICHLOROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,3-DICHLOROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,4-DICHLOROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2,4,5-TRICHLOROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2,4,6-TRICHLOROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2,4-DICHLOROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2,4-DIMETHYLPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2,4-DINITROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2,4-DINITROTOLUENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2,6-DINITROTOLUENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-CHLORONAPHTHALENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-CHLOROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-METHYLNAPHTHALENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-METHYLPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-NITROANILINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-NITROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
3,3'-DICHLOROBENZIDINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
3-NITROANILINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,6-DINITRO-2-METHYLPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

Notes:

ND - denotes result was below the detection limit

NT - sample not tested for the given parameter

TABLE 2
2008 GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Parameter	Date Locatio Sample Units	1/21/2008 RAYEFT REG	1/21/2008 RAYINF FD	1/21/2008 RAYINF REG	2/18/2008 RAYEFT REG	2/18/2008 RAYINF REG	3/17/2008 RAYEFT REG	3/17/2008 RAYINF REG	4/16/2008 RAYEFT REG	4/16/2008 RAYINF REG	5/20/2008 RAYEFT REG	5/20/2008 RAYINF REG
Analytical Method: EPA 8270C												
4-BROMOPHENYL PHENYL ETHER	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4-CHLORO-3-METHYLPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4-CHLOROANILINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4-CHLOROPHENYL PHENYL ETHER	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4-METHYLPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4-NITROANILINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4-NITROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
ACENAPHTHENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
ACENAPHTHYLENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
ANTHRACENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
AZOBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZO(A)ANTHRACENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZO(A)PYRENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZO(B)FLUORANTHENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZO(GHI)PERYLENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZO(K)FLUORANTHENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZOIC ACID	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZYL ALCOHOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BIS(2-CHLOROETHOXY)METHANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BIS(2-CHLOROETHYL)ETHER	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BUTYL BENZYL PHTHALATE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
CHRYSENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
DI-N-BUTYL PHTHALATE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
DI-N-OCTYL PHTHALATE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
DIBENZO(A,H)ANTHRACENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
DIBENZOFURAN	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
DIETHYL PHTHALATE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
DIMETHYL PHTHALATE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
FLUORANTHENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
FLUORENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

Notes:

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TABLE 2
2008 GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

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Analytical Method: EPA 8270C												
HEXACHLOROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
HEXACHLOROBUTADIENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
HEXACHLOROCYCLOPENTADIENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
HEXACHLOROETHANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
INDENO(1,2,3-CD)PYRENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
ISOPHORONE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
N-NITROSO-DI-N-PROPYLAMINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
N-NITROSODIMETHYLAMINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
N-NITROSODIPHENYLAMINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
NAPHTHALENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
NITROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PENTACHLOROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PHENANTHRENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PYRENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

Notes:
ND - denotes result was below the detection limit
NT - sample not tested for the given parameter

TABLE 2
2008 GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Parameter	Date Locatio Sample Units	6/16/2008 RAYEFT REG	6/16/2008 RAYINF REG	7/9/2008 RAYEFT REG	7/9/2008 RAYINF FD	7/9/2008 RAYINF REG	9/24/2008 RAYEFT REG	9/24/2008 RAYINF REG	10/15/2008 RAYEFT REG	10/15/2008 RAYINF REG	11/17/2008 RAYEFT REG	11/17/2008 RAYINF REG
Analytical Method: EPA 8260B												
1,1,1,2-TETRACHLOROETHANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,1,1-TRICHLOROETHANE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	0.0030	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025
1,1,2,2-TETRACHLOROETHANE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025
1,1,2-TRICHLOROETHANE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025
1,1-DICHLOROETHANE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	0.0037	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025
1,1-DICHLOROETHENE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	0.0063	ND 0.0005	0.022	ND 0.0005	ND 0.025
1,1-DICHLOROPROPENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,2,3-TRICHLOROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,2,3-TRICHLOROPROPANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,2,4-TRICHLOROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,2,4-TRIMETHYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,2-DIBROMO-3-CHLOROPROPANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,2-DIBROMOETHANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,2-DICHLOROBENZENE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.025	ND 0.0005	ND 0.025
1,2-DICHLOROETHANE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025
1,2-DICHLOROPROPANE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025
1,3,5-TRIMETHYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,3-DICHLOROBENZENE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025
1,3-DICHLOROPROPANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
1,4-DICHLOROBENZENE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025
2,2-DICHLOROPROPANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
2-BUTANONE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.010	ND 0.50
2-CHLOROETHYL VINYL ETHER	mg/l	ND 0.0010	ND 0.050	ND 0.0010	ND 0.040	ND 0.040	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.020	ND 0.010	ND 0.50
2-HEXANONE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.010	ND 0.50
4-CHLOROTOLUENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
4-METHYL-2-PENTANONE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.010	ND 0.50
ACETONE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.010	ND 0.50
BENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
BROMOBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
BROMOCHLOROMETHANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025

Notes:

ND - denotes result was below the detection limit

NT - sample not tested for the given parameter

TABLE 2
2008 GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Parameter	Date Locatio Sample Units	6/16/2008 RAYEFT REG	6/16/2008 RAYINF REG	7/9/2008 RAYEFT REG	7/9/2008 RAYINF FD	7/9/2008 RAYINF REG	9/24/2008 RAYEFT REG	9/24/2008 RAYINF REG	10/15/2008 RAYEFT REG	10/15/2008 RAYINF REG	11/17/2008 RAYEFT REG	11/17/2008 RAYINF REG
Analytical Method: EPA 8260B												
BROMODICHLOROMETHANE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025
BROMOFORM	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.010	ND 0.0010	ND 0.050
BROMOMETHANE	mg/l	ND 0.0010	ND 0.050	ND 0.0010	ND 0.040	ND 0.040	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.020	ND 0.0010	ND 0.050
CARBON DISULFIDE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
CARBON TETRACHLORIDE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025
CHLOROBENZENE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025
CHLOROETHANE	mg/l	ND 0.0010	ND 0.050	ND 0.0010	ND 0.040	ND 0.040	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.020	ND 0.0010	ND 0.050
CHLOROFORM	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025
CHLOROMETHANE	mg/l	ND 0.0010	ND 0.050	ND 0.0010	ND 0.040	ND 0.040	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.020	ND 0.0010	ND 0.050
CIS-1,2-DICHLOROETHENE	mg/l	ND 0.0005	0.92	ND 0.0005	0.66	0.71	ND 0.0005	0.064	ND 0.0005	1.2	ND 0.0005	1.6
CIS-1,3-DICHLOROPROPENE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025
DIBROMOCHLOROMETHANE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025
DIBROMOMETHANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
DICHLORODIFLUOROMETHANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0010	ND 0.050
ETHYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
FREON 113	mg/l	ND 0.0050	ND 0.25	ND 0.0050	ND 0.20	ND 0.20	ND 0.0050	ND 0.0050	ND 0.0050	ND 0.10	ND 0.0050	ND 0.25
HEXACHLOROBUTADIENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
ISOPROPYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
m,p-XYLENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
METHYL-T-BUTYL ETHER	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
METHYLENE CHLORIDE	mg/l	ND 0.0050	ND 0.25	ND 0.0050	ND 0.20	ND 0.20	ND 0.0050	ND 0.0050	ND 0.0050	ND 0.10	ND 0.0050	ND 0.25
N-BUTYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
N-PROPYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
NAPHTHALENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
o-XYLENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
PARA-ISOPROPYL TOLUENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
SEC-BUTYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
STYRENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
TERT- BUTYLBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
TETRACHLOROETHENE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025

Notes:

ND - denotes result was below the detection limit

NT - sample not tested for the given parameter

TABLE 2
2008 GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Parameter	Date Locatio Sample Units	6/16/2008 RAYEFT REG	6/16/2008 RAYINF REG	7/9/2008 RAYEFT REG	7/9/2008 RAYINF FD	7/9/2008 RAYINF REG	9/24/2008 RAYEFT REG	9/24/2008 RAYINF REG	10/15/2008 RAYEFT REG	10/15/2008 RAYINF REG	11/17/2008 RAYEFT REG	11/17/2008 RAYINF REG
Analytical Method: EPA 8260B												
TOLUENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0005	ND 0.025
TRANS-1,2-DICHLOROETHENE	mg/l	ND 0.0005	0.062	ND 0.0005	0.048	0.051	ND 0.0005	0.0006	ND 0.0005	0.092	ND 0.0005	0.089
TRANS-1,3-DICHLOROPROPENE	mg/l	ND 0.0005	ND 0.025	ND 0.0005	ND 0.020	ND 0.020	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.010	ND 0.0005	ND 0.025
TRICHLOROETHENE	mg/l	ND 0.0005	2.6	ND 0.0005	2.5	2.8	ND 0.0005	0.51	ND 0.0005	3.0	ND 0.0005	4.3
TRICHLOROFLUOROMETHANE	mg/l	ND 0.0010	ND 0.050	ND 0.0010	ND 0.040	ND 0.040	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.020	ND 0.0010	ND 0.050
VINYL ACETATE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.010	ND 0.50
VINYL CHLORIDE	mg/l	ND 0.0005	0.062	ND 0.0005	0.068	0.076	ND 0.0005	ND 0.0005	ND 0.0005	0.18	ND 0.0005	0.14
Analytical Method: EPA 8270C-SIM												
1,4-DIOXANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0009	NT
Analytical Method: EPA 8270C												
1,2,4-TRICHLOROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
1,2-DICHLOROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
1,3-DICHLOROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
1,4-DICHLOROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
2,4,5-TRICHLOROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
2,4,6-TRICHLOROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
2,4-DICHLOROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
2,4-DIMETHYLPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
2,4-DINITROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.019	NT
2,4-DINITROTOLUENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
2,6-DINITROTOLUENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
2-CHLORONAPHTHALENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
2-CHLOROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
2-METHYLNAPHTHALENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
2-METHYLPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
2-NITROANILINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.019	NT
2-NITROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.019	NT
3,3'-DICHLOROBENZIDINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.019	NT
3-NITROANILINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.019	NT
4,6-DINITRO-2-METHYLPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.019	NT

Notes:

ND - denotes result was below the detection limit

NT - sample not tested for the given parameter

TABLE 2
2008 GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Parameter	Date Locatio Sample Units	6/16/2008 RAYEFT REG	6/16/2008 RAYINF REG	7/9/2008 RAYEFT REG	7/9/2008 RAYINF FD	7/9/2008 RAYINF REG	9/24/2008 RAYEFT REG	9/24/2008 RAYINF REG	10/15/2008 RAYEFT REG	10/15/2008 RAYINF REG	11/17/2008 RAYEFT REG	11/17/2008 RAYINF REG
Analytical Method: EPA 8270C												
4-BROMOPHENYL PHENYL ETHER	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
4-CHLORO-3-METHYLPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
4-CHLOROANILINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
4-CHLOROPHENYL PHENYL ETHER	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
4-METHYLPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
4-NITROANILINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.019	NT
4-NITROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.019	NT
ACENAPHTHENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
ACENAPHTHYLENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
ANTHRACENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
AZOBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
BENZO(A)ANTHRACENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
BENZO(A)PYRENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
BENZO(B)FLUORANTHENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
BENZO(GHI)PERYLENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
BENZO(K)FLUORANTHENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
BENZOIC ACID	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.047	NT
BENZYL ALCOHOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
BIS(2-CHLOROETHOXY)METHANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
BIS(2-CHLOROETHYL)ETHER	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
BUTYL BENZYL PHTHALATE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
CHRYSENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
DI-N-BUTYL PHTHALATE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
DI-N-OCTYL PHTHALATE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
DIBENZO(A,H)ANTHRACENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
DIBENZOFURAN	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
DIETHYL PHTHALATE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
DIMETHYL PHTHALATE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
FLUORANTHENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
FLUORENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT

Notes:

ND - denotes result was below the detection limit

NT - sample not tested for the given parameter

TABLE 2
2008 GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Parameter	Date Locatio Sample Units	6/16/2008 RAYEFT REG	6/16/2008 RAYINF REG	7/9/2008 RAYEFT REG	7/9/2008 RAYINF FD	7/9/2008 RAYINF REG	9/24/2008 RAYEFT REG	9/24/2008 RAYINF REG	10/15/2008 RAYEFT REG	10/15/2008 RAYINF REG	11/17/2008 RAYEFT REG	11/17/2008 RAYINF REG
Analytical Method: EPA 8270C												
HEXACHLOROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
HEXACHLOROBUTADIENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
HEXACHLOROCYCLOPENTADIENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.019	NT
HEXACHLOROETHANE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
INDENO(1,2,3-CD)PYRENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
ISOPHORONE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
N-NITROSO-DI-N-PROPYLAMINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
N-NITROSODIMETHYLAMINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
N-NITROSODIPHENYLAMINE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
NAPHTHALENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
NITROBENZENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
PENTACHLOROPHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.019	NT
PHENANTHRENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
PHENOL	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT
PYRENE	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND 0.0094	NT

Notes:
ND - denotes result was below the detection limit
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TABLE 2
2008 GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Parameter	Date Locatio Sample Units	12/17/2008 RAYEFT REG	12/17/2008 RAYINF REG
Analytical Method: EPA 8260B			
1,1,1,2-TETRACHLOROETHANE	mg/l	NT	NT
1,1,1-TRICHLOROETHANE	mg/l	ND 0.0005	0.0029
1,1,2,2-TETRACHLOROETHANE	mg/l	ND 0.0005	ND 0.0005
1,1,2-TRICHLOROETHANE	mg/l	ND 0.0005	ND 0.0005
1,1-DICHLOROETHANE	mg/l	0.0016	0.012
1,1-DICHLOROETHENE	mg/l	ND 0.0005	0.014
1,1-DICHLOROPROPENE	mg/l	NT	NT
1,2,3-TRICHLOROBENZENE	mg/l	NT	NT
1,2,3-TRICHLOROPROPANE	mg/l	NT	NT
1,2,4-TRICHLOROBENZENE	mg/l	NT	NT
1,2,4-TRIMETHYLBENZENE	mg/l	NT	NT
1,2-DIBROMO-3-CHLOROPROPANE	mg/l	NT	NT
1,2-DIBROMOETHANE	mg/l	NT	NT
1,2-DICHLOROBENZENE	mg/l	ND 0.0005	0.016
1,2-DICHLOROETHANE	mg/l	ND 0.0005	ND 0.0005
1,2-DICHLOROPROPANE	mg/l	ND 0.0005	ND 0.0005
1,3,5-TRIMETHYLBENZENE	mg/l	NT	NT
1,3-DICHLOROBENZENE	mg/l	ND 0.0005	ND 0.0005
1,3-DICHLOROPROPANE	mg/l	NT	NT
1,4-DICHLOROBENZENE	mg/l	ND 0.0005	0.0030
2,2-DICHLOROPROPANE	mg/l	NT	NT
2-BUTANONE	mg/l	NT	NT
2-CHLOROETHYL VINYL ETHER	mg/l	ND 0.0010	ND 0.0010
2-HEXANONE	mg/l	NT	NT
4-CHLOROTOLUENE	mg/l	NT	NT
4-METHYL-2-PENTANONE	mg/l	NT	NT
ACETONE	mg/l	NT	NT
BENZENE	mg/l	NT	NT
BROMOBENZENE	mg/l	NT	NT
BROMOCHLOROMETHANE	mg/l	NT	NT

Notes:
ND - denotes result was below the detection
NT - sample not tested for the given paramet

Locus TECHNOLOGIES

TABLE 2
2008 GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Parameter	Date Locatio Sample Units	12/17/2008 RAYEFT REG	12/17/2008 RAYINF REG
Analytical Method: EPA 8260B			
BROMODICHLOROMETHANE	mg/l	ND 0.0005	ND 0.0005
BROMOFORM	mg/l	ND 0.0005	ND 0.0005
BROMOMETHANE	mg/l	ND 0.0010	ND 0.0010
CARBON DISULFIDE	mg/l	NT	NT
CARBON TETRACHLORIDE	mg/l	ND 0.0005	ND 0.0005
CHLOROBENZENE	mg/l	ND 0.0005	ND 0.0005
CHLOROETHANE	mg/l	ND 0.0010	ND 0.0010
CHLOROFORM	mg/l	ND 0.0005	ND 0.0005
CHLOROMETHANE	mg/l	ND 0.0010	ND 0.0010
CIS-1,2-DICHLOROETHENE	mg/l	ND 0.0005	0.77
CIS-1,3-DICHLOROPROPENE	mg/l	ND 0.0005	ND 0.0005
DIBROMOCHLOROMETHANE	mg/l	ND 0.0005	ND 0.0005
DIBROMOMETHANE	mg/l	NT	NT
DICHLORODIFLUOROMETHANE	mg/l	NT	NT
ETHYLBENZENE	mg/l	NT	NT
FREON 113	mg/l	ND 0.0050	0.024
HEXACHLOROBUTADIENE	mg/l	NT	NT
ISOPROPYLBENZENE	mg/l	NT	NT
m,p-XYLENE	mg/l	NT	NT
METHYL-T-BUTYL ETHER	mg/l	NT	NT
METHYLENE CHLORIDE	mg/l	ND 0.0050	ND 0.0050
N-BUTYLBENZENE	mg/l	NT	NT
N-PROPYLBENZENE	mg/l	NT	NT
NAPHTHALENE	mg/l	NT	NT
o-XYLENE	mg/l	NT	NT
PARA-ISOPROPYL TOLUENE	mg/l	NT	NT
SEC-BUTYLBENZENE	mg/l	NT	NT
STYRENE	mg/l	NT	NT
TERT- BUTYLBENZENE	mg/l	NT	NT
TETRACHLOROETHENE	mg/l	ND 0.0005	0.0054

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Locus TECHNOLOGIES

TABLE 2
2008 GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Parameter	Date Locatio Sample Units	12/17/2008 RAYEFT REG	12/17/2008 RAYINF REG
Analytical Method: EPA 8260B			
TOLUENE	mg/l	NT	NT
TRANS-1,2-DICHLOROETHENE	mg/l	ND 0.0005	0.069
TRANS-1,3-DICHLOROPROPENE	mg/l	ND 0.0005	ND 0.0005
TRICHLOROETHENE	mg/l	ND 0.0005	3.0
TRICHLOROFLUOROMETHANE	mg/l	ND 0.0010	ND 0.0010
VINYL ACETATE	mg/l	NT	NT
VINYL CHLORIDE	mg/l	ND 0.0005	0.074
Analytical Method: EPA 8270C-SIM			
1,4-DIOXANE	mg/l	NT	NT
Analytical Method: EPA 8270C			
1,2,4-TRICHLOROBENZENE	mg/l	NT	NT
1,2-DICHLOROBENZENE	mg/l	NT	NT
1,3-DICHLOROBENZENE	mg/l	NT	NT
1,4-DICHLOROBENZENE	mg/l	NT	NT
2,4,5-TRICHLOROPHENOL	mg/l	NT	NT
2,4,6-TRICHLOROPHENOL	mg/l	NT	NT
2,4-DICHLOROPHENOL	mg/l	NT	NT
2,4-DIMETHYLPHENOL	mg/l	NT	NT
2,4-DINITROPHENOL	mg/l	NT	NT
2,4-DINITROTOLUENE	mg/l	NT	NT
2,6-DINITROTOLUENE	mg/l	NT	NT
2-CHLORONAPHTHALENE	mg/l	NT	NT
2-CHLOROPHENOL	mg/l	NT	NT
2-METHYLNAPHTHALENE	mg/l	NT	NT
2-METHYLPHENOL	mg/l	NT	NT
2-NITROANILINE	mg/l	NT	NT
2-NITROPHENOL	mg/l	NT	NT
3,3'-DICHLOROBENZIDINE	mg/l	NT	NT
3-NITROANILINE	mg/l	NT	NT
4,6-DINITRO-2-METHYLPHENOL	mg/l	NT	NT

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Locus TECHNOLOGIES

TABLE 2
2008 GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Parameter	Date Locatio Sample Units	12/17/2008 RAYEFT REG	12/17/2008 RAYINF REG
Analytical Method: EPA 8270C			
4-BROMOPHENYL PHENYL ETHER	mg/l	NT	NT
4-CHLORO-3-METHYLPHENOL	mg/l	NT	NT
4-CHLOROANILINE	mg/l	NT	NT
4-CHLOROPHENYL PHENYL ETHER	mg/l	NT	NT
4-METHYLPHENOL	mg/l	NT	NT
4-NITROANILINE	mg/l	NT	NT
4-NITROPHENOL	mg/l	NT	NT
ACENAPHTHENE	mg/l	NT	NT
ACENAPHTHYLENE	mg/l	NT	NT
ANTHRACENE	mg/l	NT	NT
AZOBENZENE	mg/l	NT	NT
BENZO(A)ANTHRACENE	mg/l	NT	NT
BENZO(A)PYRENE	mg/l	NT	NT
BENZO(B)FLUORANTHENE	mg/l	NT	NT
BENZO(GHI)PERYLENE	mg/l	NT	NT
BENZO(K)FLUORANTHENE	mg/l	NT	NT
BENZOIC ACID	mg/l	NT	NT
BENZYL ALCOHOL	mg/l	NT	NT
BIS(2-CHLOROETHOXY)METHANE	mg/l	NT	NT
BIS(2-CHLOROETHYL)ETHER	mg/l	NT	NT
BUTYL BENZYL PHTHALATE	mg/l	NT	NT
CHRYSENE	mg/l	NT	NT
DI-N-BUTYL PHTHALATE	mg/l	NT	NT
DI-N-OCTYL PHTHALATE	mg/l	NT	NT
DIBENZO(A,H)ANTHRACENE	mg/l	NT	NT
DIBENZOFURAN	mg/l	NT	NT
DIETHYL PHTHALATE	mg/l	NT	NT
DIMETHYL PHTHALATE	mg/l	NT	NT
FLUORANTHENE	mg/l	NT	NT
FLUORENE	mg/l	NT	NT

Notes:
ND - denotes result was below the detection
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Locus TECHNOLOGIES

TABLE 2
2008 GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Parameter	Date Locatio Sample Units	12/17/2008 RAYEFT REG	12/17/2008 RAYINF REG
Analytical Method: EPA 8270C			
HEXACHLOROBENZENE	mg/l	NT	NT
HEXACHLOROBUTADIENE	mg/l	NT	NT
HEXACHLOROCYCLOPENTADIENE	mg/l	NT	NT
HEXACHLOROETHANE	mg/l	NT	NT
INDENO(1,2,3-CD)PYRENE	mg/l	NT	NT
ISOPHORONE	mg/l	NT	NT
N-NITROSO-DI-N-PROPYLAMINE	mg/l	NT	NT
N-NITROSODIMETHYLAMINE	mg/l	NT	NT
N-NITROSODIPHENYLAMINE	mg/l	NT	NT
NAPHTHALENE	mg/l	NT	NT
NITROBENZENE	mg/l	NT	NT
PENTACHLOROPHENOL	mg/l	NT	NT
PHENANTHRENE	mg/l	NT	NT
PHENOL	mg/l	NT	NT
PYRENE	mg/l	NT	NT

Notes:
ND - denotes result was below the detection
NT - sample not tested for the given paramet

Locus TECHNOLOGIES

TABLE 3
CUMULATIVE VOC MASS REMOVAL
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Date	VOC Concentration (mg/L)	Total Flow (gallons per month)	Mass Removed (lbs)	Cumulative Mass Removed (lbs)
10/17/1986	12.37	2,473,490	0	0
10/27/1986	6.15	2,473,490	41.73	42
10/28/1986	4.59	2,473,490	3.11	45
10/29/1986	5.10	2,473,490	3.46	48
11/5/1986	5.05	3,452,400	33.46	82
11/12/1986	5.39	3,452,400	35.74	118
12/1/1986	5.00	2,787,540	72.64	190
12/29/1986	9.51	2,787,540	203.52	394
12/31/1986	6.36	2,787,540	9.72	403
1/19/1987	6.52	1,930,153	65.58	469
1/28/1987	7.16	1,930,153	34.09	503
2/23/1987	21.70	1,206,884	186.70	690
3/2/1987	13.24	3,775,862	95.95	786
3/13/1987	9.49	3,775,862	108.07	894
4/9/1987	9.25	3,078,120	210.78	1,105
4/22/1987	8.56	3,078,120	93.92	1,198
5/8/1987	4.88	1,837,494	39.34	1,238
5/28/1987	4.02	1,837,494	40.51	1,278
6/3/1987	4.19	2,527,500	17.42	1,296
6/8/1987	4.71	2,527,500	16.32	1,312
6/17/1987	5.42	2,527,500	33.80	1,346
6/25/1987	5.69	2,527,500	31.55	1,377
7/13/1987	4.16	3,866,196	79.38	1,457
7/31/1987	5.12	3,866,196	97.69	1,554
8/13/1987	3.86	3,740,305	51.46	1,606
8/27/1987	4.95	3,740,305	71.07	1,677
5/20/1988	4.10	217,000	65.13	1,742
6/7/1988	2.90	210,000	3.01	1,745
6/28/1988	2.80	210,000	3.39	1,749
10/3/1988	3.33	442,835	39.22	1,788
12/22/1988	2.80	442,835	27.20	1,815
3/28/1989	2.40	378,200	23.89	1,839
6/20/1989	2.80	474,000	30.57	1,869
9/21/1989	2.90	447,000	33.05	1,902
12/15/1989	2.00	461,900	21.53	1,924
3/30/1990	1.90	162,967	8.91	1,933
6/29/1990	1.80	438,000	19.67	1,953
9/28/1990	2.80	213,720	14.93	1,967
12/7/1990	1.05	1,116,000	22.49	1,990
3/28/1991	0.80	1,054,000	25.73	2,016
6/18/1991	0.66	733,740	10.89	2,027
9/16/1991	0.95	673,560	15.71	2,042
12/19/1991	0.63	737,862	11.98	2,054
3/26/1992	0.36	794,437	7.77	2,062
6/26/1992	0.48	747,060	8.97	2,071
9/24/1992	4.24	706,860	73.96	2,145
12/8/1992	8.39	846,920	146.07	2,291

TABLE 3
CUMULATIVE VOC MASS REMOVAL
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Date	VOC Concentration (mg/L)	Total Flow (gallons per month)	Mass Removed (lbs)	Cumulative Mass Removed (lbs)
2/18/1993	5.93	1,011,164	118.37	2,409
3/11/1993	5.64	1,358,947	44.13	2,454
4/14/1993	4.66	1,460,100	63.43	2,517
5/25/1993	4.55	1,154,874	59.07	2,576
6/23/1993	5.24	1,353,270	56.38	2,632
7/22/1993	5.55	1,215,572	53.64	2,686
8/24/1993	6.04	1,085,279	59.31	2,745
9/23/1993	5.69	879,840	41.18	2,787
10/28/1993	6.00	877,021	50.50	2,837
11/24/1993	6.78	772,680	38.78	2,876
12/26/1993	7.48	822,988	54.01	2,930
1/13/1994	7.61	1,020,985	38.35	2,968
2/4/1994	7.47	804,160	36.23	3,004
3/4/1994	6.82	1,099,353	57.56	3,062
4/14/1994	7.19	1,035,300	83.68	3,146
5/12/1994	7.10	942,555	51.38	3,197
6/9/1994	7.11	911,880	49.77	3,247
7/14/1994	7.08	956,877	65.01	3,312
8/11/1994	5.28	1,098,640	44.53	3,356
9/15/1994	5.59	779,940	41.84	3,398
10/12/1994	5.33	877,393	34.62	3,433
11/10/1994	3.89	706,080	21.84	3,455
12/15/1994	6.10	791,926	46.36	3,501
1/6/1995	5.35	809,007	26.11	3,527
2/9/1995	4.55	975,912	41.39	3,569
3/9/1995	5.16	1,080,226	42.79	3,611
4/6/1995	5.13	967,170	38.09	3,649
5/15/1995	4.39	997,425	46.82	3,696
6/15/1995	5.04	966,390	41.40	3,738
7/13/1995	4.79	1,130,350	41.57	3,779
8/10/1995	5.54	906,720	38.56	3,818
9/18/1995	5.08	886,970	48.18	3,866
10/12/1995	5.58	830,380	30.49	3,896
11/9/1995	4.98	796,640	30.46	3,927
12/4/1995	6.23	826,780	35.31	3,962
1/31/1996	4.72	626,360	47.01	4,009
2/29/1996	5.65	705,320	31.69	4,041
3/31/1996	5.33	721,450	32.68	4,074
4/30/1996	5.56	827,560	37.85	4,111
5/23/1996	6.49	856,930	35.07	4,147
6/14/1996	4.88	1,299,060	38.24	4,185
7/11/1996	3.98	1,577,150	46.47	4,231
8/8/1996	4.43	1,068,297	36.33	4,268
9/27/1996	8.94	1,739,434	213.18	4,481
10/17/1996	6.01	2,309,683	76.12	4,557
11/17/1996	4.92	1,976,504	82.65	4,640
12/17/1996	4.33	1,704,181	60.70	4,700

TABLE 3
CUMULATIVE VOC MASS REMOVAL
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Date	VOC Concentration (mg/L)	Total Flow (gallons per month)	Mass Removed (lbs)	Cumulative Mass Removed (lbs)
1/24/1997	4.64	1,874,988	236.15	4,793
2/13/1997	4.53	2,001,712	49.72	4,843
3/18/1997	4.76	2,428,607	104.60	4,947
4/16/1997	4.16	2,136,780	70.68	5,018
5/14/1997	4.57	2,280,782	80.02	5,098
6/19/1997	4.79	2,065,358	97.65	5,196
7/16/1997	5.21	2,294,318	88.49	5,284
8/20/1997	3.15	2,117,259	64.00	5,348
9/8/1997	7.11	2,382,011	88.23	5,436
10/2/1997	5.41	2,583,099	91.96	5,528
11/12/1997	4.91	2,059,288	113.66	5,642
12/11/1997	5.43	2,335,012	100.82	5,743
1/16/1998	4.34	2,320,835	99.42	5,842
2/25/1998	4.54	2,322,241	115.63	5,958
3/25/1998	4.38	2,322,667	78.10	6,036
4/10/1998	5.92	2,125,955	55.21	6,091
5/11/1998	6.66	2,181,943	123.51	6,215
6/8/1998	5.95	2,192,143	100.13	6,315
7/9/1998	2.96	2,187,687	55.04	6,370
8/4/1998	5.65	1,909,016	76.89	6,447
9/10/1998	6.31	1,837,103	117.60	6,564
10/30/1998	5.09	2,168,118	151.29	6,716
11/3/1998	5.23	2,050,814	11.76	6,727
12/3/1998	6.37	2,036,071	106.68	6,834
1/6/1999	9.38	2,371,413	207.36	7,041
2/1/1999	8.70	1,425,421	88.40	7,130
3/3/1999	6.00	1,657,431	81.80	7,212
4/6/1999	9.90	2,160,686	199.41	7,411
5/4/1999	6.34	2,113,299	102.86	7,514
6/9/1999	4.37	2,268,609	97.85	7,612
7/6/1999	6.00	1,961,659	87.13	7,699
8/3/1999	6.00	1,934,139	89.09	7,788
9/9/1999	6.00	2,474,267	150.60	7,939
10/4/1999	6.00	1,813,012	74.56	8,013
11/2/1999	6.00	1,845,816	88.06	8,101
12/6/1999	6.00	2,262,708	126.56	8,228
1/1/2000	6.00	1,539,993	65.87	8,294
3/3/2000	1.26	1,095,810	23.42	8,317
3/8/2000	1.61	1,095,810	2.42	8,320
3/22/2000	2.56	1,095,810	10.77	8,330
3/28/2000	0.84	1,095,810	1.51	8,332
5/9/2000	1.56	1,726,160	30.93	8,363
6/5/2000	1.02	838,365	6.35	8,369
6/21/2000	1.80	838,365	6.61	8,376
8/1/2000	1.52	838,365	14.31	8,390
9/5/2000	2.82	1,619,800	43.77	8,434
10/10/2000	1.35	1,947,460	25.23	8,459
11/6/2000	8.69	1,574,200	101.24	8,560
12/1/2000	10.00	1,411,950	96.80	8,657

TABLE 3
CUMULATIVE VOC MASS REMOVAL
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Date	VOC Concentration (mg/L)	Total Flow (gallons per month)	Mass Removed (lbs)	Cumulative Mass Removed (lbs)
1/1/2001	3.80	1,080,750	34.31	8,691
2/1/2001	9.46	970,100	76.60	8,768
3/1/2001	8.01	1,182,000	79.04	8,847
4/1/2001	14.28	1,504,700	179.32	9,026
5/1/2001	9.90	937,150	77.43	9,104
6/1/2001	6.14	913,450	46.81	9,151
7/1/2001	6.80	575,185	32.64	9,183
8/1/2001	10.40	1,142,485	99.16	9,282
9/1/2001	10.00	1,107,530	92.43	9,375
10/1/2001	7.49	1,755,400	109.72	9,484
11/1/2001	7.35	1,453,700	89.17	9,574
12/1/2001	7.39	1,452,270	89.57	9,663
1/1/2002	7.48	1,706,930	106.55	9,770
2/1/2002	7.88	943,350	62.04	9,832
3/1/2002	5.95	1,039,650	51.58	9,883
4/1/2002	8.10	1,030,550	69.64	9,953
5/1/2002	7.86	1,395,950	91.57	10,045
6/1/2002	8.66	1,530,800	110.68	10,155
7/1/2002	9.55	957,600	76.32	10,232
8/1/2002	5.29	1,216,500	53.71	10,285
9/1/2002	6.21	1,310,900	67.94	10,353
10/1/2002	5.75	1,157,100	55.52	10,409
11/1/2002	8.05	1,086,575	73.00	10,482
12/1/2002	10.92	1,128,975	102.89	10,585
1/1/2003	9.99	1,355,675	113.03	10,698
2/1/2003	11.67	1,288,075	125.48	10,823
3/1/2003	11.07	1,434,490	132.55	10,956
4/1/2003	11.62	1,123,510	108.91	11,065
5/1/2003	8.48	663,730	46.95	11,112
6/1/2003	11.66	1,100,130	107.06	11,219
7/1/2003	10.78	993,850	89.41	11,308
8/1/2003	10.65	782,000	69.50	11,378
9/1/2003	4.14	1,208,490	41.75	11,419
10/1/2003	5.04	817,220	34.37	11,454
11/1/2003	-	0	0.00	11,497
12/1/2003	7.92	514,730	34.00	11,531
1/19/2004	7.17	896,910	53.67	11,585
2/24/2004	7.69	897,850	57.62	11,642
3/15/2004	7.52	922,240	57.88	11,700
4/26/2004	6.57	1,209,520	66.32	11,766
5/17/2004	7.02	1,024,285	60.01	11,826
6/21/2004	5.91	816,920	40.32	11,867
7/19/2004	3.35	586,065	16.40	11,883
8/17/2004	6.60	1,387,020	76.43	11,960
9/21/2004	6.24	1,751,543	91.15	12,051
10/19/2004	5.89	1,662,937	81.70	12,133
11/15/2004	4.10	1,343,380	46.01	12,179
12/20/2004	3.86	1,810,315	58.24	12,237

TABLE 3
CUMULATIVE VOC MASS REMOVAL
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Date	VOC Concentration (mg/L)	Total Flow (gallons per month)	Mass Removed (lbs)	Cumulative Mass Removed (lbs)
1/19/2005	5.13	1,131,215	43.96	12,281
2/23/2005	4.29	1,283,835	52.75	12,333
3/21/2005	4.99	1,593,115	60.55	12,394
4/18/2005	4.95	1,672,165	69.33	12,463
5/16/2005	4.66	1,721,575	68.65	12,532
6/20/2005	4.78	1,540,810	60.53	12,593
7/18/2005	4.53	1,480,250	57.84	12,650
8/15/2005	4.43	1,801,230	67.17	12,718
9/19/2005	4.21	1,444,838	52.27	12,770
10/19/2005	4.72	1,463,479	53.23	12,823
11/21/2005	4.19	1,603,611	60.49	12,884
12/20/2005	3.81	1,377,038	46.41	12,930
1/16/2006	3.44	1,523,394	45.77	12,976
2/7/2006	3.76	1,348,990	41.69	13,017
3/15/2006	3.49	1,074,920	32.57	13,050
4/18/2006	3.22	1,328,115	37.74	13,088
5/16/2006	5.55	1,775,355	65.85	13,154
6/27/2006	5.44	1,445,663	66.78	13,220
7/20/2006	5.35	1,806,782	66.97	13,287
8/23/2006	4.70	1,262,105	68.57	13,356
9/22/2006	5.67	1,163,583	47.35	13,403
10/19/2006	5.63	1,815,987	85.61	13,489
11/15/2006	5.82	1,617,622	77.39	13,566
12/18/2006	5.33	1,649,200	77.35	13,644
1/15/2007	4.34	1,460,498	71.85	13,715
2/21/2007	4.11	1,494,310	67.55	13,783
3/20/2007	4.11	1,650,136	69.36	13,852
4/19/2007	4.44	1,427,088	71.49	13,924
5/21/2007	4.33	1,496,597	54.85	13,979
6/21/2007	4.35	1,036,802	37.46	14,016
7/18/2007	4.04	1,166,521	41.23	14,057
8/16/2007	3.38	1,658,509	52.08	14,109
9/17/2007	4.37	1,105,795	34.99	14,144
10/15/2007	4.11	1,554,429	54.95	14,199
11/21/2007	3.99	524,276	17.95	14,217
12/26/2007	3.92	145,473	4.84	14,222
1/21/2008	5.05	1,095,626	40.15	14,262
2/18/2008	4.06	991,811	39.71	14,302
3/17/2008	4.42	1,185,466	41.53	14,344
4/16/2008	4.08	1,529,220	54.31	14,398
5/20/2008	3.79	1,074,870	35.56	14,433
6/16/2008	3.64	1,185,285	32.75	14,466
7/9/2008	3.64	507,936	15.42	14,482
9/24/2008	0.59	247,343	0.19	14,482
10/15/2008	4.47	1,387,745	40.00	14,522
11/17/2008	6.13	1,086,198	49.00	14,571
12/17/2008	3.94	1,164,878	25.00	14,596

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
100A	3/27/2008	34.13	13.89	48.02	ft
100A	8/14/2008	33.99	14.03	48.02	ft
100A	8/21/2008	33.95	14.07	48.02	ft
100A	9/17/2008	33.9	14.12	48.02	ft
100A	9/19/2008	33.88	14.14	48.02	ft
100A	9/22/2008	33.89	14.13	48.02	ft
100A	9/29/2008	33.78	14.24	48.02	ft
100A	11/20/2008	33.37	14.65	48.02	ft
101B1	3/27/2008	43.46	11.46	54.92	ft
101B1	11/20/2008	42.17	12.75	54.92	ft
106A	3/27/2008	33.88	15.39	49.27	ft
106A	8/14/2008	33.55	15.72	49.27	ft
106A	8/21/2008	33.51	15.76	49.27	ft
106A	9/17/2008	33.31	15.96	49.27	ft
106A	9/19/2008	33.3	15.97	49.27	ft
106A	9/22/2008	33.31	15.96	49.27	ft
106A	9/29/2008	33.11	16.16	49.27	ft
106A	11/20/2008	33.08	16.19	49.27	ft
114B1	3/27/2008	35.06	11.84	46.9	ft
114B1	8/14/2008	34.93	11.97	46.9	ft
114B1	8/21/2008	34.89	12.01	46.9	ft
114B1	9/17/2008	34.6	12.3	46.9	ft
114B1	9/19/2008	34.6	12.3	46.9	ft
114B1	9/22/2008	34.6	12.3	46.9	ft
114B1	9/29/2008	33.56	13.34	46.9	ft
114B1	11/20/2008	34.21	12.69	46.9	ft
132B2	3/27/2008	34.47	14.74	49.21	ft
132B2	8/14/2008	34.2	15.01	49.21	ft
132B2	8/21/2008	34.15	15.06	49.21	ft
132B2	9/17/2008	34.03	15.18	49.21	ft
132B2	9/19/2008	34.03	15.18	49.21	ft
132B2	9/22/2008	34.02	15.19	49.21	ft
132B2	9/29/2008	32.31	16.9	49.21	ft
132B2	11/20/2008	33.41	15.8	49.21	ft
134B2	3/27/2008	37.27	10.58	47.85	ft
134B2	8/14/2008	36.82	11.03	47.85	ft
134B2	8/21/2008	36.82	11.03	47.85	ft
134B2	9/17/2008	36.62	11.23	47.85	ft
134B2	9/19/2008	36.62	11.23	47.85	ft
134B2	9/22/2008	36.63	11.22	47.85	ft
134B2	9/29/2008	36.17	11.68	47.85	ft
134B2	11/20/2008	36.42	11.43	47.85	ft
145B1	3/27/2008	39.39	14.61	54	ft
145B1	11/20/2008	38.72	15.28	54	ft
156B1	3/27/2008	39.59	11.32	50.91	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
156B1	8/14/2008	39.18	11.73	50.91	ft
156B1	8/21/2008	39.15	11.76	50.91	ft
156B1	9/17/2008	38.85	12.06	50.91	ft
156B1	9/19/2008	38.87	12.04	50.91	ft
156B1	9/22/2008	38.86	12.05	50.91	ft
156B1	9/29/2008	38.59	12.32	50.91	ft
156B1	11/20/2008	37.45	13.46	50.91	ft
24A	3/27/2008	34.53	13.89	48.42	ft
24A	8/14/2008	34.2	14.22	48.42	ft
24A	8/21/2008	34.17	14.25	48.42	ft
24A	9/17/2008	34.44	13.98	48.42	ft
24A	9/19/2008	34.43	13.99	48.42	ft
24A	9/22/2008	34.43	13.99	48.42	ft
24A	9/29/2008	34.7	13.72	48.42	ft
24A	11/20/2008	33.72	14.7	48.42	ft
26A	3/27/2008	37.42	9.78	47.2	ft
26A	8/14/2008	37.21	9.99	47.2	ft
26A	8/21/2008	37.17	10.03	47.2	ft
26A	9/17/2008	37.07	10.13	47.2	ft
26A	9/19/2008	37.05	10.15	47.2	ft
26A	9/22/2008	37.06	10.14	47.2	ft
26A	9/29/2008	36.98	10.22	47.2	ft
26A	11/20/2008	36.81	10.39	47.2	ft
7B1	3/27/2008	34.33	14.28	48.61	ft
7B1	8/14/2008	34.3	14.31	48.61	ft
7B1	8/21/2008	34.28	14.33	48.61	ft
7B1	9/17/2008	33.99	14.62	48.61	ft
7B1	9/19/2008	33.96	14.65	48.61	ft
7B1	9/22/2008	34	14.61	48.61	ft
7B1	9/29/2008	32.25	16.36	48.61	ft
7B1	11/20/2008	33.41	15.2	48.61	ft
94B1	3/27/2008	34.23	13.76	47.99	ft
94B1	8/14/2008	34.72	13.27	47.99	ft
94B1	8/21/2008	34.72	13.27	47.99	ft
94B1	9/17/2008	34.46	13.53	47.99	ft
94B1	9/19/2008	34.46	13.53	47.99	ft
94B1	9/22/2008	34.45	13.54	47.99	ft
94B1	9/29/2008	33.28	14.71	47.99	ft
94B1	11/20/2008	33.94	14.05	47.99	ft
97B1	3/27/2008	34.38	14.78	49.16	ft
97B1	8/14/2008	34.34	14.82	49.16	ft
97B1	8/21/2008	34.33	14.83	49.16	ft
97B1	9/17/2008	34.06	15.1	49.16	ft
97B1	9/19/2008	34.05	15.11	49.16	ft
97B1	9/22/2008	34.06	15.1	49.16	ft
97B1	9/29/2008	32.5	16.66	49.16	ft
97B1	11/20/2008	33.41	15.75	49.16	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
98B1	3/27/2008	41.71	12.39	54.1	ft
98B1	5/22/2008	41.8	12.3	54.1	ft
98B1	8/28/2008	41.15	12.95	54.1	ft
98B1	11/20/2008	40.46	13.64	54.1	ft
99B1	3/27/2008	34.39	14.72	49.11	ft
99B1	8/14/2008	34.31	14.8	49.11	ft
99B1	8/21/2008	34.29	14.82	49.11	ft
99B1	9/17/2008	34.02	15.09	49.11	ft
99B1	9/19/2008	34.02	15.09	49.11	ft
99B1	9/22/2008	34.01	15.1	49.11	ft
99B1	9/29/2008	32.39	16.72	49.11	ft
99B1	11/20/2008	33.31	15.8	49.11	ft
C-2	3/27/2008	46.45	16.85	63.3	ft
C-2	11/20/2008	45.63	17.67	63.3	ft
C-3	3/27/2008	46.07	12.07	58.14	ft
C-3	11/20/2008	45.31	12.83	58.14	ft
EW-1	3/27/2008	35.8	21.59	57.39	ft
EW-1	11/20/2008	36.78	20.61	57.39	ft
EW-2	3/27/2008	45.57	14.47	60.04	ft
EW-2	11/20/2008	44.36	15.68	60.04	ft
EW-3	3/27/2008	45.91	13.64	59.55	ft
EW-3	11/20/2008	45.2	14.35	59.55	ft
EW-4	3/27/2008	46.28	14.55	60.83	ft
EW-4	11/20/2008	45.49	15.34	60.83	ft
I-1B2	3/27/2008	42.68	16.08	58.76	ft
I-1B2	8/14/2008	50.87	7.89	58.76	ft
I-1B2	8/21/2008	50.88	7.88	58.76	ft
I-1B2	9/17/2008	50.48	8.28	58.76	ft
I-1B2	9/19/2008	50.48	8.28	58.76	ft
I-1B2	9/22/2008	50.46	8.3	58.76	ft
I-1B2	9/29/2008	30.42	28.34	58.76	ft
I-1B2	11/20/2008	29.36	29.4	58.76	ft
IE10A	3/27/2008	45.4	14.59	59.99	ft
IE10A	5/22/2008	45.6	14.39	59.99	ft
IE10A	8/28/2008	45.2	14.79	59.99	ft
IE10A	11/20/2008	44.55	15.44	59.99	ft
IE24B1	3/27/2008	45.43	15.19	60.62	ft
IE24B1	5/22/2008	45.72	14.9	60.62	ft
IE24B1	8/28/2008	45	15.62	60.62	ft
IE24B1	11/20/2008	44.27	16.35	60.62	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
IE6A	3/27/2008	46.4	17.43	63.83	ft
IE6A	5/22/2008	46.66	17.17	63.83	ft
IE6A	8/28/2008	46.18	17.65	63.83	ft
IE6A	11/20/2008	45.41	18.42	63.83	ft
IE7A	3/27/2008	46.39	17.56	63.95	ft
IE7A	5/22/2008	46.65	17.3	63.95	ft
IE7A	8/28/2008	46.16	17.79	63.95	ft
IE7A	11/20/2008	45.4	18.55	63.95	ft
IE9A	3/27/2008	45.41	15.7	61.11	ft
IE9A	5/22/2008	45.58	15.53	61.11	ft
IE9A	8/28/2008	45.18	15.93	61.11	ft
IE9A	11/20/2008	44.51	16.6	61.11	ft
IM10B(2)	3/27/2008	53.28	6.99	60.27	ft
IM10B(2)	5/22/2008	53.62	6.65	60.27	ft
IM10B(2)	8/28/2008	52.63	7.64	60.27	ft
IM10B(2)	11/20/2008	51.06	9.21	60.27	ft
IM18A	3/27/2008	46.11	15.28	61.39	ft
IM18A	5/22/2008	46.35	15.04	61.39	ft
IM18A	8/28/2008	45.88	15.51	61.39	ft
IM18A	11/20/2008	45.13	16.26	61.39	ft
IM19A	3/27/2008	46.35	17.2	63.55	ft
IM19A	5/22/2008	46.62	16.93	63.55	ft
IM19A	8/28/2008	46.15	17.4	63.55	ft
IM19A	11/20/2008	45.4	18.15	63.55	ft
IM19B(1)	3/27/2008	46.74	16.98	63.72	ft
IM19B(1)	5/22/2008	47.1	16.62	63.72	ft
IM19B(1)	8/28/2008	46.28	17.44	63.72	ft
IM19B(1)	11/20/2008	45.32	18.4	63.72	ft
IM1A	3/27/2008	47.61	10.82	58.43	ft
IM1A	5/22/2008	47.79	10.64	58.43	ft
IM1A	8/14/2008	47.64	10.79	58.43	ft
IM1A	8/21/2008	47.58	10.85	58.43	ft
IM1A	8/28/2008	47.31	11.12	58.43	ft
IM1A	9/17/2008	47.33	11.1	58.43	ft
IM1A	9/19/2008	47.3	11.13	58.43	ft
IM1A	9/22/2008	47.28	11.15	58.43	ft
IM1A	9/29/2008	47.23	11.2	58.43	ft
IM1A	11/20/2008	46.83	11.6	58.43	ft
IM6A	3/27/2008	44.99	13.6	58.59	ft
IM6A	5/22/2008	45.22	13.37	58.59	ft
IM6A	8/28/2008	44.71	13.88	58.59	ft
IM6A	11/20/2008	44.01	14.58	58.59	ft
IM6B(1)	3/27/2008	45.12	13.87	58.99	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
IM6B(1)	5/22/2008	45.43	13.56	58.99	ft
IM6B(1)	8/28/2008	44.81	14.18	58.99	ft
IM6B(1)	11/20/2008	44.08	14.91	58.99	ft
IM7A	3/27/2008	45.9	12.62	58.52	ft
IM7A	3/27/2008	45.98	12.41	58.39	ft
IM7A	5/22/2008	46.16	12.23	58.39	ft
IM7A	8/28/2008	45.86	12.53	58.39	ft
IM7A	11/20/2008	45.1	13.42	58.52	ft
IM7A	11/20/2008	45.19	13.2	58.39	ft
IM7B(1)	3/27/2008	46.88	11.77	58.65	ft
IM7B(1)	5/22/2008	47.25	11.4	58.65	ft
IM7B(1)	8/28/2008	46.71	11.94	58.65	ft
IM7B(1)	11/20/2008	45.93	12.72	58.65	ft
IM8B(1)	3/27/2008	46.59	17.36	63.95	ft
IM8B(1)	5/22/2008	46.94	17.01	63.95	ft
IM8B(1)	8/28/2008	46.36	17.59	63.95	ft
IM8B(1)	11/20/2008	45.56	18.39	63.95	ft
IOW1A	3/27/2008	45.37	14.46	59.83	ft
IOW1A	5/22/2008	45.55	14.28	59.83	ft
IOW1A	8/28/2008	45.08	14.75	59.83	ft
IOW1A	11/20/2008	44.41	15.42	59.83	ft
IOW1B1	3/27/2008	48.29	11.55	59.84	ft
IOW1B1	5/22/2008	48.69	11.15	59.84	ft
IOW1B1	8/28/2008	47.51	12.33	59.84	ft
IOW1B1	11/20/2008	46.72	13.12	59.84	ft
IOW3A	3/27/2008	44.81	13.93	58.74	ft
IOW3A	5/22/2008	45.04	13.7	58.74	ft
IOW3A	8/28/2008	44.52	14.22	58.74	ft
IOW3A	11/20/2008	43.82	14.92	58.74	ft
IOW3B1	3/27/2008	44.64	14.11	58.75	ft
IOW3B1	5/22/2008	44.88	13.87	58.75	ft
IOW3B1	8/28/2008	44.21	14.54	58.75	ft
IOW3B1	11/20/2008	43.43	15.32	58.75	ft
ME1A	3/27/2008	45.83	12.17	58	ft
ME1A	3/27/2008	45.85	12.15	58	ft
ME1A	11/20/2008	45.04	12.96	58	ft
ME1A	11/20/2008	45.16	12.84	58	ft
ME1B1	3/27/2008	49.14	8.86	58	ft
ME1B1	11/20/2008	48.02	9.98	58	ft
PW-1	3/27/2008	46.65	16.39	63.04	ft
PW-1	5/22/2008	46.91	16.13	63.04	ft
PW-1	8/28/2008	46.36	16.68	63.04	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
PW-1	11/20/2008	43.32	19.72	63.04	ft
PW-2	3/27/2008	45.74	15.74	61.48	ft
PW-2	5/22/2008	45.96	15.52	61.48	ft
PW-2	8/28/2008	45.57	15.91	61.48	ft
PW-2	11/20/2008	44.83	16.65	61.48	ft
PW-3	3/27/2008	45.36	13.66	59.02	ft
PW-3	5/22/2008	45.05	13.97	59.02	ft
PW-3	8/28/2008	45.19	13.83	59.02	ft
PW-3	11/20/2008	44.48	14.54	59.02	ft
PW-4	3/27/2008	41.41	17.55	58.96	ft
PW-4	5/22/2008	45.68	13.28	58.96	ft
PW-4	8/28/2008	44.93	14.03	58.96	ft
PW-4	11/20/2008	44.19	14.77	58.96	ft
PW-5	3/27/2008	45.25	14.98	60.23	ft
PW-5	5/22/2008	45.54	14.69	60.23	ft
PW-5	8/28/2008	44.86	15.37	60.23	ft
PW-5	11/20/2008	44.07	16.16	60.23	ft
R10A	3/27/2008	38.14	13.69	51.83	ft
R10A	8/14/2008	37.6	14.23	51.83	ft
R10A	8/21/2008	37.57	14.26	51.83	ft
R10A	9/17/2008	37.35	14.48	51.83	ft
R10A	9/19/2008	37.33	14.5	51.83	ft
R10A	9/22/2008	37.33	14.5	51.83	ft
R10A	9/29/2008	37.2	14.63	51.83	ft
R10A	11/20/2008	37.05	14.78	51.83	ft
R14A	3/27/2008	45.73	9.68	55.41	ft
R14A	8/14/2008	45.79	9.62	55.41	ft
R14A	8/21/2008	45.73	9.68	55.41	ft
R14A	9/17/2008	45.45	9.96	55.41	ft
R14A	9/19/2008	45.43	9.98	55.41	ft
R14A	9/22/2008	45.41	10	55.41	ft
R14A	9/29/2008	45.36	10.05	55.41	ft
R14A	11/20/2008	44.94	10.47	55.41	ft
R15A	3/27/2008	46.03	10.91	56.94	ft
R15A	11/20/2008	45.31	11.63	56.94	ft
R17B2	3/27/2008	49.12	11.57	60.69	ft
R17B2	8/14/2008	51.64	9.05	60.69	ft
R17B2	8/21/2008	51.5	9.19	60.69	ft
R17B2	9/17/2008	51.09	9.6	60.69	ft
R17B2	9/19/2008	51.09	9.6	60.69	ft
R17B2	9/22/2008	51.05	9.64	60.69	ft
R17B2	9/29/2008	45.3	15.39	60.69	ft
R17B2	11/20/2008	44.92	15.77	60.69	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R18B3	3/27/2008	53.93	-2.27	51.66	ft
R18B3	11/20/2008	52.33	-0.67	51.66	ft
R1B1	3/27/2008	41.22	10.65	51.87	ft
R1B1	8/14/2008	40.84	11.03	51.87	ft
R1B1	8/21/2008	40.81	11.06	51.87	ft
R1B1	9/17/2008	40.52	11.35	51.87	ft
R1B1	9/19/2008	40.54	11.33	51.87	ft
R1B1	9/22/2008	40.52	11.35	51.87	ft
R1B1	9/29/2008	40.2	11.67	51.87	ft
R1B1	11/20/2008	40.13	11.74	51.87	ft
R20A	3/27/2008	46.05	10.95	57	ft
R20A	11/20/2008	45.32	11.68	57	ft
R21A	3/27/2008	46.78	17.37	64.15	ft
R21A	11/20/2008	45.98	18.17	64.15	ft
R22B1	3/27/2008	49.15	13.58	62.73	ft
R22B1	11/20/2008	48.17	14.56	62.73	ft
R25A	3/27/2008	44.48	14.72	59.2	ft
R25A	11/20/2008	43.85	15.35	59.2	ft
R27A	3/27/2008	34.33	13.37	47.7	ft
R27A	7/14/2008	33.5	14.2	47.7	ft
R27A	7/16/2008	33.58	14.12	47.7	ft
R27A	7/18/2008	33.67	14.03	47.7	ft
R27A	7/21/2008	33.53	14.17	47.7	ft
R27A	7/23/2008	33.5	14.2	47.7	ft
R27A	7/25/2008	33.48	14.22	47.7	ft
R27A	7/28/2008	33.42	14.28	47.7	ft
R27A	7/30/2008	33.45	14.25	47.7	ft
R27A	8/1/2008	33.49	14.21	47.7	ft
R27A	8/4/2008	33.47	14.23	47.7	ft
R27A	8/6/2008	33.49	14.21	47.7	ft
R27A	8/8/2008	33.53	14.17	47.7	ft
R27A	8/11/2008	33.52	14.18	47.7	ft
R27A	8/13/2008	33.48	14.22	47.7	ft
R27A	8/14/2008	33.33	14.37	47.7	ft
R27A	8/18/2008	33.33	14.37	47.7	ft
R27A	8/20/2008	33.32	14.38	47.7	ft
R27A	8/21/2008	33.31	14.39	47.7	ft
R27A	8/25/2008	33.37	14.33	47.7	ft
R27A	8/27/2008	33.35	14.35	47.7	ft
R27A	8/29/2008	33.31	14.39	47.7	ft
R27A	9/3/2008	33.19	14.51	47.7	ft
R27A	9/5/2008	33.15	14.55	47.7	ft
R27A	9/8/2008	33.17	14.53	47.7	ft
R27A	9/10/2008	33.16	14.54	47.7	ft
R27A	9/12/2008	33.18	14.52	47.7	ft
R27A	9/15/2008	33.15	14.55	47.7	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R27A	9/17/2008	33.16	14.54	47.7	ft
R27A	9/19/2008	33.15	14.55	47.7	ft
R27A	9/22/2008	33.17	14.53	47.7	ft
R27A	9/29/2008	36.97	10.73	47.7	ft
R27A	11/20/2008	33.17	14.53	47.7	ft
R27B2	3/27/2008	46.09	5.57	51.66	ft
R27B2	8/14/2008	46.81	4.85	51.66	ft
R27B2	8/21/2008	47.78	3.88	51.66	ft
R27B2	9/17/2008	47.79	3.87	51.66	ft
R27B2	9/19/2008	47.79	3.87	51.66	ft
R27B2	9/22/2008	47.78	3.88	51.66	ft
R27B2	9/29/2008	46.31	5.35	51.66	ft
R27B2	11/20/2008	45.99	5.67	51.66	ft
R27B3	3/27/2008	52.29	-0.92	51.37	ft
R27B3	11/20/2008	50.15	1.22	51.37	ft
R28B2	3/27/2008	54.9	2.67	57.57	ft
R28B2	8/14/2008	54.59	2.98	57.57	ft
R28B2	8/21/2008	54.53	3.04	57.57	ft
R28B2	9/17/2008	54.09	3.48	57.57	ft
R28B2	9/19/2008	54.05	3.52	57.57	ft
R28B2	9/22/2008	54.05	3.52	57.57	ft
R28B2	9/29/2008	53.03	4.54	57.57	ft
R28B2	11/20/2008	52.8	4.77	57.57	ft
R2A	3/27/2008	38.35	19.5	57.85	ft
R2A	8/14/2008	40.9	16.95	57.85	ft
R2A	8/21/2008	41.12	16.73	57.85	ft
R2A	8/25/2008	41.22	16.63	57.85	ft
R2A	9/17/2008	41.64	16.21	57.85	ft
R2A	9/19/2008	41.64	16.21	57.85	ft
R2A	9/22/2008	41.64	16.21	57.85	ft
R2A	9/29/2008	42.9	14.95	57.85	ft
R2A	11/20/2008	39.7	18.15	57.85	ft
R30B2	3/27/2008	50.18	12.82	63	ft
R30B2	11/20/2008	48.9	14.1	63	ft
R33B2	3/27/2008	48.74	7.9	56.64	ft
R33B2	11/20/2008	47.6	9.04	56.64	ft
R36A	3/27/2008	36.59	17.4	53.99	ft
R36A	8/14/2008	37.92	16.07	53.99	ft
R36A	8/21/2008	38.15	15.84	53.99	ft
R36A	8/25/2008	38.28	15.71	53.99	ft
R36A	9/17/2008	38.86	15.13	53.99	ft
R36A	9/19/2008	38.91	15.08	53.99	ft
R36A	9/22/2008	38.99	15	53.99	ft
R36A	9/29/2008	39.14	14.85	53.99	ft
R36A	11/20/2008	38.07	15.92	53.99	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R36B1	3/27/2008	46.08	12.67	58.75	ft
R36B1	11/20/2008	45.07	13.68	58.75	ft
R37B3	3/27/2008	60.17	0.35	60.52	ft
R37B3	11/20/2008	57.95	2.57	60.52	ft
R39B2	3/27/2008	47.33	3.74	51.07	ft
R39B2	7/14/2008	48.52	2.55	51.07	ft
R39B2	7/16/2008	48.69	2.38	51.07	ft
R39B2	7/18/2008	48.66	2.41	51.07	ft
R39B2	7/21/2008	48.54	2.53	51.07	ft
R39B2	7/23/2008	48.57	2.5	51.07	ft
R39B2	7/25/2008	48.56	2.51	51.07	ft
R39B2	7/28/2008	48.68	2.39	51.07	ft
R39B2	7/30/2008	48.64	2.43	51.07	ft
R39B2	8/1/2008	48.65	2.42	51.07	ft
R39B2	8/4/2008	48.63	2.44	51.07	ft
R39B2	8/6/2008	48.58	2.49	51.07	ft
R39B2	8/8/2008	48.6	2.47	51.07	ft
R39B2	8/11/2008	48.64	2.43	51.07	ft
R39B2	8/13/2008	48.61	2.46	51.07	ft
R39B2	8/14/2008	48.61	2.46	51.07	ft
R39B2	8/18/2008	48.53	2.54	51.07	ft
R39B2	8/20/2008	48.6	2.47	51.07	ft
R39B2	8/21/2008	48.6	2.47	51.07	ft
R39B2	8/25/2008	48.57	2.5	51.07	ft
R39B2	8/27/2008	48.64	2.43	51.07	ft
R39B2	8/29/2008	48.6	2.47	51.07	ft
R39B2	9/3/2008	48.62	2.45	51.07	ft
R39B2	9/5/2008	48.75	2.32	51.07	ft
R39B2	9/8/2008	48.57	2.5	51.07	ft
R39B2	9/10/2008	48.53	2.54	51.07	ft
R39B2	9/12/2008	48.56	2.51	51.07	ft
R39B2	9/15/2008	48.55	2.52	51.07	ft
R39B2	9/17/2008	48.56	2.51	51.07	ft
R39B2	9/19/2008	48.57	2.5	51.07	ft
R39B2	9/22/2008	48.55	2.52	51.07	ft
R39B2	9/29/2008	47.35	3.72	51.07	ft
R39B2	11/20/2008	46.86	4.21	51.07	ft
R3B1	3/27/2008	35.23	11.93	47.16	ft
R3B1	8/14/2008	41.35	5.81	47.16	ft
R3B1	8/15/2008	34.65	12.51	47.16	ft
R3B1	8/21/2008	34.62	12.54	47.16	ft
R3B1	9/17/2008	34.4	12.76	47.16	ft
R3B1	9/19/2008	34.39	12.77	47.16	ft
R3B1	9/22/2008	34.41	12.75	47.16	ft
R3B1	9/29/2008	32.31	14.85	47.16	ft
R3B1	11/20/2008	33.9	13.26	47.16	ft
R40B1(B2)	3/27/2008	38.72	15.34	54.06	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R40B1(B2)	7/14/2008	39.61	14.45	54.06	ft
R40B1(B2)	7/16/2008	39.73	14.33	54.06	ft
R40B1(B2)	7/18/2008	38.84	15.22	54.06	ft
R40B1(B2)	7/21/2008	38.7	15.36	54.06	ft
R40B1(B2)	7/23/2008	38.83	15.23	54.06	ft
R40B1(B2)	7/25/2008	38.73	15.33	54.06	ft
R40B1(B2)	7/28/2008	38.82	15.24	54.06	ft
R40B1(B2)	7/30/2008	38.73	15.33	54.06	ft
R40B1(B2)	8/1/2008	38.69	15.37	54.06	ft
R40B1(B2)	8/4/2008	38.66	15.4	54.06	ft
R40B1(B2)	8/6/2008	38.57	15.49	54.06	ft
R40B1(B2)	8/8/2008	38.63	15.43	54.06	ft
R40B1(B2)	8/11/2008	38.63	15.43	54.06	ft
R40B1(B2)	8/13/2008	38.6	15.46	54.06	ft
R40B1(B2)	8/14/2008	38.56	15.5	54.06	ft
R40B1(B2)	8/18/2008	38.53	15.53	54.06	ft
R40B1(B2)	8/20/2008	38.54	15.52	54.06	ft
R40B1(B2)	8/21/2008	38.55	15.51	54.06	ft
R40B1(B2)	8/25/2008	38.48	15.58	54.06	ft
R40B1(B2)	8/27/2008	38.55	15.51	54.06	ft
R40B1(B2)	8/29/2008	38.45	15.61	54.06	ft
R40B1(B2)	9/3/2008	38.79	15.27	54.06	ft
R40B1(B2)	9/5/2008	38.55	15.51	54.06	ft
R40B1(B2)	9/8/2008	38.45	15.61	54.06	ft
R40B1(B2)	9/10/2008	38.32	15.74	54.06	ft
R40B1(B2)	9/12/2008	38.44	15.62	54.06	ft
R40B1(B2)	9/15/2008	38.3	15.76	54.06	ft
R40B1(B2)	9/17/2008	38.32	15.74	54.06	ft
R40B1(B2)	9/19/2008	38.31	15.75	54.06	ft
R40B1(B2)	9/22/2008	38.3	15.76	54.06	ft
R40B1(B2)	9/29/2008	37.54	16.52	54.06	ft
R40B1(B2)	11/20/2008	37.72	16.34	54.06	ft
R41A	3/27/2008	36.59	14.41	51	ft
R41A	8/14/2008	38.39	12.61	51	ft
R41A	8/21/2008	38.58	12.42	51	ft
R41A	8/25/2008	38.69	12.31	51	ft
R41A	9/17/2008	39.08	11.92	51	ft
R41A	9/19/2008	39.09	11.91	51	ft
R41A	9/22/2008	39.1	11.9	51	ft
R41A	9/29/2008	39.33	11.67	51	ft
R41A	11/20/2008	37.93	13.07	51	ft
R41B2	3/27/2008	48.47	8.53	57	ft
R41B2	11/20/2008	47.22	9.78	57	ft
R42B1	3/27/2008	45.91	10.7	56.61	ft
R42B1	11/20/2008	45.6	11.01	56.61	ft
R44A	3/27/2008	45.88	11.78	57.66	ft
R44A	11/20/2008	45.16	12.5	57.66	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R46B1	3/27/2008	45.69	12.31	58	ft
R46B1	11/20/2008	44.75	13.25	58	ft
R48A	3/27/2008	47.05	19.81	66.86	ft
R48A	11/20/2008	46.28	20.58	66.86	ft
R50A	3/27/2008	45.53	14.9	60.43	ft
R50A	3/27/2008	45.68	14.75	60.43	ft
R50A	11/20/2008	44.46	15.97	60.43	ft
R50B2	3/27/2008	55.38	4.62	60	ft
R50B2	11/20/2008	53.28	6.72	60	ft
R51A	3/27/2008	46.23	13.77	60	ft
R51A	11/20/2008	45.48	14.52	60	ft
R51B3	3/27/2008	60.72	-0.86	59.86	ft
R51B3	11/20/2008	58.59	1.27	59.86	ft
R52A	3/27/2008	46.04	17.96	64	ft
R52A	11/20/2008	45.28	18.72	64	ft
R52B2	3/27/2008	51.02	13.22	64.24	ft
R52B2	11/20/2008	49.34	14.9	64.24	ft
R53A	3/27/2008	42.93	15.67	58.6	ft
R53A	11/20/2008	42.33	16.27	58.6	ft
R53B2	3/27/2008	62.34	1.75	64.09	ft
R53B2	11/20/2008	59.57	4.52	64.09	ft
R54A	3/27/2008	43.3	13.88	57.18	ft
R54A	11/20/2008	42.69	14.49	57.18	ft
R54B3	3/27/2008	63.91	0.61	64.52	ft
R54B3	11/20/2008	61.37	3.15	64.52	ft
R55A	3/27/2008	33.89	13.87	47.76	ft
R55A	8/14/2008	33.46	14.3	47.76	ft
R55A	8/21/2008	33.42	14.34	47.76	ft
R55A	9/17/2008	33.19	14.57	47.76	ft
R55A	9/19/2008	33.19	14.57	47.76	ft
R55A	9/22/2008	33.21	14.55	47.76	ft
R55A	9/29/2008	32.99	14.77	47.76	ft
R55A	11/20/2008	33.03	14.73	47.76	ft
R55B2	3/27/2008	54.64	9.57	64.21	ft
R55B2	11/20/2008	52.36	11.85	64.21	ft
R56B3	3/27/2008	61.22	2.91	64.13	ft
R56B3	11/20/2008	58.37	5.76	64.13	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R57A	3/27/2008	42.76	10.95	53.71	ft
R57A	8/14/2008	42.66	11.05	53.71	ft
R57A	8/21/2008	42.64	11.07	53.71	ft
R57A	9/17/2008	42.4	11.31	53.71	ft
R57A	9/19/2008	42.39	11.32	53.71	ft
R57A	9/22/2008	42.38	11.33	53.71	ft
R57A	9/29/2008	42.28	11.43	53.71	ft
R57A	11/20/2008	41.98	11.73	53.71	ft
R57B3	3/27/2008	56.29	0.71	57	ft
R57B3	11/20/2008	55.05	1.95	57	ft
R58A	3/27/2008	40.01	13.76	53.77	ft
R58A	7/14/2008	39.76	14.01	53.77	ft
R58A	7/16/2008	39.81	13.96	53.77	ft
R58A	7/18/2008	39.98	13.79	53.77	ft
R58A	7/21/2008	40.05	13.72	53.77	ft
R58A	7/23/2008	40.2	13.57	53.77	ft
R58A	7/25/2008	40.27	13.5	53.77	ft
R58A	7/28/2008	40.38	13.39	53.77	ft
R58A	7/30/2008	40.5	13.27	53.77	ft
R58A	8/1/2008	40.57	13.2	53.77	ft
R58A	8/4/2008	40.66	13.11	53.77	ft
R58A	8/6/2008	40.74	13.03	53.77	ft
R58A	8/8/2008	40.81	12.96	53.77	ft
R58A	8/11/2008	40.94	12.83	53.77	ft
R58A	8/13/2008	41.05	12.72	53.77	ft
R58A	8/14/2008	41.07	12.7	53.77	ft
R58A	8/18/2008	41.2	12.57	53.77	ft
R58A	8/20/2008	41.29	12.48	53.77	ft
R58A	8/21/2008	41.33	12.44	53.77	ft
R58A	8/25/2008	41.38	12.39	53.77	ft
R58A	8/27/2008	41.46	12.31	53.77	ft
R58A	8/29/2008	41.47	12.3	53.77	ft
R58A	9/3/2008	41.56	12.21	53.77	ft
R58A	9/5/2008	41.62	12.15	53.77	ft
R58A	9/8/2008	41.69	12.08	53.77	ft
R58A	9/10/2008	41.75	12.02	53.77	ft
R58A	9/12/2008	41.78	11.99	53.77	ft
R58A	9/15/2008	41.76	12.01	53.77	ft
R58A	9/17/2008	41.93	11.84	53.77	ft
R58A	9/19/2008	41.99	11.78	53.77	ft
R58A	9/22/2008	42.06	11.71	53.77	ft
R58A	9/29/2008	42.21	11.56	53.77	ft
R58A	11/20/2008	41.01	12.76	53.77	ft
R58B2	3/27/2008	43.98	6.6	50.58	ft
R58B2	7/14/2008	43.54	7.04	50.58	ft
R58B2	7/16/2008	43.97	6.61	50.58	ft
R58B2	7/18/2008	43.72	6.86	50.58	ft
R58B2	7/21/2008	43.62	6.96	50.58	ft
R58B2	7/23/2008	43.47	7.11	50.58	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R58B2	7/25/2008	43.4	7.18	50.58	ft
R58B2	7/28/2008	43.8	6.78	50.58	ft
R58B2	7/30/2008	43.63	6.95	50.58	ft
R58B2	8/1/2008	43.51	7.07	50.58	ft
R58B2	8/4/2008	43.37	7.21	50.58	ft
R58B2	8/6/2008	43.31	7.27	50.58	ft
R58B2	8/8/2008	43.21	7.37	50.58	ft
R58B2	8/11/2008	43.16	7.42	50.58	ft
R58B2	8/13/2008	43.09	7.49	50.58	ft
R58B2	8/14/2008	43.02	7.56	50.58	ft
R58B2	8/18/2008	43.27	7.31	50.58	ft
R58B2	8/20/2008	43.17	7.41	50.58	ft
R58B2	8/21/2008	43.12	7.46	50.58	ft
R58B2	8/25/2008	43.14	7.44	50.58	ft
R58B2	8/27/2008	43.15	7.43	50.58	ft
R58B2	8/29/2008	43.09	7.49	50.58	ft
R58B2	9/3/2008	43.1	7.48	50.58	ft
R58B2	9/5/2008	43.25	7.33	50.58	ft
R58B2	9/8/2008	43.13	7.45	50.58	ft
R58B2	9/10/2008	42.93	7.65	50.58	ft
R58B2	9/12/2008	43.01	7.57	50.58	ft
R58B2	9/15/2008	42.92	7.66	50.58	ft
R58B2	9/17/2008	42.93	7.65	50.58	ft
R58B2	9/19/2008	42.92	7.66	50.58	ft
R58B2	9/22/2008	42.92	7.66	50.58	ft
R58B2	9/29/2008	41.98	8.6	50.58	ft
R58B2	11/20/2008	42.35	8.23	50.58	ft
R59A	3/27/2008	44.7	9.99	54.69	ft
R59A	8/14/2008	44.63	10.06	54.69	ft
R59A	8/21/2008	44.59	10.1	54.69	ft
R59A	9/17/2008	44.45	10.24	54.69	ft
R59A	9/19/2008	44.41	10.28	54.69	ft
R59A	9/22/2008	44.41	10.28	54.69	ft
R59A	9/29/2008	44.37	10.32	54.69	ft
R59A	11/20/2008	44.16	10.53	54.69	ft
R59B2	3/27/2008	50.49	0.8	51.29	ft
R59B2	8/14/2008	49.96	1.33	51.29	ft
R59B2	8/21/2008	49.88	1.41	51.29	ft
R59B2	9/17/2008	49.52	1.77	51.29	ft
R59B2	9/19/2008	49.51	1.78	51.29	ft
R59B2	9/22/2008	49.51	1.78	51.29	ft
R59B2	9/29/2008	49.7	1.59	51.29	ft
R59B2	11/20/2008	48.82	2.47	51.29	ft
R5B1	3/27/2008	34.39	13.05	47.44	ft
R5B1	7/14/2008	34.81	12.63	47.44	ft
R5B1	7/16/2008	34.89	12.55	47.44	ft
R5B1	7/18/2008	34.56	12.88	47.44	ft
R5B1	7/21/2008	33.94	13.5	47.44	ft
R5B1	7/23/2008	34.48	12.96	47.44	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
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Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R5B1	7/25/2008	34.44	13	47.44	ft
R5B1	7/28/2008	34.73	12.71	47.44	ft
R5B1	7/30/2008	34.47	12.97	47.44	ft
R5B1	8/1/2008	34.41	13.03	47.44	ft
R5B1	8/4/2008	34.39	13.05	47.44	ft
R5B1	8/6/2008	34.29	13.15	47.44	ft
R5B1	8/8/2008	34.39	13.05	47.44	ft
R5B1	8/11/2008	34.36	13.08	47.44	ft
R5B1	8/13/2008	34.33	13.11	47.44	ft
R5B1	8/14/2008	34.29	13.15	47.44	ft
R5B1	8/18/2008	34.43	13.01	47.44	ft
R5B1	8/20/2008	34.27	13.17	47.44	ft
R5B1	8/21/2008	34.27	13.17	47.44	ft
R5B1	8/25/2008	34.19	13.25	47.44	ft
R5B1	8/27/2008	34.46	12.98	47.44	ft
R5B1	8/29/2008	34.17	13.27	47.44	ft
R5B1	9/3/2008	34.33	13.11	47.44	ft
R5B1	9/5/2008	34.37	13.07	47.44	ft
R5B1	9/8/2008	34.25	13.19	47.44	ft
R5B1	9/10/2008	34.05	13.39	47.44	ft
R5B1	9/12/2008	34.07	13.37	47.44	ft
R5B1	9/15/2008	34.04	13.4	47.44	ft
R5B1	9/17/2008	34.05	13.39	47.44	ft
R5B1	9/19/2008	34.05	13.39	47.44	ft
R5B1	9/22/2008	34.06	13.38	47.44	ft
R5B1	9/29/2008	32.82	14.62	47.44	ft
R5B1	11/20/2008	33.51	13.93	47.44	ft
R5B2	3/27/2008	50.39	0.07	50.46	ft
R5B2	8/14/2008	50.36	0.1	50.46	ft
R5B2	8/21/2008	50.35	0.11	50.46	ft
R5B2	9/17/2008	49.53	0.93	50.46	ft
R5B2	9/19/2008	49.54	0.92	50.46	ft
R5B2	9/22/2008	49.53	0.93	50.46	ft
R5B2	9/29/2008	48.82	1.64	50.46	ft
R5B2	11/20/2008	48.75	1.71	50.46	ft
R5B3	3/27/2008	52.65	-2.45	50.2	ft
R5B3	11/20/2008	50.87	-0.67	50.2	ft
R60A	3/27/2008	39.85	16.59	56.44	ft
R60A	8/14/2008	41.54	14.9	56.44	ft
R60A	8/21/2008	41.73	14.71	56.44	ft
R60A	8/25/2008	41.82	14.62	56.44	ft
R60A	9/17/2008	42.29	14.15	56.44	ft
R60A	9/19/2008	42.33	14.11	56.44	ft
R60A	9/22/2008	42.4	14.04	56.44	ft
R60A	9/29/2008	42.49	13.95	56.44	ft
R60A	11/20/2008	41.37	15.07	56.44	ft
R60B1	3/27/2008	50.76	7.25	58.01	ft
R60B1	7/14/2008	51	7.01	58.01	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

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Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R60B1	7/16/2008	50.96	7.05	58.01	ft
R60B1	7/18/2008	50.99	7.02	58.01	ft
R60B1	7/21/2008	50.84	7.17	58.01	ft
R60B1	7/23/2008	50.92	7.09	58.01	ft
R60B1	7/25/2008	50.88	7.13	58.01	ft
R60B1	7/28/2008	50.89	7.12	58.01	ft
R60B1	7/30/2008	50.88	7.13	58.01	ft
R60B1	8/1/2008	50.84	7.17	58.01	ft
R60B1	8/4/2008	50.8	7.21	58.01	ft
R60B1	8/6/2008	50.78	7.23	58.01	ft
R60B1	8/8/2008	50.78	7.23	58.01	ft
R60B1	8/11/2008	50.78	7.23	58.01	ft
R60B1	8/13/2008	50.73	7.28	58.01	ft
R60B1	8/14/2008	50.73	7.28	58.01	ft
R60B1	8/18/2008	50.66	7.35	58.01	ft
R60B1	8/20/2008	50.68	7.33	58.01	ft
R60B1	8/21/2008	50.71	7.3	58.01	ft
R60B1	8/25/2008	50.55	7.46	58.01	ft
R60B1	8/27/2008	50.56	7.45	58.01	ft
R60B1	8/29/2008	50.5	7.51	58.01	ft
R60B1	9/3/2008	50.51	7.5	58.01	ft
R60B1	9/5/2008	50.44	7.57	58.01	ft
R60B1	9/8/2008	50.39	7.62	58.01	ft
R60B1	9/10/2008	50.32	7.69	58.01	ft
R60B1	9/12/2008	50.29	7.72	58.01	ft
R60B1	9/15/2008	50.28	7.73	58.01	ft
R60B1	9/17/2008	50.28	7.73	58.01	ft
R60B1	9/19/2008	50.27	7.74	58.01	ft
R60B1	9/22/2008	50.25	7.76	58.01	ft
R60B1	9/29/2008	50.01	8	58.01	ft
R60B1	11/20/2008	49.57	8.44	58.01	ft
R61B3	3/27/2008	59.06	-0.65	58.41	ft
R61B3	11/20/2008	57.09	1.32	58.41	ft
R62A	3/27/2008	36.78	10.81	47.59	ft
R62A	7/14/2008	36.56	11.03	47.59	ft
R62A	7/16/2008	36.56	11.03	47.59	ft
R62A	7/18/2008	36.61	10.98	47.59	ft
R62A	7/21/2008	36.57	11.02	47.59	ft
R62A	7/23/2008	36.58	11.01	47.59	ft
R62A	7/25/2008	36.59	11	47.59	ft
R62A	7/28/2008	36.59	11	47.59	ft
R62A	7/30/2008	36.58	11.01	47.59	ft
R62A	8/1/2008	36.59	11	47.59	ft
R62A	8/4/2008	36.57	11.02	47.59	ft
R62A	8/6/2008	36.56	11.03	47.59	ft
R62A	8/8/2008	36.56	11.03	47.59	ft
R62A	8/11/2008	36.55	11.04	47.59	ft
R62A	8/13/2008	36.57	11.02	47.59	ft
R62A	8/14/2008	36.54	11.05	47.59	ft
R62A	8/18/2008	36.54	11.05	47.59	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

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Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R62A	8/20/2008	36.54	11.05	47.59	ft
R62A	8/21/2008	36.54	11.05	47.59	ft
R62A	8/25/2008	36.55	11.04	47.59	ft
R62A	8/27/2008	36.5	11.09	47.59	ft
R62A	8/29/2008	36.46	11.13	47.59	ft
R62A	9/3/2008	36.42	11.17	47.59	ft
R62A	9/5/2008	36.44	11.15	47.59	ft
R62A	9/8/2008	36.43	11.16	47.59	ft
R62A	9/10/2008	36.39	11.2	47.59	ft
R62A	9/12/2008	36.4	11.19	47.59	ft
R62A	9/15/2008	36.4	11.19	47.59	ft
R62A	9/17/2008	36.41	11.18	47.59	ft
R62A	9/19/2008	36.42	11.17	47.59	ft
R62A	9/22/2008	36.41	11.18	47.59	ft
R62A	9/29/2008	36.28	11.31	47.59	ft
R62A	11/20/2008	36.14	11.45	47.59	ft
R62B2	3/27/2008	54.78	2.13	56.91	ft
R62B2	7/14/2008	55.04	1.87	56.91	ft
R62B2	7/16/2008	55.27	1.64	56.91	ft
R62B2	7/18/2008	55.07	1.84	56.91	ft
R62B2	7/21/2008	55.68	1.23	56.91	ft
R62B2	7/23/2008	54.89	2.02	56.91	ft
R62B2	7/25/2008	54.84	2.07	56.91	ft
R62B2	7/28/2008	54.86	2.05	56.91	ft
R62B2	7/30/2008	54.81	2.1	56.91	ft
R62B2	8/1/2008	54.77	2.14	56.91	ft
R62B2	8/4/2008	54.71	2.2	56.91	ft
R62B2	8/6/2008	54.66	2.25	56.91	ft
R62B2	8/8/2008	54.63	2.28	56.91	ft
R62B2	8/11/2008	54.6	2.31	56.91	ft
R62B2	8/13/2008	54.54	2.37	56.91	ft
R62B2	8/14/2008	54.56	2.35	56.91	ft
R62B2	8/18/2008	54.49	2.42	56.91	ft
R62B2	8/20/2008	54.47	2.44	56.91	ft
R62B2	8/21/2008	54.48	2.43	56.91	ft
R62B2	8/25/2008	54.34	2.57	56.91	ft
R62B2	8/27/2008	54.4	2.51	56.91	ft
R62B2	8/29/2008	54.35	2.56	56.91	ft
R62B2	9/3/2008	54.38	2.53	56.91	ft
R62B2	9/5/2008	54.41	2.5	56.91	ft
R62B2	9/8/2008	54.19	2.72	56.91	ft
R62B2	9/10/2008	54.13	2.78	56.91	ft
R62B2	9/12/2008	54.14	2.77	56.91	ft
R62B2	9/15/2008	54.08	2.83	56.91	ft
R62B2	9/17/2008	54.05	2.86	56.91	ft
R62B2	9/19/2008	54.02	2.89	56.91	ft
R62B2	9/22/2008	54	2.91	56.91	ft
R62B2	9/29/2008	53	3.91	56.91	ft
R62B2	11/20/2008	52.79	4.12	56.91	ft
R63A	3/27/2008	39.87	18.46	58.33	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

