

E.O. Lawrence Berkeley National Laboratory
University of California
Environmental Restoration Program



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ENVIRONMENTAL RESTORATION PROGRAM

QUARTERLY PROGRESS REPORT FIRST QUARTER FISCAL YEAR 2008 (October 1 to December 31, 2007)

for the
Lawrence Berkeley National Laboratory
Hazardous Waste Facility Permit

May 2008

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Hazardous Waste Facility Permit

Environment, Health and Safety Division
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Berkeley, CA 94720

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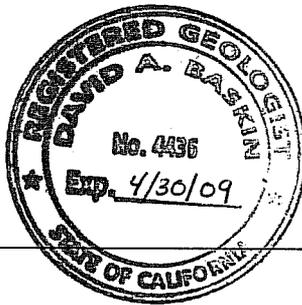
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(October 1 to December 31, 2007)

May 2008

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LIST OF ABBREVIATIONS

BC	BC Laboratories
Cal-EPA	California Environmental Protection Agency
CAP	Corrective Action Program
CMI	Corrective Measures Implementation
CMS	Corrective Measures Study
DCA	Dichloroethane
DCE	Dichloroethene
DO	Dissolved Oxygen
DOE	U.S. Department of Energy
DTSC	Cal-EPA Department of Toxic Substances Control
EBMUD	East Bay Municipal Utility District
EH&S	Environment, Health and Safety Division
EML	LBNL Environmental Measurement Laboratory
EPA	U. S. Environmental Protection Agency
ERP	Environmental Restoration Program
FY	Fiscal Year (October 1 to September 30)
GAC	Granular Activated Carbon
HRC	Hydrogen Release Compounds [®]
HWHF	Hazardous Waste Handling Facility
HQ	Hazard Quotient
ICMs	Interim Corrective Measures
ILCR	Incremental Lifetime Cancer Risk
LBNL	Lawrence Berkeley National Laboratory
MCL	Maximum Contaminant Level
MCS	Media Cleanup Standard
MDA	Minimum Detectable Activity
mg/kg	milligrams per kilogram
MNA	Monitored Natural Attenuation
m/s	meters per second
µg/L	micrograms per liter (10 ⁻⁶ grams per liter)
NA	Not Analyzed
ND	Not Detected
NTLF	National Tritium Labeling Facility
PCBs	Polychlorinated Biphenyls
PCE	Tetrachloroethene (Perchloroethene)

pCi/L	picocuries per liter (10^{-12} curies per liter)
QA	Quality Assurance
QC	Quality Control
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RPM	Remedial Project Manager
SWRCB	State Water Resources Control Board
TCA	Trichloroethane
TCE	Trichloroethene
TPH	Total Petroleum Hydrocarbons
TSCA	Toxic Substances Control Act
UC	University of California
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds
Water Board	San Francisco Bay Regional Water Quality Control Board

EXECUTIVE SUMMARY

This quarterly progress report describes activities conducted by the Ernest Orlando Lawrence Berkeley National Laboratory (LBNL) under the Resource Conservation and Recovery Act (RCRA) Corrective Action Program (CAP) from October 1 through December 31, 2007 (first quarter of fiscal year 2008 [FY08]), the current reporting period. The primary activities conducted during the reporting period included carrying out cleanup activities and monitoring groundwater quality to assess progress towards achieving required groundwater cleanup levels [Media Cleanup Standards (MCSs)]. Groundwater monitoring data indicate that the corrective measures implemented by LBNL continue to be effective in reducing concentrations of volatile organic compounds (VOCs) in the groundwater, the groundwater plumes are stable or attenuating, and contaminants are not migrating offsite in the groundwater.

LBNL is currently in the Corrective Measures Implementation (CMI) phase of the CAP. The purpose of the CMI phase is to design, construct, operate, maintain, and monitor the corrective measures (cleanup activities) approved by the California Environmental Protection Agency Department of Toxic Substances Control (DTSC). The corrective measures required for soil have been completed. The corrective measures required for groundwater consist of in situ soil flushing and groundwater capture, subsurface injection of Hydrogen Release Compound[®] (HRC), and Monitored Natural Attenuation (MNA). These measures have been implemented and are currently in the operation, maintenance, and monitoring phase. A listing of the measures is provided in the following table.

Summary of DTSC Approved Corrective Measures for Groundwater

Groundwater Unit	Ongoing Corrective Measure
Building 71B Groundwater Solvent Plume	<ul style="list-style-type: none"> • In situ soil flushing/HRC injection in the source area. • Capture and treatment of contaminated Building 51 area hydrauger effluent.
Building 51/64 Groundwater Solvent Plume	<ul style="list-style-type: none"> • In situ soil flushing in the source area. • MNA for contaminants in the downgradient plume area. • HRC injection in the upgradient core area. • Extraction and treatment of contaminated water from the Building 51 subfloor drainage system. • Extraction of groundwater from EW51-07-1 and EW51-07-2 to control migration of contaminated groundwater southward under Building 51.^(a) • Extraction of groundwater from EW51B-07-1 and EW51B-07-2 to control potential downgradient migration.^(a)
Building 51L Groundwater Solvent Plume	<ul style="list-style-type: none"> • Extraction and treatment of groundwater from EW51L-06-1 and EW51A-06-1. • Extraction and treatment of water from the concrete sump installed inside Building 51A.
Building 7 Lobe Old Town Groundwater Solvent Plume	<ul style="list-style-type: none"> • In situ soil flushing in the source area (Building 7 Groundwater Collection Trench) downgradient of the former Building 7 sump location. • In situ soil flushing in the core area downgradient from the Building 7 Groundwater Collection Trench. • Operation of the Building 58 West and Building 58 Southeast Groundwater Collection Trenches and groundwater extraction well EW58-07-1^(a) to control plume migration. • Dual-phase (groundwater and soil vapor) extraction on the Building 53/58 slope. • Extraction and treatment of water from a concrete sump (SB58-98-4). • MNA for contaminants in the peripheral plume areas.
Building 52 Lobe Old Town Groundwater Solvent Plume	<ul style="list-style-type: none"> • In situ soil flushing (injection and extraction wells) in the source area. • Collection and treatment of groundwater from the Building 46 subdrain at the downgradient lobe margin.
Building 25A Lobe Old Town Groundwater Solvent Plume	<ul style="list-style-type: none"> • In situ soil flushing (infiltration bed and extraction trench) west of Building 25A in the source area. • In situ soil flushing south of Building 25. • Extraction and treatment of water from electrical utility manhole EMH-133.
Building 69 Area	<ul style="list-style-type: none"> • Enhanced bioremediation (MNA with HRC injection) in the source area.

(a) These actions were implemented to enhance the approved corrective measures subsequent to approval of the Corrective Measures Implementation (CMI) Report.

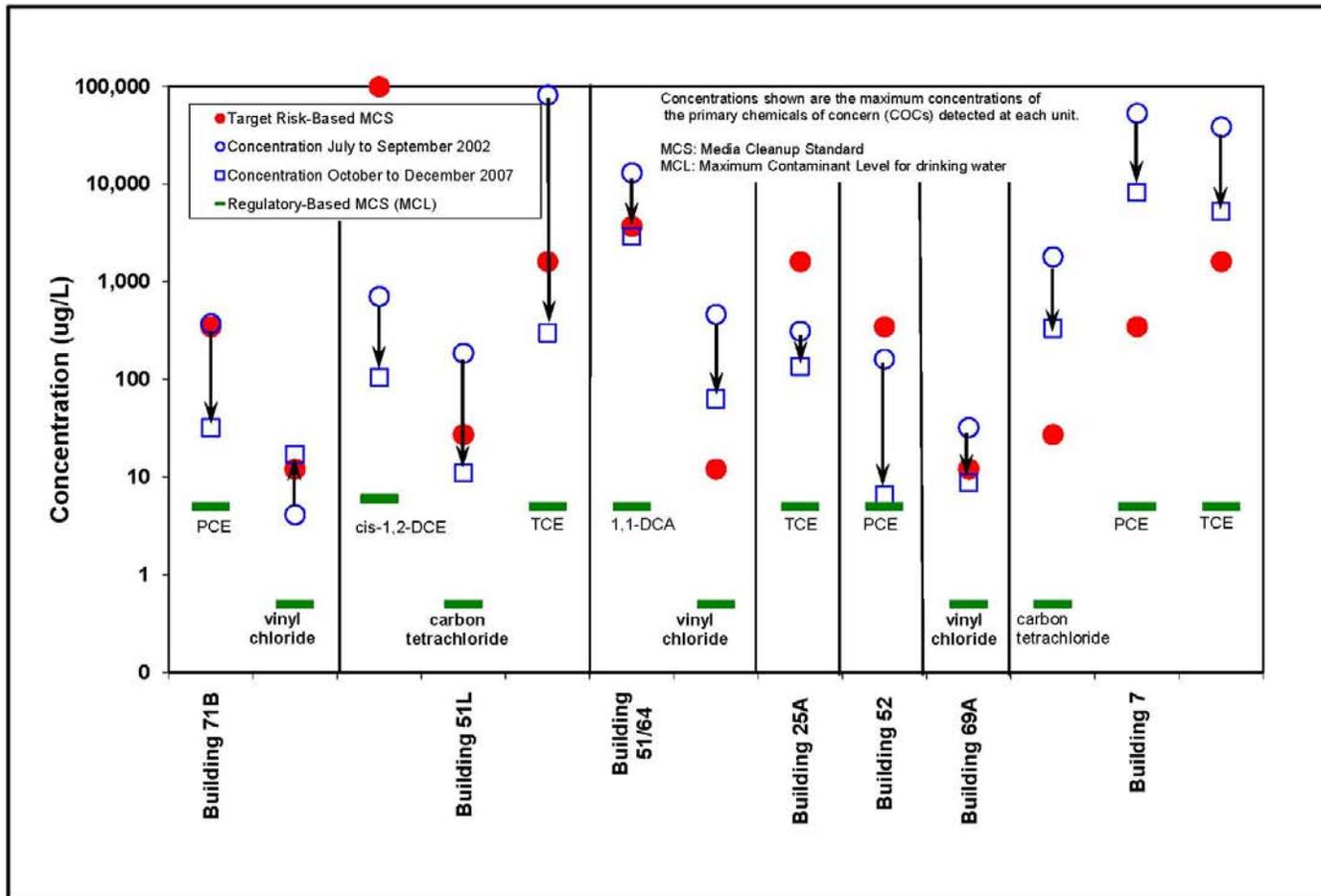
Cleanup to target risk-based MCSs is the short-term goal for areas of LBNL where groundwater is not considered a potential drinking water source (i.e., does not meet State Water Resources Control Board [SWRCB] well yield criteria of at least 200 gallons per day). Where groundwater meets the SWRCB well yield criteria, cleanup to regulatory-based MCSs (Maximum Contaminant Levels [MCLs] for drinking water) is the goal. The overall long-term goal for all groundwater at LBNL is the reduction of groundwater concentrations to MCLs, if practicable. The groundwater at LBNL is not used for domestic, irrigation, or industrial purposes; drinking water is supplied by the East Bay Municipal Utility District (EBMUD).