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Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R63A	7/14/2008	39.91	18.42	58.33	ft
R63A	7/16/2008	39.94	18.39	58.33	ft
R63A	7/18/2008	40.06	18.27	58.33	ft
R63A	7/21/2008	40.15	18.18	58.33	ft
R63A	7/23/2008	40.27	18.06	58.33	ft
R63A	7/25/2008	40.36	17.97	58.33	ft
R63A	7/28/2008	40.5	17.83	58.33	ft
R63A	7/30/2008	40.53	17.8	58.33	ft
R63A	8/1/2008	40.63	17.7	58.33	ft
R63A	8/4/2008	40.73	17.6	58.33	ft
R63A	8/6/2008	40.78	17.55	58.33	ft
R63A	8/8/2008	40.87	17.46	58.33	ft
R63A	8/11/2008	41.02	17.31	58.33	ft
R63A	8/13/2008	41.07	17.26	58.33	ft
R63A	8/14/2008	41.13	17.2	58.33	ft
R63A	8/18/2008	41.22	17.11	58.33	ft
R63A	8/20/2008	41.27	17.06	58.33	ft
R63A	8/21/2008	41.36	16.97	58.33	ft
R63A	8/25/2008	41.43	16.9	58.33	ft
R63A	8/27/2008	41.5	16.83	58.33	ft
R63A	8/29/2008	41.59	16.74	58.33	ft
R63A	9/3/2008	41.7	16.63	58.33	ft
R63A	9/5/2008	41.76	16.57	58.33	ft
R63A	9/8/2008	41.83	16.5	58.33	ft
R63A	9/10/2008	41.84	16.49	58.33	ft
R63A	9/12/2008	41.91	16.42	58.33	ft
R63A	9/15/2008	42.01	16.32	58.33	ft
R63A	9/17/2008	42.08	16.25	58.33	ft
R63A	9/19/2008	42.11	16.22	58.33	ft
R63A	9/22/2008	42.18	16.15	58.33	ft
R63A	9/29/2008	42.35	15.98	58.33	ft
R63A	11/20/2008	41.36	16.97	58.33	ft
R63B1	3/27/2008	39.62	16.9	56.52	ft
R63B1	8/14/2008	41.16	15.36	56.52	ft
R63B1	8/21/2008	41.99	14.53	56.52	ft
R63B1	8/25/2008	41.86	14.66	56.52	ft
R63B1	9/17/2008	42.26	14.26	56.52	ft
R63B1	9/19/2008	42.32	14.2	56.52	ft
R63B1	9/22/2008	42.4	14.12	56.52	ft
R63B1	9/29/2008	42.36	14.16	56.52	ft
R63B1	11/20/2008	46.27	10.25	56.52	ft
R64B1	3/27/2008	47.35	9.3	56.65	ft
R64B1	8/14/2008	47.13	9.52	56.65	ft
R64B1	8/21/2008	47.12	9.53	56.65	ft
R64B1	9/17/2008	46.78	9.87	56.65	ft
R64B1	9/19/2008	46.77	9.88	56.65	ft
R64B1	9/22/2008	46.74	9.91	56.65	ft
R64B1	9/29/2008	46.52	10.13	56.65	ft
R64B1	11/20/2008	46.33	10.32	56.65	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

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Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R65B1(B2)	3/27/2008	50.35	2.65	53	ft
R65B1(B2)	7/14/2008	53.48	-0.48	53	ft
R65B1(B2)	7/16/2008	53.48	-0.48	53	ft
R65B1(B2)	7/18/2008	53.48	-0.48	53	ft
R65B1(B2)	7/21/2008	53.48	-0.48	53	ft
R65B1(B2)	7/23/2008	53.48	-0.48	53	ft
R65B1(B2)	7/25/2008	53.48	-0.48	53	ft
R65B1(B2)	7/28/2008	53.48	-0.48	53	ft
R65B1(B2)	7/30/2008	53.48	-0.48	53	ft
R65B1(B2)	8/1/2008	53.48	-0.48	53	ft
R65B1(B2)	8/4/2008	53.46	-0.46	53	ft
R65B1(B2)	8/6/2008	53.48	-0.48	53	ft
R65B1(B2)	8/8/2008	53.48	-0.48	53	ft
R65B1(B2)	8/11/2008	53.48	-0.48	53	ft
R65B1(B2)	8/13/2008	53.48	-0.48	53	ft
R65B1(B2)	8/14/2008	53.48	-0.48	53	ft
R65B1(B2)	8/18/2008	53.48	-0.48	53	ft
R65B1(B2)	8/20/2008	53.46	-0.46	53	ft
R65B1(B2)	8/21/2008	53.47	-0.47	53	ft
R65B1(B2)	8/25/2008	53.46	-0.46	53	ft
R65B1(B2)	8/27/2008	53.05	-0.05	53	ft
R65B1(B2)	8/29/2008	53.47	-0.47	53	ft
R65B1(B2)	9/3/2008	53.5	-0.5	53	ft
R65B1(B2)	9/5/2008	53.52	-0.52	53	ft
R65B1(B2)	9/8/2008	53.51	-0.51	53	ft
R65B1(B2)	9/10/2008	53.51	-0.51	53	ft
R65B1(B2)	9/12/2008	53.51	-0.51	53	ft
R65B1(B2)	9/15/2008	53.5	-0.5	53	ft
R65B1(B2)	9/17/2008	52.89	0.11	53	ft
R65B1(B2)	9/19/2008	52.88	0.12	53	ft
R65B1(B2)	9/22/2008	52.88	0.12	53	ft
R65B1(B2)	9/29/2008	48.63	4.37	53	ft
R65B1(B2)	11/20/2008	48.18	4.82	53	ft
R66B1	3/27/2008	36.87	11.85	48.72	ft
R66B1	8/14/2008	38.82	9.9	48.72	ft
R66B1	8/21/2008	39.05	9.67	48.72	ft
R66B1	8/25/2008	39.14	9.58	48.72	ft
R66B1	9/17/2008	39.55	9.17	48.72	ft
R66B1	9/19/2008	39.56	9.16	48.72	ft
R66B1	9/22/2008	39.54	9.18	48.72	ft
R66B1	9/29/2008	39.61	9.11	48.72	ft
R66B1	11/20/2008	37.93	10.79	48.72	ft
R67A	3/27/2008	40.02	17.56	57.58	ft
R67A	8/14/2008	41.27	16.31	57.58	ft
R67A	8/21/2008	41.51	16.07	57.58	ft
R67A	8/25/2008	41.63	15.95	57.58	ft
R67A	9/17/2008	42.23	15.35	57.58	ft
R67A	9/19/2008	42.27	15.31	57.58	ft
R67A	9/22/2008	42.36	15.22	57.58	ft
R67A	9/29/2008	42.5	15.08	57.58	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

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RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R67A	11/20/2008	41.52	16.06	57.58	ft
R67B1	3/27/2008	36.95	12.11	49.06	ft
R67B1	7/14/2008	37.29	11.77	49.06	ft
R67B1	7/16/2008	37.65	11.41	49.06	ft
R67B1	7/18/2008	37.93	11.13	49.06	ft
R67B1	7/21/2008	37.99	11.07	49.06	ft
R67B1	7/23/2008	38.18	10.88	49.06	ft
R67B1	7/25/2008	38.25	10.81	49.06	ft
R67B1	7/28/2008	38.36	10.7	49.06	ft
R67B1	7/30/2008	38.47	10.59	49.06	ft
R67B1	8/1/2008	38.53	10.53	49.06	ft
R67B1	8/4/2008	38.6	10.46	49.06	ft
R67B1	8/6/2008	38.64	10.42	49.06	ft
R67B1	8/8/2008	38.75	10.31	49.06	ft
R67B1	8/11/2008	38.87	10.19	49.06	ft
R67B1	8/13/2008	38.92	10.14	49.06	ft
R67B1	8/14/2008	38.89	10.17	49.06	ft
R67B1	8/18/2008	39.02	10.04	49.06	ft
R67B1	8/20/2008	39.11	9.95	49.06	ft
R67B1	8/21/2008	39.14	9.92	49.06	ft
R67B1	8/25/2008	39.19	9.87	49.06	ft
R67B1	8/27/2008	39.21	9.85	49.06	ft
R67B1	8/29/2008	39.29	9.77	49.06	ft
R67B1	9/3/2008	39.35	9.71	49.06	ft
R67B1	9/5/2008	39.41	9.65	49.06	ft
R67B1	9/8/2008	39.46	9.6	49.06	ft
R67B1	9/10/2008	39.48	9.58	49.06	ft
R67B1	9/12/2008	39.49	9.57	49.06	ft
R67B1	9/15/2008	39.45	9.61	49.06	ft
R67B1	9/17/2008	39.43	9.63	49.06	ft
R67B1	9/19/2008	39.43	9.63	49.06	ft
R67B1	9/22/2008	39.41	9.65	49.06	ft
R67B1	9/29/2008	39.68	9.38	49.06	ft
R67B1	11/20/2008	37.93	11.13	49.06	ft
R68A	3/27/2008	39.28	18.16	57.44	ft
R68A	7/14/2008	39.54	17.9	57.44	ft
R68A	7/16/2008	39.79	17.65	57.44	ft
R68A	7/18/2008	40.02	17.42	57.44	ft
R68A	7/21/2008	40.18	17.26	57.44	ft
R68A	7/23/2008	40.32	17.12	57.44	ft
R68A	7/25/2008	40.44	17	57.44	ft
R68A	7/28/2008	40.58	16.86	57.44	ft
R68A	7/30/2008	40.66	16.78	57.44	ft
R68A	8/1/2008	40.75	16.69	57.44	ft
R68A	8/4/2008	40.84	16.6	57.44	ft
R68A	8/6/2008	40.88	16.56	57.44	ft
R68A	8/8/2008	41.95	15.49	57.44	ft
R68A	8/11/2008	41.03	16.41	57.44	ft
R68A	8/13/2008	41.08	16.36	57.44	ft
R68A	8/14/2008	41.08	16.36	57.44	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R68A	8/18/2008	41.22	16.22	57.44	ft
R68A	8/20/2008	41.28	16.16	57.44	ft
R68A	8/21/2008	41.28	16.16	57.44	ft
R68A	8/25/2008	41.43	16.01	57.44	ft
R68A	8/27/2008	41.44	16	57.44	ft
R68A	8/29/2008	41.48	15.96	57.44	ft
R68A	9/3/2008	41.55	15.89	57.44	ft
R68A	9/5/2008	41.6	15.84	57.44	ft
R68A	9/8/2008	41.66	15.78	57.44	ft
R68A	9/10/2008	41.72	15.72	57.44	ft
R68A	9/12/2008	41.72	15.72	57.44	ft
R68A	9/15/2008	41.79	15.65	57.44	ft
R68A	9/17/2008	41.79	15.65	57.44	ft
R68A	9/19/2008	41.79	15.65	57.44	ft
R68A	9/22/2008	41.8	15.64	57.44	ft
R68A	9/29/2008	42.05	15.39	57.44	ft
R68A	11/20/2008	40.63	16.81	57.44	ft
R68B1	3/27/2008	39.46	17.5	56.96	ft
R68B1	7/14/2008	39.77	17.19	56.96	ft
R68B1	7/16/2008	40.12	16.84	56.96	ft
R68B1	7/18/2008	40.41	16.55	56.96	ft
R68B1	7/21/2008	40.46	16.5	56.96	ft
R68B1	7/23/2008	40.64	16.32	56.96	ft
R68B1	7/25/2008	40.7	16.26	56.96	ft
R68B1	7/28/2008	40.82	16.14	56.96	ft
R68B1	7/30/2008	40.93	16.03	56.96	ft
R68B1	8/1/2008	40.99	15.97	56.96	ft
R68B1	8/4/2008	41.07	15.89	56.96	ft
R68B1	8/6/2008	41.12	15.84	56.96	ft
R68B1	8/8/2008	41.2	15.76	56.96	ft
R68B1	8/11/2008	41.34	15.62	56.96	ft
R68B1	8/13/2008	41.39	15.57	56.96	ft
R68B1	8/14/2008	41.4	15.56	56.96	ft
R68B1	8/18/2008	41.5	15.46	56.96	ft
R68B1	8/20/2008	41.6	15.36	56.96	ft
R68B1	8/21/2008	41.65	15.31	56.96	ft
R68B1	8/25/2008	41.68	15.28	56.96	ft
R68B1	8/27/2008	41.71	15.25	56.96	ft
R68B1	8/29/2008	41.79	15.17	56.96	ft
R68B1	9/3/2008	41.82	15.14	56.96	ft
R68B1	9/5/2008	41.89	15.07	56.96	ft
R68B1	9/8/2008	41.89	15.07	56.96	ft
R68B1	9/10/2008	41.97	14.99	56.96	ft
R68B1	9/12/2008	41.99	14.97	56.96	ft
R68B1	9/15/2008	42.07	14.89	56.96	ft
R68B1	9/17/2008	42.11	14.85	56.96	ft
R68B1	9/19/2008	42.17	14.79	56.96	ft
R68B1	9/22/2008	42.23	14.73	56.96	ft
R68B1	9/29/2008			56.96	ft
R68B1	11/20/2008	40.5	16.46	56.96	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R68B2	3/27/2008	55.33	-0.42	54.91	ft
R68B2	8/14/2008	53.34	1.57	54.91	ft
R68B2	8/21/2008	53.51	1.4	54.91	ft
R68B2	9/17/2008	53.41	1.5	54.91	ft
R68B2	9/19/2008	53.4	1.51	54.91	ft
R68B2	9/22/2008	53.4	1.51	54.91	ft
R68B2	9/29/2008	53.39	1.52	54.91	ft
R68B2	11/20/2008	53.06	1.85	54.91	ft
R69A	3/28/2008	37.77	18.45	56.22	ft
R69A	8/14/2008	40.86	15.36	56.22	ft
R69A	8/21/2008	41.06	15.16	56.22	ft
R69A	8/25/2008	41.16	15.06	56.22	ft
R69A	9/17/2008	41.52	14.7	56.22	ft
R69A	9/19/2008	41.52	14.7	56.22	ft
R69A	9/22/2008	41.51	14.71	56.22	ft
R69A	9/29/2008	41.81	14.41	56.22	ft
R69A	11/20/2008	38.89	17.33	56.22	ft
R69B1	3/27/2008	39.5	17.78	57.28	ft
R69B1	7/14/2008	39.83	17.45	57.28	ft
R69B1	7/16/2008	40.21	17.07	57.28	ft
R69B1	7/18/2008	40.5	16.78	57.28	ft
R69B1	7/21/2008	40.56	16.72	57.28	ft
R69B1	7/23/2008	40.72	16.56	57.28	ft
R69B1	7/25/2008	40.83	16.45	57.28	ft
R69B1	7/28/2008	40.94	16.34	57.28	ft
R69B1	7/30/2008	41.05	16.23	57.28	ft
R69B1	8/1/2008	41.11	16.17	57.28	ft
R69B1	8/4/2008	41.19	16.09	57.28	ft
R69B1	8/6/2008	41.22	16.06	57.28	ft
R69B1	8/8/2008	41.32	15.96	57.28	ft
R69B1	8/11/2008	41.44	15.84	57.28	ft
R69B1	8/13/2008	41.48	15.8	57.28	ft
R69B1	8/14/2008	41.48	15.8	57.28	ft
R69B1	8/18/2008	41.61	15.67	57.28	ft
R69B1	8/20/2008	41.69	15.59	57.28	ft
R69B1	8/21/2008	41.72	15.56	57.28	ft
R69B1	8/25/2008	41.77	15.51	57.28	ft
R69B1	8/27/2008	41.81	15.47	57.28	ft
R69B1	8/29/2008	41.88	15.4	57.28	ft
R69B1	9/3/2008	41.92	15.36	57.28	ft
R69B1	9/5/2008	42	15.28	57.28	ft
R69B1	9/8/2008	42.07	15.21	57.28	ft
R69B1	9/10/2008	42.05	15.23	57.28	ft
R69B1	9/12/2008	42.09	15.19	57.28	ft
R69B1	9/15/2008	42.16	15.12	57.28	ft
R69B1	9/17/2008	42.18	15.1	57.28	ft
R69B1	9/19/2008	42.17	15.11	57.28	ft
R69B1	9/22/2008	42.19	15.09	57.28	ft
R69B1	9/29/2008			57.28	ft
R69B1	11/20/2008	40.58	16.7	57.28	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R69B2	3/27/2008	48.24	6.61	54.85	ft
R69B2	7/14/2008	48.36	6.49	54.85	ft
R69B2	7/16/2008	48.78	6.07	54.85	ft
R69B2	7/18/2008	48.94	5.91	54.85	ft
R69B2	7/21/2008	48.95	5.9	54.85	ft
R69B2	7/23/2008	49.03	5.82	54.85	ft
R69B2	7/25/2008	49.02	5.83	54.85	ft
R69B2	7/28/2008	49.03	5.82	54.85	ft
R69B2	7/30/2008	49.01	5.84	54.85	ft
R69B2	8/1/2008	49.03	5.82	54.85	ft
R69B2	8/4/2008	49.01	5.84	54.85	ft
R69B2	8/6/2008	49.02	5.83	54.85	ft
R69B2	8/8/2008	49.01	5.84	54.85	ft
R69B2	8/11/2008	49.09	5.76	54.85	ft
R69B2	8/13/2008	49.08	5.77	54.85	ft
R69B2	8/14/2008	49.08	5.77	54.85	ft
R69B2	8/18/2008	49.1	5.75	54.85	ft
R69B2	8/20/2008	49.17	5.68	54.85	ft
R69B2	8/21/2008	49.13	5.72	54.85	ft
R69B2	8/25/2008	47.84	7.01	54.85	ft
R69B2	8/27/2008	49.18	5.67	54.85	ft
R69B2	8/29/2008	49.13	5.72	54.85	ft
R69B2	9/3/2008	49.1	5.75	54.85	ft
R69B2	9/5/2008	49.11	5.74	54.85	ft
R69B2	9/8/2008	49.08	5.77	54.85	ft
R69B2	9/10/2008	49.08	5.77	54.85	ft
R69B2	9/12/2008	49.09	5.76	54.85	ft
R69B2	9/15/2008	49.08	5.77	54.85	ft
R69B2	9/17/2008	49.08	5.77	54.85	ft
R69B2	9/19/2008	49.08	5.77	54.85	ft
R69B2	9/22/2008	49.07	5.78	54.85	ft
R69B2	9/29/2008	48.84	6.01	54.85	ft
R69B2	11/20/2008	48.48	6.37	54.85	ft
R6A	3/27/2008	46.47	9.17	55.64	ft
R6A	7/14/2008	46.68	8.96	55.64	ft
R6A	7/16/2008	46.64	9	55.64	ft
R6A	7/18/2008	46.71	8.93	55.64	ft
R6A	7/21/2008	46.59	9.05	55.64	ft
R6A	7/23/2008	46.66	8.98	55.64	ft
R6A	7/25/2008	46.63	9.01	55.64	ft
R6A	7/28/2008	46.61	9.03	55.64	ft
R6A	7/30/2008	46.63	9.01	55.64	ft
R6A	8/1/2008	46.59	9.05	55.64	ft
R6A	8/4/2008	46.54	9.1	55.64	ft
R6A	8/6/2008	46.54	9.1	55.64	ft
R6A	8/8/2008	46.53	9.11	55.64	ft
R6A	8/11/2008	46.57	9.07	55.64	ft
R6A	8/13/2008	46.53	9.11	55.64	ft
R6A	8/14/2008	46.54	9.1	55.64	ft
R6A	8/18/2008	46.44	9.2	55.64	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R6A	8/20/2008	46.47	9.17	55.64	ft
R6A	8/21/2008	46.5	9.14	55.64	ft
R6A	8/25/2008	46.4	9.24	55.64	ft
R6A	8/27/2008	46.39	9.25	55.64	ft
R6A	8/29/2008	46.37	9.27	55.64	ft
R6A	9/3/2008	46.31	9.33	55.64	ft
R6A	9/5/2008	46.29	9.35	55.64	ft
R6A	9/8/2008	46.24	9.4	55.64	ft
R6A	9/10/2008	46.21	9.43	55.64	ft
R6A	9/12/2008	46.2	9.44	55.64	ft
R6A	9/15/2008	46.17	9.47	55.64	ft
R6A	9/17/2008	46.14	9.5	55.64	ft
R6A	9/19/2008	46.12	9.52	55.64	ft
R6A	9/22/2008	46.07	9.57	55.64	ft
R6A	9/29/2008	46.01	9.63	55.64	ft
R6A	11/20/2008	45.57	10.07	55.64	ft
R70A	3/27/2008	38.88	18.45	57.33	ft
R70A	8/14/2008	41.15	16.18	57.33	ft
R70A	8/21/2008	41.37	15.96	57.33	ft
R70A	8/25/2008	41.48	15.85	57.33	ft
R70A	9/17/2008	41.88	15.45	57.33	ft
R70A	9/19/2008	41.88	15.45	57.33	ft
R70A	9/22/2008	41.87	15.46	57.33	ft
R70A	9/29/2008			57.33	ft
R70A	11/20/2008	40.13	17.2	57.33	ft
R70B1	3/27/2008	39.66	16.59	56.25	ft
R70B1	8/14/2008	41.64	14.61	56.25	ft
R70B1	8/21/2008	41.86	14.39	56.25	ft
R70B1	8/25/2008	41.92	14.33	56.25	ft
R70B1	9/17/2008	42.29	13.96	56.25	ft
R70B1	9/19/2008	42.29	13.96	56.25	ft
R70B1	9/22/2008	42.3	13.95	56.25	ft
R70B1	9/29/2008	42.4	13.85	56.25	ft
R70B1	11/20/2008	40.65	15.6	56.25	ft
R70B2	3/27/2008	47.3	7.38	54.68	ft
R70B2	8/14/2008	47.09	7.59	54.68	ft
R70B2	8/21/2008	47.06	7.62	54.68	ft
R70B2	9/17/2008	46.8	7.88	54.68	ft
R70B2	9/19/2008	46.8	7.88	54.68	ft
R70B2	9/22/2008	46.79	7.89	54.68	ft
R70B2	9/29/2008	46.49	8.19	54.68	ft
R70B2	11/20/2008	46.35	8.33	54.68	ft
R71A	3/27/2008	38.3	16.23	54.53	ft
R71A	8/14/2008	40.95	13.58	54.53	ft
R71A	8/21/2008	41.12	13.41	54.53	ft
R71A	8/25/2008	41.2	13.33	54.53	ft
R71A	9/17/2008	41.65	12.88	54.53	ft
R71A	9/19/2008	41.64	12.89	54.53	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R71A	9/22/2008	41.66	12.87	54.53	ft
R71A	9/29/2008	41.9	12.63	54.53	ft
R71A	11/20/2008	39.78	14.75	54.53	ft
R71B2	3/27/2008	51.94	5.51	57.45	ft
R71B2	8/14/2008	52.05	5.4	57.45	ft
R71B2	8/21/2008	52.02	5.43	57.45	ft
R71B2	9/17/2008	51.56	5.89	57.45	ft
R71B2	9/19/2008	51.55	5.9	57.45	ft
R71B2	9/22/2008	51.52	5.93	57.45	ft
R71B2	9/29/2008	50.9	6.55	57.45	ft
R71B2	11/20/2008	50.52	6.93	57.45	ft
R72A	3/27/2008	37.7	18.77	56.47	ft
R72A	8/14/2008	39.44	17.03	56.47	ft
R72A	8/21/2008	40.4	16.07	56.47	ft
R72A	8/25/2008	40.48	15.99	56.47	ft
R72A	9/17/2008	40.97	15.5	56.47	ft
R72A	9/19/2008	41.05	15.42	56.47	ft
R72A	9/22/2008	41.11	15.36	56.47	ft
R72A	9/29/2008	41.23	15.24	56.47	ft
R72A	11/20/2008	39.6	16.87	56.47	ft
R72B2	3/27/2008	47.71	9.4	57.11	ft
R72B2	7/14/2008	48.4	8.71	57.11	ft
R72B2	7/16/2008	48.59	8.52	57.11	ft
R72B2	7/18/2008	48.68	8.43	57.11	ft
R72B2	7/21/2008	48.62	8.49	57.11	ft
R72B2	7/23/2008	48.7	8.41	57.11	ft
R72B2	7/25/2008	48.69	8.42	57.11	ft
R72B2	7/28/2008	48.73	8.38	57.11	ft
R72B2	7/30/2008	48.75	8.36	57.11	ft
R72B2	8/1/2008	48.78	8.33	57.11	ft
R72B2	8/4/2008	48.76	8.35	57.11	ft
R72B2	8/6/2008	48.75	8.36	57.11	ft
R72B2	8/8/2008	48.78	8.33	57.11	ft
R72B2	8/11/2008	48.82	8.29	57.11	ft
R72B2	8/13/2008	48.81	8.3	57.11	ft
R72B2	8/14/2008	48.82	8.29	57.11	ft
R72B2	8/18/2008	48.83	8.28	57.11	ft
R72B2	8/20/2008	48.83	8.28	57.11	ft
R72B2	8/21/2008	48.88	8.23	57.11	ft
R72B2	8/25/2008	48.8	8.31	57.11	ft
R72B2	8/27/2008	48.84	8.27	57.11	ft
R72B2	8/29/2008	48.83	8.28	57.11	ft
R72B2	9/3/2008	48.84	8.27	57.11	ft
R72B2	9/5/2008	48.93	8.18	57.11	ft
R72B2	9/8/2008	48.8	8.31	57.11	ft
R72B2	9/10/2008	48.78	8.33	57.11	ft
R72B2	9/12/2008	48.8	8.31	57.11	ft
R72B2	9/15/2008	48.79	8.32	57.11	ft
R72B2	9/17/2008	48.8	8.31	57.11	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R72B2	9/19/2008	48.79	8.32	57.11	ft
R72B2	9/22/2008	48.82	8.29	57.11	ft
R72B2	9/29/2008	47.64	9.47	57.11	ft
R72B2	11/20/2008	46.87	10.24	57.11	ft
R73A	3/27/2008	39.26	19.93	59.19	ft
R73A	8/14/2008	41.22	17.97	59.19	ft
R73A	8/21/2008	41.47	17.72	59.19	ft
R73A	8/25/2008	41.58	17.61	59.19	ft
R73A	9/17/2008	41.98	17.21	59.19	ft
R73A	9/19/2008	42.19	17	59.19	ft
R73A	9/22/2008	42.23	16.96	59.19	ft
R73A	9/29/2008	42.38	16.81	59.19	ft
R73A	11/20/2008	40.67	18.52	59.19	ft
R73B2	3/27/2008	49.21	7.94	57.15	ft
R73B2	8/14/2008	51.08	6.07	57.15	ft
R73B2	8/21/2008	51.08	6.07	57.15	ft
R73B2	9/17/2008	50.79	6.36	57.15	ft
R73B2	9/19/2008	50.78	6.37	57.15	ft
R73B2	9/22/2008	50.77	6.38	57.15	ft
R73B2	9/29/2008	48.17	8.98	57.15	ft
R73B2	11/20/2008	47.64	9.51	57.15	ft
R74A	3/27/2008	39.34	18.5	57.84	ft
R74A	7/14/2008	39.62	18.22	57.84	ft
R74A	7/16/2008	39.82	18.02	57.84	ft
R74A	7/18/2008	40.05	17.79	57.84	ft
R74A	7/21/2008	40.13	17.71	57.84	ft
R74A	7/23/2008	40.48	17.36	57.84	ft
R74A	7/25/2008	40.38	17.46	57.84	ft
R74A	7/28/2008	40.49	17.35	57.84	ft
R74A	7/30/2008	40.58	17.26	57.84	ft
R74A	8/1/2008	40.66	17.18	57.84	ft
R74A	8/4/2008	40.68	17.16	57.84	ft
R74A	8/6/2008	40.78	17.06	57.84	ft
R74A	8/8/2008	40.87	16.97	57.84	ft
R74A	8/11/2008	40.98	16.86	57.84	ft
R74A	8/13/2008	41.03	16.81	57.84	ft
R74A	8/14/2008	41.05	16.79	57.84	ft
R74A	8/18/2008	41.14	16.7	57.84	ft
R74A	8/20/2008	41.25	16.59	57.84	ft
R74A	8/21/2008	41.28	16.56	57.84	ft
R74A	8/25/2008	41.36	16.48	57.84	ft
R74A	8/27/2008	41.38	16.46	57.84	ft
R74A	8/29/2008	41.47	16.37	57.84	ft
R74A	9/3/2008	41.53	16.31	57.84	ft
R74A	9/5/2008	41.58	16.26	57.84	ft
R74A	9/8/2008	41.68	16.16	57.84	ft
R74A	9/10/2008	41.68	16.16	57.84	ft
R74A	9/12/2008	41.7	16.14	57.84	ft
R74A	9/15/2008	41.69	16.15	57.84	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
R74A	9/17/2008	41.85	15.99	57.84	ft
R74A	9/19/2008	41.9	15.94	57.84	ft
R74A	9/22/2008	41.98	15.86	57.84	ft
R74A	9/29/2008	42.08	15.76	57.84	ft
R74A	11/20/2008	40.64	17.2	57.84	ft
R7B1	3/27/2008	39.71	16.76	56.47	ft
R7B1	8/14/2008	41.66	14.81	56.47	ft
R7B1	8/21/2008	41.9	14.57	56.47	ft
R7B1	8/25/2008	41.96	14.51	56.47	ft
R7B1	9/17/2008	42.38	14.09	56.47	ft
R7B1	9/19/2008	42.43	14.04	56.47	ft
R7B1	9/22/2008	42.5	13.97	56.47	ft
R7B1	9/29/2008	42.46	14.01	56.47	ft
R7B1	11/20/2008	41.69	14.78	56.47	ft
RAY-1A	3/27/2008	33.12	12.09	45.21	ft
RAY-1A	7/14/2008	33.43	11.78	45.21	ft
RAY-1A	7/16/2008	33.46	11.75	45.21	ft
RAY-1A	7/18/2008	33.52	11.69	45.21	ft
RAY-1A	7/21/2008	33.44	11.77	45.21	ft
RAY-1A	7/23/2008	33.46	11.75	45.21	ft
RAY-1A	7/25/2008	33.46	11.75	45.21	ft
RAY-1A	7/28/2008	33.5	11.71	45.21	ft
RAY-1A	7/30/2008	33.45	11.76	45.21	ft
RAY-1A	8/1/2008	33.44	11.77	45.21	ft
RAY-1A	8/4/2008	33.39	11.82	45.21	ft
RAY-1A	8/6/2008	33.39	11.82	45.21	ft
RAY-1A	8/8/2008	33.4	11.81	45.21	ft
RAY-1A	8/11/2008	33.44	11.77	45.21	ft
RAY-1A	8/13/2008	33.42	11.79	45.21	ft
RAY-1A	8/14/2008	33.39	11.82	45.21	ft
RAY-1A	8/18/2008	33.38	11.83	45.21	ft
RAY-1A	8/20/2008	33.35	11.86	45.21	ft
RAY-1A	8/21/2008		11.87	45.21	ft
RAY-1A	8/25/2008	33.34	11.87	45.21	ft
RAY-1A	8/27/2008	33.35	11.86	45.21	ft
RAY-1A	8/29/2008	33.32	11.89	45.21	ft
RAY-1A	9/3/2008	33.26	11.95	45.21	ft
RAY-1A	9/5/2008	33.26	11.95	45.21	ft
RAY-1A	9/8/2008	33.23	11.98	45.21	ft
RAY-1A	9/10/2008	33.19	12.02	45.21	ft
RAY-1A	9/12/2008	33.17	12.04	45.21	ft
RAY-1A	9/15/2008	33.18	12.03	45.21	ft
RAY-1A	9/17/2008	33.02	12.19	45.21	ft
RAY-1A	9/19/2008	33.01	12.2	45.21	ft
RAY-1A	9/22/2008	33.01	12.2	45.21	ft
RAY-1A	9/29/2008	32.4	12.81	45.21	ft
RAY-1A	11/20/2008	32.9	12.31	45.21	ft
RAY-1B1	3/27/2008	32.85	12.92	45.77	ft
RAY-1B1	7/14/2008	34.16	11.61	45.77	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
RAY-1B1	7/16/2008	34.25	11.52	45.77	ft
RAY-1B1	7/18/2008	33.86	11.91	45.77	ft
RAY-1B1	7/21/2008	33.69	12.08	45.77	ft
RAY-1B1	7/23/2008	33.76	12.01	45.77	ft
RAY-1B1	7/25/2008	33.7	12.07	45.77	ft
RAY-1B1	7/28/2008	34.07	11.7	45.77	ft
RAY-1B1	7/30/2008	33.7	12.07	45.77	ft
RAY-1B1	8/1/2008	33.68	12.09	45.77	ft
RAY-1B1	8/4/2008	33.64	12.13	45.77	ft
RAY-1B1	8/6/2008	33.53	12.24	45.77	ft
RAY-1B1	8/8/2008	33.63	12.14	45.77	ft
RAY-1B1	8/11/2008	33.6	12.17	45.77	ft
RAY-1B1	8/13/2008	34.55	11.22	45.77	ft
RAY-1B1	8/14/2008	33.42	12.35	45.77	ft
RAY-1B1	8/18/2008	33.73	12.04	45.77	ft
RAY-1B1	8/20/2008	33.52	12.25	45.77	ft
RAY-1B1	8/21/2008	33.52	12.25	45.77	ft
RAY-1B1	8/25/2008	33.44	12.33	45.77	ft
RAY-1B1	8/27/2008	33.77	12	45.77	ft
RAY-1B1	8/29/2008	33.44	12.33	45.77	ft
RAY-1B1	9/3/2008	33.6	12.17	45.77	ft
RAY-1B1	9/5/2008	33.72	12.05	45.77	ft
RAY-1B1	9/8/2008	33.58	12.19	45.77	ft
RAY-1B1	9/10/2008	33.29	12.48	45.77	ft
RAY-1B1	9/12/2008	33.27	12.5	45.77	ft
RAY-1B1	9/15/2008	33.28	12.49	45.77	ft
RAY-1B1	9/17/2008	33.43	12.34	45.77	ft
RAY-1B1	9/19/2008	33.42	12.35	45.77	ft
RAY-1B1	9/22/2008	33.42	12.35	45.77	ft
RAY-1B1	9/29/2008	27.2	18.57	45.77	ft
RAY-1B1	11/20/2008	31.55	14.22	45.77	ft
RE10A	3/27/2008	39.46	19.19	58.65	ft
RE10A	8/14/2008	41.82	16.83	58.65	ft
RE10A	8/21/2008	42.1	16.55	58.65	ft
RE10A	8/25/2008	42.24	16.41	58.65	ft
RE10A	9/17/2008	42.79	15.86	58.65	ft
RE10A	9/19/2008	42.83	15.82	58.65	ft
RE10A	9/22/2008	42.88	15.77	58.65	ft
RE10A	9/29/2008	42.93	15.72	58.65	ft
RE10A	11/20/2008	42.97	15.68	58.65	ft
RE11A	3/27/2008	35.19	13.56	48.75	ft
RE11A	7/14/2008	35.89	12.86	48.75	ft
RE11A	7/16/2008	36.73	12.02	48.75	ft
RE11A	7/18/2008	37.02	11.73	48.75	ft
RE11A	7/21/2008	37.13	11.62	48.75	ft
RE11A	7/23/2008	37.29	11.46	48.75	ft
RE11A	7/25/2008	37.38	11.37	48.75	ft
RE11A	7/28/2008	37.52	11.23	48.75	ft
RE11A	7/30/2008	37.6	11.15	48.75	ft
RE11A	8/1/2008	37.68	11.07	48.75	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
RE11A	8/4/2008	37.73	11.02	48.75	ft
RE11A	8/6/2008	37.8	10.95	48.75	ft
RE11A	8/8/2008	37.88	10.87	48.75	ft
RE11A	8/11/2008	38	10.75	48.75	ft
RE11A	8/13/2008	38.05	10.7	48.75	ft
RE11A	8/14/2008	38.07	10.68	48.75	ft
RE11A	8/18/2008	38.18	10.57	48.75	ft
RE11A	8/20/2008	38.27	10.48	48.75	ft
RE11A	8/21/2008	38.3	10.45	48.75	ft
RE11A	8/25/2008	38.37	10.38	48.75	ft
RE11A	8/27/2008	38.4	10.35	48.75	ft
RE11A	8/29/2008	38.45	10.3	48.75	ft
RE11A	9/3/2008	38.48	10.27	48.75	ft
RE11A	9/5/2008	38.53	10.22	48.75	ft
RE11A	9/8/2008	38.62	10.13	48.75	ft
RE11A	9/10/2008	38.67	10.08	48.75	ft
RE11A	9/12/2008	38.68	10.07	48.75	ft
RE11A	9/15/2008	38.65	10.1	48.75	ft
RE11A	9/17/2008	38.65	10.1	48.75	ft
RE11A	9/19/2008	38.66	10.09	48.75	ft
RE11A	9/22/2008	38.64	10.11	48.75	ft
RE11A	9/29/2008	39.02	9.73	48.75	ft
RE11A	11/20/2008	36.38	12.37	48.75	ft
RE12A	3/27/2008	36.56	12.08	48.64	ft
RE12A	8/14/2008	38.36	10.28	48.64	ft
RE12A	8/21/2008	38.55	10.09	48.64	ft
RE12A	8/25/2008	38.67	9.97	48.64	ft
RE12A	9/17/2008	39.05	9.59	48.64	ft
RE12A	9/19/2008	39.05	9.59	48.64	ft
RE12A	9/22/2008	39.04	9.6	48.64	ft
RE12A	9/29/2008	39.02	9.62	48.64	ft
RE12A	11/20/2008	37.85	10.79	48.64	ft
RE1B2	3/27/2008	48.56	4.32	52.88	ft
RE1B2	8/14/2008	50.28	2.6	52.88	ft
RE1B2	8/21/2008	50.47	2.41	52.88	ft
RE1B2	9/17/2008	51.31	1.57	52.88	ft
RE1B2	9/19/2008	51.32	1.56	52.88	ft
RE1B2	9/22/2008	51.32	1.56	52.88	ft
RE1B2	9/29/2008	51.31	1.57	52.88	ft
RE1B2	11/20/2008	49.01	3.87	52.88	ft
RE21A	3/27/2008	36.23	13.65	49.88	ft
RE21A	7/14/2008	36.44	13.44	49.88	ft
RE21A	7/16/2008	36.86	13.02	49.88	ft
RE21A	7/18/2008	37.19	12.69	49.88	ft
RE21A	7/21/2008	37.33	12.55	49.88	ft
RE21A	7/23/2008	37.49	12.39	49.88	ft
RE21A	7/25/2008	37.6	12.28	49.88	ft
RE21A	7/28/2008	37.72	12.16	49.88	ft
RE21A	7/30/2008	37.8	12.08	49.88	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
RE21A	8/1/2008	37.89	11.99	49.88	ft
RE21A	8/4/2008	37.96	11.92	49.88	ft
RE21A	8/6/2008	38.01	11.87	49.88	ft
RE21A	8/8/2008	38.08	11.8	49.88	ft
RE21A	8/11/2008	38.18	11.7	49.88	ft
RE21A	8/13/2008	38.25	11.63	49.88	ft
RE21A	8/14/2008	38.25	11.63	49.88	ft
RE21A	8/18/2008	38.36	11.52	49.88	ft
RE21A	8/20/2008	38.43	11.45	49.88	ft
RE21A	8/21/2008	38.46	11.42	49.88	ft
RE21A	8/25/2008	38.56	11.32	49.88	ft
RE21A	8/27/2008	38.59	11.29	49.88	ft
RE21A	8/29/2008	38.65	11.23	49.88	ft
RE21A	9/3/2008	38.71	11.17	49.88	ft
RE21A	9/5/2008	38.76	11.12	49.88	ft
RE21A	9/8/2008	38.84	11.04	49.88	ft
RE21A	9/10/2008	38.85	11.03	49.88	ft
RE21A	9/12/2008	38.87	11.01	49.88	ft
RE21A	9/15/2008	38.83	11.05	49.88	ft
RE21A	9/17/2008	38.81	11.07	49.88	ft
RE21A	9/19/2008	38.8	11.08	49.88	ft
RE21A	9/22/2008	38.81	11.07	49.88	ft
RE21A	9/29/2008	39.17	10.71	49.88	ft
RE21A	11/20/2008	37.86	12.02	49.88	ft
RE22A	3/27/2008	35.18	14.63	49.81	ft
RE22A	8/14/2008	38.08	11.73	49.81	ft
RE22A	8/21/2008	38.27	11.54	49.81	ft
RE22A	8/25/2008	38.38	11.43	49.81	ft
RE22A	9/17/2008	38.79	11.02	49.81	ft
RE22A	9/19/2008	38.78	11.03	49.81	ft
RE22A	9/22/2008	38.8	11.01	49.81	ft
RE22A	9/29/2008	39.04	10.77	49.81	ft
RE22A	11/20/2008	36.27	13.54	49.81	ft
RE23A	3/27/2008	37.24	16.42	53.66	ft
RE23A	7/14/2008	38.57	15.09	53.66	ft
RE23A	7/16/2008	39.46	14.2	53.66	ft
RE23A	7/18/2008	39.77	13.89	53.66	ft
RE23A	7/21/2008	39.87	13.79	53.66	ft
RE23A	7/23/2008	40.04	13.62	53.66	ft
RE23A	7/25/2008	40.14	13.52	53.66	ft
RE23A	7/28/2008	40.26	13.4	53.66	ft
RE23A	7/30/2008	40.36	13.3	53.66	ft
RE23A	8/1/2008	40.43	13.23	53.66	ft
RE23A	8/4/2008	40.49	13.17	53.66	ft
RE23A	8/6/2008	40.56	13.1	53.66	ft
RE23A	8/8/2008	40.65	13.01	53.66	ft
RE23A	8/11/2008	40.77	12.89	53.66	ft
RE23A	8/13/2008	40.83	12.83	53.66	ft
RE23A	8/14/2008	40.85	12.81	53.66	ft
RE23A	8/18/2008	40.96	12.7	53.66	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
RE23A	8/20/2008	41.06	12.6	53.66	ft
RE23A	8/21/2008	41.09	12.57	53.66	ft
RE23A	8/25/2008	41.13	12.53	53.66	ft
RE23A	8/27/2008	41.18	12.48	53.66	ft
RE23A	8/29/2008	41.23	12.43	53.66	ft
RE23A	9/3/2008	41.29	12.37	53.66	ft
RE23A	9/5/2008	41.33	12.33	53.66	ft
RE23A	9/8/2008	41.39	12.27	53.66	ft
RE23A	9/10/2008	41.45	12.21	53.66	ft
RE23A	9/12/2008	41.43	12.23	53.66	ft
RE23A	9/15/2008	41.46	12.2	53.66	ft
RE23A	9/17/2008	41.53	12.13	53.66	ft
RE23A	9/19/2008	41.51	12.15	53.66	ft
RE23A	9/22/2008	41.52	12.14	53.66	ft
RE23A	9/29/2008	41.79	11.87	53.66	ft
RE23A	11/20/2008	37.99	15.67	53.66	ft
RE24A	3/27/2008	35.09	20.15	55.24	ft
RE24A	7/14/2008	38.17	17.07	55.24	ft
RE24A	7/16/2008	39.17	16.07	55.24	ft
RE24A	7/18/2008	39.48	15.76	55.24	ft
RE24A	7/21/2008	39.58	15.66	55.24	ft
RE24A	7/23/2008	39.76	15.48	55.24	ft
RE24A	7/25/2008	39.86	15.38	55.24	ft
RE24A	7/28/2008	39.98	15.26	55.24	ft
RE24A	7/30/2008	40.07	15.17	55.24	ft
RE24A	8/1/2008	40.17	15.07	55.24	ft
RE24A	8/4/2008	40.23	15.01	55.24	ft
RE24A	8/6/2008	40.28	14.96	55.24	ft
RE24A	8/8/2008	40.35	14.89	55.24	ft
RE24A	8/11/2008	40.47	14.77	55.24	ft
RE24A	8/13/2008	40.55	14.69	55.24	ft
RE24A	8/14/2008	40.56	14.68	55.24	ft
RE24A	8/18/2008	40.67	14.57	55.24	ft
RE24A	8/20/2008	40.77	14.47	55.24	ft
RE24A	8/21/2008	40.78	14.46	55.24	ft
RE24A	8/25/2008	40.84	14.4	55.24	ft
RE24A	8/27/2008	40.9	14.34	55.24	ft
RE24A	8/29/2008	40.93	14.31	55.24	ft
RE24A	9/3/2008	41.02	14.22	55.24	ft
RE24A	9/5/2008	41.03	14.21	55.24	ft
RE24A	9/8/2008	41.07	14.17	55.24	ft
RE24A	9/10/2008	41.17	14.07	55.24	ft
RE24A	9/12/2008	41.18	14.06	55.24	ft
RE24A	9/15/2008	41.16	14.08	55.24	ft
RE24A	9/17/2008	41.26	13.98	55.24	ft
RE24A	9/19/2008	41.25	13.99	55.24	ft
RE24A	9/22/2008	41.25	13.99	55.24	ft
RE24A	9/29/2008	41.52	13.72	55.24	ft
RE24A	11/20/2008	35.72	19.52	55.24	ft
RE25A	3/27/2008	36.7	20.3	57	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
RE25A	7/14/2008	38.82	18.18	57	ft
RE25A	7/16/2008	40.1	16.9	57	ft
RE25A	7/18/2008	40.4	16.6	57	ft
RE25A	7/21/2008	40.47	16.53	57	ft
RE25A	7/23/2008	40.68	16.32	57	ft
RE25A	7/25/2008	40.76	16.24	57	ft
RE25A	7/28/2008	40.92	16.08	57	ft
RE25A	7/30/2008	41.01	15.99	57	ft
RE25A	8/1/2008	41.08	15.92	57	ft
RE25A	8/4/2008	41.18	15.82	57	ft
RE25A	8/6/2008	41.29	15.71	57	ft
RE25A	8/8/2008	41.56	15.44	57	ft
RE25A	8/11/2008	41.7	15.3	57	ft
RE25A	8/13/2008	41.1	15.9	57	ft
RE25A	8/14/2008	41.91	15.09	57	ft
RE25A	8/18/2008	42.01	14.99	57	ft
RE25A	8/20/2008	42.1	14.9	57	ft
RE25A	8/21/2008	42.02	14.98	57	ft
RE25A	8/25/2008	41.91	15.09	57	ft
RE25A	8/27/2008	41.91	15.09	57	ft
RE25A	8/29/2008	41.97	15.03	57	ft
RE25A	9/3/2008	41.98	15.02	57	ft
RE25A	9/5/2008	42.02	14.98	57	ft
RE25A	9/8/2008	42.09	14.91	57	ft
RE25A	9/10/2008	42.17	14.83	57	ft
RE25A	9/12/2008	42.2	14.8	57	ft
RE25A	9/15/2008	42.18	14.82	57	ft
RE25A	9/17/2008	42.23	14.77	57	ft
RE25A	9/19/2008	42.21	14.79	57	ft
RE25A	9/22/2008	42.24	14.76	57	ft
RE25A	9/29/2008	42.47	14.53	57	ft
RE25A	11/20/2008	24.27	32.73	57	ft
RE3B1	3/27/2008	36.8	11.91	48.71	ft
RE3B1	8/14/2008	38.8	9.91	48.71	ft
RE3B1	8/21/2008	39.04	9.67	48.71	ft
RE3B1	8/25/2008	39.12	9.59	48.71	ft
RE3B1	9/17/2008	39.52	9.19	48.71	ft
RE3B1	9/19/2008	39.53	9.18	48.71	ft
RE3B1	9/22/2008	39.53	9.18	48.71	ft
RE3B1	9/29/2008	39.64	9.07	48.71	ft
RE3B1	11/20/2008	37.86	10.85	48.71	ft
RE5A	3/27/2008	36.88	19.97	56.85	ft
RE5A	7/14/2008	38.71	18.14	56.85	ft
RE5A	7/16/2008	39.6	17.25	56.85	ft
RE5A	7/18/2008	39.88	16.97	56.85	ft
RE5A	7/21/2008	39.99	16.86	56.85	ft
RE5A	7/23/2008	40.15	16.7	56.85	ft
RE5A	7/25/2008	40.25	16.6	56.85	ft
RE5A	7/28/2008	40.41	16.44	56.85	ft
RE5A	7/30/2008	40.48	16.37	56.85	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
RE5A	8/1/2008	40.56	16.29	56.85	ft
RE5A	8/4/2008	40.63	16.22	56.85	ft
RE5A	8/6/2008	40.69	16.16	56.85	ft
RE5A	8/8/2008	40.76	16.09	56.85	ft
RE5A	8/11/2008	40.86	15.99	56.85	ft
RE5A	8/13/2008	40.92	15.93	56.85	ft
RE5A	8/14/2008	40.96	15.89	56.85	ft
RE5A	8/18/2008	41.06	15.79	56.85	ft
RE5A	8/20/2008	41.16	15.69	56.85	ft
RE5A	8/21/2008	41.19	15.66	56.85	ft
RE5A	8/25/2008	41.26	15.59	56.85	ft
RE5A	8/27/2008	41.28	15.57	56.85	ft
RE5A	8/29/2008	41.33	15.52	56.85	ft
RE5A	9/3/2008	41.41	15.44	56.85	ft
RE5A	9/5/2008	41.44	15.41	56.85	ft
RE5A	9/8/2008	41.55	15.3	56.85	ft
RE5A	9/10/2008	41.57	15.28	56.85	ft
RE5A	9/12/2008	41.55	15.3	56.85	ft
RE5A	9/15/2008	41.56	15.29	56.85	ft
RE5A	9/17/2008	41.69	15.16	56.85	ft
RE5A	9/19/2008	41.67	15.18	56.85	ft
RE5A	9/22/2008	41.67	15.18	56.85	ft
RE5A	9/29/2008	41.94	14.91	56.85	ft
RE5A	11/20/2008	39.18	17.67	56.85	ft
RE7A	3/27/2008	36.01	12.6	48.61	ft
RE7A	8/14/2008	38.3	10.31	48.61	ft
RE7A	8/21/2008	38.51	10.1	48.61	ft
RE7A	8/25/2008	38.63	9.98	48.61	ft
RE7A	9/17/2008	39.04	9.57	48.61	ft
RE7A	9/19/2008	39.04	9.57	48.61	ft
RE7A	9/22/2008	39.03	9.58	48.61	ft
RE7A	9/29/2008	39.26	9.35	48.61	ft
RE7A	11/20/2008	37.3	11.31	48.61	ft
RE8A	3/27/2008	38.03	13.63	51.66	ft
RE8A	8/14/2008	39.22	12.44	51.66	ft
RE8A	8/21/2008	39.39	12.27	51.66	ft
RE8A	8/25/2008	39.41	12.25	51.66	ft
RE8A	9/17/2008	39.58	12.08	51.66	ft
RE8A	9/19/2008	39.59	12.07	51.66	ft
RE8A	9/22/2008	39.57	12.09	51.66	ft
RE8A	9/29/2008	39.69	11.97	51.66	ft
RE8A	11/20/2008	38.19	13.47	51.66	ft
RE9A	3/27/2008	38.98	19.75	58.73	ft
RE9A	8/14/2008	40.2	18.53	58.73	ft
RE9A	8/21/2008	41.3	17.43	58.73	ft
RE9A	8/25/2008	41.66	17.07	58.73	ft
RE9A	9/17/2008	41.88	16.85	58.73	ft
RE9A	9/19/2008	42.19	16.54	58.73	ft
RE9A	9/22/2008	42.27	16.46	58.73	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
RE9A	9/29/2008	42.17	16.56	58.73	ft
RE9A	11/20/2008	41.53	17.2	58.73	ft
RH1A	3/27/2008	46.25	16.14	62.39	ft
RH1A	11/20/2008	45.4	16.99	62.39	ft
RP16B	3/28/2008	48.92	9.71	58.63	ft
RP16B	8/14/2008	48.66	9.97	58.63	ft
RP16B	8/21/2008	48.68	9.95	58.63	ft
RP16B	9/17/2008	48.28	10.35	58.63	ft
RP16B	9/19/2008	48.31	10.32	58.63	ft
RP16B	9/22/2008	48.25	10.38	58.63	ft
RP16B	9/29/2008	48.16	10.47	58.63	ft
RP16B	11/20/2008	47.68	10.95	58.63	ft
RP19B	3/27/2008	40.39	16.08	56.47	ft
RP19B	7/14/2008	40.31	16.16	56.47	ft
RP19B	7/16/2008	40.64	15.83	56.47	ft
RP19B	7/18/2008	40.93	15.54	56.47	ft
RP19B	7/21/2008	40.93	15.54	56.47	ft
RP19B	7/23/2008	41.2	15.27	56.47	ft
RP19B	7/25/2008	41.3	15.17	56.47	ft
RP19B	7/28/2008	41.4	15.07	56.47	ft
RP19B	7/30/2008	41.47	15	56.47	ft
RP19B	8/1/2008	41.55	14.92	56.47	ft
RP19B	8/4/2008	41.6	14.87	56.47	ft
RP19B	8/6/2008	41.62	14.85	56.47	ft
RP19B	8/8/2008	41.77	14.7	56.47	ft
RP19B	8/11/2008	41.89	14.58	56.47	ft
RP19B	8/13/2008	41.95	14.52	56.47	ft
RP19B	8/14/2008	41.97	14.5	56.47	ft
RP19B	8/18/2008	42.05	14.42	56.47	ft
RP19B	8/20/2008	42.12	14.35	56.47	ft
RP19B	8/21/2008	42.19	14.28	56.47	ft
RP19B	8/25/2008	42.23	14.24	56.47	ft
RP19B	8/27/2008	42.29	14.18	56.47	ft
RP19B	8/29/2008	42.33	14.14	56.47	ft
RP19B	9/3/2008	42.39	14.08	56.47	ft
RP19B	9/5/2008	42.44	14.03	56.47	ft
RP19B	9/8/2008	42.5	13.97	56.47	ft
RP19B	9/10/2008	42.55	13.92	56.47	ft
RP19B	9/12/2008	42.57	13.9	56.47	ft
RP19B	9/15/2008	42.56	13.91	56.47	ft
RP19B	9/17/2008	42.68	13.79	56.47	ft
RP19B	9/19/2008	42.73	13.74	56.47	ft
RP19B	9/22/2008	42.81	13.66	56.47	ft
RP19B	9/29/2008	42.76	13.71	56.47	ft
RP19B	11/20/2008	41.64	14.83	56.47	ft
RP21B	3/27/2008	39.59	13.75	53.34	ft
RP21B	8/14/2008	41.54	11.8	53.34	ft
RP21B	8/21/2008	41.79	11.55	53.34	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
RP21B	8/25/2008	41.86	11.48	53.34	ft
RP21B	9/17/2008	42.26	11.08	53.34	ft
RP21B	9/19/2008	42.24	11.1	53.34	ft
RP21B	9/22/2008	42.25	11.09	53.34	ft
RP21B	9/29/2008	42.36	10.98	53.34	ft
RP21B	11/20/2008	40.67	12.67	53.34	ft
RP22B	3/27/2008	47.83	16.24	64.07	ft
RP22B	11/20/2008	46.88	17.19	64.07	ft
RP23B	3/27/2008	39.5	15.17	54.67	ft
RP23B	8/14/2008	41.04	13.63	54.67	ft
RP23B	8/21/2008	41.6	13.07	54.67	ft
RP23B	8/25/2008	41.74	12.93	54.67	ft
RP23B	9/17/2008	42.07	12.6	54.67	ft
RP23B	9/19/2008	42.06	12.61	54.67	ft
RP23B	9/22/2008	42.05	12.62	54.67	ft
RP23B	9/29/2008	42.17	12.5	54.67	ft
RP23B	11/20/2008	40.71	13.96	54.67	ft
RP24B	3/27/2008	39.27	15.72	54.99	ft
RP24B	8/14/2008	41.34	13.65	54.99	ft
RP24B	8/21/2008	41.57	13.42	54.99	ft
RP24B	8/25/2008	41.63	13.36	54.99	ft
RP24B	9/17/2008	42.01	12.98	54.99	ft
RP24B	9/19/2008	42.01	12.98	54.99	ft
RP24B	9/22/2008	42.02	12.97	54.99	ft
RP24B	9/29/2008	42.12	12.87	54.99	ft
RP24B	11/20/2008	40.11	14.88	54.99	ft
RP41B	3/27/2008	39.8	17.55	57.35	ft
RP41B	8/14/2008	41.56	15.79	57.35	ft
RP41B	8/21/2008	41.84	15.51	57.35	ft
RP41B	8/25/2008	41.88	15.47	57.35	ft
RP41B	9/17/2008	42.33	15.02	57.35	ft
RP41B	9/19/2008	42.4	14.95	57.35	ft
RP41B	9/22/2008	42.47	14.88	57.35	ft
RP41B	9/29/2008	42.52	14.83	57.35	ft
RP41B	11/20/2008	40.85	16.5	57.35	ft
RP42B	3/27/2008	39.51	22.19	61.7	ft
RP42B	8/14/2008	40.42	21.28	61.7	ft
RP42B	8/21/2008	41.65	20.05	61.7	ft
RP42B	8/25/2008	42.05	19.65	61.7	ft
RP42B	9/17/2008	42.74	18.96	61.7	ft
RP42B	9/19/2008	42.88	18.82	61.7	ft
RP42B	9/22/2008	42.81	18.89	61.7	ft
RP42B	9/29/2008	42.76	18.94	61.7	ft
RP42B	11/20/2008	42.73	18.97	61.7	ft
RP43B	3/27/2008	39.37	17.91	57.28	ft
RP43B	8/14/2008	40.82	16.46	57.28	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 4
2008 GROUNDWATER ELEVATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	Date	Groundwater Elevation	Depth to Water	Reference Elevation	Depth Units
RP43B	8/21/2008	41.7	15.58	57.28	ft
RP43B	8/25/2008	41.86	15.42	57.28	ft
RP43B	9/17/2008	42.01	15.27	57.28	ft
RP43B	9/19/2008	42.09	15.19	57.28	ft
RP43B	9/22/2008	42.17	15.11	57.28	ft
RP43B	9/29/2008	42.22	15.06	57.28	ft
RP43B	11/20/2008	40.77	16.51	57.28	ft
SOPZ-1	3/27/2008	46.39	15.91	62.3	ft
SOPZ-1	11/20/2008	45.66	16.64	62.3	ft
SOPZ-2	3/27/2008	46.31	14.35	60.66	ft
SOPZ-2	11/20/2008	45.56	15.1	60.66	ft
SOPZ-3	3/27/2008	46.11	15.67	61.78	ft
SOPZ-3	11/20/2008	45.37	16.41	61.78	ft

Notes:

This table includes the water level measurements collected during the steady state investigation when the treatment system was shutdown from July 14 to September 22, 2008.

TABLE 5
2008 CAPTURE ZONE WIDTH CALCULATION
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Well	Extraction Rate Q (gpm)	Transmissivity [1] (gpd/ft)	Hydraulic Gradient [2] (ft/ft)	Distance from well to Capture Zone [3] X_o(ft)	Width of Capture Zone [4] Y_{well} (ft)
27 March 2008					
RAY-1A	1.87	3940	0.010	10.88	17.09
RAY-1B1	3.47	3230	0.010	24.14	37.92
20 November 2008					
RAY-1A	0.60	3940	0.016	2.18	3.43
RAY-1B1	5.18	3230	0.012	29.88	46.94

Notes:

1. The transmissivities used in the calculations were those calculated for the MEW aquifers in the 2-year evaluation report. (Note: Transmissivity, T=K*b)
2. The hydraulic gradient is calculated for each groundwater level event.
3. The distance is measured from the well to the downgradient end of the capture zone along the central line of the flow direction (calculated based on January 2008 EPA guidance on capture zone analysis).
4. The calculation is based on January 2008 EPA guidance on capture zone analysis. Y_{well} is the capture zone width at the location of well from the central line of the plume.

TABLE 6
2008 WATER BALANCE RESULTS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Well	Upgradient Width of Incoming Groundwater Flux[1] (ft)	Transmissivity [2] (gpd/ft)	Hydraulic Gradient [3] (ft/ft)	Estimated Pumping Rate [4] (gpm)	Actual Pumping Rate (gpm)
27 March 2008					
RAY-1A	44	3940	0.010	1.81	1.87
RAY-1B1	102	3230	0.010	3.44	3.47
20 November 2008					
RAY-1A	17	3940	0.016	1.11	0.60
RAY-1B1	132	3230	0.012	5.46	5.18

Notes:

1. The width of the controlled area is determined from the most recent concentration contours and capture zone maps.
2. The transmissivities used in the calculations were those calculated for the MEW aquifers in the 2-year evaluation report.(Note: (Transmissivity, T=K*b)
3. The hydraulic gradient is calculated for each groundwater level event.
4. The estimated flow rate is calculated based on January 2008 EPA guidance on capture zone analysis, the estimated flow rate into capture zone is calculated using the equation : Q= K x (b x w) x i x factor . A factor of 1.5 - 2 is the "rule of thumb" value used to account for other contributions to a pumping well such as flux from a river or induced vertical flow from another groundwater unit.

TABLE 7
WELL LOSS CALCULATIONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Well Loss Coefficient C (min^2/m^5)	Well Extraction Rate Q (gpm)	Calculated Well Loss $S_L = CQ^2$ (feet)
0.5	1.5	5.29E-05
1	1.5	1.06E-04
4	1.5	4.23E-04
0.5	2	9.40E-05
1	2	1.88E-04
4	2	7.52E-04
0.5	2.5	1.47E-04
1	2.5	2.94E-04
4	2.5	1.18E-03
0.5	3	2.12E-04
1	3	4.23E-04
4	3	1.69E-03
0.5	4.5	4.76E-04
1	4.5	9.52E-04
4	4.5	3.81E-03
0.5	6	8.46E-04
1	6	1.69E-03
4	6	6.77E-03
0.5	7.5	1.32E-03
1	7.5	2.64E-03
4	7.5	1.06E-02
0.5	9	1.90E-03
1	9	3.81E-03
4	9	1.52E-02
0.5	10.5	2.59E-03
1	10.5	5.18E-03
4	10.5	2.07E-02
0.5	12	3.38E-03
1	12	6.77E-03
4	12	2.71E-02
0.5	13.5	4.28E-03
1	13.5	8.57E-03
4	13.5	3.43E-02
0.5	15	5.29E-03
1	15	1.06E-02
4	15	4.23E-02
0.5	16.5	6.40E-03
1	16.5	1.28E-02
4	16.5	5.12E-02
0.5	18	7.61E-03
1	18	1.52E-02
4	18	6.09E-02

TABLE 8
DIFFERENTIAL WATER LEVELS IN WELL PAIRS ACROSS THE SLURRY WALL
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

	3/27/2008		9/22/2008[a]		11/20/2008	
Well NO.	Water Elevation (ft, MSL)	Difference (ft)	Water Elevation (ft MSL)	Difference (ft)	Water Elevation (ft, MSL)	Difference (ft)
R-06A	46.47	9.88	46.07	7.08	45.57	7.50
R-36A	36.59		38.99		38.07	
R-59A	44.70	4.69	44.41	2.35	44.16	3.15
R-58A	40.01		42.06		41.01	
R-57A	42.76	2.91	42.38	-0.02	41.98	0.61
R-60A	39.85		42.40		41.37	
R-64B1	47.35	7.73	46.74	4.34	46.33	0.06
R-63B1	39.62		42.40		46.27	
R-60B1	50.76	11.05	50.25	7.75	49.57	7.88
R-07B1	39.71		42.50		41.69	
R-55A	33.89	-2.12	33.21	-5.82	33.03	-4.27
RE-07A	36.01		39.03		37.30	
R-05B1	34.39	-5.11	34.06	-7.99	33.51	-7.20
RP-23B	39.50		42.05		40.71	

Notes:
A positive difference indicates an inward gradient.
a - Measurements represent non-pumping conditions.

TABLE 9
DIFFERENTIAL WATER LEVELS IN WELL PAIRS ACROSS THE AQUITARD
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

	3/27/2008		9/22/2008[a]		11/20/2008	
Well NO.	Water Elevation (ft MSL)	Difference (ft)	Water Elevation (ft MSL)	Difference (ft)	Water Elevation (ft MSL)	Difference (ft)
RP-21B	39.59	3.00	42.25	3.15	40.67	2.74
R-41A	36.59		39.10		37.93	
R-59B2 (l)	50.49	3.16	49.51	0.96	49.82	2.96
R-39B2 (u)	47.33		48.55		46.86	
R-65B1B2	50.35	10.34	52.88	10.82	48.18	7.17
R-58A	40.01		42.06		41.01	
R-07B1	39.71	3.12	42.50	3.51	41.69	3.62
R-36A	36.59		38.99		38.07	
R-62B2 (l)	54.78	7.07	54.00	5.18	52.79	5.92
R-72B2 (u)	47.71		48.82		46.87	
R-63B1	39.62	-0.23	42.40	0.00	46.27	4.90
R-60A	39.85		42.40		41.37	
R-68B2 (l)	55.33	7.09	53.40	4.33	53.06	4.58
R-69B2 (u)	48.24		49.07		48.48	
R-73B2	49.21	8.71	50.77	8.54	47.64	8.18
R-68B1	40.50		42.23		39.46	
R-68B1	40.50	0.48	42.23	-0.13	39.46	-2.06
R-67A	40.02		42.36		41.52	
RP-19B	40.39	0.54	42.81	0.41	41.64	0.27
R-60A	39.85		42.40		41.37	
RP-42B	39.51	0.25	42.81	0.58	42.73	2.06
R-73A	39.26		42.23		40.67	
RP-43B	39.37	1.67	42.17	1.06	40.77	1.17
R-72A	37.70		41.11		39.60	
R-67B1	36.95	1.77	39.41	0.61	37.93	1.66
RE-22A	35.18		38.80		36.27	
R-67B1	36.95	-1.08	39.41	-0.16	37.93	-0.26
RE-08A	38.03		39.57		38.19	
R-70B1	39.66	1.89	42.30	0.79	40.65	1.76
R-69A	37.77		41.51		38.89	

Notes:

A positive difference indicates an upward gradient.

a - Measurements represent non-pumping conditions.

TABLE 10
MONITORING AND REPORTING SCHEDULES
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Wells Monitored Annually		
"A" Aquifer	**"B1" Aquifer**	**"B2" Aquifer**
24A	007B1	I-1B2
83A	94B1	R-17B2
100A	97B1	
R-52A	RAY-1B1	
RAY-1A		

Wells Monitored Every Five Years		
"A" Aquifer	**"B1" Aquifer**	**"B2" Aquifer**
R-36A	R-7B1	R-27B2
R-41A	R-67B1	R-39B2
R-60A	RP-19B	R-65B1B2
R-72A	RP-21B	R-68B2
RE-07A	RP-23B	RE-1B2
RE-08A	RP-24B	
RE-09A	RP-41B	
RE-10A	RP-43B	
RE-23A		
RE-24A		
RE-25A		

Reporting Schedule		
Report	**Agency**	**Frequency**
NPDES	RWQCB	Quarterly (Submitted on the 30th day of January, April, July and October of each year)
Annual Progress Report	US EPA	Annually (submitted in April of each year)

TABLE 11
SUMMARY OF 2008 SITE-SPECIFIC MONITORING WELL VOC DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Location	100A	24A	24A	7B1	83A	94B1	97B1	I-1B2	R-17B2	R-17B2	R-27B2	R-39B2	R-52A	R-68B2	RAY-1A	RAY-1B1	RE-1B2
Date	12/8/2008	12/8/2008	12/8/2008	12/9/2008	12/8/2008	12/9/2008	12/9/2008	12/9/2008	11/14/2008	12/9/2008	3/31/2008	3/31/2008	12/8/2008	3/31/2008	12/9/2008	12/9/2008	3/28/2008
Sample Purpose	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter																	
1,1,1-TRICHLOROETHANE	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	0.0074	0.0029	0.0047	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	0.0096	ND 0.0042	ND 0.0005
1,1,2-TRICHLOROETHANE	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
1,1-DICHLOROETHANE	0.0043	ND 0.0083	ND 0.0071	ND 0.0005	0.0049	ND 0.0025	0.0045	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	0.0078	ND 0.0042	ND 0.0005
1,1-DICHLOROETHENE	0.0035	ND 0.0083	ND 0.0071	ND 0.0005	0.0061	0.0025	0.0055	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	0.0057	0.0049	ND 0.0005
1,2-DICHLOROBENZENE	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
1,2-DICHLOROETHANE	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
1,2-DICHLOROPROPANE	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
1,3-DICHLOROBENZENE	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
1,4-DICHLOROBENZENE	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
2-CHLOROETHYL VINYL ETHER	ND 0.0025	ND 0.017	ND 0.014	ND 0.0010	ND 0.0010	ND 0.0050	ND 0.0050	ND 0.0050	ND 0.050	ND 0.0017	ND 0.0025	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.0033	ND 0.0083	ND 0.0010
BROMODICHLOROMETHANE	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
BROMOFORM	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
BROMOMETHANE	ND 0.0025	ND 0.017	ND 0.014	ND 0.0010	ND 0.0010	ND 0.0050	ND 0.0050	ND 0.0050	ND 0.0050	ND 0.0017	ND 0.0025	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.0033	ND 0.0083	ND 0.0010
CARBON TETRACHLORIDE	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
CHLOROBENZENE	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
CHLOROETHANE	ND 0.0025	ND 0.017	ND 0.014	ND 0.0010	ND 0.0010	ND 0.0050	ND 0.0050	ND 0.0050	ND 0.0050	ND 0.0017	ND 0.0025	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.0033	ND 0.0083	ND 0.0010
CHLOROFORM	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0050	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
CHLOROMETHANE	ND 0.0025	ND 0.017	ND 0.014	ND 0.0010	ND 0.0010	ND 0.0050	ND 0.0050	ND 0.0050	ND 0.0050	ND 0.0017	ND 0.0025	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.0033	ND 0.0083	ND 0.0010
CIS-1,2-DICHLOROETHENE	0.18	0.52	0.59	0.027	0.098	0.030	0.072	ND 0.0025	0.0026	0.0022	0.0048	ND 0.0005	0.0009	ND 0.0005	0.053	0.055	ND 0.0005
CIS-1,3-DICHLOROPROPENE	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
DIBROMOCHLOROMETHANE	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
FREON 113	ND 0.013	ND 0.083	ND 0.071	ND 0.0050	0.021	ND 0.025	ND 0.025	ND 0.025	ND 0.0025	ND 0.0083	ND 0.013	ND 0.0050	ND 0.0050	ND 0.0050	ND 0.017	ND 0.042	ND 0.0050
METHYLENE CHLORIDE	ND 0.013	ND 0.083	ND 0.071	ND 0.0050	ND 0.0050	ND 0.025	ND 0.025	ND 0.025	ND 0.10	ND 0.0083	ND 0.013	ND 0.0050	ND 0.0050	ND 0.0050	ND 0.017	ND 0.042	ND 0.0050
TETRACHLOROETHENE	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
TRANS-1,2-DICHLOROETHENE	0.0052	0.0095	0.012	ND 0.0005	0.0010	0.0029	0.0051	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
TRANS-1,3-DICHLOROPROPENE	ND 0.0013	ND 0.0083	ND 0.0071	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005
TRICHLOROETHENE	0.0059	1.7	2.2	0.0035	0.21	0.39	0.90	0.24	0.39	0.41	0.35	ND 0.0005	0.069	ND 0.0005	0.25	0.44	ND 0.0005
TRICHLOROFLUOROMETHANE	ND 0.0025	ND 0.017	ND 0.014	ND 0.0010	ND 0.0010	ND 0.0050	ND 0.0050	ND 0.0050	ND 0.0050	ND 0.0017	ND 0.0025	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.0033	ND 0.0083	ND 0.0010
VINYL CHLORIDE	0.0023	ND 0.0083	0.0099	ND 0.0005	ND 0.0005	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0025	ND 0.0008	ND 0.0013	ND 0.0005	ND 0.0005	ND 0.0005	ND 0.0017	ND 0.0042	ND 0.0005

Notes:

Data are reported in milligrams per liter (mg/L)
ND - denotes result was below the reporting limit
REG - regular (primary) sample
FD - field duplicate

Locus TECHNOLOGIES

TABLE 12
TCE CONCENTRATION COMPARISONS
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

	Average Annual Concentration (mg/L)															Concentration Comparisons								
Aquifer/ Location	1986/87	1992	1995	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2006/ 1986-87	2007/ 1986-87	2008/ 1986-87	2006/ 1997	2007/ 1997	2008/ 1997	2006/ 1998	2007/ 1998	2008/ 1998
A Aquifer Within Slurry Wall																								
Wells Sampl	19	0	15	13	0	18	4	7	13	8	0	0	18	0	0	-80.81%	NA	NA	NA	NA	NA	NA	NA	NA
Average Con	19.63	-	23.58	10.33	-	6.45	44.45	9.06	5.95	3.53	-	-	3.77	-	-									
B1 Aquifer Within Slurry Wall																								
Wells Sampl	14	0	14	8	1	12	0	1	6	3	0	0	9	0	0	-67.50%	NA	NA	40.03%	NA	NA	NA	NA	NA
Average Con	2.11	-	1.22	0.49	0.00	0.23	-	0.38	0.43	0.00	-	-	0.69	-	-									
B2 Aquifer																								
Wells Sampl	9	0	8	5	0	9	1	0	5	1	0	0	1	0	4	87.31%	NA	-23.27%	NA	NA	NA	NA	NA	NA
Average Con	0.11	-	0.11	0.06	-	0.23	0.22	-	0.06	0.36	-	-	0.21	-	0.09									
A Aquifer Outside Slurry Wall																								
Wells Sampl	3	2	0	2	4	4	4	4	4	3	4	4	3	4	3	-96.60%	-46.60%	NA	NA	-23.04%	NA	50.60%	-48.29%	42.16%
Average Con	22.93	0.50	-	0.35	0.52	0.73	0.74	0.76	0.55	0.91	1.13	0.39	0.78	0.27	0.74									
B1 Aquifer Outside Slurry Wall																								
Wells Sampl	3	1	0	4	4	4	4	4	4	4	4	4	4	4	4	-88.16%	-70.24%	NA	NA	NA	-24.74%	-88.16%	-24.74%	-26.93%
Average Con	3.08	1.50	-	0.30	0.59	0.68	0.52	0.44	0.64	0.43	0.40	0.40	0.36	0.45	0.43									

TABLE 13
2008 AIR SAMPLING RESULTS
350 - 380 ELLIS STREET, MOUNTAIN VIEW, CA

Location	Time	Date	Parameter Units Analytical Method	1,1,1-TCA µg/m3	1,1-DCA µg/m3	1,1-DCE µg/m3	1,2-DCB µg/m3	CHLORO-FORM µg/m3	CIS-1,2-DCE µg/m3	FREON 113 µg/m3	PCE µg/m3	TRANS-1,2-DCE µg/m3	TCE µg/m3	VINYL CHLORIDE µg/m3
Building A														
370AMB1A (GRAB)	10:47	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
370AMB1A (GRAB)	13:33	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
370AMB1A (GRAB)	16:08	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
370AMB1A		2/20/2008	TO-15 SIM	ND 0.18	ND 0.13	ND 0.065	ND 0.20	ND 0.16	ND 0.13	0.92	ND 0.22	ND 0.65	ND 0.18	ND 0.042
370AMB2A		2/20/2008	TO-15 SIM	ND 0.16	ND 0.12	ND 0.060	ND 0.18	ND 0.15	ND 0.12	0.89	ND 0.21	ND 0.60	ND 0.16	ND 0.039
370AMB3A		2/20/2008	TO-15 SIM	ND 0.18	ND 0.14	ND 0.067	ND 0.20	ND 0.16	ND 0.13	0.97	ND 0.23	ND 0.67	ND 0.18	ND 0.043
370AMB4A (GRAB)	11:16	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	3.0	NT
370AMB4A (GRAB)	14:02	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
370AMB4A (GRAB)	16:28	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
370AMB4A		2/20/2008	TO-15 SIM	ND 0.18	ND 0.13	ND 0.065	ND 0.20	0.40	ND 0.13	0.86	ND 0.22	ND 0.65	0.41	ND 0.042
370HVAC1A		2/20/2008	TO-15 SIM	ND 0.18	ND 0.13	ND 0.065	ND 0.20	ND 0.16	ND 0.13	0.93	ND 0.22	ND 0.65	ND 0.18	ND 0.042
370HVAC2A		2/20/2008	TO-15 SIM	ND 0.16	ND 0.12	ND 0.059	ND 0.18	ND 0.14	ND 0.12	0.80	ND 0.20	ND 0.59	ND 0.16	ND 0.038
370PATH1A (FD)		2/20/2008	TO-15 SIM	0.26	ND 0.14	ND 0.068	ND 0.20	0.55	ND 0.14	0.86	ND 0.23	ND 0.68	1.2	ND 0.044
370PATH1A (GRAB)	11:05	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
370PATH1A (GRAB)	13:56	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
370PATH1A (GRAB)	16:18	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
370PATH1A		2/20/2008	TO-15 SIM	ND 0.18	ND 0.13	ND 0.065	ND 0.20	0.57	ND 0.13	0.84	ND 0.22	ND 0.65	ND 0.18	ND 0.042
370PATH2A (GRAB)	11:31	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	4.0	NT
370PATH2A (GRAB)	14:11	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
370PATH2A (GRAB)	16:38	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
370PATH2A		2/20/2008	TO-15 SIM	0.39	ND 0.14	ND 0.068	ND 0.20	0.21	2.3	2.3	2.4	ND 0.68	1.0	ND 0.044
Building B														
370AMB1B		2/20/2008	TO-15 SIM	0.23	ND 0.13	ND 0.065	ND 0.20	ND 0.16	ND 0.13	0.89	ND 0.22	ND 0.65	0.30	ND 0.042
370AMB2B		2/20/2008	TO-15 SIM	ND 0.19	ND 0.14	ND 0.068	ND 0.20	ND 0.17	ND 0.14	0.87	ND 0.23	ND 0.68	ND 0.18	ND 0.044
370AMB3B		2/20/2008	TO-15 SIM	ND 0.18	ND 0.14	ND 0.067	ND 0.20	0.16	ND 0.13	0.89	ND 0.23	ND 0.67	ND 0.18	ND 0.043
370AMB4B (GRAB)	11:25	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
370AMB4B (GRAB)	14:18	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
370AMB4B (GRAB)	16:47	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
370AMB4B		2/20/2008	TO-15 SIM	ND 0.18	ND 0.13	ND 0.065	ND 0.20	ND 0.16	ND 0.13	0.82	ND 0.22	ND 0.65	ND 0.18	ND 0.042
370HVAC1B		2/20/2008	TO-15 SIM	ND 0.15	ND 0.11	ND 0.055	ND 0.17	ND 0.14	ND 0.11	0.90	ND 0.19	ND 0.55	ND 0.15	ND 0.036
370HVAC2B		2/20/2008	TO-15 SIM	ND 0.19	ND 0.14	ND 0.069	ND 0.21	0.24	ND 0.14	0.74	0.95	ND 0.69	ND 0.19	ND 0.045
370PATH1B		2/20/2008	TO-15 SIM	ND 0.18	ND 0.13	ND 0.065	ND 0.20	0.21	ND 0.13	0.87	2.8	ND 0.65	0.20	ND 0.042
370PATH2B		2/20/2008	TO-15 SIM	ND 0.15	ND 0.11	ND 0.054	ND 0.16	0.15	ND 0.11	0.90	ND 0.18	ND 0.54	0.47	ND 0.035

TABLE 13
2008 AIR SAMPLING RESULTS
350 - 380 ELLIS STREET, MOUNTAIN VIEW, CA

Location	Time	Date	Parameter Units Analytical Method	1,1,1-TCA µg/m3	1,1-DCA µg/m3	1,1-DCE µg/m3	1,2-DCB µg/m3	CHLORO-FORM µg/m3	CIS-1,2-DCE µg/m3	FREON 113 µg/m3	PCE µg/m3	TRANS-1,2-DCE µg/m3	TCE µg/m3	VINYL CHLORIDE µg/m3
Building C														
380AMB-HALL2Ce		2/20/2008	TO-15 SIM	ND 0.19	ND 0.14	ND 0.069	ND 0.21	ND 0.17	ND 0.14	0.84	ND 0.24	ND 0.69	ND 0.19	ND 0.045
380AMB1Ce		2/20/2008	TO-15 SIM	ND 0.18	ND 0.13	ND 0.064	ND 0.19	ND 0.16	ND 0.13	0.88	ND 0.22	ND 0.64	ND 0.17	ND 0.041
380AMB2Ce		2/20/2008	TO-15 SIM	ND 0.18	ND 0.13	ND 0.065	ND 0.20	0.22	ND 0.13	0.80	ND 0.22	ND 0.65	0.23	ND 0.042
380AMB3Ce		2/20/2008	TO-15 SIM	ND 0.20	ND 0.14	ND 0.071	ND 0.22	ND 0.17	ND 0.14	0.78	ND 0.24	ND 0.71	ND 0.19	ND 0.046
380AMB4Ce		2/20/2008	TO-15 SIM	ND 0.18	ND 0.14	ND 0.067	ND 0.20	ND 0.16	ND 0.13	0.87	ND 0.23	ND 0.67	ND 0.18	ND 0.043
380HVAC1Ce		2/20/2008	TO-15 SIM	ND 0.18	ND 0.14	ND 0.067	ND 0.20	ND 0.16	ND 0.13	0.90	ND 0.23	ND 0.67	ND 0.18	ND 0.043
380HVAC2Ce		2/20/2008	TO-15 SIM	ND 0.18	ND 0.13	0.093	ND 0.19	0.43	ND 0.13	0.87	ND 0.22	ND 0.64	ND 0.17	0.51
380PATH1Ce (GRAB)	11:10	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
380PATH1Ce (GRAB)	14:29	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
380PATH1Ce (GRAB)	17:06	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
380PATH1Ce		2/20/2008	TO-15 SIM	0.26	ND 0.14	0.070	ND 0.20	0.18	ND 0.13	2.0	ND 0.23	ND 0.67	0.25	ND 0.043
380PATH2Ce		2/20/2008	TO-15 SIM	ND 0.18	ND 0.13	ND 0.064	ND 0.19	0.17	ND 0.13	0.79	ND 0.22	ND 0.64	1.0	ND 0.041
380AMB1Cw		2/20/2008	TO-15 SIM	ND 0.16	ND 0.12	ND 0.060	ND 0.18	ND 0.15	ND 0.12	0.61	ND 0.21	ND 0.60	ND 0.16	ND 0.039
380AMB2Cw		2/20/2008	TO-15 SIM	ND 0.20	ND 0.15	ND 0.074	ND 0.22	ND 0.18	ND 0.15	0.79	ND 0.25	ND 0.74	ND 0.20	ND 0.048
380AMB3Cw		2/20/2008	TO-15 SIM	ND 0.19	ND 0.14	ND 0.069	ND 0.21	ND 0.17	ND 0.14	0.84	ND 0.24	ND 0.69	ND 0.19	ND 0.045
380AMB4Cw		2/20/2008	TO-15 SIM	ND 0.20	ND 0.15	ND 0.072	ND 0.22	0.64	ND 0.14	0.93	ND 0.25	ND 0.72	ND 0.20	ND 0.047
380HVAC1Cw (FD)		2/20/2008	TO-15 SIM	ND 0.19	ND 0.14	ND 0.068	ND 0.20	ND 0.17	ND 0.14	0.82	ND 0.23	ND 0.68	ND 0.18	ND 0.044
380HVAC1Cw		2/20/2008	TO-15 SIM	ND 0.19	ND 0.14	ND 0.068	ND 0.20	ND 0.17	ND 0.14	0.79	ND 0.23	ND 0.68	ND 0.18	ND 0.044
380PATH1Cw		2/20/2008	TO-15 SIM	ND 0.20	ND 0.15	ND 0.074	ND 0.22	0.21	ND 0.15	0.82	ND 0.25	ND 0.74	ND 0.20	ND 0.048
380ROOF1Cw		2/20/2008	TO-15 SIM	ND 0.18	ND 0.13	ND 0.065	ND 0.20	ND 0.16	ND 0.13	0.77	ND 0.22	ND 0.65	ND 0.18	ND 0.042
Building D														
380PATH1D		2/20/2008	TO-15 SIM	ND 0.18	ND 0.13	ND 0.064	ND 0.19	ND 0.16	ND 0.13	0.97	ND 0.22	ND 0.64	1.1	ND 0.041
380PATH2D		2/20/2008	TO-15 SIM	ND 0.18	ND 0.13	ND 0.064	ND 0.19	0.17	0.20	1.1	0.22	ND 0.64	6.4	ND 0.041
380PATH2D		7/09/2008	TO-15 SIM	ND 0.19	ND 0.14	ND 0.069	ND 0.21	0.25	ND 0.14	0.73	0.40	ND 0.69	1.7	ND 0.045
Building E														
350AMB1 (GRAB)	10:34	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350AMB1 (GRAB)	13:24	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350AMB1 (GRAB)	16:33	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350AMB1		2/20/2008	TO-15 SIM	ND 0.18	ND 0.13	ND 0.064	ND 0.19	0.16	ND 0.13	0.93	ND 0.22	ND 0.64	ND 0.17	ND 0.041
350AMB2 (GRAB)	10:53	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350AMB2 (GRAB)	13:38	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350AMB2 (GRAB)	16:13	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350AMB2		2/20/2008	TO-15 SIM	ND 0.16	ND 0.12	ND 0.058	ND 0.18	0.15	ND 0.12	1.0	ND 0.20	ND 0.58	ND 0.16	ND 0.037

TABLE 13
2008 AIR SAMPLING RESULTS
350 - 380 ELLIS STREET, MOUNTAIN VIEW, CA

Location	Time	Date	Parameter Units Analytical Method	1,1,1-TCA µg/m3	1,1-DCA µg/m3	1,1-DCE µg/m3	1,2-DCB µg/m3	CHLORO-FORM µg/m3	CIS-1,2-DCE µg/m3	FREON 113 µg/m3	PCE µg/m3	TRANS-1,2-DCE µg/m3	TCE µg/m3	VINYL CHLORIDE µg/m3
Building E														
350AMB3 (FD)		2/20/2008	TO-15 SIM	ND 0.18	ND 0.14	ND 0.067	ND 0.20	0.37	ND 0.13	0.99	ND 0.23	ND 0.67	ND 0.18	ND 0.043
350AMB3 (GRAB)	9:41	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350AMB3 (GRAB)	13:50	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350AMB3 (GRAB)	16:42	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350AMB3		2/20/2008	TO-15 SIM	ND 0.29	ND 0.22	ND 0.11	ND 0.32	0.46	ND 0.21	1.0	ND 0.36	ND 1.1	ND 0.29	ND 0.068
350AMB4 (GRAB)	10:03	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350AMB4 (GRAB)	14:07	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350AMB4 (GRAB)	16:53	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350AMB4		2/20/2008	TO-15 SIM	ND 0.19	ND 0.14	ND 0.069	ND 0.21	ND 0.17	ND 0.14	0.84	ND 0.24	ND 0.69	ND 0.19	ND 0.045
350HVAC1		2/20/2008	TO-15 SIM	ND 0.20	ND 0.14	ND 0.071	ND 0.22	ND 0.17	ND 0.14	0.82	ND 0.24	ND 0.71	ND 0.19	ND 0.046
350HVAC2		2/20/2008	TO-15 SIM	ND 0.18	ND 0.13	ND 0.064	ND 0.19	ND 0.16	ND 0.13	0.91	ND 0.22	ND 0.64	0.20	ND 0.041
350PATH1 (GRAB)	10:09	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350PATH1 (GRAB)	14:23	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350PATH1 (GRAB)	17:11	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350PATH1		2/20/2008	TO-15 SIM	ND 0.19	ND 0.14	ND 0.069	ND 0.21	ND 0.17	ND 0.14	1.0	ND 0.24	ND 0.69	ND 0.19	ND 0.045
350PATH2 (GRAB)	10:23	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350PATH2 (GRAB)	13:10	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350PATH2 (GRAB)	16:23	2/20/2008	EPA 8021	NT	NT	NT	NT	NT	ND 50	NT	ND 5.0	ND 50	ND 3.0	NT
350PATH2		2/20/2008	TO-15 SIM	0.21	ND 0.14	ND 0.069	ND 0.21	0.17	ND 0.14	1.9	0.97	ND 0.69	1.1	ND 0.045
SHORT-TERM EXPOSURE GOALS (µg/m3)														
Acute				10092	NA	NA	NA	488	NA	NA	1356	794	10740	1280
Intermediate				3822	NA	79.4	NA	244	NA	NA	NA	794	537	77
LONG-TERM EXPOSURE GOALS (µg/m3)														
Commercial				4370	988	400	400	0.23 - 23	70	58900	0.9 - 90	139	2.7	1.2 - 120
CAL-Modifed					3.4 - 340			0.98 - 98						

Notes:
NA - Not Available
ND - denotes result was below the detection limit
NT - sample not tested for the given parameter
FD - Field Duplicate
Grab samples were analyzed by an onsite mobile laboratory
Laboratory duplicates are not presented in this table

FIGURES

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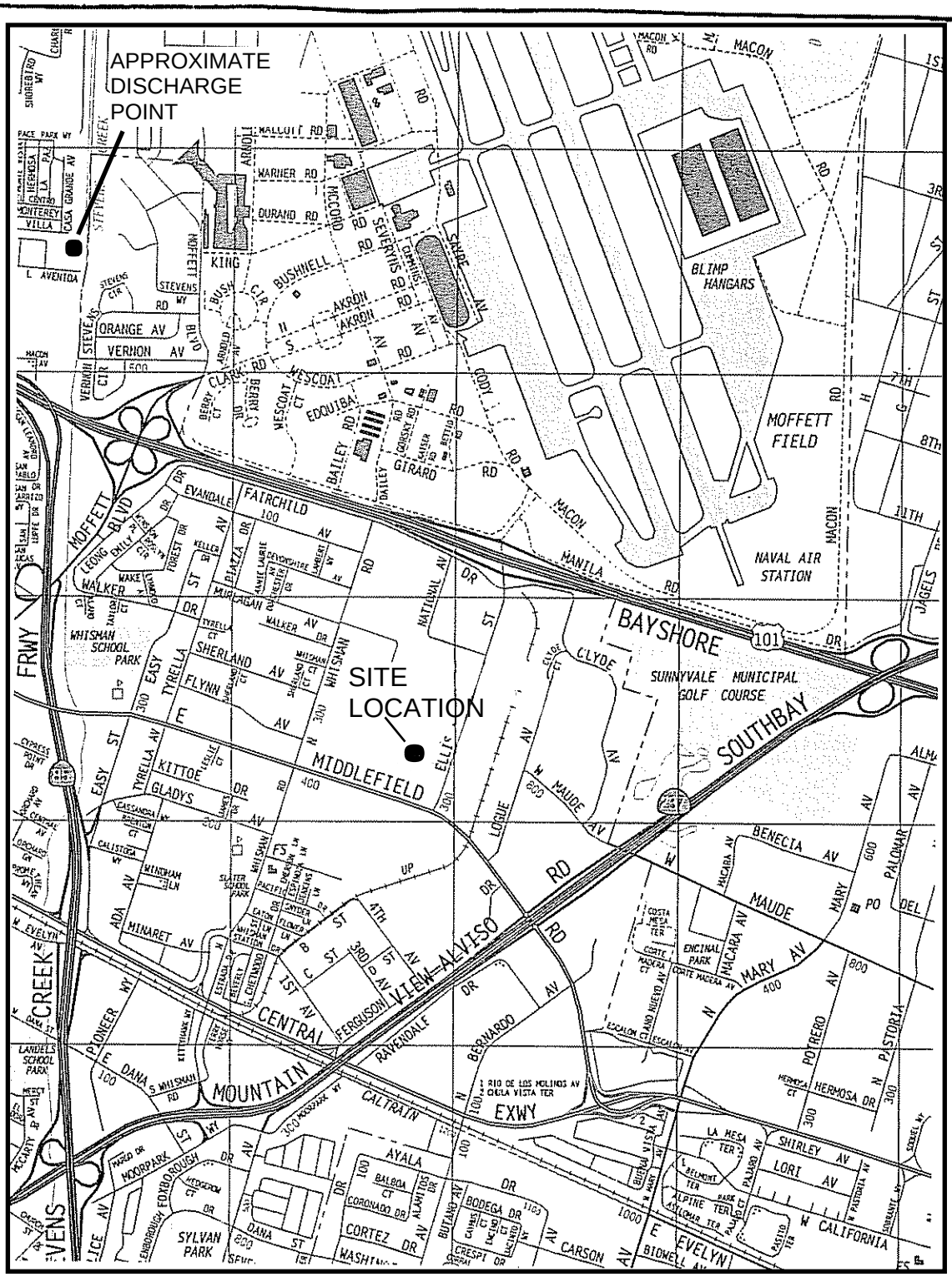

SCALE

2000 0 2000 FEET

SITE LOCATION MAP
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA

PREPARED FOR

RAYTHEON COMPANY

REFERENCE: 1998 THOMAS GUIDE,
SANTA CLARA/SAN MATEO COUNTIES.