The progress of corrective measures toward achieving the required groundwater cleanup levels (risk-based and/or regulatory-based MCSs) is illustrated on the following graph. As shown on the graph, concentrations of the primary Chemicals of Concern (COCs) detected at each of the groundwater units where corrective measures are required have been substantially reduced over the five-year period since 2002. Similar reductions have been observed in the other contaminants detected at each unit. The increase in the concentration of vinyl chloride observed in the Building 71B plume is likely the product of the biodegradation of the more chlorinated compounds at the unit by reductive dechlorination.

Seventeen wells monitor for potential migration of contaminated groundwater beyond the site boundary or the developed areas of the site. Except for one of these wells (MWP-7), VOCs have either not been detected or only anomalously detected in the groundwater, with no VOCs detected since July 2004. Concentrations of VOCs detected in MWP-7 have been decreasing, with all concentrations below MCLs for drinking water after February 2000.

Extracted groundwater and contaminated effluent from drain lines and hydraugers are treated using granular activated carbon (GAC) systems. Most of the treated water is then injected into the subsurface for in situ soil flushing purposes. The remainder is discharged to the sanitary sewer in accordance with the provisions of LBNL's East Bay Municipal Utility District (EBMUD) Wastewater Discharge Permit. During the reporting period 2,854,887 gallons of water were treated, with more than 79 million gallons treated to date.

Five Year Cleanup Progress at Groundwater Units where Corrective Measures are Required



Selected groundwater samples were also collected and analyzed for polychlorinated biphenyls (PCBs) during the current reporting period. PCBs were detected in one of three samples collected in the Building 51 Motor Generator Room basement, with the detected concentration below the MCL. Results were consistent with previously measured concentrations. Selected samples were also analyzed for hydrochemical parameters indicative of the potential for biodegradation to provide data to assess the effectiveness of MNA and/or enhanced bioremediation in achieving the required MCSs. The hydrochemical parameters generally indicate conditions favorable for biodegradation in most of the monitored wells.

Characterization and excavation of PCB-contaminated soil at the Building 17 Former Scrapyard and Drum Storage Area (Solid Waste Management Unit [SWMU] 2-3) continued. The objective of the action is to excavate all soil with concentrations of PCBs above the Toxic Substance Control Act (TSCA) self-implementing cleanup level of 1 mg/kg for PCBs in soil in high-occupancy areas. This level is considered safe for unrestricted land use (including residential). The TSCA level was exceeded only in one soil sample collected from the floor of the excavation. Additional excavation and sampling are planned.

Radionuclides, including tritium, are not regulated under RCRA and are therefore not included in the RCRA CAP; however, tritium data have been included in the quarterly reports in order to provide a comprehensive evaluation of the status of site contaminants. Concentrations of tritium have been declining in almost all wells monitoring the Building 75 Tritium Plume since closure of the National Tritium Labeling Facility (NTLF) in December 2001, with a concurrent reduction in the lateral extent of the plume. Concentrations of tritium have been below the MCL (<20,000 pCi/L) in all wells since February 2005.

SECTION 1

INTRODUCTION

1.1 BACKGROUND

The Ernest Orlando Lawrence Berkeley National Laboratory (LBNL) Hazardous Waste Handling Facility (HWHF) operates under a Resource Conservation and Recovery Act (RCRA) Part B Hazardous Waste Facility Permit issued by the California Environmental Protection Agency (Cal-EPA) Department of Toxic Substances Control (DTSC). The Permit requires LBNL to investigate and address all releases of hazardous waste that may have occurred at the site, in accordance with RCRA Corrective Action Program (CAP) requirements. These activities are the responsibility of the LBNL Environmental Restoration Program (ERP), which is a program of the Environmental Services Group of the LBNL Environment, Health and Safety (EH&S) Division.

LBNL is currently in the Corrective Measures Implementation (CMI) phase of the CAP. The purpose of the CMI phase is to design, construct, operate, maintain, and monitor the corrective measures (cleanup activities) recommended by LBNL in the Corrective Measures Study (CMS) Report (LBNL, 2005a) and approved by the DTSC. On April 2, 2007, LBNL submitted its RCRA Corrective Measures Implementation (CMI) Report to the DTSC (LBNL, 2007a). The CMI Report provided a consolidated record of the construction and implementation of the DTSC approved corrective measures. It also provided the data to support a determination that corrective measures had been completed at the two soil units included in the CMI, and documented that the measures implemented for groundwater were generally effective in reducing concentrations of the Chemicals of Concern (COCs). These measures consist of the operation of in situ soil flushing and groundwater capture systems, subsurface injection of Hydrogen Release Compound[®] (HRC), and Monitored Natural Attenuation (MNA).

1.2 PURPOSE AND SCOPE

This quarterly progress report describes the RCRA CAP activities conducted at LBNL from October 1 through December 31, 2007 (first quarter of fiscal year 2008 [FY08]), the current reporting period. The primary purpose of the report is to document the progress of the implemented corrective measures toward achieving the required groundwater cleanup levels (Media Cleanup Standards [MCSs]) recommended by LBNL in the Corrective Measures Study (CMS) Report (LBNL, 2005a). An additional purpose of the report is to document that site groundwater plumes are stable or attenuating and that the plumes are not migrating offsite.

Quarterly summaries of RCRA CAP activities conducted prior to the current reporting period (since January 1993) have been presented in the LBNL ERP Quarterly Progress Reports (LBNL, 1993-2007). Annually, the fourth quarterly progress report of each fiscal year includes a complete tabulation of historical groundwater data for volatile organic compounds (VOCs), a four-quarter tabulation of groundwater data for other analytes, and a more extensive discussion of long-term concentration trends than is provided in the other three quarterly progress reports. The most recent annual status summary report is the fourth quarter FY07 report (LBNL, 2008).

1.3 SITE DESCRIPTION AND HISTORY

LBNL is a multi-program scientific research campus operated by the University of California (UC) for the United States Department of Energy (DOE). From an initial emphasis on nuclear physics research in the 1940s, LBNL has grown into a multi-program scientific research facility that includes energy, life and environmental sciences, high performance computing, and physical sciences. It is located on a 202-acre parcel of UC Regents' land in the Berkeley/Oakland Hills in Alameda County, California (Figure 1). The western three-quarters of LBNL are in the City of Berkeley and the eastern quarter is in Oakland. A map of the site showing the locations of site creeks and the surface topography is included as Figure 2.

For reporting purposes, the RCRA Facility Assessment (RFA) (LBNL, 1992a) subdivided LBNL into 15 Areas. Subsequently, during the RCRA Facility Investigation (RFI), the 15 RFA Areas were grouped into four areas (Bevalac, Old Town, Support Services, and

Outlying), based on the locations of groundwater plumes, the direction of groundwater flow, and potential contaminant migration pathways. Figures and tables presented in this report are organized based on these four areas. The locations of the four areas and the 15 RFA Areas are shown on Figure 3.

1.4 TERMINOLOGY

Groundwater contaminant plumes presented in this report are described using the terminology listed in the following table to refer to relative directions and zones within each plume.

Groundwater Plume Terminology

Term	Definition
Plume	A volume of contaminated groundwater that extends outward in the direction of contaminant migration (primarily the groundwater flow direction) from a source of contamination.
Upgradient	In the direction from which groundwater flows (direction toward greater hydraulic head).
Downgradient	In the direction of groundwater flow (direction toward lesser hydraulic head).
Crossgradient	In the direction perpendicular to groundwater flow.
Source	The location where the contaminant was released to the environment.
Core	The area of relatively high contaminant concentrations extending downgradient from the source.
Plume-Periphery	Downgradient or crossgradient from the core near the plume margins.
Background	Upgradient or crossgradient from the plume where wells are not affected by contamination.
Off-Site	Outside the property boundary.

SECTION 2

ENVIRONMENTAL ACTIVITIES CONDUCTED DURING THE CURRENT REPORTING PERIOD (October through December 2007)

2.1 GROUNDWATER MONITORING

Summary of the Groundwater Monitoring Program

The primary purpose of groundwater sampling during the CMI phase of the CAP is to monitor the effectiveness of the implemented corrective measures toward achieving the required groundwater MCSs. The data are also used to document that site groundwater plumes are stable or attenuating and that the plumes are not migrating offsite. To accomplish these objectives, groundwater samples are collected from groundwater monitoring wells and analyzed for VOCs in accordance with the schedule (LBNL, 2005b) approved by the Regional Water Quality Control Board - San Francisco Bay Region (Water Board) (Water Board, 2005). In addition, groundwater samples collected from temporary groundwater sampling points and groundwater extraction wells are analyzed for VOCs to obtain supplemental data to support these objectives. The complete list of VOC (Method 8260) analytes and quantitation limits (assuming no sample dilution) for each laboratory utilized during the current reporting period is provided in Table 1.

Samples from selected monitoring wells and temporary groundwater sampling points are also analyzed for hydrochemical parameters indicative of the potential for biodegradation. The purpose of this sampling is to provide the data necessary to assess the effectiveness of MNA and/or enhanced bioremediation in achieving the required MCSs.

In addition to collecting groundwater samples from monitoring wells, temporary sampling points and extraction wells; groundwater samples are also periodically collected from slope stability wells and hydraugers. Slope stability wells and hydraugers were not installed for groundwater monitoring purposes, therefore the results from these installations are not considered valid for quantitative determination of groundwater concentrations, although they do

provide qualitative data useful for assessing plume geometry. The locations of slope stability wells are shown on Figure 4. The locations of groundwater monitoring wells, temporary groundwater sampling points, groundwater extraction wells, and hydraugers are shown on Figure 5 and Figures 6a through 6i.

Selected groundwater samples are also analyzed for metals, polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH), and tritium to obtain supplemental information on groundwater quality. Samples for metals and tritium analysis are collected in accordance with the schedule approved by the Water Board (LBNL, 2005b). Radionuclides, including tritium, are not regulated under RCRA and are therefore not included in the RCRA CAP; however, tritium data have been included in the quarterly reports in order to provide a comprehensive evaluation of the status of site contaminants.

A listing of analytical methods used for groundwater sampling at each of the sampling locations during the current reporting period is presented in Table 2. Groundwater elevation data are presented in Table 3. Groundwater monitoring well construction details are presented in Table 4. Groundwater analytical results for each of the site areas and types of sampling locations are provided in the tables listed in the following index:

Index of Table Numbering for Groundwater Analytical Results

Chemical	Area	Groundwater Monitoring Wells	Temporary Groundwater Sampling Points	Groundwater Extraction or Injection Wells	Slope Stability Wells	Hydraugers
Volatile Organic Compounds (VOCs) ^(a)	Bevalac	5-1	5-2	5-3 and 9	—	8
	Old Town	6-1	6-2	6-3	—	—
	Support Services	7-1	7-2	—	—	—
	Outlying ^(c)	—	—	—	—	—
Tritium ^(b)	Sitewide	11	11	—	11	11
Polychlorinated Biphenyls ^(a)	Bevalac	—	12	—	—	—
Hydrochemical Indicator Parameters ^(a)	Sitewide	13	13	—	—	—

(a) Includes results only for current reporting period.

(b) Includes results for four quarters.

(c) No Outlying Area wells were sampled during the current reporting period

Each of the tables listing VOC concentrations is subdivided into halogenated non-aromatic compounds, which are primarily derived from solvents, and nonhalogenated or aromatic compounds, which are primarily derived from petroleum products. In order to simplify the reporting tables, the VOC result tables only list the principal VOCs detected at the site; VOCs that have only been detected to a limited extent are listed in Table 9.

Monitoring the Implemented Corrective Measures (Halogenated Volatile Organic Compounds)

Corrective Measures Requirements

The Corrective Measures Study Report (LBNL, 2005a) recommended that corrective measures be implemented in seven areas of solvent-contaminated groundwater. These seven areas are listed in the following table, which also lists the corresponding figure numbers for groundwater elevation maps and isoconcentration contour maps for the current reporting period. The locations of the seven areas are shown on Figure 7.

**LBNL Groundwater Monitoring — Figure Index
Locations Where Corrective Measures are Required**

Plume or Area of Groundwater Contamination	Figure Number	
	Concentration Map	Water Level Elevation Map
<i>Bevalac Area</i>		11
Building 71 Groundwater Solvent Plume Building 71B Lobe	8	—
Building 51/64 Groundwater Solvent Plume	8, 9	—
Building 51L Groundwater Solvent Plume	8, 10	—
<i>Old Town Area</i>		14
Old Town Groundwater Solvent Plume Building 7 Lobe	12, 13	—
Old Town Groundwater Solvent Plume Building 52 Lobe	12	—
Old Town Groundwater Solvent Plume Building 25A Lobe	12	—
<i>Support Services Area</i>		16
Building 69A Area of Groundwater Contamination	15	—

The primary objective of the corrective measures for these seven areas is to reduce contaminant concentrations below either risk-based or regulatory-based MCSs, as applicable. Regulatory-based MCSs (i.e. Maximum Contaminant Levels [MCLs] for drinking water) are applicable to the areas where groundwater characteristics (i.e. yields) meet State Water Resources

Control Board (SWRCB) criteria for potential sources of drinking water, as defined by SWRCB Resolution 88-63. For the areas, that do not constitute potential sources of drinking water, less stringent risk-based MCSs are applicable. The overall long-term goal for all groundwater at LBNL is to reduce contaminant concentrations to MCLs for drinking water, if practicable. However, it should be noted that groundwater at LBNL is not used for domestic, irrigation, or industrial purposes and all drinking water is supplied by the East Bay Municipal Utility District (EBMUD).

Two sets of risk-based MCSs were developed: 1) target risk-based MCSs and 2) upper-limit risk-based MCSs. The target risk-based MCSs were based on theoretical Incremental Lifetime Cancer Risks (ILCRs) of 10^{-6} (the lower bound of the United States Environmental Protection Agency [EPA] risk management range) and a non-cancer Hazard Quotient (HQ) of 1.0. Since the target risk-based MCSs may not be achievable at some groundwater units due to technical impracticability, upper-limit risk-based MCSs were also developed that represent the upper bound of the risk management range (i.e. a theoretical ILCR of 10^{-4}).

In addition to monitoring groundwater at the seven units listed above, LBNL is monitoring groundwater in three other areas of solvent-contaminated groundwater where corrective measures are not required. The three areas are listed in the following table, which also lists the corresponding figure numbers for the isoconcentration contour map and groundwater elevation map for the current reporting period.

**LBNL Groundwater Monitoring — Figure Index
Locations Where Corrective Measures are not Required**

Plume or Area of Groundwater Contamination	Figure Number	
	Concentration Map	Water Level Elevation Map
<i>Support Services Area</i>		16
Building 76 Groundwater Solvent Plume	15	
Building 75/75A Area of Groundwater Contamination	15	
Building 77 Area of Groundwater Contamination*	15	

* Concentrations of VOCs have been below MCLs during most monitoring events since 2002.

Concentrations of VOCs in the groundwater in these three areas are below the applicable cleanup levels (risk-based MCSs), and regulatory-based MCSs do not apply because the areas do not constitute potential sources of drinking water (SWRCB Resolution 88-63). LBNL is required to monitor groundwater in these areas because VOC concentrations exceed the long-term cleanup goal for all site groundwater (MCLs). Groundwater samples are collected from monitoring wells in these three areas and analyzed for VOCs in accordance with the schedule approved by the Water Board (LBNL, 2005b).

Corrective Measures Effectiveness

The monitoring data continue to indicate that: 1) the implemented corrective measures have been effective in reducing contaminant concentrations in the groundwater; 2) the groundwater plumes are stable or attenuating; and, 3) contaminants are not migrating offsite in the groundwater. To illustrate the effectiveness of the groundwater cleanup measures Figure 17, Figure 18, and Figure 19 provide comparisons of groundwater plume VOC concentrations between the current reporting period and 1999. The figures show the areal extent of total halogenated VOC concentrations exceeding 10 µg/L, 100 µg/L, and 1,000 µg/L, respectively. The figures show that significant reductions in concentrations of halogenated VOCs in groundwater have occurred since 1999. The reductions are the result of both Interim Corrective Measures (ICMs) implemented during the RFI and the approved corrective measures that have subsequently been implemented.

The groundwater sampling locations where concentrations of VOCs exceeded MCLs for drinking water during the current reporting period and the specific VOCs that exceeded MCLs are listed in Table 10. The maximum concentrations of halogenated VOCs detected above MCLs in each of the 10 areas discussed above are listed in the following table. The extent of groundwater contamination where concentrations of halogenated VOCs exceeded MCLs during the current reporting period is shown on Figure 20.

**Maximum Concentrations ($\mu\text{g/L}$) of Halogenated VOCs Detected Above MCLs
during the First Quarter of FY08**

Area	Groundwater Unit	1,1-DCA	1,2-DCA	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	PCE	TCE	vinyl chloride	carbon tet
	MCL	5	0.5	6	6	10	5	5	0.5	0.5
Bevalac	Building 71B Lobe				45		32	13	17	
	Building 51/64 Plume	2,900	3.8	424	122	23	145	421	63	
	Building 51L Plume	11			105	12	5.9	298	3.6	11
Old Town	Old Town Plume									
	Building 7 Lobe	9.3	1.4	41	137	10	8,180	5,230	2.6	332
	Building 25A Lobe			23				135		
	Building 52 Lobe						6.6			1.2
Support Services	Building 69A Area				6.6				8.8	
	Building 75/75A Area *									
	Building 76 Area*									
	Building 77 Area*									

DCA: dichloroethane PCE: tetrachloroethene DCE: dichloroethene
TCE: trichloroethene carbon tet: carbon tetrachloride
* Not sampled during the current reporting period.

Seventeen wells monitor for potential migration of contaminated groundwater beyond the site boundary or the developed areas of the site (Figure 21). No VOCs were detected in MWP-1, the only perimeter well sampled during the current reporting period. No VOCs were detected in any of the perimeter wells during the previous reporting period.

Monitoring Other Chemicals in the Groundwater

Aromatic or Non-Halogenated Hydrocarbons

Wells in which aromatic or non-halogenated hydrocarbons were detected during the current reporting period are listed in the following table. Except for benzene in well MW51-96-16, concentrations of aromatic or non-halogenated hydrocarbons detected did not exceed MCLs for drinking water. Results were consistent with previously measured concentrations.

**Aromatic or Non-Halogenated Hydrocarbons Detected in Groundwater
During the First Quarter of FY08**

Chemical	MCL ($\mu\text{g/L}$)	Well Number	Maximum Concentration ($\mu\text{g/L}$)
benzene	1	SB69A-99-1	1.0
		MW51-96-16	1.7
toluene	150	SB64-02-1	3.7 (maximum)
		SB64-02-2	2.4 (maximum)
		SB69A-99-1	1.2

Tritium

The Building 75 Tritium Plume extends from the Corporation Yard (the area between Buildings 69 and 75) southward toward Chicken Creek (Figure 22). The source of the plume was the former National Tritium Labeling Facility (NTLF), which operated inside Building 75 for almost 20 years until December 2001. Tritium has also been detected in a localized area near Building 71B, although concentrations in that area have been substantially less than those detected in the Building 75 area. The tritium in the groundwater in the Building 71B area was likely derived from surface runoff from the hillside northeast of Building 71, in the vicinity of the Lawrence Hall of Science.

Concentrations of tritium detected in groundwater in 2007 are listed in Table 11. An isoconcentration map of the Building 75 area showing the distribution of tritium in groundwater for the current reporting period is shown on Figure 22. Although the concentrations of tritium generally increased from the second to fourth quarters of FY07, possibly as a result of seasonal effects, there have been significant declines in concentrations of tritium in almost all wells monitoring the plume since closure of the NTLF in December 2001, with a concurrent reduction in the lateral extent of the plume. The only well sampled for tritium during the current reporting period was MW31-98-17 downgradient from the plume (Table 11). No tritium was detected in that well. Concentrations of tritium have been below the MCL (<20,000 pCi/L) in all wells since February 2005.

shown on Figure 22. Tritium (1,700 pCi/L) was detected only in hydrauger 77-02-5. Results were consistent with previously measured concentrations.

Polychlorinated Biphenyls (PCBs)

Groundwater samples collected from three temporary groundwater sampling points (SB51-98-1, SB51-98-4, and SB51-98-6) in the Building 51 Motor Generator Room Basement were analyzed for PCBs during the current reporting period. PCBs (0.32 µg/L) were only detected in SB51-98-4 (Table 12). Results were consistent with previously measured concentrations.

2.2 BUILDING 17 FORMER SCRAPYARD AND DRUM STORAGE AREA (SWMU 2-3)

Approximately 240 cubic yards of PCB-contaminated soil were removed from the Building 17 area during ICMs conducted in 1998 and 1999. The objective of the ICMs was to remove soil with concentrations of PCBs greater than the Toxic Substances Control Act (TSCA) self-implementing cleanup level of 1 mg/kg for PCBs in soil in high-occupancy areas. This level is considered safe for unrestricted land use (including residential). Except for one confirmatory sample collected beneath the southwest end of Building 17, residual concentrations of PCBs were less than the 1 mg/kg ICM cleanup level.