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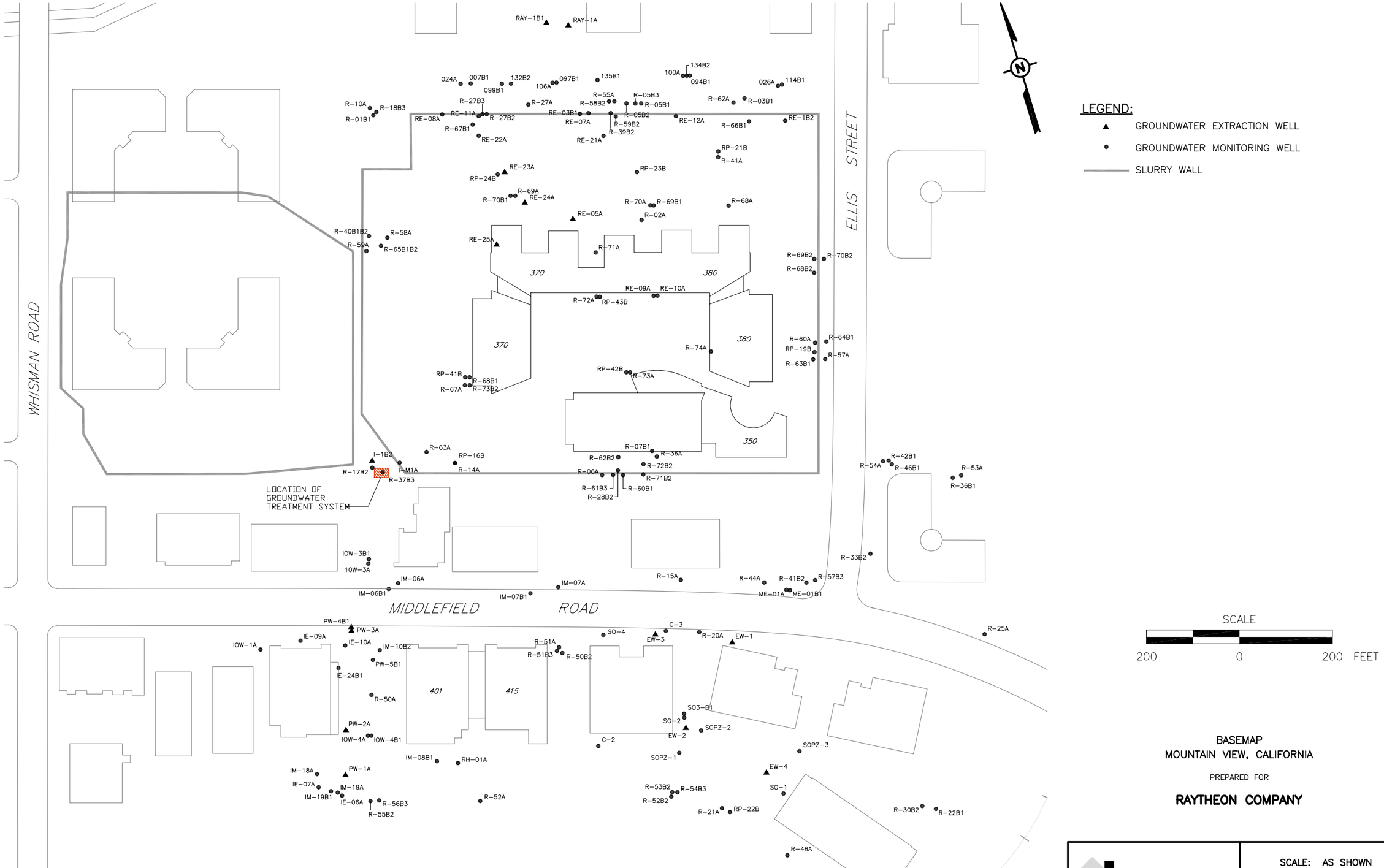
FIGURE 1

K:\23-016\A38.DWG 13 AUG 03



BASEMAP
MOUNTAIN VIEW, CALIFORNIA

PREPARED FOR

RAYTHEON COMPANY

No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	AP'D BY
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SCALE: AS SHOWN

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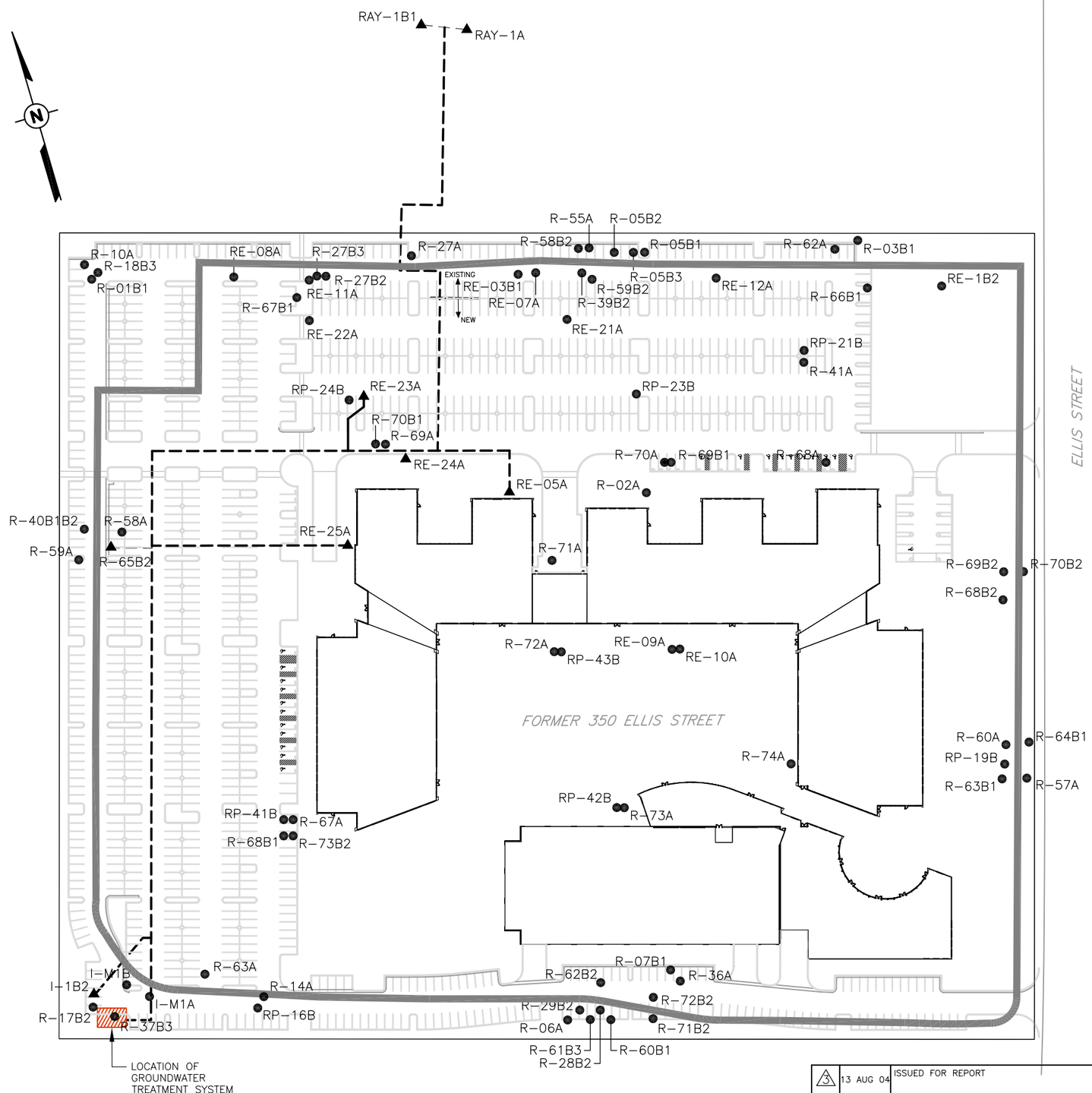
FIGURE 2

K:\23-016\B15.DWG 10 NOV 04



LEGEND:

- ▲ GROUNDWATER EXTRACTION WELL
- ● GROUNDWATER MONITORING WELL
- GROUNDWATER EXTRACTION PIPING (UNDERGROUND)
- PROPERTY BOUNDARY
- SLURRY WALL

SCALE

120 0 120 FEET

SITE PLAN
PROPERTY BOUNDARY
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA

PREPARED FOR

RAYTHEON COMPANY

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SCALE: AS SHOWN

DRAWING NO. 23-016-B37

FIGURE 3

K:\23-016\B37(LAYOUT2).DWG 19 NOV 03

FIGURE 4
TCE CONCENTRATIONS IN GROUNDWATER TREATMENT SYSTEM INFLUENT SINCE 2001
RAYTHEON COMPANY

350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

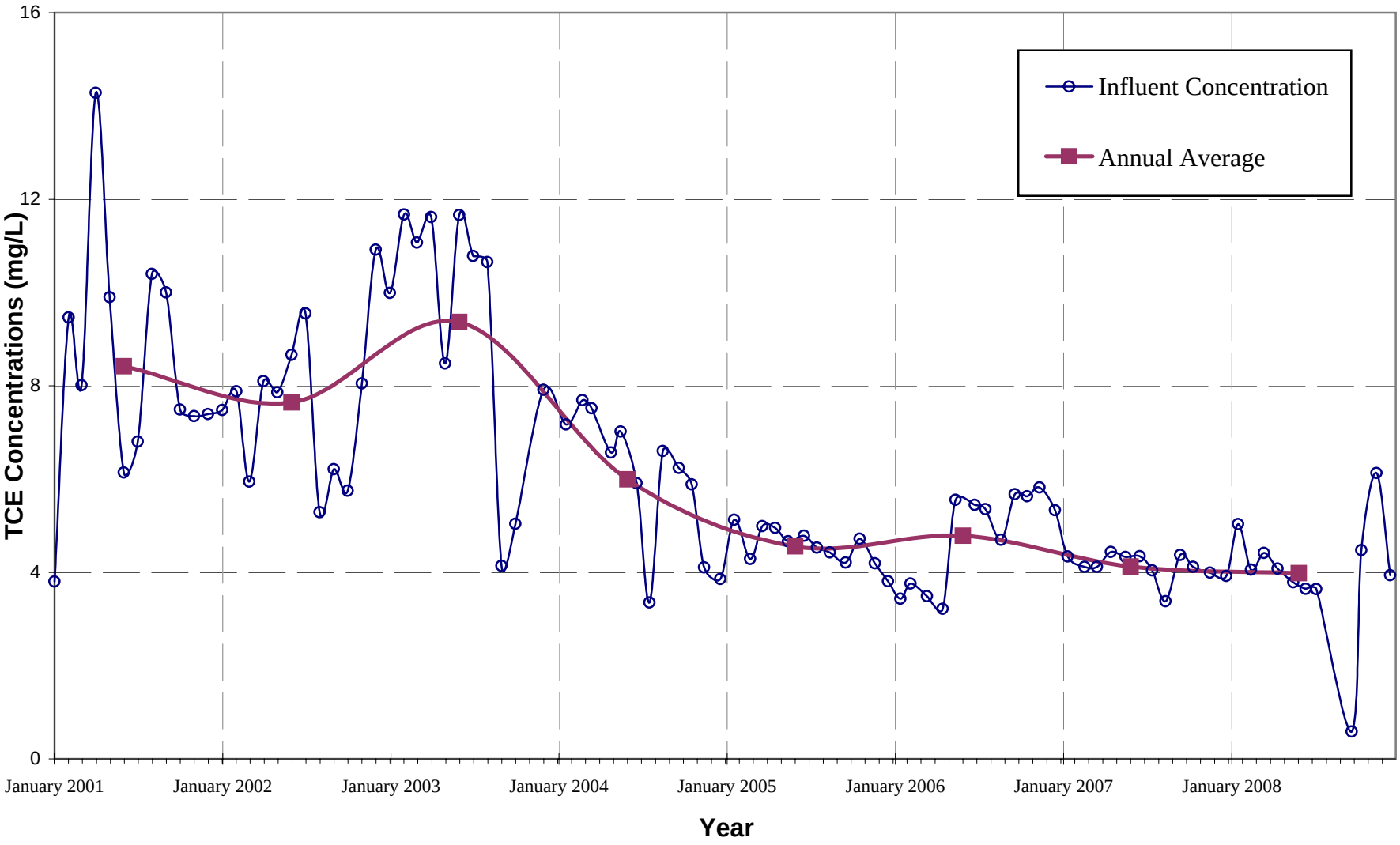
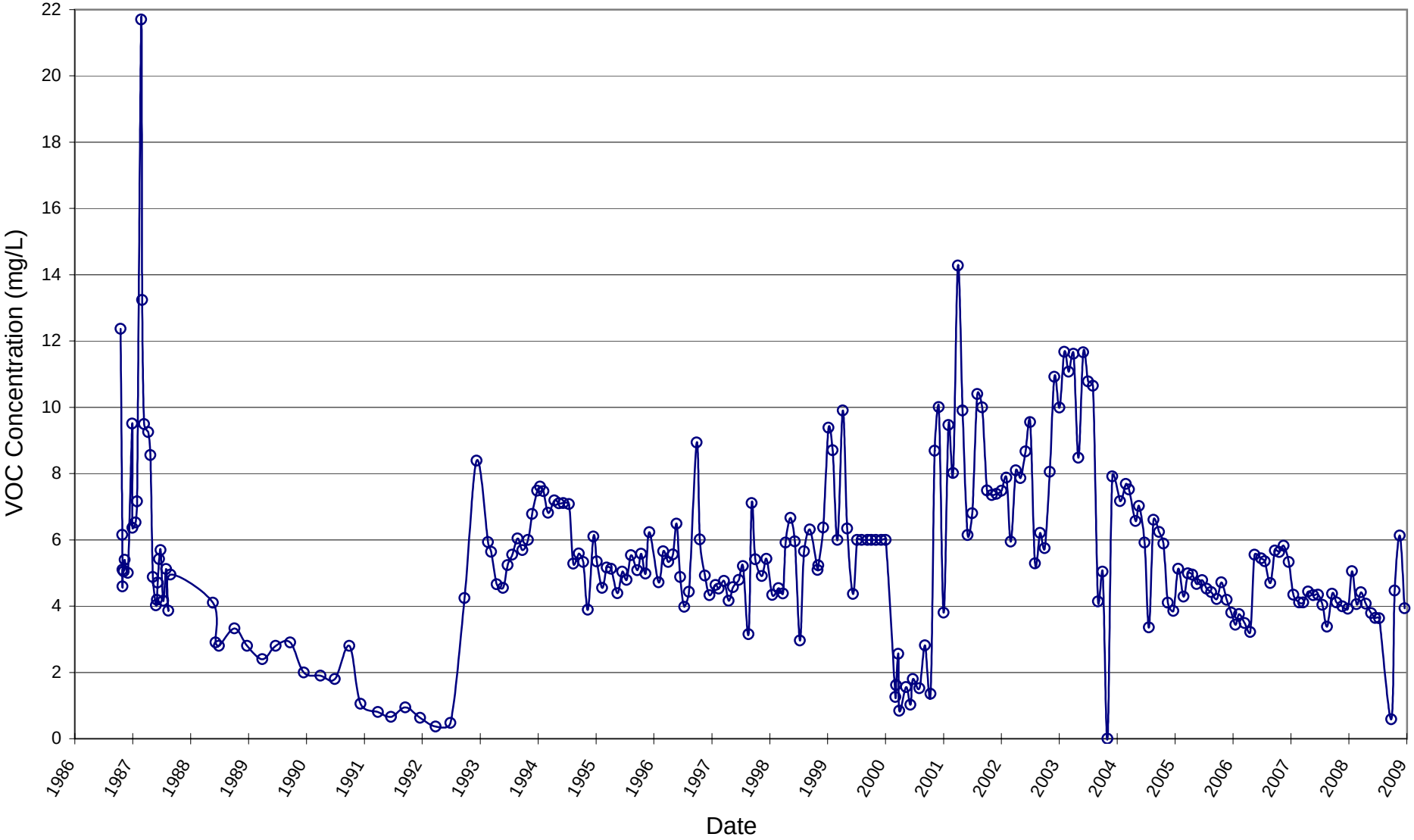
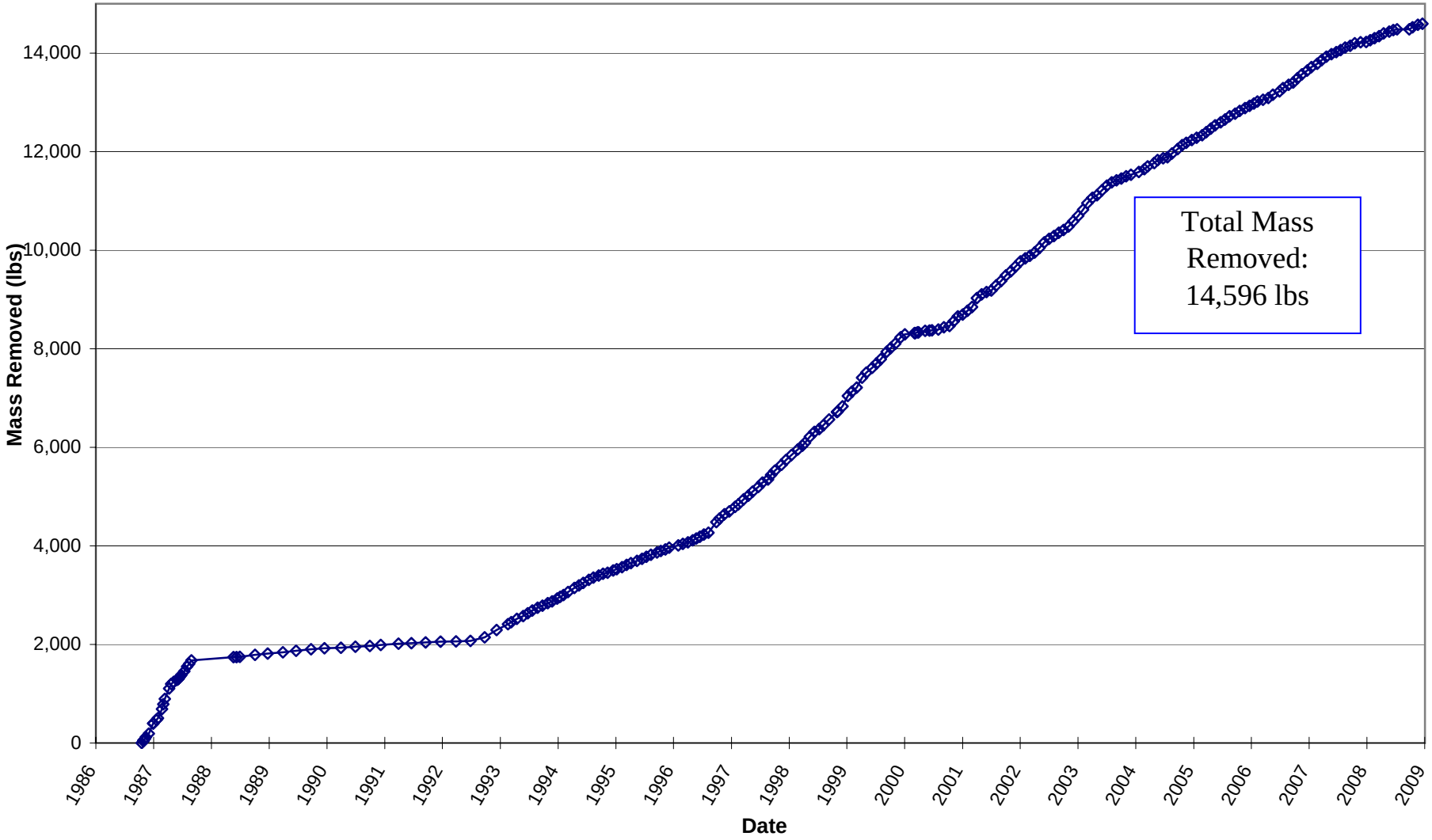


FIGURE 5
TOTAL INFLUENT GROUNDWATER CONCENTRATIONS
RAYTHEON COMPANY
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

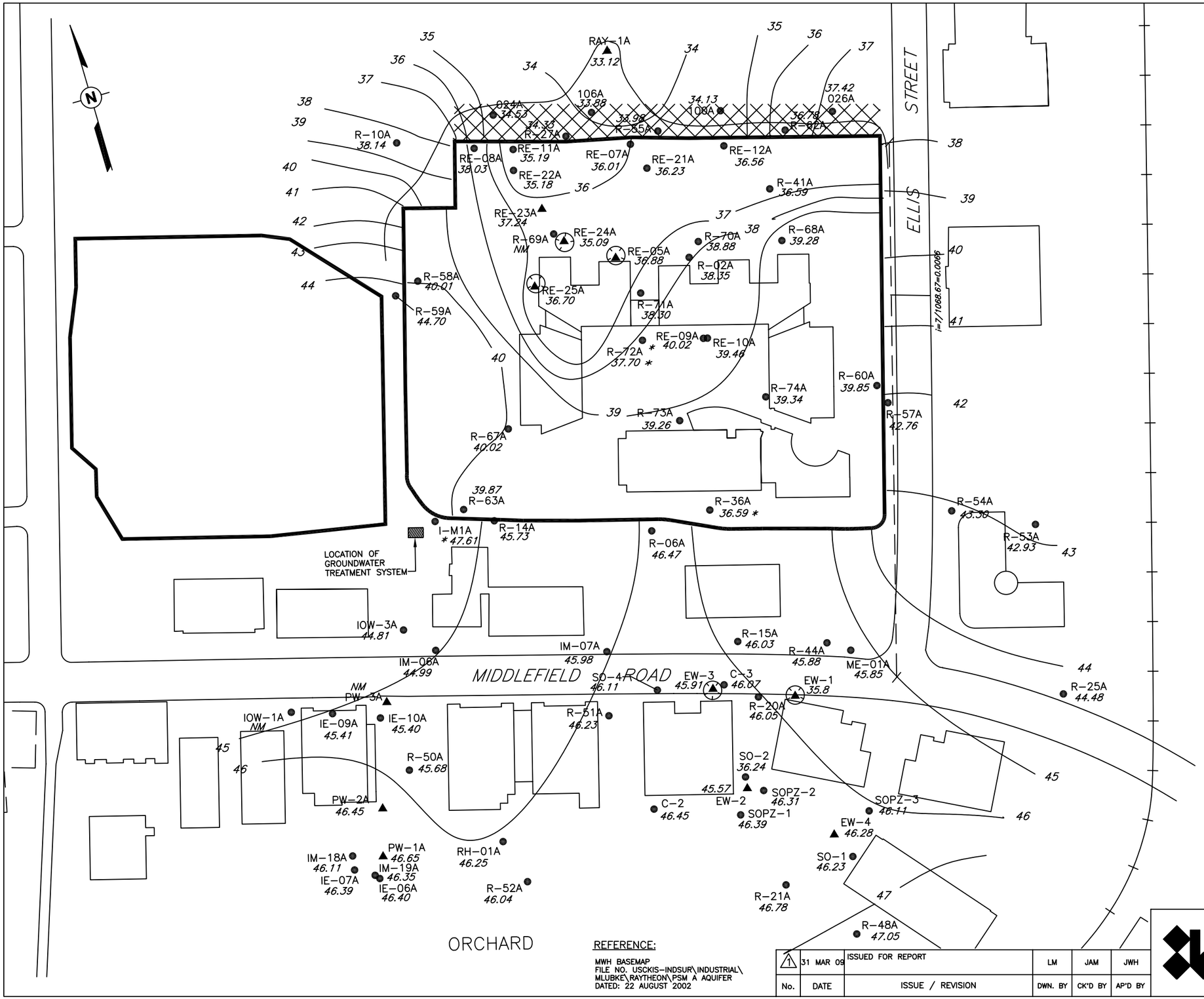


I:\23-016 Raytheon\Annual Rpts\Annual 2008\Tbl 3 Figs 4-5 VOC mass removal jm VOC Conc Chart 4/7/09

FIGURE 6
CUMULATIVE VOC MASS REMOVAL
RAYTHEON COMPANY
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA



I:\23-016 Raytheon\Annual Rpts\Annual 2008\Tbl 3 Figs 4-5 VOC mass removal jm Cum Mass Fig 4/7/2009



LEGEND:

- ▲ GROUNDWATER EXTRACTION WELL
- ● GROUNDWATER MONITORING WELL
- SLURRY WALL
- 35 POTENTIOMETRIC SURFACE CONTOUR
- 37.87 POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- GROUNDWATER DEPRESSION
- NM NOT MEASURED
- * DATA NOT USED IN CONTOURING
- CAPTURE ZONE
- TARGET CAPTURE ZONE

EXTRACTION WELL FLOWRATES (GPM)

RAY-1A	1.87
RE-05A	14.09
RE-23A	2.25
RE-24A	10.82
RE-25A	1.82

NOTES:

1. AVERAGE ONSITE HYDRAULIC GRADIENT, i=0.010

SCALE

200 0 200 FEET

POTENTIOMETRIC SURFACE MAP
"A" AQUIFER
27 MARCH 2008
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA

PREPARED FOR

RAYTHEON COMPANY

REFERENCE:

MWH BASEMAP
FILE NO. USCKIS-INDSUR\INDUSTRIAL\MLUBKE\RAYTHEON\PSM A AQUIFER
DATED: 22 AUGUST 2002

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SCALE: AS SHOWN

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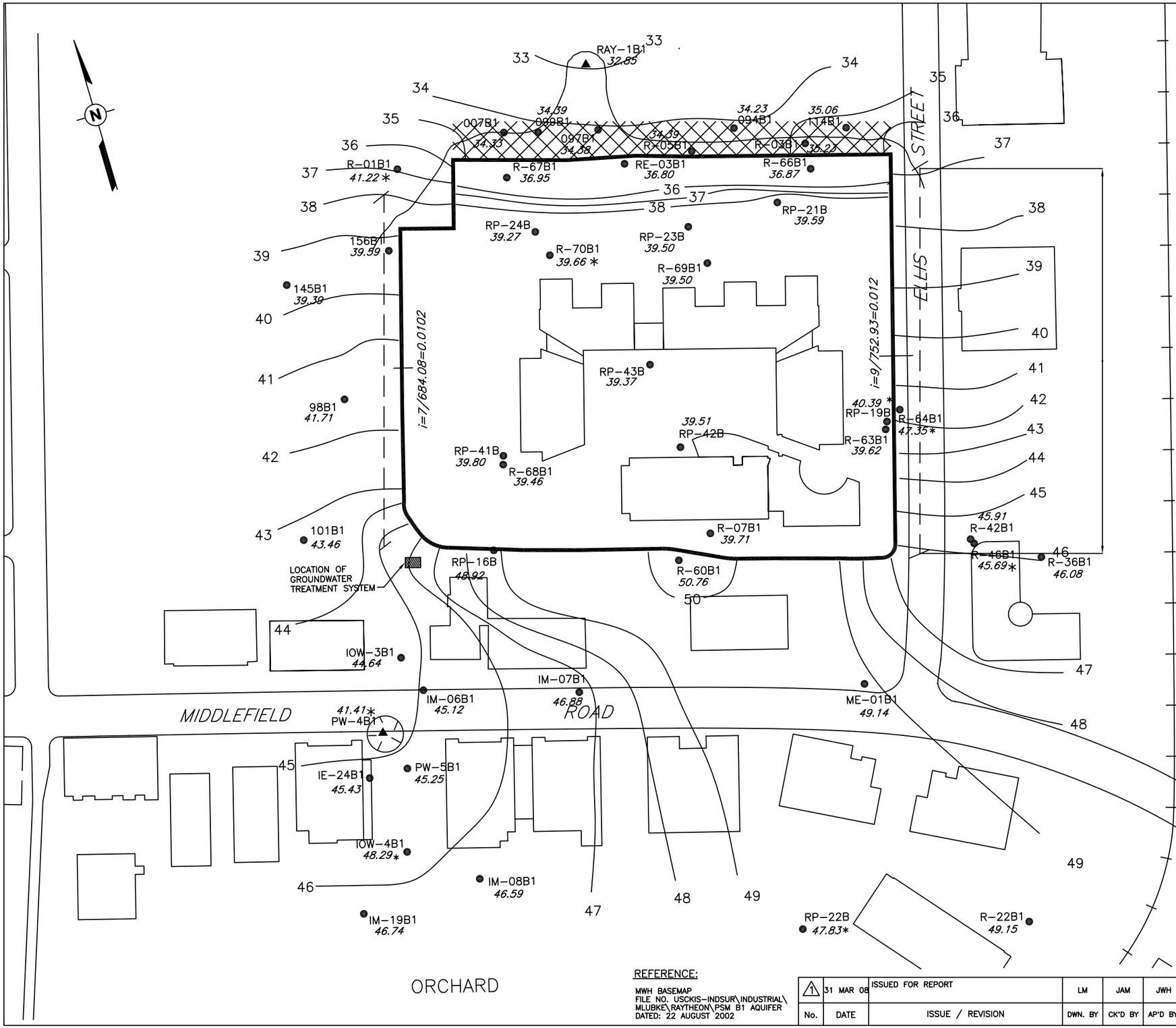
FIGURE 7

K:\23-016\B171.dwg



LEGEND:

- ▲ GROUNDWATER EXTRACTION WELL
- ● GROUNDWATER MONITORING WELL
- SLURRY WALL
- 35 POTENTIOMETRIC SURFACE CONTOUR
- 36.89 POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- GROUNDWATER DEPRESSION
- NM NOT MEASURED
- * DATA NOT USED IN CONTOURING
- CAPTURE ZONE
- TARGET CAPTURE ZONE

EXTRACTION WELL FLOWRATE (GPM)

RAY-1B1	3.47

NOTES:

1. AVERAGE ONSITE HYDRAULIC GRADIENT, i=0.0102

SCALE

200 0 200 FEET

POTENTIOMETRIC SURFACE MAP
"B1" AQUIFER
27 MARCH 2008
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA

PREPARED FOR

RAYTHEON COMPANY

REFERENCE:

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FILE NO. USCKIS-INDSUR\INDUSTRIAL\MLUBKE\RAYTHEON\PSM B1 AQUIFER
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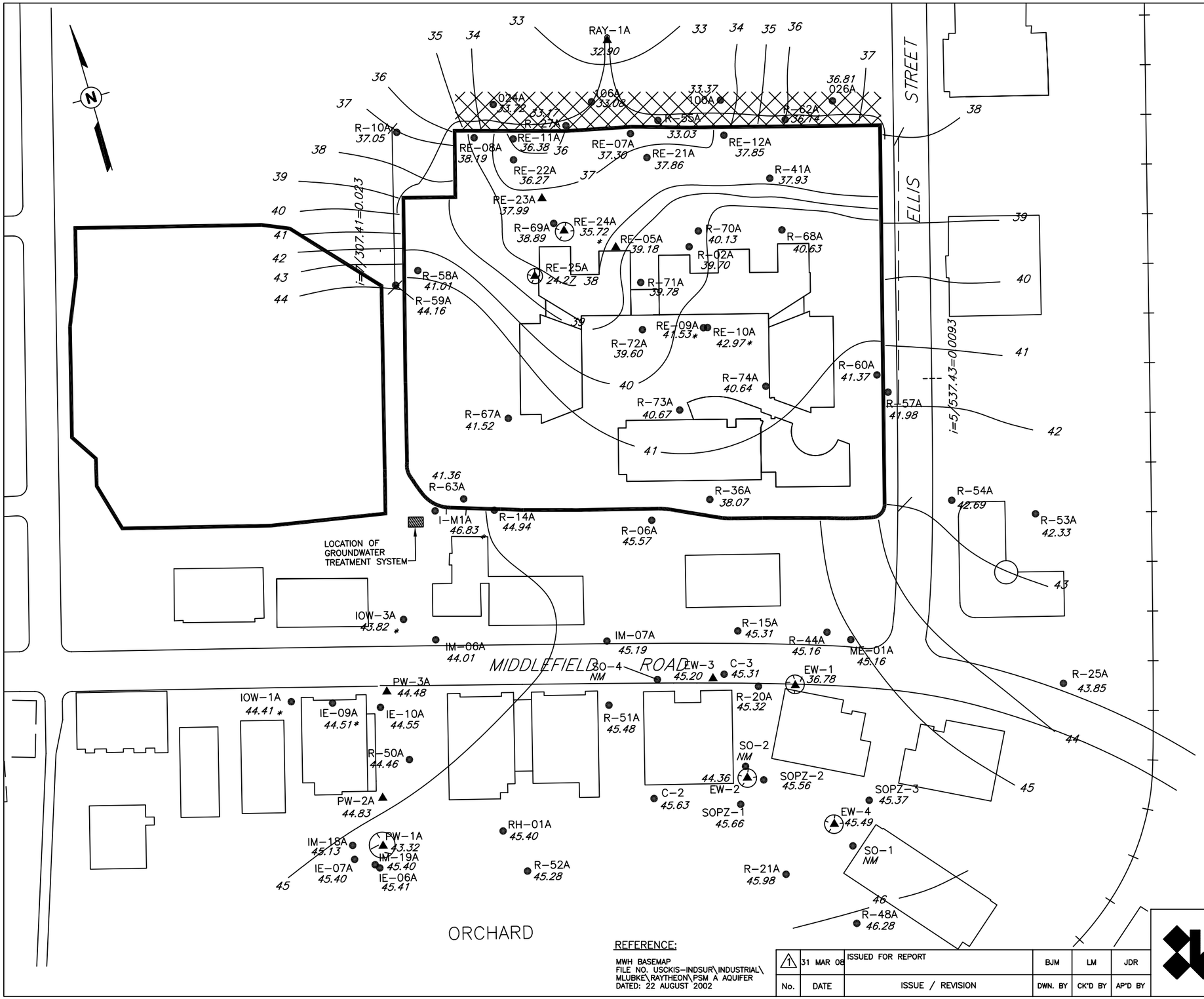
SCALE: AS SHOWN

DRAWING NO. 23-016-B172

FIGURE 8

K:\23-016\B172.dwg



LEGEND:

- ▲ GROUNDWATER EXTRACTION WELL
- ● GROUNDWATER MONITORING WELL
- SLURRY WALL
- 35 POTENTIOMETRIC SURFACE CONTOUR
- 37.74 POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- GROUNDWATER DEPRESSION
- NM NOT MEASURED
- * DATA NOT USED IN CONTOURING
- CAPTURE ZONE
- TARGET CAPTURE ZONE

EXTRACTION WELL FLOWRATES (GPM)

RAY-1A	0.60
RE-05A	5.69
RE-23A	3.79
RE-24A	14.37
RE-25A	0.11

NOTES:

1. AVERAGE ONSITE HYDRAULIC GRADIENT, i=0.016

SCALE

200 0 200 FEET

POTENTIOMETRIC SURFACE MAP
"A" AQUIFER
20 NOVEMBER 2008
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA

PREPARED FOR

RAYTHEON COMPANY

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FILE NO. USCKIS-INDSUR\INDUSTRIAL\MLUBKE\RAYTHEON\PSM A AQUIFER
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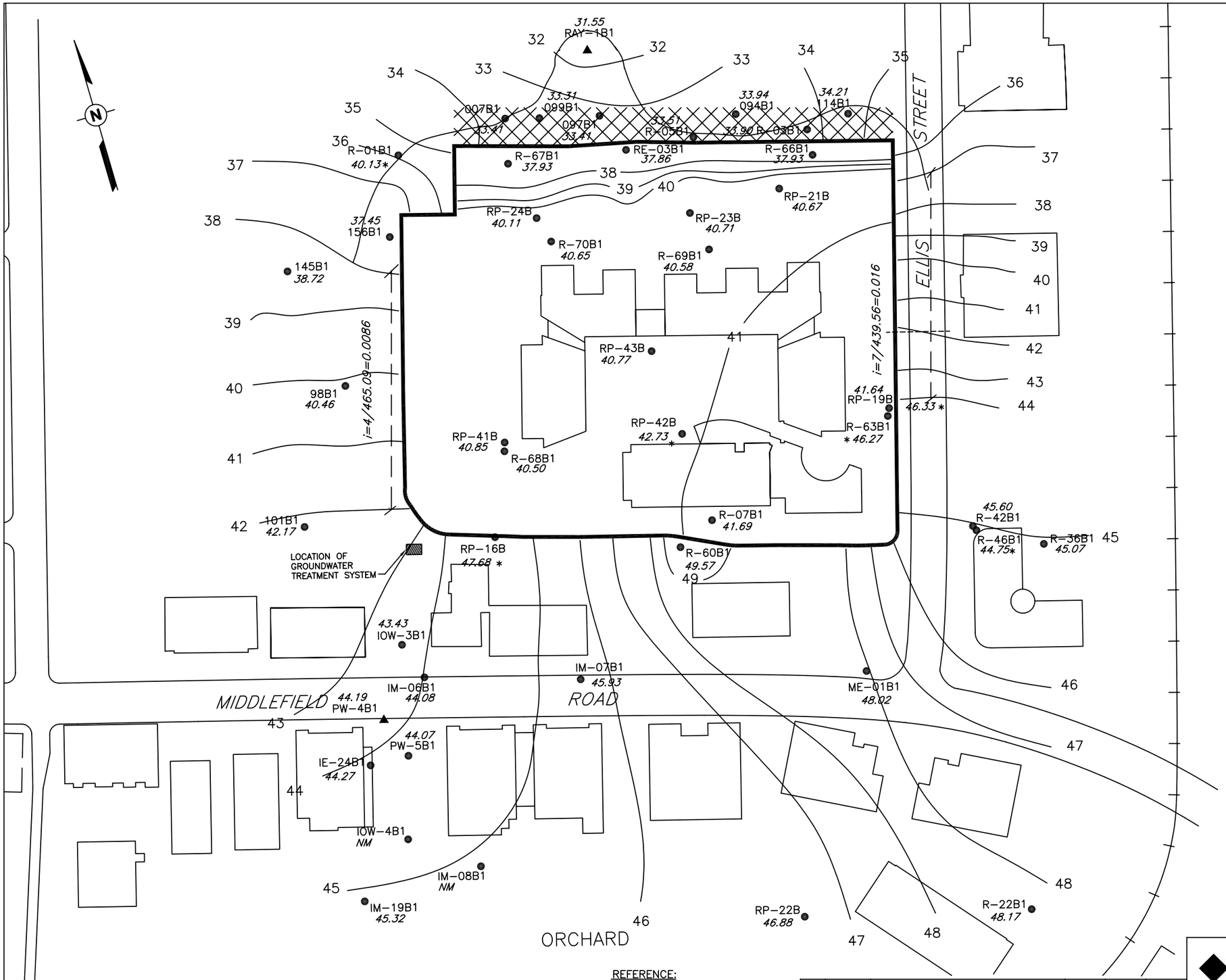
SCALE: AS SHOWN

DRAWING NO. 23-016-B173

FIGURE 9

K:\23-016\B173.dwg



LEGEND:

- ▲ GROUNDWATER EXTRACTION WELL
- ● GROUNDWATER MONITORING WELL
- SLURRY WALL
- 33 POTENTIOMETRIC SURFACE CONTOUR
- 32.62 POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- GROUNDWATER DEPRESSION
- NM NOT MEASURED
- * DATA NOT USED IN CONTOURING
- CAPTURE ZONE
- TARGET CAPTURE ZONE

EXTRACTION WELL FLOWRATE (GPM)

RAY-1B1	5.18

NOTES:

1. AVERAGE ONSITE HYDRAULIC GRADIENT, i=0.0123

SCALE

200 0 200 FEET

POTENTIOMETRIC SURFACE MAP
"B1" AQUIFER
20 NOVEMBER 2008
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA

PREPARED FOR

RAYTHEON COMPANY

REFERENCE:

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FILE NO. USCKIS--INDSUR\INDUSTRIAL\
MLUBKE\RAYTHEON\PSM B1 AQUIFER
DATED: 22 AUGUST 2002

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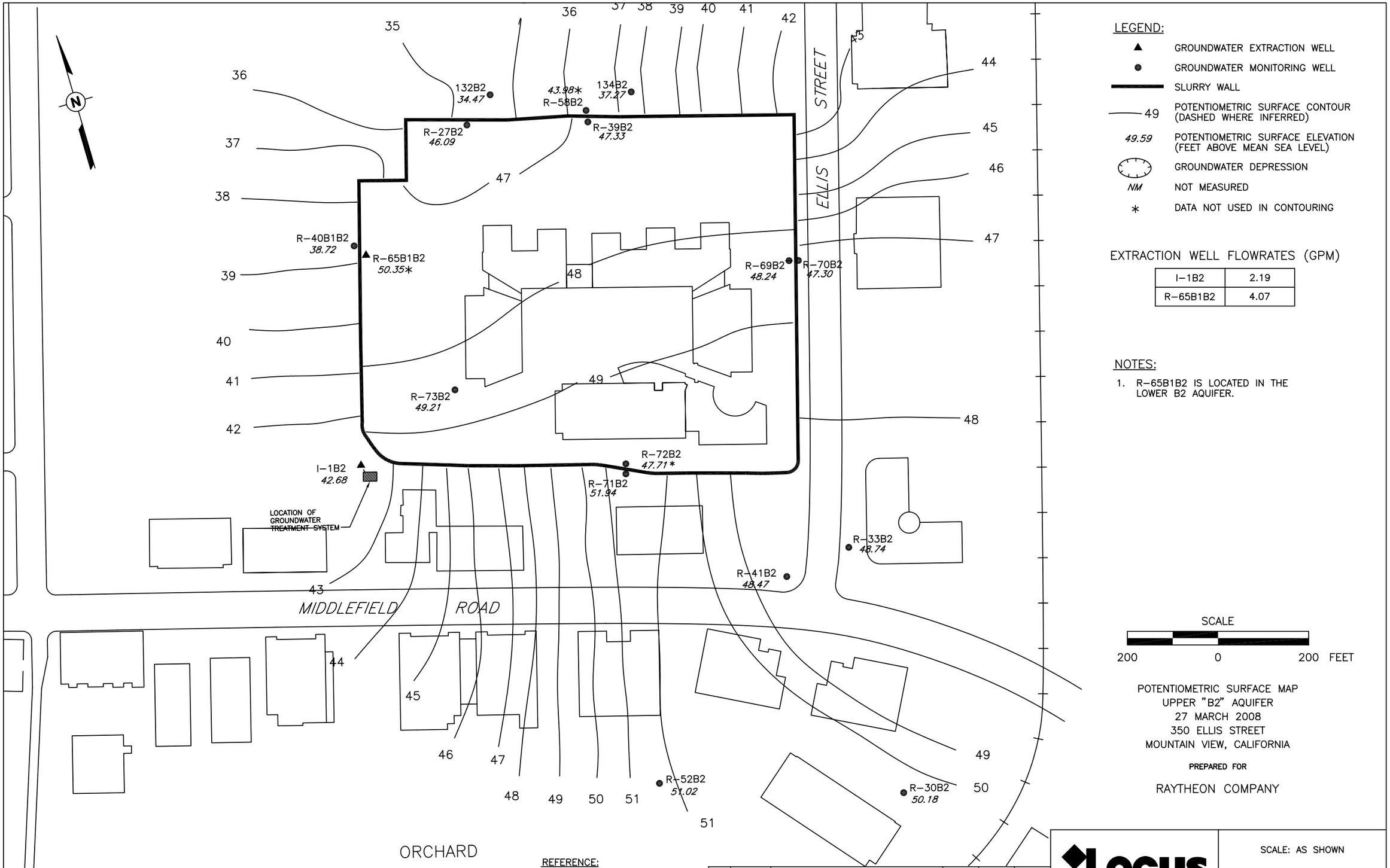
SCALE: AS SHOWN

DRAWING NO. 23-016-B174

FIGURE 10

K:\23-016\B174.dwg



LEGEND:

- ▲ GROUNDWATER EXTRACTION WELL
- ● GROUNDWATER MONITORING WELL
- SLURRY WALL
- 49 POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
- 49.59 POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- GROUNDWATER DEPRESSION
- NM NOT MEASURED
- * DATA NOT USED IN CONTOURING

EXTRACTION WELL FLOWRATES (GPM)

I-1B2	2.19
R-65B1B2	4.07

NOTES:

1. R-65B1B2 IS LOCATED IN THE LOWER B2 AQUIFER.

SCALE

200 0 200 FEET

POTENTIOMETRIC SURFACE MAP
UPPER "B2" AQUIFER
27 MARCH 2008
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA

PREPARED FOR

RAYTHEON COMPANY

REFERENCE:

MWH BASEMAP
FILE NO. USCKIS-INDSUR\INDUSTRIAL\MLUBKE\RAYTHEON\PSM UB2 AQUIFER
DATED: 22 AUGUST 2002

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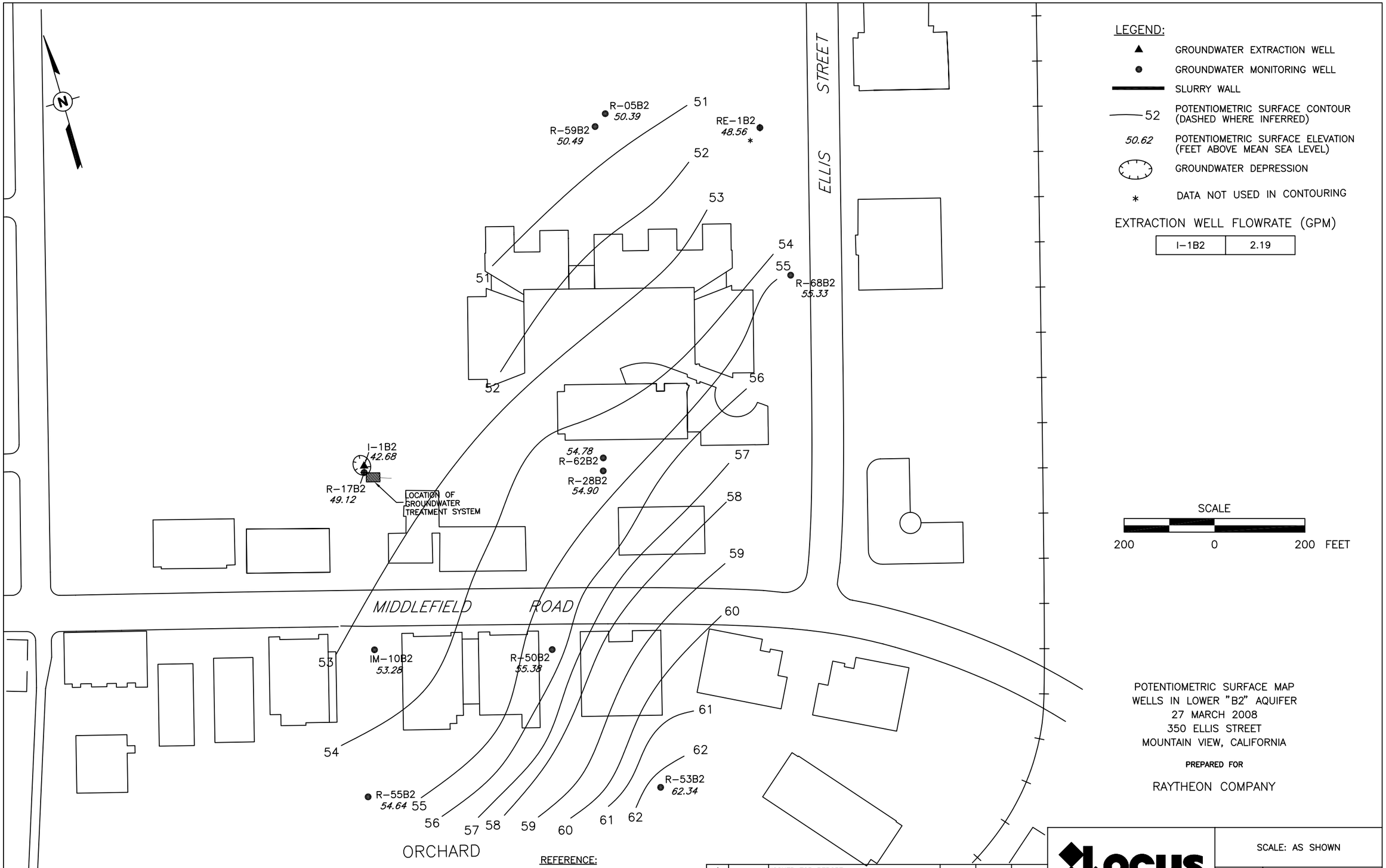
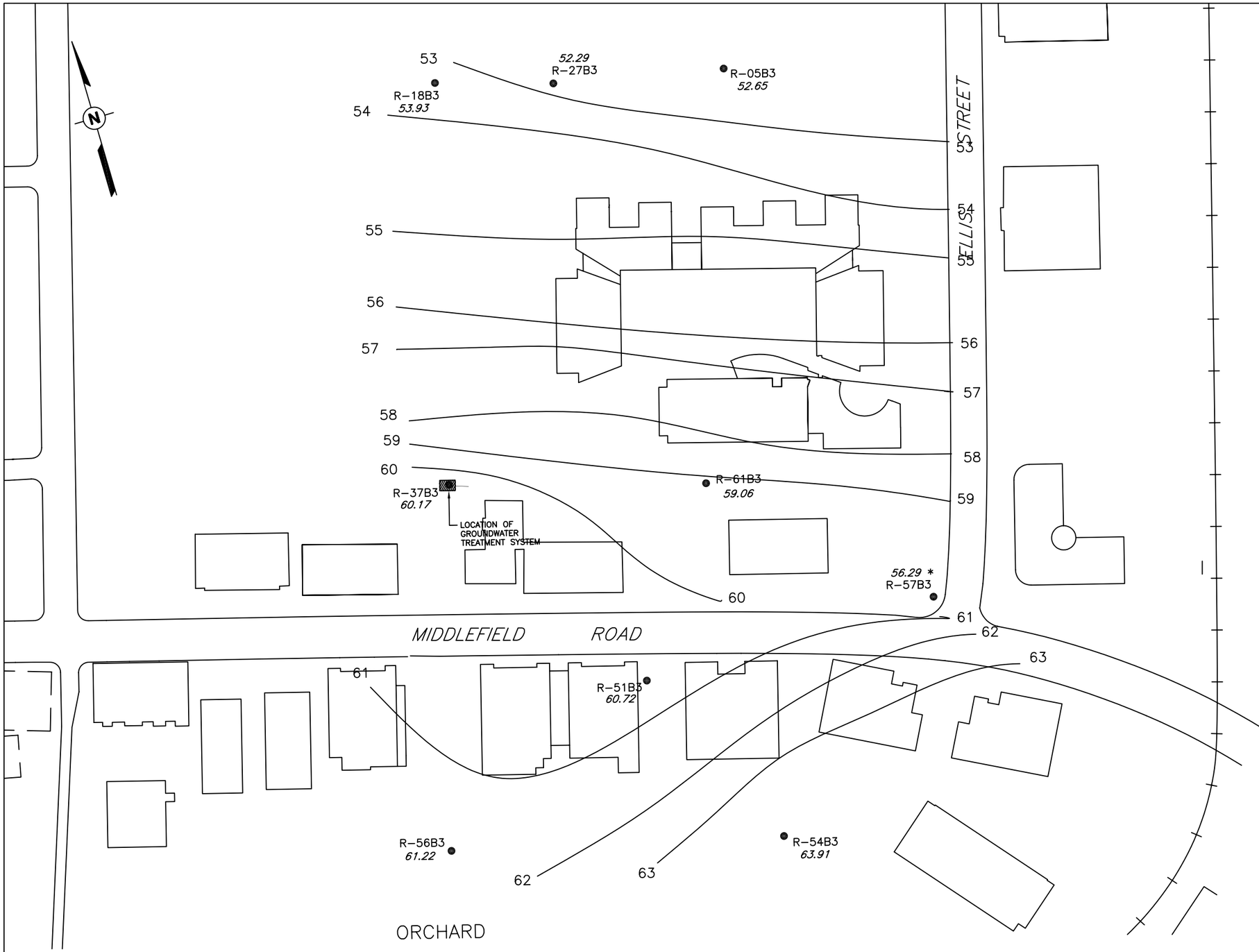
SCALE: AS SHOWN

DRAWING NO. 23-016-B175

FIGURE 11

K:\23-016\B175.dwg


N
ELLIS STREET
MIDDLEFIELD ROAD
ORCHARD
R-05B2
50.39
R-59B2
50.49
RE-1B2
48.56
R-68B2
55.33
I-1B2
42.68
R-17B2
49.12
LOCATION OF GROUNDWATER TREATMENT SYSTEM
54.78
R-62B2
R-28B2
54.90
IM-10B2
53.28
R-50B2
55.38
R-55B2
54.64
R-53B2
62.34
51
52
53
54
55
56
57
58
59
60
61
62
LEGEND:
GROUNDWATER EXTRACTION WELL
GROUNDWATER MONITORING WELL
SLURRY WALL
52 POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
50.62 POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
GROUNDWATER DEPRESSION
* DATA NOT USED IN CONTOURING
EXTRACTION WELL FLOWRATE (GPM)
I-1B2 2.19
SCALE
200 0 200 FEET
POTENTIOMETRIC SURFACE MAP
WELLS IN LOWER "B2" AQUIFER
27 MARCH 2008
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA
PREPARED FOR
RAYTHEON COMPANY
REFERENCE:
MWH BASEMAP
FILE NO. USCKIS--INDSUR\INDUSTRIAL\MLUBKE\RAYTHEON\PSM LB2 AQUIFER
DATED: 22 AUGUST 2002
1 31 MAR 09 ISSUED FOR REPORT LM JAM JWH
No. DATE ISSUE / REVISION DWN. BY CK'D BY AP'D BY
locus TECHNOLOGIES
SCALE: AS SHOWN
DRAWING NO. 23-016-B176
FIGURE 12
K:\23-016\B176.dwg



LEGEND:

- ● GROUNDWATER MONITORING WELL
- —— 56 POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
- *53.21* POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- * DATA NOT INCLUDED IN CONTOURING

SCALE

200 0 200 FEET

POTENTIOMETRIC SURFACE MAP
WELLS IN "B3" AQUIFER
27 MARCH 2008
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA

PREPARED FOR

RAYTHEON COMPANY

REFERENCE:

MWH BASEMAP
FILE NO. USCKIS-INDSUR\INDUSTRIAL\MLUBKE\RAYTHEON\PSM B3 AQUIFER
DATED: 22 AUGUST 2002

No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	AP'D BY
1	31 MAR 09	ISSUED FOR REPORT	LM	JAM	JWH

locus TECHNOLOGIES

SCALE: AS SHOWN

DRAWING NO. 23-016-B177

FIGURE 13

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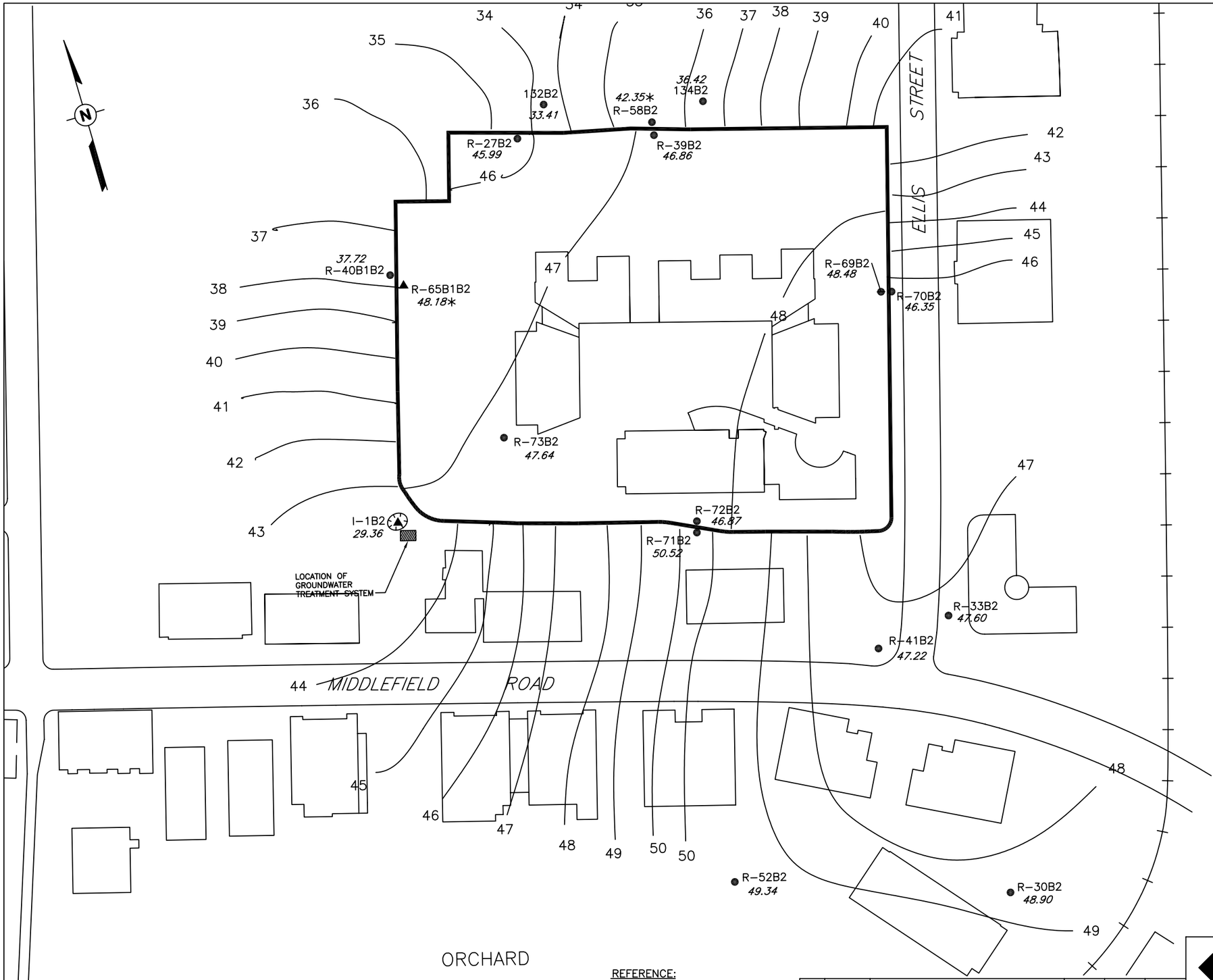

LEGEND:

- ▲ GROUNDWATER EXTRACTION WELL
- ● GROUNDWATER MONITORING WELL
- SLURRY WALL
- 47 POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
- 47.88 POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- GROUNDWATER DEPRESSION
- NM NOT MEASURED
- * DATA NOT USED IN CONTOURING

EXTRACTION WELL FLOWRATES (GPM)

I-1B2	3.04
R-65B1B2	5.09

LEGEND:

1. R-65B1B2 IS LOCATED IN THE LOWER B2 AQUIFER,

SCALE

200 0 200 FEET

POTENTIOMETRIC SURFACE MAP
UPPER "B2" AQUIFER
20 NOVEMBER 2008
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA

PREPARED FOR

RAYTHEON COMPANY

REFERENCE:

MWH BASEMAP
FILE NO. USCKIS-INDSUR\INDUSTRIAL\MLUBKE\RAYTHEON\PSM UB2 AQUIFER
DATED: 22 AUGUST 2002

No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	AP'D BY
1	31 MAR 09	ISSUED FOR REPORT	LM	JAM	JWH

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SCALE: AS SHOWN

DRAWING NO. 23-016-B178

FIGURE 14

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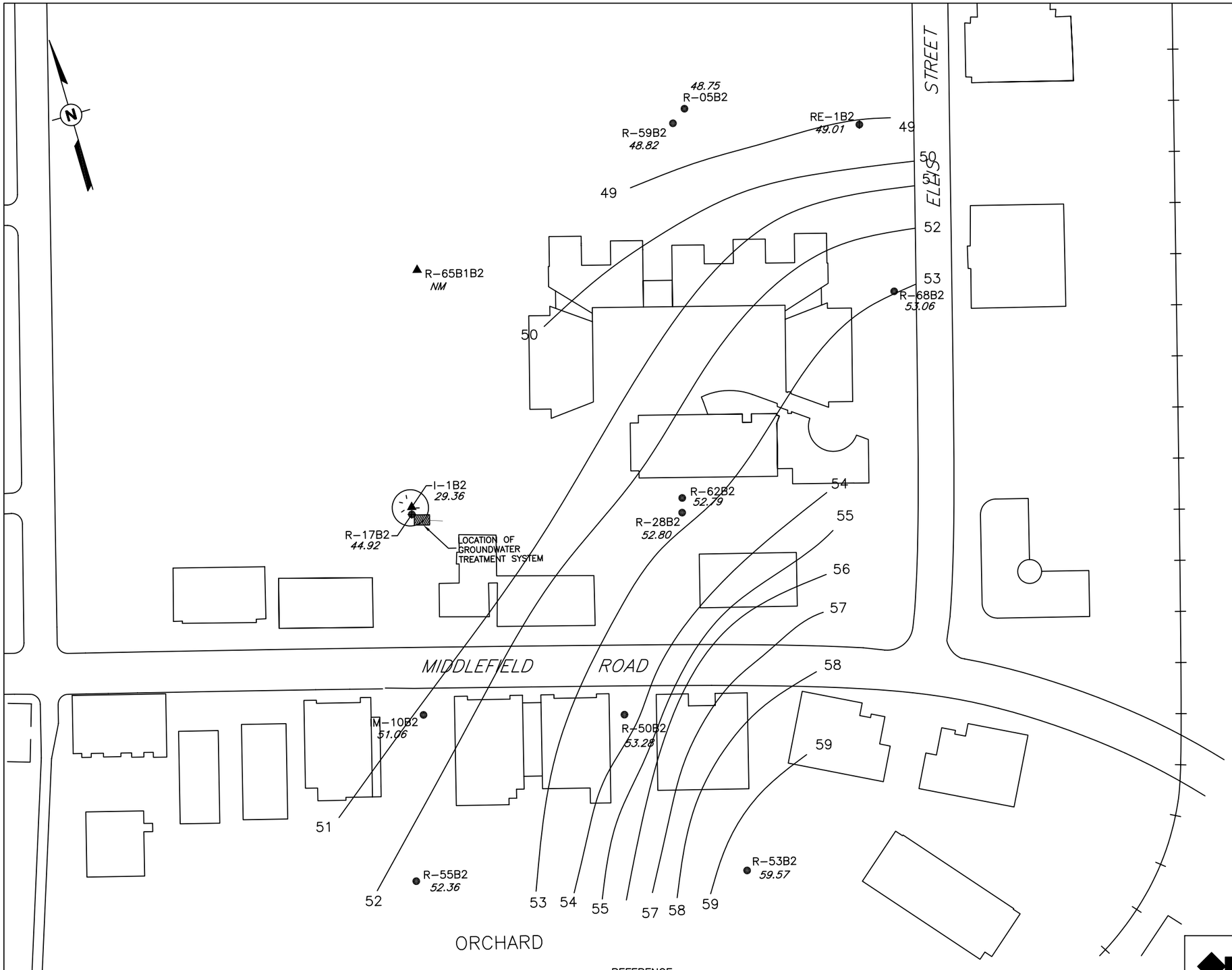

LEGEND:

- ▲ GROUNDWATER EXTRACTION WELL
- ● GROUNDWATER MONITORING WELL
- SLURRY WALL
- 51 POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
- *50.61* POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- GROUNDWATER DEPRESSION
- NM NOT MEASURED

EXTRACTION WELL FLOWRATE (GPM)

I-1B2	3.02
R-65BIB2	5.07

SCALE

200 0 200 FEET

POTENTIOMETRIC SURFACE MAP
WELLS IN LOWER "B2" AQUIFER
20 NOVEMBER 2008
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA

PREPARED FOR

RAYTHEON COMPANY

REFERENCE:

MWH BASEMAP
FILE NO. USCKIS-INDSUR\INDUSTRIAL\MLUBKE\RAYTHEON\PSM LB2 AQUIFER
DATED: 22 AUGUST 2002

No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	AP'D BY
1	31 MAR 09	ISSUED FOR REPORT	LM	JAM	JWH

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SCALE: AS SHOWN

DRAWING NO. 23-016-B179

FIGURE 15

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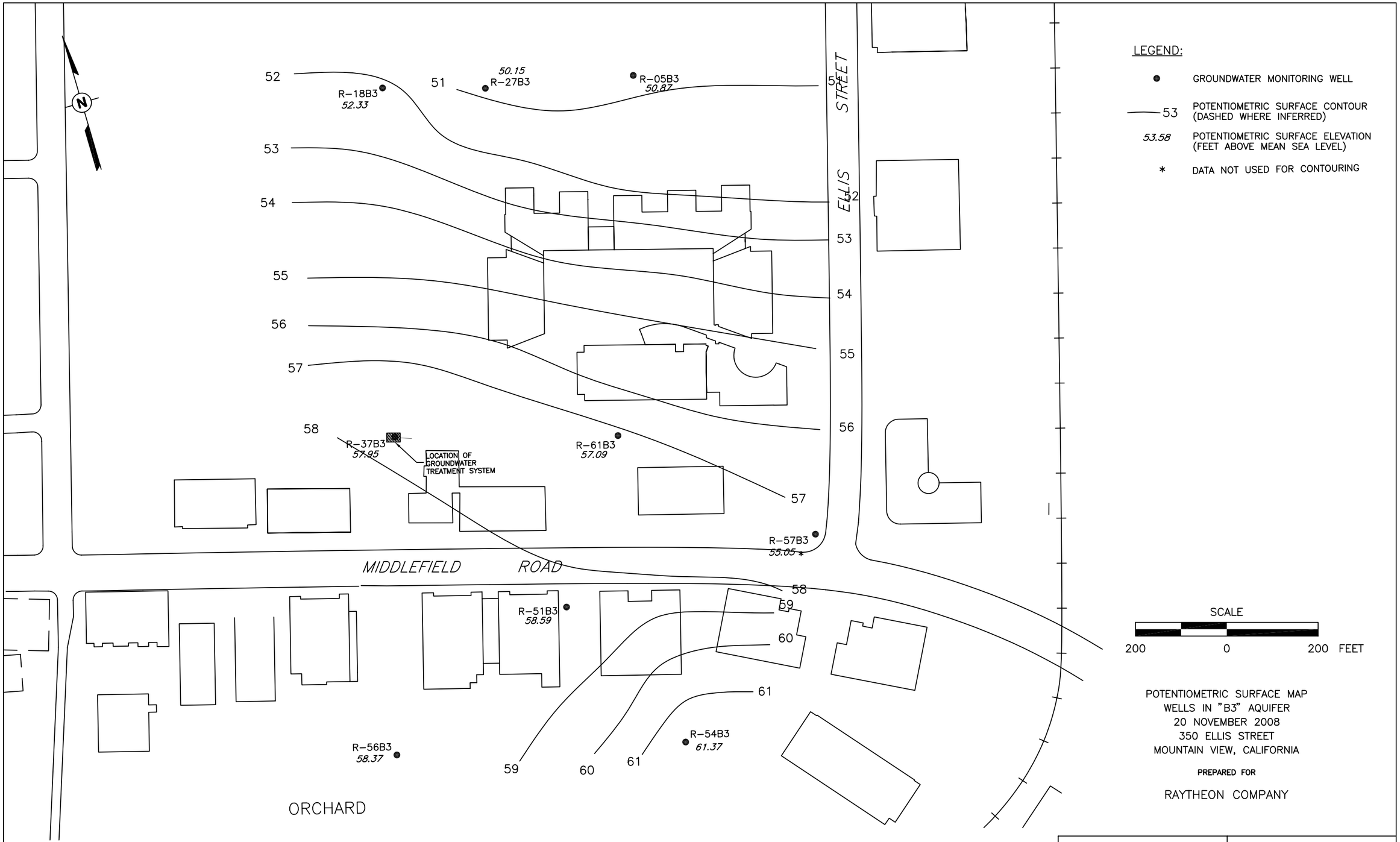

REFERENCE:

MWH BASEMAP
FILE NO. USCKIS-INDSUR\INDUSTRIAL\MLUBKE\RAYTHEON\PSM B3 AQUIFER
DATED: 22 AUGUST 2002

No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	AP'D BY
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locus TECHNOLOGIES

SCALE: AS SHOWN

DRAWING NO. 23-016-B180

FIGURE 16

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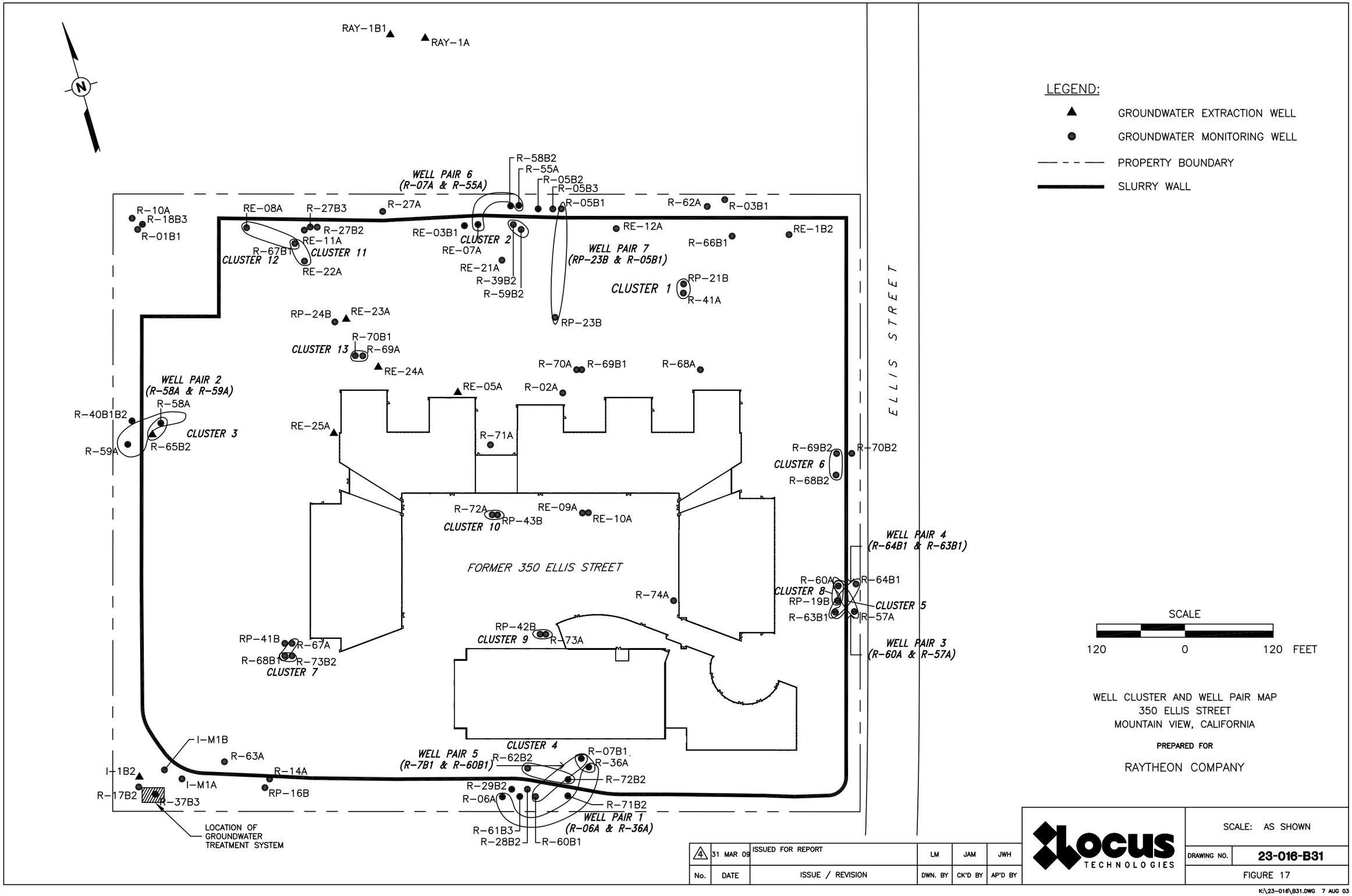

WELL CLUSTER AND WELL PAIR MAP
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA

PREPARED FOR

RAYTHEON COMPANY

No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	AP'D BY
4	31 MAR 09	ISSUED FOR REPORT	LM	JAM	JWH

locus TECHNOLOGIES

SCALE: AS SHOWN

DRAWING NO. 23-016-B31

FIGURE 17

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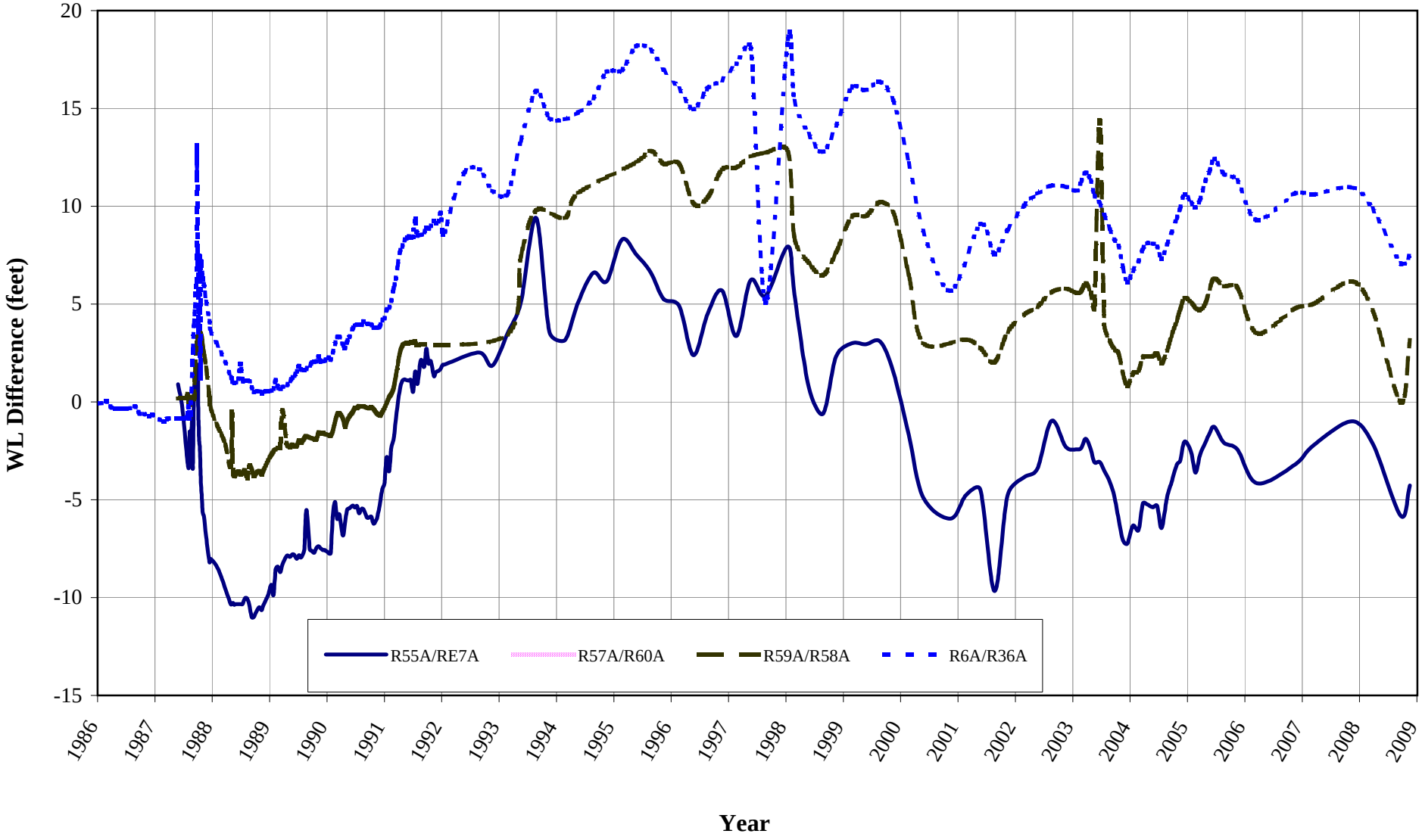
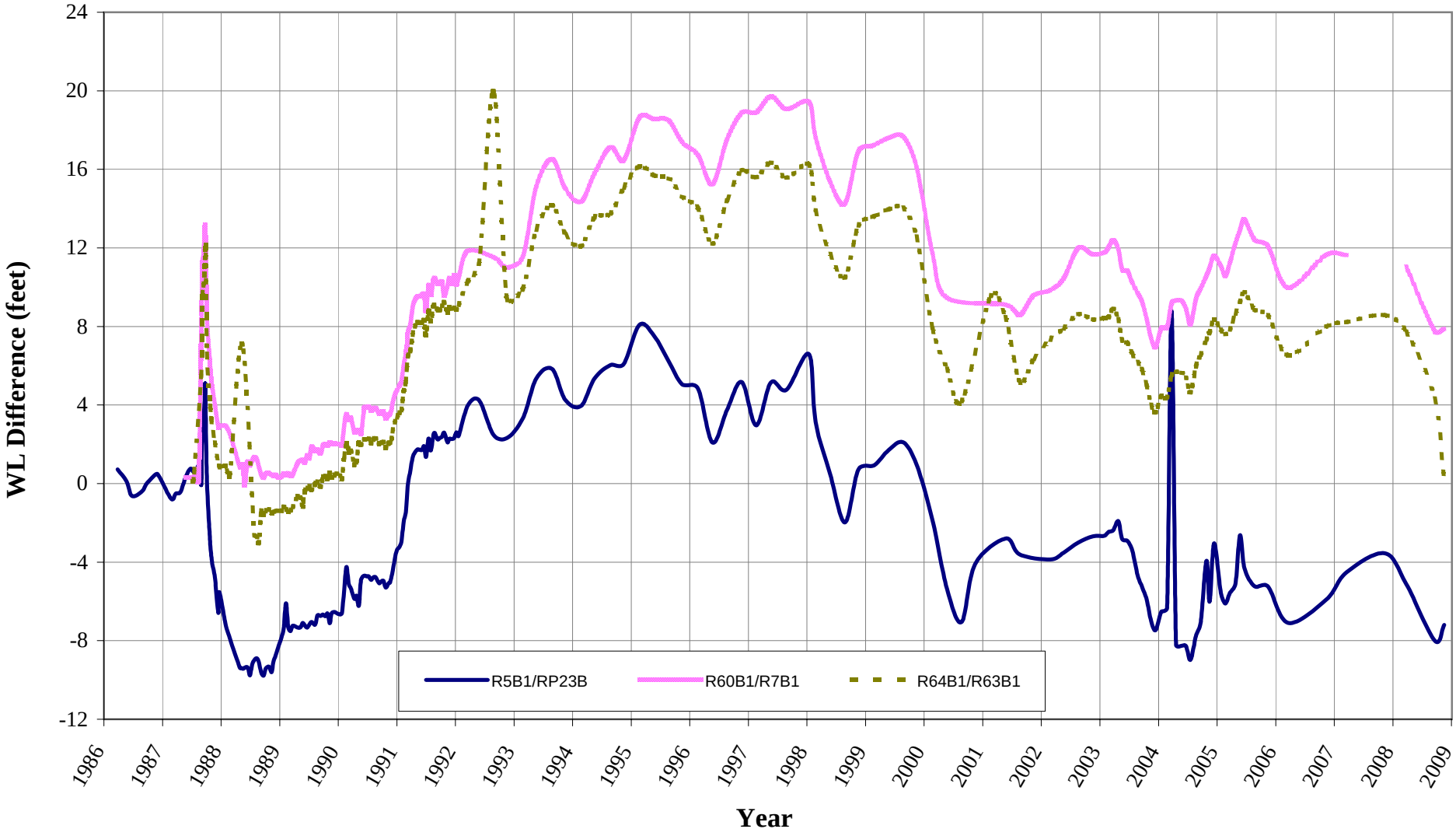
Figure 18
Water Elevation Differences Across the Slurry Wall in the "A" Aquifer
350 Ellis Street Site, Mountain View, California