In June 2007, seven shallow soil samples were collected from four borings (SS-17-07-1 through SS-07-4 on Figure 23) drilled through the building foundation to determine the extent of excavation that would be required to achieve the TSCA level, and make the unit acceptable for unrestricted land use. No PCBs were detected. Based on these results, an approximately 4-foot long by 4-foot wide section of the concrete floor was removed from the area where the TSCA level had been exceeded and the underlying soil was excavated to a depth of 4 feet. On December 4, 2007, eight soil samples (SS17-07-W1 through –W8) were collected from the walls and four (SS17-07-F1 through –F4) from the floor of the excavation. The location of the excavation and soil sampling locations are shown on Figure 23. Concentrations of PCBs detected are listed in Table 13. The TSCA level was exceeded only in one floor sample collected from the western side of the excavation (the side closest to the building wall), indicating that additional excavation was required. During the second quarter of FY08,

additional excavation achieved the TSCA level. Results of this additional excavation and sampling will be reported in the next quarterly progress report, which is scheduled for submittal in August 2008.

2.3 BUILDING 77 REHABILITATION

On November 7 and November 8, 2007, 16 shallow soil samples (maximum depth 2 feet) were collected north of Building 77 to evaluate whether tritium contamination was present in the soil at the location planned for construction of a new electrical ductbank. Sampling locations are shown on Figure 24. The purpose of the sampling was to help determine soil disposal requirements and assess the potential exposure for construction workers. Concentrations of tritium detected are listed in Table 14. No tritium was detected (<2 pCi/g).

2.4 DOCUMENTS

The following documents were submitted to the regulatory agencies during the current reporting period:

- On October 4, 2007 LBNL submitted the semi-annual Self-Monitoring Report for treated water discharged to the sanitary sewer to EBMUD.
- On October 12, 2007 LBNL submitted the Environmental Investigation Report for the Former Building 10 Site to the DTSC (LBNL, 2007b). The report requested concurrence with LBNL's recommendation that no further action should be required at the site. On November 16, 2007, DTSC informed LBNL that they approved the report and concluded that no further action was needed (DTSC, 2007).
- On October 26, 2007, LBNL submitted the Former Building 29 Area Petroleum Release Report to the City of Berkeley (LBNL, 2007c).
- On November 26, 2007, LBNL submitted a Permit Application to destroy the six temporary groundwater sampling points located at the former Building 10 demolition site. The DTSC had approved the destruction of the six wells in their November 16, 2007 letter to LBNL (DTSC, 2007).
- On November 30, 2007, LBNL submitted the Quarterly Progress Report for the Third Quarter of FY07 to the DTSC.

SECTION 3

STATUS OF CORRECTIVE MEASURES

3.1 SUMMARY OF CORRECTIVE MEASURES

A listing of the ongoing corrective measures that have been implemented for groundwater is provided in the following table. More detailed information on the implementation of the measures is provided in the RCRA Corrective Measures Implementation (CMI) Report (LBNL, 2007a). In addition to the DTSC-required corrective measures listed in the table, operation of the Building 6 dual-phase (groundwater and soil vapor) extraction system continued during the current reporting period. The Building 6 system was installed to extract petroleum hydrocarbons from the soil and groundwater at the Building 7E Former Underground Storage Tank (UST) site. Petroleum hydrocarbons were last detected in the groundwater at the site in August 2006.

Monitored Natural Attenuation (MNA) and Enhanced Bioremediation

MNA is a component of the approved corrective measures at the following three groundwater units:

1. Downgradient core area of the Building 51/64 Groundwater Solvent Plume
2. Peripheral area of the Building 7 Lobe of the Old Town Groundwater Solvent Plume
3. Building 69A Area of Groundwater Contamination.

HRC has been injected into the groundwater at two of these units (Building 51/64 and Building 69) and in the Building 71B plume source area to enhance natural biodegradation processes. Injection of HRC was temporarily halted at all three units on October 31, 2007 to assess changes in trends in VOC concentrations in the absence of HRC injection.

Summary of DTSC Approved Corrective Measures for Groundwater

Groundwater Unit	Ongoing Corrective Measure
Building 71B Groundwater Solvent Plume	<ul style="list-style-type: none"> • In situ soil flushing/HRC injection in the source area. • Capture and treatment of contaminated Building 51 area hydrauger effluent.
Building 51/64 Groundwater Solvent Plume	<ul style="list-style-type: none"> • In situ soil flushing in the source area. • MNA for contaminants in the downgradient plume area. • HRC injection in the upgradient core area. • Extraction and treatment of contaminated water from the Building 51 subfloor drainage system. • Extraction of groundwater from EW51-07-1 and EW51-07-2 to control migration of contaminated groundwater southward under Building 51.^(a) • Extraction of groundwater from EW51B-07-1 and EW51B-07-2 to control potential downgradient migration.^(a)
Building 51L Groundwater Solvent Plume	<ul style="list-style-type: none"> • Extraction and treatment of groundwater from EW51L-06-1 and EW51A-06-1. • Extraction and treatment of water from the concrete sump installed inside Building 51A.
Building 7 Lobe Old Town Groundwater Solvent Plume	<ul style="list-style-type: none"> • In situ soil flushing in the source area (Building 7 Groundwater Collection Trench) downgradient from the former Building 7 sump location. • In situ soil flushing in the core area downgradient from the Building 7 Groundwater Collection Trench. • Operation of the Building 58 West and Building 58 Southeast Groundwater Collection Trenches and groundwater extraction well EW58-07-1^(a) to control plume migration. • Dual-phase (groundwater and soil vapor) extraction on the Building 53/58 slope. • Extraction and treatment of water from a concrete sump (SB58-98-4). • MNA for contaminants in the peripheral plume areas.
Building 52 Lobe Old Town Groundwater Solvent Plume	<ul style="list-style-type: none"> • In situ soil flushing (injection and extraction wells) in the source area. • Collection and treatment of groundwater from the Building 46 subdrain at the downgradient lobe margin.
Building 25A Lobe Old Town Groundwater Solvent Plume	<ul style="list-style-type: none"> • In situ soil flushing (infiltration bed and extraction trench) west of Building 25A in the source area. • In situ soil flushing south of Building 25. • Extraction and treatment of water from electrical utility manhole EMH-133.
Building 69 Area	<ul style="list-style-type: none"> • Enhanced bioremediation (MNA with HRC injection) in the source area.

(a) These actions were implemented to enhance the approved corrective measures subsequent to approval of the CMI Report.

To help assess the effectiveness of MNA/enhanced bioremediation in achieving the required MCSs, VOC concentrations and hydrochemical parameters indicative of the potential for biodegradation are being monitored (Table 15). The hydrochemical parameters include seven field-measured parameters (dissolved oxygen [DO], dissolved carbon dioxide (CO_2), pH, temperature, ferrous iron (Fe^{2+}), sulfide (H_2S), and conductivity) and the following laboratory-measured parameters: nitrate (NO_3^-), nitrite (NO_2^-), sulfate (SO_4^{2-}), volatile fatty acids (VFAs), and methane (CH_4)/ethane (C_2H_6)/ethene (C_2H_4). In general, the analytical parameters indicate conditions favorable for biodegradation in most of the monitored wells. In particular, the presence of methane in combination with low DO levels is generally indicative of reductive dechlorination of halogenated VOCs. The presence of VFAs in some wells indicates that injected HRC is being metabolized to VFAs.

3.2 GROUNDWATER TREATMENT SYSTEMS

Extracted groundwater and contaminated effluent from drain lines and hydraugers is treated to non-detectable levels of VOCs at granular activated carbon (GAC) treatment systems. Most of the treated water is injected into the subsurface for soil flushing purposes. The remainder, which is not needed for flushing, is discharged to the sanitary sewer in accordance with the provisions of LBNL's Wastewater Discharge Permit issued by EBMUD. The following table summarizes the volumes of water treated at each GAC treatment system and the disposition of the treated water.

Summary of Treatment Systems

Treatment System	Volume Treated First Quarter FY08 (gallons)	Total Volume Treated (gallons)	Discharge/Reuse
Building 6 Bioventing	217,093	3,671,659	Soil flushing
Building 7 Trench	895,485	14,760,839	Recirculated or sanitary sewer
Building 25	104,543	699,051	Recirculated
Building 25A	135,691	2,234,137	Recirculated
Building 37*	0	1,818,711	
Building 46	623,536	20,965,690	Recirculated or sanitary sewer
Building 51 Firetrail	363,777	11,738,953	Sanitary sewer or soil flushing
Building 51 Hydraulgers**	0	9,482,665	
Building 51 MGR Basement	81,811	4,577,495	Sanitary sewer
Building 51L	76,950	1,322,674	Sanitary sewer
Building 53	209,584	5,109,804	Recirculated
Building 64	131,957	2,465,441	Recirculated
Building 71B	14,460	349,243	Recirculated
Total Volume Treated	2,854,887	79,196,362	

* System was dismantled in June 2006.

** System no longer operational. Hydraulger effluent is now treated at Building 51 Firetrail Treatment System.

SECTION 4

SUMMARY OF PROBLEMS ENCOUNTERED

4.1 DEFINITIONS

Problems are defined herein as follows:

1. Quality Assurance and Quality Control (QA/QC) problems that would result in failure to meet data quality objectives.
2. Findings that indicate the presence of contamination that could impact human health or the environment, and for which activities are not specified in existing workplans to either further evaluate or remediate the contamination.

4.2 QUALITY ASSURANCE / QUALITY CONTROL

No QA/QC issues were identified that would result in a failure to meet data quality objectives.

Field Quality Control

Eleven groundwater field (equipment/rinse) blanks and ten groundwater trip blanks were collected and analyzed for VOCs during the current reporting period (Table 16). No analytes were detected in the blanks.

Two duplicate groundwater samples were collected and analyzed for VOCs during the current reporting period. The duplicate samples were analyzed by BC Laboratories (BC) and the LBNL Environmental Measurement Laboratory (EML). Results of the duplicate samples were consistent.

Laboratory Quality Control

All laboratories utilized by the LBNL ERP are certified by the California Department of Health Services (DHS) under the California Environmental Laboratory Accreditation Program.

Laboratory quality control procedures include the analysis of method blanks and spike samples in accordance with protocols established for specific EPA analytical methods.

Soil and water samples collected during the current reporting period were analyzed by the LBNL Environmental Measurement Laboratory (EML), Eberline, BC Laboratories (BC), or Microseeps, as indicated in the following table:

Analytical Laboratories

Analytical Method	Groundwater	Soil
VOCs (EPA 8260)	EML/BC	BC
PCBs (EPA 608 & 8082)	BC	BC
Tritium (EPA 906)	Eberline	Eberline
Anions	BC	
Volatile Fatty Acids (VFA) (AM23G) Light Hydrocarbon gasses (LHG) (Methane, Ethane, Ethene) (AM20GAX)	Microseeps	

Notes: VOCs: Volatile organic compounds

PCBs: Polychlorinated biphenyls

Laboratory QA/QC problems identified in the laboratory data packages are noted in the following table. The data validation review indicated that the identified laboratory QA/QC problems were not sufficient to invalidate any data.

Analytical Laboratory Deficiencies

Lab	Chain of Custody	Matrix	Deficiency
BC	5432	Water	Matrix spike recovery was not within control limits for nitrite as NO ² .
BC	5476	Soil	Matrix spike precision for PCB-1260 was not within control limits. (Percent recovery for matrix spike and matrix spike duplicate were within control limits but relative percent difference (RPD) was slightly outside control limits.)

SECTION 5

ACTIVITIES FOR UPCOMING REPORTING PERIODS

5.1 SECOND QUARTER FY08

This section describes the activities that were completed during the second quarter of FY08, the upcoming reporting period. Results of these activities will be reported in the next Quarterly Progress Report, scheduled for submittal to DTSC in August 2008.

Groundwater Monitoring

The number of groundwater samples submitted for each type of analysis during the second quarter of FY08 is shown in the following table:

Number of Groundwater Samples Collected During the Second Quarter of FY 2008

	VOCs	TPH-Diesel	Tritium	Total
Monitoring Wells Primary Samples	134		13	147
Temporary Sampling Points	117	2	6	125
Extraction/Injection Wells	79			79
Slope Stability Wells			4	4
Duplicate Samples	6			6
Trip Blanks	13			13
Rinse Blanks	15		3	18

VOCs: Volatile Organic Compounds

TPH: Total Petroleum Hydrocarbons

Corrective Measures for Groundwater

The corrective measures for groundwater described in Section 3 continued through the second quarter of FY08. The regular injection of HRC, which was temporarily halted on November 2, 2007, resumed at Building 71B on February 1, 2008.

Documents

The following documents were submitted to the regulatory agencies:

- On February 29, 2008, LBNL submitted the Quarterly Progress Report and Annual status Summary for the Fourth Quarter of FY07 to the DTSC, in compliance with LBNL's RCRA Part B Permit.

Corrective Measures for Groundwater

The corrective measures for groundwater described in Section 3.1 continued through the first quarter of FY08. In addition, the following activities were implemented to enhance the existing corrective measures or evaluate their effectiveness:

- Injection of HRC into the Building 71B plume source areas was resumed on February 26, 2008.

Environmental Investigation at the Former Building 10 Site

The six temporary groundwater sampling points installed at the former Building 10 construction site were properly destroyed. SB10-07-2 and SB10-07-3 were destroyed on January 28, 2008, SB10-07-4, SB10-07-5, and SB10-07-6 on February 28, 2008, and SB10-07-1 on February 29, 2008. The sampling points were overdrilled with 8 inch-diameter hollow-stem augers to the total completion depth, and well construction materials were removed from the boreholes. The boreholes were then grouted through the augers with a slurry of neat Portland cement and potable water.

Building 17 Former Scrapyard and Drum Storage Area (SWMU 2-3)

Characterization and excavation of PCB-contaminated soil at the Building 17 Former Scrapyard and Drum Storage Area continued. To determine the depth of additional excavation that would be required to achieve the TSCA self-implementing cleanup level of 1 mg/kg for PCBs in soil in high-occupancy areas, soil samples were collected on January 4, 2008 from three borings drilled on 1-foot centers on the west side of the excavation. Based on the analytical results, the western side of the excavation was deepened to 6 feet, and on January 29, 2008

confirmation samples were collected from the walls and the floor of the additional excavation area. PCBs were only detected in the wall sample collected from the western side of the excavation; however, the concentration was above the 1 mg/kg TSCA level. On February 25, 2008 the western side of the excavation was extended outside the building to the backfill of the 1998/1999 excavation area. This action resulted in the excavation of all remaining soil with concentrations of PCBs greater than the 1 mg/kg. A total of approximately 5 cubic yards of soil was excavated and disposed of offsite.

5.2 THIRD QUARTER FY08

In addition to the ongoing activities described in the previous sections of this report, the following is a list of activities planned for the third quarter of FY08 (April 1 to June 30, 2008):

- Submit the Quarterly Progress Report for the first quarter of FY08 to the DTSC.
- Continue to hold Remedial Project Manager (RPM) meetings with the regulatory agencies as needed.
- Conduct quarterly groundwater sampling and continue depth-to-water measurements.

SECTION 6

REFERENCES

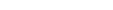
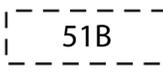
- DTSC, 2007.** Approval of Environmental Investigation Report for the Former Building 10 Site at the Lawrence Berkeley National Laboratory (LBNL), Berkeley, California, EPA ID No. CA4 890 008 986. Letter from Wei-Wei Chui (DTSC) to Howard Hatayama (LBNL), November 16, 2007.
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- LBNL, 2005b.** Proposal for Revised Groundwater Monitoring Schedule for the Lawrence Berkeley National Laboratory Environmental Restoration Program. Lawrence Berkeley National Laboratory, Berkeley, California, May 2005.
- LBNL, 2007a.** RCRA Corrective Measures Implementation (CMI) Report for the Lawrence Berkeley National Laboratory Environmental Restoration Program. Lawrence Berkeley National Laboratory, Berkeley, California, January 2007.
- LBNL, 2007b.** Environmental Investigation Report for the Former Building 10 Site at the Lawrence Berkeley National Laboratory for the Lawrence Berkeley National Laboratory CA-EPA ID No. CA4890008986 Environmental Restoration Program. Lawrence Berkeley National Laboratory, Berkeley, California, October 2007.
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- Water Board, 2005.** Water Board Approval of the Proposal for a Revised Groundwater Monitoring Schedule for Lawrence Berkeley National Laboratory, May 2005, Letter from Michael Rochette (Water Board) to Iraj Javandel (LBNL), File No. 2199.9026 (MBR), August 1, 2005.

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- Figure 3. Locations of Study Areas, Lawrence Berkeley National Laboratory.
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- Figure 6a. Well Location Map of Old Town Area, Lawrence Berkeley National Laboratory.
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- Figure 6c. Well Location Map of the Old Town Plume Source Area, Lawrence Berkeley National Laboratory.
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- Figure 7. Locations of Groundwater Units Requiring Corrective Measures.
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- Figure 9. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater (ug/L) in the Source Area of the Building 51/64 Solvent Plume, First Quarter FY08.

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- Figure 17. Extent of Groundwater Contamination (Total VOCs >10 ug/L) First Quarter FY08 Compared to 1999.
- Figure 18. Extent of Groundwater Contamination (Total VOCs >100 ug/L) First Quarter FY08 Compared to 1999.
- Figure 19. Extent of Groundwater Contamination (Total VOCs > 1,000 ug/L) First Quarter FY08 Compared to 1999.
- Figure 20. Extent of Halogenated Hydrocarbons in Groundwater Above MCLs, First Quarter FY08.
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- Figure 23. Residual Concentrations of PCBs in Soil in December 2007, Building 17 Former Scrapyard and Drum Storage area (SWMU 2-3).
- Figure 24. Locations of Soil Samples and Concentrations of Tritium Detected, Building 77 Planned Ductbank Location.

	MW25-95-5	Groundwater monitoring well	ND (or <)	Not detected
	MW90-6	Properly destroyed monitoring well	51-01-10	Hydrauger
	T SB76-97-3	Temporary groundwater sampling point		Sanitary sewer line
	T SB64-98-16	Properly destroyed sampling point		Storm drain line
	EW	Groundwater extraction well		Surface creek
	IW	Groundwater injection well		LBNL site boundary
	DP	Dual phase extraction well		Fence
	SSW-31.63	Slope stability well		Surface structure (e.g. buildings, etc.)
	SI-3.63	Slope indicator well		Former building location
	71-95-10	Vadose zone monitoring well		Groundwater collection trench
		Shallow soil sampling location		Granular activated carbon (GAC) treatment system
		Soil boring		
	PZ51-92-3	Piezometer		
		Spring		
	700	Topographic contour line (elevation in ft above mean sea level)		

NOTES:
All other symbols used are explained on the figures.
Not all symbols may be included on the attached figures for the current reporting period.

Key to Symbols Used on Figures.

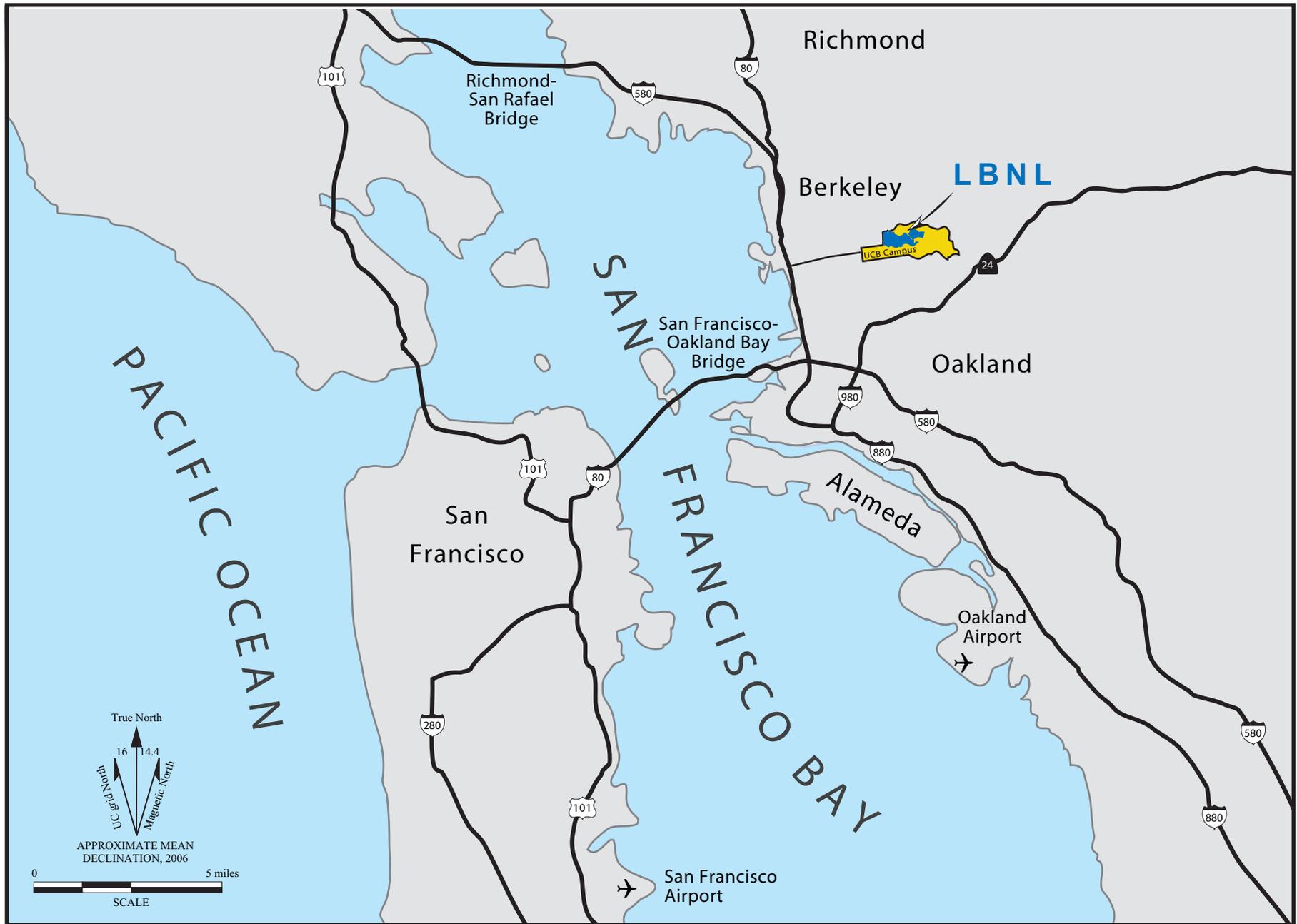


Figure 1. Regional Setting of the Lawrence Berkeley National Laboratory.