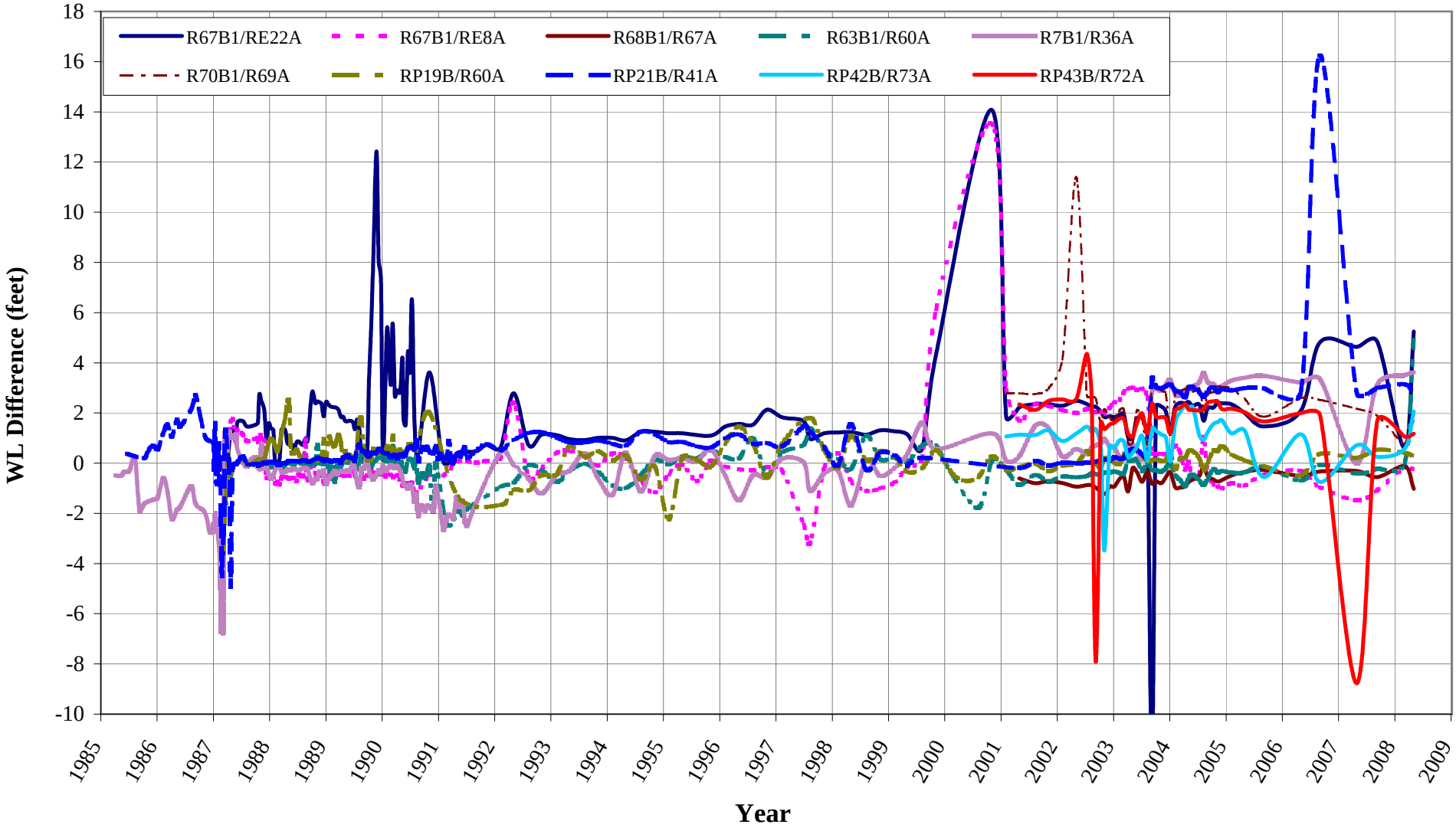
I:\23-016 Raytheon\Annual Rpts\Annual 2008\Figs 18-19 SlurryGrad.CZ.eval.Plots [Fig 18 A-Aquif.Chart] (02-Apr-09)

Figure 19
Water Elevation Differences Across the Slurry Wall in the "B1" Aquifer
350 Ellis Street Site, Mountain View, California



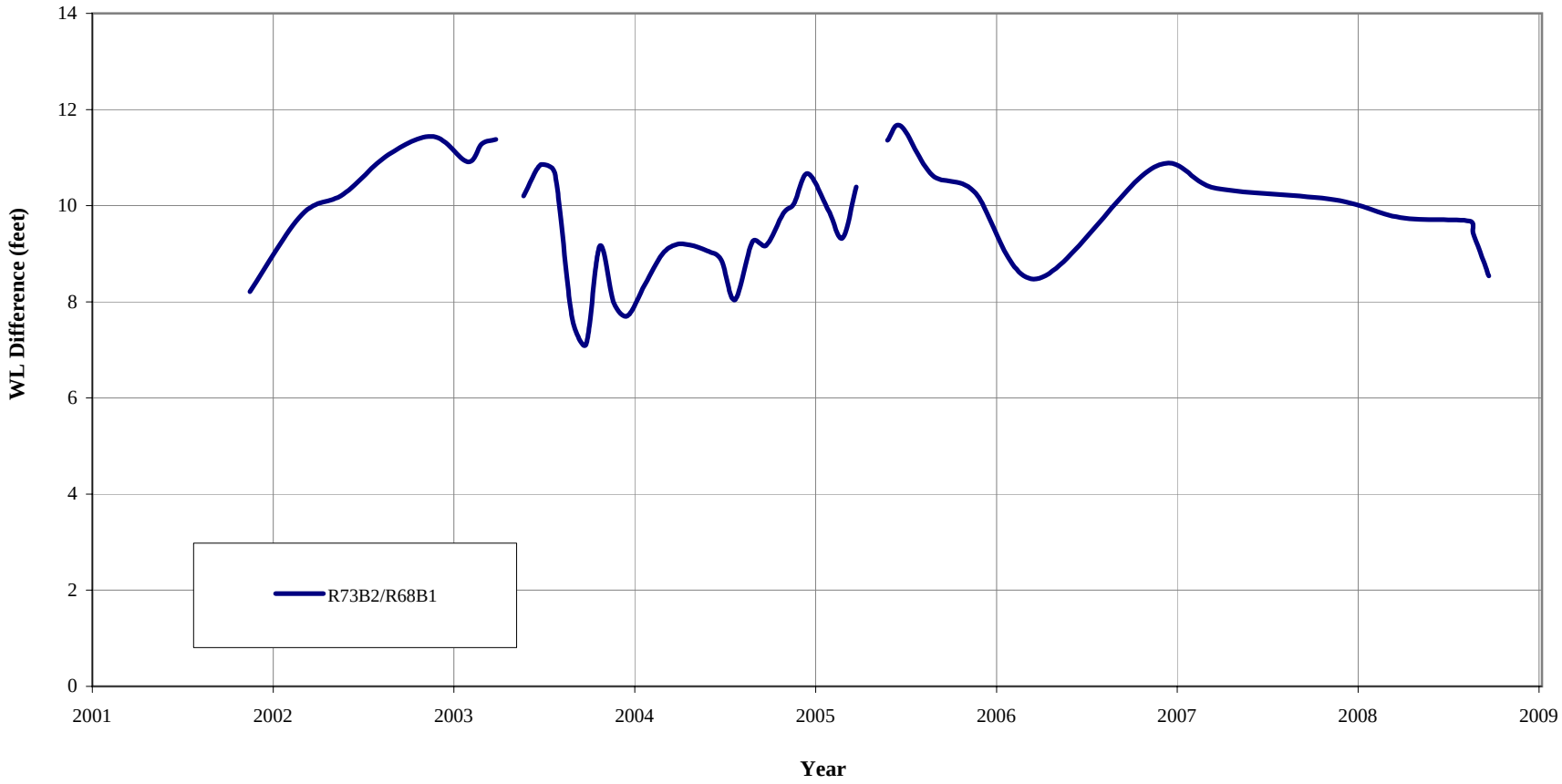
I:\23-016 Raytheon\Annual Rpts\Annual 2008\Figs 18-19 SlurryGrad.CZ.eval.Plots4/7/2009

Figure 20
Water Elevation Differences Across A/B1 Aquitard
350 Ellis Street Site, Mountain View, California



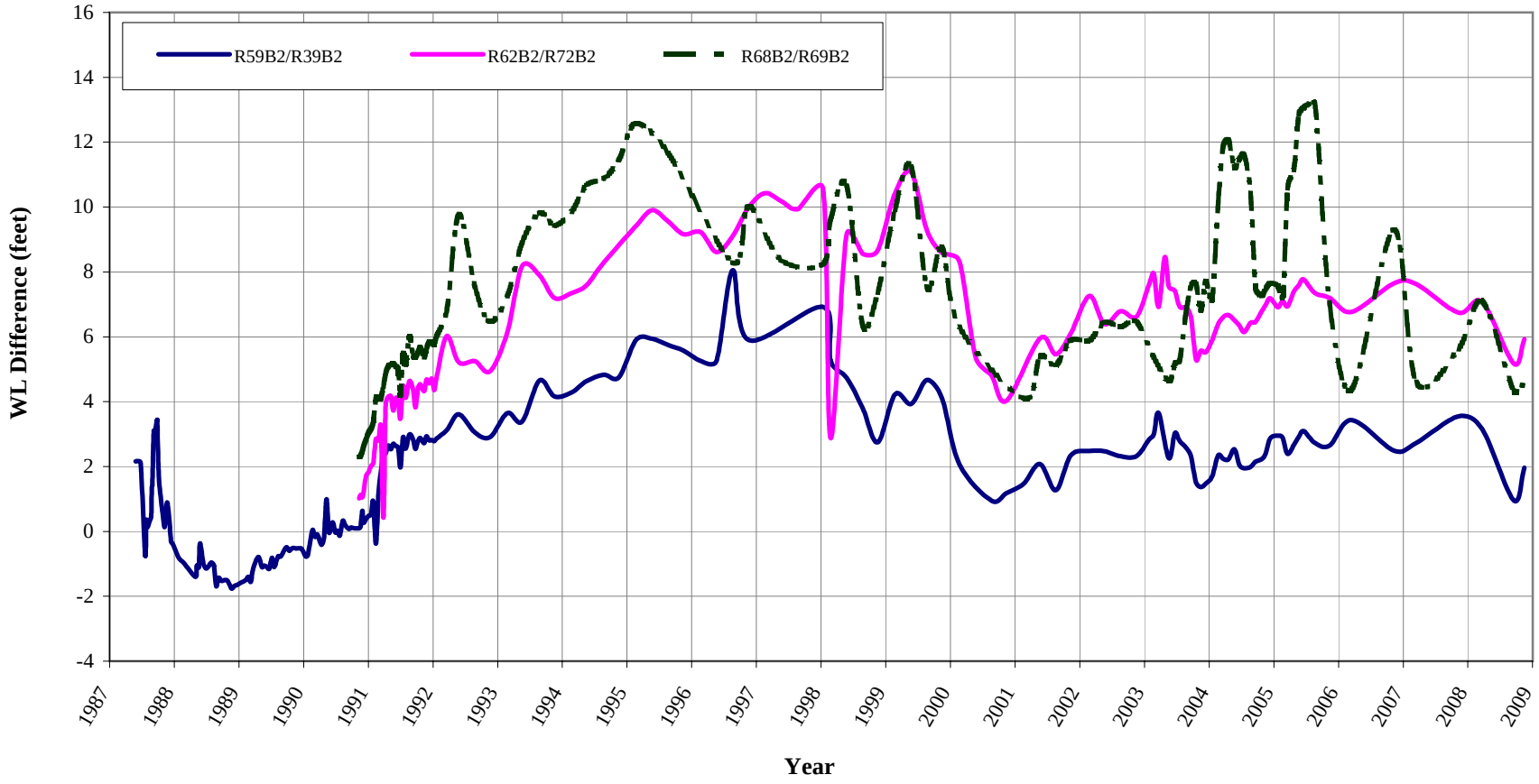
I:\23-016 Raytheon\Annual Rpts\Annual 2008\Figs 20-22 Vert.Grad.eval.plots4/7/2009

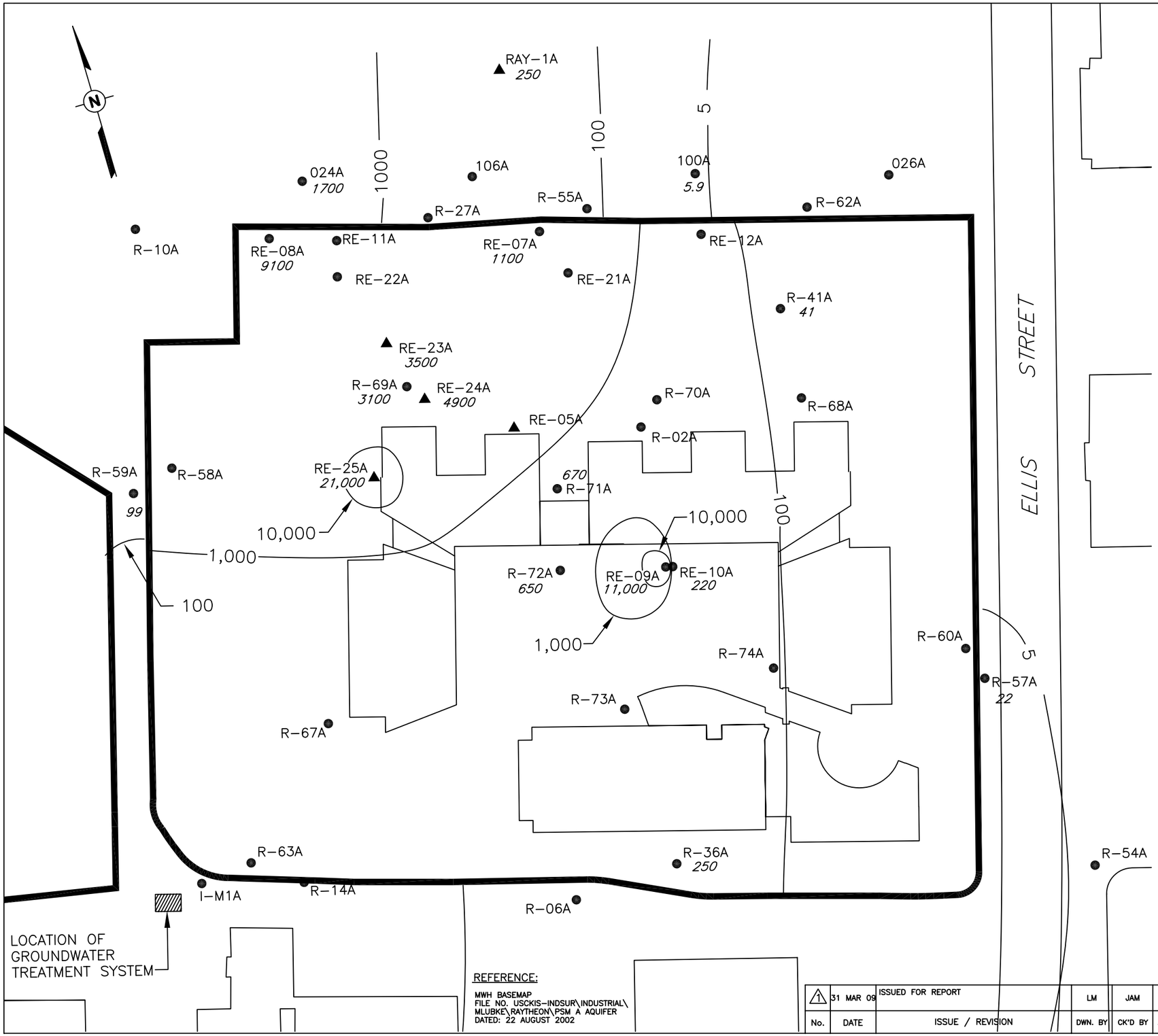
Figure 21
Water Elevation Differences Across B1/B2 Aquitard
350 Ellis Street Site, Mountain View, California



Note: A positive WL difference indicates an upward gradient.

Figure 22
Water Elevation Differences Between the Upper and Lower B2 Aquifers
350 Ellis Street Site, Mountain View, California





LEGEND:

- ▲ GROUNDWATER EXTRACTION WELL
- ● GROUNDWATER MONITORING WELL
- SLURRY WALL
- —100 TCE CONCENTRATION CONTOUR (?g/L)
- *330* TCE CONCENTRATION (?g/L)
- *ND* NOT DETECTED

NOTES:

1. TCE CONCENTRATION CONTOURS WITHIN THE SLURRY WALL ARE BASED ON THE MOST RECENT GROUNDWATER CONCENTRATIONS, 2006.

SCALE

120 0 120 FEET

2008 TCE CONCENTRATIONS
"A" AQUIFER
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA

PREPARED FOR

RAYTHEON COMPANY

REFERENCE:

MWH BASEMAP
FILE NO. USCKIS-INDSUR\INDUSTRIAL\MLUBKE\RAYTHEON\PSM A AQUIFER
DATED: 22 AUGUST 2002

No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	AP'D BY
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SCALE: AS SHOWN

DRAWING NO. 23-016-B181

FIGURE 23

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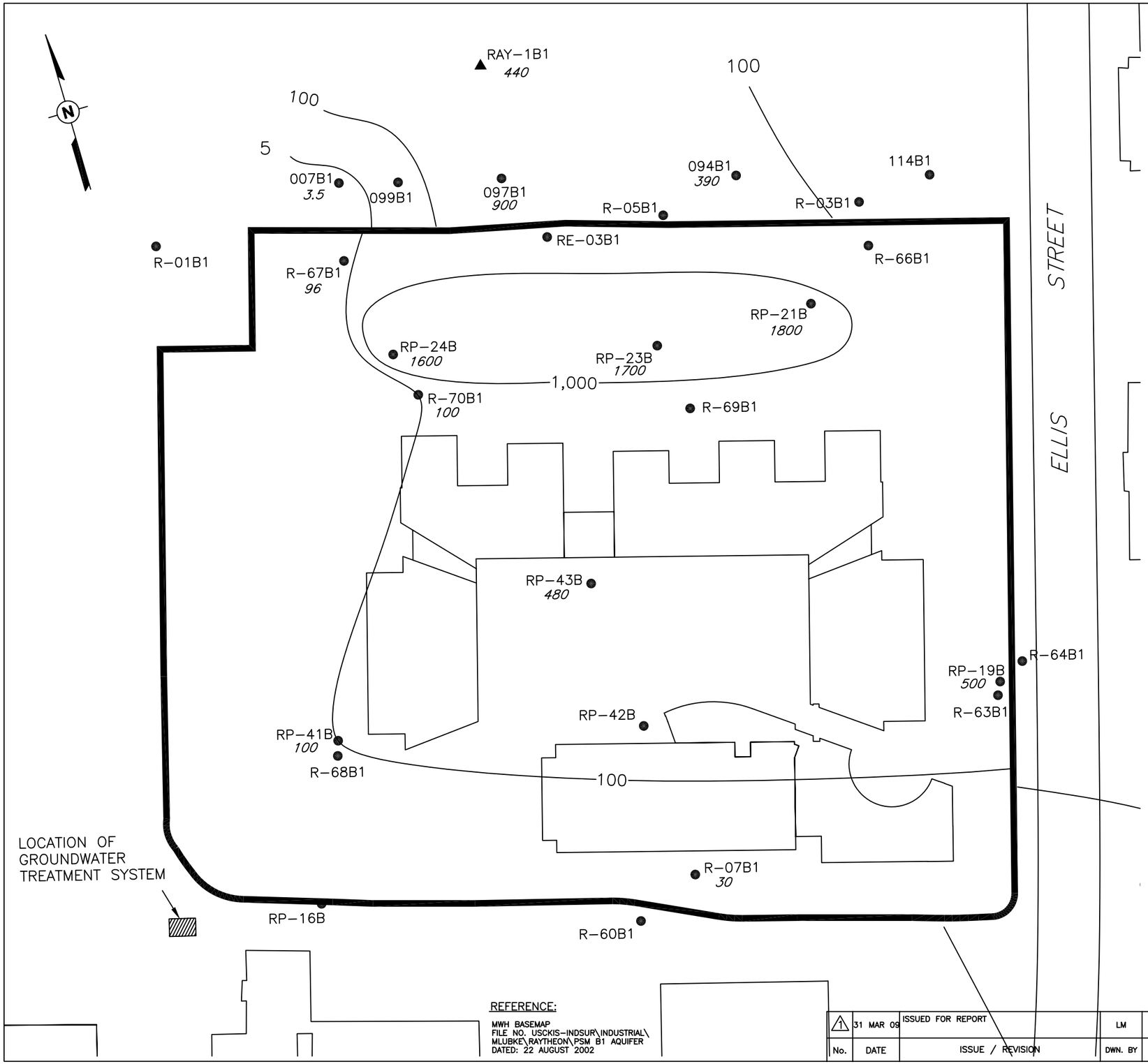

LEGEND:

- ▲ GROUNDWATER EXTRACTION WELL
- ● GROUNDWATER MONITORING WELL
- SLURRY WALL
- —100 TCE CONCENTRATION CONTOUR (μg/L)
- *330* TCE CONCENTRATION (μg/L)
- *ND* NOT DETECTED

NOTES:

1. TCE CONCENTRATION CONTOURS WITHIN THE SLURRY WALL ARE BASED ON THE MOST RECENT GROUNDWATER CONCENTRATIONS, 2006.

SCALE

120 0 120 FEET

2008 TCE CONCENTRATIONS
"B1" AQUIFER
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA

PREPARED FOR

RAYTHEON COMPANY

REFERENCE:

MWH BASEMAP
FILE NO. USCKIS-INDSUR\INDUSTRIAL\MLUBKE\RAYTHEON\PSM B1 AQUIFER
DATED: 22 AUGUST 2002

No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	AP'D BY
1	31 MAR 09	ISSUED FOR REPORT	LM	JAM	JWH

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SCALE: AS SHOWN

DRAWING NO. 23-016-B182

FIGURE 24

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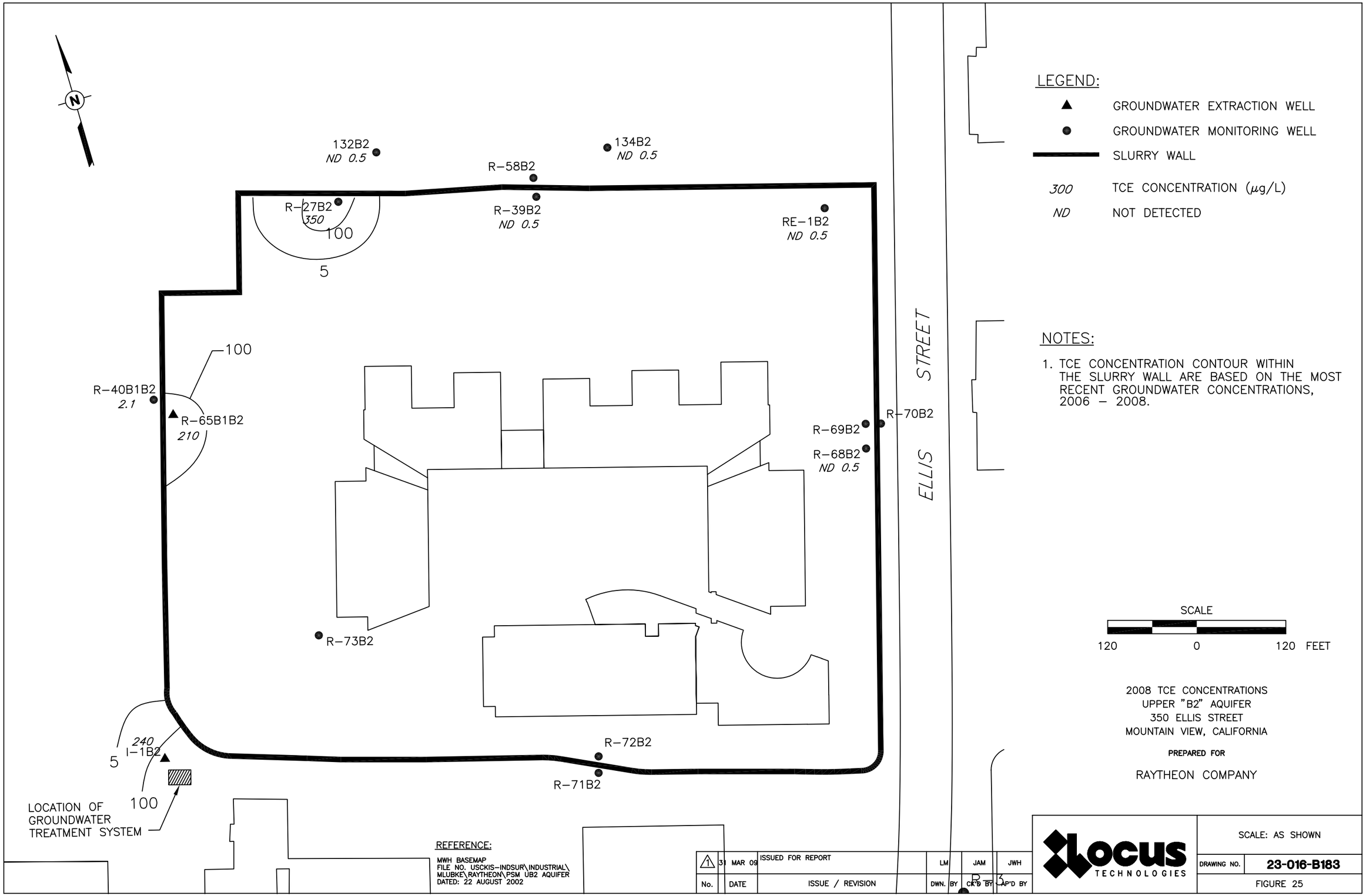
N
132B2
ND 0.5
134B2
ND 0.5
R-58B2
R-27B2
350
100
5
R-39B2
ND 0.5
RE-1B2
ND 0.5
100
R-40B1B2
2.1
R-65B1B2
210
R-69B2
R-70B2
R-68B2
ND 0.5
ELLIS STREET
R-73B2
240
I-1B2
5
100
LOCATION OF
GROUNDWATER
TREATMENT SYSTEM
R-72B2
R-71B2
LEGEND:
GROUNDWATER EXTRACTION WELL
GROUNDWATER MONITORING WELL
SLURRY WALL
300 TCE CONCENTRATION (μg/L)
ND NOT DETECTED
NOTES:
1. TCE CONCENTRATION CONTOUR WITHIN THE SLURRY WALL ARE BASED ON THE MOST RECENT GROUNDWATER CONCENTRATIONS, 2006 – 2008.
SCALE
120 0 120 FEET
2008 TCE CONCENTRATIONS
UPPER "B2" AQUIFER
350 ELLIS STREET
MOUNTAIN VIEW, CALIFORNIA
PREPARED FOR
RAYTHEON COMPANY
REFERENCE:
MWH BASEMAP
FILE NO. USCKIS-INDSUR\INDUSTRIAL\MLUBKE\RAYTHEON\PSM UB2 AQUIFER
DATED: 22 AUGUST 2002
No. DATE ISSUE / REVISION DWN. BY CK'D BY AP'D BY
1 31 MAR 09 ISSUED FOR REPORT LM JAM JWH
locus TECHNOLOGIES
SCALE: AS SHOWN
DRAWING NO. 23-016-B183
FIGURE 25
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APPENDIX A

2008 ANNUAL REPORT REMEDY PERFORMANCE CHECKLIST

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2008 Annual Report Remedy Performance Checklist

I. GENERAL SITE INFORMATION	
Facility Name: Raytheon Mountain View	
Facility Address, City, State: 350 Ellis Street, Mountain View, California	
Checklist completion date: April 1, 2009	EPA Site ID: CAD09205097
Site Lead: ☐ Fund ☐ PRP ☐ State ☐ State Enforcement ☐ Federal Facility ■ Other, specify: U.S. EPA, Region IX	
Site Remedy Components (Include Other Reference Documents for More Information, as appropriate): Groundwater pump-and-treat system; Groundwater containment; Vertical barrier walls (slurry wall is 100 feet deep and extends into the B2-aquifer)	

II. CONTACTS

List important personnel associated with the Site: Name, title, phone number, e-mail address:

PRP / Facility Representative:

Gregory Taylor, Raytheon Company
Environmental Manager
(310) 647-2495
gstaylor@raytheon.com

PRP Contractor/ Consultant:

Elie Haddad, Haley & Aldrich
Vice President
408.529.9048
ehaddad@haleyaldrich.com

J. Wesley Hawthorne, Locus Technologies
Vice President
(650) 960-1640
hawthornej@locustec.com

O&M Contractor:

J. Wesley Hawthorne, Locus Technologies
Vice President
(650) 960-1640
hawthornej@locustec.com

Other:

2008 Annual Report Remedy Performance Checklist

III. O&M COSTS (OPTIONAL) - CONFIDENTIAL

Total O&M costs include (1) report preparation for agencies (RWQCB, EPA), (2) sampling, analysis, data review (groundwater level monitoring, water quality sampling), (3) groundwater treatment system O&M (routine tasks for operations and maintenance of the treatment system), and (4) utilities & fees.

What is your annual O&M cost total for the reporting year?
Breakout your annual O&M cost total into the following categories (use either dollars or %):

- Analytical (e.g., lab costs): _____
- Labor (e.g., site maintenance, sampling): _____
- Materials (e.g., treatment chemicals): _____
- Oversight (e.g., project management): _____
- Utilities (e.g., electric, gas, phone, water): _____
- Reporting (e.g., NPDES, progress): _____
- Other (e.g., capital improvements): _____

Describe unanticipated/unusually high or low O&M costs (go to section [fill in] to recommend optimization methods):

IV. ON-SITE DOCUMENTS AND RECORDS (Check all that apply)

■ O&M Manual ☐ O&M Maintenance Logs ■ O&M As-built drawings – *Part of O&M Manual*
☐ O&M reports
☐ Daily access/Security logs
■ Site-Specific Health & Safety Plan ■ Contingency/Emergency Response Plan
☐ O&M/OSHA Training Records ☐ Settlement Monument Records
☐ Gas Generation Records ■ Groundwater monitoring records ☐ Leachate extraction records
■ Discharge Compliance Records
■ Air discharge permit ■ Effluent discharge permit ☐ Waste disposal, POTW permit

Are these documents currently readily available? ■ Yes ☐ No If no, where are records kept?

O&M manual, Site H&S plan, discharge records and permits are kept onsite; O&M reports, maintenance logs and training records are available at Locus Technologies' office in Mountain View.

V. INSTITUTIONAL CONTROLS (as applicable)

List institutional controls called for (and from what enforcement document):

Status of their implementation:

Where are the ICs documented and/or reported?
Governmental controls (zoning, local permits, state codes);
Environmental agreements with property owner (proprietary controls);
Informational devices (fact sheets, public meetings)

ICs are being properly implemented and enforced? ■ Yes ☐ No, elaborate below
ICs are adequate for site protection? ■ Yes ☐ No, elaborate below

Additional remarks regarding ICs:

2008 Annual Report Remedy Performance Checklist

VI. SIGNIFICANT SITE EVENTS
Check all Significant Site events Since the Last Checklist that Affects or May Affect Remedy Performance

☐ Community Issues
☐ Vandalism
☐ Maintenance Issues
☐ Other:

Please elaborate on Significant Site Events: Treatment system was shut down temporarily from July 14, 2008, to September 22, 2008, as part of an investigation approved by US EPA. During this period water levels were measured at selected wells on Mondays, Wednesdays, and Fridays until steady-state conditions were reached, groundwater samples were collected for analysis of general geochemical parameters, and two pump tests were conducted. The results of these investigations were reported to EPA on December 15, 2008 (Locus, 2008h).

VII. REDEVELOPMENT

Is redevelopment on property planned? ☐ Yes ■ No

If yes, what is planned? Please describe below.

Is redevelopment plan complete ☐ Yes, date:_____; ☐ No ? ■ Not Applicable

Redevelopment proposal in progress? ☐ Yes, elaborate below
■ No; If no, is a proposal anticipated? ☐ Yes ■ No

☐ Is the redevelopment proposal compatible with remedy performance? ☐ Yes ☐ No

Elaborate on redevelopment proposal and how it affects remedy performance:

VIII. GROUNDWATER REMEDY (reference isoconcentration, capture zone maps, trend analysis, and other documentation to support analysis)

Groundwater Quality Data

List the types of data that are available:	What is the source report?
Annual site-specific monitoring well data	Annual Report, Table 10
TCE isoconcentration maps	Annual Report, Figures 22 – 24

■ Contaminant trend(s) tracked during O&M (i.e., temporal analysis of groundwater contaminant trends).
☐ Groundwater data tracked with software for temporal analyses.
☐ Reviewed MNA parameters to ensure health of substrate (e.g., DO, pH, temperature), if appropriate?

Groundwater Pump & Treat Extraction Well and Treatment System Data

List the types of data that are available:	What is the source report?
Monthly GWTS data, influent and effluent	NPDES reports and Annual report, Table 2

■ The system is functioning adequately.
☐ The system has been shut down for significant periods of time in the past year. Please elaborate below.

Discharge Data

List the types of data that are available:	What is the source report?
Monthly data on TS effluent	NPDES reports and Annual report, Table 2

■ The system is in compliance with discharge permits.

Slurry Wall Data

List the types of data that are available:	What is the source report?
Quarterly WL monitoring data from monitoring well pairs	Annual Report, Tables 7 and 8
Capture zone maps	Annual Report, Figures 6 – 9

Is slurry wall operating as designed? ■ Yes ☐ No

If not, what is being done to correct the situation?

Elaborate on technical data and/or other comments

Since 2000, when the 350 Ellis Street property was developed, an outward gradient has been observed along the northern slurry wall. However, these gradients do not have a significant impact on remediation because: 1) Raytheon installed two recovery wells in the "A" and "B1" aquifers immediately downgradient of the slurry wall; the wells provide an adequate capture of the area immediately downgradient of the slurry wall, and 2) the slurry wall is a low-permeability wall that allows only minimal chemical migration across its walls, even if the gradient is outward. That, combined with the fact that chemicals tend to take the easier pathway and migrate towards recovery wells within the wall enclosure, rather than across the low-permeability wall, would minimize outward chemical migration. Therefore, the slurry wall and the pumping activities within its enclosure physically contain chemicals. If a small flux of chemicals migrates through the slurry wall, it is captured immediately downgradient of the wall.

IX. AIR MONITORING/VAPOR INTRUSION PATHWAY EVALUATION (Include in Annual Progress Report and reference document)

Walkthroughs/Surveys: A walkthrough of utility rooms was performed in May 2008 to assess seals on conduits.

Air testing/monitoring conducted: Air samples were collected from all the buildings at the Site on February 20, 2008, a weekday when the ventilation system was operating

Summary of Results:

The results of sampling completed on weekdays in February confirmed that when HVAC systems are operating, as is the case during normal occupancy, vapor intrusion is not a concern. All indoor TCE concentrations were well below the interim action level of 2.7 $\mu g/m^3$; detections in pathway samples also remained below the EPA interim action level.

Inspection of conduits in utility rooms revealed that all conduits remained sealed appropriately, with the exception of three rooms with exposed flex piping. The exposed conduits in those rooms were subsequently sealed.

Problems Encountered: No problems were encountered.

Recommendations/Next Steps: None.

Schedule: Currently, no additional sampling is scheduled.

2008 Annual Report Remedy Performance Checklist

X. REMEDY PERFORMANCE ASSESSMENT

A. Groundwater Remedies

What are the remedial goals for groundwater? ■ Plume containment (prevent plume migration); ■ Plume restoration (attain ROD-specific cleanup levels in aquifer); ☐ Other goals, please explain:_____

Have you done a trend analysis? ■ Yes ☐ No; If Yes, what does it show?

Table 11 of the Annual Report provides a comparison of the average TCE concentration for each aquifer at different time periods. The concentrations have decreased significantly, but are approaching asymptotic levels.

(Is it inconclusive due to inadequate data? Are the concentrations increasing or decreasing?) Explain and provide source document reference _____

If plume containment is a remedial goal, check all that apply:
■ Plume migration is under control (explain basis below)
☐ Plume migration is not under control (explain basis below)
☐ Insufficient data to determine plume stability (explain below)
(Include attachments that substantiate your answers, e.g., reference plume, trend analysis, and capture zone maps in source document)

Elaborate on basis for determining that plume containment goal is being met or not being met:

The plume is not expanding and capture is adequate.

If plume restoration is a cleanup objective, check all that apply:
■ Progress is being made toward reaching cleanup levels (explain basis below)
☐ Progress is not being made toward reaching cleanup levels (explain basis below)
☐ Insufficient data to determine progress toward restoration goal (explain below)

Elaborate on basis for determining progress or lack of progress toward restoration goal:

As explained above, concentrations have decreased significantly since remedial measures were begun. Concentrations are approaching asymptotic levels, indicating that using the current remedy reaching MCLs will require many decades.

B. Vertical Migration

Have you done an assessment of vertical gradients? ■ Yes ☐ No; If Yes, what does it show? (Is it inconclusive due to inadequate data? Are the concentrations increasing or decreasing? Explain and provide source document reference.

Fifteen well pairs are used to monitor the vertical gradient direction across the "A/B1" and "B1/B2" Aquitards, and from the lower to upper "B2" aquifer. The differences in water elevations between the "B1" and "A" Aquifers are shown in Table 8 and on Figure 19 of the Annual Report. Upward gradients were observed in eight of the ten well pairs that are used to monitor the "A/B1" Aquitard gradients in the March, September, and November events. Slight downward gradients are observed in well pairs R-60A/R-63B1, RE-08A/R-67B1 for March event, and in well pairs R-67A/ R-68B1, and RE-08A/R-67B1 for the September and November events. A zero gradient was observed across well pair R-63B2/R-60A in September. Upward gradients were observed across the “B1/B2” Aquitard and between the upper “B2” and lower “B2” Aquifer. The slurry wall surrounding the site fully separates the onsite “A” and “B1” Aquifers from the offsite “A” and “B1” Aquifers, preventing lateral migration of chemicals, and there is an upward gradient across the “B1/B2” Aquitard and the upper “B2” and lower “B2” Aquifers, which encourage upward migration of water and chemicals, keeping them in the enclosed “A” and “B1” Aquifers.

2008 Annual Report Remedy Performance Checklist

C. Source Control Remedies

What are the remedial goals for source control?

Elaborate on basis for determining progress or lack of progress toward these goals:

XI. PROJECTIONS

Administrative Issues

Dates of next monitoring and sampling events for next annual reporting period:

March 26 and November 19, 2009 – Semiannual water elevation measurement events.

May 28 and August 27, 2009 – Water elevation measurement events for the slurry wall and vertical well pairs.
November 2009 – Annual groundwater monitoring for site-specific wells.

A. Groundwater Remedies - Projections for the upcoming year and long-term (Check all that apply)

Remedy Projections for **the upcoming year (2009)**
☐ No significant changes projected.
☐ Groundwater remedy will be converted to monitored natural attenuation. Target date:
☐ Groundwater Pump & Treat will be shut down. Target date:
☐ Groundwater cleanup standards to be modified. Target date:
■ PRP will request remedy modification. Target date of request: Work Plan for oxidation pilot test was submitted December 1, 2008. Pilot test will be implemented after EPA's approval.
☐ Change in the number of monitoring wells. ☐ Increasing or ☐ decreasing? Target date:
☐ Change in the number and/or types of analytes being analyzed. ■ Increasing or ☐ decreasing? Target date: In a subset of wells after implementation of pilot test.
■ Change in groundwater extraction system. Expansion or minimization (i.e., number of extraction wells and/or pumping rate)? Target date: Remediation Process Optimization (RPO) report and Work Plan for Pilot Study were submitted on August 29, 2008, and December 1, 2008, respectively. The recommended change to the treatment system will be implemented after EPA's approval.
☐ Modification on groundwater treatment? Elaborate below. Target date:
☐ Change in discharge location. Target date:
☐ Other modification(s) anticipated:_____ Elaborate below. Target date:

Elaborate on Remedy Projections:

Remedy Projections for **the long-term** (Check all that apply)
■ No significant changes projected.
☐ Groundwater remedy will be converted to monitored natural attenuation. Target date:
☐ Groundwater Pump & Treat will be shut down. Target date:
☐ Groundwater cleanup standards to be modified. Target date:
☐ PRP will request remedy modification. Target date of request:
☐ Change in the number of monitoring wells. ☐ Increasing or ☐ decreasing? Target date:
☐ Change in the number and/or types of analytes being analyzed. ☐ Increasing or ☐ decreasing? Target date:

2008 Annual Report Remedy Performance Checklist

☐ Change in groundwater extraction system. Expansion or minimization (i.e., number of extraction wells and/or pumping rate)? Target date:
☐ Modification on groundwater treatment? Elaborate below. Target date:
☐ Change in discharge location. Target date:
☐ Other modification(s) anticipated:_____ Elaborate below. Target date:

Elaborate on Remedy Projections:

B. Projections – Slurry Walls (Check all that apply)

Remedy Projections for **the upcoming year**
■ No significant changes projected.
☐ PRP will request remedy modification. Target date of request:
☐ Change in the number of monitoring wells. ☐ Increasing or ☐ decreasing? Target date:
☐ Other modification(s) anticipated:_____ Elaborate below. Target date:

Elaborate on Remedy Projections:

Remedy Projections for **the long-term**
■ No significant changes projected.
☐ PRP will request remedy modification. Target date of request:
☐ Change in the number of monitoring wells. ☐ Increasing or ☐ decreasing? Target date:
☐ Other modification(s) anticipated:_____ Elaborate below. Target date:

Elaborate on Remedy Projections:

C. Projections – Other Remedial Options Being Reviewed to Enhance Cleanup

Progress implementing recommendations from last report or Five-Year Review
Has optimization study been implemented or scheduled? ■ Yes; ☐ No; If Yes, please elaborate.

An optimization report was prepared and submitted to EPA in August 2008. The optimization report suggests modifications to pumping regime within the slurry wall enclosure to optimize mass removal rate, and preparation of a work plan for an alternative remedy pilot study. The work plan was submitted to EPA on December 1, 2008. We are waiting for EPA comments on optimization report and the pilot study.

XII. ADMINISTRATIVE ISSUES
Check all that apply:

☐ Explanation of Significant Differences in progress ☐ ROD Amendment in progress
☐ Site in operational and functional ("shake down") period;
☐ Notice of Intent to Delete in progress ☐ Partial site deletion in progress ☐ TI Waivers
☐ Other administrative issues:

Date of Next EPA Five-Year Review: September 30, 2009

XII. RECOMMENDATIONS

Recommendations were included in the August 29, 2008 Remedial Process Optimization report and the December 1, 2008, Work Plan for Pilot Test. The recommended activities will be implemented after EPA's approval of the documents.

APPENDIX B

LABORATORY ANALYTICAL REPORTS

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Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street. Berkeley. CA 94710. Phone (510) 486-0900

Laboratory Job Number 200662
ANALYTICAL REPORT

Locus Technologies 299 Fairchild Dr. Mountain View, CA 94043	Project : 23016-03-2100 Location : Raytheon Level : II

Sample ID	Lab ID
RAY EFT	200662-001
RAY MID	200662-002
RAY INF	200662-003
4637	200662-004
4638	200662-005
4639	200662-006

RECEIVED
JAN - 1 2008
BY:

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 01/28/2008
Project Manager

Signature: _____ Date: 01/30/2008
Operations Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd

CASE NARRATIVE

Laboratory number:	200662
Client:	Locus Technologies
Project:	23016-03-2100
Location:	Raytheon
Request Date:	01/21/08
Samples Received:	01/21/08

This hardcopy data package contains sample and QC results for six water samples, requested for the above referenced project on 01/21/08. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):

No analytical problems were encountered.

200662

Locus TECHNOLOGIES

CHAIN-OF-CUSTODY RECORD (See Reverse for Instructions)

SERIAL NO. 14249

PROJECT NAME: Raytheon
PROJECT NUMBER: 23016-03-2100
RECORDER: [signature] (SIGN)
SAMPLERS: Henry Castro Jr (PRINT) [signature] (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES: (A) 40-ml VOA Vial; B. Glass Liter; C. Plastic 500-ml; D. Plastic Liter; E. Brass Tube; F. Other ____

SAMPLE DESCRIPTION CODES: (A) Ground Water; B. Surface Water; C. Leachate; D. Rinseate; E. Soil/Sediment; F. Oil; G. Waste; (H) Blank/Spike; I. Other ____

TAT CODES: (1) Standard; 2. 48 Hour; 3. 24 Hour; 4. Other ____

ANALYTICAL LAB: Curtis & Tompkins

LABORATORY USE ONLY — LAB PROJECT NO. ____

	NO.	DATE	TIME	SAMPLE ID	AVERAGE TEMP °C	AVERAGE COND micromhos/cm	AVERAGE pH	Sample container (enter code)	Sample Description (enter code)	Unpreserved	HNO_3	HCL	Field Filtered (check)	8010 ms	Temperature	TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Store at 4°C (Check)	No VOA Headspace (Check)	NOTES	ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT
1	1	1-21-08	820	Ray EFT	15.9	981	7.11	A	A			6		X		1	14 Day	✓	✓	** MS/MSD		
2	2	↓	840	Ray MID	16.4	965	7.12	A	A			3		X		1	14 Day	✓	✓			
3	3	↓	855	Ray INF	17.3	962	7.28	A	A			3		X		1	14 Day	✓	✓			
4	4	↓	—	4637	—	—	—	A	H			3		X		1	14 Day	✓	✓			
5	5	↓	—	4638	—	—	—	A	A			3		X		1	14 Day	✓	✓			
6	6	↓	—	4639	—	—	—	A	H			3		X		1	14 Day	✓	✓			
	7	↓	—	Temp Blank	—	—	—	A	H						X		**	✓	MA	**		
	8																					
	9																					
	10																					
	11																					
	12																					
	13																					
	14																					
	15																					
	16																					

NOTES / MISCELLANEOUS

Field / Container Temp. 4°C

* Analyze all by NPDES requirements.

*** **NOTE! Temperature to be measured and recorded upon receipt of samples at lab. _____ °C**

** 4 of 6 VOAs for MS/MSD Analysis

Container Sealed with Custody Seal: Yes ☒ No ☐

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
[signature]			

Method of Shipment	Description of Transport Container	Other Chains-of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
Courier	Cooler	None	[signature]	1/21/08	1435	[signature]	1/21/08	1435

Send Lab Results to (Name): Christina Newman (Check Office Below) Verbals Requested: Yes ☒ No ☐

☒ MOUNTAIN VIEW • 299 FAIRCHILD DRIVE • MTN VIEW, CA 94043 • TEL (650) 960-1640 • FAX (650) 960-0739
☐ WALNUT CREEK • 1701 N. CALIFORNIA BLVD • WALNUT CREEK, CA 94596 • TEL (925) 906-8100 • FAX (925) 906-8101
☐ SACRAMENTO • 1100 MELODY LANE • ROSEVILLE, CA 95678 • TEL (916) 677-1751 • FAX (916) 677-1760
☐ OTHER _____ TEL _____ FAX _____

REV. 6/02

WHITE: Laboratory Copy YELLOW: Project Copy PINK: Database Copy

SOP Volume: Client Services
Section: 1.1.2
Page: 1 of 1
Effective Date: 08-Aug-07
Revision: 3 Number 1 of 3
Filename: F:\QC\Forms\QC\Cooler.wpd

Curtis & Tompkins, Ltd

COOLER RECEIPT CHECKLIST

Login#: 200662 Date Received: 01/21/08 Number of Coolers: 1
Client: LOCUS Project: RAYTHEON

A. Preliminary Examination Phase
Date Opened: 01/21/08 By (print): M. VILLANUEVA (sign):

1. Did cooler come with a shipping slip (airbill, etc.)? YES NO
If YES, enter carrier name and airbill number:
2. Were custody seals on outside of cooler? YES NO
How many and where? 1-ZIP Seal date: 1/21/08 Seal name: TOM MURPHY
3. Were custody seals unbroken and intact at the date and time of arrival? YES NO
4. Were custody papers dry and intact when received? YES NO
5. Were custody papers filled out properly (ink, signed, etc.)? YES NO
6. Did you sign the custody papers in the appropriate place? YES NO
7. Was project identifiable from custody papers? YES NO
If YES, enter project name at the top of this form.
8. Describe type of packing in cooler: BUBBLE WRAP, ZIP LOC
9. If required, was sufficient ice used? Samples should be <=6 degrees C. YES NO
Type of ice: WET Temperature: 0.6
10. Were Encore sampling devices present in the cooler? YES NO
If YES, enter time they were transferred to the freezer

B. Login Phase
Date Logged In: 01/21/08 By (print): Faith Nichols (sign):

1. Did all bottles arrive unbroken? YES NO
2. Were labels in good condition and complete (ID, date, time, signature, etc.)? YES NO
3. Did bottle labels agree with custody papers? YES NO
4. Were appropriate containers used for the tests indicated? YES NO
5. Were correct preservatives added to samples? YES NO
6. Was sufficient amount of sample sent for tests indicated? YES NO
7. Were bubbles absent in VOA samples? If NO, list sample Ids below YES NO
8. Was the client contacted concerning this sample delivery? YES NO
If YES, give details below.
Who was called? By whom? Date:

Additional Comments:

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	200662	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY EFT	Batch#:	133970
Lab ID:	200662-001	Sampled:	01/21/08
Matrix:	Water	Received:	01/21/08
Units:	ug/L	Analyzed:	01/22/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	113	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected
RL= Reporting Limit

2.0

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	200662	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY MID	Batch#:	133970
Lab ID:	200662-002	Sampled:	01/21/08
Matrix:	Water	Received:	01/21/08
Units:	ug/L	Analyzed:	01/22/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	10	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	6.8	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	2.5	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	114	80-120
Toluene-d8	104	80-120
Bromofluorobenzene	103	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	200662	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY INF	Batch#:	133970
Lab ID:	200662-003	Sampled:	01/21/08
Matrix:	Water	Received:	01/21/08
Units:	ug/L	Analyzed:	01/22/08
Diln Fac:	50.00		

Analyte	Result	RL
Chloromethane	ND	50
Vinyl Chloride	78	25
Bromomethane	ND	50
Chloroethane	ND	50
Trichlorofluoromethane	ND	50
Freon 113	ND	250
1,1-Dichloroethene	ND	25
Methylene Chloride	ND	250
trans-1,2-Dichloroethene	75	25
1,1-Dichloroethane	ND	25
cis-1,2-Dichloroethene	1,100	25
Chloroform	ND	25
1,1,1-Trichloroethane	ND	25
Carbon Tetrachloride	ND	25
1,2-Dichloroethane	ND	25
Trichloroethene	3,800	25
1,2-Dichloropropane	ND	25
Bromodichloromethane	ND	25
2-Chloroethylvinylether	ND	50
cis-1,3-Dichloropropene	ND	25
trans-1,3-Dichloropropene	ND	25
1,1,2-Trichloroethane	ND	25
Tetrachloroethene	ND	25
Dibromochloromethane	ND	25
Chlorobenzene	ND	25
Bromoform	ND	25
1,1,2,2-Tetrachloroethane	ND	25
1,3-Dichlorobenzene	ND	25
1,4-Dichlorobenzene	ND	25
1,2-Dichlorobenzene	ND	25

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	117	80-120
Toluene-d8	104	80-120
Bromofluorobenzene	105	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	200662	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4637	Batch#:	133970
Lab ID:	200662-004	Sampled:	01/21/08
Matrix:	Water	Received:	01/21/08
Units:	ug/L	Analyzed:	01/22/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	114	80-120
Toluene-d8	104	80-120
Bromofluorobenzene	106	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	200662	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4638	Units:	ug/L
Lab ID:	200662-005	Sampled:	01/21/08
Matrix:	Water	Received:	01/21/08

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Chloromethane	ND	1.0	1.000	133970	01/22/08
Vinyl Chloride	68	25	50.00	134061	01/24/08
Bromomethane	ND	1.0	1.000	133970	01/22/08
Chloroethane	ND	1.0	1.000	133970	01/22/08
Trichlorofluoromethane	ND	1.0	1.000	133970	01/22/08
Freon 113	34	5.0	1.000	133970	01/22/08
1,1-Dichloroethene	19	0.5	1.000	133970	01/22/08
Methylene Chloride	ND	5.0	1.000	133970	01/22/08
trans-1,2-Dichloroethene	94	0.5	1.000	133970	01/22/08
1,1-Dichloroethane	17	0.5	1.000	133970	01/22/08
cis-1,2-Dichloroethene	1,000	25	50.00	134061	01/24/08
Chloroform	0.6	0.5	1.000	133970	01/22/08
1,1,1-Trichloroethane	4.0	0.5	1.000	133970	01/22/08
Carbon Tetrachloride	ND	0.5	1.000	133970	01/22/08
1,2-Dichloroethane	ND	0.5	1.000	133970	01/22/08
Trichloroethene	3,400	25	50.00	134061	01/24/08
1,2-Dichloropropane	ND	0.5	1.000	133970	01/22/08
Bromodichloromethane	ND	0.5	1.000	133970	01/22/08
2-Chloroethylvinylether	ND	1.0	1.000	133970	01/22/08
cis-1,3-Dichloropropene	ND	0.5	1.000	133970	01/22/08
trans-1,3-Dichloropropene	ND	0.5	1.000	133970	01/22/08
1,1,2-Trichloroethane	ND	0.5	1.000	133970	01/22/08
Tetrachloroethene	7.9	0.5	1.000	133970	01/22/08
Dibromochloromethane	ND	0.5	1.000	133970	01/22/08
Chlorobenzene	ND	0.5	1.000	133970	01/22/08
Bromoform	ND	0.5	1.000	133970	01/22/08
1,1,2,2-Tetrachloroethane	ND	0.5	1.000	133970	01/22/08
1,3-Dichlorobenzene	0.7	0.5	1.000	133970	01/22/08
1,4-Dichlorobenzene	5.0	0.5	1.000	133970	01/22/08
1,2-Dichlorobenzene	22	0.5	1.000	133970	01/22/08

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
1,2-Dichloroethane-d4	118	80-120	1.000	133970	01/22/08
Toluene-d8	101	80-120	1.000	133970	01/22/08
Bromofluorobenzene	104	80-120	1.000	133970	01/22/08

ND= Not Detected
RL= Reporting Limit

6.0

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	200662	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4639	Batch#:	134019
Lab ID:	200662-006	Sampled:	01/21/08
Matrix:	Water	Received:	01/21/08
Units:	ug/L	Analyzed:	01/23/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	111	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected
RL= Reporting Limit

7 0

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	200662	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	133970
Units:	ug/L	Analyzed:	01/22/08
Diln Fac:	1.000		

Type: BS Lab ID: QC424920

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	23.38	94	80-120
Trichloroethene	25.00	23.76	95	80-120
Chlorobenzene	25.00	23.46	94	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	99	80-120

Type: BSD Lab ID: QC424921

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	24.87	99	80-120	6	35
Trichloroethene	25.00	23.48	94	80-120	1	35
Chlorobenzene	25.00	23.79	95	80-120	1	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	100	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	200662	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC424922	Batch#:	133970
Matrix:	Water	Analyzed:	01/22/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	110	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	101	80-120

ND= Not Detected
RL= Reporting Limit

9.0

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	200662	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY EFT	Batch#:	133970
MSS Lab ID:	200662-001	Sampled:	01/21/08
Matrix:	Water	Received:	01/21/08
Units:	ug/L	Analyzed:	01/22/08
Diln Fac:	1.000		

Type: MS Lab ID: QC425087

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.09386	25.00	25.23	101	40-150
Trichloroethene	<0.1151	25.00	25.71	103	40-150
Chlorobenzene	<0.1569	25.00	24.08	96	40-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	114	80-120
Toluene-d8	104	80-120
Bromofluorobenzene	102	80-120

Type: MSD Lab ID: QC425088

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	24.21	97	40-150	4	35
Trichloroethene	25.00	24.31	97	40-150	6	35
Chlorobenzene	25.00	23.29	93	40-150	3	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	110	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	101	80-120

RPD= Relative Percent Difference

10 0

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	200662	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	134019
Units:	ug/L	Analyzed:	01/23/08
Diln Fac:	1.000		

Type: BS Lab ID: QC425132

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	30.00	34.16	114	80-120
Trichloroethene	30.00	33.43	111	80-120
Chlorobenzene	30.00	32.77	109	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	111	80-120
Toluene-d8	104	80-120
Bromofluorobenzene	107	80-120

Type: BSD Lab ID: QC425133

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	30.00	30.35	101	80-120	12	35
Trichloroethene	30.00	29.18	97	80-120	14	35
Chlorobenzene	30.00	30.65	102	80-120	7	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	109	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	103	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	200662	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC425160	Batch#:	134019
Matrix:	Water	Analyzed:	01/23/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	110	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	200662	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	134061
Units:	ug/L	Analyzed:	01/24/08
Diln Fac:	1.000		

Type: BS Lab ID: QC425288

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	24.66	99	80-120
Trichloroethene	25.00	24.76	99	80-120
Chlorobenzene	25.00	24.89	100	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	107	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	102	80-120

Type: BSD Lab ID: QC425289

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	22.55	90	80-120	9	35
Trichloroethene	25.00	23.59	94	80-120	5	35
Chlorobenzene	25.00	24.44	98	80-120	2	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-120

RPD= Relative Percent Difference

Curtis & Tompkins Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	200662	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC425292	Batch#:	134061
Matrix:	Water	Analyzed:	01/24/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	108	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	98	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street. Berkeley. CA 94710. Phone (510) 486-0900

Laboratory Job Number 201330
ANALYTICAL REPORT

Locus Technologies 299 Fairchild Dr. Mountain View, CA 94043	Project : 23016-03-2100 Location : Raytheon Level : II

Sample ID	Lab ID
RAY EFT	201330-001
RAY MID	201330-002
RAY INF	201330-003
4644	201330-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 02/27/2008
Project Manager

Signature: _____ Date: 03/03/2008
Operations Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd

CASE NARRATIVE

Laboratory number:	201330
Client:	Locus Technologies
Project:	23016-03-2100
Location:	Raytheon
Request Date:	02/19/08
Samples Received:	02/19/08

This hardcopy data package contains sample and QC results for four water samples, requested for the above referenced project on 02/19/08. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):

No analytical problems were encountered.

Locus TECHNOLOGIES

CHAIN-OF-CUSTODY RECORD (See Reverse for Instructions)

201330

SERIAL NO. 14257

PROJECT NAME: Raytheon
PROJECT NUMBER: 23016-03-2100
RECORDER: [signature] (SIGN)
SAMPLERS: Henry Castro Jr. (PRINT) [signature] (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES	SAMPLE DESCRIPTION CODES	TAT CODES
A. 40-ml VOA Vial	A. Ground Water	1. Standard
B. Glass Liter	B. Surface Water	2. 48 Hour
C. Plastic 500-ml	C. Leachate	3. 24 Hour
D. Plastic Liter	D. Rinseate	4. Other
E. Brass Tube	E. Soil/Sediment	
F. Other	F. Oil	
	G. Waste	
	H. Blank/Spike	
	I. Other	

ANALYTICAL LAB: Curtis & Tompkins

NO.	DATE	TIME	SAMPLE ID	AVERAGE TEMP °C	AVERAGE COND micromhos/cm	AVERAGE pH	Sample container (enter code)	Sample Description (enter code)	Unpreserved	HNO_3	HCL	Field Filtered (check)	Solids	Temperature	TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Store at 4°C (Check)	No VOA Headspace (Check)	NOTES	ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT
1	2/18/08	820	Ray EFT	15.7	977	7.13	A	A			3		X		1	14 Day	✓	✓			
2		835	Ray MID	16.3	971	7.12	A	A			3		X		1	14 Day	✓	✓			
3		850	Ray INF	17.3	968	7.27	A	A			3		X		1	14 Day	✓	✓			
4		—	4644	—	—	—	A	H			3		X		1	14 Day	✓	✓			
5	↓	—	Temp Blank	—	—	—	A	H	1					X		**	✓	N/A	**		
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					

LABORATORY USE ONLY — LAB PROJECT NO.

NOTES / MISCELLANEOUS

Field / Container Temp. 4°c

*Analyze all by NPDES requirements.

** NOTE! Temperature to be measured and recorded upon receipt of samples at lab. 0.1 °c

Container Sealed with Custody Seal: Yes ☒ No ☐

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
[signature]			
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Method of Shipment	Description of Transport Container	Other Chains-of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
Courier	Cooler	None	T. Murphy	2/19/08	1400	[signature]		1400

Send Lab Results to (Name): Christina Newman (Check Office Below) Verbals Requested: Yes ☒ No ☐

☒ MOUNTAIN VIEW • 299 FAIRCHILD DRIVE • MTN VIEW, CA 94043 • TEL (650) 960-1640 • FAX (650) 960-0739
☐ WALNUT CREEK • 1701 N. CALIFORNIA BLVD • WALNUT CREEK, CA 94596 • TEL (925) 906-8100 • FAX (925) 906-8101
☐ SACRAMENTO • 1100 MELODY LANE • ROSEVILLE, CA 95678 • TEL (916) 677-1751 • FAX (916) 677-1760
☐ OTHER _____ TEL _____ FAX _____

REV. 6/02

WHITE: Laboratory Copy YELLOW: Project Copy PINK: Database Copy

SOP Volume: Client Services
Section: 1.1.2
Page: 1 of 1
Effective Date: 08-Aug-07
Revision: 3 Number 1 of 3
Filename: F:\QC\Forms\QC\Cooler.wpd

Curtis & Tompkins Ltd

COOLER RECEIPT CHECKLIST

Login#: 201330 Date Received: 2/19/08 Number of Coolers: 1
Client: Locus Project: Raytheon

A. Preliminary Examination Phase
Date Opened: 2/19 By (print): KWellbrock (sign) KWellbrock

1. Did cooler come with a shipping slip (airbill, etc.)? YES (NO)
If YES, enter carrier name and airbill number:
2. Were custody seals on outside of cooler? (YES) NO
How many and where? 1-lip Seal date: 2/19/08 Seal name: Tom Murphy
3. Were custody seals unbroken and intact at the date and time of arrival? (YES) NO
4. Were custody papers dry and intact when received? (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? (YES) NO
6. Did you sign the custody papers in the appropriate place? (YES) NO
7. Was project identifiable from custody papers? (YES) NO
If YES, enter project name at the top of this form.
8. Describe type of packing in cooler: bubble wrap, bags
9. If required, was sufficient ice used? Samples should be <=6 degrees C. YES NO
Type of ice: wet Temperature: 0.7°C
10. Were Encore sampling devices present in the cooler? YES (NO)
If YES, enter time they were transferred to the freezer

B. Login Phase
Date Logged In: 2/20 By (print): KWellbrock (sign) KWellbrock

1. Did all bottles arrive unbroken? YES (NO)
2. Were labels in good condition and complete (ID, date, time, signature, etc.)? (YES) NO
3. Did bottle labels agree with custody papers? (YES) NO
4. Were appropriate containers used for the tests indicated? (YES) NO
5. Were correct preservatives added to samples? (YES) NO
6. Was sufficient amount of sample sent for tests indicated? (YES) NO
7. Were bubbles absent in VOA samples? If NO, list sample Ids below (YES) NO
8. Was the client contacted concerning this sample delivery? YES NO
If YES, give details below.
Who was called? By whom? Date:

Additional Comments:
BI: V3 Ray EFT VOAs arrived Broken

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	201330	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY EFT	Batch#:	135111
Lab ID:	201330-001	Sampled:	02/18/08
Matrix:	Water	Received:	02/19/08
Units:	ug/L	Analyzed:	02/22/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	90	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins Ltd

Purgeable Halocarbons by GC/MS

Lab #:	201330	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY MID	Batch#:	135111
Lab ID:	201330-002	Sampled:	02/18/08
Matrix:	Water	Received:	02/19/08
Units:	ug/L	Analyzed:	02/22/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	6.7	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	6.2	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	2.5	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	89	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	201330	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY INF	Batch#:	135111
Lab ID:	201330-003	Sampled:	02/18/08
Matrix:	Water	Received:	02/19/08
Units:	ug/L	Analyzed:	02/22/08
Diln Fac:	50.00		

Analyte	Result	RL
Chloromethane	ND	50
Vinyl Chloride	34	25
Bromomethane	ND	50
Chloroethane	ND	50
Trichlorofluoromethane	ND	50
Freon 113	ND	250
1,1-Dichloroethene	ND	25
Methylene Chloride	ND	250
trans-1,2-Dichloroethene	74	25
1,1-Dichloroethane	ND	25
cis-1,2-Dichloroethene	950	25
Chloroform	ND	25
1,1,1-Trichloroethane	ND	25
Carbon Tetrachloride	ND	25
1,2-Dichloroethane	ND	25
Trichloroethene	3,000	25
1,2-Dichloropropane	ND	25
Bromodichloromethane	ND	25
2-Chloroethylvinylether	ND	50
cis-1,3-Dichloropropene	ND	25
trans-1,3-Dichloropropene	ND	25
1,1,2-Trichloroethane	ND	25
Tetrachloroethene	ND	25
Dibromochloromethane	ND	25
Chlorobenzene	ND	25
Bromoform	ND	25
1,1,2,2-Tetrachloroethane	ND	25
1,3-Dichlorobenzene	ND	25
1,4-Dichlorobenzene	ND	25
1,2-Dichlorobenzene	ND	25

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	92	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	201330	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4644	Batch#:	135111
Lab ID:	201330-004	Sampled:	02/18/08
Matrix:	Water	Received:	02/19/08
Units:	ug/L	Analyzed:	02/22/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	91	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected
RL= Reporting Limit

5.0

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	201330	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC429422	Batch#:	135111
Matrix:	Water	Analyzed:	02/22/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	86	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-120

ND= Not Detected
RL= Reporting Limit

7 0

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	201330	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	135111
Units:	ug/L	Analyzed:	02/22/08
Diln Fac:	1.000		

Type: BS Lab ID: QC429420

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	20.22	101	80-120
Trichloroethene	20.00	19.89	99	80-120
Chlorobenzene	20.00	18.93	95	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	83	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	98	80-120

Type: BSD Lab ID: QC429421

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	20.00	18.40	92	80-120	9	35
Trichloroethene	20.00	18.34	92	80-120	8	35
Chlorobenzene	20.00	17.83	89	80-120	6	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	85	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	97	80-120

RPD= Relative Percent Difference

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2323 Fifth Street. Berkeley. CA 94710. Phone (510) 486-0900

Laboratory Job Number 201986
ANALYTICAL REPORT

Locus Technologies 299 Fairchild Dr. Mountain View, CA 94043	Project : 23016-03-2100 Location : Raytheon Level : II

RECEIVED
MAR 26 2008
BY:

Sample ID	Lab ID
RAY-EFT	201986-001
RAY-MID	201986-002
RAY-INF	201986-003
4651	201986-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 03/24/2008
Project Manager

Signature: _____ Date: 03/24/2008
Operations Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd

CASE NARRATIVE

Laboratory number:	201986
Client:	Locus Technologies
Project:	23016-03-2100
Location:	Raytheon
Request Date:	03/17/08
Samples Received:	03/17/08

This hardcopy data package contains sample and QC results for four water samples, requested for the above referenced project on 03/17/08. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

201986

Locus TECHNOLOGIES

CHAIN-OF-CUSTODY RECORD (See Reverse for Instructions)

SERIAL NO. 14271

PROJECT NAME: Raytheon
PROJECT NUMBER: 23016-03-2100
RECORDER: Henry Castro (SIGN)
SAMPLERS: Henry Castro Jr. (PRINT) Henry Castro (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES	SAMPLE DESCRIPTION CODES	TAT CODES
A. 40-ml VOA Vial	A. Ground Water	1. Standard
B. Glass Liter	B. Surface Water	2. 48 Hour
C. Plastic 500-ml	C. Leachate	3. 24 Hour
D. Plastic Liter	D. Rinseate	4. Other
E. Brass Tube	E. Soil/Sediment	
F. Other	F. Oil	
	G. Waste	
	H. Blank/Spike	
	I. Other	

ANALYTICAL LAB: Curtis & Tompkins

NO.	DATE	TIME	SAMPLE ID	AVERAGE TEMP °C	AVERAGE COND micromhos/cm	AVERAGE pH	Sample container (enter code)	Sample Description (enter code)	Unpreserved	HNO_3	HCL	Field Filtered (check)	8010 ms	Temperature							TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Store at 4°C (Check)	No VOA Headspace (Check)	NOTES	ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT
1	3/17/08	830	Ray-EFT	17.3	970	7.20	A	A			3		X								1	14 Day	✓	✓			
2	↓	845	Ray-MID	16.1	974	7.12	A	A			3		X								1	14 Day	✓	✓			
3		850	Ray-INF	15.9	979	7.26	A	A			3		X								1	14 Day	✓	✓			
4		—	4651	—	—	—	A	H			3		X								1	14 Day	✓	✓			
5	↓	—	Temp Blank	—	—	—	A	H	1					X								**	✓	N/A	**		
6																											
7																											
8																											
9																											
10																											
11																											
12																											
13																											
14																											
15																											
16																											

LABORATORY USE ONLY — LAB PROJECT NO.

NOTES / MISCELLANEOUS

Field / Container Temp. 4 °C

* Analyze all by NPDES requirements.

** **NOTE!** Temperature to be measured and recorded upon receipt of samples at lab. 1.0 °C

Container Sealed with Custody Seal: Yes ☒ No ☐

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Henry Castro			
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Method of Shipment	Description of Transport Container	Other Chains-of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
Courier	Cooler	None	[signature]	3/17/08	1409	[signature]	3/17/08	1409

Send Lab Results to (Name): Christina Newman (Check Office Below) Verbals Requested: Yes ☒ No ☐

☒ MOUNTAIN VIEW • 299 FAIRCHILD DRIVE • MTN VIEW, CA 94043 • TEL (650) 960-1640 • FAX (650) 960-0739
☐ WALNUT CREEK • 1701 N. CALIFORNIA BLVD • WALNUT CREEK, CA 94596 • TEL (925) 906-8100 • FAX (925) 906-8101
☐ SACRAMENTO • 1100 MELODY LANE • ROSEVILLE, CA 95678 • TEL (916) 677-1751 • FAX (916) 677-1760
☐ OTHER _____ TEL _____ FAX _____

REV. 6/02

WHITE: Laboratory Copy YELLOW: Project Copy PINK: Database Copy

COOLER RECEIPT CHECKLIST

ct Curtis & Tompkins, Ltd

Login # 201986 Date Received 3/17/08 Number of coolers 1
Client LOCUS Project RAYTHEON

Date Opened 3/17/08 By (print) M. VILLANUEVA (sign) [signature]
Date Logged in ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc)? YES NO
   Shipping info

2A. Were custody seals present? ☑ YES (circle) on cooler on samples ☐ NO
   How many 1-LIP Name TOM MURPHY Date 3/17/08
2B. Were custody seals intact upon arrival? YES NO N/A
3. Were custody papers dry and intact when received? YES NO
4. Were custody papers filled out properly (ink, signed, etc)? YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO
6. Indicate the packing in cooler: (if other, describe)

   ☐ Bubble Wrap ☐ Foam blocks ☑ Bags ☐ None

   ☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels
7. If required, was sufficient ice used? Samples should be < or = 6°C YES NO N/A

   Type of ice used: ☑ WET ☐ BLUE ☐ NONE Temp(°C) 1.0

   ☐ SAMPLES RECEIVED ON ICE DIRECTLY FROM FIELD. COOLING PROCESS HAD BEGUN.

8. Were soil Encore sampling devices present? YES NO
   If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? YES NO
10. Are samples in the appropriate containers for indicated tests? YES NO
11. Are sample labels present, in good condition and complete? YES NO
12. Do the sample labels agree with custody papers? YES NO
13. Was sufficient amount of sample sent for tests requested? YES NO
14. Are the samples appropriately preserved? YES NO N/A
15. Are bubbles absent in VOA samples? YES NO N/A
16. Was the client contacted concerning this sample delivery? YES NO
   If YES, Who was called? By Date:

COMMENTS
SAMPLE RAY-MID 1/3 VOA w/ BUBBLE MW 3/17/08

Curtis & Tompkins Ltd

Purgeable Halocarbons by GC/MS

Lab #:	201986	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-EFT	Batch#:	136133
Lab ID:	201986-001	Sampled:	03/17/08
Matrix:	Water	Received:	03/17/08
Units:	ug/L	Analyzed:	03/19/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	111	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	201986	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-MID	Batch#:	136133
Lab ID:	201986-002	Sampled:	03/17/08
Matrix:	Water	Received:	03/17/08
Units:	ug/L	Analyzed:	03/19/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	7.1	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	7.2	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	0.5	0.5
1,1,1-Trichloroethane	2.6	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	104	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	113	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	201986	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-INF	Batch#:	136133
Lab ID:	201986-003	Sampled:	03/17/08
Matrix:	Water	Received:	03/17/08
Units:	ug/L	Analyzed:	03/19/08
Diln Fac:	40.00		

Analyte	Result	RL
Chloromethane	ND	40
Vinyl Chloride	35	20
Bromomethane	ND	40
Chloroethane	ND	40
Trichlorofluoromethane	ND	40
Freon 113	ND	200
1,1-Dichloroethene	ND	20
Methylene Chloride	ND	200
trans-1,2-Dichloroethene	81	20
1,1-Dichloroethane	ND	20
cis-1,2-Dichloroethene	1,100	20
Chloroform	ND	20
1,1,1-Trichloroethane	ND	20
Carbon Tetrachloride	ND	20
1,2-Dichloroethane	ND	20
Trichloroethene	3,200	20
1,2-Dichloropropane	ND	20
Bromodichloromethane	ND	20
2-Chloroethylvinylether	ND	40
cis-1,3-Dichloropropene	ND	20
trans-1,3-Dichloropropene	ND	20
1,1,2-Trichloroethane	ND	20
Tetrachloroethene	ND	20
Dibromochloromethane	ND	20
Chlorobenzene	ND	20
Bromoform	ND	20
1,1,2,2-Tetrachloroethane	ND	20
1,3-Dichlorobenzene	ND	20
1,4-Dichlorobenzene	ND	20
1,2-Dichlorobenzene	ND	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	111	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	201986	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4651	Batch#:	136133
Lab ID:	201986-004	Sampled:	03/17/08
Matrix:	Water	Received:	03/17/08
Units:	ug/L	Analyzed:	03/19/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	113	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	201986	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC433503	Batch#:	136133
Matrix:	Water	Analyzed:	03/19/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	112	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	201986	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC433502	Batch#:	136133
Matrix:	Water	Analyzed:	03/19/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	30.00	31.93	106	80-120
Trichloroethene	30.00	31.09	104	80-120
Chlorobenzene	30.00	30.19	101	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	98	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	101	80-120

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	201986	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	136133
MSS Lab ID:	202011-017	Sampled:	03/18/08
Matrix:	Water	Received:	03/18/08
Units:	ug/L	Analyzed:	03/19/08
Diln Fac:	1.000		

Type: MS Lab ID: QC433560

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1000	25.00	13.53	54	40-150
Trichloroethene	<0.1000	25.00	20.03	80	40-150
Chlorobenzene	<0.1000	25.00	22.09	88	40-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	107	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	105	80-120

Type: MSD Lab ID: QC433561

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	15.08	60	40-150	11	35
Trichloroethene	25.00	21.71	87	40-150	8	35
Chlorobenzene	25.00	24.19	97	40-150	9	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	104	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	105	80-120

RPD= Relative Percent Difference

8.0

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street. Berkeley. CA 94710. Phone (510) 486-0900

Laboratory Job Number 202320
ANALYTICAL REPORT

Locus Technologies 299 Fairchild Dr. Mountain View, CA 94043	Project : 23016-03-2100 Location : Raytheon Level : II

Sample ID	Lab ID
RE-1B2	202320-001
TRIP BLANK	202320-002
R39-B2	202320-003
R27-B2	202320-004
R68-B2	202320-005

RECEIVED
APR 14 2008
BY:

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 04/08/2008
Project Manager

Signature: _____ Date: 04/09/2008
Operations Manager

NELAP # 01107CA

Curtis & Tompkins Ltd

CASE NARRATIVE

Laboratory number:	202320
Client:	Locus Technologies
Project:	23016-03-2100
Location:	Raytheon
Request Date:	03/31/08
Samples Received:	03/31/08

This hardcopy data package contains sample and QC results for five water samples, requested for the above referenced project on 03/31/08. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

202320

SERIAL NO. 14275

Locus TECHNOLOGIES CHAIN-OF-CUSTODY RECORD (See Reverse for Instructions)

PROJECT NAME: Raytheon
PROJECT NUMBER: 23016-03-2100
RECORDER: [signature] (SIGN)
SAMPLERS: Henry Castro Jr (PRINT) [signature] (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES	SAMPLE DESCRIPTION CODES	TAT CODES
A. 40-ml VOA Vial	A. Ground Water	1. Standard
B. Glass Liter	B. Surface Water	2. 48 Hour
C. Plastic 500-ml	C. Leachate	3. 24 Hour
D. Plastic Liter	D. Rinseate	4. Other 5 Day TAT
E. Brass Tube	E. Soil/Sediment	
F. Other	F. Oil	
	G. Waste	
	H. Blank/Spike	
	I. Other	

ANALYTICAL LAB: Curtis & Tompkins

NO.	DATE	TIME	SAMPLE ID	AVERAGE TEMP °C	AVERAGE COND micromhos/cm	AVERAGE pH	Sample container (enter code)	Sample Description (enter code)	Unpreserved	HNO_3	HCL	Field Filtered (check)	8010	Temperature	TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Store at 4°C (Check)	No VOA Headspace (Check)	NOTES	ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT
1	3/28/08	900	RE-1B2	17.7	660	6.40	A	A			3		X		4	14 Day	✓	✓			
2	3/28/08	—	Trip Blank	—	—	—	A	A			3		X		4	14 Day	✓	✓			
3			~~Temp Blank~~				A	A			3		X		4	14 Day					
4							A	A			3		X		4	14 Day					
5	3/28/08	—	Temp Blank	—	—	—	A	H			1			X		**	✓	N/A	* *		
6																					
7	3/31/08	1240	R39-B2	22.6	657	6.70	A	A			3		X		4	14 Day	✓	✓			
8	3/31/08	1335	R27-B2	20.9	827	6.65	A	A			3		X		4	14 Day	✓	✓			
9	3/31/08	1450	R68-B2	19.4	648	6.71	A	A			3		X		4	14 Day	✓	✓			
10																					
11																					
12																					
13																					
14																					
15																					
16																					

LABORATORY USE ONLY — LAB PROJECT NO.

NOTES / MISCELLANEOUS: * Note: 5 Day TAT on all samples.

** NOTE! Temperature to be measured and recorded upon receipt of samples at lab. 1.5 °C

Field / Container Temp. 4°C

Container Sealed with Custody Seal: Yes ☒ No ☐

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
[signature]			
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Method of Shipment	Description of Transport Container	Other Chains-of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
Courier	Cooler	None	T. Murphy	3/31/08	1500	[signature]	3/31/08	1500

Send Lab Results to (Name): Christina Newman (Check Office Below) Verbals Requested: Yes ☒ No ☐

☒ MOUNTAIN VIEW • 299 FAIRCHILD DRIVE • MTN VIEW, CA 94043 • TEL (650) 960-1640 • FAX (650) 960-0739
☐ WALNUT CREEK • 1701 N. CALIFORNIA BLVD • WALNUT CREEK, CA 94596 • TEL (925) 906-8100 • FAX (925) 906-8101
☐ SACRAMENTO • 1100 MELODY LANE • ROSEVILLE, CA 95678 • TEL (916) 677-1751 • FAX (916) 677-1760
☐ OTHER _____ TEL _____ FAX _____

REV. 6/02

WHITE: Laboratory Copy YELLOW: Project Copy PINK: Database Copy

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 202320 Date Received 3/31/08 Number of coolers 1
Client Lowis Project Raytheon

Date Opened 3/31 By (print) K Wellbrock (sign) K Wellbrock
Date Logged in ✓ By (print) K Wellbrock (sign) K Wellbrock

1. Did cooler come with a shipping slip (airbill, etc)? ..... YES (NO)
   Shipping info _____

2A. Were custody seals present? ..... ☒ YES (circle) (on cooler) on samples ☐ NO
   How many 1 Name T Murphy Date 3/31/08
2B. Were custody seals intact upon arrival? ..... (YES) NO N/A
3. Were custody papers dry and intact when received? ..... (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? ..... (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) ..... (YES) NO
6. Indicate the packing in cooler: (if other, describe) _____

   ☒ Bubble Wrap ☐ Foam blocks ☒ Bags ☐ None

   ☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels
7. If required, was sufficient ice used? Samples should be < or = 6°C ..... (YES) NO N/A

   Type of ice used: ☒ WET ☐ BLUE ☐ NONE Temp(°C) 1.5 DME1830

   ☐ SAMPLES RECEIVED ON ICE DIRECTLY FROM FIELD. COOLING PROCESS HAD BEGUN.
8. Were soil Encore sampling devices present? ..... YES (NO)
   If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? ..... (YES) NO
10. Are samples in the appropriate containers for indicated tests? ..... (YES) NO
11. Are sample labels present, in good condition and complete? ..... (YES) NO
12. Do the sample labels agree with custody papers? ..... (YES) NO
13. Was sufficient amount of sample sent for tests requested? ..... (YES) NO
14. Are the samples appropriately preserved? ..... (YES) NO N/A
15. Are bubbles absent in VOA samples? ..... (YES) NO N/A
16. Was the client contacted concerning this sample delivery? ..... YES NO
   If YES, Who was called? _____ By _____ Date: _____

COMMENTS

_____

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	202320	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RE-1B2	Batch#:	136639
Lab ID:	202320-001	Sampled:	03/28/08
Matrix:	Water	Received:	03/31/08
Units:	ug/L	Analyzed:	04/02/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected
RL= Reporting Limit

2.0

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	202320	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	TRIP BLANK	Batch#:	136639
Lab ID:	202320-002	Sampled:	03/28/08
Matrix:	Water	Received:	03/31/08
Units:	ug/L	Analyzed:	04/02/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	97	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	202320	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	R39-B2	Batch#:	136639
Lab ID:	202320-003	Sampled:	03/31/08
Matrix:	Water	Received:	03/31/08
Units:	ug/L	Analyzed:	04/02/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	96	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	202320	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	R27-B2	Units:	ug/L
Lab ID:	202320-004	Sampled:	03/31/08
Matrix:	Water	Received:	03/31/08

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Chloromethane	ND	2.5	2.500	136639	04/02/08
Vinyl Chloride	ND	1.3	2.500	136639	04/02/08
Bromomethane	ND	2.5	2.500	136639	04/02/08
Chloroethane	ND	2.5	2.500	136639	04/02/08
Trichlorofluoromethane	ND	2.5	2.500	136639	04/02/08
Freon 113	ND	13	2.500	136639	04/02/08
1,1-Dichloroethene	ND	1.3	2.500	136639	04/02/08
Methylene Chloride	ND	13	2.500	136639	04/02/08
trans-1,2-Dichloroethene	ND	1.3	2.500	136639	04/02/08
1,1-Dichloroethane	ND	1.3	2.500	136639	04/02/08
cis-1,2-Dichloroethene	4.8	1.3	2.500	136639	04/02/08
Chloroform	ND	1.3	2.500	136639	04/02/08
1,1,1-Trichloroethane	ND	1.3	2.500	136639	04/02/08
Carbon Tetrachloride	ND	1.3	2.500	136639	04/02/08
1,2-Dichloroethane	ND	1.3	2.500	136639	04/02/08
Trichloroethene	350	4.2	8.333	136694	04/03/08
1,2-Dichloropropane	ND	1.3	2.500	136639	04/02/08
Bromodichloromethane	ND	1.3	2.500	136639	04/02/08
2-Chloroethylvinylether	ND	2.5	2.500	136639	04/02/08
cis-1,3-Dichloropropene	ND	1.3	2.500	136639	04/02/08
trans-1,3-Dichloropropene	ND	1.3	2.500	136639	04/02/08
1,1,2-Trichloroethane	ND	1.3	2.500	136639	04/02/08
Tetrachloroethene	ND	1.3	2.500	136639	04/02/08
Dibromochloromethane	ND	1.3	2.500	136639	04/02/08
Chlorobenzene	ND	1.3	2.500	136639	04/02/08
Bromoform	ND	1.3	2.500	136639	04/02/08
1,1,2,2-Tetrachloroethane	ND	1.3	2.500	136639	04/02/08
1,3-Dichlorobenzene	ND	1.3	2.500	136639	04/02/08
1,4-Dichlorobenzene	ND	1.3	2.500	136639	04/02/08
1,2-Dichlorobenzene	ND	1.3	2.500	136639	04/02/08

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
1,2-Dichloroethane-d4	108	80-120	2.500	136639	04/02/08
Toluene-d8	104	80-120	2.500	136639	04/02/08
Bromofluorobenzene	99	80-120	2.500	136639	04/02/08

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	202320	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	R68-B2	Batch#:	136639
Lab ID:	202320-005	Sampled:	03/31/08
Matrix:	Water	Received:	03/31/08
Units:	ug/L	Analyzed:	04/02/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	104	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	98	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	202320	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	136639
Units:	ug/L	Analyzed:	04/02/08
Diln Fac:	1.000		

Type: BS Lab ID: QC435680

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	27.00	108	80-120
Trichloroethene	25.00	26.46	106	80-120
Chlorobenzene	25.00	25.54	102	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	97	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	97	80-120

Type: BSD Lab ID: QC435681

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	28.74	115	80-120	6	35
Trichloroethene	25.00	27.96	112	80-120	6	35
Chlorobenzene	25.00	26.30	105	80-120	3	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	95	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	202320	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC435682	Batch#:	136639
Matrix:	Water	Analyzed:	04/02/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	98	80-120

ND= Not Detected
RL= Reporting Limit

8.0

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	202320	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC435913	Batch#:	136694
Matrix:	Water	Analyzed:	04/03/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	26.91	108	80-120
Trichloroethene	25.00	26.38	106	80-120
Chlorobenzene	25.00	24.59	98	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	94	80-120

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	202320	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC435914	Batch#:	136694
Matrix:	Water	Analyzed:	04/03/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	95	80-120

ND= Not Detected
RL= Reporting Limit

10.0

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	202320	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	136694
MSS Lab ID:	202243-001	Sampled:	03/27/08
Matrix:	Water	Received:	03/27/08
Units:	ug/L	Analyzed:	04/03/08
Diln Fac:	1.000		

Type: MS Lab ID: QC435923

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1000	25.00	29.10	116	40-150
Trichloroethene	<0.1000	25.00	29.01	116	40-150
Chlorobenzene	<0.1000	25.00	26.44	106	40-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	112	80-120
Toluene-d8	105	80-120
Bromofluorobenzene	95	80-120

Type: MSD Lab ID: QC435924

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	28.03	112	40-150	4	35
Trichloroethene	25.00	27.58	110	40-150	5	35
Chlorobenzene	25.00	25.17	101	40-150	5	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	111	80-120
Toluene-d8	105	80-120
Bromofluorobenzene	95	80-120

RPD= Relative Percent Difference

11 0

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street. Berkeley, CA 94710. Phone (510) 486-0900

Laboratory Job Number 202623
ANALYTICAL REPORT

Locus Technologies 299 Fairchild Dr. Mountain View, CA 94043	Project : 23016-03-2100 Location : Raytheon Level : II

RECEIVED
APR 28 2008
BY:

Sample ID	Lab ID
RAY-EFT	202623-001
RAY-MID	202623-002
RAY-INF	202623-003
4662	202623-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 04/23/2008
Project Manager

Signature: _____ Date: 04/24/2008
Operations Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd

CASE NARRATIVE

Laboratory number:	202623
Client:	Locus Technologies
Project:	23016-03-2100
Location:	Raytheon
Request Date:	04/16/08
Samples Received:	04/16/08

This hardcopy data package contains sample and QC results for four water samples, requested for the above referenced project on 04/16/08. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
High response was observed for bromomethane in the ICV analyzed 04/16/08 19:04; affected data was qualified with "b". High response was observed for bromomethane in the CCV analyzed 04/17/08 11:10; affected data was qualified with "b". Bromomethane was detected above the RL in the method blank for batch 137105; this analyte was not detected in samples at or above the RL. No other analytical problems were encountered.