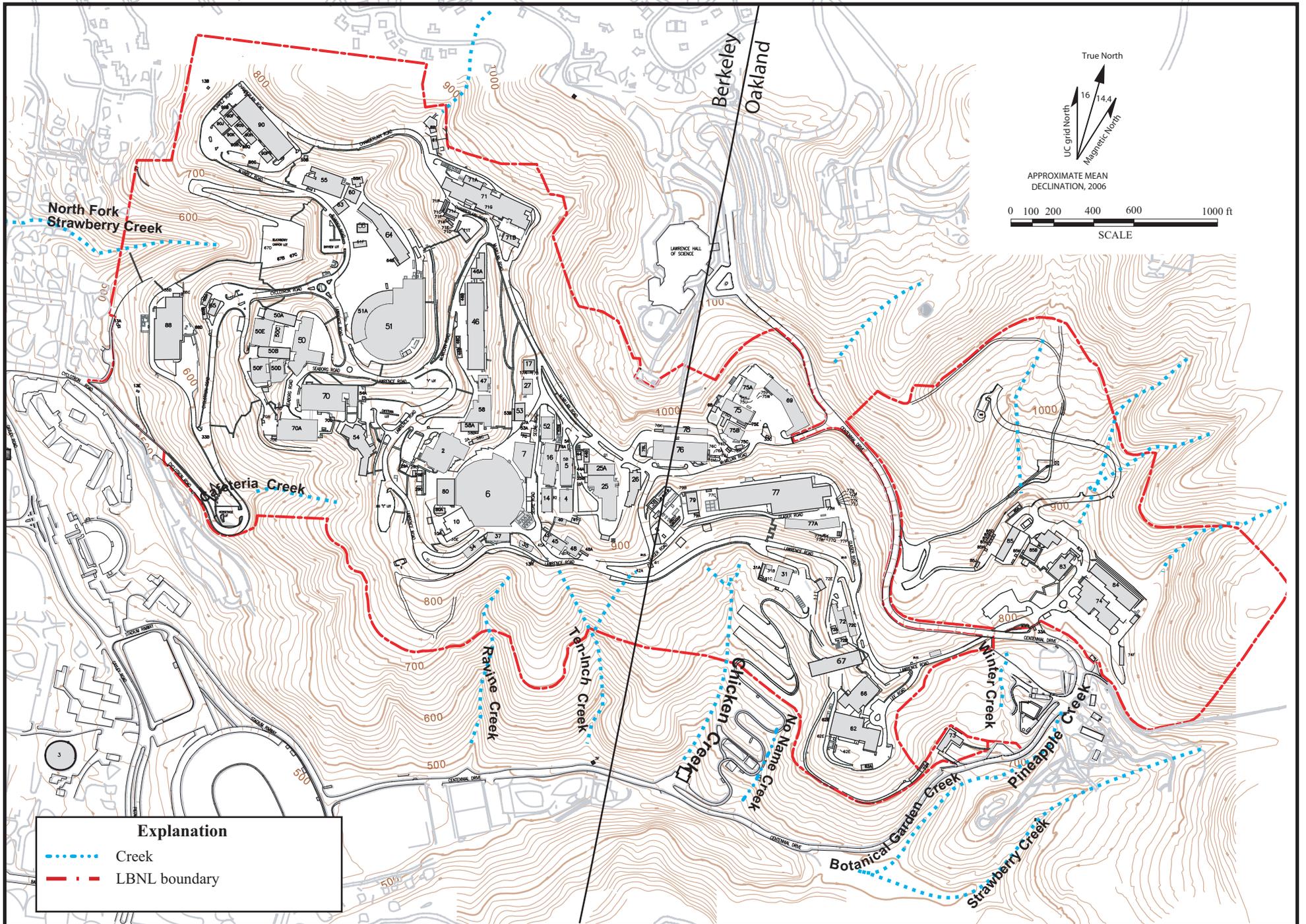


Figure 2. Site Map and Topography, Lawrence Berkeley National Laboratory.

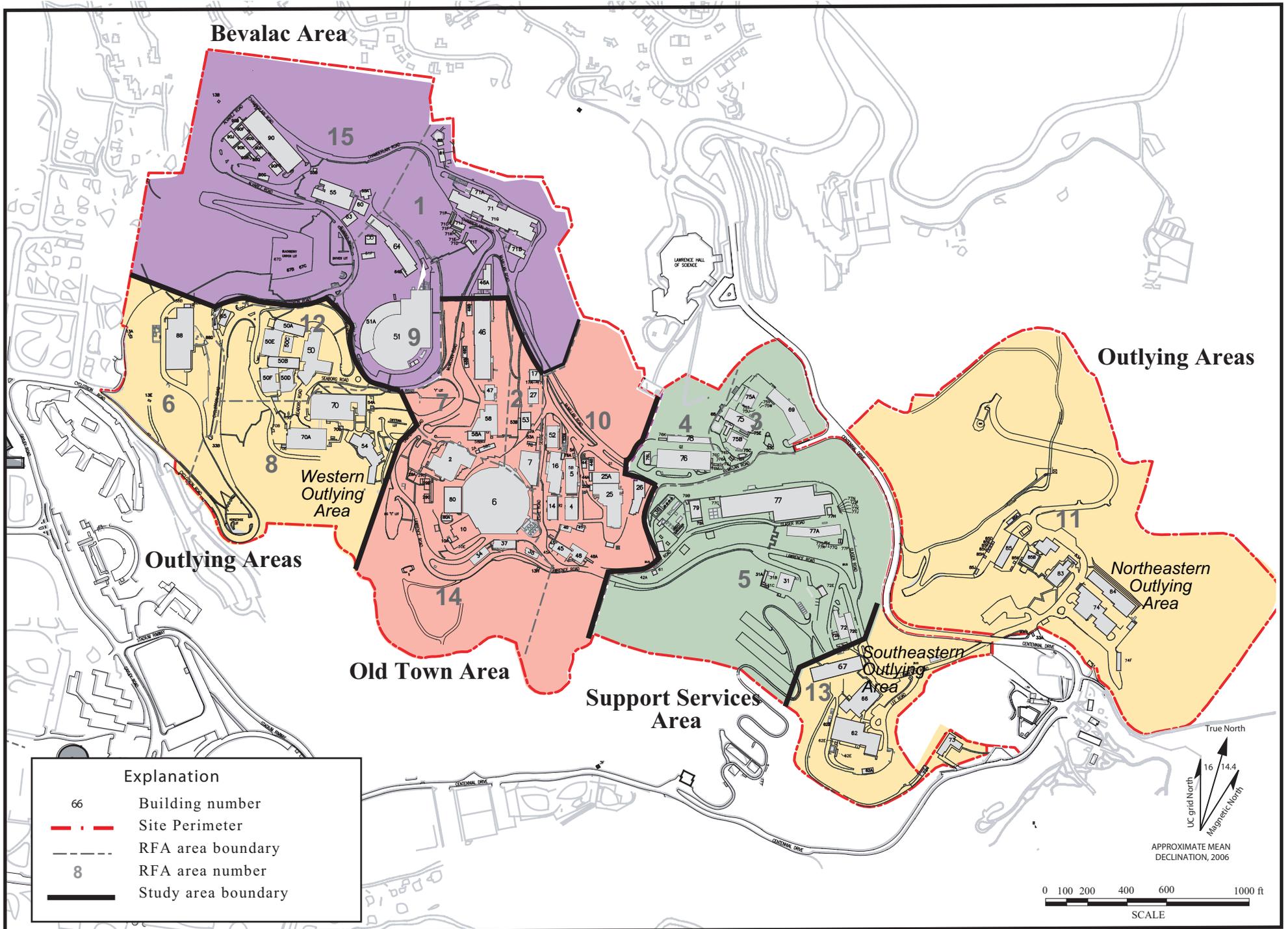


Figure 3. Locations of Study Areas, Lawrence Berkeley National Laboratory.

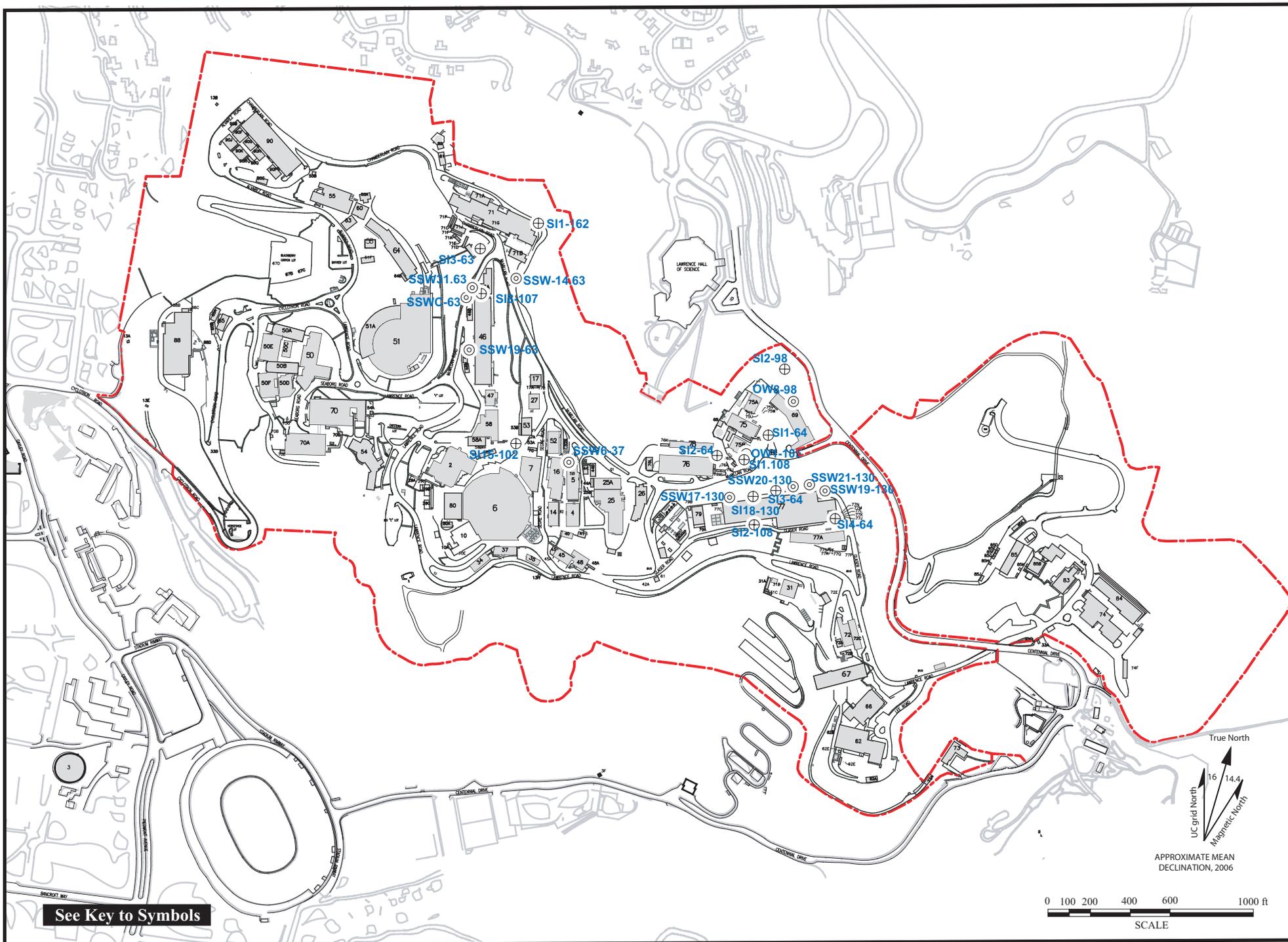


Figure 4. Slope Stability, Slope Indicator, and Observation Well Locations, Lawrence Berkeley National Laboratory.

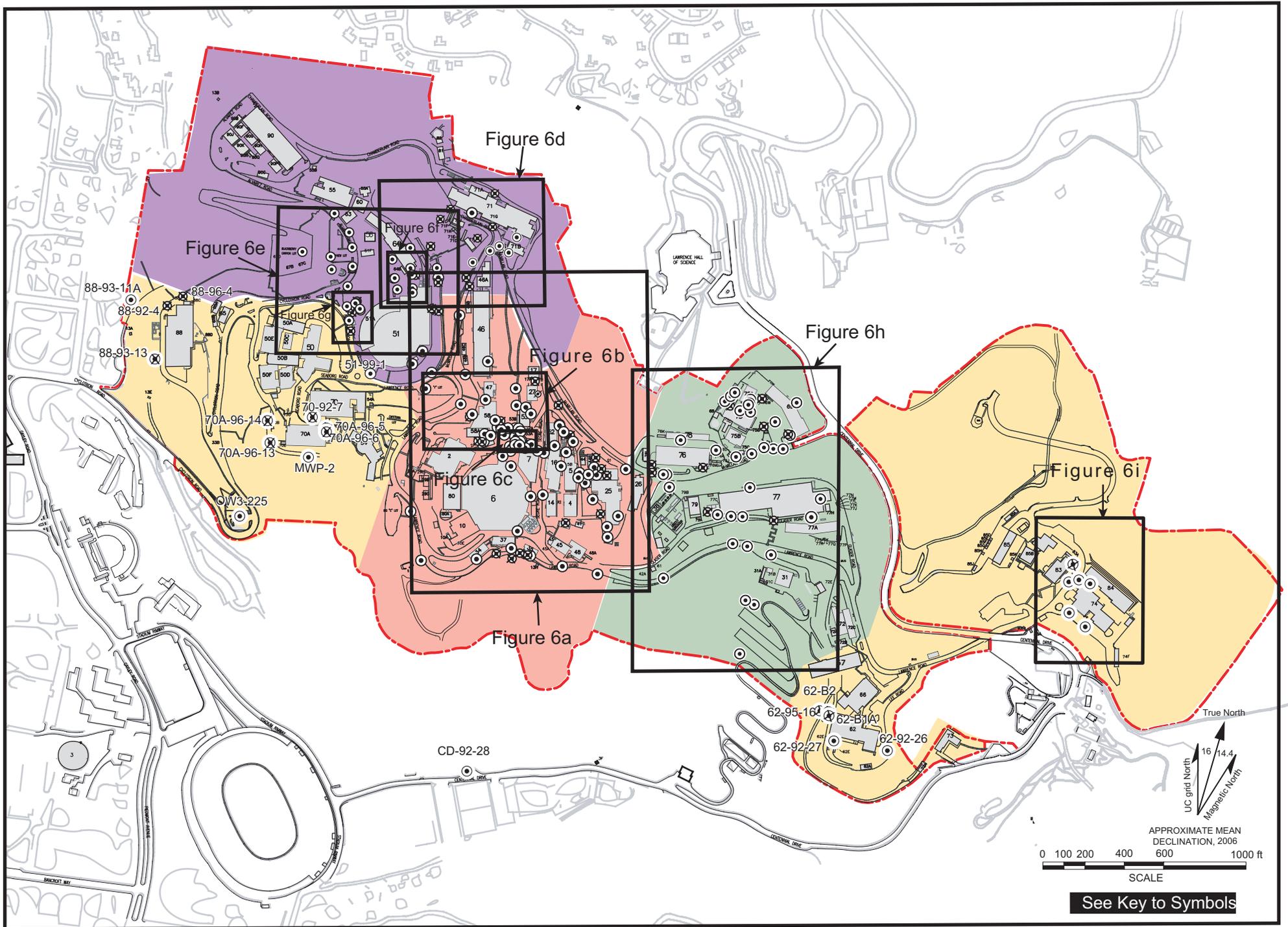


Figure 5. Monitoring Well Locations at Lawrence Berkeley National Laboratory.

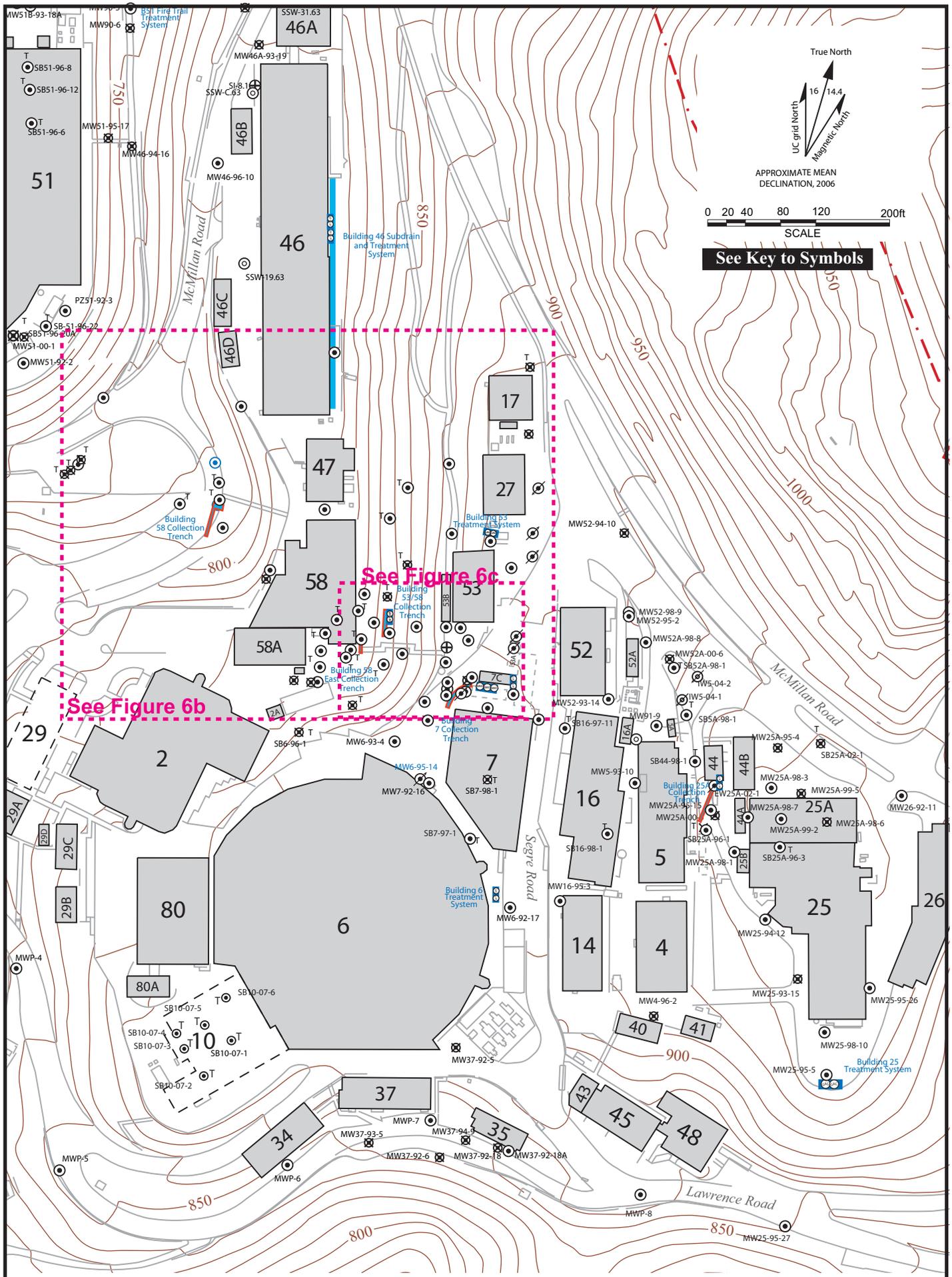


Figure 6a. Well Location Map of Old Town Area, Lawrence Berkeley National Laboratory.