202623

SERIAL NO. 14286

Locus TECHNOLOGIES CHAIN-OF-CUSTODY RECORD (See Reverse for Instructions)

PROJECT NAME: Raytheon
PROJECT NUMBER: 23016-03-2100
RECORDER: [signature] (SIGN)
SAMPLERS: Henry Castro (PRINT) [signature] (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES	SAMPLE DESCRIPTION CODES	TAT CODES
A. 40-ml VOA Vial	A. Ground Water	1. Standard
B. Glass Liter	B. Surface Water	2. 48 Hour
C. Plastic 500-ml	C. Leachate	3. 24 Hour
D. Plastic Liter	D. Rinseate	4. Other
E. Brass Tube	E. Soil/Sediment	
F. Other	F. Oil	
	G. Waste	
	H. Blank/Spike	
	I. Other	

ANALYTICAL LAB: Curtis & Tompkins

NO.	DATE	TIME	SAMPLE ID	AVERAGE TEMP °C	AVERAGE COND micromhos/cm	AVERAGE pH	Sample container (enter code)	Sample Description (enter code)	Unpreserved	HNO_3	HCL	Field Filtered (check)	8010's	Temperature	TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Store at 4°C (Check)	No VOA Headspace (Check)	NOTES	ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT
1	4/16/08	800	Ray-EFT	19.3	955	7.04	A	A			3		X		1	14 Day	✓	✓			
2	↓	815	Ray-MID	17.0	960	7.08	A	A			3		X		1	14 Day	✓	✓			
3		830	Ray-INF	17.4	964	7.18	A	A			3		X		1	14 Day	✓	✓			
4		—	4662	—	—	—	A	H			3		X		1	14 Day	✓	✓			
5	↓	—	Temp Blank	—	—	—	A	H	1					X		**	✓	NA	**		
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					

LABORATORY USE ONLY — LAB PROJECT NO.

NOTES / MISCELLANEOUS: * Analyze all by NPDES requirements

** NOTE! Temperature to be measured and recorded upon receipt of samples at lab. 5.5 °C

Field / Container Temp. 4°C

Container Sealed with Custody Seal: Yes ☒ No ☐

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
[signature]	[signature]	4/16	1340
[signature]	[signature]	4/16/08	2:42pm

Method of Shipment	Description of Transport Container	Other Chains-of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
Courier	Cooler	None	T. Mazding	4/16/08	1340	[signature]	4/16	1340

Send Lab Results to (Name): Christina Newman (Check Office Below) Verbals Requested: Yes ☒ No ☐

☒ MOUNTAIN VIEW • 299 FAIRCHILD DRIVE • MTN VIEW, CA 94043 • TEL (650) 960-1640 • FAX (650) 960-0739
☐ WALNUT CREEK • 1701 N. CALIFORNIA BLVD • WALNUT CREEK, CA 94596 • TEL (925) 906-8100 • FAX (925) 906-8101
☐ SACRAMENTO • 1100 MELODY LANE • ROSEVILLE, CA 95678 • TEL (916) 677-1751 • FAX (916) 677-1760
☐ OTHER _____ TEL _____ FAX _____

REV. 6/02

WHITE: Laboratory Copy YELLOW: Project Copy PINK: Database Copy

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 202623 Date Received 4-16-08 Number of coolers 3
Client Locus Project Raytheon

Date Opened 4-16-08 By (print) F Nichols (sign) [signature]
Date Logged in 4-16-08 By (print) F Nichols (sign) [signature]

1. Did cooler come with a shipping slip (airbill, etc)? YES (NO)
   Shipping info _____

2A. Were custody seals present? [X] YES (circle) (on cooler) on samples [ ] NO
   How many 1 over lip Name Tom Murphy Date 4-16-08
2B. Were custody seals intact upon arrival? (YES) NO N/A
3. Were custody papers dry and intact when received? (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO
6. Indicate the packing in cooler: (if other, describe) _____

   [X] Bubble Wrap [ ] Foam blocks [X] Bags [ ] None

   [ ] Cloth material [ ] Cardboard [ ] Styrofoam [ ] Paper towels
7. If required, was sufficient ice used? Samples should be < or = 6°C (YES) NO N/A

   Type of ice used: [X] WET [ ] BLUE [ ] NONE Temp(°C) 5.5, 5.3, 4.4

   [ ] SAMPLES RECEIVED ON ICE DIRECTLY FROM FIELD COOLING PROCESS HAD BEGUN
8. Were soil Encore sampling devices present? YES (NO)
   If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? (YES) NO
10. Are samples in the appropriate containers for indicated tests? (YES) NO
11. Are sample labels present, in good condition and complete? (YES) NO
12. Do the sample labels agree with custody papers? (YES) NO
13. Was sufficient amount of sample sent for tests requested? (YES) NO
14. Are the samples appropriately preserved? (YES) NO N/A
15. Are bubbles absent in VOA samples? (YES) NO N/A
16. Was the client contacted concerning this sample delivery? YES NO
   If YES, Who was called? _____ By _____ Date: _____

COMMENTS

_____

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	202623	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-EFT	Batch#:	137105
Lab ID:	202623-001	Sampled:	04/16/08
Matrix:	Water	Received:	04/16/08
Units:	ug/L	Analyzed:	04/17/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	3.0	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	202623	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-MID	Batch#:	137105
Lab ID:	202623-002	Sampled:	04/16/08
Matrix:	Water	Received:	04/16/08
Units:	ug/L	Analyzed:	04/17/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	7.3	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	6.4	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	2.5	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	202623	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-INF	Batch#:	137105
Lab ID:	202623-003	Sampled:	04/16/08
Matrix:	Water	Received:	04/16/08
Units:	ug/L	Analyzed:	04/17/08
Diln Fac:	40.00		

Analyte	Result	RL
Chloromethane	ND	40
Vinyl Chloride	58	20
Bromomethane	ND	40
Chloroethane	ND	40
Trichlorofluoromethane	ND	40
Freon 113	ND	200
1,1-Dichloroethene	ND	20
Methylene Chloride	ND	200
trans-1,2-Dichloroethene	79	20
1,1-Dichloroethane	ND	20
cis-1,2-Dichloroethene	940	20
Chloroform	ND	20
1,1,1-Trichloroethane	ND	20
Carbon Tetrachloride	ND	20
1,2-Dichloroethane	ND	20
Trichloroethene	3,000	20
1,2-Dichloropropane	ND	20
Bromodichloromethane	ND	20
2-Chloroethylvinylether	ND	40
cis-1,3-Dichloropropene	ND	20
trans-1,3-Dichloropropene	ND	20
1,1,2-Trichloroethane	ND	20
Tetrachloroethene	ND	20
Dibromochloromethane	ND	20
Chlorobenzene	ND	20
Bromoform	ND	20
1,1,2,2-Tetrachloroethane	ND	20
1,3-Dichlorobenzene	ND	20
1,4-Dichlorobenzene	ND	20
1,2-Dichlorobenzene	ND	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	117	80-120
Toluene-d8	104	80-120
Bromofluorobenzene	105	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	202623	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4662	Batch#:	137161
Lab ID:	202623-004	Sampled:	04/16/08
Matrix:	Water	Received:	04/16/08
Units:	ug/L	Analyzed:	04/18/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	112	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	111	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	202623	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC437630	Batch#:	137105
Matrix:	Water	Analyzed:	04/17/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	1.3 b	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	98	80-120

b= See narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	202623	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC437862	Batch#:	137161
Matrix:	Water	Analyzed:	04/18/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	111	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	111	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	202623	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	137105
Units:	ug/L	Analyzed:	04/17/08
Diln Fac:	1.000		

Type: BS Lab ID: QC437628

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	24.29	97	80-120
Trichloroethene	25.00	25.87	103	80-120
Chlorobenzene	25.00	25.78	103	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-120

Type: BSD Lab ID: QC437629

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	22.59	90	80-120	7	35
Trichloroethene	25.00	23.61	94	80-120	9	35
Chlorobenzene	25.00	24.42	98	80-120	5	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	102	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	202623	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	137161
Units:	ug/L	Analyzed:	04/18/08
Diln Fac:	1.000		

Type: BS Lab ID: QC437860

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	28.29	113	80-120
Trichloroethene	25.00	26.51	106	80-120
Chlorobenzene	25.00	26.94	108	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	104	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	106	80-120

Type: BSD Lab ID: QC437861

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	26.60	106	80-120	6	35
Trichloroethene	25.00	25.49	102	80-120	4	35
Chlorobenzene	25.00	25.85	103	80-120	4	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	105	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street. Berkeley. CA 94710. Phone (510) 486-0900

Laboratory Job Number 203428
ANALYTICAL REPORT

Locus Technologies 299 Fairchild Dr. Mountain View, CA 94043	Project : 23016-03-2100 Location : Raytheon Level : II

RECEIVED
JUN - 2 2008

Sample ID	Lab ID
RAY EFT	203428-001
RAY MID	203428-002
RAY INF	203428-003
4766	203428-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Anna Pajarillo
Project Manager

Date: 05/28/2008

Signature: [signature]
Senior Program Manager

Date: 05/29/2008

NELAP # 01107CA

Curtis & Tompkins, Ltd

CASE NARRATIVE

Laboratory number:	203428
Client:	Locus Technologies
Project:	23016-03-2100
Location:	Raytheon
Request Date:	05/20/08
Samples Received:	05/20/08

This hardcopy data package contains sample and QC results for four water samples, requested for the above referenced project on 05/20/08. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

203428

locus TECHNOLOGIES

CHAIN-OF-CUSTODY RECORD (See Reverse for Instructions)

SERIAL NO. 14295

PROJECT NAME: Raytheon
PROJECT NUMBER: 23016-03-2100
RECORDER: Henry Castro (SIGN)
SAMPLERS: Henry Castro Jr. (PRINT) Henry Castro (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES	SAMPLE DESCRIPTION CODES	TAT CODES
A. 40-ml VOA Vial	A. Ground Water	1. Standard
B. Glass Liter	B. Surface Water	2. 48 Hour
C. Plastic 500-ml	C. Leachate	3. 24 Hour
D. Plastic Liter	D. Rinseate	4. Other
E. Brass Tube	E. Soil/Sediment	
F. Other	F. Oil	
	G. Waste	
	H. Blank/Spike	
	I. Other	

ANALYTICAL LAB: Curtis & Tompkins

NO.	DATE	TIME	SAMPLE ID	AVERAGE TEMP °C	AVERAGE COND micromhos/cm	AVERAGE pH	Sample container (enter code)	Sample Description (enter code)	Unpreserved	HNO_3	HCL	Field Filtered (check)	8260	8010ms	Temperature						TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Store at 4°C (Check)	No VOA Headspace (Check)	NOTES	ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT
1	5/20/08	810	Ray EFT	19.1	948	7.00	A	A			3		X								1	14 Day	✓	✓			
2		820	Ray MID	17.1	956	7.04	A	A			3			X							1	14 Day	✓	✓			
3		835	Ray INF	17.3	963	7.13	A	A			3		X								1	14 Day	✓	✓			
4		—	4766	—	—	—	A	H			3		X								1	14 Day	✓	✓			
5		—	Temp Blank	—	—	—	A	H	L						X							**	✓	N/A			
6																											
7																											
8																											
9																											
10																											
11																											
12																											
13																											
14																											
15																											
16																											

LABORATORY USE ONLY — LAB PROJECT NO.

NOTES / MISCELLANEOUS: *Analyze all by NPDES Requirements.

** NOTE! Temperature to be measured and recorded upon receipt of samples at lab. _____ °C

Field / Container Temp. 4°C

Container Sealed with Custody Seal: Yes ☒ No ☐

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Henry Castro			
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Method of Shipment	Description of Transport Container	Other Chains-of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
Courier	Cooler	None	Henry Castro	5/20/08	1350	[illegible]	5/20/08	1350

Send Lab Results to (Name): Christina Newman (Check Office Below) Verbals Requested: Yes ☒ No ☐

☒ MOUNTAIN VIEW • 299 FAIRCHILD DRIVE • MTN VIEW, CA 94043 • TEL (650) 960-1640 • FAX (650) 960-0739
☐ WALNUT CREEK • 1701 N. CALIFORNIA BLVD • WALNUT CREEK, CA 94596 • TEL (925) 906-8100 • FAX (925) 906-8101
☐ SACRAMENTO • 1100 MELODY LANE • ROSEVILLE, CA 95678 • TEL (916) 677-1751 • FAX (916) 677-1760
☐ OTHER _____ TEL _____ FAX _____

REV. 6/02

WHITE: Laboratory Copy YELLOW: Project Copy PINK: Database Copy

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 403428 Date Received 5-20-08 Number of coolers 1
Client LOCUS Project Raytheon

Date Opened ~~5-20-08~~ By (print) F Nichols (sign) [illegible]
Date Logged in 5-20-08 By (print) F Nichols (sign) [illegible]

1. Did cooler come with a shipping slip (airbill, etc)? ..... YES (NO)
   Shipping info _____

2A. Were custody seals present? .... ☒ YES (circle) (on cooler) on samples ☐ NO
   How many 1 over lip Name Henry C Date 5-20-08
2B. Were custody seals intact upon arrival? ..... (YES) NO N/A
3. Were custody papers dry and intact when received? ..... (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? ..... (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) ..... (YES) NO
6. Indicate the packing in cooler: (if other, describe) _____

   ☐ Bubble Wrap ☐ Foam blocks ☒ Bags ☐ None

   ☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels
7. If required, was sufficient ice used? Samples should be < or = 6°C ..... (YES) NO N/A

   Type of ice used: ☒ Wet ☐ Blue ☐ None Temp(°C) 5.5

   ☐ Samples Received on ice & cold without a temperature blank

   ☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? ..... YES (NO)
   If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? ..... (YES) NO
10. Are samples in the appropriate containers for indicated tests? ..... (YES) NO
11. Are sample labels present, in good condition and complete? ..... (YES) NO
12. Do the sample labels agree with custody papers? ..... (YES) NO
13. Was sufficient amount of sample sent for tests requested? ..... (YES) NO
14. Are the samples appropriately preserved? ..... (YES) NO N/A
15. Are bubbles > 6mm absent in VOA samples? ..... (YES) NO N/A
16. Was the client contacted concerning this sample delivery? ..... YES NO
   If YES, Who was called? _____ By _____ Date: _____

COMMENTS

_____

Curtis & Tompkins, Ltd

Purgeable Organics by GC/MS

Lab #:	203428	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY EFT	Batch#:	138389
Lab ID:	203428-001	Sampled:	05/20/08
Matrix:	Water	Received:	05/20/08
Units:	ug/L	Analyzed:	05/21/08
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
2-Chloroethylvinylether	ND	10
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Organics by GC/MS

Lab #:	203428	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY EFT	Batch#:	138389
Lab ID:	203428-001	Sampled:	05/20/08
Matrix:	Water	Received:	05/20/08
Units:	ug/L	Analyzed:	05/21/08
Diln Fac:	1.000		

Analyte	Result	RL
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	0.5
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	104	80-120
Toluene-d8	95	80-120
Bromofluorobenzene	103	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	203428	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY MID	Batch#:	138373
Lab ID:	203428-002	Sampled:	05/20/08
Matrix:	Water	Received:	05/20/08
Units:	ug/L	Analyzed:	05/21/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	6.2	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	6.3	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	2.5	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	96	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	103	80-120

ND= Not Detected
RL= Reporting Limit

2.0

Curtis & Tompkins, Ltd

Purgeable Organics by GC/MS

Lab #:	203428	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY INF	Batch#:	138389
Lab ID:	203428-003	Sampled:	05/20/08
Matrix:	Water	Received:	05/20/08
Units:	ug/L	Analyzed:	05/22/08
Diln Fac:	50.00		

Analyte	Result	RL
Freon 12	ND	50
Chloromethane	ND	50
Vinyl Chloride	59	25
Bromomethane	ND	50
Chloroethane	ND	50
Trichlorofluoromethane	ND	50
Acetone	ND	500
Freon 113	ND	250
1,1-Dichloroethene	ND	25
Methylene Chloride	ND	250
Carbon Disulfide	ND	25
MTBE	ND	25
trans-1,2-Dichloroethene	67	25
Vinyl Acetate	ND	500
1,1-Dichloroethane	ND	25
2-Butanone	ND	500
cis-1,2-Dichloroethene	860	25
2,2-Dichloropropane	ND	25
Chloroform	ND	25
Bromochloromethane	ND	25
1,1,1-Trichloroethane	ND	25
1,1-Dichloropropene	ND	25
Carbon Tetrachloride	ND	25
1,2-Dichloroethane	ND	25
Benzene	ND	25
Trichloroethene	2,800	25
1,2-Dichloropropane	ND	25
Bromodichloromethane	ND	25
Dibromomethane	ND	25
2-Chloroethylvinylether	ND	500
4-Methyl-2-Pentanone	ND	500
cis-1,3-Dichloropropene	ND	25
Toluene	ND	25
trans-1,3-Dichloropropene	ND	25
1,1,2-Trichloroethane	ND	25
2-Hexanone	ND	500
1,3-Dichloropropane	ND	25

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Organics by GC/MS

Lab #:	203428	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY INF	Batch#:	138389
Lab ID:	203428-003	Sampled:	05/20/08
Matrix:	Water	Received:	05/20/08
Units:	ug/L	Analyzed:	05/22/08
Diln Fac:	50.00		

Analyte	Result	RL
Tetrachloroethene	ND	25
Dibromochloromethane	ND	25
1,2-Dibromoethane	ND	25
Chlorobenzene	ND	25
1,1,1,2-Tetrachloroethane	ND	25
Ethylbenzene	ND	25
m,p-Xylenes	ND	25
o-Xylene	ND	25
Styrene	ND	25
Bromoform	ND	50
Isopropylbenzene	ND	25
1,1,2,2-Tetrachloroethane	ND	25
1,2,3-Trichloropropane	ND	25
Propylbenzene	ND	25
Bromobenzene	ND	25
1,3,5-Trimethylbenzene	ND	25
2-Chlorotoluene	ND	25
4-Chlorotoluene	ND	25
tert-Butylbenzene	ND	25
1,2,4-Trimethylbenzene	ND	25
sec-Butylbenzene	ND	25
para-Isopropyl Toluene	ND	25
1,3-Dichlorobenzene	ND	25
1,4-Dichlorobenzene	ND	25
n-Butylbenzene	ND	25
1,2-Dichlorobenzene	ND	25
1,2-Dibromo-3-Chloropropane	ND	25
1,2,4-Trichlorobenzene	ND	25
Hexachlorobutadiene	ND	25
Naphthalene	ND	25
1,2,3-Trichlorobenzene	ND	25

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-120
1,2-Dichloroethane-d4	104	80-120
Toluene-d8	95	80-120
Bromofluorobenzene	105	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Organics by GC/MS

Lab #:	203428	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4766	Batch#:	138389
Lab ID:	203428-004	Sampled:	05/20/08
Matrix:	Water	Received:	05/20/08
Units:	ug/L	Analyzed:	05/21/08
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
2-Chloroethylvinylether	ND	10
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Organics by GC/MS

Lab #:	203428	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4766	Batch#:	138389
Lab ID:	203428-004	Sampled:	05/20/08
Matrix:	Water	Received:	05/20/08
Units:	ug/L	Analyzed:	05/21/08
Diln Fac:	1.000		

Analyte	Result	RL
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	0.5	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	0.5
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	104	80-120
Toluene-d8	94	80-120
Bromofluorobenzene	104	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	203428	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC442820	Batch#:	138373
Matrix:	Water	Analyzed:	05/21/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	97	80-120
Toluene-d8	98	80-120
Bromofluorobenzene	103	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	203428	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC442889	Batch#:	138389
Matrix:	Water	Analyzed:	05/21/08
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	203428	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC442889	Batch#:	138389
Matrix:	Water	Analyzed:	05/21/08
Units:	ug/L		

Analyte	Result	RL
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	0.5
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	0.5
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	93	80-120
Bromofluorobenzene	103	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	203428	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	138373
Units:	ug/L	Analyzed:	05/21/08
Diln Fac:	1.000		

Type: BS Lab ID: QC442818

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	29.84	119	80-120
Trichloroethene	25.00	26.75	107	80-120
Chlorobenzene	25.00	26.46	106	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	104	80-120

Type: BSD Lab ID: QC442819

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	28.46	114	80-120	5	35
Trichloroethene	25.00	24.92	100	80-120	7	35
Chlorobenzene	25.00	25.72	103	80-120	3	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	95	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	203428	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	138389
Units:	ug/L	Analyzed:	05/21/08
Diln Fac:	1.000		

Type: BS Lab ID: QC442890

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	24.74	99	80-120
Benzene	25.00	27.12	108	80-120
Trichloroethene	25.00	24.41	98	80-120
Toluene	25.00	25.83	103	80-120
Chlorobenzene	25.00	25.38	102	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	95	80-120
Bromofluorobenzene	102	80-120

Type: BSD Lab ID: QC442891

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	24.02	96	80-120	3	35
Benzene	25.00	26.56	106	80-120	2	35
Trichloroethene	25.00	24.04	96	80-120	2	35
Toluene	25.00	25.39	102	80-120	2	35
Chlorobenzene	25.00	25.12	100	80-120	1	35

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	95	80-120
Bromofluorobenzene	102	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street. Berkeley. CA 94710. Phone (510) 486-0900

Laboratory Job Number 204014
ANALYTICAL REPORT

Locus Technologies	Project : 23016-03-2100
299 Fairchild Dr.	Location : Raytheon
Mountain View, CA 94043	Level : II

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JUL - 3 2008
BY:

Sample ID	Lab ID
RAY EFT	204014-001
RAY MID	204014-002
RAY INF	204014-003
4773	204014-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Anna Pagnutti
Project Manager
Date: 06/23/2008

Signature:
Senior Program Manager
Date: 06/26/2008

Curtis & Tompkins, Ltd

CASE NARRATIVE

Laboratory number:	204014
Client:	Locus Technologies
Project:	23016-03-2100
Location:	Raytheon
Request Date:	06/16/08
Samples Received:	06/16/08

This hardcopy data package contains sample and QC results for four water samples, requested for the above referenced project on 06/16/08. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):

No analytical problems were encountered.

Locus TECHNOLOGIES

CHAIN-OF-CUSTODY RECORD (See Reverse for Instructions)

204014

SERIAL NO. 12723

PROJECT NAME: Raytheon
PROJECT NUMBER: 23016-032100
RECORDER: [signature] (SIGN)
SAMPLERS: Henry Castro Jr. (PRINT) [signature] (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES	SAMPLE DESCRIPTION CODES	TAT CODES
A. 40-ml VOA Vial	A. Ground Water	1. Standard
B. Glass Liter	B. Surface Water	2. 48 Hour
C. Plastic 500-ml	C. Leachate	3. 24 Hour
D. Plastic Liter	D. Rinseate	4. Other
E. Brass Tube	E. Soil/Sediment	
F. Other	F. Oil	
	G. Waste	
	H. Blank/Spike	
	I. Other	

ANALYTICAL LAB: Curtis & Tompkins

NO.	DATE	TIME	SAMPLE ID	AVERAGE TEMP °C	AVERAGE COND micromhos/cm	AVERAGE pH	Sample container (enter code)	Sample Description (enter code)	Unpreserved	HNO_3	HCL	Field Filtered (check)	8010ms	Temperature	TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Store at 4°C (Check)	No VOA Headspace (Check)	NOTES	ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT
1	6/16/08	805	Ray EFT	19.0	944	7.03	A	A			3		X		1	14 Day	✓	✓			
2		815	Ray MID	17.1	950	7.06	A	A			3		X		1	14 Day	✓	✓			
3		825	Ray INF	17.2	961	7.11	A	A			3		X		1	14 Day	✓	✓			
4		—	4773	—	—	—	A	H			3		X		1	14 Day	✓	✓			
5		—	Temp Blank	—	—	—	A	H	1					X		**	✓	N/A	**		
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					

LABORATORY USE ONLY — LAB PROJECT NO.

NOTES / MISCELLANEOUS: * Analyze all by NPDES requirements

Field / Container Temp. 4°C

** NOTE! Temperature to be measured and recorded upon receipt of samples at lab. 0.5 °c

Container Sealed with Custody Seal: Yes ✓ No ☐

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
[signature]			
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Method of Shipment	Description of Transport Container	Other Chains-of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
Courier	Cooler	None	[signature]	6/16/08	1435	[signature]	6/16/08	1435

Send Lab Results to (Name): Christina Newman (Check Office Below) Verbals Requested: Yes ✓ No ☐

☒ MOUNTAIN VIEW • 299 FAIRCHILD DRIVE • MTN VIEW, CA 94043 • TEL (650) 960-1640 • FAX (650) 960-0739
☐ WALNUT CREEK • 1333 N. CALIFORNIA BLVD., STE. 540 • WALNUT CREEK, CA 94596 • TEL (925) 906-8100 • FAX (925) 906-8101
☐ LOS ANGELES • 880 APOLLO ST., STE. 353 • EL SEGUNDO, CA 90245 • (310) 535-4600 • FAX (310) 535-4602
☐ OTHER _____ TEL _____ FAX _____

WHITE: Field Copy YELLOW: Project Copy PINK: Laboratory Copy

REV. 2/99

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 204014 Date Received 6/16/08 Number of coolers 1
Client LOCUS Project Raytheon

Date Opened 6/16 By (print) KWellbrock (sign) [signature]
Date Logged in ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc)? ..... YES (NO)
   Shipping info _____

2A. Were custody seals present? ..... ☒ YES (circle) on cooler on samples ☐ NO
   How many 1 Name Tom Murphy Date 6/16/08
2B. Were custody seals intact upon arrival? ..... (YES) NO N/A
3. Were custody papers dry and intact when received? ..... (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? ..... (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) ..... (YES) NO
6. Indicate the packing in cooler: (if other, describe) _____

   ☒ Bubble Wrap ☐ Foam blocks ☒ Bags ☐ None

   ☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels
7. If required, was sufficient ice used? Samples should be < or = 6°C ..... YES NO N/A

   Type of ice used: ☒ Wet ☐ Blue ☐ None Temp(°C) 0.5°C KMW 6/16/08 1751

   ☐ Samples Received on ice & cold without a temperature blank

   ☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? ..... YES (NO)
   If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? ..... (YES) NO
10. Are samples in the appropriate containers for indicated tests? ..... (YES) NO
11. Are sample labels present, in good condition and complete? ..... (YES) NO
12. Do the sample labels agree with custody papers? ..... (YES) NO
13. Was sufficient amount of sample sent for tests requested? ..... (YES) NO
14. Are the samples appropriately preserved? ..... (YES) NO N/A
15. Are bubbles > 6mm absent in VOA samples? ..... (YES) NO N/A
16. Was the client contacted concerning this sample delivery? ..... YES NO
   If YES, Who was called? _____ By _____ Date: _____

COMMENTS
*9: 1/3 VOAs for sample 4773 broke during login process - 2 remain intact

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	204014	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY EFT	Batch#:	139339
Lab ID:	204014-001	Sampled:	06/16/08
Matrix:	Water	Received:	06/16/08
Units:	ug/L	Analyzed:	06/17/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	88	80-120
Toluene-d8	91	80-120
Bromofluorobenzene	115	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	204014	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY MID	Batch#:	139339
Lab ID:	204014-002	Sampled:	06/16/08
Matrix:	Water	Received:	06/16/08
Units:	ug/L	Analyzed:	06/17/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	4.9	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	1.8	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	89	80-120
Toluene-d8	93	80-120
Bromofluorobenzene	115	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	204014	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY INF	Batch#:	139339
Lab ID:	204014-003	Sampled:	06/16/08
Matrix:	Water	Received:	06/16/08
Units:	ug/L	Analyzed:	06/17/08
Diln Fac:	50.00		

Analyte	Result	RL
Chloromethane	ND	50
Vinyl Chloride	62	25
Bromomethane	ND	50
Chloroethane	ND	50
Trichlorofluoromethane	ND	50
Freon 113	ND	250
1,1-Dichloroethene	ND	25
Methylene Chloride	ND	250
trans-1,2-Dichloroethene	62	25
1,1-Dichloroethane	ND	25
cis-1,2-Dichloroethene	920	25
Chloroform	ND	25
1,1,1-Trichloroethane	ND	25
Carbon Tetrachloride	ND	25
1,2-Dichloroethane	ND	25
Trichloroethene	2,600	25
1,2-Dichloropropane	ND	25
Bromodichloromethane	ND	25
2-Chloroethylvinylether	ND	50
cis-1,3-Dichloropropene	ND	25
trans-1,3-Dichloropropene	ND	25
1,1,2-Trichloroethane	ND	25
Tetrachloroethene	ND	25
Dibromochloromethane	ND	25
Chlorobenzene	ND	25
Bromoform	ND	25
1,1,2,2-Tetrachloroethane	ND	25
1,3-Dichlorobenzene	ND	25
1,4-Dichlorobenzene	ND	25
1,2-Dichlorobenzene	ND	25

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	89	80-120
Toluene-d8	93	80-120
Bromofluorobenzene	117	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	204014	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4773	Batch#:	139339
Lab ID:	204014-004	Sampled:	06/16/08
Matrix:	Water	Received:	06/16/08
Units:	ug/L	Analyzed:	06/17/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	95	80-120
Toluene-d8	93	80-120
Bromofluorobenzene	116	80-120

ND= Not Detected
RL= Reporting Limit

5.0

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	204014	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC446797	Batch#:	139339
Matrix:	Water	Analyzed:	06/17/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	89	80-120
Toluene-d8	92	80-120
Bromofluorobenzene	115	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	204014	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	139339
Units:	ug/L	Analyzed:	06/17/08
Diln Fac:	1.000		

Type: BS Lab ID: QC446798

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	19.53	98	80-120
Trichloroethene	20.00	18.30	92	80-120
Chlorobenzene	20.00	21.16	106	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	86	80-120
Toluene-d8	92	80-120
Bromofluorobenzene	105	80-120

Type: BSD Lab ID: QC446799

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	20.00	18.41	92	80-120	6	35
Trichloroethene	20.00	19.00	95	80-120	4	35
Chlorobenzene	20.00	21.11	106	80-120	0	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	85	80-120
Toluene-d8	92	80-120
Bromofluorobenzene	107	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street. Berkeley. CA 94710. Phone (510) 486-0900

Laboratory Job Number 203830
ANALYTICAL REPORT

Locus Technologies 299 Fairchild Dr. Mountain View, CA 94043	Project : 23016-2100 Location : Raytheon Level : II

Sample ID	Lab ID
RAYFILTER	203830-001

RECEIVED
JUN 19 2008
BY:

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Anna Pagantto
Project Manager

Date: 06/16/2008

Signature:
Senior Program Manager

Date: 06/17/2008

NELAP # 01107CA

Curtis & Tompkins, Ltd

CASE NARRATIVE

Laboratory number:	203830
Client:	Locus Technologies
Project:	23016-2100
Location:	Raytheon
Request Date:	06/09/08
Samples Received:	06/09/08

This hardcopy data package contains sample and QC results for one filter sample, requested for the above referenced project on 06/09/08. The sample was received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
High surrogate recovery was observed for trifluorotoluene in RAYFILTER (lab # 203830-001); no target analytes were detected in the sample. No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):
High recoveries were observed for silver, barium, and nickel in the MS/MSD for batch 139085; the parent sample was not a project sample. High RPD was observed for barium; the RPD was acceptable in the BS/BSD. No other analytical problems were encountered.

203830

SERIAL NO. 14296

Locus TECHNOLOGIES CHAIN-OF-CUSTODY RECORD (See Reverse for Instructions)

PROJECT NAME: 23016-2100
PROJECT NUMBER: RAYTHEON
RECORDER: Murphy (SIGN)
SAMPLERS: MURPHY (PRINT) Murphy (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES	SAMPLE DESCRIPTION CODES	TAT CODES
A. 40-ml VOA Vial B. Glass Liter C. Plastic 500-ml D. Plastic Liter E. Brass Tube (F.) Other GLASS JAR	A. Ground Water B. Surface Water C. Leachate D. Rinseate E. Soil/Sediment F. Oil G. Waste H. Blank/Spike (I.) Other FILTER	(1) Standard 2. 48 Hour 3. 24 Hour 4. Other

ANALYTICAL LAB: CURTIS & TOMPKINS

NO.	DATE	TIME	SAMPLE ID	AVERAGE TEMP °C	AVERAGE COND micromhos/cm	AVERAGE pH	Sample container (enter code)	Sample Description (enter code)	Number of Containers and Preservation: Unpreserved	HNO_3	HCL	Field Filtered (check)	Analysis Requested: EPA 8260	KAM-17	TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Store at 4°C (Check)	No VOA Headspace (Check)	Notes	Assigned Bottle Numbers	Sample Condition Upon Receipt
1	6/6/08	1000	RAYFILTER	—	—	—	F	I	1				X	X	1		✓				
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					

LABORATORY USE ONLY — LAB PROJECT NO.

NOTES / MISCELLANEOUS

Field / Container Temp. 4°C

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Murphy			
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Container Sealed with Custody Seal: Yes ☑ No ☐

Method of Shipment	Description of Transport Container	Other Chains-of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
COURIER	COOLER	NONE	Murphy	6/9/08	1342	[illegible]	6/9/08	1342

Send Lab Results to (Name): CHRISTINA NEWMAN (Check Office Below) Verbals Requested: Yes ☑ No ☐

☑ MOUNTAIN VIEW • 299 FAIRCHILD DRIVE • MTN VIEW, CA 94043 • TEL (650) 960-1640 • FAX (650) 960-0739
☐ WALNUT CREEK • 1701 N. CALIFORNIA BLVD • WALNUT CREEK, CA 94596 • TEL (925) 906-8100 • FAX (925) 906-8101
☐ SACRAMENTO • 1100 MELODY LANE • ROSEVILLE, CA 95678 • TEL (916) 677-1751 • FAX (916) 677-1760
☐ OTHER _____ TEL _____ FAX _____

REV. 6/02

WHITE: Laboratory Copy YELLOW: Project Copy PINK: Database Copy

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd

Login # 203830 Date Received 6-9-08 Number of coolers 2
Client LOCUS Project Raytheon

Date Opened 6-9-08 By (print) F Nichols (sign) [signature]
Date Logged in ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc)? YES (NO)
   Shipping info _____

2A. Were custody seals present? ☒ YES (circle) (on cooler) on samples ☐ NO
   How many 1 over lip Name Tom Murphy Date 6-9-08
2B. Were custody seals intact upon arrival? (YES) NO N/A
3. Were custody papers dry and intact when received? (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO
6. Indicate the packing in cooler: (if other, describe) _____

   ☐ Bubble Wrap ☐ Foam blocks ☒ Bags ☐ None

   ☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels
7. If required, was sufficient ice used? Samples should be < or = 6°C (YES) NO N/A

   Type of ice used: ☒ Wet ☐ Blue ☐ None Temp(°C) _____

   ☒ Samples Received on ice & cold without a temperature blank

   ☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES (NO)
   If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? (YES) NO
10. Are samples in the appropriate containers for indicated tests? (YES) NO
11. Are sample labels present, in good condition and complete? (YES) NO
12. Do the sample labels agree with custody papers? (YES) NO
13. Was sufficient amount of sample sent for tests requested? (YES) NO
14. Are the samples appropriately preserved? YES NO (N/A)
15. Are bubbles > 6mm absent in VOA samples? YES NO (N/A)
16. Was the client contacted concerning this sample delivery? YES NO
   If YES, Who was called? _____ By _____ Date: _____

COMMENTS

_____

Curtis & Tompkins, Ltd

Purgeable Organics by GC/MS

Lab #:	203830	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-2100	Analysis:	EPA 8260B
Field ID:	RAYFILTER	Diln Fac:	125.0
Lab ID:	203830-001	Batch#:	139090
Matrix:	Miscell.	Sampled:	06/06/08
Units:	ug/Kg	Received:	06/09/08
Basis:	as received	Analyzed:	06/10/08

Analyte	Result	RL
Freon 12	ND	1,300
Chloromethane	ND	1,300
Vinyl Chloride	ND	1,300
Bromomethane	ND	1,300
Chloroethane	ND	1,300
Trichlorofluoromethane	ND	630
Acetone	ND	2,500
Freon 113	ND	630
1,1-Dichloroethene	ND	630
Methylene Chloride	ND	2,500
Carbon Disulfide	ND	630
MTBE	ND	630
trans-1,2-Dichloroethene	ND	630
Vinyl Acetate	ND	6,300
1,1-Dichloroethane	ND	630
2-Butanone	ND	1,300
cis-1,2-Dichloroethene	ND	630
2,2-Dichloropropane	ND	630
Chloroform	ND	630
Bromochloromethane	ND	630
1,1,1-Trichloroethane	ND	630
1,1-Dichloropropene	ND	630
Carbon Tetrachloride	ND	630
1,2-Dichloroethane	ND	630
Benzene	ND	630
Trichloroethene	ND	630
1,2-Dichloropropane	ND	630
Bromodichloromethane	ND	630
Dibromomethane	ND	630
4-Methyl-2-Pentanone	ND	1,300
cis-1,3-Dichloropropene	ND	630
Toluene	ND	630
trans-1,3-Dichloropropene	ND	630
1,1,2-Trichloroethane	ND	630
2-Hexanone	ND	1,300
1,3-Dichloropropane	ND	630
Tetrachloroethene	ND	630
Dibromochloromethane	ND	630
1,2-Dibromoethane	ND	630
Chlorobenzene	ND	630
1,1,1,2-Tetrachloroethane	ND	630
Ethylbenzene	ND	630
m,p-Xylenes	ND	630
o-Xylene	ND	630
Styrene	ND	630
Bromoform	ND	630
Isopropylbenzene	ND	630
1,1,2,2-Tetrachloroethane	ND	630
1,2,3-Trichloropropane	ND	630
Propylbenzene	ND	630
Bromobenzene	ND	630
1,3,5-Trimethylbenzene	ND	630
2-Chlorotoluene	ND	630

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Organics by GC/MS

Lab #:	203830	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-2100	Analysis:	EPA 8260B
Field ID:	RAYFILTER	Diln Fac:	125.0
Lab ID:	203830-001	Batch#:	139090
Matrix:	Miscell.	Sampled:	06/06/08
Units:	ug/Kg	Received:	06/09/08
Basis:	as received	Analyzed:	06/10/08

Analyte	Result	RL
4-Chlorotoluene	ND	630
tert-Butylbenzene	ND	630
1,2,4-Trimethylbenzene	ND	630
sec-Butylbenzene	ND	630
para-Isopropyl Toluene	ND	630
1,3-Dichlorobenzene	ND	630
1,4-Dichlorobenzene	ND	630
n-Butylbenzene	ND	630
1,2-Dichlorobenzene	ND	630
1,2-Dibromo-3-Chloropropane	ND	630
1,2,4-Trichlorobenzene	ND	630
Hexachlorobutadiene	ND	630
Naphthalene	ND	630
1,2,3-Trichlorobenzene	ND	630

Surrogate	%REC	Limits
Dibromofluoromethane	85	78-126
1,2-Dichloroethane-d4	96	76-137
Toluene-d8	91	80-120
Bromofluorobenzene	81	80-121
Trifluorotoluene (MeOH)	156 *	52-145

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	203830	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-2100	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC445775	Diln Fac:	1.000
Matrix:	Soil	Batch#:	139090
Units:	ug/Kg	Analyzed:	06/10/08

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	203830	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-2100	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC445775	Diln Fac:	1.000
Matrix:	Soil	Batch#:	139090
Units:	ug/Kg	Analyzed:	06/10/08

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	105	78-126
1,2-Dichloroethane-d4	101	76-137
Toluene-d8	93	80-120
Bromofluorobenzene	100	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	203830	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-2100	Analysis:	EPA 8260B
Matrix:	Soil	Diln Fac:	1.000
Units:	ug/Kg	Batch#:	139090
Basis:	as received	Analyzed:	06/10/08

Type: BS Lab ID: QC445773

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	20.72	104	71-133
Benzene	20.00	20.21	101	79-123
Trichloroethene	20.00	19.59	98	79-124
Toluene	20.00	18.72	94	80-123
Chlorobenzene	20.00	20.09	100	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	104	78-126
1,2-Dichloroethane-d4	102	76-137
Toluene-d8	96	80-120
Bromofluorobenzene	89	80-121

Type: BSD Lab ID: QC445774

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	20.00	20.17	101	71-133	3	20
Benzene	20.00	19.71	99	79-123	3	20
Trichloroethene	20.00	19.02	95	79-124	3	20
Toluene	20.00	18.42	92	80-123	2	20
Chlorobenzene	20.00	19.49	97	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	109	78-126
1,2-Dichloroethane-d4	104	76-137
Toluene-d8	96	80-120
Bromofluorobenzene	88	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd

California Title 26 Metals

Lab #:	203830	Project#:	23016-2100
Client:	Locus Technologies	Location:	Raytheon
Field ID:	RAYFILTER	Basis:	as received
Lab ID:	203830-001	Diln Fac:	1.000
Matrix:	Miscell.	Sampled:	06/06/08
Units:	mg/Kg	Received:	06/09/08

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	110	0.50	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B
Arsenic	1.1	0.25	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B
Barium	34	0.25	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B
Beryllium	ND	0.10	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B
Chromium	9.0	0.25	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B
Cobalt	12	0.25	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B
Copper	6.6	0.25	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B
Lead	3.9	0.25	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B
Mercury	ND	0.020	139152	06/11/08	06/11/08	METHOD	EPA 7471A
Molybdenum	ND	0.25	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B
Nickel	7.6	0.25	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B
Selenium	2.4	0.50	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B
Silver	ND	0.25	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B
Thallium	ND	0.50	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B
Vanadium	2.9	0.25	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B
Zinc	5.4	1.0	139085	06/09/08	06/10/08	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

California Title 26 Metals

Lab #:	203830	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 3050B
Project#:	23016-2100	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC445752	Batch#:	139085
Matrix:	Soil	Prepared:	06/09/08
Units:	mg/Kg	Analyzed:	06/10/08
Basis:	as received		

Analyte	Result	RL
Antimony	ND	0.50
Arsenic	ND	0.25
Barium	ND	0.25
Beryllium	ND	0.10
Cadmium	ND	0.25
Chromium	ND	0.25
Cobalt	ND	0.25
Copper	ND	0.25
Lead	ND	0.25
Molybdenum	ND	0.25
Nickel	ND	0.25
Selenium	ND	0.50
Silver	ND	0.25
Thallium	ND	0.50
Vanadium	ND	0.25
Zinc	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

California Title 26 Metals

Lab #:	203830	Location:	Raytheon
Client:	Locus Technologies	Prep:	METHOD
Project#:	23016-2100	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC446071	Batch#:	139152
Matrix:	Soil	Prepared:	06/11/08
Units:	mg/Kg	Analyzed:	06/11/08

Result	RL
ND	0.020

ND= Not Detected
RL= Reporting Limit

9.0

Curtis & Tompkins, Ltd

Batch QC Report

California Title 26 Metals

Lab #:	203830	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 3050B
Project#:	23016-2100	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	139085
Units:	mg/Kg	Prepared:	06/09/08
Basis:	as received	Analyzed:	06/10/08
Diln Fac:	1.000		

Type: BS Lab ID: QC445753

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	95.29	95	80-120
Arsenic	50.00	48.70	97	80-120
Barium	100.0	94.79	95	80-120
Beryllium	2.500	2.611	104	80-120
Cadmium	10.00	9.624	96	80-120
Chromium	100.0	93.39	93	80-120
Cobalt	25.00	22.85	91	80-120
Copper	12.50	11.47	92	80-120
Lead	100.0	94.09	94	80-120
Molybdenum	20.00	19.67	98	80-120
Nickel	25.00	23.23	93	80-120
Selenium	50.00	47.59	95	80-120
Silver	10.00	9.082	91	80-120
Thallium	50.00	47.01	94	80-120
Vanadium	25.00	23.32	93	80-120
Zinc	25.00	23.27	93	80-120

Type: BSD Lab ID: QC445754

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	96.94	97	80-120	2	20
Arsenic	50.00	49.44	99	80-120	2	20
Barium	100.0	96.87	97	80-120	2	20
Beryllium	2.500	2.654	106	80-120	2	20
Cadmium	10.00	9.874	99	80-120	3	20
Chromium	100.0	95.14	95	80-120	2	20
Cobalt	25.00	23.38	94	80-120	2	20
Copper	12.50	11.63	93	80-120	1	20
Lead	100.0	95.52	96	80-120	2	20
Molybdenum	20.00	19.91	100	80-120	1	20
Nickel	25.00	23.53	94	80-120	1	20
Selenium	50.00	48.92	98	80-120	3	20
Silver	10.00	9.263	93	80-120	2	20
Thallium	50.00	47.59	95	80-120	1	20
Vanadium	25.00	23.76	95	80-120	2	20
Zinc	25.00	23.90	96	80-120	3	20

RPD= Relative Percent Difference

Curtis & Tompkins Ltd

Batch QC Report

California Title 26 Metals

Lab #:	203830	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 3050B
Project#:	23016-2100	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	139085
MSS Lab ID:	203824-001	Sampled:	06/09/08
Matrix:	Soil	Received:	06/09/08
Units:	mg/Kg	Prepared:	06/09/08
Basis:	as received	Analyzed:	06/10/08

Type: MS Lab ID: QC445755

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln Fac
Antimony	14.00	98.04	78.88	66	3-120	1.000
Arsenic	6.510	49.02	56.53	102	71-120	1.000
Barium	387.5	98.04	610.2	227 *	50-135	10.00
Beryllium	0.1458	2.451	2.758	107	79-120	1.000
Cadmium	3.847	9.804	13.77	101	71-120	1.000
Chromium	44.94	98.04	145.6	103	65-120	1.000
Cobalt	5.885	24.51	28.96	94	60-120	1.000
Copper	616.3	12.25	1,302 >LR	5598 NM	42-152	1.000
Lead	1,308	98.04	780.4 >LR	-538 NM	53-124	1.000
Molybdenum	2.400	19.61	23.25	106	66-120	1.000
Nickel	61.70	24.51	263.2	822 *	44-139	1.000
Selenium	<0.09033	49.02	45.88	94	69-120	1.000
Silver	12.70	9.804	25.56	131 *	70-120	1.000
Thallium	0.4386	49.02	39.77	80	61-120	1.000
Vanadium	17.79	24.51	44.32	108	51-137	1.000
Zinc	1,278	24.51	1,615 >LR	1376 NM	36-150	1.000

Type: MSD Lab ID: QC445756

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
Antimony	97.09	69.62	57	3-120	12	33	1.000
Arsenic	48.54	55.73	101	71-120	1	20	1.000
Barium	97.09	877.6	505 *	50-135	36 *	24	10.00
Beryllium	2.427	2.687	105	79-120	2	20	1.000
Cadmium	9.709	13.59	100	71-120	1	20	1.000
Chromium	97.09	148.6	107	65-120	3	20	1.000
Cobalt	24.27	30.09	100	60-120	5	23	1.000
Copper	12.14	1,034 >LR	3444 NM	42-152	NC	23	1.000
Lead	97.09	791.6 >LR	-532 NM	53-124	NC	28	1.000
Molybdenum	19.42	21.24	97	66-120	8	20	1.000
Nickel	24.27	341.5	1153 *	44-139	26	26	1.000
Selenium	48.54	44.72	92	69-120	2	20	1.000
Silver	9.709	23.44	111	70-120	8	20	1.000
Thallium	48.54	37.00	75	61-120	6	20	1.000
Vanadium	24.27	42.82	103	51-137	3	20	1.000
Zinc	24.27	1,849 >LR	2352 NM	36-150	NC	30	1.000

*= Value outside of QC limits; see narrative
NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd

Batch QC Report

California Title 26 Metals

Lab #:	203830	Location:	Raytheon
Client:	Locus Technologies	Prep:	METHOD
Project#:	23016-2100	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	139152
Units:	mg/Kg	Prepared:	06/11/08
Basis:	as received	Analyzed:	06/11/08

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC446072	0.5000	0.4980	100	80-120		
BSD	QC446073	0.5000	0.4790	96	80-120	4	20

RPD= Relative Percent Difference

10.0

Curtis & Tompkins, Ltd

Batch QC Report

California Title 26 Metals

Lab #:	203830	Location:	Raytheon
Client:	Locus Technologies	Prep:	METHOD
Project#:	23016-2100	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	139152
MSS Lab ID:	203845-001	Sampled:	06/09/08
Matrix:	Soil	Received:	06/10/08
Units:	mg/Kg	Prepared:	06/11/08
Basis:	as received	Analyzed:	06/11/08

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC446075	0.04547	0.4545	0.5000	100	68-140		
MSD	QC446076		0.5000	0.5750	106	68-140	5	24

RPD= Relative Percent Difference

11 0

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street. Berkeley. CA 94710. Phone (510) 486-0900

Laboratory Job Number 204498
ANALYTICAL REPORT

Locus Technologies	Project : 23016-03-2100
299 Fairchild Dr.	Location : Raytheon
Mountain View, CA 94043	Level : II

Sample ID	Lab ID
RAY-EFT	204498-001
RAY-MID	204498-002
RAY-INF	204498-003
4776	204498-004
4777	204498-005
4778	204498-006

RECEIVED
JUL 22 2008
BY:

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Anna Pagnotto
Project Manager
Date: 07/16/2008

Signature:
Senior Program Manager
Date: 07/18/2008

NELAP # 01107CA

Curtis & Tompkins, Ltd

CASE NARRATIVE

Laboratory number:	204498
Client:	Locus Technologies
Project:	23016-03-2100
Location:	Raytheon
Request Date:	07/09/08
Samples Received:	07/09/08

This hardcopy data package contains sample and QC results for six water samples, requested for the above referenced project on 07/09/08. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

204498

Locus TECHNOLOGIES

CHAIN-OF-CUSTODY RECORD (See Reverse for Instructions)

SERIAL NO. 12728

PROJECT NAME: Raytheon
PROJECT NUMBER: 2J0/6-03-2100
RECORDER: [signature] (SIGN)
SAMPLERS: Henry Costa Jr (PRINT) [signature] (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES	SAMPLE DESCRIPTION CODES	TAT CODES
A. 40-ml VOA Vial	A. Ground Water	1. Standard
B. Glass Liter	B. Surface Water	2. 48 Hour
C. Plastic 500-ml	C. Leachate	3. 24 Hour
D. Plastic Liter	D. Rinseate	4. Other
E. Brass Tube	E. Soil/Sediment	
F. Other	F. Oil	
	G. Waste	
	H. Blank/Spike	
	I. Other	

ANALYTICAL LAB: Curtis & Tompkins

NO.	DATE	TIME	SAMPLE ID	AVERAGE TEMP °C	AVERAGE COND micromhos/cm	AVERAGE pH	Sample container (enter code)	Sample Description (enter code)	Unpreserved	HNO_3	HCL	Field Filtered (check)	8010 m3	Temperature	TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Store at 4°C (Check)	No VOA Headspace (Check)	NOTES	ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT
1	7-9-08	950	Ray-EFT	19.1	941	6.89	A	A					X		1	14 Day	✓	✓	MS/MSD **		
2		1000	Ray-MID	17.3	945	6.99	A	A					X		1	14 Day	✓	✓			
3		1015	Ray-TNF	17.3	959	7.07	A	A					X		1	14 Day	✓	✓			
4		—	4776	—	—	—	A	H					X		1	14 Day	✓	✓			
5	↓	—	~~4775~~ Temp Blank	—	—	—	A	H					X			**	✓	N/A	**		
6		—	4777	—	—	—	A	A					X		1	14 Day	✓	✓			
7			4778				A	H					X		1	14 Day	✓	✓			
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					

LABORATORY USE ONLY — LAB PROJECT NO.

NOTES / MISCELLANEOUS
* Analyze all by NPDES Requirements.
** 1 of 6 vials for MS/MSD Analysis

NOTE! Temperature to be measured and recorded upon receipt of samples at lab. 3.5 °C

Field / Container Temp. 4 °C

Container Sealed with Custody Seal: Yes ☒ No ☐

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
[signature]			
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Method of Shipment	Description of Transport Container	Other Chains-of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
Courier	Cooler	None	Thomas Murphy	7/9/08		[signature]	7/9/08	1415

Send Lab Results to (Name): Christina Newman (Check Office Below) Verbals Requested: Yes ☒ No ☐

☒ MOUNTAIN VIEW • 299 FAIRCHILD DRIVE • MTN VIEW, CA 94043 • TEL (650) 960-1640 • FAX (650) 960-0739
☐ WALNUT CREEK • 1333 N. CALIFORNIA BLVD., STE. 540 • WALNUT CREEK, CA 94596 • TEL (925) 906-8100 • FAX (925) 906-8101
☐ LOS ANGELES • 880 APOLLO ST., STE. 353 • EL SEGUNDO, CA 90245 • (310) 535-4600 • FAX (310) 535-4602
☐ OTHER _____ TEL _____ FAX _____

WHITE: Field Copy YELLOW: Project Copy PINK: Laboratory Copy

REV. 2/99

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 204498 Date Received 7/9/08 Number of coolers 1
Client LOCUS Project ~~RAYTHEON~~ RAYTHEON

Date Opened 7/9/08 By (print) M VILLANUEVA (sign) [signature]
Date Logged in ✓ By (print) ✓ (sign) ✓

1. Did cooler come with a shipping slip (airbill, etc)? YES NO
   Shipping info _____
2A. Were custody seals present? ☐ ~~YES~~ (circle) on cooler on samples ☐ NO
   How many 1 Name TOM MURPHY Date 7/9/08
2B. Were custody seals intact upon arrival? YES NO N/A
3. Were custody papers dry and intact when received? YES NO
4. Were custody papers filled out properly (ink, signed, etc)? YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO
6. Indicate the packing in cooler: (if other, describe) _____

   ☑ Bubble Wrap ☐ Foam blocks ☑ Bags ☐ None

   ☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels
7. If required, was sufficient ice used? Samples should be < or = 6°C YES NO N/A
   Type of ice used: ☑ Wet ☐ Blue ☐ None Temp(°C) 3.5 VT 7/9/08 14:00
   ☐ Samples Received on ice & cold without a temperature blank
   ☐ Samples received on ice directly from the field. Cooling process had begun
8. Were Method 5035 sampling containers present? YES NO
   If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? YES NO
10. Are samples in the appropriate containers for indicated tests? YES NO
11. Are sample labels present, in good condition and complete? YES NO
12. Do the sample labels agree with custody papers? YES NO
13. Was sufficient amount of sample sent for tests requested? YES NO
14. Are the samples appropriately preserved? YES NO N/A
15. Are bubbles > 6mm absent in VOA samples? YES NO N/A
16. Was the client contacted concerning this sample delivery? YES NO
   If YES, Who was called? _____ By _____ Date: _____

COMMENTS

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	204498	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-EFT	Batch#:	140146
Lab ID:	204498-001	Sampled:	07/09/08
Matrix:	Water	Received:	07/09/08
Units:	ug/L	Analyzed:	07/10/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	96	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-120

ND= Not Detected
RL= Reporting Limit

2.0

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	204498	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-MID	Batch#:	140146
Lab ID:	204498-002	Sampled:	07/09/08
Matrix:	Water	Received:	07/09/08
Units:	ug/L	Analyzed:	07/10/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	4.1	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	2.2	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	98	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	204498	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-INF	Batch#:	140146
Lab ID:	204498-003	Sampled:	07/09/08
Matrix:	Water	Received:	07/09/08
Units:	ug/L	Analyzed:	07/10/08
Diln Fac:	40.00		

Analyte	Result	RL
Chloromethane	ND	40
Vinyl Chloride	76	20
Bromomethane	ND	40
Chloroethane	ND	40
Trichlorofluoromethane	ND	40
Freon 113	ND	200
1,1-Dichloroethene	ND	20
Methylene Chloride	ND	200
trans-1,2-Dichloroethene	51	20
1,1-Dichloroethane	ND	20
cis-1,2-Dichloroethene	710	20
Chloroform	ND	20
1,1,1-Trichloroethane	ND	20
Carbon Tetrachloride	ND	20
1,2-Dichloroethane	ND	20
Trichloroethene	2,800	20
1,2-Dichloropropane	ND	20
Bromodichloromethane	ND	20
2-Chloroethylvinylether	ND	40
cis-1,3-Dichloropropene	ND	20
trans-1,3-Dichloropropene	ND	20
1,1,2-Trichloroethane	ND	20
Tetrachloroethene	ND	20
Dibromochloromethane	ND	20
Chlorobenzene	ND	20
Bromoform	ND	20
1,1,2,2-Tetrachloroethane	ND	20
1,3-Dichlorobenzene	ND	20
1,4-Dichlorobenzene	ND	20
1,2-Dichlorobenzene	ND	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	106	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	103	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	204498	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4776	Batch#:	140146
Lab ID:	204498-004	Sampled:	07/09/08
Matrix:	Water	Received:	07/09/08
Units:	ug/L	Analyzed:	07/10/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	204498	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4777	Batch#:	140146
Lab ID:	204498-005	Sampled:	07/09/08
Matrix:	Water	Received:	07/09/08
Units:	ug/L	Analyzed:	07/10/08
Diln Fac:	40.00		

Analyte	Result	RL
Chloromethane	ND	40
Vinyl Chloride	68	20
Bromomethane	ND	40
Chloroethane	ND	40
Trichlorofluoromethane	ND	40
Freon 113	ND	200
1,1-Dichloroethene	ND	20
Methylene Chloride	ND	200
trans-1,2-Dichloroethene	48	20
1,1-Dichloroethane	ND	20
cis-1,2-Dichloroethene	660	20
Chloroform	ND	20
1,1,1-Trichloroethane	ND	20
Carbon Tetrachloride	ND	20
1,2-Dichloroethane	ND	20
Trichloroethene	2,500	20
1,2-Dichloropropane	ND	20
Bromodichloromethane	ND	20
2-Chloroethylvinylether	ND	40
cis-1,3-Dichloropropene	ND	20
trans-1,3-Dichloropropene	ND	20
1,1,2-Trichloroethane	ND	20
Tetrachloroethene	ND	20
Dibromochloromethane	ND	20
Chlorobenzene	ND	20
Bromoform	ND	20
1,1,2,2-Tetrachloroethane	ND	20
1,3-Dichlorobenzene	ND	20
1,4-Dichlorobenzene	ND	20
1,2-Dichlorobenzene	ND	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	103	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Purgeable Halocarbons by GC/MS

Lab #:	204498	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4778	Batch#:	140146
Lab ID:	204498-006	Sampled:	07/09/08
Matrix:	Water	Received:	07/09/08
Units:	ug/L	Analyzed:	07/10/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-120

ND= Not Detected
RL= Reporting Limit

7 0

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	204498	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC450108	Batch#:	140146
Matrix:	Water	Analyzed:	07/10/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	93	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	204498	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC450106	Batch#:	140146
Matrix:	Water	Analyzed:	07/10/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	20.11	80	80-120
Trichloroethene	25.00	23.27	93	80-120
Chlorobenzene	25.00	22.68	91	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	91	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	94	80-120

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	204498	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	140146
MSS Lab ID:	204497-001	Sampled:	07/09/08
Matrix:	Water	Received:	07/09/08
Units:	ug/L	Analyzed:	07/10/08
Diln Fac:	1.000		

Type: MS Lab ID: QC450195

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1000	25.00	20.40	82	40-150
Trichloroethene	<0.1000	25.00	24.46	98	40-150
Chlorobenzene	<0.1000	25.00	23.82	95	40-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	107	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	96	80-120

Type: MSD Lab ID: QC450196

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	20.69	83	40-150	1	35
Trichloroethene	25.00	25.18	101	40-150	3	35
Chlorobenzene	25.00	24.57	98	40-150	3	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	94	80-120

RPD= Relative Percent Difference

10 0

Curtis & Tompkins, Ltd

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	204498	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-EFT	Batch#:	140146
MSS Lab ID:	204498-001	Sampled:	07/09/08
Matrix:	Water	Received:	07/09/08
Units:	ug/L	Analyzed:	07/10/08
Diln Fac:	1.000		

Type: MS Lab ID: QC450197

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1000	25.00	20.38	82	40-150
Trichloroethene	<0.1000	25.00	24.85	99	40-150
Chlorobenzene	<0.1000	25.00	24.11	96	40-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	92	80-120

Type: MSD Lab ID: QC450198

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	18.89	76	40-150	8	35
Trichloroethene	25.00	22.94	92	40-150	8	35
Chlorobenzene	25.00	23.02	92	40-150	5	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	97	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	95	80-120

RPD= Relative Percent Difference

11 0

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 206317
ANALYTICAL REPORT

Locus Technologies 299 Fairchild Dr. Mountain View, CA 94043	Project : 23016-03-2100 Location : Raytheon Level : II

Sample ID	Lab ID
RAY-EFT	206317-001
RAY-MID	206317-002
RAY-INF	206317-003
4797	206317-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 10/07/2008
Project Manager

Signature: _____ Date: 10/09/2008
Senior Program Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**206317**
Client:	**Locus Technologies**
Project:	**23016-03-2100**
Location:	**Raytheon**
Request Date:	**09/24/08**
Samples Received:	**09/24/08**

This hardcopy data package contains sample and QC results for four water samples, requested for the above referenced project on 09/24/08. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	206317	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-EFT	Batch#:	143078
Lab ID:	206317-001	Sampled:	09/24/08
Matrix:	Water	Received:	09/24/08
Units:	ug/L	Analyzed:	09/30/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	97	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	206317	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-MID	Batch#:	143078
Lab ID:	206317-002	Sampled:	09/24/08
Matrix:	Water	Received:	09/24/08
Units:	ug/L	Analyzed:	09/30/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	0.8	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	1.7	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	97	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	206317	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-INF	Units:	ug/L
Lab ID:	206317-003	Sampled:	09/24/08
Matrix:	Water	Received:	09/24/08

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Chloromethane	ND	1.0	1.000	143078	09/30/08
Vinyl Chloride	ND	0.5	1.000	143078	09/30/08
Bromomethane	ND	1.0	1.000	143078	09/30/08
Chloroethane	ND	1.0	1.000	143078	09/30/08
Trichlorofluoromethane	ND	1.0	1.000	143078	09/30/08
Freon 113	ND	5.0	1.000	143078	09/30/08
1,1-Dichloroethene	6.3	0.5	1.000	143078	09/30/08
Methylene Chloride	ND	5.0	1.000	143078	09/30/08
trans-1,2-Dichloroethene	0.6	0.5	1.000	143078	09/30/08
1,1-Dichloroethane	3.7	0.5	1.000	143078	09/30/08
cis-1,2-Dichloroethene	64	0.5	1.000	143078	09/30/08
Chloroform	ND	0.5	1.000	143078	09/30/08
1,1,1-Trichloroethane	3.0	0.5	1.000	143078	09/30/08
Carbon Tetrachloride	ND	0.5	1.000	143078	09/30/08
1,2-Dichloroethane	ND	0.5	1.000	143078	09/30/08
Trichloroethene	510	7.1	14.29	143122	10/01/08
1,2-Dichloropropane	ND	0.5	1.000	143078	09/30/08
Bromodichloromethane	ND	0.5	1.000	143078	09/30/08
2-Chloroethylvinylether	ND	1.0	1.000	143078	09/30/08
cis-1,3-Dichloropropene	ND	0.5	1.000	143078	09/30/08
trans-1,3-Dichloropropene	ND	0.5	1.000	143078	09/30/08
1,1,2-Trichloroethane	ND	0.5	1.000	143078	09/30/08
Tetrachloroethene	ND	0.5	1.000	143078	09/30/08
Dibromochloromethane	ND	0.5	1.000	143078	09/30/08
Chlorobenzene	ND	0.5	1.000	143078	09/30/08
Bromoform	ND	0.5	1.000	143078	09/30/08
1,1,2,2-Tetrachloroethane	ND	0.5	1.000	143078	09/30/08
1,3-Dichlorobenzene	ND	0.5	1.000	143078	09/30/08
1,4-Dichlorobenzene	ND	0.5	1.000	143078	09/30/08
1,2-Dichlorobenzene	ND	0.5	1.000	143078	09/30/08

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
1,2-Dichloroethane-d4	98	80-120	1.000	143078	09/30/08
Toluene-d8	100	80-120	1.000	143078	09/30/08
Bromofluorobenzene	101	80-122	1.000	143078	09/30/08

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	206317	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4797	Batch#:	143122
Lab ID:	206317-004	Sampled:	09/24/08
Matrix:	Water	Received:	09/24/08
Units:	ug/L	Analyzed:	10/01/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-122

ND= Not Detected
RL= Reporting Limit

5.0

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	206317	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC462786	Batch#:	143078
Matrix:	Water	Analyzed:	09/30/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	98	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	206317	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC462787	Batch#:	143078
Matrix:	Water	Analyzed:	09/30/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	30.00	34.33	114	80-120
Trichloroethene	30.00	34.04	113	80-120
Chlorobenzene	30.00	30.93	103	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	95	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	92	80-122

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	206317	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	143078
MSS Lab ID:	206320-004	Sampled:	09/23/08
Matrix:	Water	Received:	09/24/08
Units:	ug/L	Analyzed:	09/30/08
Diln Fac:	1.000		

Type: MS Lab ID: QC462830

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1000	25.00	29.84	119	40-150
Trichloroethene	<0.1000	25.00	29.81	119	40-150
Chlorobenzene	<0.1000	25.00	26.96	108	40-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	90	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	95	80-122

Type: MSD Lab ID: QC462831

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	27.71	111	40-150	7	35
Trichloroethene	25.00	28.29	113	40-150	5	35
Chlorobenzene	25.00	25.96	104	40-150	4	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	86	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	94	80-122

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	206317	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC462994	Batch#:	143122
Matrix:	Water	Analyzed:	10/01/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	23.39	117	80-120
Trichloroethene	20.00	22.75	114	80-120
Chlorobenzene	20.00	20.60	103	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	85	80-120
Toluene-d8	97	80-120
Bromofluorobenzene	94	80-122

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	206317	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC462996	Batch#:	143122
Matrix:	Water	Analyzed:	10/01/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	89	80-120
Toluene-d8	98	80-120
Bromofluorobenzene	99	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	206317	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	3.333
MSS Lab ID:	206318-005	Batch#:	143122
Matrix:	Water	Sampled:	09/24/08
Units:	ug/L	Received:	09/25/08

Type: MS Analyzed: 10/01/08
Lab ID: QC463109

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	1.264	83.33	113.5	135	40-150
Trichloroethene	104.3	83.33	221.3	140	40-150
Chlorobenzene	<0.2000	83.33	89.02	107	40-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	107	80-120
Toluene-d8	105	80-120
Bromofluorobenzene	94	80-122

Type: MSD Analyzed: 10/02/08
Lab ID: QC463110

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	83.33	108.2	128	40-150	5	35
Trichloroethene	83.33	212.6	130	40-150	4	35
Chlorobenzene	83.33	87.97	106	40-150	1	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	96	80-122

RPD= Relative Percent Difference

206317

Locus TECHNOLOGIES

CHAIN-OF-CUSTODY RECORD (See Reverse for Instructions)

SERIAL NO. 12747

PROJECT NAME: Raytheon
PROJECT NUMBER: 23016-03-2100
RECORDER: Henry Castro (SIGN)
SAMPLERS: Henry Castro Tv (PRINT) Henry Castro (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES	SAMPLE DESCRIPTION CODES	TAT CODES
A. 40-ml VOA Vial	A. Ground Water	1. Standard
B. Glass Liter	B. Surface Water	2. 48 Hour
C. Plastic 500-ml	C. Leachate	3. 24 Hour
D. Plastic Liter	D. Rinseate	4. Other
E. Brass Tube	E. Soil/Sediment	
F. Other	F. Oil	
	G. Waste	
	H. Blank/Spike	
	I. Other	

ANALYTICAL LAB: Curtis & Tompkins

LABORATORY USE ONLY — LAB PROJECT NO.

	NO.	DATE	TIME	SAMPLE ID	AVERAGE TEMP °C	AVERAGE COND micromhos/cm	AVERAGE pH	Sample container (enter code)	Sample Description (enter code)	NUMBER OF CONTAINERS AND PRESERVATION: Unpreserved	HNO_3	HCL	Field Filtered (check)	ANALYSIS REQUESTED: 8010 ms	Temperature	TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Store at 4°C (Check)	No VOA Headspace (Check)	NOTES	ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT
1	1	9/24/08	1125	Ray-EFT	21.3	839	7.05	A	A			3		X		1	14 Day	✓	✓			
2	2	↓	1140	Ray-MID	21.2	838	7.03	A	A			3		X		1	14 Day	✓	✓			
3	3		1155	Ray-INF	20.8	840	6.99	A	A			3		X		1	14 Day	✓	✓			
4	4		—	4797	—	—	—	A	H			3		X		1	14 Day	✓	✓			
~~5~~	5	↓	—	Temp Blank	—	—	—	A	H	1					X		**	✓	N/A	**		
	6																					
	7																					
	8																					
	9																					
	10																					
	11																					
	12																					
	13																					
	14																					
	15																					
	16																					

NOTES / MISCELLANEOUS

Field / Container Temp. 4°C

* Analyze all by NPDES Requirements.

** **NOTE! Temperature to be measured and recorded upon receipt of samples at lab. 2.3 °C**

Container Sealed with Custody Seal: Yes ☒ No ☐

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Henry Castro			

Method of Shipment	Description of Transport Container	Other Chains-of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
Courier	Cooler	None	Henry Castro	9-24-08	1417	[signature]	9/24/08	1417

Send Lab Results to (Name): Luxy Martin (Check Office Below) Verbals Requested: Yes ☒ No ☐

☒ MOUNTAIN VIEW • 299 FAIRCHILD DRIVE • MTN VIEW, CA 94043 • TEL (650) 960-1640 • FAX (650) 960-0739
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☐ LOS ANGELES • 880 APOLLO ST., STE. 353 • EL SEGUNDO, CA 90245 • (310) 535-4600 • FAX (310) 535-4602
☐ OTHER _____ TEL _____ FAX _____

WHITE: Field Copy YELLOW: Project Copy PINK: Laboratory Copy

REV. 2/99

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 206317 Date Received 9/24/08 Number of coolers 2
Client Locus Project Raytheon

Date Opened 9/24 By (print) K Wellbrock (sign) [signature]
Date Logged in 9-25 By (print) F Nichols (sign) [signature]

1. Did cooler come with a shipping slip (airbill, etc)? ..... YES NO
   Shipping info _____

2A. Were custody seals present? .... ☒ YES (circle) on cooler on samples ☐ NO
   How many 1 Name Henry Castro T Date 9/24/08
2B. Were custody seals intact upon arrival? ..... YES NO N/A
3. Were custody papers dry and intact when received? ..... YES NO
4. Were custody papers filled out properly (ink, signed, etc)? ..... YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) ..... YES NO
6. Indicate the packing in cooler: (if other, describe) _____

☐ Bubble Wrap ☐ Foam blocks ☑ Bags ☑ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation:

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C) 2.3; 1.5

☐ Samples Received on ice & cold without a temperature blank

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? ..... YES NO
   If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? ..... YES NO
10. Are samples in the appropriate containers for indicated tests? ..... YES NO
11. Are sample labels present, in good condition and complete? ..... YES NO
12. Do the sample labels agree with custody papers? ..... YES NO
13. Was sufficient amount of sample sent for tests requested? ..... YES NO
14. Are the samples appropriately preserved? ..... YES NO N/A
15. Are bubbles > 6mm absent in VOA samples? ..... YES NO N/A
16. Was the client contacted concerning this sample delivery? ..... YES NO
   If YES, Who was called? _____ By _____ Date: _____

COMMENTS

_____

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 206912
ANALYTICAL REPORT

Locus Technologies 299 Fairchild Dr. Mountain View, CA 94043	Project : 23016-03-2100 Location : Raytheon Level : II

Sample ID	Lab ID
RAY-EFT	206912-001
RAY-MID	206912-002
RAY-INF	206912-003
4809	206912-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 10/24/2008
Project Manager

Signature: _____ Date: 10/24/2008
Senior Program Manager

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**206912**
Client:	**Locus Technologies**
Project:	**23016-03-2100**
Location:	**Raytheon**
Request Date:	**10/15/08**
Samples Received:	**10/15/08**

This hardcopy data package contains sample and QC results for four water samples, requested for the above referenced project on 10/15/08. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	206912	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-EFT	Batch#:	143915
Lab ID:	206912-001	Sampled:	10/15/08
Matrix:	Water	Received:	10/15/08
Units:	ug/L	Analyzed:	10/21/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	120	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	115	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	206912	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-MID	Batch#:	144001
Lab ID:	206912-002	Sampled:	10/15/08
Matrix:	Water	Received:	10/15/08
Units:	ug/L	Analyzed:	10/23/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	3.5	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	1.2	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	97	80-120
Bromofluorobenzene	97	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	206912	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-INF	Units:	ug/L
Lab ID:	206912-003	Sampled:	10/15/08
Matrix:	Water	Received:	10/15/08

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Chloromethane	ND	20	20.00	143963	10/22/08
Vinyl Chloride	180	10	20.00	143963	10/22/08
Bromomethane	ND	20	20.00	143963	10/22/08
Chloroethane	ND	20	20.00	143963	10/22/08
Trichlorofluoromethane	ND	20	20.00	143963	10/22/08
Freon 113	ND	100	20.00	143963	10/22/08
1,1-Dichloroethene	22	10	20.00	143963	10/22/08
Methylene Chloride	ND	100	20.00	143963	10/22/08
trans-1,2-Dichloroethene	92	10	20.00	143963	10/22/08
1,1-Dichloroethane	ND	10	20.00	143963	10/22/08
cis-1,2-Dichloroethene	1,200	10	20.00	143963	10/22/08
Chloroform	ND	10	20.00	143963	10/22/08
1,1,1-Trichloroethane	ND	10	20.00	143963	10/22/08
Carbon Tetrachloride	ND	10	20.00	143963	10/22/08
1,2-Dichloroethane	ND	10	20.00	143963	10/22/08
Trichloroethene	3,000	25	50.00	144001	10/24/08
1,2-Dichloropropane	ND	10	20.00	143963	10/22/08
Bromodichloromethane	ND	10	20.00	143963	10/22/08
2-Chloroethylvinylether	ND	20	20.00	143963	10/22/08
cis-1,3-Dichloropropene	ND	10	20.00	143963	10/22/08
trans-1,3-Dichloropropene	ND	10	20.00	143963	10/22/08
1,1,2-Trichloroethane	ND	10	20.00	143963	10/22/08
Tetrachloroethene	ND	10	20.00	143963	10/22/08
Dibromochloromethane	ND	10	20.00	143963	10/22/08
Chlorobenzene	ND	10	20.00	143963	10/22/08
Bromoform	ND	10	20.00	143963	10/22/08
1,1,2,2-Tetrachloroethane	ND	10	20.00	143963	10/22/08
1,3-Dichlorobenzene	ND	10	20.00	143963	10/22/08
1,4-Dichlorobenzene	ND	10	20.00	143963	10/22/08
1,2-Dichlorobenzene	ND	25	50.00	144001	10/24/08

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
1,2-Dichloroethane-d4	115	80-120	20.00	143963	10/22/08
Toluene-d8	101	80-120	20.00	143963	10/22/08
Bromofluorobenzene	104	80-120	20.00	143963	10/22/08

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	206912	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4809	Batch#:	144001
Lab ID:	206912-004	Sampled:	10/15/08
Matrix:	Water	Received:	10/15/08
Units:	ug/L	Analyzed:	10/23/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	97	80-120
Bromofluorobenzene	99	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	206912	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC466383	Batch#:	143915
Matrix:	Water	Analyzed:	10/21/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	26.87	107	80-120
Trichloroethene	25.00	24.87	99	80-120
Chlorobenzene	25.00	25.41	102	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	206912	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC466384	Batch#:	143915
Matrix:	Water	Analyzed:	10/21/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	105	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	206912	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	143915
MSS Lab ID:	206920-001	Sampled:	10/14/08
Matrix:	Water	Received:	10/16/08
Units:	ug/L	Analyzed:	10/22/08
Diln Fac:	1.000		

Type: MS Lab ID: QC466443

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1000	25.00	29.31	117	40-150
Trichloroethene	1.339	25.00	29.04	111	40-150
Chlorobenzene	<0.1000	25.00	26.82	107	40-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	113	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	105	80-120

Type: MSD Lab ID: QC466444

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	30.56	122	40-150	4	35
Trichloroethene	25.00	28.51	109	40-150	2	35
Chlorobenzene	25.00	26.42	106	40-150	1	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	115	80-120
Toluene-d8	104	80-120
Bromofluorobenzene	107	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	206912	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC466557	Batch#:	143963
Matrix:	Water	Analyzed:	10/22/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	106	80-120
Toluene-d8	98	80-120
Bromofluorobenzene	105	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	206912	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	143963
Units:	ug/L	Analyzed:	10/22/08
Diln Fac:	1.000		

Type: BS Lab ID: QC466558

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	29.98	120	80-120
Trichloroethene	25.00	26.99	108	80-120
Chlorobenzene	25.00	25.54	102	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	80-120
Toluene-d8	98	80-120
Bromofluorobenzene	97	80-120

Type: BSD Lab ID: QC466559

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	30.10	120	80-120	0	35
Trichloroethene	25.00	26.82	107	80-120	1	35
Chlorobenzene	25.00	25.55	102	80-120	0	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	106	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	206912	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	206760-019	Batch#:	143963
Matrix:	Water	Sampled:	10/09/08
Units:	ug/L	Received:	10/09/08

Type: MS Analyzed: 10/22/08
Lab ID: QC466637

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1516	25.00	33.03	132	40-150
Trichloroethene	<0.1320	25.00	27.74	111	40-150
Chlorobenzene	<0.1000	25.00	27.45	110	40-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	108	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-120

Type: MSD Analyzed: 10/23/08
Lab ID: QC466638

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	32.06	128	40-150	3	35
Trichloroethene	25.00	29.40	118	40-150	6	35
Chlorobenzene	25.00	25.98	104	40-150	6	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	111	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	98	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	206912	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	144001
Units:	ug/L	Analyzed:	10/23/08
Diln Fac:	1.000		

Type: BS Lab ID: QC466719

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	29.59	118	80-120
Trichloroethene	25.00	26.38	106	80-120
Chlorobenzene	25.00	26.26	105	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	108	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-120

Type: BSD Lab ID: QC466720

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	27.47	110	80-120	7	35
Trichloroethene	25.00	25.51	102	80-120	3	35
Chlorobenzene	25.00	25.38	102	80-120	3	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	80-120
Toluene-d8	98	80-120
Bromofluorobenzene	110	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	206912	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC466722	Batch#:	144001
Matrix:	Water	Analyzed:	10/23/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	103	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 207908
ANALYTICAL REPORT

Locus Technologies	Project : 23016-03-2100
299 Fairchild Dr.	Location : Raytheon
Mountain View, CA 94043	Level : II

Sample ID	Lab ID
RAYEFT	207908-001
RAYMID	207908-002
RAYINF	207908-003
4844	207908-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Anna Pajunen Date: 12/02/2008
Project Manager

Signature: Carol Worthan Date: 12/02/2008
Quality Assurance Director

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**207908**
Client:	**Locus Technologies**
Project:	**23016-03-2100**
Location:	**Raytheon**
Request Date:	**11/17/08**
Samples Received:	**11/17/08**

This data package contains sample and QC results for four water samples, requested for the above referenced project on 11/17/08. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):
No analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):
No analytical problems were encountered.

Turbidity (SM2130B):
No analytical problems were encountered.

Locus TECHNOLOGIES

CHAIN-OF-CUSTODY RECORD (See Reverse for Instructions)

SERIAL NO. 14367

PROJECT NAME Raytheon

PROJECT NUMBER 23016-03-2100

RECORDER T. Murphy (SIGN)

SAMPLERS T. MURPHY (PRINT) T. Murphy (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES
(A) 40-ml VOA Vial
(B) Glass Liter
(C) Plastic 250 ml
D. Plastic Liter
E. Brass Tube
F. Other

SAMPLE DESCRIPTION CODES
(A) Ground Water
B. Surface Water
C. Leachate
D. Rinseate
E. Soil/Sediment
F. Oil
G. Waste
(H) Blank/Spike
I. Other

TAT CODES
(1) Standard
2. 48 Hour
3. 24 Hour
4. Other

ANALYTICAL LAB CURTIS & TOMPKINS

LABORATORY USE ONLY

LAB PROJECT NO. 207908

	NO.	DATE	TIME	SAMPLE ID	AVERAGE TEMP °C	AVERAGE COND micromhos/cm	AVERAGE pH	Sample container (enter code)	Sample Description (enter code)	NUMBER OF CONTAINERS AND PRESERVATION: Unpreserved	HNO_3	HCL	Field Filtered (check)	ANALYSIS REQUESTED: EPA 8260	SEMI VOCs 8270	1,4-DIOXANE	TURBIDITY	8010	TEMPERATURE	TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Store at 4°C (Check)	No VOA Headspace (Check)	NOTES	ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT
1	1	11/17/08	0840	RAYEFT	19.5	990	6.77	A	A			3		X						1	14 d	✓	✓			
	2			RAYEFT				B	A	2					X					1		✓	✓			
	3			RAYEFT				B	A	1						X				1		✓	✓			
	4			RAYEFT				C	A	1							X			1		✓	✓			
2	5		0905	RAY MID	19.9	990	6.97	A	A			3						X		1		✓	✓			
3	6		0925	RAY INF	19.3	988	7.01	A	A			3		X						1		✓	✓			
	7		—	TEMP BLANK	—	—	—	A	H	1									X	1		✓				
4	8		—	4844	—	—	—	A	H			3						X		1		✓	✓			
	9																									
	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
	16																									

NOTES / MISCELLANEOUS

Sample by NPDES REQUIREMENTS

Field / Container Temp. 4°C

NOTE: Temperature to be measured and recorded upon receipt of sample at lab 5.2 °C

Container Sealed with Custody Seal: Yes ☑ No ☐ 11-17-08 15:00 OR

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
T. Murphy			
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Method of Shipment	Description of Transport Container	Other Chains-of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
COURIER	COOLER		Thomas Murphy	11/17/08	1415	[signature]	11/17/08	1415

Send Lab Results to (Name): LUXY MARTIN (Check Office Below) Verbals Requested: Yes ☑ No ☐

☑ MOUNTAIN VIEW • 299 FAIRCHILD DRIVE • MTN VIEW, CA 94043 • TEL (650) 960-1640 • FAX (650) 960-0739
☐ WALNUT CREEK • 1701 N. CALIFORNIA BLVD • WALNUT CREEK, CA 94596 • TEL (925) 906-8100 • FAX (925) 906-8101
☐ SACRAMENTO • 1100 MELODY LANE • ROSEVILLE, CA 95678 • TEL (916) 677-1751 • FAX (916) 677-1760
☐ OTHER _____ TEL _____ FAX _____

WHITE: Laboratory Copy YELLOW: Project Copy PINK: Database Copy

REV. 6/02

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd

Login # 207908 Date Received 11-17-08 Number of coolers 1
Client Locus Tech. Project Raytheon

Date Opened 11-17-08 By (print) J. Rasmussen (sign)
Date Logged in 11/18/08 By (print) M. Villanueva (sign)

1. Did cooler come with a shipping slip (airbill, etc)? ..... YES (NO)
   Shipping info

2A. Were custody seals present? .... ☑ YES (circle) on cooler on samples ☐ NO
   How many 1 Name Tom Murphy Date 11-17-08
2B. Were custody seals intact upon arrival? ..... (YES) NO N/A
3. Were custody papers dry and intact when received? ..... (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? ..... (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) ..... (YES) NO
6. Indicate the packing in cooler: (if other, describe)

   ☑ Bubble Wrap ☐ Foam blocks ☑ Bags ☐ None
   ☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation:

   Type of ice used: ☑ Wet ☐ Blue/Gel ☐ None Temp(°C) 5.2 11-17-08 15:00

   ☐ Samples Received on ice & cold without a temperature blank

   ☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? ..... YES (NO)
   If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? ..... (YES) NO
10. Are samples in the appropriate containers for indicated tests? ..... (YES) NO
11. Are sample labels present, in good condition and complete? ..... (YES) NO
12. Do the sample labels agree with custody papers? ..... (YES) NO
13. Was sufficient amount of sample sent for tests requested? ..... (YES) NO
14. Are the samples appropriately preserved? ..... (YES) NO N/A
15. Are bubbles > 6mm absent in VOA samples? ..... (YES) NO N/A
16. Was the client contacted concerning this sample delivery? ..... YES NO
    If YES, Who was called? By Date:

COMMENTS

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAYMID	Batch#:	145357
Lab ID:	207908-002	Sampled:	11/17/08
Matrix:	Water	Received:	11/17/08
Units:	ug/L	Analyzed:	11/25/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	10	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	8.2	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	0.5	0.5
1,1,1-Trichloroethane	2.2	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	104	80-120
Bromofluorobenzene	107	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4844	Batch#:	145357
Lab ID:	207908-004	Sampled:	11/17/08
Matrix:	Water	Received:	11/17/08
Units:	ug/L	Analyzed:	11/25/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	106	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC472505	Batch#:	145357
Matrix:	Water	Analyzed:	11/25/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	27.61	110	80-120
Trichloroethene	25.00	27.43	110	80-120
Chlorobenzene	25.00	24.63	99	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	92	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	96	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC472507	Batch#:	145357
Matrix:	Water	Analyzed:	11/25/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	95	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	104	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	145357
MSS Lab ID:	207977-001	Sampled:	11/19/08
Matrix:	Water	Received:	11/19/08
Units:	ug/L	Analyzed:	11/25/08
Diln Fac:	1.000		

Type: MS Lab ID: QC472616

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1000	25.00	33.16	133	40-150
Trichloroethene	<0.1000	25.00	30.37	121	40-150
Chlorobenzene	<0.1000	25.00	25.43	102	40-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	104	80-120
Bromofluorobenzene	100	80-120

Type: MSD Lab ID: QC472617

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	31.13	125	40-150	6	35
Trichloroethene	25.00	28.99	116	40-150	5	35
Chlorobenzene	25.00	24.66	99	40-150	3	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	99	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	207951-001	Batch#:	145357
Matrix:	Water	Sampled:	11/17/08
Units:	ug/L	Received:	11/18/08

Type: MS Analyzed: 11/25/08
Lab ID: QC472618

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	1.455	25.00	32.94	126	40-150
Trichloroethene	122.0 >LR	25.00	134.0 >LR	48 NM	40-150
Chlorobenzene	<0.1000	25.00	24.97	100	40-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	97	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	99	80-120

Type: MSD Analyzed: 11/26/08
Lab ID: QC472619

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	33.75	129	40-150	2	35
Trichloroethene	25.00	136.6 >LR	58 NM	40-150	NC	35
Chlorobenzene	25.00	25.23	101	40-150	1	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	97	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	99	80-120

NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAYEFT	Batch#:	145357
Lab ID:	207908-001	Sampled:	11/17/08
Matrix:	Water	Received:	11/17/08
Units:	ug/L	Analyzed:	11/25/08
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
2-Chloroethylvinylether	ND	10
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAYEFT	Batch#:	145357
Lab ID:	207908-001	Sampled:	11/17/08
Matrix:	Water	Received:	11/17/08
Units:	ug/L	Analyzed:	11/25/08
Diln Fac:	1.000		

Analyte	Result	RL
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	0.5
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	111	80-120
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	107	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAYINF	Units:	ug/L
Lab ID:	207908-003	Sampled:	11/17/08
Matrix:	Water	Received:	11/17/08

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Freon 12	ND	50	50.00	145357	11/25/08
Chloromethane	ND	50	50.00	145357	11/25/08
Vinyl Chloride	140	25	50.00	145357	11/25/08
Bromomethane	ND	50	50.00	145357	11/25/08
Chloroethane	ND	50	50.00	145357	11/25/08
Trichlorofluoromethane	ND	50	50.00	145357	11/25/08
Acetone	ND	500	50.00	145357	11/25/08
Freon 113	ND	250	50.00	145357	11/25/08
1,1-Dichloroethene	ND	25	50.00	145357	11/25/08
Methylene Chloride	ND	250	50.00	145357	11/25/08
Carbon Disulfide	ND	25	50.00	145357	11/25/08
MTBE	ND	25	50.00	145357	11/25/08
trans-1,2-Dichloroethene	89	25	50.00	145357	11/25/08
Vinyl Acetate	ND	500	50.00	145357	11/25/08
1,1-Dichloroethane	ND	25	50.00	145357	11/25/08
2-Butanone	ND	500	50.00	145357	11/25/08
cis-1,2-Dichloroethene	1,600	25	50.00	145357	11/25/08
2,2-Dichloropropane	ND	25	50.00	145357	11/25/08
Chloroform	ND	25	50.00	145357	11/25/08
Bromochloromethane	ND	25	50.00	145357	11/25/08
1,1,1-Trichloroethane	ND	25	50.00	145357	11/25/08
1,1-Dichloropropene	ND	25	50.00	145357	11/25/08
Carbon Tetrachloride	ND	25	50.00	145357	11/25/08
1,2-Dichloroethane	ND	25	50.00	145357	11/25/08
Benzene	ND	25	50.00	145357	11/25/08
Trichloroethene	4,300	50	100.0	145408	11/26/08
1,2-Dichloropropane	ND	25	50.00	145357	11/25/08
Bromodichloromethane	ND	25	50.00	145357	11/25/08
Dibromomethane	ND	25	50.00	145357	11/25/08
2-Chloroethylvinylether	ND	500	50.00	145357	11/25/08
4-Methyl-2-Pentanone	ND	500	50.00	145357	11/25/08
cis-1,3-Dichloropropene	ND	25	50.00	145357	11/25/08
Toluene	ND	25	50.00	145357	11/25/08
trans-1,3-Dichloropropene	ND	25	50.00	145357	11/25/08
1,1,2-Trichloroethane	ND	25	50.00	145357	11/25/08
2-Hexanone	ND	500	50.00	145357	11/25/08
1,3-Dichloropropane	ND	25	50.00	145357	11/25/08
Tetrachloroethene	ND	25	50.00	145357	11/25/08
Dibromochloromethane	ND	25	50.00	145357	11/25/08

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAYINF	Units:	ug/L
Lab ID:	207908-003	Sampled:	11/17/08
Matrix:	Water	Received:	11/17/08

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
1,2-Dibromoethane	ND	25	50.00	145357	11/25/08
Chlorobenzene	ND	25	50.00	145357	11/25/08
1,1,1,2-Tetrachloroethane	ND	25	50.00	145357	11/25/08
Ethylbenzene	ND	25	50.00	145357	11/25/08
m,p-Xylenes	ND	25	50.00	145357	11/25/08
o-Xylene	ND	25	50.00	145357	11/25/08
Styrene	ND	25	50.00	145357	11/25/08
Bromoform	ND	50	50.00	145357	11/25/08
Isopropylbenzene	ND	25	50.00	145357	11/25/08
1,1,2,2-Tetrachloroethane	ND	25	50.00	145357	11/25/08
1,2,3-Trichloropropane	ND	25	50.00	145357	11/25/08
Propylbenzene	ND	25	50.00	145357	11/25/08
Bromobenzene	ND	25	50.00	145357	11/25/08
1,3,5-Trimethylbenzene	ND	25	50.00	145357	11/25/08
2-Chlorotoluene	ND	25	50.00	145357	11/25/08
4-Chlorotoluene	ND	25	50.00	145357	11/25/08
tert-Butylbenzene	ND	25	50.00	145357	11/25/08
1,2,4-Trimethylbenzene	ND	25	50.00	145357	11/25/08
sec-Butylbenzene	ND	25	50.00	145357	11/25/08
para-Isopropyl Toluene	ND	25	50.00	145357	11/25/08
1,3-Dichlorobenzene	ND	25	50.00	145357	11/25/08
1,4-Dichlorobenzene	ND	25	50.00	145357	11/25/08
n-Butylbenzene	ND	25	50.00	145357	11/25/08
1,2-Dichlorobenzene	ND	25	50.00	145357	11/25/08
1,2-Dibromo-3-Chloropropane	ND	25	50.00	145357	11/25/08
1,2,4-Trichlorobenzene	ND	25	50.00	145357	11/25/08
Hexachlorobutadiene	ND	25	50.00	145357	11/25/08
Naphthalene	ND	25	50.00	145357	11/25/08
1,2,3-Trichlorobenzene	ND	25	50.00	145357	11/25/08

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	110	80-120	50.00	145357	11/25/08
1,2-Dichloroethane-d4	104	80-120	50.00	145357	11/25/08
Toluene-d8	103	80-120	50.00	145357	11/25/08
Bromofluorobenzene	106	80-120	50.00	145357	11/25/08

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC472505	Batch#:	145357
Matrix:	Water	Analyzed:	11/25/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	27.61	110	80-120
Benzene	25.00	26.25	105	80-120
Trichloroethene	25.00	27.43	110	80-120
Toluene	25.00	27.37	109	80-120
Chlorobenzene	25.00	24.63	99	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	92	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	96	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC472507	Batch#:	145357
Matrix:	Water	Analyzed:	11/25/08
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC472507	Batch#:	145357
Matrix:	Water	Analyzed:	11/25/08
Units:	ug/L		

Analyte	Result	RL
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	0.5
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	0.5
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-120
1,2-Dichloroethane-d4	95	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	104	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	145357
MSS Lab ID:	207977-001	Sampled:	11/19/08
Matrix:	Water	Received:	11/19/08
Units:	ug/L	Analyzed:	11/25/08
Diln Fac:	1.000		

Type: MS Lab ID: QC472616

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1000	25.00	33.16	133	40-150
Benzene	<0.1000	25.00	28.70	115	40-150
Trichloroethene	<0.1000	25.00	30.37	121	40-150
Toluene	<0.1000	25.00	29.23	117	40-150
Chlorobenzene	<0.1000	25.00	25.43	102	40-150

Surrogate	%REC	Limits
Dibromofluoromethane	109	80-120
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	104	80-120
Bromofluorobenzene	100	80-120

Type: MSD Lab ID: QC472617

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	31.13	125	40-150	6	35
Benzene	25.00	27.32	109	40-150	5	35
Trichloroethene	25.00	28.99	116	40-150	5	35
Toluene	25.00	28.00	112	40-150	4	35
Chlorobenzene	25.00	24.66	99	40-150	3	35

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-120
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	99	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	207951-001	Batch#:	145357
Matrix:	Water	Sampled:	11/17/08
Units:	ug/L	Received:	11/18/08

Type: MS Analyzed: 11/25/08
Lab ID: QC472618

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	1.455	25.00	32.94	126	40-150
Benzene	<0.1000	25.00	27.05	108	40-150
Trichloroethene	122.0 >LR	25.00	134.0 >LR	48 NM	40-150
Toluene	<0.1000	25.00	28.26	113	40-150
Chlorobenzene	<0.1000	25.00	24.97	100	40-150

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-120
1,2-Dichloroethane-d4	97	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	99	80-120

Type: MSD Analyzed: 11/26/08
Lab ID: QC472619

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	33.75	129	40-150	2	35
Benzene	25.00	27.65	111	40-150	2	35
Trichloroethene	25.00	136.6 >LR	58 NM	40-150	NC	35
Toluene	25.00	28.87	115	40-150	2	35
Chlorobenzene	25.00	25.23	101	40-150	1	35

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-120
1,2-Dichloroethane-d4	97	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	99	80-120

NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	145408
Units:	ug/L	Analyzed:	11/26/08
Diln Fac:	1.000		

Type: BS Lab ID: QC472710

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	22.56	90	80-120
Benzene	25.00	24.61	98	80-120
Trichloroethene	25.00	23.35	93	80-120
Toluene	25.00	23.78	95	80-120
Chlorobenzene	25.00	25.08	100	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-120
1,2-Dichloroethane-d4	111	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-120

Type: BSD Lab ID: QC472711

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	21.40	86	80-120	5	35
Benzene	25.00	22.83	91	80-120	7	35
Trichloroethene	25.00	23.03	92	80-120	1	35
Toluene	25.00	23.37	93	80-120	2	35
Chlorobenzene	25.00	24.10	96	80-120	4	35

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-120
1,2-Dichloroethane-d4	105	80-120
Toluene-d8	97	80-120
Bromofluorobenzene	101	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC472716	Batch#:	145408
Matrix:	Water	Analyzed:	11/26/08
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
2-Chloroethylvinylether	NA	
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	0.5
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC472716	Batch#:	145408
Matrix:	Water	Analyzed:	11/26/08
Units:	ug/L		

Analyte	Result	RL
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	0.5
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-120
1,2-Dichloroethane-d4	110	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-120

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 3520C
Project#:	23016-03-2100	Analysis:	EPA 8270C
Field ID:	RAYEFT	Batch#:	145019
Lab ID:	207908-001	Sampled:	11/17/08
Matrix:	Water	Received:	11/17/08
Units:	ug/L	Prepared:	11/18/08
Diln Fac:	1.000	Analyzed:	11/25/08

Analyte	Result	RL
N-Nitrosodimethylamine	ND	9.4
Phenol	ND	9.4
bis(2-Chloroethyl)ether	ND	9.4
2-Chlorophenol	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
Benzyl alcohol	ND	9.4
1,2-Dichlorobenzene	ND	9.4
2-Methylphenol	ND	9.4
bis(2-Chloroisopropyl) ether	ND	9.4
4-Methylphenol	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
2-Nitrophenol	ND	19
2,4-Dimethylphenol	ND	9.4
Benzoic acid	ND	47
bis(2-Chloroethoxy)methane	ND	9.4
2,4-Dichlorophenol	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	ND	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2-Methylnaphthalene	ND	9.4
Hexachlorocyclopentadiene	ND	19
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	19
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	19
Acenaphthene	ND	9.4
2,4-Dinitrophenol	ND	19
4-Nitrophenol	ND	19
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
Fluorene	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
4-Nitroaniline	ND	19
4,6-Dinitro-2-methylphenol	ND	19
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Pentachlorophenol	ND	19
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 3520C
Project#:	23016-03-2100	Analysis:	EPA 8270C
Field ID:	RAYEFT	Batch#:	145019
Lab ID:	207908-001	Sampled:	11/17/08
Matrix:	Water	Received:	11/17/08
Units:	ug/L	Prepared:	11/18/08
Diln Fac:	1.000	Analyzed:	11/25/08

Analyte	Result	RL
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	19
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
bis(2-Ethylhexyl)phthalate	ND	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%REC	Limits
2-Fluorophenol	68	40-120
Phenol-d5	64	43-120
2,4,6-Tribromophenol	62	40-122
Nitrobenzene-d5	68	56-120
2-Fluorobiphenyl	81	55-120
Terphenyl-d14	68	34-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 3520C
Project#:	23016-03-2100	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC471065	Batch#:	145019
Matrix:	Water	Prepared:	11/17/08
Units:	ug/L	Analyzed:	11/25/08

Analyte	Result	RL
N-Nitrosodimethylamine	ND	10
Phenol	ND	10
bis(2-Chloroethyl)ether	ND	10
2-Chlorophenol	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
Benzyl alcohol	ND	10
1,2-Dichlorobenzene	ND	10
2-Methylphenol	ND	10
bis(2-Chloroisopropyl) ether	ND	10
4-Methylphenol	ND	10
N-Nitroso-di-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
2-Nitrophenol	ND	20
2,4-Dimethylphenol	ND	10
Benzoic acid	ND	50
bis(2-Chloroethoxy)methane	ND	10
2,4-Dichlorophenol	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	10
Hexachlorobutadiene	ND	10
4-Chloro-3-methylphenol	ND	10
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	20
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	10
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	20
Dimethylphthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
3-Nitroaniline	ND	20
Acenaphthene	ND	10
2,4-Dinitrophenol	ND	20
4-Nitrophenol	ND	20
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
Diethylphthalate	ND	10
Fluorene	ND	10
4-Chlorophenyl-phenylether	ND	10
4-Nitroaniline	ND	20
4,6-Dinitro-2-methylphenol	ND	20
N-Nitrosodiphenylamine	ND	10
Azobenzene	ND	10
4-Bromophenyl-phenylether	ND	10
Hexachlorobenzene	ND	10
Pentachlorophenol	ND	20
Phenanthrene	ND	10
Anthracene	ND	10
Di-n-butylphthalate	ND	10
Fluoranthene	ND	10

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 3520C
Project#:	23016-03-2100	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC471065	Batch#:	145019
Matrix:	Water	Prepared:	11/17/08
Units:	ug/L	Analyzed:	11/25/08

Analyte	Result	RL
Pyrene	ND	10
Butylbenzylphthalate	ND	10
3,3'-Dichlorobenzidine	ND	20
Benzo(a)anthracene	ND	10
Chrysene	ND	10
bis(2-Ethylhexyl)phthalate	ND	10
Di-n-octylphthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenz(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

Surrogate	%REC	Limits
2-Fluorophenol	65	40-120
Phenol-d5	62	43-120
2,4,6-Tribromophenol	58	40-122
Nitrobenzene-d5	65	56-120
2-Fluorobiphenyl	76	55-120
Terphenyl-d14	66	34-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 3520C
Project#:	23016-03-2100	Analysis:	EPA 8270C
Matrix:	Water	Batch#:	145019
Units:	ug/L	Prepared:	11/17/08
Diln Fac:	1.000	Analyzed:	11/25/08

Type: BS Lab ID: QC471066

Analyte	Spiked	Result	%REC	Limits
Phenol	80.00	56.65	71	45-120
2-Chlorophenol	80.00	64.39	80	52-120
1,4-Dichlorobenzene	80.00	53.31	67	47-120
N-Nitroso-di-n-propylamine	80.00	43.85	55	38-120
1,2,4-Trichlorobenzene	80.00	54.57	68	46-120
4-Chloro-3-methylphenol	80.00	55.90	70	55-120
Acenaphthene	30.00	23.22	77	54-120
4-Nitrophenol	80.00	58.20	73	46-120
2,4-Dinitrotoluene	80.00	62.84	79	56-120
Pentachlorophenol	80.00	51.87	65	50-121
Pyrene	30.00	23.37	78	54-120

Surrogate	%REC	Limits
2-Fluorophenol	66	40-120
Phenol-d5	63	43-120
2,4,6-Tribromophenol	72	40-122
Nitrobenzene-d5	67	56-120
2-Fluorobiphenyl	75	55-120
Terphenyl-d14	67	34-120

Type: BSD Lab ID: QC471067

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	80.00	60.43	76	45-120	6	24
2-Chlorophenol	80.00	68.30	85	52-120	6	23
1,4-Dichlorobenzene	80.00	56.96	71	47-120	7	29
N-Nitroso-di-n-propylamine	80.00	46.83	59	38-120	7	25
1,2,4-Trichlorobenzene	80.00	60.04	75	46-120	10	28
4-Chloro-3-methylphenol	80.00	59.84	75	55-120	7	20
Acenaphthene	30.00	25.49	85	54-120	9	20
4-Nitrophenol	80.00	59.53	74	46-120	2	23
2,4-Dinitrotoluene	80.00	66.95	84	56-120	6	20
Pentachlorophenol	80.00	58.69	73	50-121	12	23
Pyrene	30.00	25.05	83	54-120	7	22

Surrogate	%REC	Limits
2-Fluorophenol	73	40-120
Phenol-d5	66	43-120
2,4,6-Tribromophenol	77	40-122
Nitrobenzene-d5	71	56-120
2-Fluorobiphenyl	82	55-120
Terphenyl-d14	72	34-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

1,4-Dioxane by 8270-SIM

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 3520C
Project#:	23016-03-2100	Analysis:	EPA 8270C-SIM
Field ID:	RAYEFT	Batch#:	145134
Matrix:	Water	Sampled:	11/17/08
Units:	ug/L	Received:	11/17/08
Diln Fac:	1.000		

Type:	SAMPLE	Prepared:	11/20/08
Lab ID:	207908-001	Analyzed:	11/24/08

Analyte	Result	RL
1,4-Dioxane	ND	0.94

Surrogate	%REC	Limits
Nitrobenzene-d5	96	48-130
2-Fluorobiphenyl	87	54-120

Type:	BLANK	Prepared:	11/19/08
Lab ID:	QC471554	Analyzed:	11/20/08

Analyte	Result	RL
1,4-Dioxane	ND	1.0

Surrogate	%REC	Limits
Nitrobenzene-d5	80	48-130
2-Fluorobiphenyl	68	54-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

1,4-Dioxane by 8270-SIM

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 3520C
Project#:	23016-03-2100	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC471555	Batch#:	145134
Matrix:	Water	Prepared:	11/19/08
Units:	ug/L	Analyzed:	11/20/08

Analyte	Spiked	Result	%REC	Limits
1,4-Dioxane	3.000	1.659	55	28-120

Surrogate	%REC	Limits
Nitrobenzene-d5	71	48-130
2-Fluorobiphenyl	69	54-120

Curtis & Tompkins, Ltd.

Batch QC Report

1,4-Dioxane by 8270-SIM

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 3520C
Project#:	23016-03-2100	Analysis:	EPA 8270C-SIM
Field ID:	ZZZZZZZZZZ	Batch#:	145134
MSS Lab ID:	207935-007	Sampled:	11/15/08
Matrix:	Water	Received:	11/17/08
Units:	ug/L	Prepared:	11/19/08
Diln Fac:	1.000	Analyzed:	11/20/08

Type: MS Lab ID: QC471556

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,4-Dioxane	<0.08734	2.857	1.731	61	31-120

Surrogate	%REC	Limits
Nitrobenzene-d5	103	48-130
2-Fluorobiphenyl	76	54-120

Type: MSD Lab ID: QC471557

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,4-Dioxane	2.857	1.759	62	31-120	2	23

Surrogate	%REC	Limits
Nitrobenzene-d5	108	48-130
2-Fluorobiphenyl	78	54-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Turbidity

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Analysis:	SM2130B
Project#:	23016-03-2100		
Analyte:	Turbidity	Diln Fac:	1.000
Field ID:	RAYEFT	Batch#:	145082
Lab ID:	207908-001	Sampled:	11/17/08 08:40
Matrix:	Water	Received:	11/17/08
Units:	NTU	Analyzed:	11/18/08 18:45

Result	RL
0.12	0.02

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Turbidity

Lab #:	207908	Location:	Raytheon
Client:	Locus Technologies	Analysis:	SM2130B
Project#:	23016-03-2100		
Analyte:	Turbidity	Units:	NTU
Field ID:	RAYEFT	Diln Fac:	1.000
Type:	SDUP	Batch#:	145082
MSS Lab ID:	207908-001	Sampled:	11/17/08 08:40
Lab ID:	QC471324	Received:	11/17/08
Matrix:	Water	Analyzed:	11/18/08 18:45

MSS Result	Result	RL	RPD	Lim
0.1200	0.1200	0.02000	3	30

RL= Reporting Limit
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 208439
ANALYTICAL REPORT

Locus Technologies 299 Fairchild Dr. Mountain View, CA 94043	Project : 23016-03-2100 Location : Raytheon Level : II

Sample ID	Lab ID
24A	208439-001
R-52A	208439-002
83A	208439-003
100A	208439-004
4866	208439-005
4867	208439-006
4868	208439-007
4869	208439-008
7B1	208439-009
94B1	208439-010
R-17B2	208439-011
97B1	208439-012
I-1B2	208439-013
RAY-1A	208439-014
RAY-1B1	208439-015

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 12/18/2008
Project Manager

Signature: _____ Date: 12/18/2008
Senior Program Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**208439**
Client:	**Locus Technologies**
Project:	**23016-03-2100**
Location:	**Raytheon**
Request Date:	**12/09/08**
Samples Received:	**12/09/08**

This data package contains sample and QC results for fifteen water samples, requested for the above referenced project on 12/09/08. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Locus TECHNOLOGIES

CHAIN-OF-CUSTODY RECORD (See Reverse for Instructions)

SERIAL NO. 14389

PROJECT NAME: Raytheon
PROJECT NUMBER: 23016-03-2100
RECORDER: [signature] (SIGN)
SAMPLERS: Henry Castro (PRINT) (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES	SAMPLE DESCRIPTION CODES	TAT CODES
(A) 40-ml VOA Vial	(A) Ground Water	(1) Standard
B. Glass Liter	B. Surface Water	2. 48 Hour
C. Plastic 500-ml	C. Leachate	3. 24 Hour
D. Plastic Liter	D. Rinseate	4. Other
E. Brass Tube	E. Soil/Sediment	
F. Other	F. Oil	
	G. Waste	
	(H) Blank/Spike	
	I. Other	

ANALYTICAL LAB: Curtis & Tompkins

NO.	DATE	TIME	SAMPLE ID	AVERAGE TEMP °C	AVERAGE COND micromhos/cm	AVERAGE pH	Sample container (enter code)	Sample Description (enter code)	NUMBER OF CONTAINERS AND PRESERVATION: Unpreserved	HNO_3	HCL	Field Filtered (check)	ANALYSIS REQUESTED: SOVOCs	Temperature	TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Store at 4°C (Check)	No VOA Headspace (Check)	NOTES	ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT
1	12/8/08	935	24A	18.9	1480	7.10	A	A			3		X		1	14 day	✓	✓			
2		1045	R-52A	20.7	1180	7.07	A	A			6		X		1		✓	✓	* MS/MSD		
3		1135	83A	20.6	1118	7.15	A	A			3		X		1		✓	✓			
4		1230	100A	20.8	1162	7.20	A	A			3		X		1		✓	✓			
5		—	4866	—	—	—	A	H			3		X		1		✓	✓			
6		—	4867	—	—	—	A	A			3		X		1		✓	✓			
7		—	4868	—	—	—	A	H			3		X		1		✓	✓			
8		—	4869	—	—	—	A	H			3		X		1		✓	✓			
9		—	Temp Blank	—	—	—	A	H	1					X	3	**	✓	NA	**		
10	12/9/08	855	7B1	18.1	725	6.53	A	A			3		X		1	14 day	✓	✓			
11		950	94B1	19.5	735	7.33	A	A			3		X		1		✓	✓			
12		1100	R-17B2	17.1	581	7.03	A	A			3		X		1		✓	✓			
13		1200	97B1	18.6	773	7.27	A	A			3		X		1		✓	✓			
14		1245	I-1B	19.8	678	7.18	A	A			3		X		1		✓	✓			
15		1305	RAY-1A	20.3	1067	6.84	A	A			3		X		1		✓	✓			
16		1320	RAY-1B1	19.7	799	7.14	A	A			3		X		1		✓	✓			

LABORATORY USE ONLY — LAB PROJECT NO. 208439

NOTES / MISCELLANEOUS

Field / Container Temp. 4°C

* 40 6 VOAS for MS/MSD Analysis.

** NOTE! Temperature to be measured and recorded upon receipt of samples at lab. 2.1 °C

Container Sealed with Custody Seal: Yes [X] No [ ]

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
[signature]			
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Method of Shipment	Description of Transport Container	Other Chains-of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
Courier	Cooler	None	[signature]	12/9/08	1421	[signature]	12/9/08	1421

Send Lab Results to (Name): Luxy Martin (Check Office Below) Verbals Requested: Yes [ ] No [ ]

[X] MOUNTAIN VIEW • 299 FAIRCHILD DRIVE • MTN VIEW, CA 94043 • TEL (650) 960-1640 • FAX (650) 960-0739
[ ] WALNUT CREEK • 1701 N. CALIFORNIA BLVD • WALNUT CREEK, CA 94596 • TEL (925) 906-8100 • FAX (925) 906-8101
[ ] SACRAMENTO • 1100 MELODY LANE • ROSEVILLE, CA 95678 • TEL (916) 677-1751 • FAX (916) 677-1760
[ ] OTHER _____ TEL _____ FAX _____

WHITE: Laboratory Copy YELLOW: Project Copy PINK: Database Copy

REV. 6/02

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 208439 Date Received 12/9/08 Number of coolers 1
Client LOCUS Project RAYTHEON

Date Opened 12/9/08 By (print) M. VILLONUEVA (sign) [signature]
Date Logged in ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) _____ YES (NO)
   Shipping info _____
2A. Were custody seals present? ... ☐ YES (circle) on cooler on samples ☐ NO
   How many 1 Name HENRY CASTRO Date 12/9/08
2B. Were custody seals intact upon arrival? _____ YES NO N/A
3. Were custody papers dry and intact when received? _____ YES NO
4. Were custody papers filled out properly (ink, signed, etc)? _____ YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) ___ YES NO
6. Indicate the packing in cooler: (if other, describe) _____

☐ Bubble Wrap ☐ Foam blocks ☑ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation:

Type of ice used: ☑ Wet ☐ Blue/Gel ☐ None Temp(°C) 2-1 12/9/08 1720 MV

☐ Samples Received on ice & cold without a temperature blank

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? _____ YES (NO)
   If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? _____ YES (NO)
10. Are samples in the appropriate containers for indicated tests? _____ YES NO
11. Are sample labels present, in good condition and complete? _____ YES NO
12. Do the sample labels agree with custody papers? _____ YES NO
13. Was sufficient amount of sample sent for tests requested? _____ YES NO
14. Are the samples appropriately preserved? _____ YES NO N/A
15. Are bubbles > 6mm absent in VOA samples? _____ YES NO N/A
16. Was the client contacted concerning this sample delivery? _____ YES NO
    If YES, Who was called? _____ By _____ Date: _____

COMMENTS
SAMPLE # 4 2/3 ~~VOA~~ VOA REC'D FROZEN & 1 REC'D BROKEN.
SAMPLE # 5 & 6 1/3 VOA REC'D FROZEN

SOP Volume: Client Services
Section: 1.1.2
Page: 1 of 1

Rev. 6 Number 1 of 3
Effective: 23 July 2008
Z:\qc\forms\checklists\Cooler Receipt Checklist_rv6.doc

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	24A	Units:	ug/L
Lab ID:	208439-001	Sampled:	12/08/08
Matrix:	Water	Received:	12/09/08

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Chloromethane	ND	14	14.29	145920	12/12/08
Vinyl Chloride	9.9	7.1	14.29	145920	12/12/08
Bromomethane	ND	14	14.29	145920	12/12/08
Chloroethane	ND	14	14.29	145920	12/12/08
Trichlorofluoromethane	ND	14	14.29	145920	12/12/08
Freon 113	ND	71	14.29	145920	12/12/08
1,1-Dichloroethene	ND	7.1	14.29	145920	12/12/08
Methylene Chloride	ND	71	14.29	145920	12/12/08
trans-1,2-Dichloroethene	12	7.1	14.29	145920	12/12/08
1,1-Dichloroethane	ND	7.1	14.29	145920	12/12/08
cis-1,2-Dichloroethene	590	7.1	14.29	145920	12/12/08
Chloroform	ND	7.1	14.29	145920	12/12/08
1,1,1-Trichloroethane	ND	7.1	14.29	145920	12/12/08
Carbon Tetrachloride	ND	7.1	14.29	145920	12/12/08
1,2-Dichloroethane	ND	7.1	14.29	145920	12/12/08
Trichloroethene	2,200	25	50.00	146052	12/16/08
1,2-Dichloropropane	ND	7.1	14.29	145920	12/12/08
Bromodichloromethane	ND	7.1	14.29	145920	12/12/08
2-Chloroethylvinylether	ND	14	14.29	145920	12/12/08
cis-1,3-Dichloropropene	ND	7.1	14.29	145920	12/12/08
trans-1,3-Dichloropropene	ND	7.1	14.29	145920	12/12/08
1,1,2-Trichloroethane	ND	7.1	14.29	145920	12/12/08
Tetrachloroethene	ND	7.1	14.29	145920	12/12/08
Dibromochloromethane	ND	7.1	14.29	145920	12/12/08
Chlorobenzene	ND	7.1	14.29	145920	12/12/08
Bromoform	ND	7.1	14.29	145920	12/12/08
1,1,2,2-Tetrachloroethane	ND	7.1	14.29	145920	12/12/08
1,3-Dichlorobenzene	ND	7.1	14.29	145920	12/12/08
1,4-Dichlorobenzene	ND	7.1	14.29	145920	12/12/08
1,2-Dichlorobenzene	ND	7.1	14.29	145920	12/12/08

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
1,2-Dichloroethane-d4	100	80-120	14.29	145920	12/12/08
Toluene-d8	97	80-120	14.29	145920	12/12/08
Bromofluorobenzene	98	80-120	14.29	145920	12/12/08

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	R-52A	Batch#:	145920
Lab ID:	208439-002	Sampled:	12/08/08
Matrix:	Water	Received:	12/09/08
Units:	ug/L	Analyzed:	12/12/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	0.9	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	69	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	107	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	103	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	83A	Units:	ug/L
Lab ID:	208439-003	Sampled:	12/08/08
Matrix:	Water	Received:	12/09/08

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Chloromethane	ND	1.0	1.000	145920	12/12/08
Vinyl Chloride	ND	0.5	1.000	145920	12/12/08
Bromomethane	ND	1.0	1.000	145920	12/12/08
Chloroethane	ND	1.0	1.000	145920	12/12/08
Trichlorofluoromethane	ND	1.0	1.000	145920	12/12/08
Freon 113	21	5.0	1.000	145920	12/12/08
1,1-Dichloroethene	6.1	0.5	1.000	145920	12/12/08
Methylene Chloride	ND	5.0	1.000	145920	12/12/08
trans-1,2-Dichloroethene	1.0	0.5	1.000	145920	12/12/08
1,1-Dichloroethane	4.9	0.5	1.000	145920	12/12/08
cis-1,2-Dichloroethene	98	0.5	1.000	145920	12/12/08
Chloroform	ND	0.5	1.000	145920	12/12/08
1,1,1-Trichloroethane	7.4	0.5	1.000	145920	12/12/08
Carbon Tetrachloride	ND	0.5	1.000	145920	12/12/08
1,2-Dichloroethane	ND	0.5	1.000	145920	12/12/08
Trichloroethene	210	2.5	5.000	146052	12/16/08
1,2-Dichloropropane	ND	0.5	1.000	145920	12/12/08
Bromodichloromethane	ND	0.5	1.000	145920	12/12/08
2-Chloroethylvinylether	ND	1.0	1.000	145920	12/12/08
cis-1,3-Dichloropropene	ND	0.5	1.000	145920	12/12/08
trans-1,3-Dichloropropene	ND	0.5	1.000	145920	12/12/08
1,1,2-Trichloroethane	ND	0.5	1.000	145920	12/12/08
Tetrachloroethene	ND	0.5	1.000	145920	12/12/08
Dibromochloromethane	ND	0.5	1.000	145920	12/12/08
Chlorobenzene	ND	0.5	1.000	145920	12/12/08
Bromoform	ND	0.5	1.000	145920	12/12/08
1,1,2,2-Tetrachloroethane	ND	0.5	1.000	145920	12/12/08
1,3-Dichlorobenzene	ND	0.5	1.000	145920	12/12/08
1,4-Dichlorobenzene	ND	0.5	1.000	145920	12/12/08
1,2-Dichlorobenzene	ND	0.5	1.000	145920	12/12/08

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
1,2-Dichloroethane-d4	102	80-120	1.000	145920	12/12/08
Toluene-d8	98	80-120	1.000	145920	12/12/08
Bromofluorobenzene	98	80-120	1.000	145920	12/12/08

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	100A	Batch#:	146052
Lab ID:	208439-004	Sampled:	12/08/08
Matrix:	Water	Received:	12/09/08
Units:	ug/L	Analyzed:	12/16/08
Diln Fac:	2.500		

Analyte	Result	RL
Chloromethane	ND	2.5
Vinyl Chloride	2.3	1.3
Bromomethane	ND	2.5
Chloroethane	ND	2.5
Trichlorofluoromethane	ND	2.5
Freon 113	ND	13
1,1-Dichloroethene	3.5	1.3
Methylene Chloride	ND	13
trans-1,2-Dichloroethene	5.2	1.3
1,1-Dichloroethane	4.3	1.3
cis-1,2-Dichloroethene	180	1.3
Chloroform	ND	1.3
1,1,1-Trichloroethane	ND	1.3
Carbon Tetrachloride	ND	1.3
1,2-Dichloroethane	ND	1.3
Trichloroethene	5.9	1.3
1,2-Dichloropropane	ND	1.3
Bromodichloromethane	ND	1.3
2-Chloroethylvinylether	ND	2.5
cis-1,3-Dichloropropene	ND	1.3
trans-1,3-Dichloropropene	ND	1.3
1,1,2-Trichloroethane	ND	1.3
Tetrachloroethene	ND	1.3
Dibromochloromethane	ND	1.3
Chlorobenzene	ND	1.3
Bromoform	ND	1.3
1,1,2,2-Tetrachloroethane	ND	1.3
1,3-Dichlorobenzene	ND	1.3
1,4-Dichlorobenzene	ND	1.3
1,2-Dichlorobenzene	ND	1.3

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	94	80-120
Toluene-d8	91	80-120
Bromofluorobenzene	94	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4866	Batch#:	145920
Lab ID:	208439-005	Sampled:	12/08/08
Matrix:	Water	Received:	12/09/08
Units:	ug/L	Analyzed:	12/12/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4867	Units:	ug/L
Lab ID:	208439-006	Sampled:	12/08/08
Matrix:	Water	Received:	12/09/08

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Chloromethane	ND	17	16.67	145920	12/12/08
Vinyl Chloride	ND	8.3	16.67	145920	12/12/08
Bromomethane	ND	17	16.67	145920	12/12/08
Chloroethane	ND	17	16.67	145920	12/12/08
Trichlorofluoromethane	ND	17	16.67	145920	12/12/08
Freon 113	ND	83	16.67	145920	12/12/08
1,1-Dichloroethene	ND	8.3	16.67	145920	12/12/08
Methylene Chloride	ND	83	16.67	145920	12/12/08
trans-1,2-Dichloroethene	9.5	8.3	16.67	145920	12/12/08
1,1-Dichloroethane	ND	8.3	16.67	145920	12/12/08
cis-1,2-Dichloroethene	520	8.3	16.67	145920	12/12/08
Chloroform	ND	8.3	16.67	145920	12/12/08
1,1,1-Trichloroethane	ND	8.3	16.67	145920	12/12/08
Carbon Tetrachloride	ND	8.3	16.67	145920	12/12/08
1,2-Dichloroethane	ND	8.3	16.67	145920	12/12/08
Trichloroethene	1,700	20	40.00	146052	12/16/08
1,2-Dichloropropane	ND	8.3	16.67	145920	12/12/08
Bromodichloromethane	ND	8.3	16.67	145920	12/12/08
2-Chloroethylvinylether	ND	17	16.67	145920	12/12/08
cis-1,3-Dichloropropene	ND	8.3	16.67	145920	12/12/08
trans-1,3-Dichloropropene	ND	8.3	16.67	145920	12/12/08
1,1,2-Trichloroethane	ND	8.3	16.67	145920	12/12/08
Tetrachloroethene	ND	8.3	16.67	145920	12/12/08
Dibromochloromethane	ND	8.3	16.67	145920	12/12/08
Chlorobenzene	ND	8.3	16.67	145920	12/12/08
Bromoform	ND	8.3	16.67	145920	12/12/08
1,1,2,2-Tetrachloroethane	ND	8.3	16.67	145920	12/12/08
1,3-Dichlorobenzene	ND	8.3	16.67	145920	12/12/08
1,4-Dichlorobenzene	ND	8.3	16.67	145920	12/12/08
1,2-Dichlorobenzene	ND	8.3	16.67	145920	12/12/08

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
1,2-Dichloroethane-d4	106	80-120	16.67	145920	12/12/08
Toluene-d8	102	80-120	16.67	145920	12/12/08
Bromofluorobenzene	104	80-120	16.67	145920	12/12/08

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4868	Batch#:	145920
Lab ID:	208439-007	Sampled:	12/08/08
Matrix:	Water	Received:	12/09/08
Units:	ug/L	Analyzed:	12/12/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	106	80-120
Toluene-d8	106	80-120
Bromofluorobenzene	97	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4869	Batch#:	145920
Lab ID:	208439-008	Sampled:	12/08/08
Matrix:	Water	Received:	12/09/08
Units:	ug/L	Analyzed:	12/12/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	97	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	7B1	Batch#:	145920
Lab ID:	208439-009	Sampled:	12/09/08
Matrix:	Water	Received:	12/09/08
Units:	ug/L	Analyzed:	12/12/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	27	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	3.5	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	98	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	94B1	Batch#:	146052
Lab ID:	208439-010	Sampled:	12/09/08
Matrix:	Water	Received:	12/09/08
Units:	ug/L	Analyzed:	12/16/08
Diln Fac:	5.000		

Analyte	Result	RL
Chloromethane	ND	5.0
Vinyl Chloride	ND	2.5
Bromomethane	ND	5.0
Chloroethane	ND	5.0
Trichlorofluoromethane	ND	5.0
Freon 113	ND	25
1,1-Dichloroethene	2.5	2.5
Methylene Chloride	ND	25
trans-1,2-Dichloroethene	2.9	2.5
1,1-Dichloroethane	ND	2.5
cis-1,2-Dichloroethene	30	2.5
Chloroform	ND	2.5
1,1,1-Trichloroethane	2.9	2.5
Carbon Tetrachloride	ND	2.5
1,2-Dichloroethane	ND	2.5
Trichloroethene	390	2.5
1,2-Dichloropropane	ND	2.5
Bromodichloromethane	ND	2.5
2-Chloroethylvinylether	ND	5.0
cis-1,3-Dichloropropene	ND	2.5
trans-1,3-Dichloropropene	ND	2.5
1,1,2-Trichloroethane	ND	2.5
Tetrachloroethene	ND	2.5
Dibromochloromethane	ND	2.5
Chlorobenzene	ND	2.5
Bromoform	ND	2.5
1,1,2,2-Tetrachloroethane	ND	2.5
1,3-Dichlorobenzene	ND	2.5
1,4-Dichlorobenzene	ND	2.5
1,2-Dichlorobenzene	ND	2.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	98	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	R-17B2	Units:	ug/L
Lab ID:	208439-011	Sampled:	12/09/08
Matrix:	Water	Received:	12/09/08

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Chloromethane	ND	1.7	1.667	145920	12/12/08
Vinyl Chloride	ND	0.8	1.667	145920	12/12/08
Bromomethane	ND	1.7	1.667	145920	12/12/08
Chloroethane	ND	1.7	1.667	145920	12/12/08
Trichlorofluoromethane	ND	1.7	1.667	145920	12/12/08
Freon 113	ND	8.3	1.667	145920	12/12/08
1,1-Dichloroethene	ND	0.8	1.667	145920	12/12/08
Methylene Chloride	ND	8.3	1.667	145920	12/12/08
trans-1,2-Dichloroethene	ND	0.8	1.667	145920	12/12/08
1,1-Dichloroethane	ND	0.8	1.667	145920	12/12/08
cis-1,2-Dichloroethene	2.2	0.8	1.667	145920	12/12/08
Chloroform	ND	0.8	1.667	145920	12/12/08
1,1,1-Trichloroethane	ND	0.8	1.667	145920	12/12/08
Carbon Tetrachloride	ND	0.8	1.667	145920	12/12/08
1,2-Dichloroethane	ND	0.8	1.667	145920	12/12/08
Trichloroethene	410	3.1	6.250	146052	12/16/08
1,2-Dichloropropane	ND	0.8	1.667	145920	12/12/08
Bromodichloromethane	ND	0.8	1.667	145920	12/12/08
2-Chloroethylvinylether	ND	1.7	1.667	145920	12/12/08
cis-1,3-Dichloropropene	ND	0.8	1.667	145920	12/12/08
trans-1,3-Dichloropropene	ND	0.8	1.667	145920	12/12/08
1,1,2-Trichloroethane	ND	0.8	1.667	145920	12/12/08
Tetrachloroethene	ND	0.8	1.667	145920	12/12/08
Dibromochloromethane	ND	0.8	1.667	145920	12/12/08
Chlorobenzene	ND	0.8	1.667	145920	12/12/08
Bromoform	ND	0.8	1.667	145920	12/12/08
1,1,2,2-Tetrachloroethane	ND	0.8	1.667	145920	12/12/08
1,3-Dichlorobenzene	ND	0.8	1.667	145920	12/12/08
1,4-Dichlorobenzene	ND	0.8	1.667	145920	12/12/08
1,2-Dichlorobenzene	ND	0.8	1.667	145920	12/12/08

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
1,2-Dichloroethane-d4	108	80-120	1.667	145920	12/12/08
Toluene-d8	104	80-120	1.667	145920	12/12/08
Bromofluorobenzene	99	80-120	1.667	145920	12/12/08

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	97B1	Units:	ug/L
Lab ID:	208439-012	Sampled:	12/09/08
Matrix:	Water	Received:	12/09/08

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Chloromethane	ND	5.0	5.000	145920	12/12/08
Vinyl Chloride	ND	2.5	5.000	145920	12/12/08
Bromomethane	ND	5.0	5.000	145920	12/12/08
Chloroethane	ND	5.0	5.000	145920	12/12/08
Trichlorofluoromethane	ND	5.0	5.000	145920	12/12/08
Freon 113	ND	25	5.000	145920	12/12/08
1,1-Dichloroethene	5.5	2.5	5.000	145920	12/12/08
Methylene Chloride	ND	25	5.000	145920	12/12/08
trans-1,2-Dichloroethene	5.1	2.5	5.000	145920	12/12/08
1,1-Dichloroethane	4.5	2.5	5.000	145920	12/12/08
cis-1,2-Dichloroethene	72	2.5	5.000	145920	12/12/08
Chloroform	ND	2.5	5.000	145920	12/12/08
1,1,1-Trichloroethane	4.7	2.5	5.000	145920	12/12/08
Carbon Tetrachloride	ND	2.5	5.000	145920	12/12/08
1,2-Dichloroethane	ND	2.5	5.000	145920	12/12/08
Trichloroethene	900	10	20.00	146052	12/16/08
1,2-Dichloropropane	ND	2.5	5.000	145920	12/12/08
Bromodichloromethane	ND	2.5	5.000	145920	12/12/08
2-Chloroethylvinylether	ND	5.0	5.000	145920	12/12/08
cis-1,3-Dichloropropene	ND	2.5	5.000	145920	12/12/08
trans-1,3-Dichloropropene	ND	2.5	5.000	145920	12/12/08
1,1,2-Trichloroethane	ND	2.5	5.000	145920	12/12/08
Tetrachloroethene	ND	2.5	5.000	145920	12/12/08
Dibromochloromethane	ND	2.5	5.000	145920	12/12/08
Chlorobenzene	ND	2.5	5.000	145920	12/12/08
Bromoform	ND	2.5	5.000	145920	12/12/08
1,1,2,2-Tetrachloroethane	ND	2.5	5.000	145920	12/12/08
1,3-Dichlorobenzene	ND	2.5	5.000	145920	12/12/08
1,4-Dichlorobenzene	ND	2.5	5.000	145920	12/12/08
1,2-Dichlorobenzene	ND	2.5	5.000	145920	12/12/08

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
1,2-Dichloroethane-d4	109	80-120	5.000	145920	12/12/08
Toluene-d8	107	80-120	5.000	145920	12/12/08
Bromofluorobenzene	98	80-120	5.000	145920	12/12/08

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	I-1B2	Batch#:	145920
Lab ID:	208439-013	Sampled:	12/09/08
Matrix:	Water	Received:	12/09/08
Units:	ug/L	Analyzed:	12/12/08
Diln Fac:	5.000		

Analyte	Result	RL
Chloromethane	ND	5.0
Vinyl Chloride	ND	2.5
Bromomethane	ND	5.0
Chloroethane	ND	5.0
Trichlorofluoromethane	ND	5.0
Freon 113	ND	25
1,1-Dichloroethene	ND	2.5
Methylene Chloride	ND	25
trans-1,2-Dichloroethene	ND	2.5
1,1-Dichloroethane	ND	2.5
cis-1,2-Dichloroethene	ND	2.5
Chloroform	ND	2.5
1,1,1-Trichloroethane	ND	2.5
Carbon Tetrachloride	ND	2.5
1,2-Dichloroethane	ND	2.5
Trichloroethene	240	2.5
1,2-Dichloropropane	ND	2.5
Bromodichloromethane	ND	2.5
2-Chloroethylvinylether	ND	5.0
cis-1,3-Dichloropropene	ND	2.5
trans-1,3-Dichloropropene	ND	2.5
1,1,2-Trichloroethane	ND	2.5
Tetrachloroethene	ND	2.5
Dibromochloromethane	ND	2.5
Chlorobenzene	ND	2.5
Bromoform	ND	2.5
1,1,2,2-Tetrachloroethane	ND	2.5
1,3-Dichlorobenzene	ND	2.5
1,4-Dichlorobenzene	ND	2.5
1,2-Dichlorobenzene	ND	2.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	93	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-1A	Batch#:	145920
Lab ID:	208439-014	Sampled:	12/09/08
Matrix:	Water	Received:	12/09/08
Units:	ug/L	Analyzed:	12/12/08
Diln Fac:	3.333		

Analyte	Result	RL
Chloromethane	ND	3.3
Vinyl Chloride	ND	1.7
Bromomethane	ND	3.3
Chloroethane	ND	3.3
Trichlorofluoromethane	ND	3.3
Freon 113	ND	17
1,1-Dichloroethene	5.7	1.7
Methylene Chloride	ND	17
trans-1,2-Dichloroethene	ND	1.7
1,1-Dichloroethane	7.8	1.7
cis-1,2-Dichloroethene	53	1.7
Chloroform	ND	1.7
1,1,1-Trichloroethane	9.6	1.7
Carbon Tetrachloride	ND	1.7
1,2-Dichloroethane	ND	1.7
Trichloroethene	250	1.7
1,2-Dichloropropane	ND	1.7
Bromodichloromethane	ND	1.7
2-Chloroethylvinylether	ND	3.3
cis-1,3-Dichloropropene	ND	1.7
trans-1,3-Dichloropropene	ND	1.7
1,1,2-Trichloroethane	ND	1.7
Tetrachloroethene	ND	1.7
Dibromochloromethane	ND	1.7
Chlorobenzene	ND	1.7
Bromoform	ND	1.7
1,1,2,2-Tetrachloroethane	ND	1.7
1,3-Dichlorobenzene	ND	1.7
1,4-Dichlorobenzene	ND	1.7
1,2-Dichlorobenzene	ND	1.7

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	97	80-120
Bromofluorobenzene	97	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAY-1B1	Batch#:	145856
Lab ID:	208439-015	Sampled:	12/09/08
Matrix:	Water	Received:	12/09/08
Units:	ug/L	Analyzed:	12/11/08
Diln Fac:	8.333		

Analyte	Result	RL
Chloromethane	ND	8.3
Vinyl Chloride	ND	4.2
Bromomethane	ND	8.3
Chloroethane	ND	8.3
Trichlorofluoromethane	ND	8.3
Freon 113	ND	42
1,1-Dichloroethene	4.9	4.2
Methylene Chloride	ND	42
trans-1,2-Dichloroethene	ND	4.2
1,1-Dichloroethane	ND	4.2
cis-1,2-Dichloroethene	55	4.2
Chloroform	ND	4.2
1,1,1-Trichloroethane	ND	4.2
Carbon Tetrachloride	ND	4.2
1,2-Dichloroethane	ND	4.2
Trichloroethene	440	4.2
1,2-Dichloropropane	ND	4.2
Bromodichloromethane	ND	4.2
2-Chloroethylvinylether	ND	8.3
cis-1,3-Dichloropropene	ND	4.2
trans-1,3-Dichloropropene	ND	4.2
1,1,2-Trichloroethane	ND	4.2
Tetrachloroethene	ND	4.2
Dibromochloromethane	ND	4.2
Chlorobenzene	ND	4.2
Bromoform	ND	4.2
1,1,2,2-Tetrachloroethane	ND	4.2
1,3-Dichlorobenzene	ND	4.2
1,4-Dichlorobenzene	ND	4.2
1,2-Dichlorobenzene	ND	4.2

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC474741	Batch#:	145856
Matrix:	Water	Analyzed:	12/11/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	106	80-120
Toluene-d8	105	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC474742	Batch#:	145856
Matrix:	Water	Analyzed:	12/11/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	95	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC475028	Batch#:	145920
Matrix:	Water	Analyzed:	12/12/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	107	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	97	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC475029	Batch#:	145920
Matrix:	Water	Analyzed:	12/12/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	96	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC475633	Batch#:	146052
Matrix:	Water	Analyzed:	12/16/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	97	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	98	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC475634	Batch#:	146052
Matrix:	Water	Analyzed:	12/16/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	97	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	97	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC474740	Batch#:	145856
Matrix:	Water	Analyzed:	12/11/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	21.31	107	80-120
Trichloroethene	20.00	19.79	99	80-120
Chlorobenzene	20.00	19.67	98	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	101	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	145856
MSS Lab ID:	208387-006	Sampled:	12/06/08
Matrix:	Water	Received:	12/08/08
Units:	ug/L	Analyzed:	12/11/08
Diln Fac:	1.000		

Type: MS Lab ID: QC474762

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1391	20.00	22.08	110	40-150
Trichloroethene	3.168	20.00	25.38	111	40-150
Chlorobenzene	<0.1000	20.00	20.20	101	40-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-120

Type: MSD Lab ID: QC474763

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	20.00	20.12	101	40-150	9	35
Trichloroethene	20.00	23.15	100	40-150	9	35
Chlorobenzene	20.00	18.62	93	40-150	8	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	94	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC475027	Batch#:	145920
Matrix:	Water	Analyzed:	12/12/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	22.99	115	80-120
Trichloroethene	20.00	22.44	112	80-120
Chlorobenzene	20.00	20.88	104	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	101	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	R-52A	Batch#:	145920
MSS Lab ID:	208439-002	Sampled:	12/08/08
Matrix:	Water	Received:	12/09/08
Units:	ug/L	Analyzed:	12/12/08
Diln Fac:	1.000		

Type: MS Lab ID: QC475064

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1391	20.00	20.24	101	40-150
Trichloroethene	68.68	20.00	82.26	68	40-150
Chlorobenzene	<0.1000	20.00	20.70	103	40-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	100	80-120

Type: MSD Lab ID: QC475065

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	20.00	21.03	105	40-150	4	35
Trichloroethene	20.00	78.02	47	40-150	5	35
Chlorobenzene	20.00	17.75	89	40-150	15	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	93	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC475632	Batch#:	146052
Matrix:	Water	Analyzed:	12/16/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	25.70	103	80-120
Trichloroethene	25.00	24.64	99	80-120
Chlorobenzene	25.00	24.06	96	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	100	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208439	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	146052
MSS Lab ID:	208546-001	Sampled:	12/10/08
Matrix:	Water	Received:	12/11/08
Units:	ug/L	Analyzed:	12/16/08
Diln Fac:	1.000		

Type: MS Lab ID: QC475650

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1391	25.00	26.95	108	40-150
Trichloroethene	<0.1252	25.00	26.40	106	40-150
Chlorobenzene	<0.1000	25.00	26.13	105	40-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	103	80-120

Type: MSD Lab ID: QC475651

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	26.05	104	40-150	3	35
Trichloroethene	25.00	26.09	104	40-150	1	35
Chlorobenzene	25.00	23.57	94	40-150	10	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	98	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	96	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 208742
ANALYTICAL REPORT

Locus Technologies 299 Fairchild Dr. Mountain View, CA 94043	Project : 23016-03-2100 Location : Raytheon Level : II

Sample ID	Lab ID
RAYEFT	208742-001
RAYMID	208742-002
RAYINF	208742-003
4880	208742-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 01/05/2009
Project Manager

Signature: _____ Date: 01/05/2009
Senior Program Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**208742**
Client:	**Locus Technologies**
Project:	**23016-03-2100**
Location:	**Raytheon**
Request Date:	**12/17/08**
Samples Received:	**12/17/08**

This data package contains sample and QC results for four water samples, requested for the above referenced project on 12/17/08. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
High response was observed for trichlorofluoromethane in the CCV analyzed 12/30/08 08:05; affected data was qualified with "b". Trichlorofluoromethane was detected above the RL in the method blank for batch 146521; this analyte was not detected in the sample at or above the RL. No other analytical problems were encountered.

Locus TECHNOLOGIES

CHAIN-OF-CUSTODY RECORD (See Reverse for Instructions)

SERIAL NO. 14404

PROJECT NAME: Raytheon
PROJECT NUMBER: 23016-03-2100
RECORDER: T. Murphy (SIGN)
SAMPLERS: T. MURPHY (PRINT) T. Murphy (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES
(A) 40-ml VOA Vial
B. Glass Liter
C. Plastic 500-ml
D. Plastic Liter
E. Brass Tube
F. Other

SAMPLE DESCRIPTION CODES
(A) Ground Water
B. Surface Water
C. Leachate
D. Rinseate
E. Soil/Sediment
F. Oil
G. Waste
(H) Blank/Spike
I. Other

TAT CODES
(1) Standard
2. 48 Hour
3. 24 Hour
4. Other

ANALYTICAL LAB: Curtis & Tompkins

LABORATORY USE ONLY — LAB PROJECT NO. 208742

NO.	DATE	TIME	SAMPLE ID	AVERAGE TEMP °C	AVERAGE COND micromhos/cm	AVERAGE pH	Sample container (enter code)	Sample Description (enter code)	Unpreserved	HNO_3	HCL	Field Filtered (check)	SOID Temperature								TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Store at 4°C (Check)	No VOA Headspace (Check)	NOTES	ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT
1	12/17/08	1030	RAYEFT	17.4	945	7.34	A	A			3		X								1	14d	✓	✓			
2		1030	RAYMID	16.4	947	7.37	A	A			3		X								1		✓	✓			
3		1050	RAYINF	17.2	953	7.48	A	A			3		X								1		✓	✓			
4		—	4850	—	—	—	A	H			3		X								1		✓	✓			
5		—	Temp Blank	—	—	—	A	H	1					X							1		✓				
6																											
7																											
8																											
9																											
10																											
11																											
12																											
13																											
14																											
15																											
16																											

NOTES / MISCELLANEOUS

Field / Container Temp. 4°C

NOTE! Temperature to be measured and recorded upon receipt of samples at lab. 3.9 °C 12/17/08 1830 MV

Container Sealed with Custody Seal: Yes ☑ No ☐

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
T. Murphy			
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Method of Shipment	Description of Transport Container	Other Chains-of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
COURIER	COOLER	NONE	Thomas Murphy	12/17/08	1430	[illegible]	12/17/08	1430

Send Lab Results to (Name): LUXY MARTIN (Check Office Below) Verbals Requested: Yes ☑ No ☐

☑ MOUNTAIN VIEW • 299 FAIRCHILD DRIVE • MTN VIEW, CA 94043 • TEL (650) 960-1640 • FAX (650) 960-0739
☐ WALNUT CREEK • 1701 N. CALIFORNIA BLVD • WALNUT CREEK, CA 94596 • TEL (925) 906-8100 • FAX (925) 906-8101
☐ SACRAMENTO • 1100 MELODY LANE • ROSEVILLE, CA 95678 • TEL (916) 677-1751 • FAX (916) 677-1760
☐ OTHER _____ TEL _____ FAX _____

REV. 6/02

WHITE: Laboratory Copy YELLOW: Project Copy PINK: Database Copy

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 208742 Date Received 12/17/08 Number of coolers 1
Client LOCUS Project RAYTHEON

Date Opened 12/17/08 By (print) M. VILLANUEVA (sign) [signature]
Date Logged in ✓ By (print) ✓ (sign) ✓

1. Did cooler come with a shipping slip (airbill, etc) _____ YES NO
   Shipping info _____

2A. Were custody seals present? ☑ YES (circle) on cooler on samples ☐ NO
   How many 1 Name TOM MURPHY Date 12/17/08
2B. Were custody seals intact upon arrival? _____ YES NO N/A
3. Were custody papers dry and intact when received? _____ YES NO
4. Were custody papers filled out properly (ink, signed, etc)? _____ YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) ___ YES NO
6. Indicate the packing in cooler: (if other, describe) _____

   ☑ Bubble Wrap ☐ Foam blocks ☑ Bags ☐ None
   ☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation:

   Type of ice used: ☑ Wet ☐ Blue/Gel ☐ None Temp(°C) 3.9 12/17/08 1830 MJ

   ☐ Samples Received on ice & cold without a temperature blank

   ☐ Samples received on ice directly from the field. Cooling process had begun MJ

8. Were Method 5035 sampling containers present? _____ YES NO
   If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? _____ YES NO
10. Are samples in the appropriate containers for indicated tests? _____ YES NO
11. Are sample labels present, in good condition and complete? _____ YES NO
12. Do the sample labels agree with custody papers? _____ YES NO
13. Was sufficient amount of sample sent for tests requested? _____ YES NO
14. Are the samples appropriately preserved? _____ YES NO N/A
15. Are bubbles > 6mm absent in VOA samples? _____ YES NO N/A
16. Was the client contacted concerning this sample delivery? _____ YES NO
    If YES, Who was called? _____ By _____ Date: _____

COMMENTS

_____

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208742	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAYEFT	Batch#:	146419
Lab ID:	208742-001	Sampled:	12/17/08
Matrix:	Water	Received:	12/17/08
Units:	ug/L	Analyzed:	12/25/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	1.6	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	95	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208742	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAYMID	Batch#:	146419
Lab ID:	208742-002	Sampled:	12/17/08
Matrix:	Water	Received:	12/17/08
Units:	ug/L	Analyzed:	12/25/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	5.3	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	4.9	0.5
cis-1,2-Dichloroethene	2.5	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	1.6	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	8.0	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	97	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208742	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	RAYINF	Units:	ug/L
Lab ID:	208742-003	Sampled:	12/17/08
Matrix:	Water	Received:	12/17/08

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Chloromethane	ND	1.0	1.000	146521	12/30/08
Vinyl Chloride	74	42	83.33	146548	12/31/08
Bromomethane	ND	1.0	1.000	146521	12/30/08
Chloroethane	ND	1.0	1.000	146521	12/30/08
Trichlorofluoromethane	ND	1.0	1.000	146521	12/30/08
Freon 113	24	5.0	1.000	146521	12/30/08
1,1-Dichloroethene	14	0.5	1.000	146521	12/30/08
Methylene Chloride	ND	5.0	1.000	146521	12/30/08
trans-1,2-Dichloroethene	69	0.5	1.000	146521	12/30/08
1,1-Dichloroethane	12	0.5	1.000	146521	12/30/08
cis-1,2-Dichloroethene	770	42	83.33	146548	12/31/08
Chloroform	ND	0.5	1.000	146521	12/30/08
1,1,1-Trichloroethane	2.9	0.5	1.000	146521	12/30/08
Carbon Tetrachloride	ND	0.5	1.000	146521	12/30/08
1,2-Dichloroethane	ND	0.5	1.000	146521	12/30/08
Trichloroethene	3,000	42	83.33	146548	12/31/08
1,2-Dichloropropane	ND	0.5	1.000	146521	12/30/08
Bromodichloromethane	ND	0.5	1.000	146521	12/30/08
2-Chloroethylvinylether	ND	1.0	1.000	146521	12/30/08
cis-1,3-Dichloropropene	ND	0.5	1.000	146521	12/30/08
trans-1,3-Dichloropropene	ND	0.5	1.000	146521	12/30/08
1,1,2-Trichloroethane	ND	0.5	1.000	146521	12/30/08
Tetrachloroethene	5.4	0.5	1.000	146521	12/30/08
Dibromochloromethane	ND	0.5	1.000	146521	12/30/08
Chlorobenzene	ND	0.5	1.000	146521	12/30/08
Bromoform	ND	0.5	1.000	146521	12/30/08
1,1,2,2-Tetrachloroethane	ND	0.5	1.000	146521	12/30/08
1,3-Dichlorobenzene	ND	0.5	1.000	146521	12/30/08
1,4-Dichlorobenzene	3.0	0.5	1.000	146521	12/30/08
1,2-Dichlorobenzene	16	0.5	1.000	146521	12/30/08

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
1,2-Dichloroethane-d4	99	80-120	1.000	146521	12/30/08
Toluene-d8	101	80-120	1.000	146521	12/30/08
Bromofluorobenzene	110	80-120	1.000	146521	12/30/08

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Halocarbons by GC/MS

Lab #:	208742	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	4880	Batch#:	146422
Lab ID:	208742-004	Sampled:	12/17/08
Matrix:	Water	Received:	12/17/08
Units:	ug/L	Analyzed:	12/24/08
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	96	80-120
Toluene-d8	95	80-120
Bromofluorobenzene	112	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208742	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC477155	Batch#:	146419
Matrix:	Water	Analyzed:	12/24/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	27.58	110	80-120
Trichloroethene	25.00	26.96	108	80-120
Chlorobenzene	25.00	26.06	104	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	108	80-120
Bromofluorobenzene	92	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208742	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC477156	Batch#:	146419
Matrix:	Water	Analyzed:	12/24/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	104	80-120
Bromofluorobenzene	101	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208742	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC477157	Batch#:	146419
Matrix:	Water	Analyzed:	12/24/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208742	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	146422
Units:	ug/L	Analyzed:	12/24/08
Diln Fac:	1.000		

Type: BS Lab ID: QC477163

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	24.80	99	80-120
Trichloroethene	25.00	27.41	110	80-120
Chlorobenzene	25.00	26.20	105	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	96	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	107	80-120

Type: BSD Lab ID: QC477164

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	21.92	88	80-120	12	35
Trichloroethene	25.00	25.34	101	80-120	8	35
Chlorobenzene	25.00	24.45	98	80-120	7	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	91	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	104	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208742	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC477165	Batch#:	146422
Matrix:	Water	Analyzed:	12/24/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	94	80-120
Toluene-d8	98	80-120
Bromofluorobenzene	110	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208742	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	146419
MSS Lab ID:	208749-002	Sampled:	12/15/08
Matrix:	Water	Received:	12/18/08
Units:	ug/L	Analyzed:	12/24/08
Diln Fac:	1.000		

Type: MS Lab ID: QC477174

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	0.1647	25.00	30.46	121	40-150
Trichloroethene	2.308	25.00	28.34	104	40-150
Chlorobenzene	<0.1000	25.00	24.82	99	40-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	103	80-120

Type: MSD Lab ID: QC477175

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	28.68	114	40-150	6	35
Trichloroethene	25.00	27.38	100	40-150	3	35
Chlorobenzene	25.00	24.06	96	40-150	3	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208742	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	146521
Units:	ug/L	Analyzed:	12/30/08
Diln Fac:	1.000		

Type: BS Lab ID: QC477580

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	26.11	104	80-120
Trichloroethene	25.00	28.41	114	80-120
Chlorobenzene	25.00	25.30	101	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	107	80-120

Type: BSD Lab ID: QC477581

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	23.40	94	80-120	11	35
Trichloroethene	25.00	27.74	111	80-120	2	35
Chlorobenzene	25.00	25.01	100	80-120	1	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	103	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208742	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC477582	Batch#:	146521
Matrix:	Water	Analyzed:	12/30/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	1.2 b	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	109	80-120

b= See narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208742	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	146548
Units:	ug/L	Analyzed:	12/31/08
Diln Fac:	1.000		

Type: BS Lab ID: QC477710

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	24.06	96	80-120
Trichloroethene	25.00	28.14	113	80-120
Chlorobenzene	25.00	24.17	97	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	80-120
Toluene-d8	98	80-120
Bromofluorobenzene	106	80-120

Type: BSD Lab ID: QC477711

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	23.87	95	80-120	1	35
Trichloroethene	25.00	25.54	102	80-120	10	35
Chlorobenzene	25.00	23.38	94	80-120	3	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	95	80-120
Bromofluorobenzene	106	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Halocarbons by GC/MS

Lab #:	208742	Location:	Raytheon
Client:	Locus Technologies	Prep:	EPA 5030B
Project#:	23016-03-2100	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC477712	Batch#:	146548
Matrix:	Water	Analyzed:	12/31/08
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
2-Chloroethylvinylether	ND	1.0
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	107	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	104	80-120

ND= Not Detected
RL= Reporting Limit

BES

BLOCK ENVIRONMENTAL SERVICES

2451 Estand Way
Pleasant Hill, CA 94523-3911
(925) 682-7200 FAX 686-0399

Static Percent Survival Aquatic Toxicity Screening Test Results for One Water Sample (Project # 23016-032100)

November 2008

Prepared For:
Luxy Martin
Locus Technologies
299 Fairchild Drive
Mountain View, CA 94043

BES Sample #25578 a-b

Prepared By:
Block Environmental Services, Inc.
2451 Estand Way
Pleasant Hill, CA 94523-3911
(925) 682-7200

November 24, 2008

N Bradbury

Nanette Bradbury
Laboratory Manager

David Block, Ph.D.
Laboratory Director

1. INTRODUCTION

The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500), the Clean Water Act (CWA) of 1977 (PL 95-217), and the Water Quality Act of 1987 (PL 100-4) explicitly state that it is the national policy that the discharge of toxic substances in toxic amounts be prohibited. Toxicity to aquatic life is one of the criteria used to gauge the hazardous potential of a discharged waste. The type of toxicity test and particular species used for testing of effluents is dictated under the framework of the National Pollutant Discharge Elimination System and falls under the jurisdiction of the local Regional Water Quality Control Board.

This report describes the procedures used and the results obtained for the static percent survival aquatic toxicity screening test(s) performed by Block Environmental Services (BES) for Locus Technologies.

BES is an Environmental Laboratory Accreditation Program certified laboratory (#1812).

2. MATERIALS AND METHODS

2.1 Test organisms

- Rainbow Trout, *Oncorhynchus mykiss*, obtained from a commercial supplier.

2.2 Test Procedures

A detailed procedure for this test is outlined in DPHS-ELAP approved standard operating procedures (SOPs), which are on file at the BES laboratory. These SOPs are based upon the following references:

- Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms, 5th Edition (EPA/821/R-02/012).

2.3 Data Analysis

Toxicity testing results will be reported as the percent of surviving organisms during the exposure period.

3. RESULTS

3.1 Sample Information

Sample Identification	BES Sample #	Sample Collection Date	Date Received	Testing Period
RAYEFT	25578a	11/17/08	11/17/08	11/18/08-11/22/08
RAYEFT	25578b	11/19/08	11/19/08	11/18/08-11/22/08

3.2 Summary Of Sample Water Chemistry – These values represent the water quality of the sample(s) as received at the BES laboratory.

Water Chemistry		
	25578a	**25578b**
D.O. (mg/L)	>20.00	>20.0
PH	7.3	7.3
Conductivity (µS/cm)	998	1006
Salinity (ppt)	0.5	0.5
Temperature (°C)	4.0	3.7
Total Chlorine (mg/L)	ND	ND
Ammonia (ppm as N)	0.24	0.23
Alkalinity (mg/L as $CaCO_3$)	328	330
Hardness (mg/L as $CaCO_3$)	498	492

ND – Not Detected (Detection Limit = 0.03 mg/L)

3.3 Test Results

Treatment Concentration	96-Hour Percent Survival
	25578
Control	95
100%	100

3.4 Statistical Analysis

LC-50 (mg/L)	>100
95% Confidence Limits	NA
Method Used	NA

NA – Not Applicable

3.5 Notes

The photocopied data sheet(s) and chain-of-custody for testing, are attached. If you have any questions concerning this report please contact the BES laboratory, (925) 682 – 7200.

EPA Whole Effluent Testing Guidelines (EPA/821/R-02/012) requires that all effluent samples be cooled to 4 °C immediately upon collection in order to maintain sample integrity. The California Department of Health Services Environmental Laboratory Accreditation Program highly recommends that the temperature of all outgoing samples designated for subcontract analyses be documented on the chain of custody in order to assess the effect of transit on sample temperature.

For the present study, the temperature of the client's "A" sample was equal to 4 °C and the "B" was below 4°C upon receipt at the BES Laboratory. The outgoing sample temperature for each sample was recorded on the client chain of custody.

BLOCK ENVIRONMENTAL SERVICES

4th And 5th Edition 96 Hr Acute Screening Static Test Data Sheet

Client: LOCUS Client ID #: RAY EFT BES Sample #: 25578
Species: O. MYKISS Common Name: R. TROUT Stock #: 10-23-08
Control Water: CFW

Treatment	Survival A	Survival B	D.O. (mg/L) A O	D.O. A N	D.O. B O	D.O. B N	pH A O	pH A N	pH B O	pH B N	Temperature (°C) A O	Temperature A N	Temperature B O	Temperature B N	Technician
Control	10	10	9.7		9.7		8.0		8.0		13.0		13.0		Tech: SC
100	10	10	19.4		16.6		7.4		7.4		11.8		11.9		Date: 11/18/08 Time: 1400
Control	10	10	9.0		9.0		7.7		7.7		13.0		13.0		Tech: SC
100	10	10	10.6		10.2		8.0		8.0		13.0		13.0		Date: 11/19/08 Time: 1330
Control	10	10	8.9	10.1	8.9	10.1	7.6	8.1	7.7	8.1	13.0	13.0	13.0	13.0	Tech: SC
100	10	10	9.2	>20.0	9.0	>20.0	8.2	7.2	8.2	7.2	13.0	11.7	13.0	11.7	Date: 11/20/08 Time: 1500
Control	9	10	9.4		9.4		7.8		7.8		13.0		13.0		Tech: GF
100	10	10	11.4		11.5		7.9		7.9		13.0		13.0		Date: 11-21-08 Time: 1400
Control	9	10	9.6		9.7		7.8		7.8		13.0		13.0		Tech: GF
100	10	10	11.0		10.9		8.0		8.0		13.0		13.0		Date: 11-22-08 Time: 1400

O - Old N - New

48Hr feeding (where applicable) ☐ NA

Subsamples taken: SC ⇧ **0Hr** ⇧ CI-SC **48Hr** ⇧ GF **96Hr** ⇩

	0Hr Cl	0Hr 100	48Hr Cl	48Hr 100	96Hr Cl	96Hr 100
Hardness (mg/L as $CaCO_3$)	106	498	110	492	116	478
Alkalinity (mg/L as $CaCO_3$)	78	328	72	330	76	330
Ammonia (mg/L as N)	ND	0.24	ND	0.23	0.38	0.64
Total Chlorine (mg/L)	0.04	ND	0.05	ND	ND	0.03
Conductivity (µS/cm)	537	988 ~~2220~~ SC	605	1010	620	1012
Salinity (ppt)	0.3	0.5 ~~1.1~~ SC	0.3	0.5	0.3	0.5

ND – Not Detected (detection limit 0.03 mg/L)

Notes: SAMPLE [100] AERATED PRIOR TO TEST SET-UP/INITIATION PER CLIENT REQUEST ON COC. SC
"b" sample aerated prior to renewal. SC

Test Supervisor: N Bradbury QA/QC Check: K. Eng

Locus TECHNOLOGIES

CHAIN-OF-CUSTODY RECORD (See Reverse for Instructions)

25578

SERIAL NO. 14366

PROJECT NAME: Raytheon
PROJECT NUMBER: 23016-03-2100
RECORDER: T. Murphy (SIGN)
SAMPLERS: T. Murphy (PRINT) T. Murphy (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES
A. 40-ml VOA Vial
B. Glass Liter
C. Plastic 500-ml
D. Plastic Liter
E. Brass Tube
(F.) Other 1.5 gal

SAMPLE DESCRIPTION CODES
(A.) Ground Water
B. Surface Water
C. Leachate
D. Rinseate
E. Soil/Sediment
F. Oil
G. Waste
H. Blank/Spike
I. Other

TAT CODES
(1.) Standard
2. 48 Hour
3. 24 Hour
4. Other

ANALYTICAL LAB: BLOCK ENVIRONMENTAL

NO.	DATE	TIME	SAMPLE ID	AVERAGE TEMP °C	AVERAGE COND micromhos/cm	AVERAGE pH	Sample container (enter code)	Sample Description (enter code)	Unpreserved	HNO_3	HCL	Field Filtered (check)	ANALYSIS REQUESTED: FISH BIOASSAY	TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Store at 4°C (Check)	No VOA Headspace (Check)	NOTES	ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT
1	11/17/08	0840	RAYEFT 4.0	19.5	990	6.77	F	A	1				X	1		✓				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				

LABORATORY USE ONLY
LAB PROJECT NO.

NOTES / MISCELLANEOUS
5th edition 96hr static-renewal w/ rainbow trout
Please aerate sample prior to testing

Field / Container Temp.

Container Sealed with Custody Seal: Yes ☐ No ☐

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
T. Murphy	Jim Hampton	11-17-08	100
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Method of Shipment	Description of Transport Container	Other Chains-of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
COURIER	COOLER		Thomas Murphy	11/17/08				

Send Lab Results to (Name): LUXY MARTIN martinl@locustec.com (Check Office Below) Verbals Requested: Yes ☑ No ☐

☑ MOUNTAIN VIEW • 299 FAIRCHILD DRIVE • MTN VIEW, CA 94043 • TEL (650) 960-1640 • FAX (650) 960-0739
☐ WALNUT CREEK • 1701 N. CALIFORNIA BLVD • WALNUT CREEK, CA 94596 • TEL (925) 906-8100 • FAX (925) 906-8101
☐ SACRAMENTO • 1100 MELODY LANE • ROSEVILLE, CA 95678 • TEL (916) 677-1751 • FAX (916) 677-1760
☐ OTHER _____ TEL _____ FAX _____

REV. 6/02

WHITE: Laboratory Copy YELLOW: Project Copy PINK: Database Copy

Locus TECHNOLOGIES

CHAIN-OF-CUSTODY RECORD (See Reverse for Instructions)

SERIAL NO. 14372

PROJECT NAME: Raytheon
PROJECT NUMBER: 23016-03-2100
RECORDER: T. Murphy (SIGN)
SAMPLERS: T. MURPHY (PRINT) T. Murphy (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES
A. 40-ml VOA Vial
B. Glass Liter
C. Plastic 500-ml
D. Plastic Liter
E. Brass Tube
F. Other 2.5 gal

SAMPLE DESCRIPTION CODES
A. Ground Water
B. Surface Water
C. Leachate
D. Rinseate
E. Soil/Sediment
F. Oil
G. Waste
H. Blank/Spike
I. Other

TAT CODES
1. Standard
2. 48 Hour
3. 24 Hour
4. Other

ANALYTICAL LAB: Block Environmental

NO.	DATE	TIME	SAMPLE ID	AVERAGE TEMP °C	AVERAGE COND micromhos/cm	AVERAGE pH	Sample container (enter code)	Sample Description (enter code)	NUMBER OF CONTAINERS AND PRESERVATION: Unpreserved	HNO_3	HCL	Field Filtered (check)	ANALYSIS REQUESTED: FISH BIOASSAY	TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Store at 4°C (Check)	No VOA Headspace (Check)	LABORATORY USE ONLY: NOTES	ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT
1	11/19/08	0935	RAYEFT	19.7	987	6.70	F	A	1				X	1		✓				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				

LABORATORY USE ONLY — LAB PROJECT NO.

255786

NOTES / MISCELLANEOUS

5th edition 96hr static renewal w/rainbow trout
Please aerate sample prior to test

Field / Container Temp.

Container Sealed with Custody Seal: Yes ☐ No ☑

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
T. Murphy	Jim Hampton	11-19-08	1410
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Method of Shipment	Description of Transport Container	Other Chains-of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
Courier	COOLER		Thomas Murphy	11/19/08	1410			

Send Lab Results to (Name): LUXY MARTIN martin1@locustec.com (Check Office Below) Verbals Requested: Yes ☑ No ☐

☑ MOUNTAIN VIEW • 299 FAIRCHILD DRIVE • MTN VIEW, CA 94043 • TEL (650) 960-1640 • FAX (650) 960-0739
☐ WALNUT CREEK • 1701 N. CALIFORNIA BLVD • WALNUT CREEK, CA 94596 • TEL (925) 906-8100 • FAX (925) 906-8101
☐ SACRAMENTO • 1100 MELODY LANE • ROSEVILLE, CA 95678 • TEL (916) 677-1751 • FAX (916) 677-1760
☐ OTHER _____ TEL _____ FAX _____

REV. 6/02

WHITE: Laboratory Copy YELLOW: Project Copy PINK: Database Copy

APPENDIX C

GROUNDWATER HYDROGRAPHS

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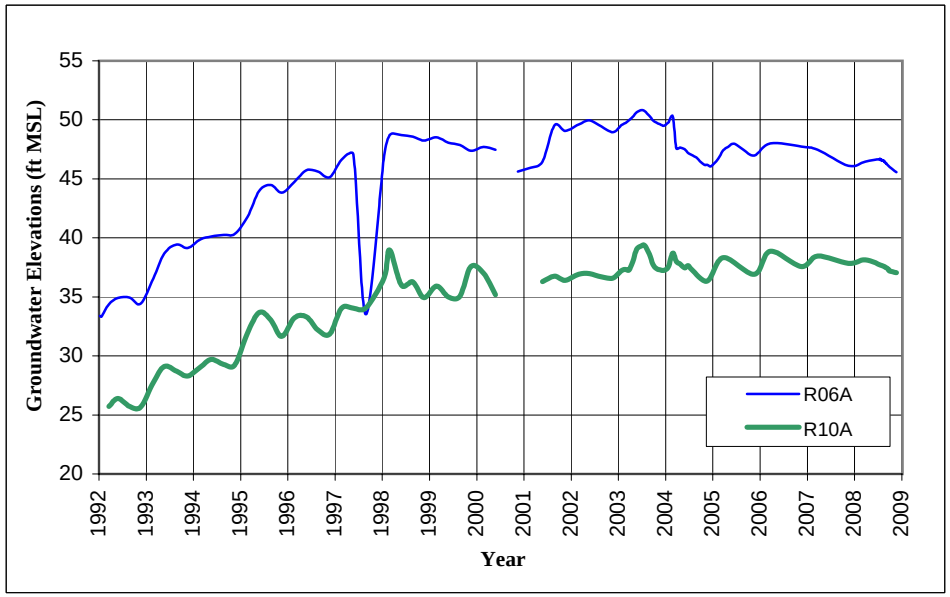
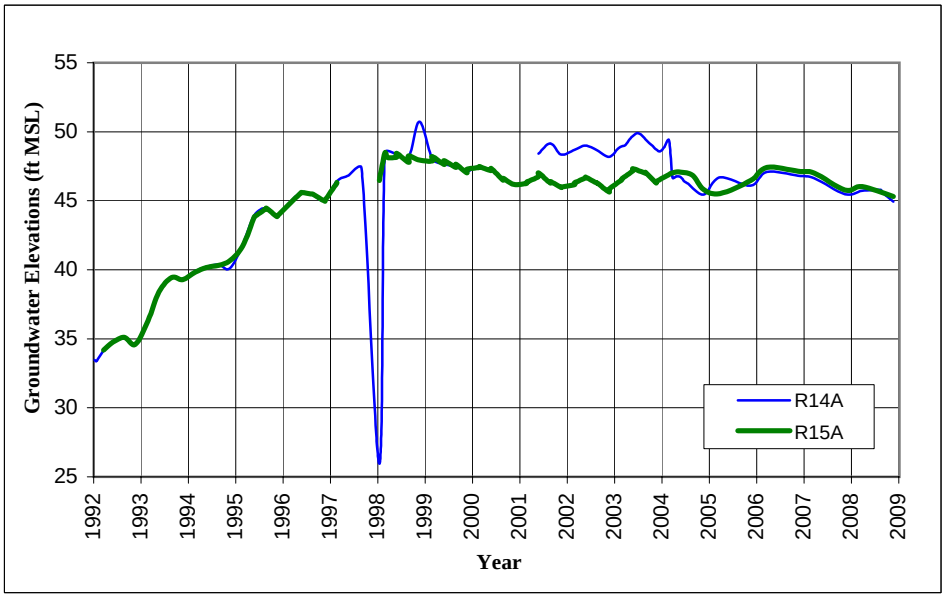
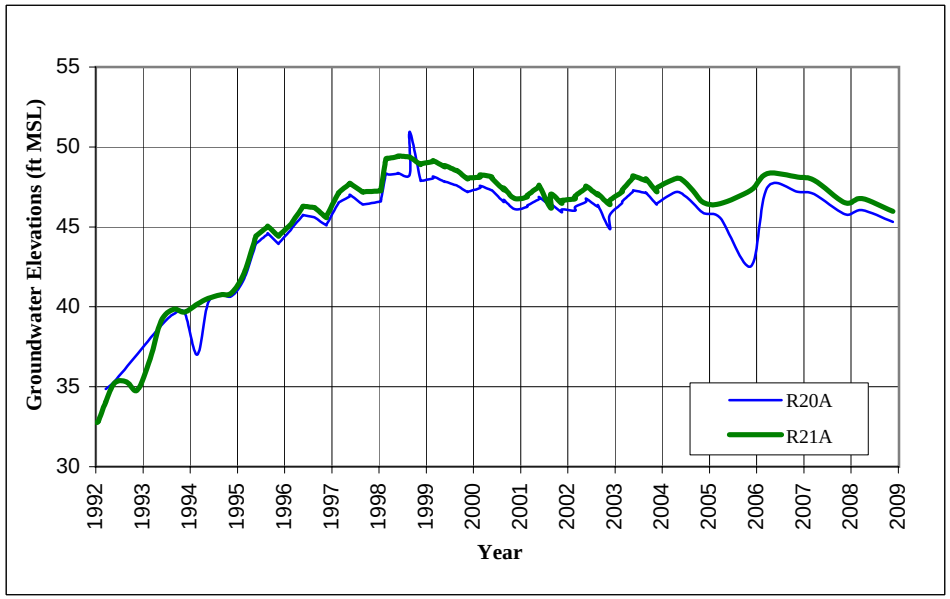
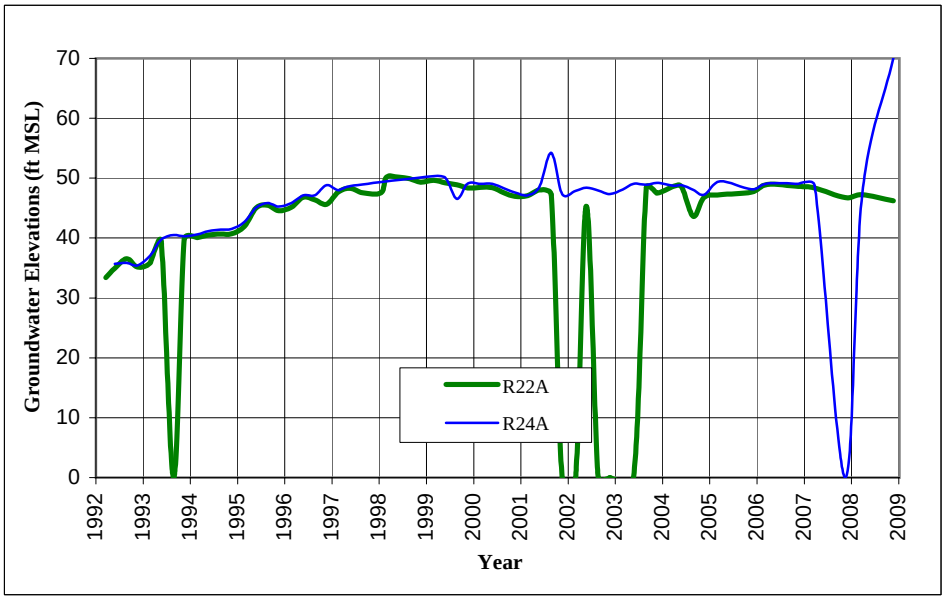
APPENDIX C
HISTORICAL GROUNDWATER ELEVATIONS IN "A" AQUIFER WELLS









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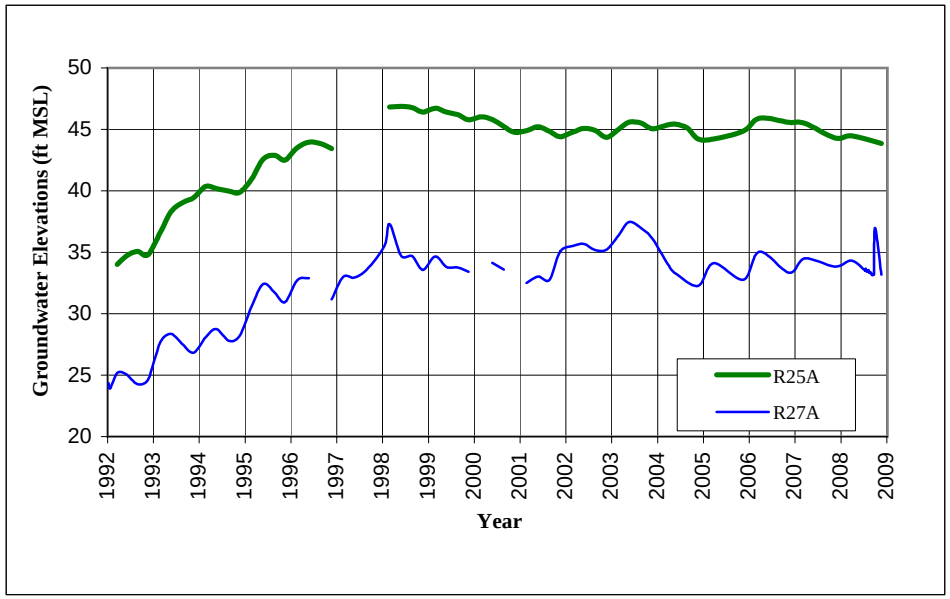

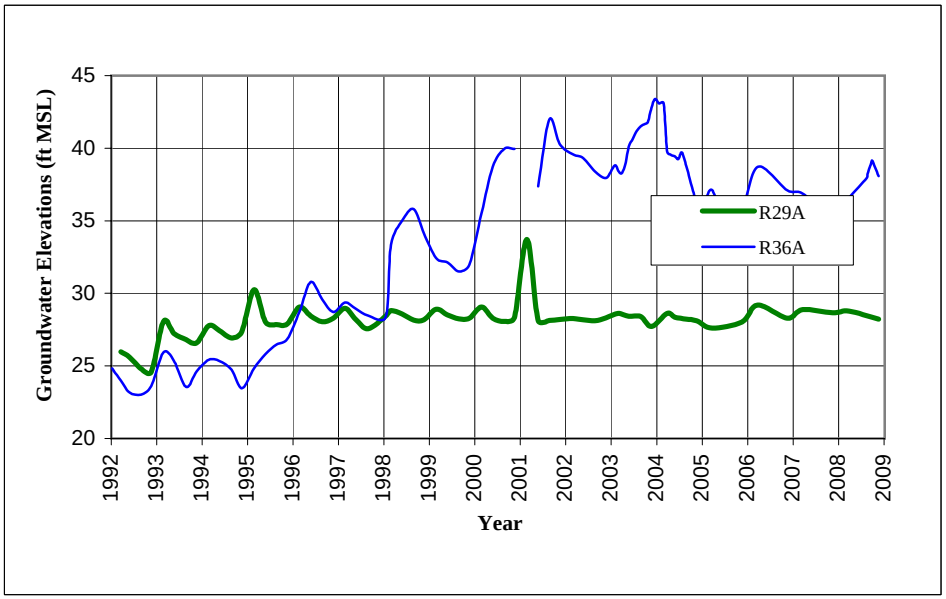

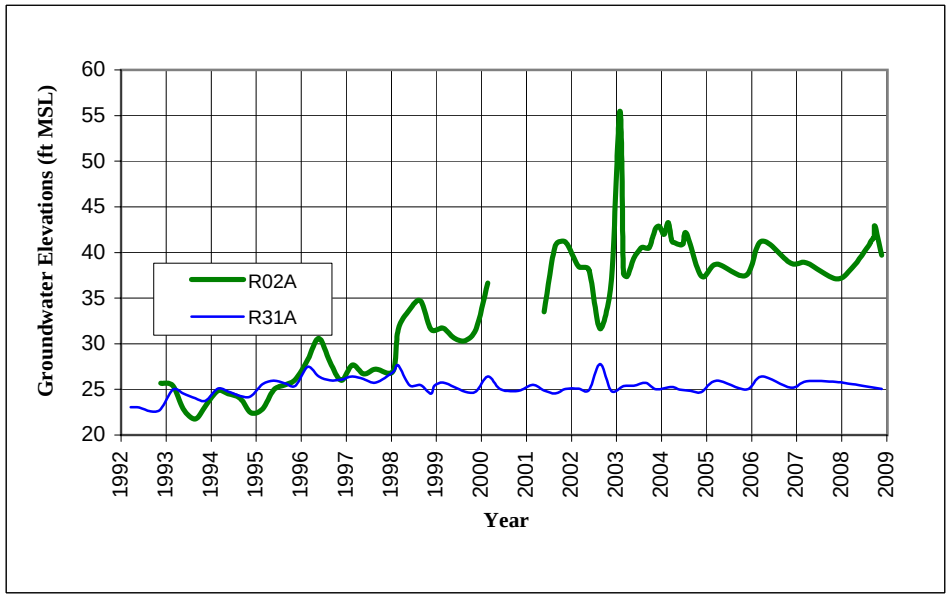

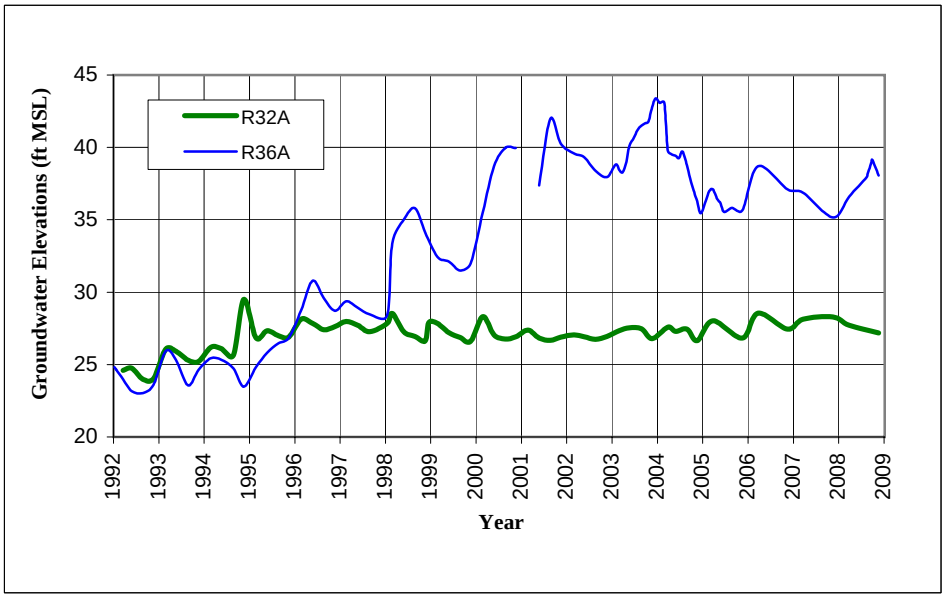

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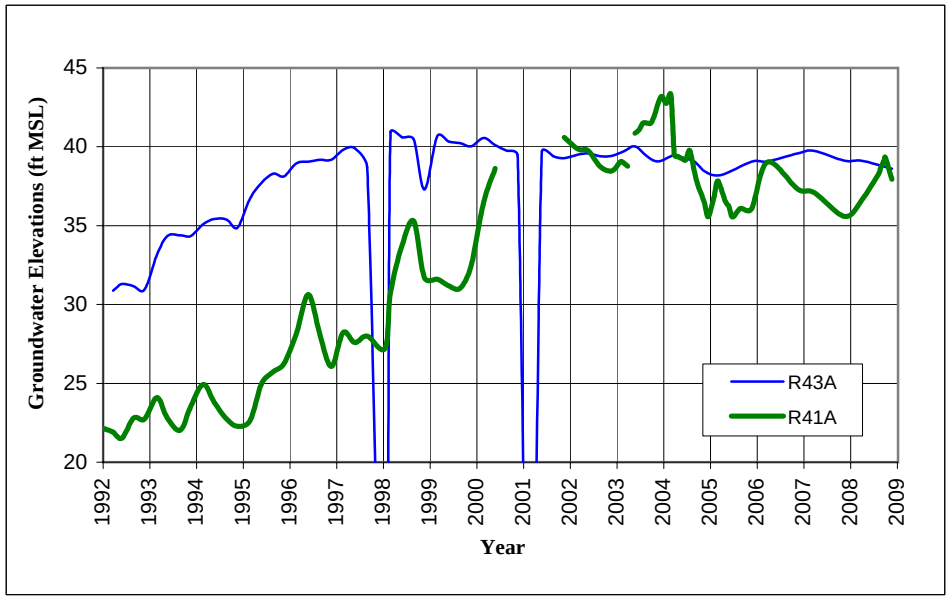

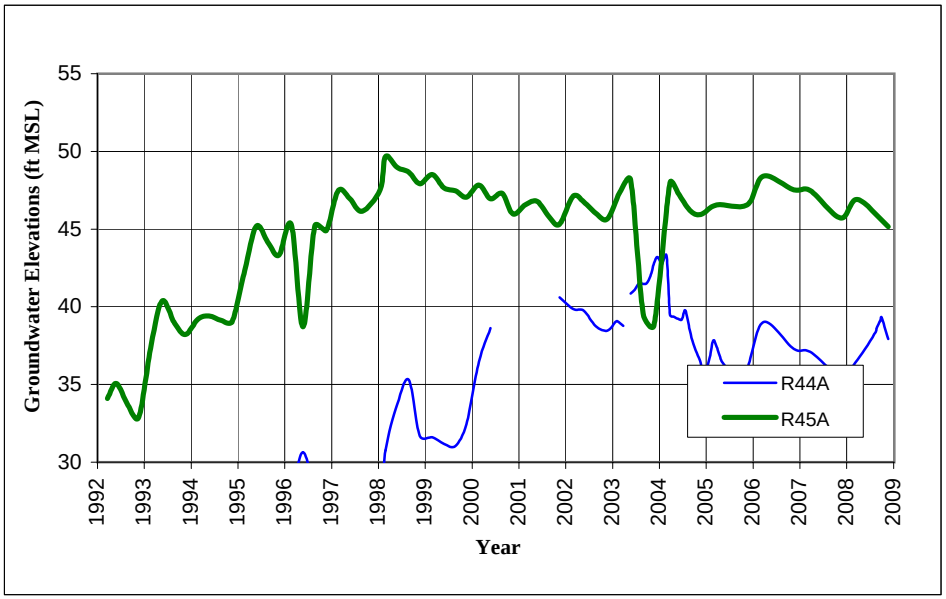

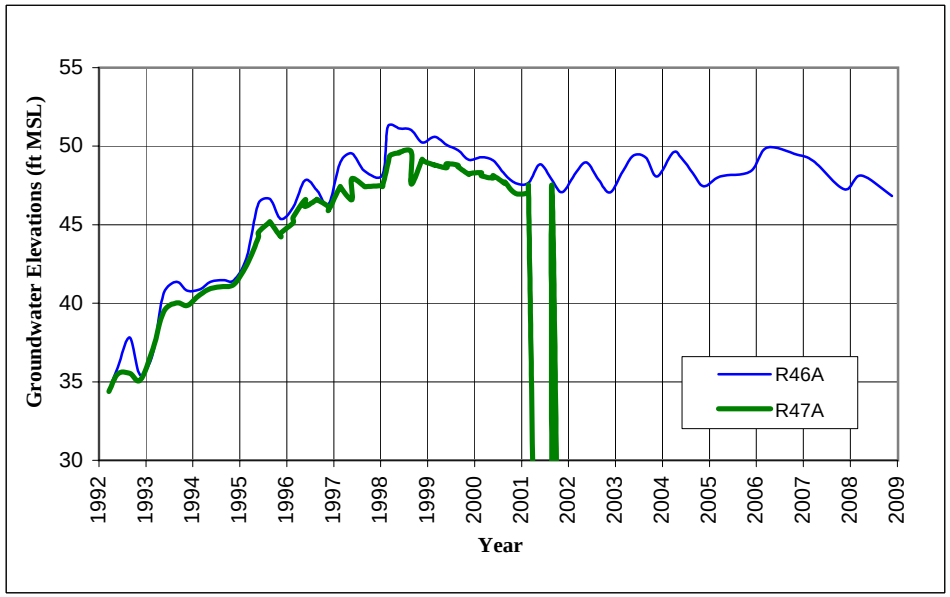

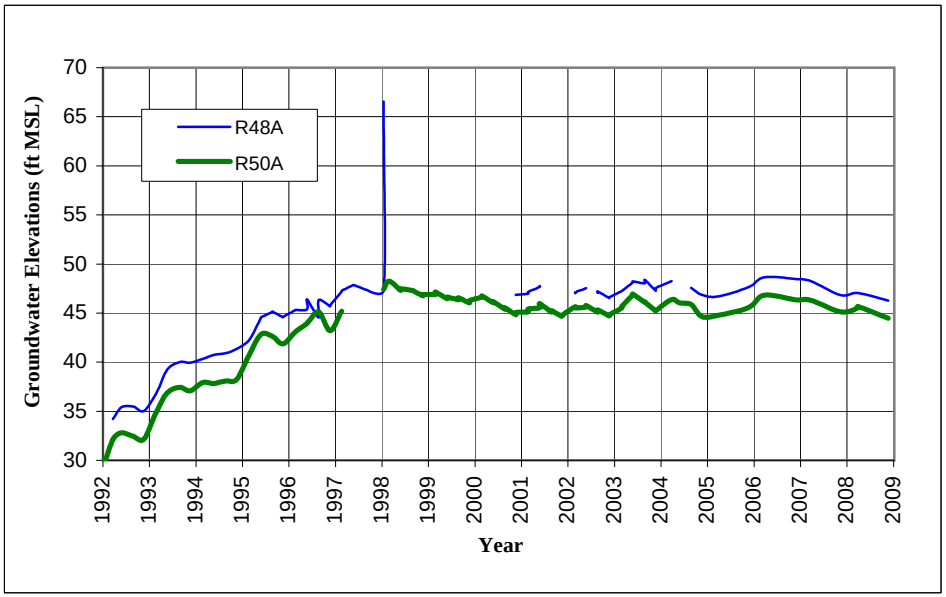

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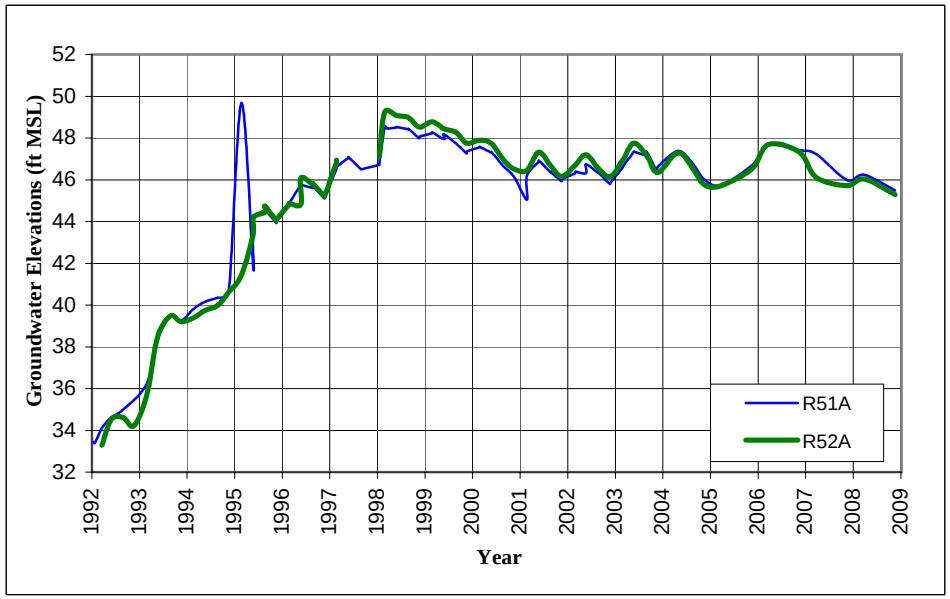

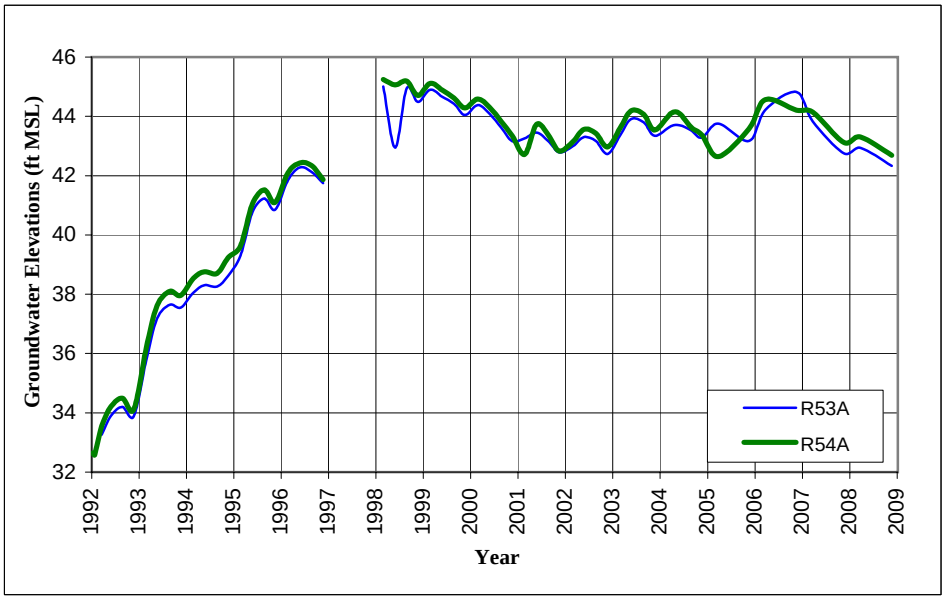

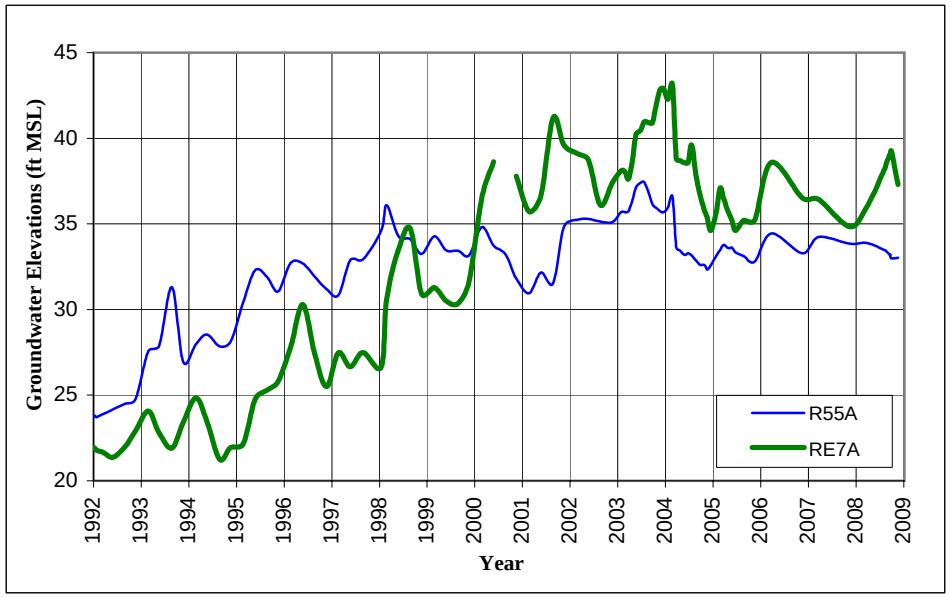

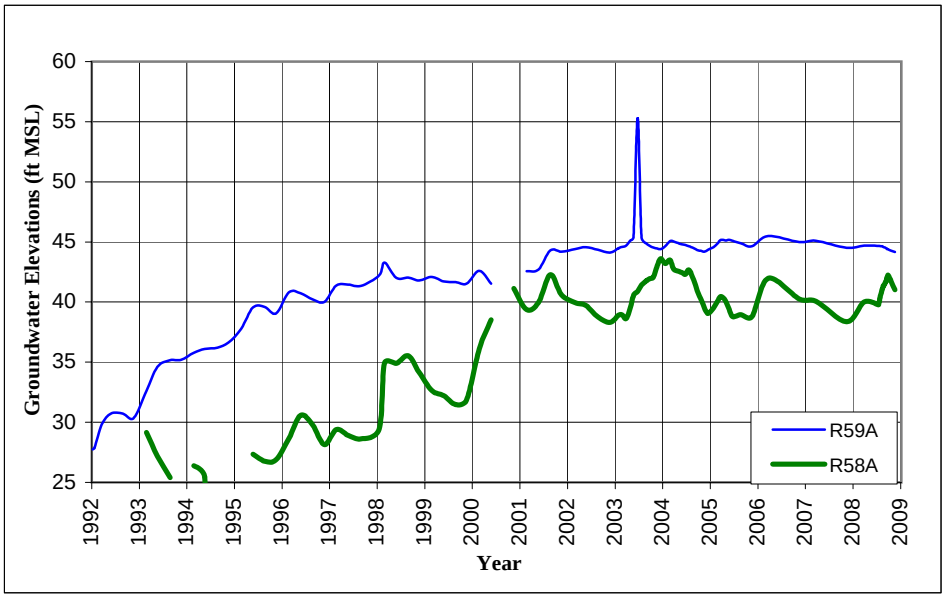

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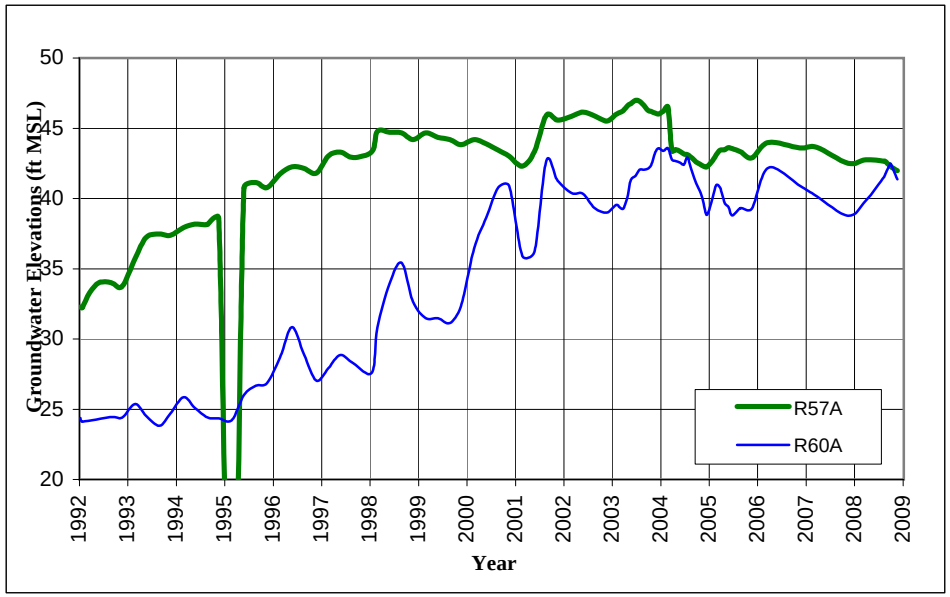

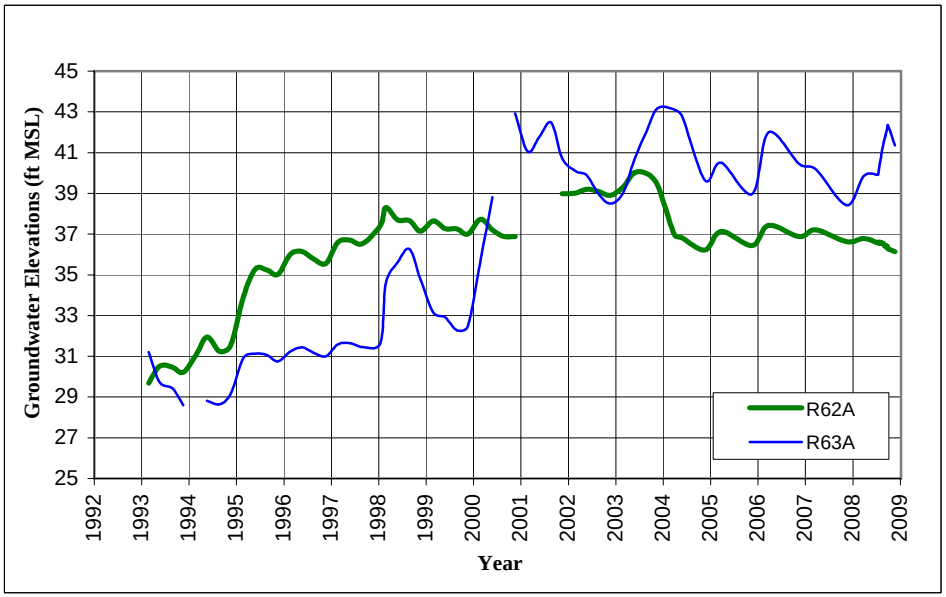

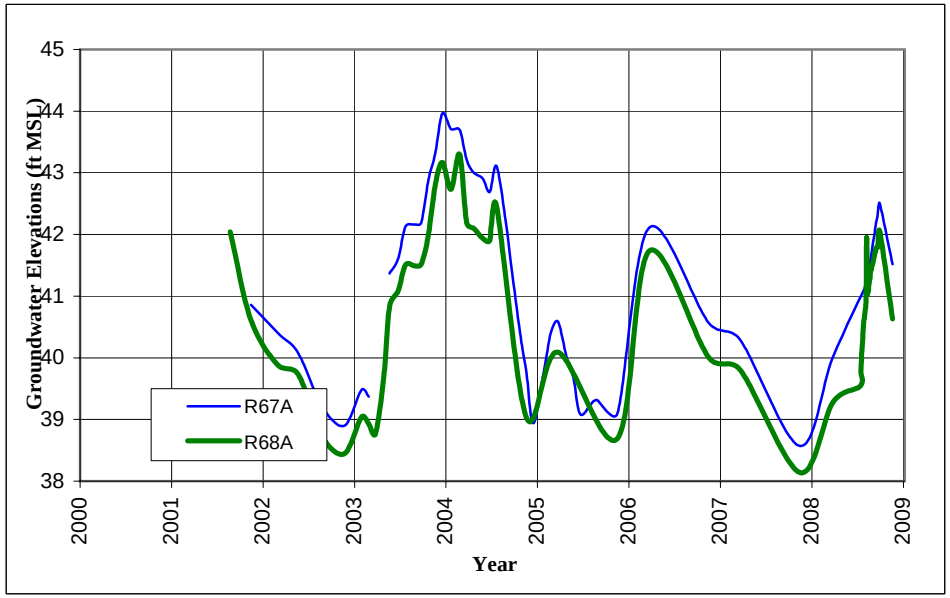

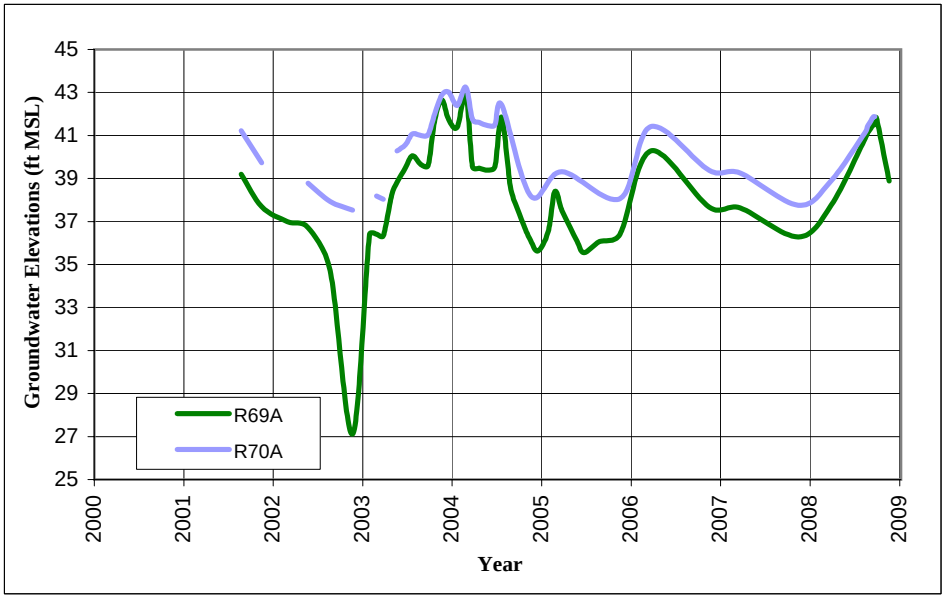

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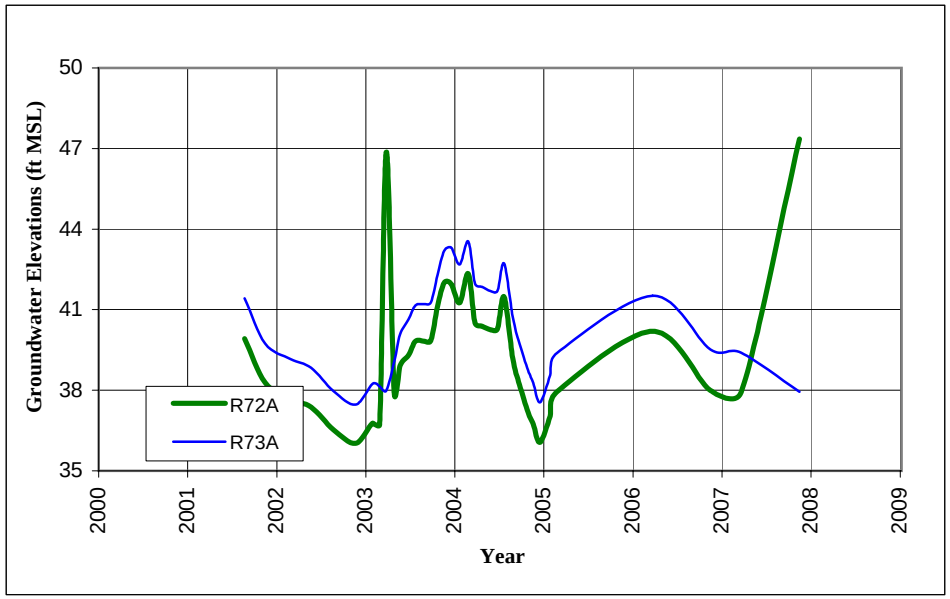

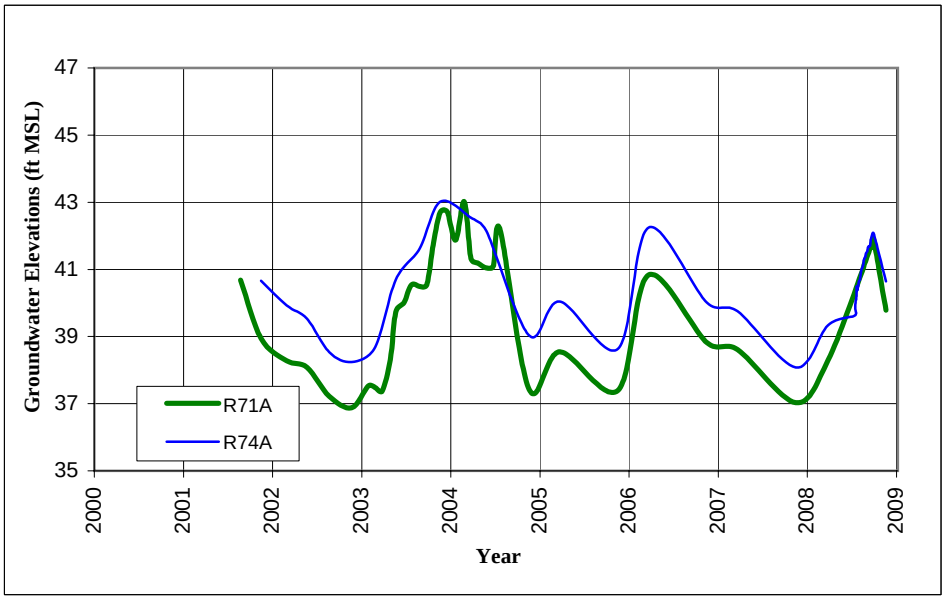

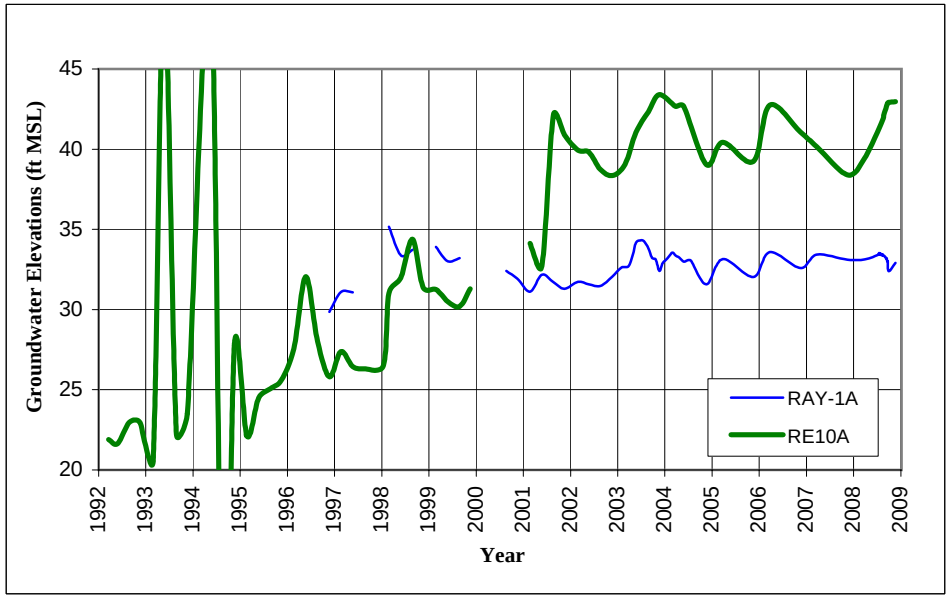

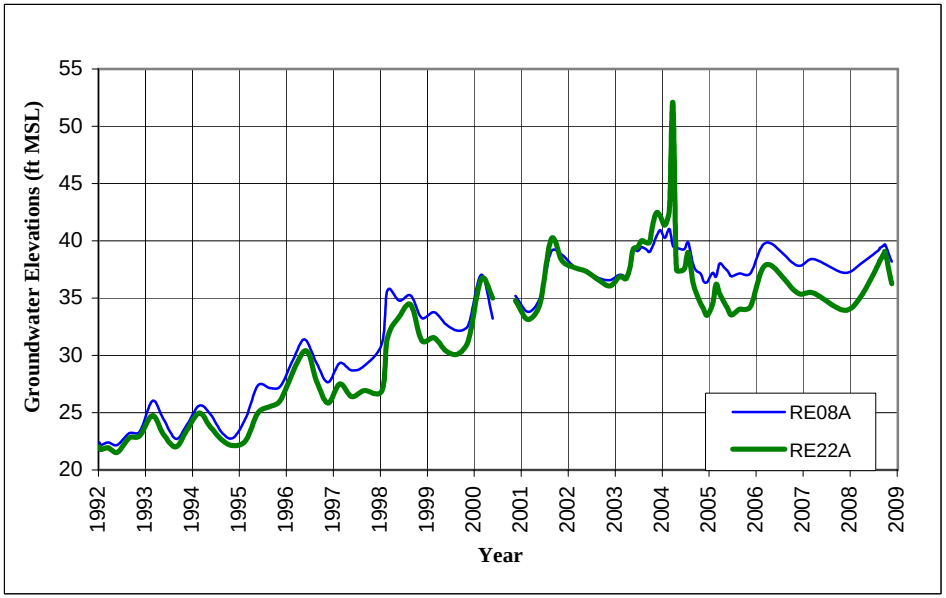

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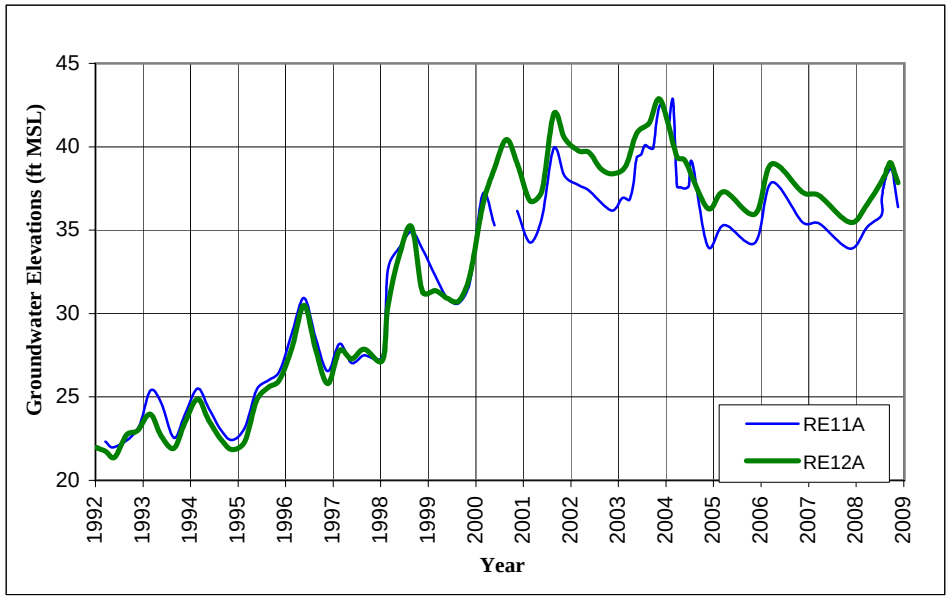

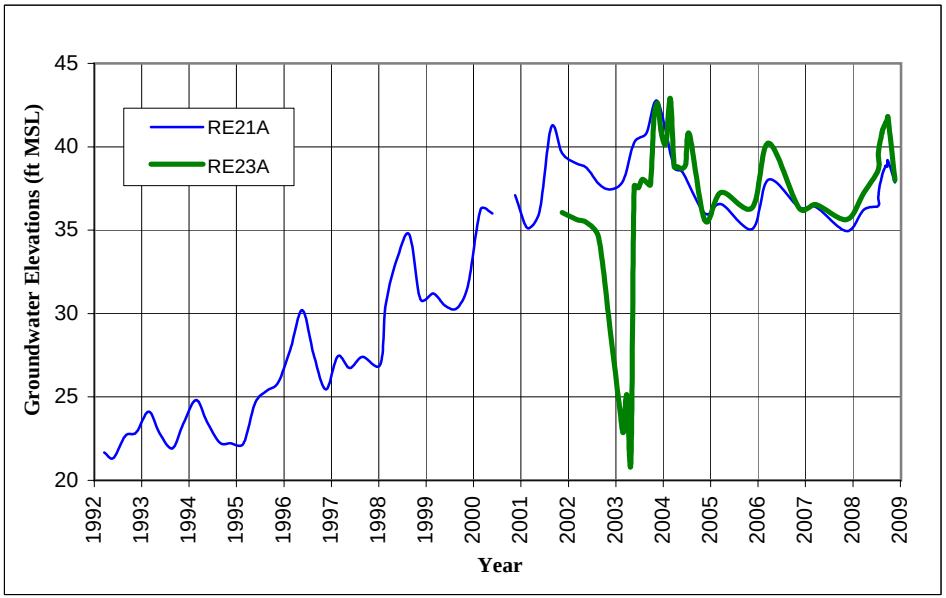

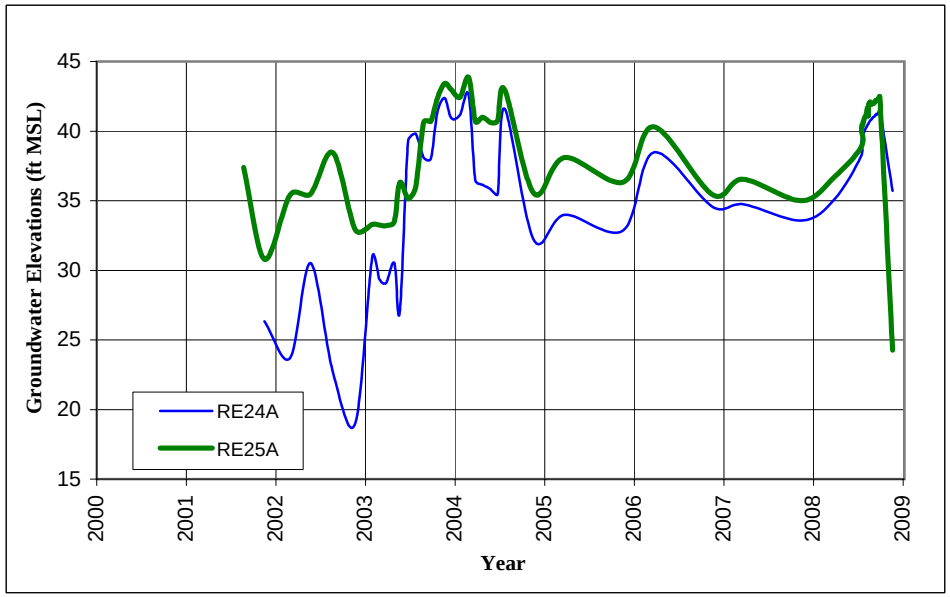

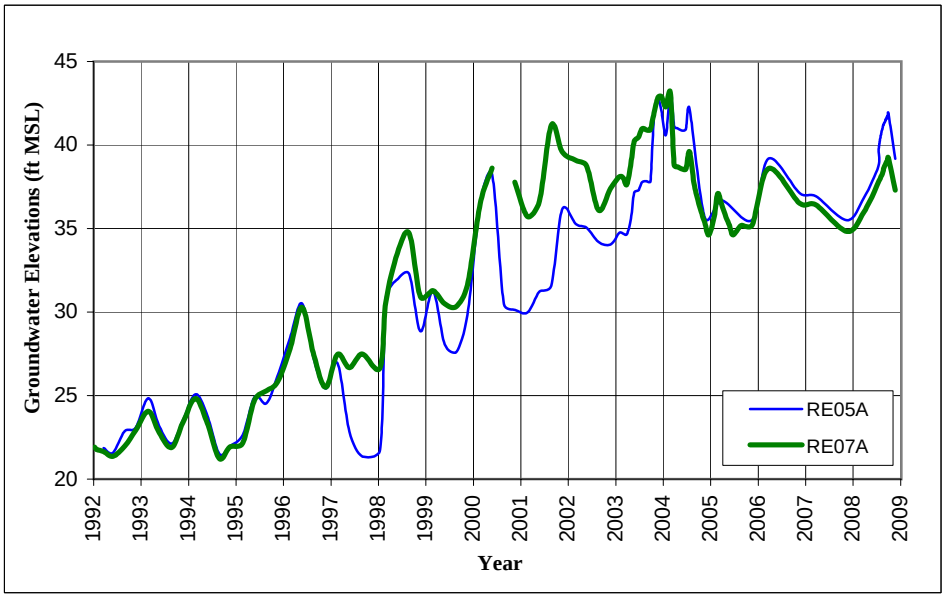

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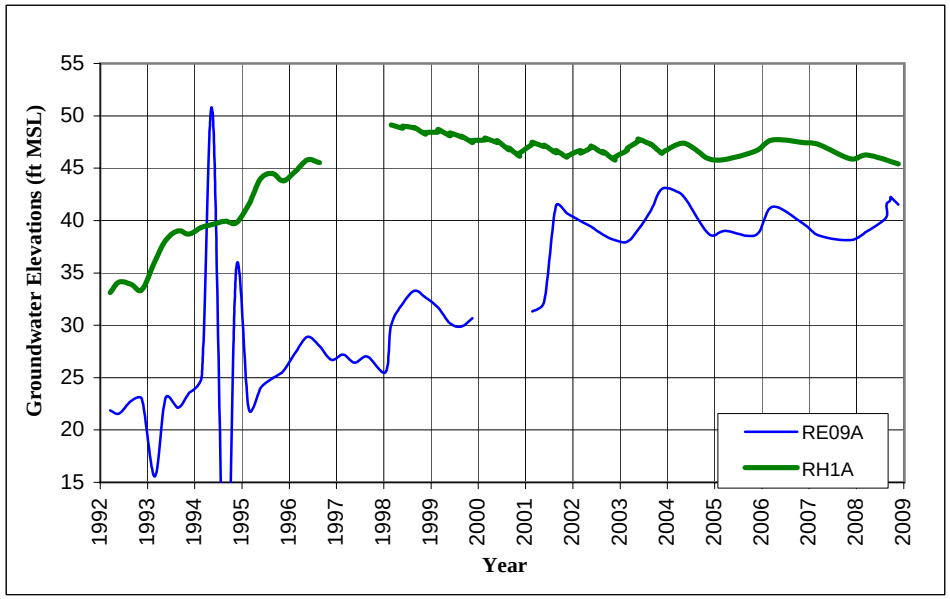
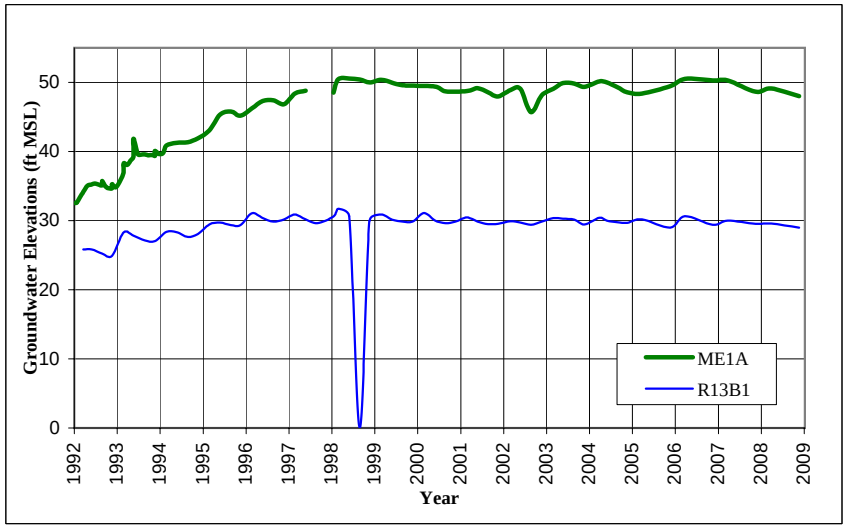
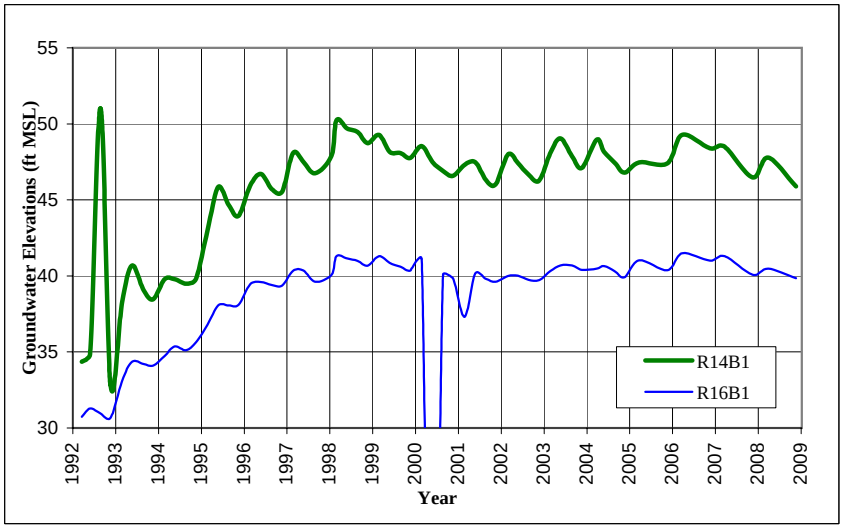
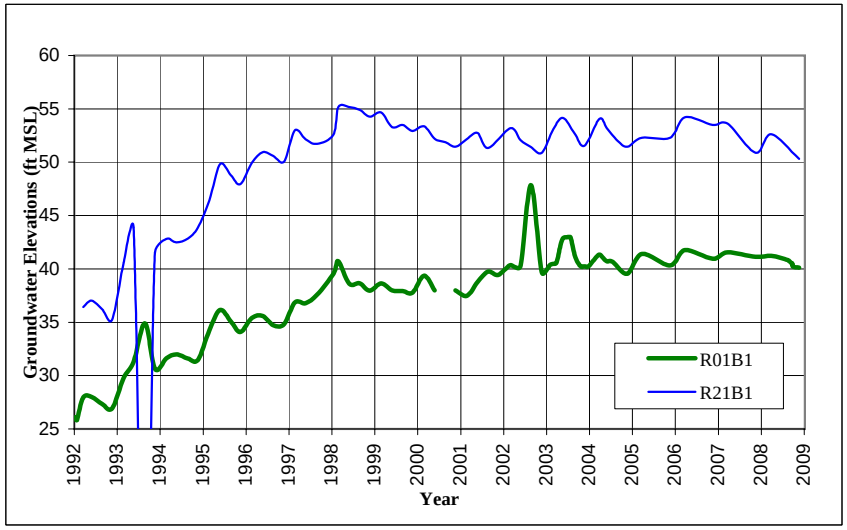
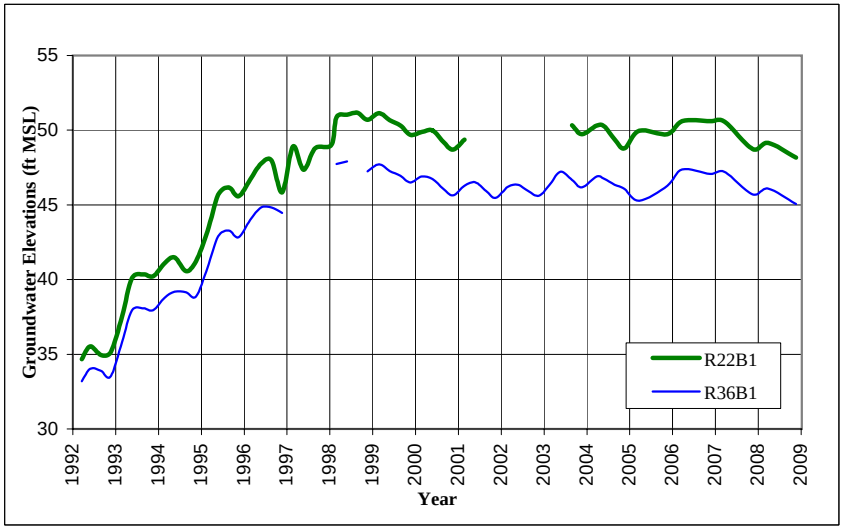


APPENDIX C
HISTORICAL GROUNDWATER ELEVATIONS IN "B1" AQUIFER WELLS









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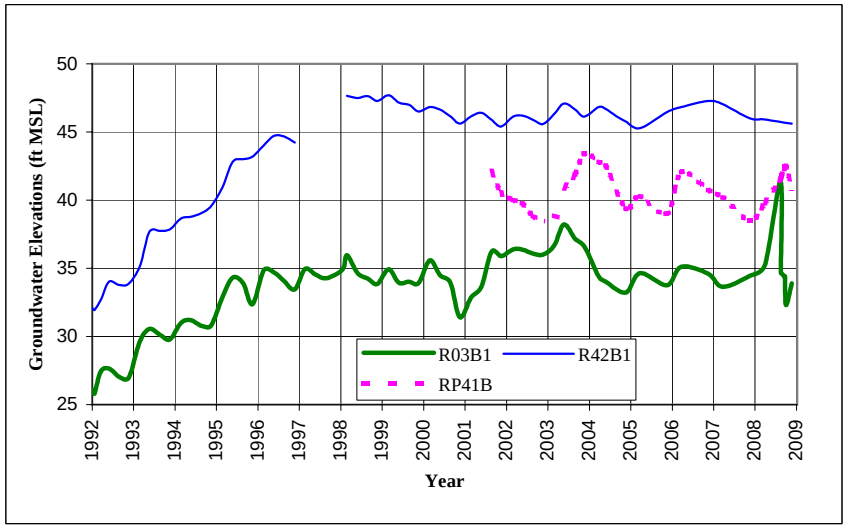
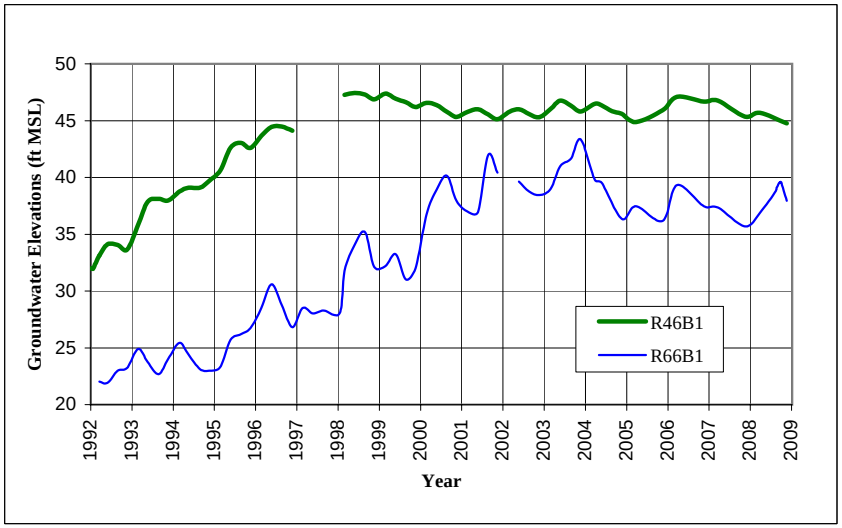
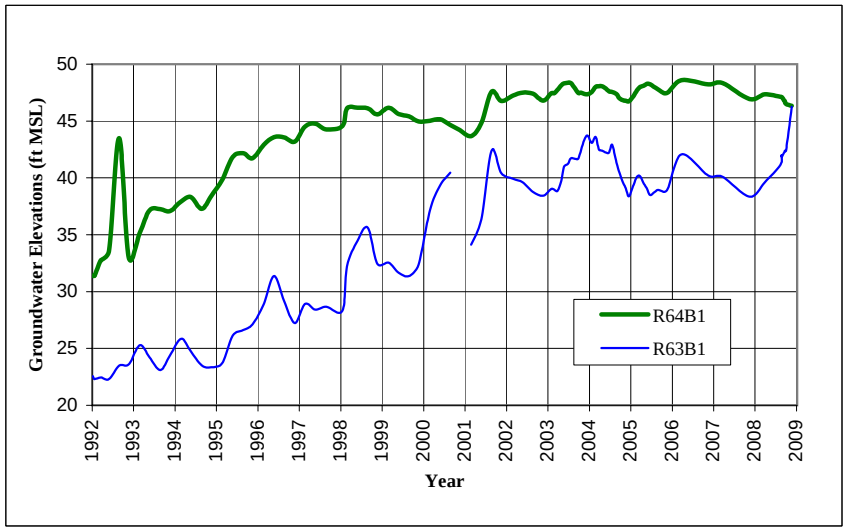
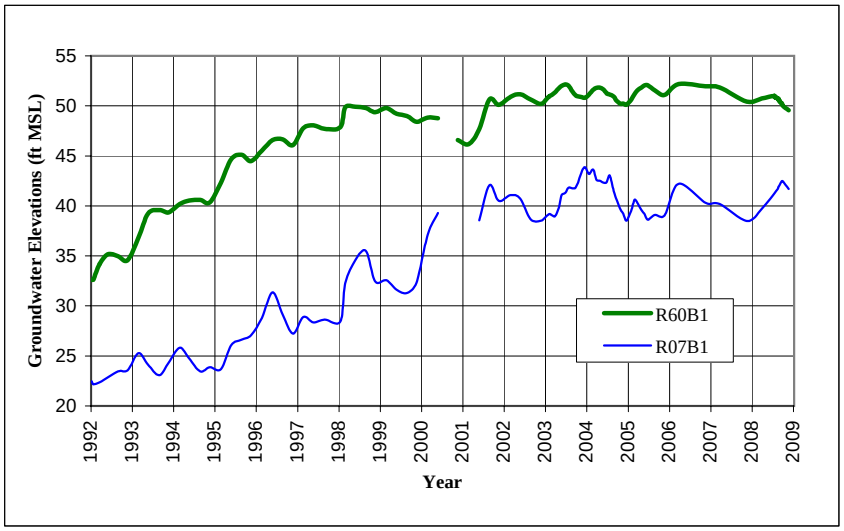
HISTORICAL GROUNDWATER ELEVATIONS IN "B1" AQUIFER WELLS









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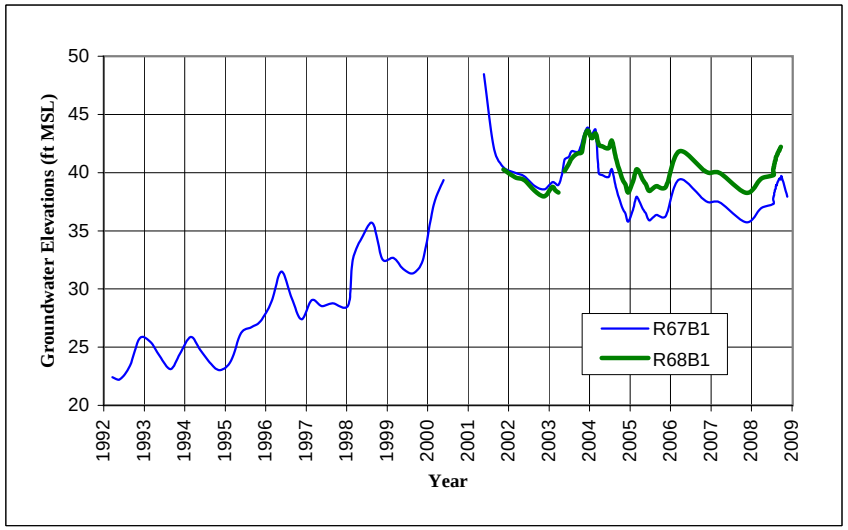
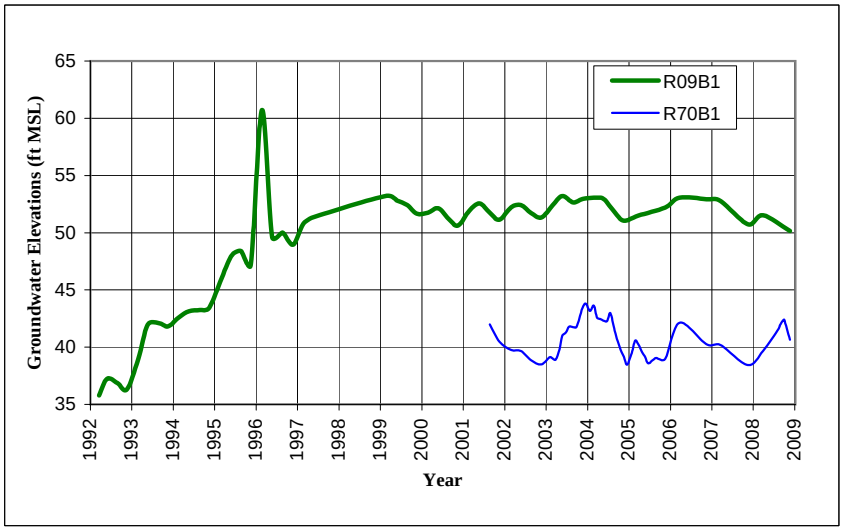
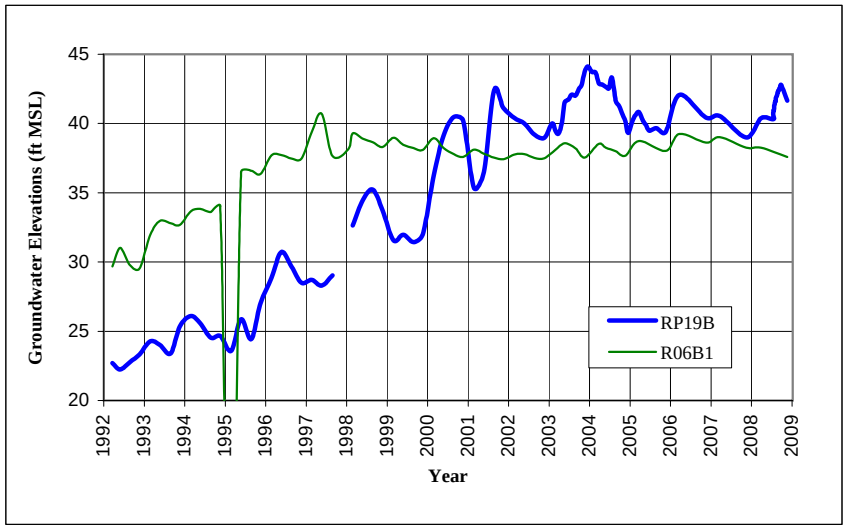
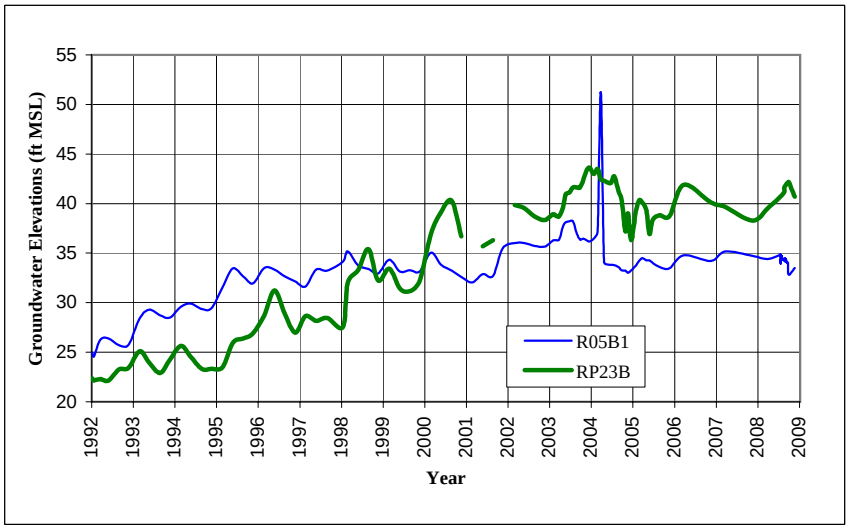
HISTORICAL GROUNDWATER ELEVATIONS IN "B1" AQUIFER WELLS









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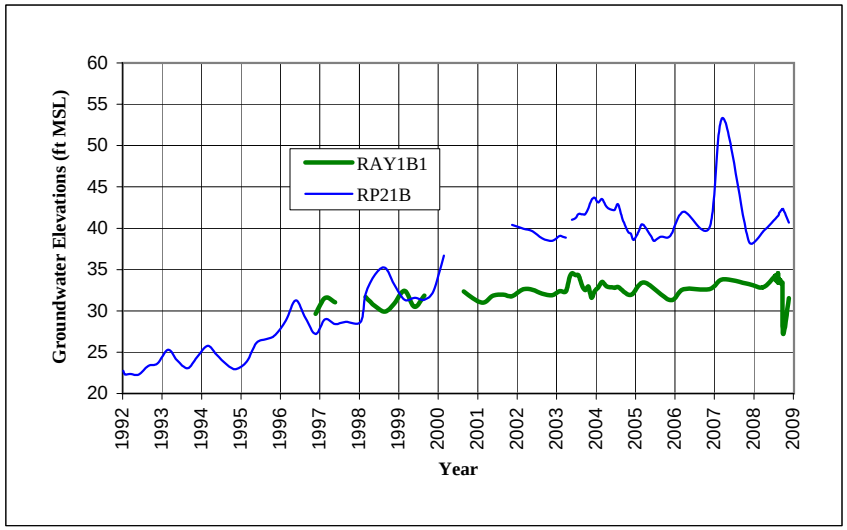
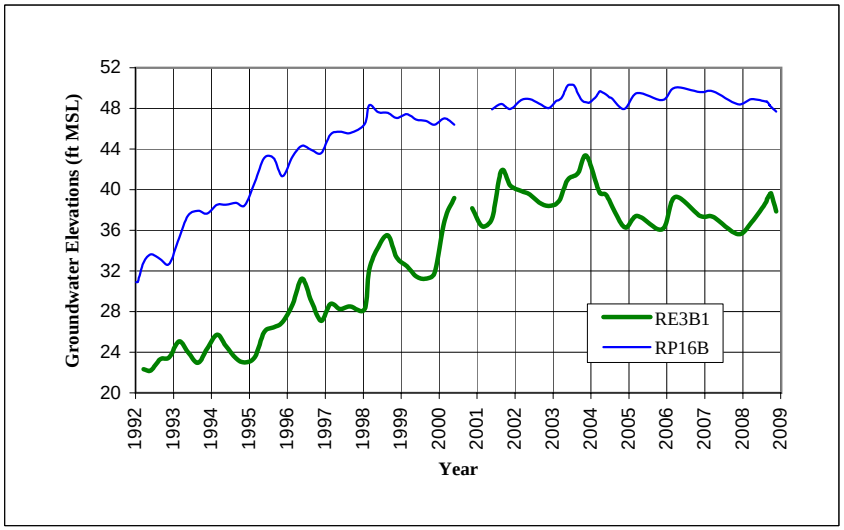
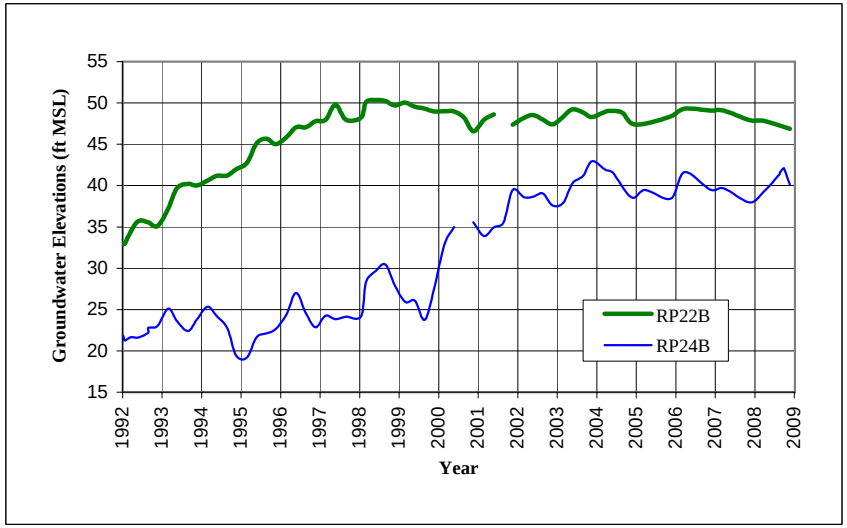
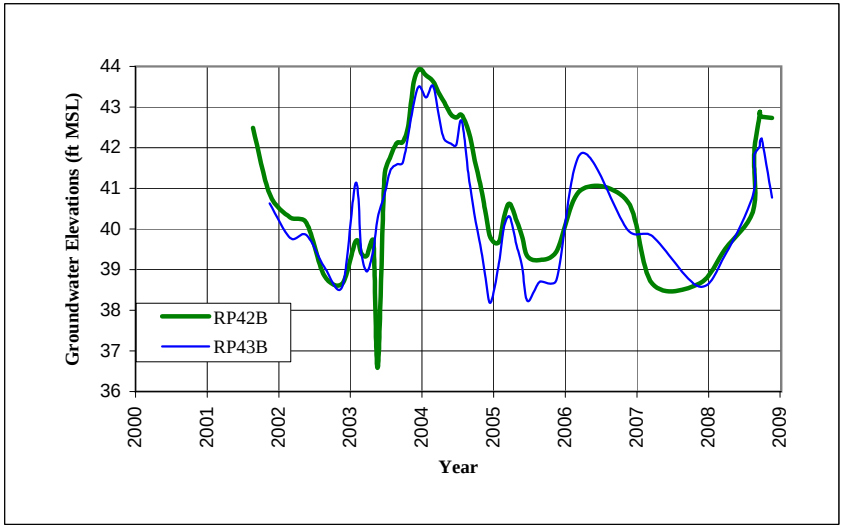
HISTORICAL GROUNDWATER ELEVATIONS IN "B1" AQUIFER WELLS

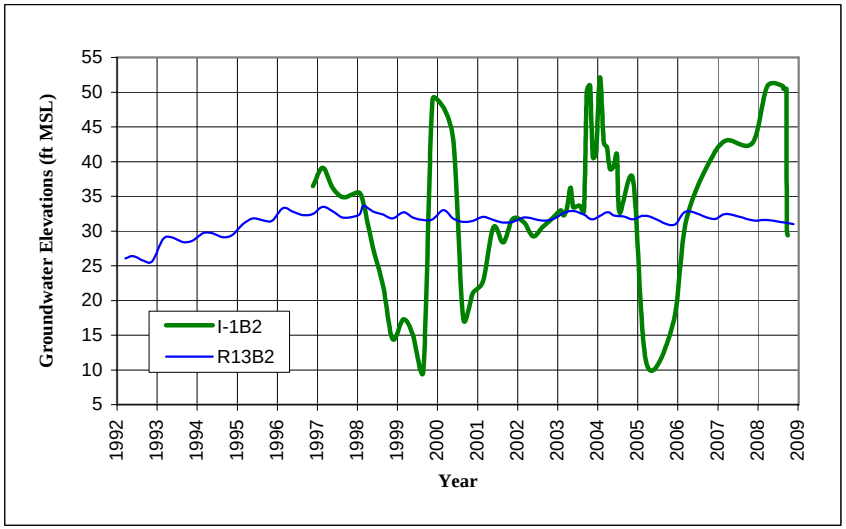


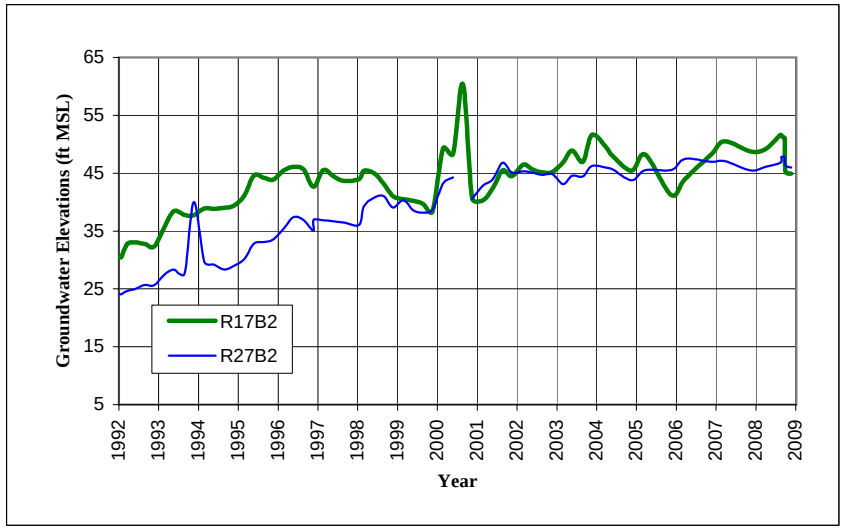


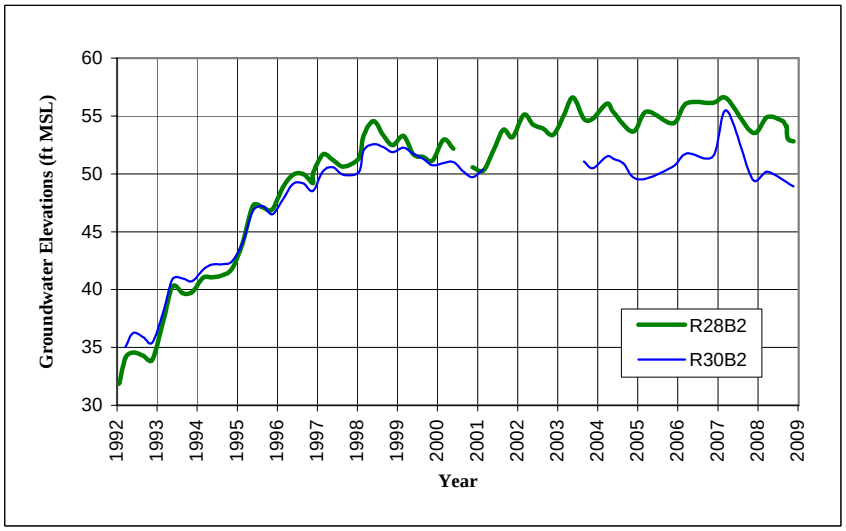


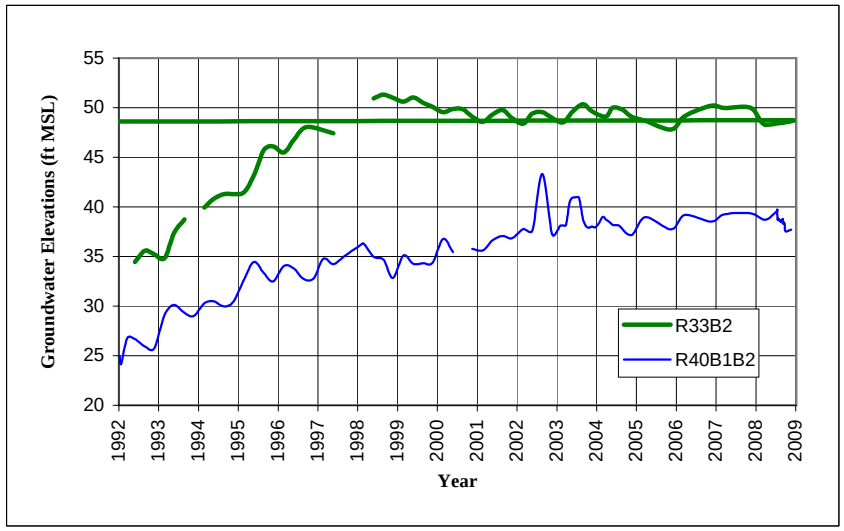


APPENDIX C
HISTORICAL GROUNDWATER ELEVATIONS IN "B2" AQUIFER WELLS









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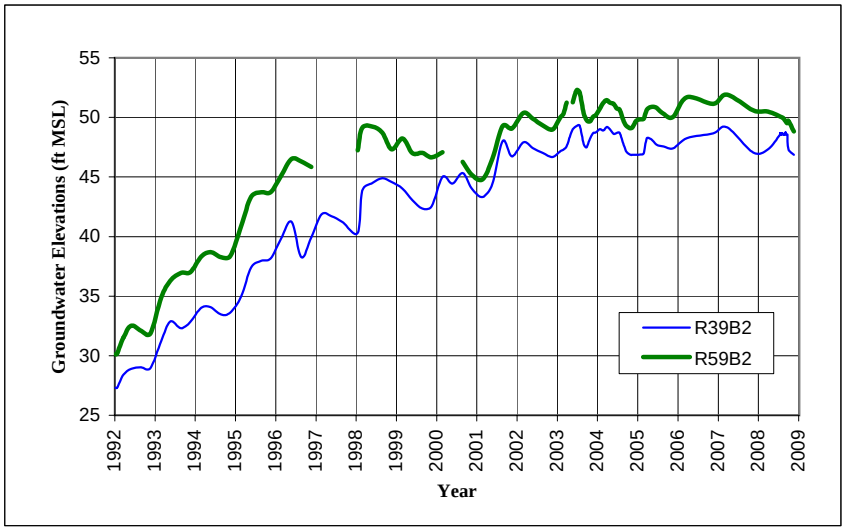
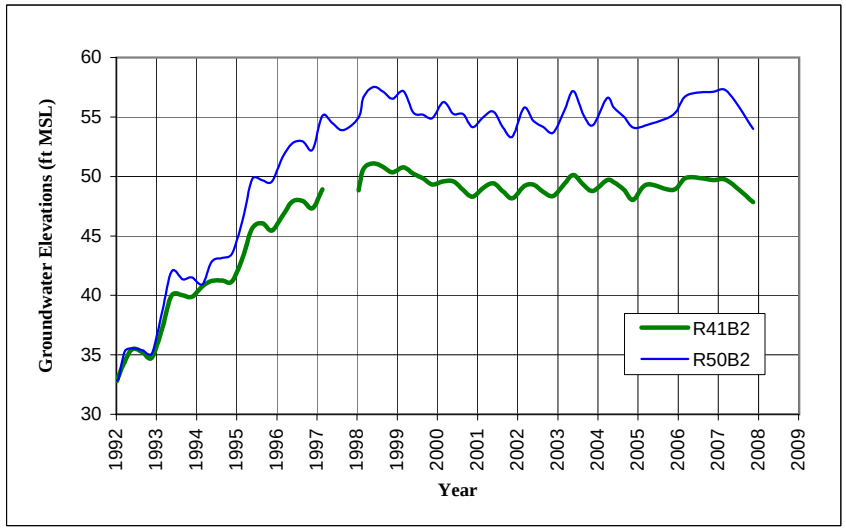
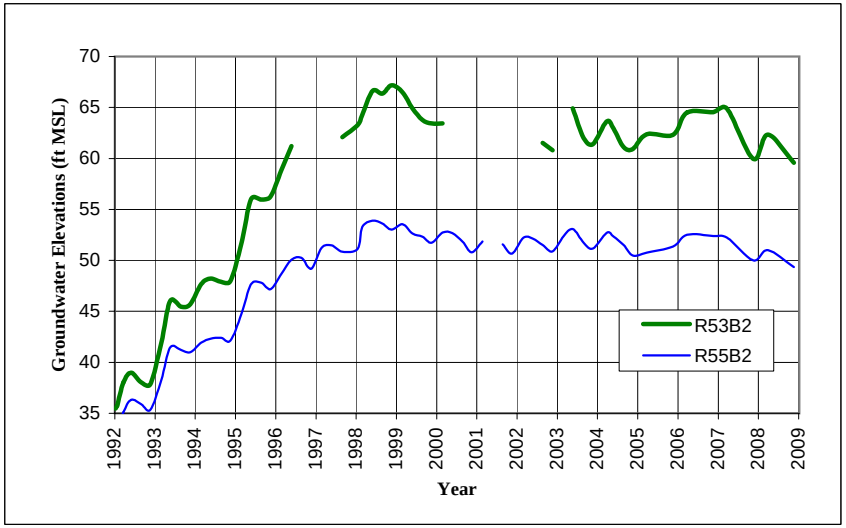
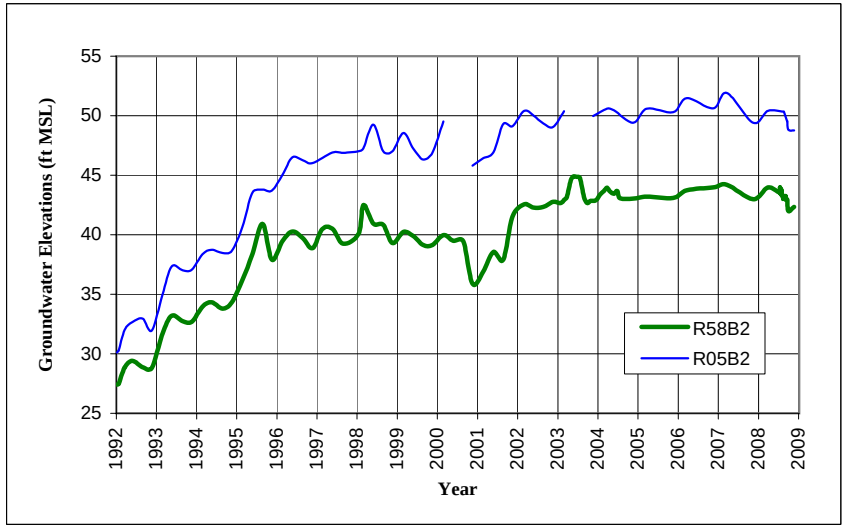
HISTORICAL GROUNDWATER ELEVATIONS IN "B2" AQUIFER WELLS









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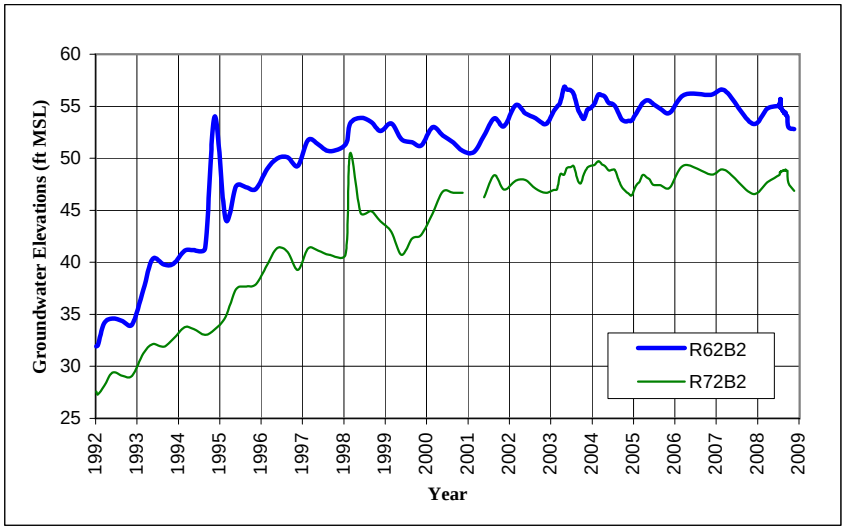
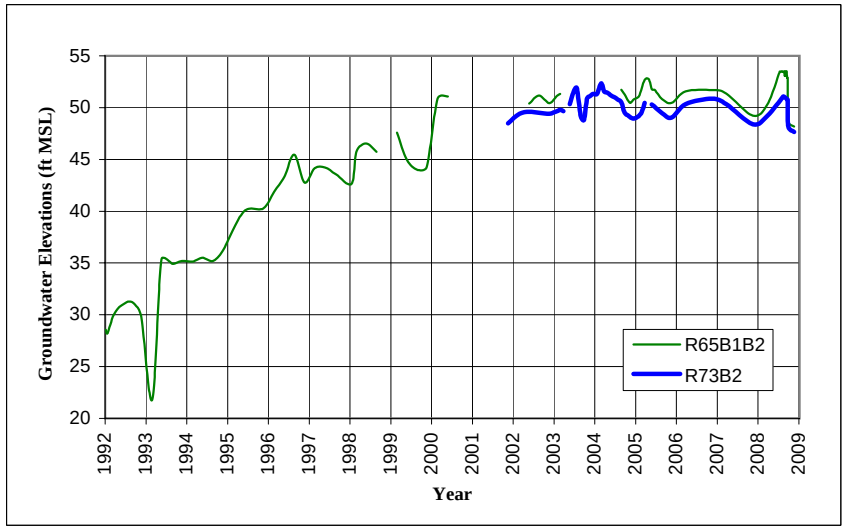
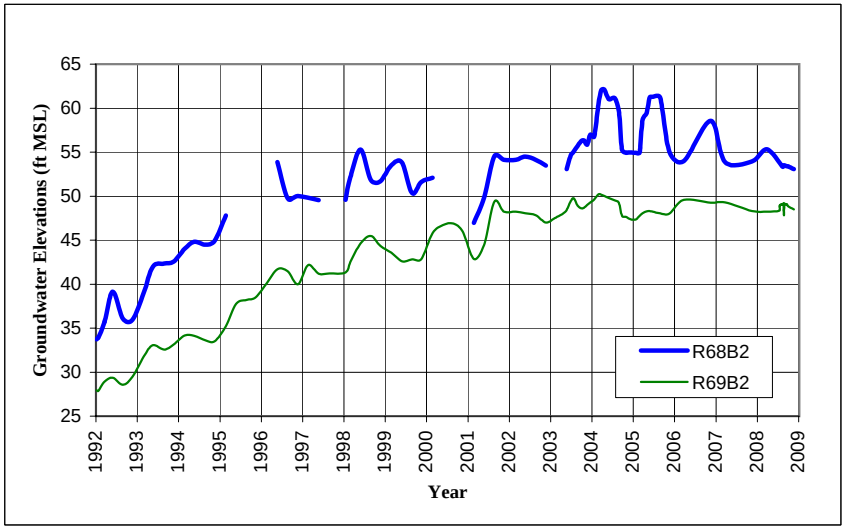
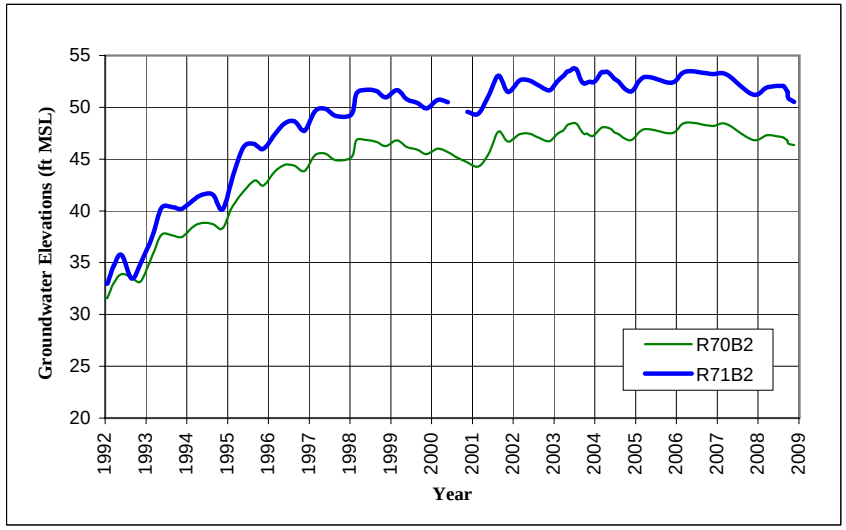
HISTORICAL GROUNDWATER ELEVATIONS IN "B2" AQUIFER WELLS

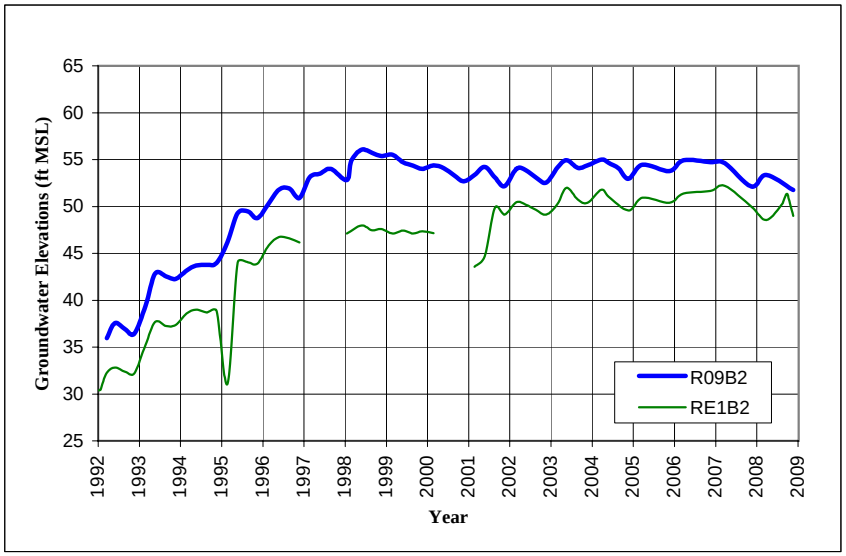




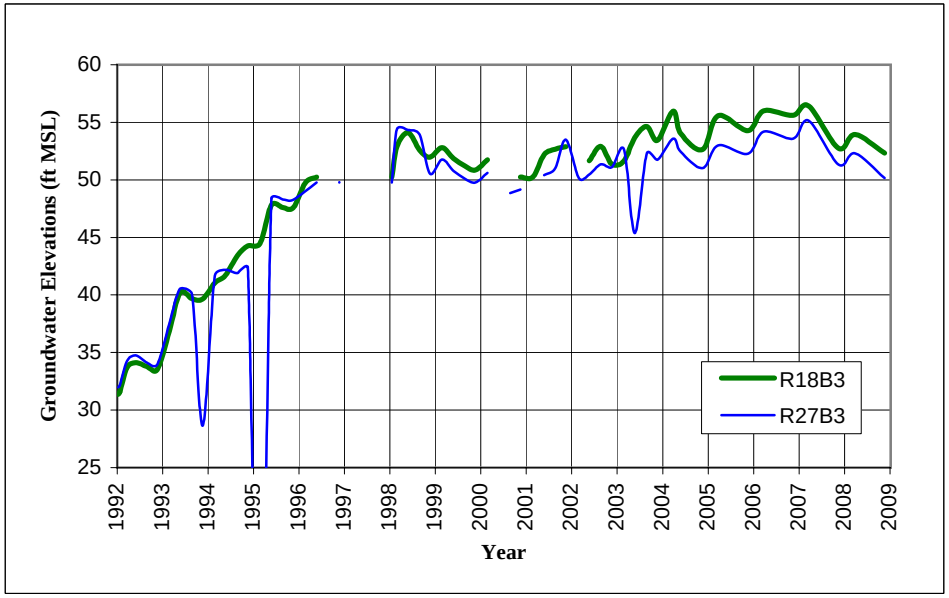


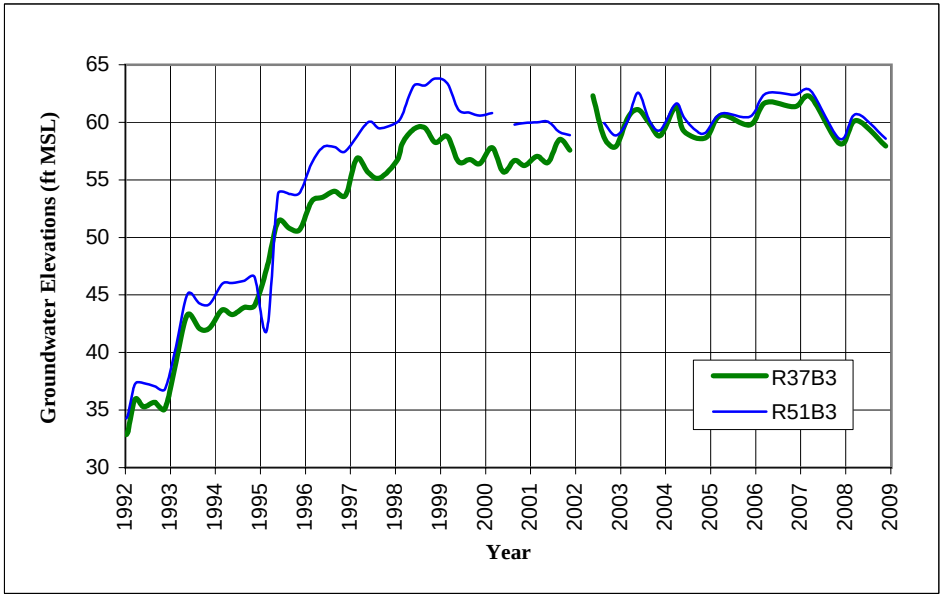


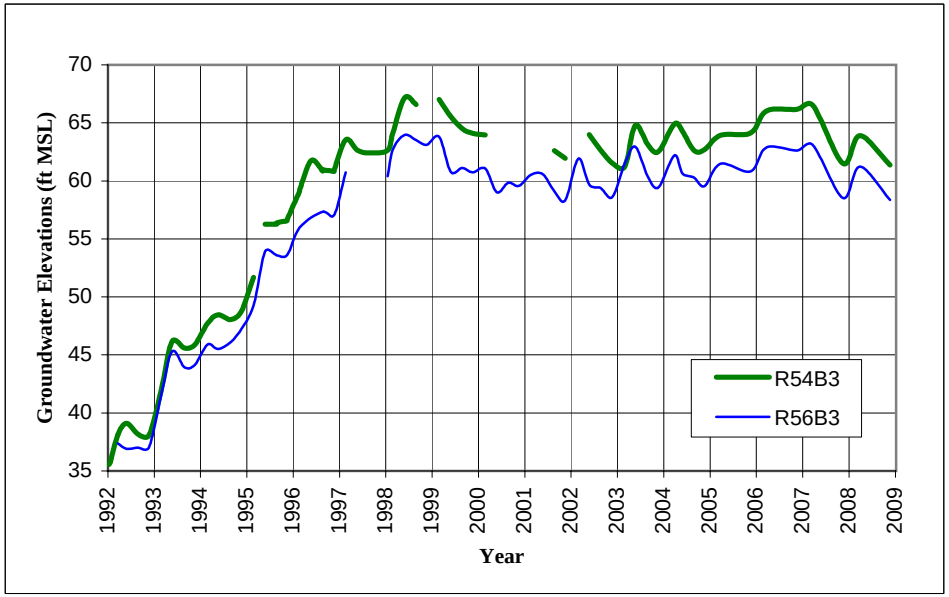
APPENDIX C
HISTORICAL GROUNDWATER ELEVATIONS IN "B2" AQUIFER WELLS

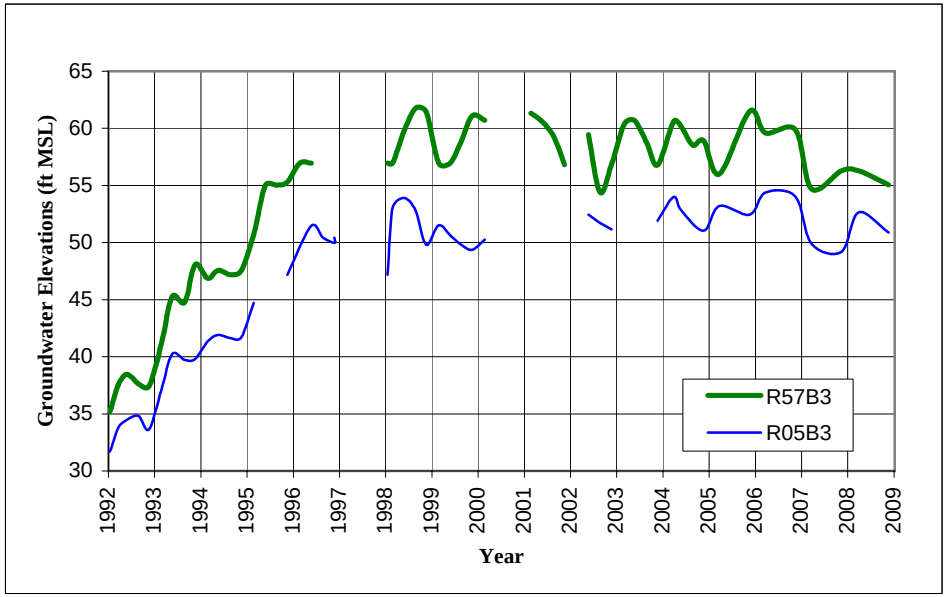


APPENDIX C
HISTORICAL GROUNDWATER ELEVATIONS IN "B3" AQUIFER WELLS

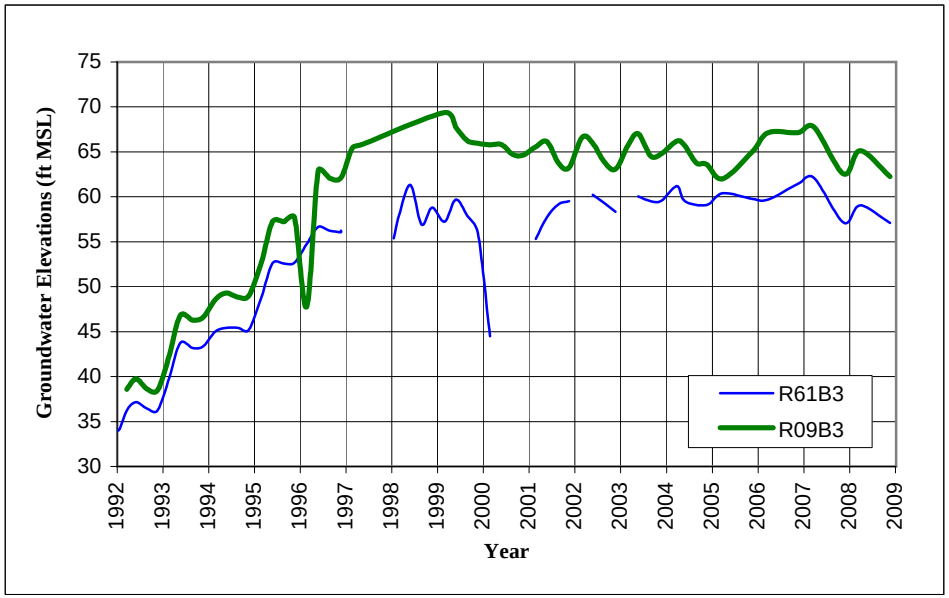








APPENDIX C
HISTORICAL GROUNDWATER ELEVATIONS IN "B3" AQUIFER WELLS



APPENDIX D

HISTORICAL GROUNDWATER QUALITY DATA AND PLOTS

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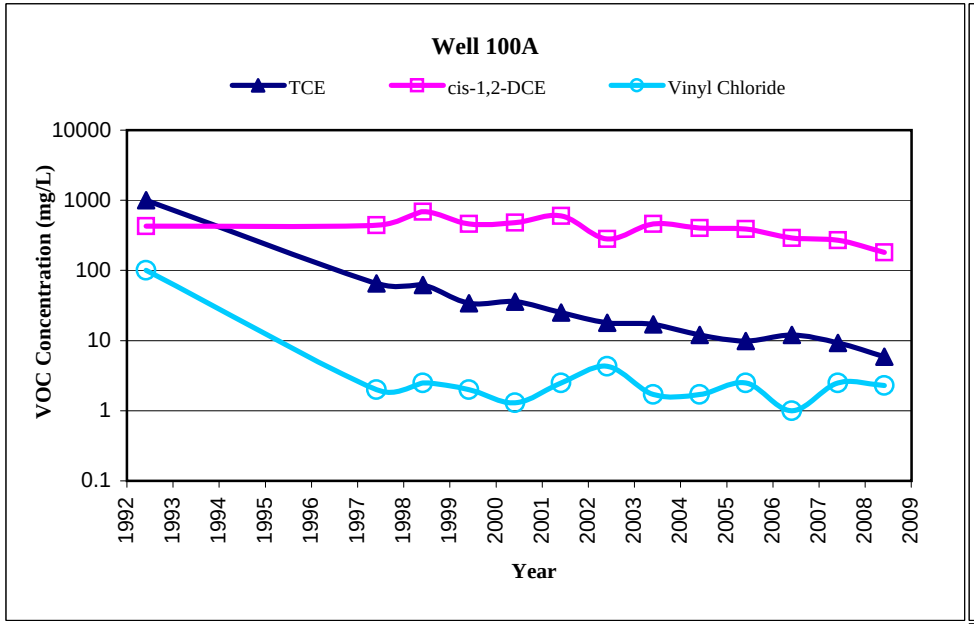
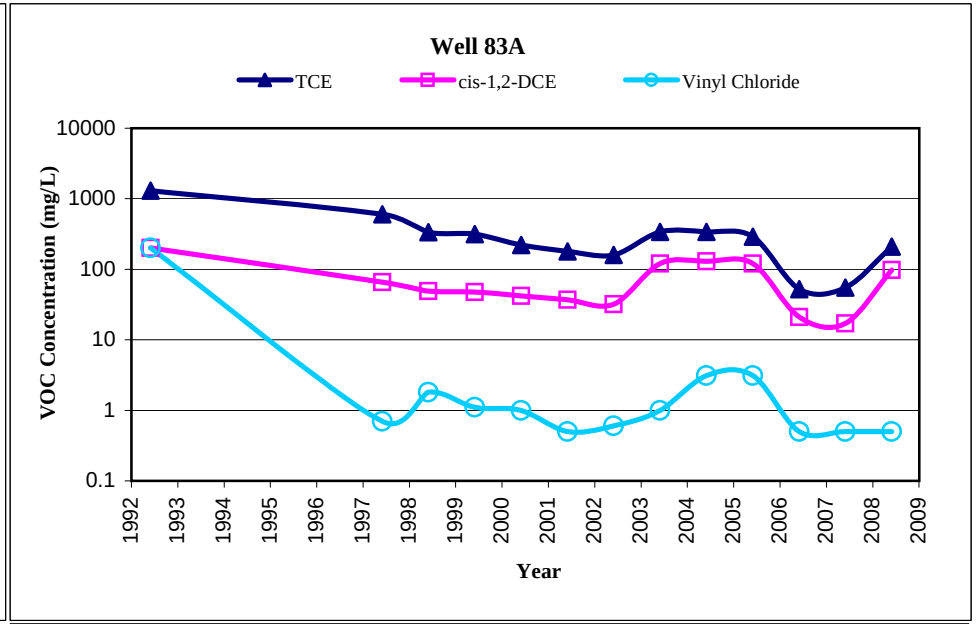
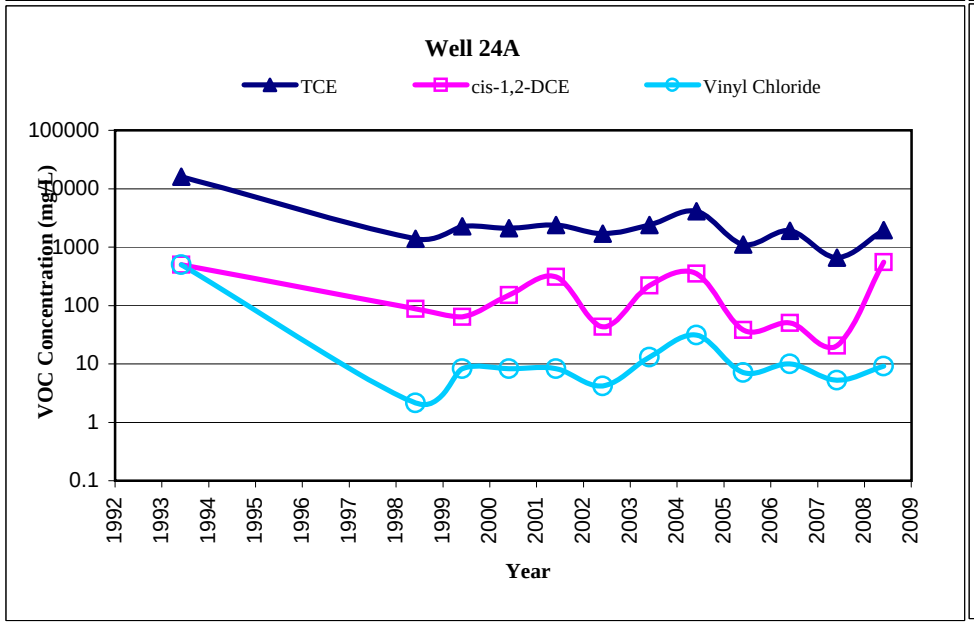
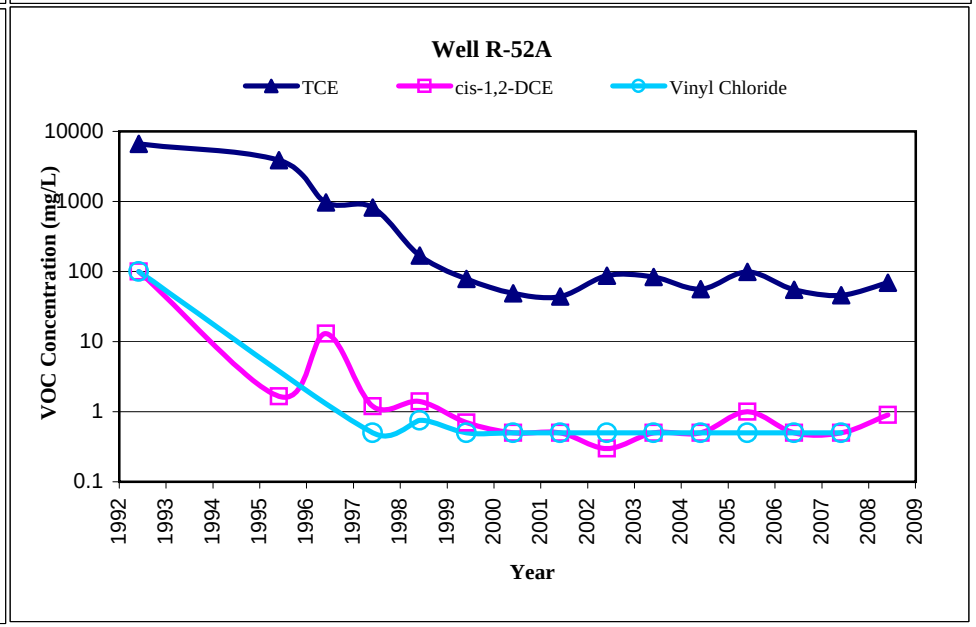
APPENDIX D
AVERAGE ANNUAL VOC CONCENTRATIONS IN SITE SPECIFIC "A" AQUIFER WELLS

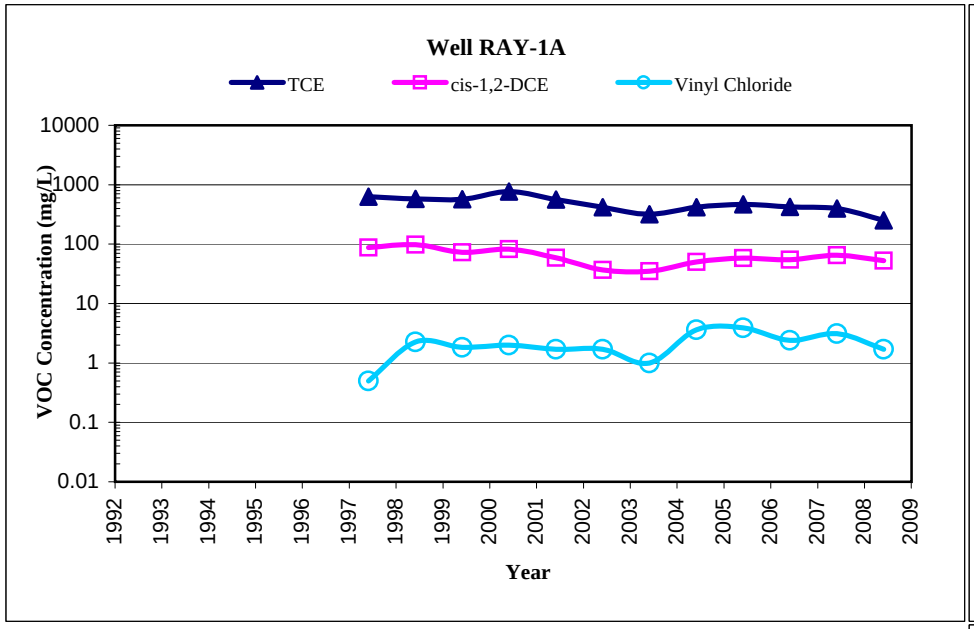


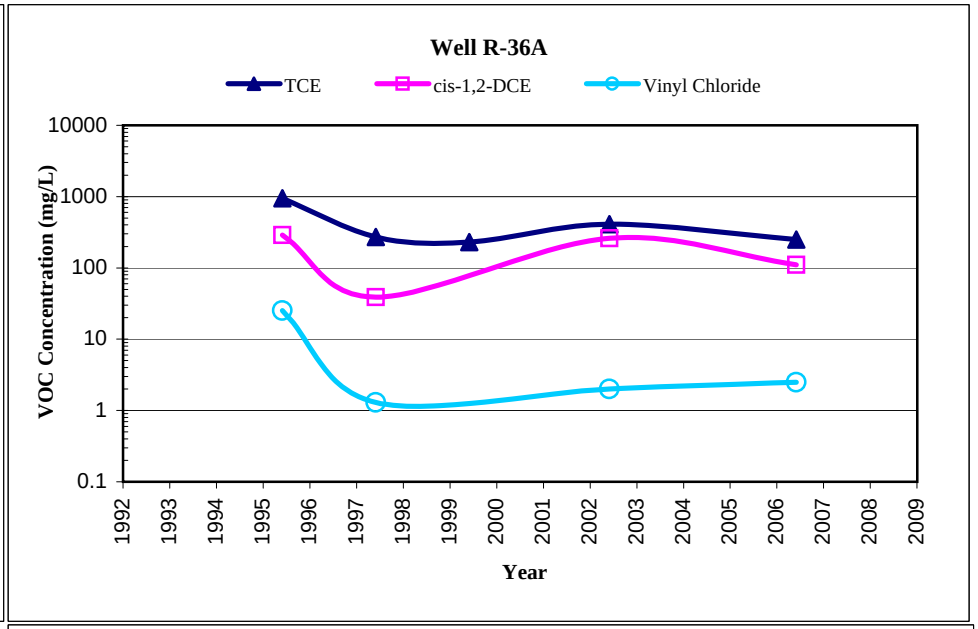


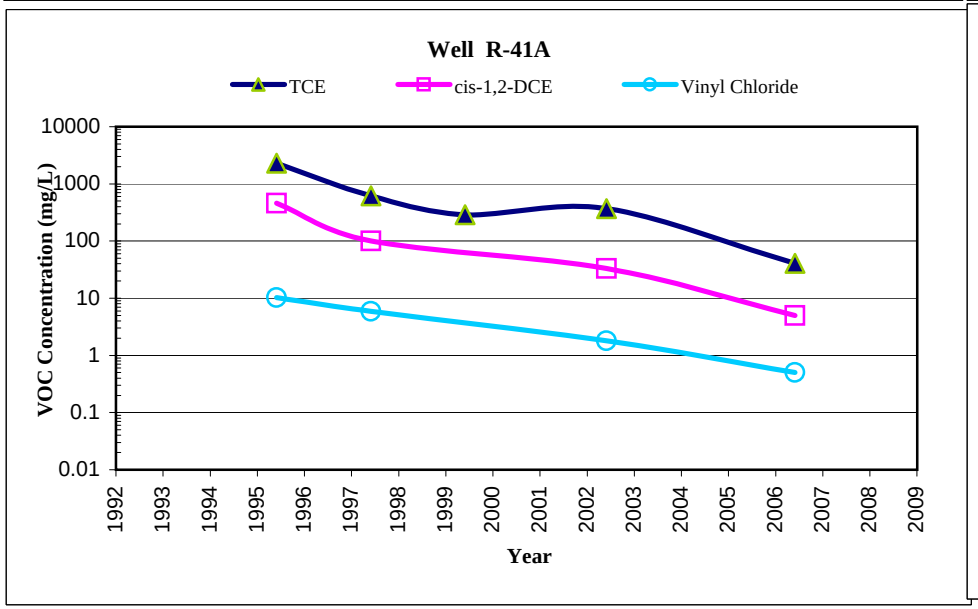


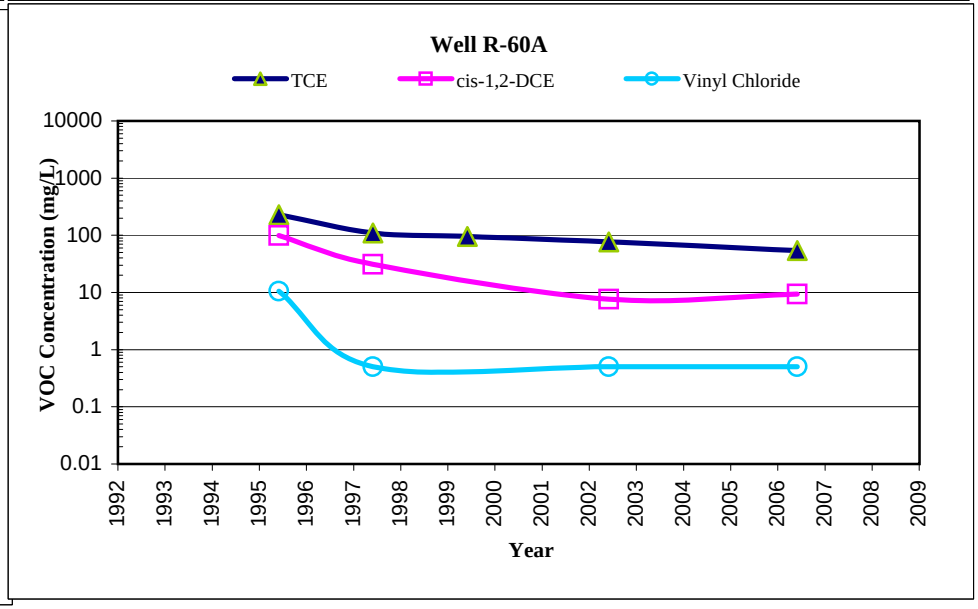


APPENDIX D
AVERAGE ANNUAL VOC CONCENTRATIONS IN SITE SPECIFIC "A" AQUIFER WELLS

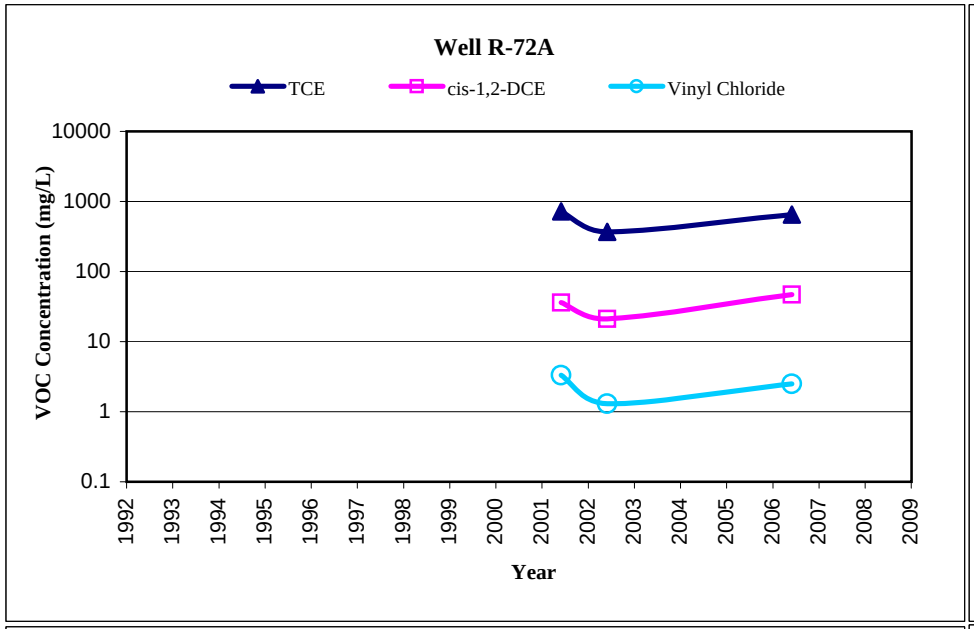


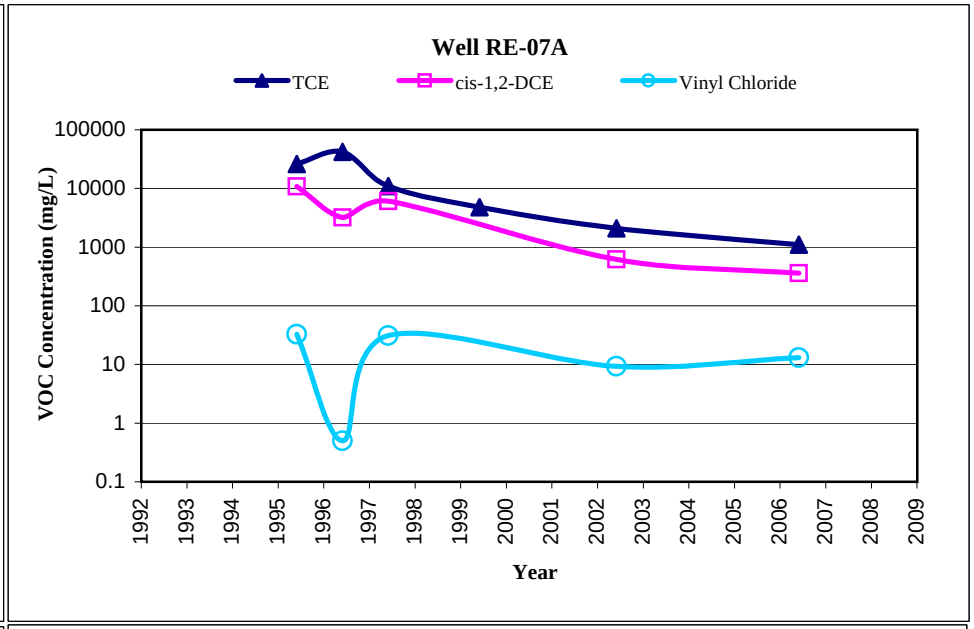


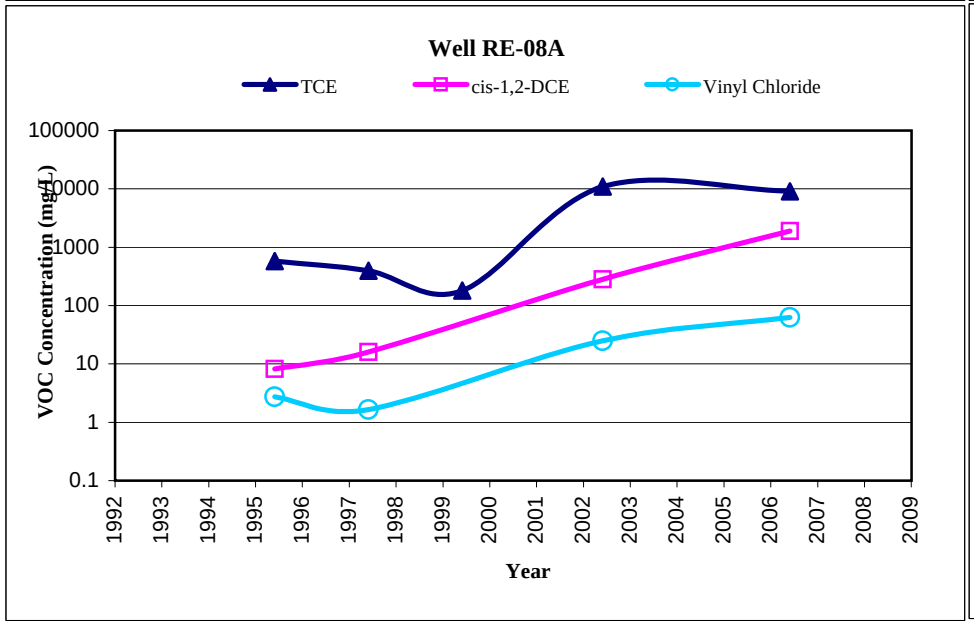


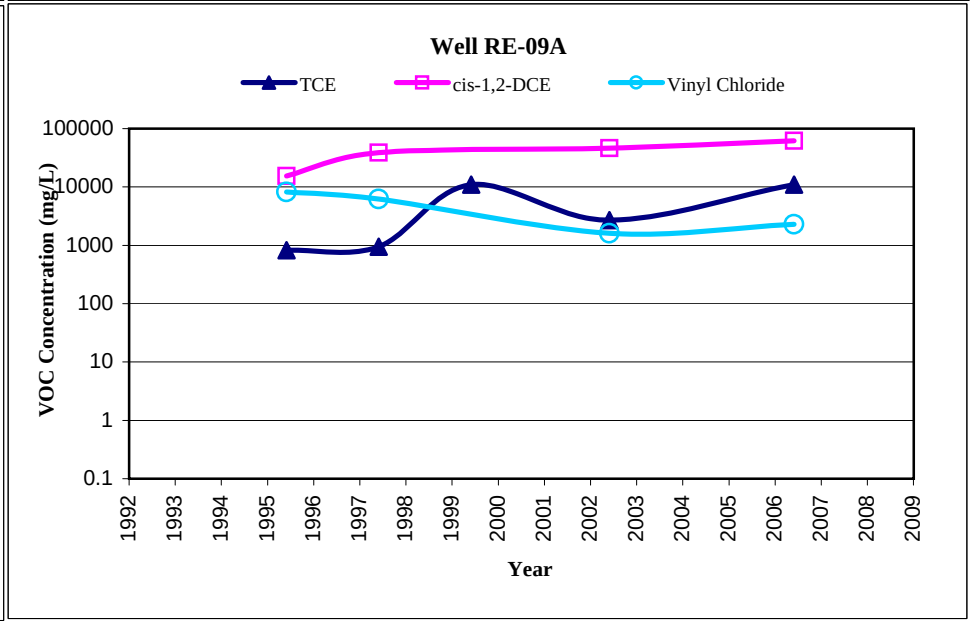


APPENDIX D
AVERAGE ANNUAL VOC CONCENTRATIONS IN SITE SPECIFIC "A" AQUIFER WELLS

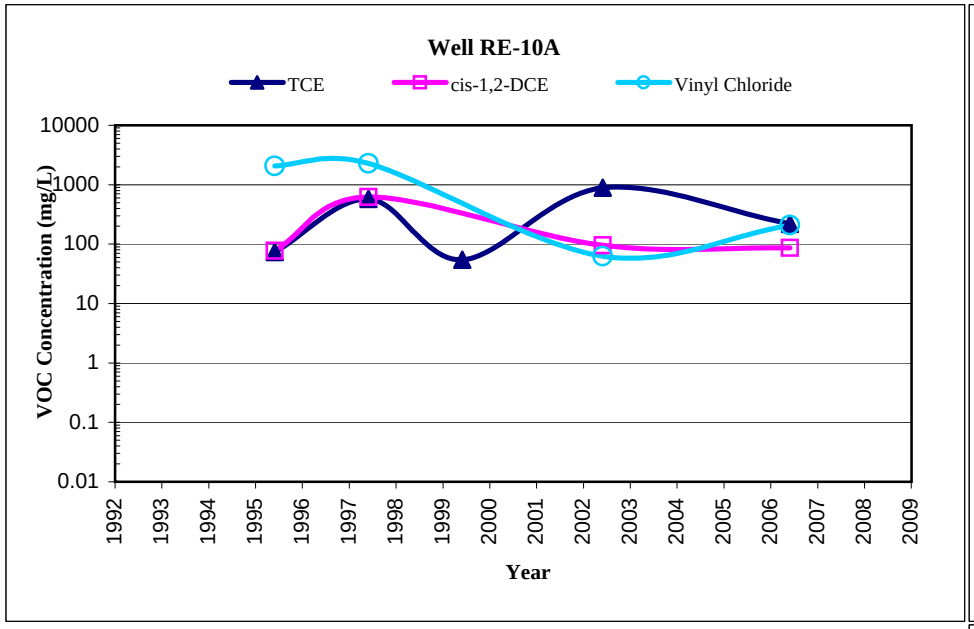


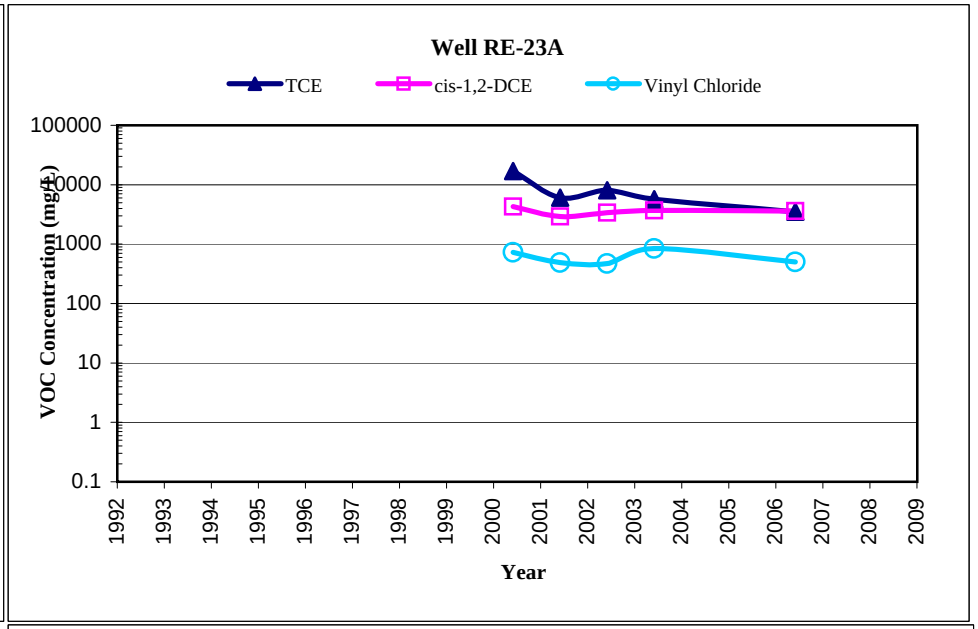


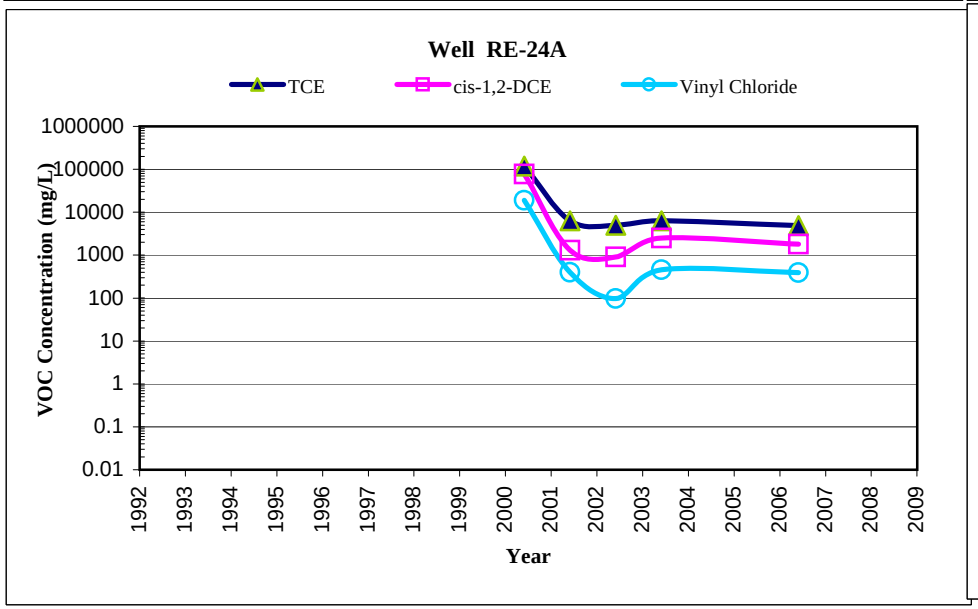


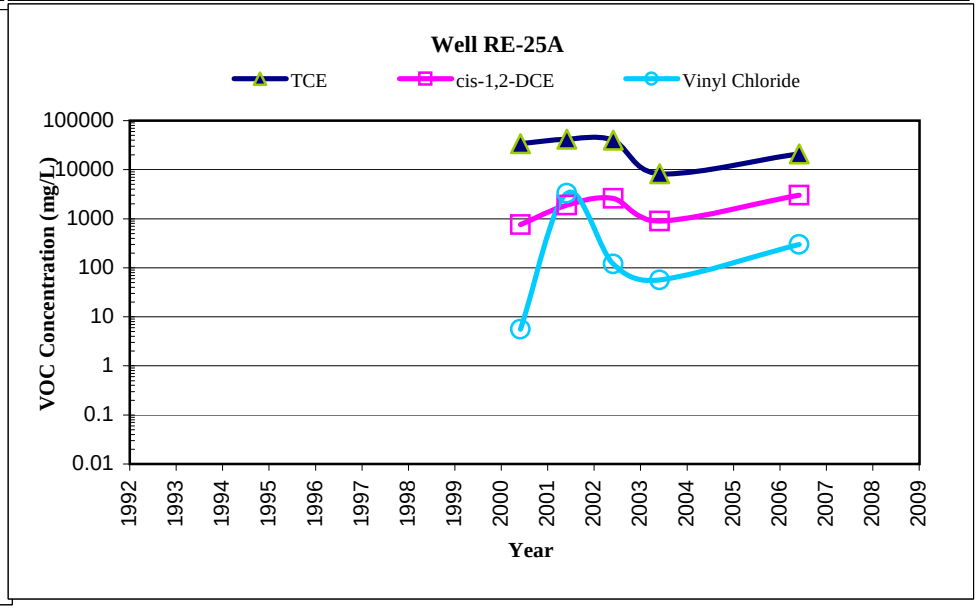


APPENDIX D
AVERAGE ANNUAL VOC CONCENTRATIONS IN SITE SPECIFIC "A" AQUIFER WELLS









APPENDIX D
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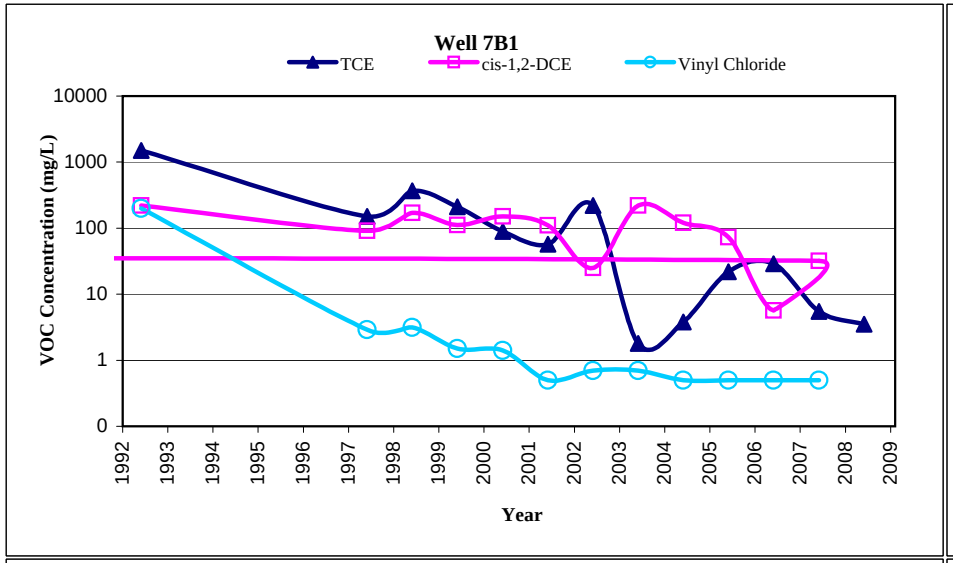
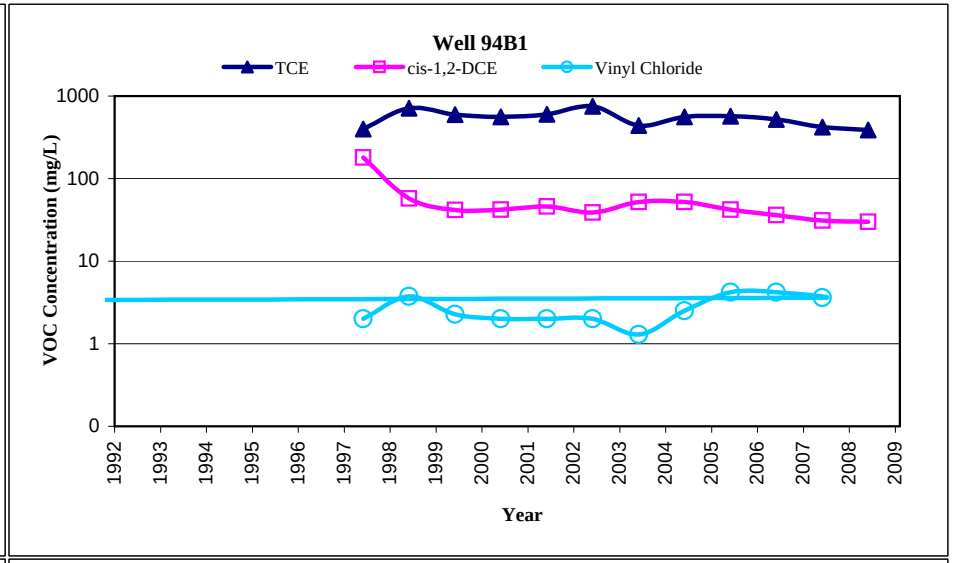
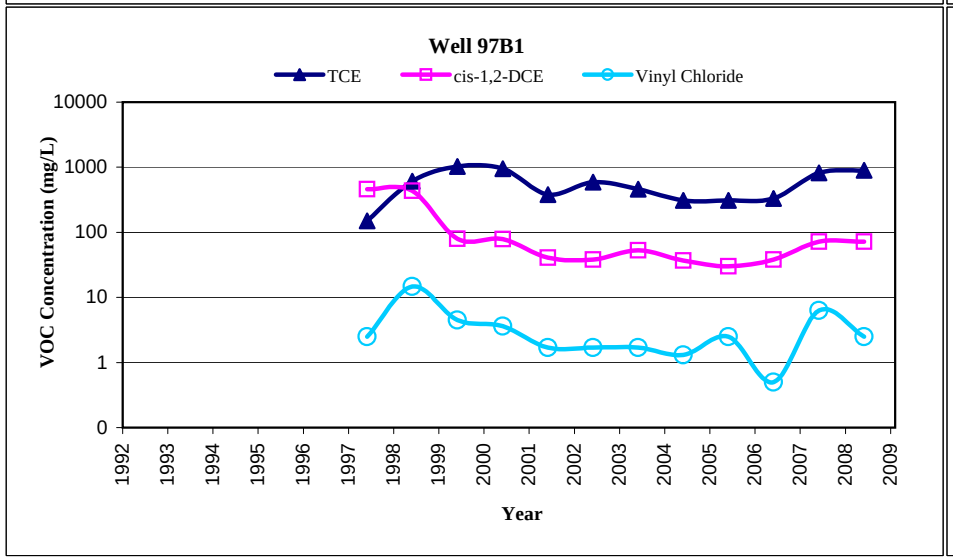
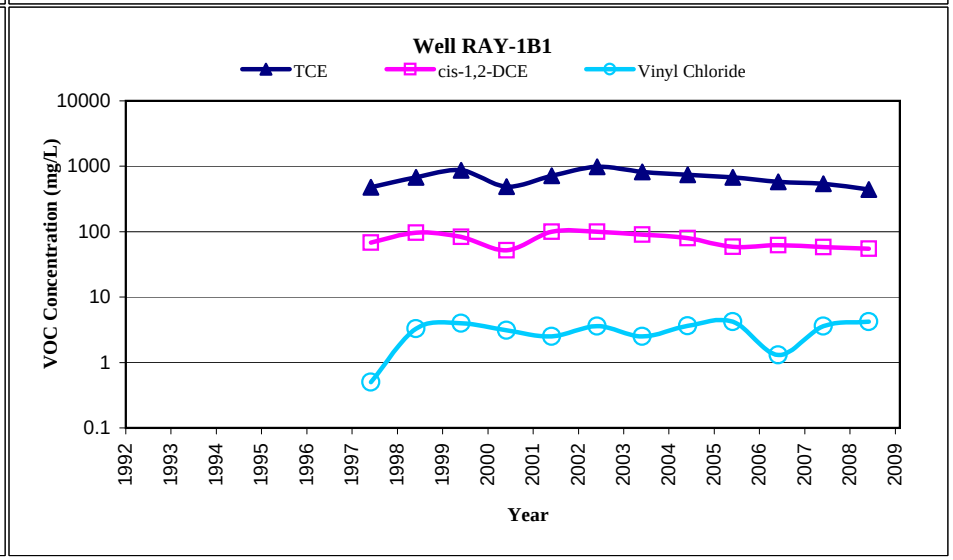
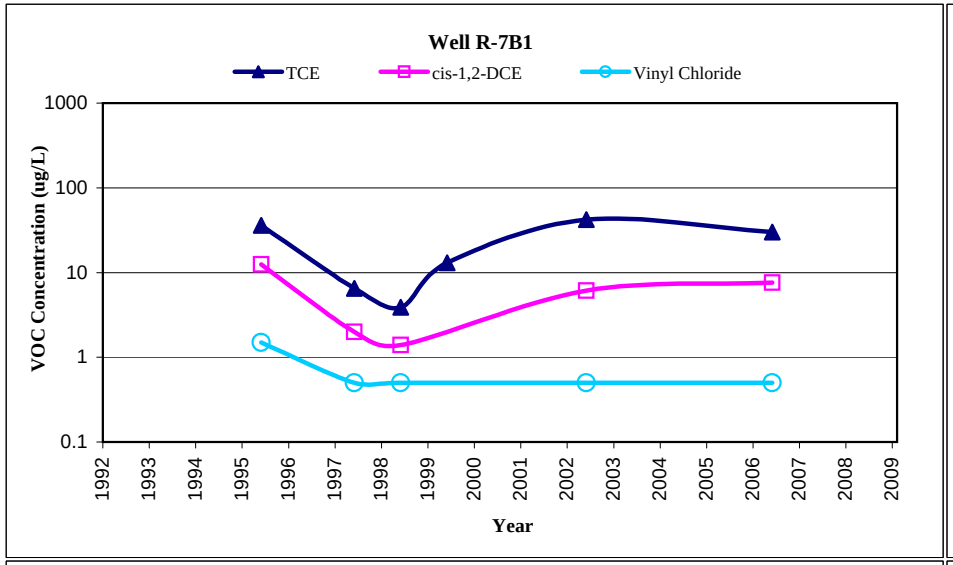


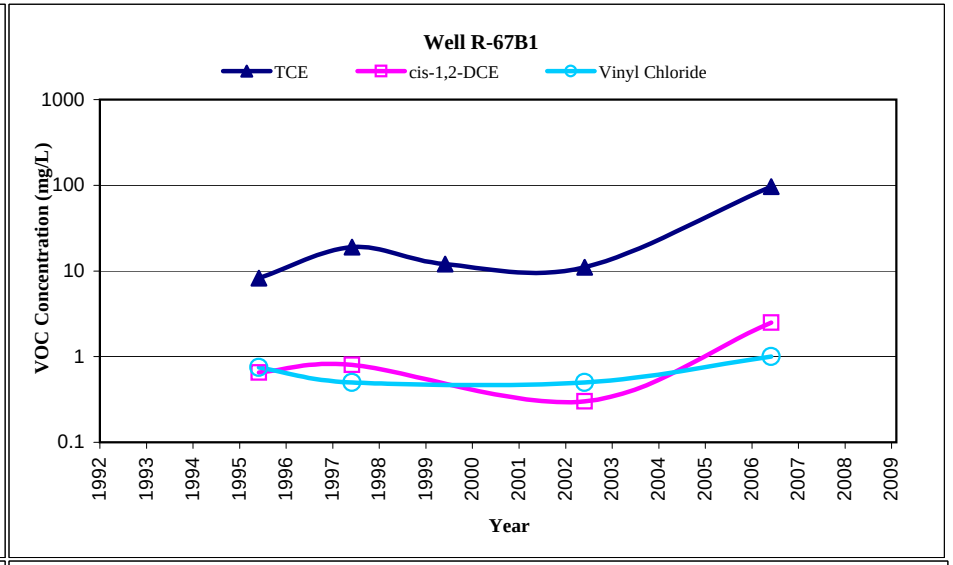


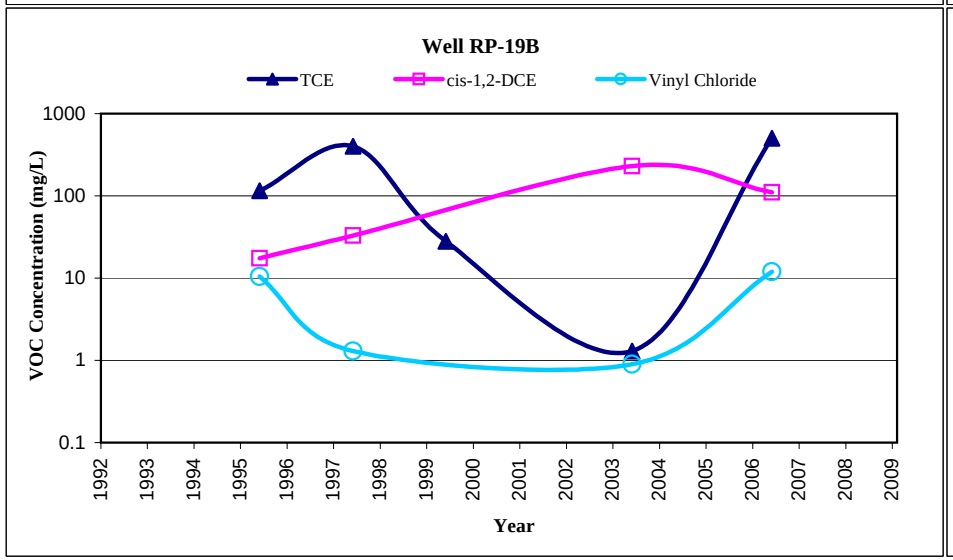


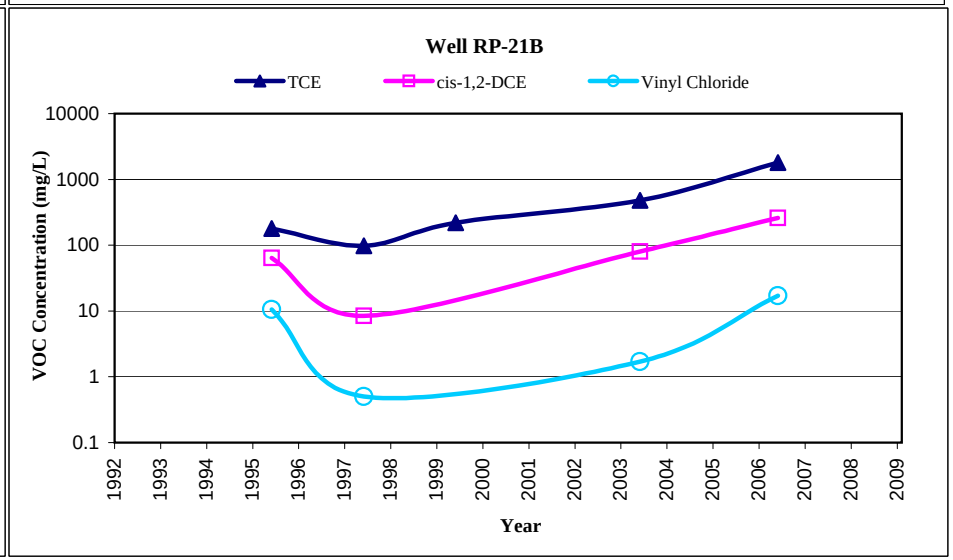


APPENDIX D
AVERAGE ANNUAL VOC CONCENTRATIONS IN SITE SPECIFIC "B1" AQUIFER WELLS

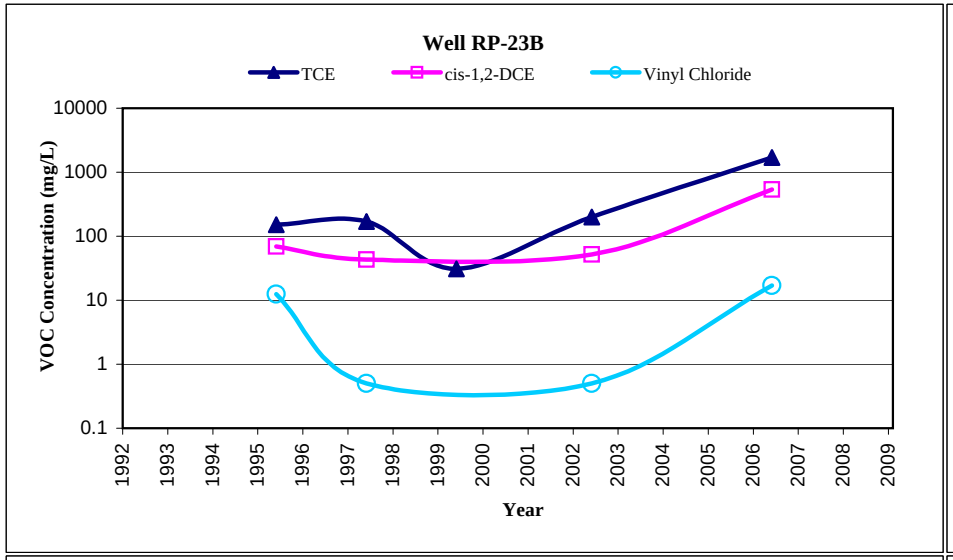


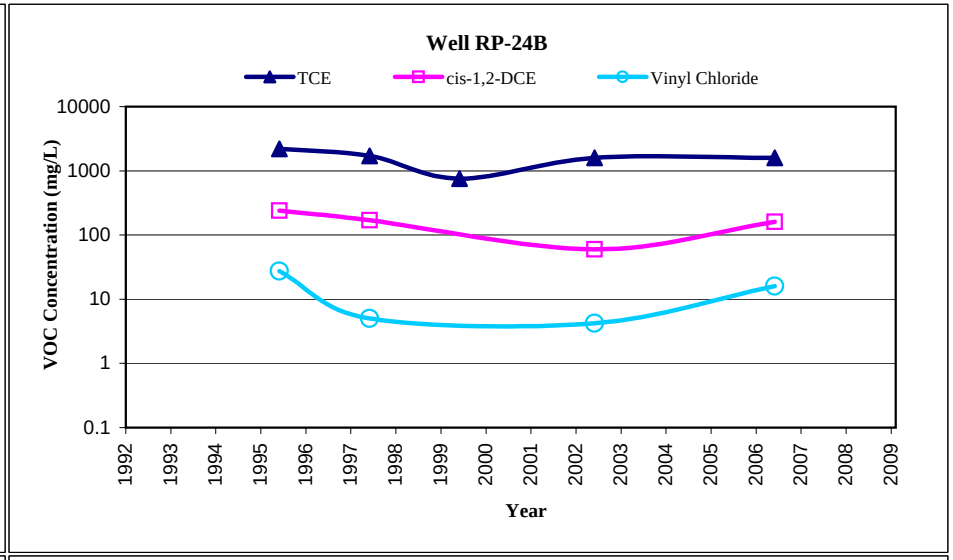


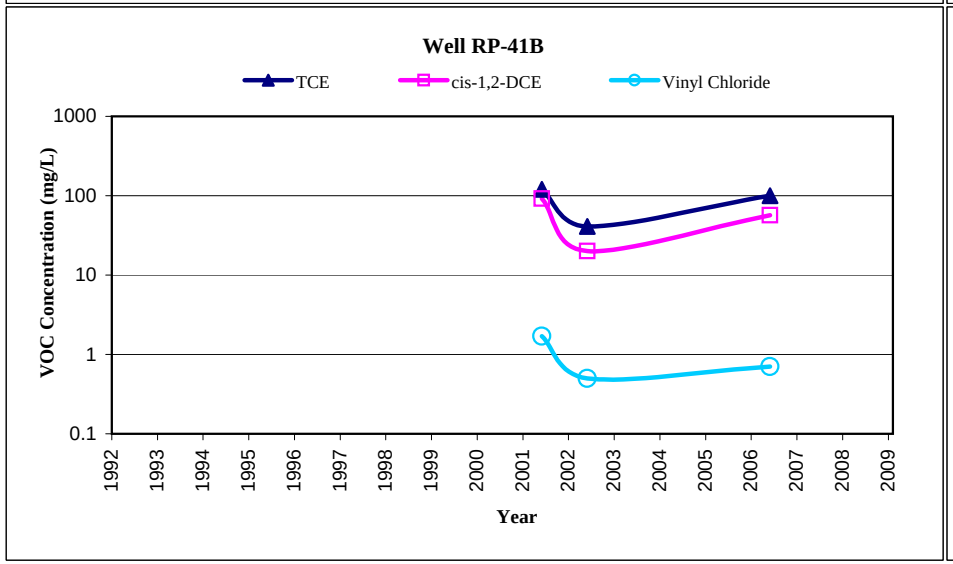


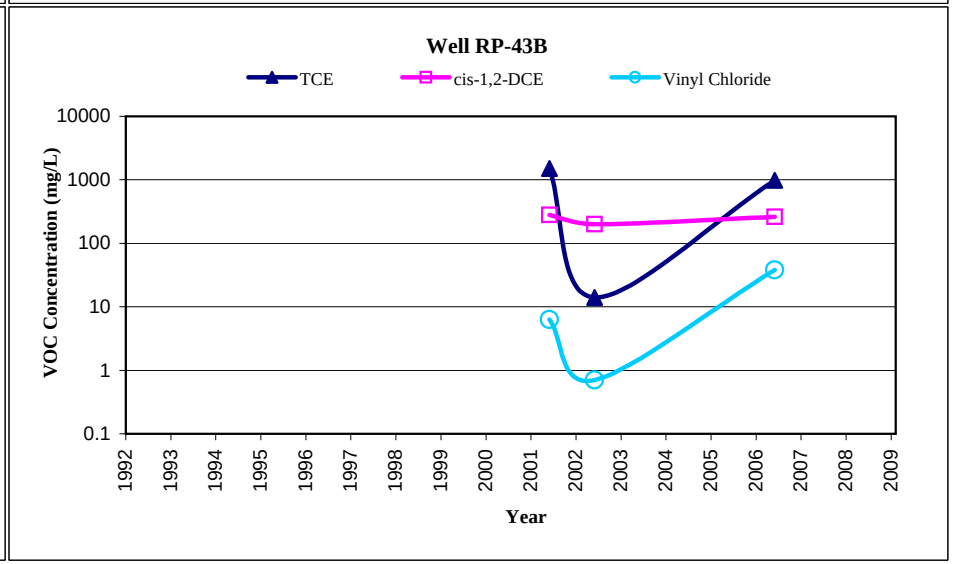


APPENDIX D
AVERAGE ANNUAL VOC CONCENTRATIONS IN SITE SPECIFIC "B1" AQUIFER WELLS









APPENDIX D
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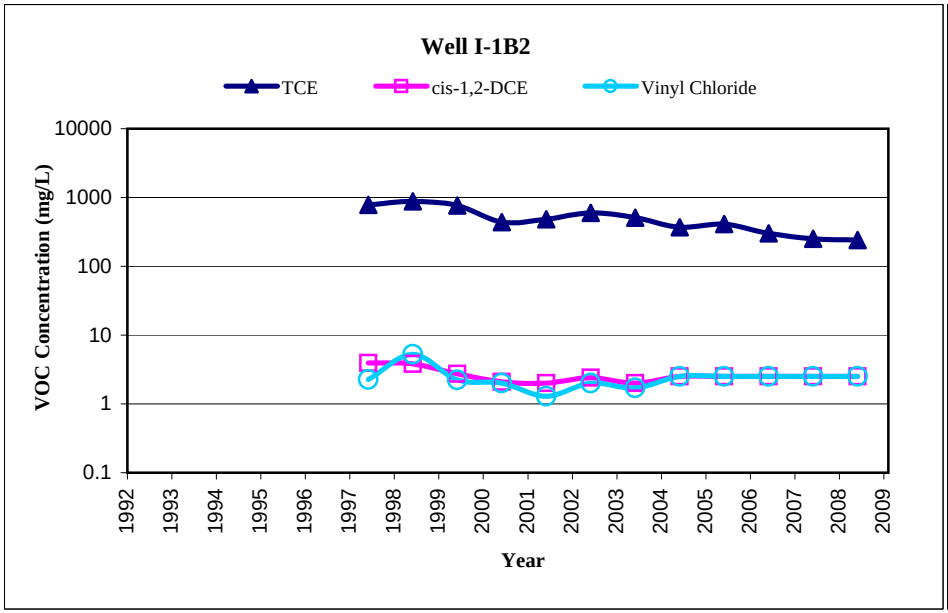
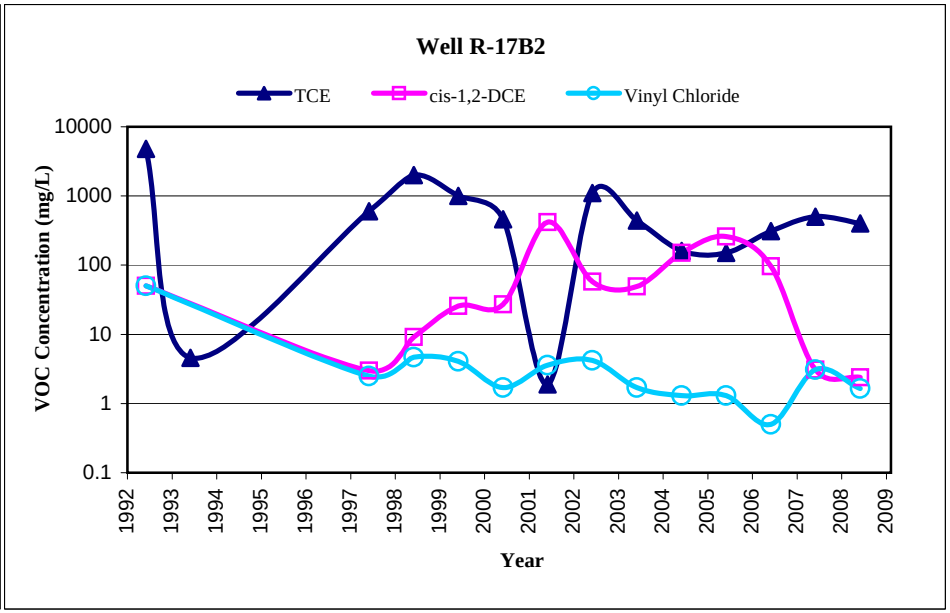
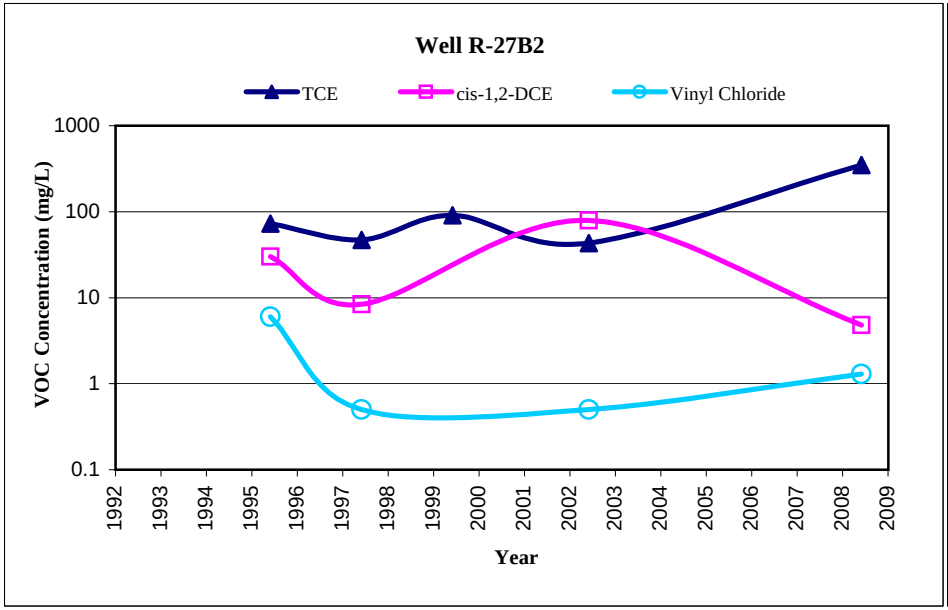
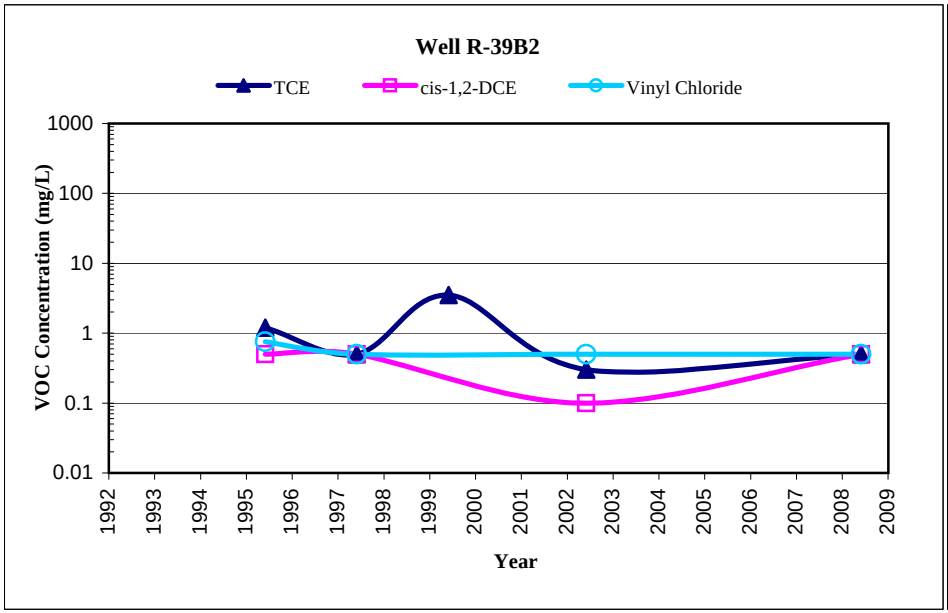
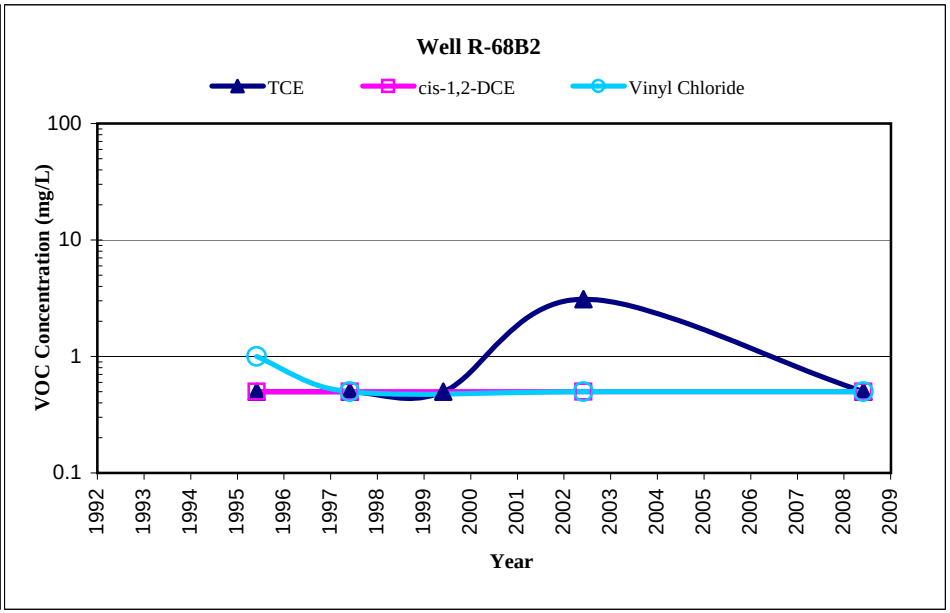


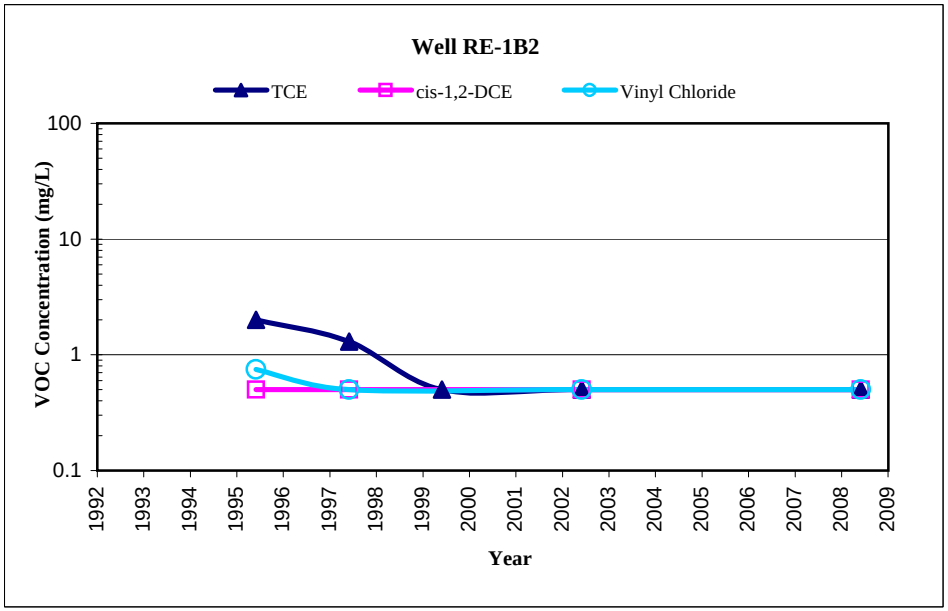




APPENDIX D
AVERAGE ANNUAL VOC CONCENTRATIONS IN SITE SPECIFIC "B2" AQUIFER WELLS







APPENDIX E

QUALITY ASSURANCE/ QUALITY CONTROL REPORT

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Appendix E
Quality Assurance/Quality Control Report

Raytheon Company - Former Facilities
350 Ellis Street Site
Mountain View, California

This Quality Assurance/Quality Control Report has been prepared by Locus Technologies (Locus) on behalf of Raytheon Company for the groundwater treatment system samples collected during this reporting period at the Raytheon's former facility located at 350 Ellis Street in Mountain View, California. This QA/QC report demonstrates that the work performed at this site complied with the standards and protocols in accordance with the 1991 Unified Quality Assurance Project Plan for the Middlefield-Ellis-Whisman site in Mountain View, California (UQAPP).

In accordance with the UQAPP, one matrix spike/matrix spike duplicate (MS/MSD) and one method blank sample are to be analyzed for every 20 samples analyzed by the laboratory. In addition, one field duplicate is to be collected for every 20 samples collected and a laboratory prepared travel blank sample accompanies every shipment of samples.

Matrix Spike/Matrix Spike Duplicate and Blank Spike/Blank Spike Duplicate (BS/BSD) Samples

The MS/MSD and BS/BSD samples are used to assess accuracy and precision of the data. MS/MSD and/or BS/BSD samples were run for each of the analyses conducted. A precision goal of 35 percent relative percent difference (RPD) was used for VOC/SVOC analyses. The RPD values ranged from 0 to 14 and 0 to 15 percent for BSD and MSD samples, respectively (Table E-1), and are within the precision goals.

A percent recovery goal of 40 – 150 percent for the volatile analysis was used for the MS/MSD samples. Laboratory QC limits were used for the analyses for which the UQAPP does not specify a percent recovery goal. The percent recoveries ranged from 47 to 140 percent for the volatile analysis. The surrogate recoveries for the MS/MSD samples ranged from 86 – 115 percent; the quality assurance goal for MS/MSD samples is 80 to 120. For surrogate recoveries for the MS/MSD samples, only one was observed beyond the quality assurance goal. In terms of accuracy and precision for MS/MSD samples, the completeness is 100 percent (Table E-2).

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The laboratory BS/BSD samples were run for the 8260 and 8270C analyses. Percent recovery goals for BS/BSD samples are not specified in the UQAPP; as such, the laboratory QC limits were used as the quality assurance goals. All BS/BSD sample percent recoveries were within the quality assurance goals, and are included in Table E-2. In terms of accuracy and precision, the completeness for both BS/BSD analyte recovery and surrogate recovery is 100 percent.

Travel Blank Samples

A total of 13 travel blank samples were analyzed for this annual reporting period. The travel blank surrogate recoveries ranged from 97 to 116 percent, and are within the quality assurance goal of 80 – 120 percent (Table E-3). The completeness of the travel blank data is 100 percent and the data are valid.

Field Blank Samples

Three field blank samples were analyzed during this reporting period. The percent recoveries of the field blank surrogates ranged from 97 to 111 percent, and are within the quality assurance goal of 80 – 120 percent (Table E-3). The completeness of the field blank data is 100 percent; the data are valid.

Method Blank Samples

The laboratory analyzed 35 method blank samples in this reporting period. The percent recoveries ranged from 58 to 115 percent for surrogates associated with EPA Method 8260, and are within the quality assurance goals of 80 – 120 percent (Table E-3). The method blank data have a completeness of 100 percent; the data are valid.

Field Samples

The laboratory analyzed a total of 48 field samples during this reporting period. The percent recoveries ranged from 87 to 120 percent for EPA Methods 8260. The field sample data have a completeness of 97 percent and are valid.

Field Duplicate Samples

Three field duplicate samples were collected and analyzed in 2008. The percent recoveries ranged from 100 to 118 percent for the EPA Method 8260 analysis, which are within the quality assurance goals (Table E-3). The duplicate sample data have a completeness of 100 percent, and are valid.

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TABLE E-1
2008 ANNUAL PROGRESS REPORT
QUALITY ASSURANCE REPORT
SUMMARY OF LABORATORY PRECISION DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Sample Type	Constituent	Precision		Completeness	
		Relative Percent Difference (%)	Quality Assurance Goal (%)[2]	Percent (%)	Quality Assurance Goal (%)
Blank Spike Duplicate	1,1-Dichloroethene	0 - 12	35	100	90
	Trichloroethene	1 - 14			
	Chlorobenzene	0 - 7			
	Toluene	2			
	Benzene	2 - 7			
	Pyrene[1]	7			
	Phenol[1]	6			
	Pentachlorophenol[1]	12			
	N-Nitroso-di-propylamine[1]	7			
	Acenaphthene[1]	9			
	4-Nitrophenol[1]	2			
	4-Chloro-3-Methylphenol[1]	7			
	2-Chlorphenol[1]	6			
	2,4-Dinitrotoluene[1]	6			
	1,2,4-Trichlorobenzene[1]	10			
Matrix Spike Duplicate	1,1-Dichloroethene	2 - 11	35	100	90
	Trichloroethene	1 - 8			
	Chlorobenzene	1 - 15			
	Benzene	2 - 5			
	1,4-Dioxane	2			

Notes:
1. Constituent associated with EPA Method 8270C.
2. If QA Goal is not specified in UQAPP for specified compound, or its associated analysis, the laboratory QC limit is used. This was applicable to the 8270C and 8270C-SIM analyses.

TABLE E-2
2008 ANNUAL PROGRESS REPORT
QUALITY ASSURANCE REPORT
SUMMARY OF LABORATORY ACCURACY DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Sample Type		Constituent	Accuracy		Completeness	
			Percent Recovery (%)	Quality Assurance Goal (%)	Percent (%)	Quality Assurance Goal (%)
Matrix Spike and Matrix Spike Duplicate	Analyte	1,1-Dichloroethene	54 - 135	40-150	100	90-100
		Trichloroethene	47 - 140			
		Chlorobenzene	88 - 110			
	Surrogate	1,2-Dichloroethane-d4	86 - 115	80-120		
		Toluene-d8	99 - 105			
		Bromofluorobenzene	92 - 107			
Blank Spike and Blank Spike Duplicate[2]	Analyte	1,1-Dichloroethene	80 - 120	80 - 120	100	90-100
		Benzene	91 - 108			
		Trichloroethene	92 - 114			
		Toluene	93 - 109			
		Chlorobenzene	89 - 109			
		1,4-Dioxane[1]	55	28 - 120		
		Phenol[1]	71 - 76	70 - 73		
		4-Nitrophenol[1]	73 - 74	75 - 77		
		2-Chlorophenol[1]	80 - 85	68 - 73		
		1,4-Dichlorobenzene[1]	67 - 71	41 - 44		
		N-nitroso-di-n-propylamine[1]	55 - 59	38 - 120		
		1,2,4-Trichlorobenzene[1]	68 - 75	51 - 55		
		4-Chloro-3-methylpenol[1]	70 - 75	67 - 71		
		Acenaphthene[1]	77 - 85	65 - 70		
		2,4-Dinitrotoluene[1]	79 - 84	57 - 60		
		Pentachlorophenol[1]	65 - 73	70 - 76		
		Pyrene[1]	78 - 83	62 - 65		
Blank Spike and Blank Spike Duplicate[2]	Surrogate	Dibromofluoromethane	95 - 103	80-120	100	90-100
		1,2-Dichloroethane-d4	83 - 111			
		Toluene-d8	92 - 108			
		Bromofluorobenzene	92 - 110			
		2-Fluorophenyl[1]	66 - 73	36 - 120		
		2-Fluorobiphenyl[1]	69 - 82	49 - 120		
		Nitrobenzene-d5[1]	67 - 71	48 - 120		
		Phenol-d5[1]	63 - 66	32 - 120		
		2,4,6-Tribromophenol[1]	72 - 77	37 - 120		
		Terphenyl-d14[1]	67 - 72	22 -120		

Notes:

1 Constituent associated with EPA Methods 8270C-SIM and/or 8270C analyses for 1,4-Dioxane and SVOCs. The percentages shown for the quality assurance goals are actually laboratory QC limits; when the UQAPP was written, these analyses were not required for treatment system samples, as such a QA goal was not established.

2 Quality assurance goals were not specified for BS/BSD samples in the UQAPP, as such the laboratory QC limits were used.

TABLE E-3
2008 ANNUAL PROGRESS REPORT
QUALITY ASSURANCE REPORT
SUMMARY OF ACCURACY AND PRECISION DATA
RAYTHEON COMPANY - FORMER FACILITIES
350 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA

Sample Type		Constituent	Accuracy		Precision		Completeness	
			Percent Recovery (%)	Quality Assurance Goal (%)[a]	Relative Percent Difference (%)	Quality Assurance Goal (%)	Percent (%)	Quality Assurance Goal (%)
Travel Blanks	Surrogate	Dibromofluoromethane	103 - 107	80-120	not applicable		100	90-100
		1,2-Dichloroethane-d4	91 - 119					
		Toluene-d8	90 - 111					
		Bromofluorobenzene	97 - 116					
Field Blanks	Surrogate	1,2-Dichloroethane-d4	101 - 111	80-120	not applicable		100	90-100
		Toluene-d8	100 - 106					
		Bromofluorobenzene	97 - 102					
Rinse Blanks	Surrogate	1,2-Dichloroethane-d4	99 - 111	80-120	not applicable		100	90-100
		Toluene-d8	99 - 103					
		Bromofluorobenzene	97 - 106					
Method Blanks	Surrogate	Dibromofluoromethane	95 - 105	80-120	not applicable		100	90-100
		1,2-Dichloroethane-d4	86 - 118					
		Toluene-d8	90 - 110					
		Bromofluorobenzene	90 - 115					
		2-Fluorobiphenyl[c]	68 - 76	49-120				
		Nitrobenzene-d5[c]	65 - 80	48-120				
		2-Fluorophenyl[c]	65	36-120				
		Phenol-d5[c]	62	32-120				
		2,4,6-Tribromophenol[c]	58	37-120				
		Terphenyl-d14[c]	66	22-120				
Field Samples	Surrogate	Dibromofluoromethane	104 - 111	80-120	not applicable		97[b]	90-100
		1,2-Dichloroethane-d4	87 - 120					
		Toluene-d8	88 - 112					
		Bromofluorobenzene	88 - 118					
		2-Fluorobiphenyl[c]	81 - 87	49-120				
		Nitrobenzene-d5[c]	68 - 96	48-120				
		2-Fluorophenyl[c]	68	36-120				
		Phenol-d5[c]	64	32-120				
		2,4,6-Tribromophenol[c]	62	37-120				
		Terphenyl-d14[c]	68	22-120				
Field Duplicates	Surrogate	1,2-Dichloroethane-d4	105 - 118	80-120	not applicable		100	90-100
		Toluene-d8	100 - 111					
		Bromofluorobenzene	103 - 114					
Field Duplicates	Analyte	1,2-Dichloroethane-d4	not applicable		0	35	100	90-100
		Toluene-d8			0			
		Bromofluorobenzene			0			

Notes:

a. Quality assurance goals were only specified for MS/MSD laboratory samples in the UQAPP, as such laboratory QC limits are used.
b. Chloroform was detected in one of the field samples. The completeness of the field sample data is (47/48)*100 = 97.92%.
c. Constituent associated with EPA methods 8270C and/or 8270C analyses for 1,4-Dioxane and SVOCs. The quality assurance goals stated are the actual laboratory QC limits; the methods were not required on treatment system samples at the time the UQAPP was written.