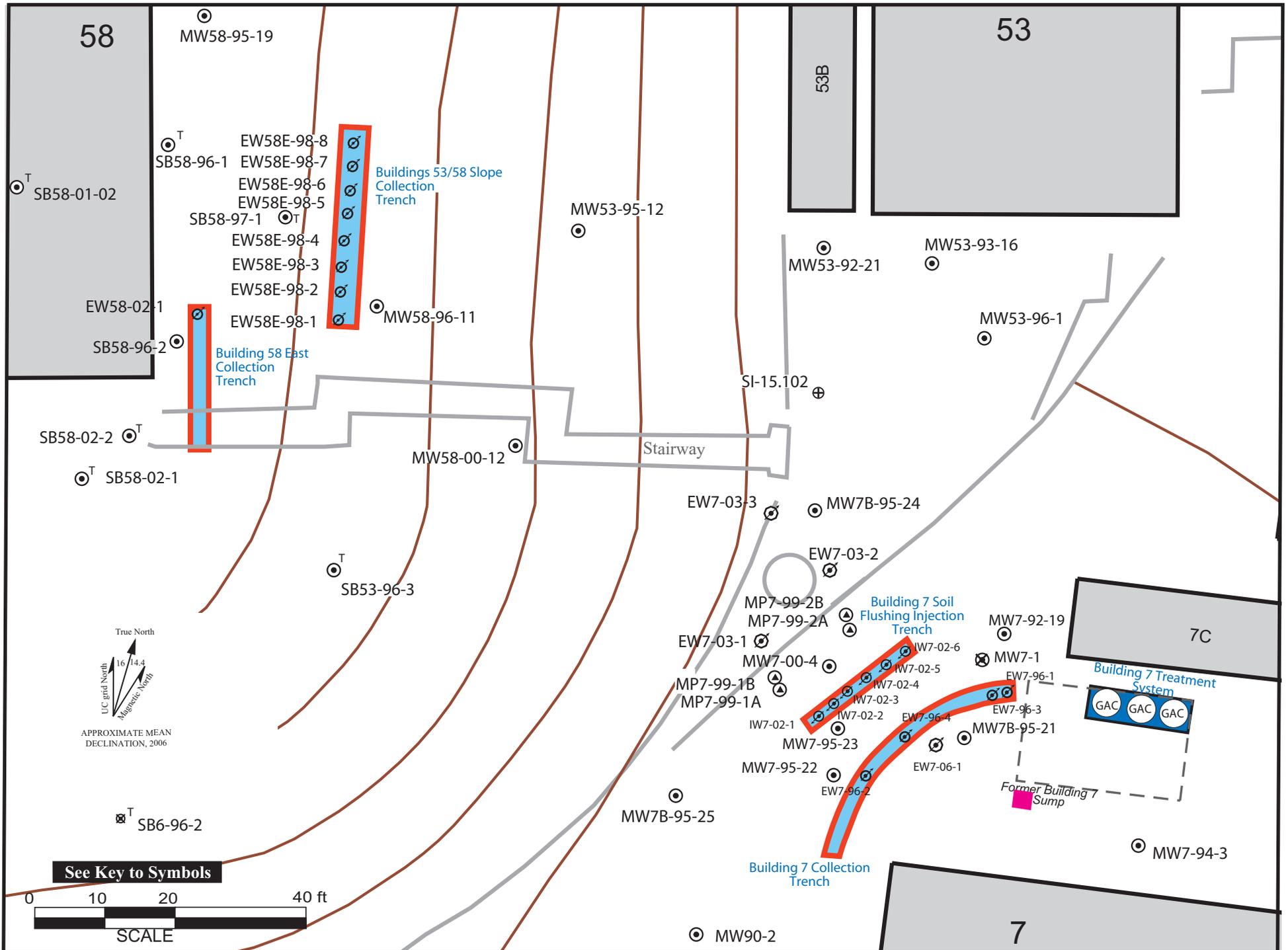


Figure 6c. Well Location Map of the Old Town Plume Source Area, Lawrence Berkeley National Laboratory.

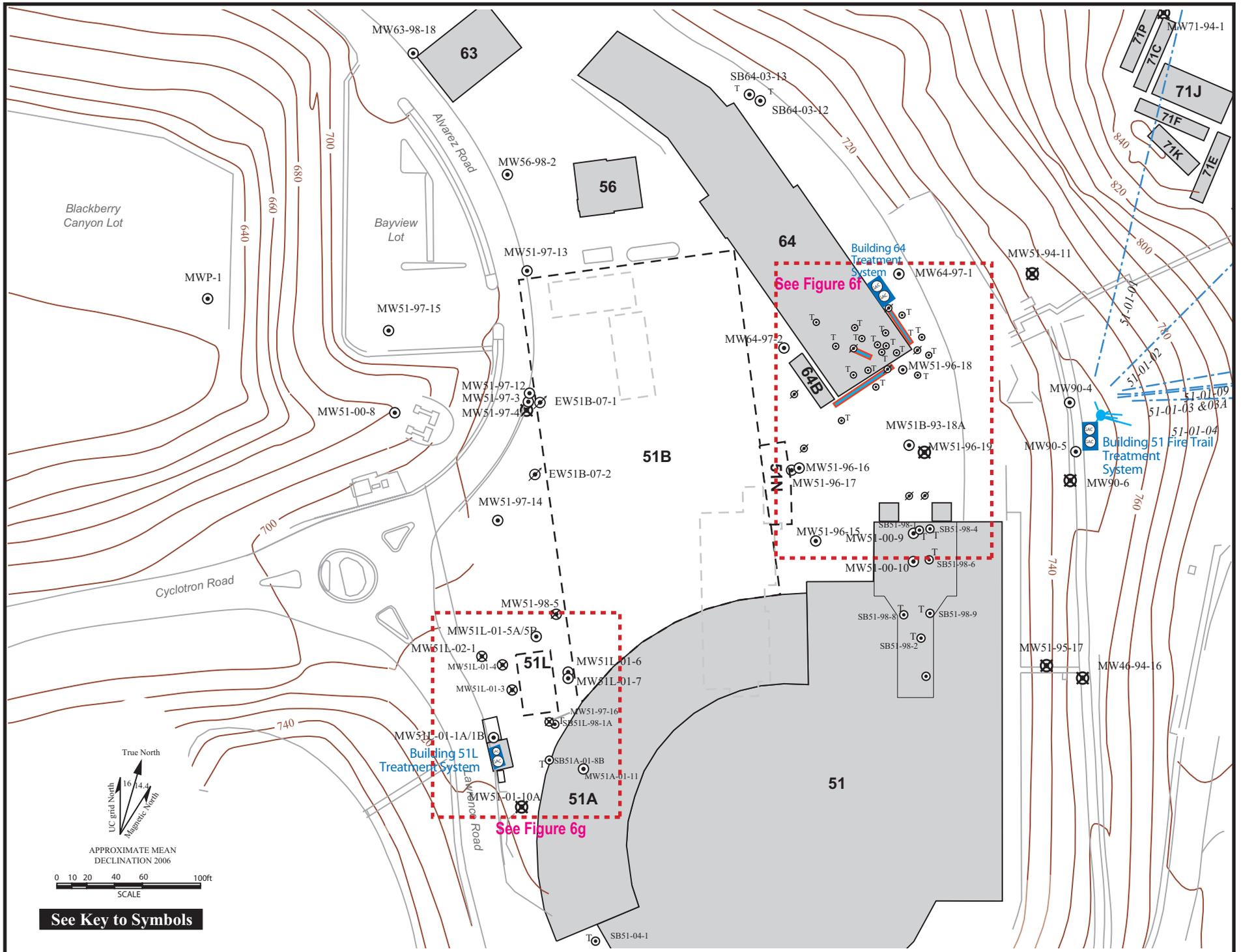


Figure 6e. Well Location Map of the Building 51 and Building 64 Areas, Lawrence Berkeley National Laboratory.

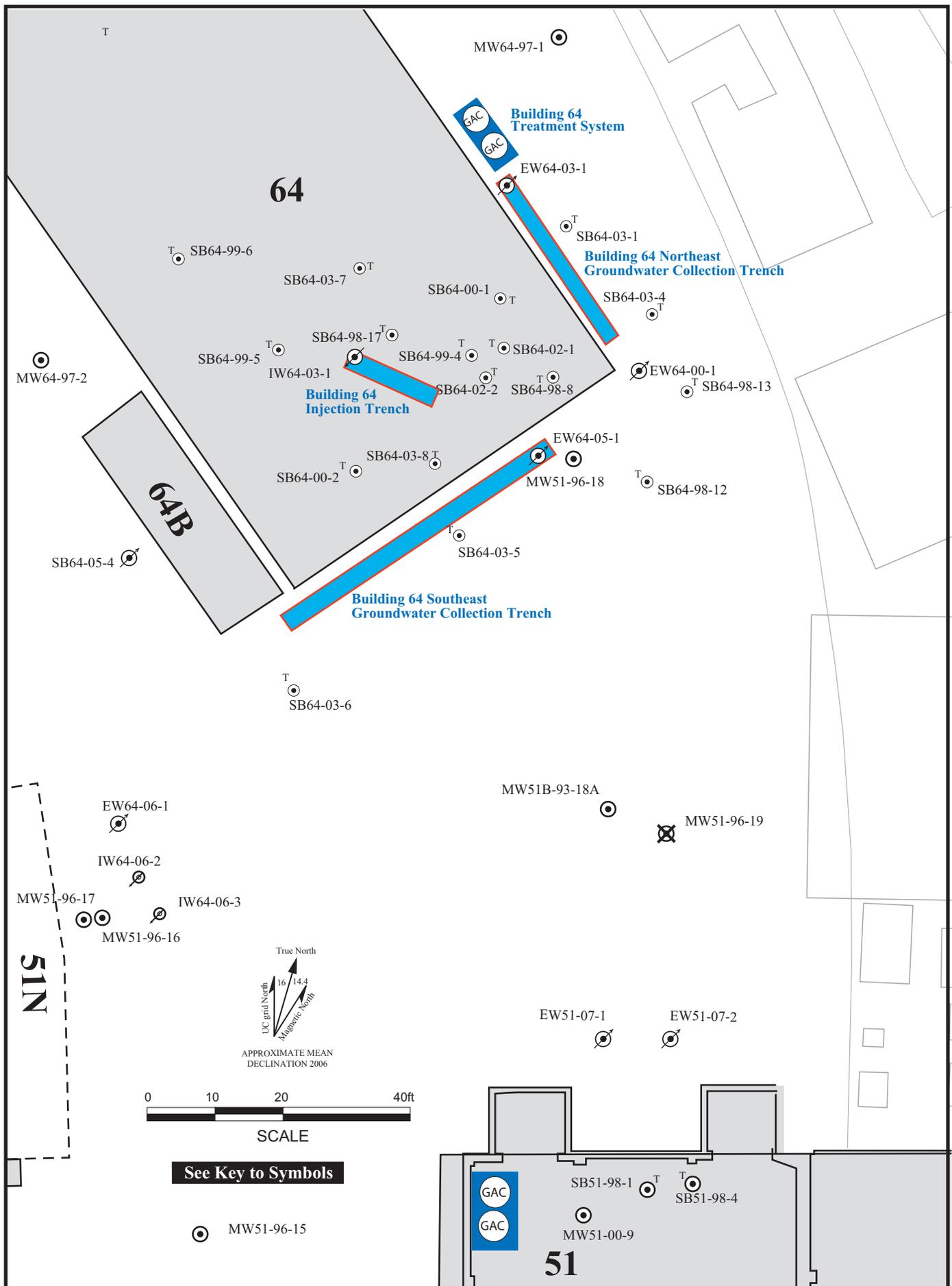


Figure 6f. Well Location Map of the Building 51/64 Plume Source Area, Lawrence Berkeley National Laboratory.

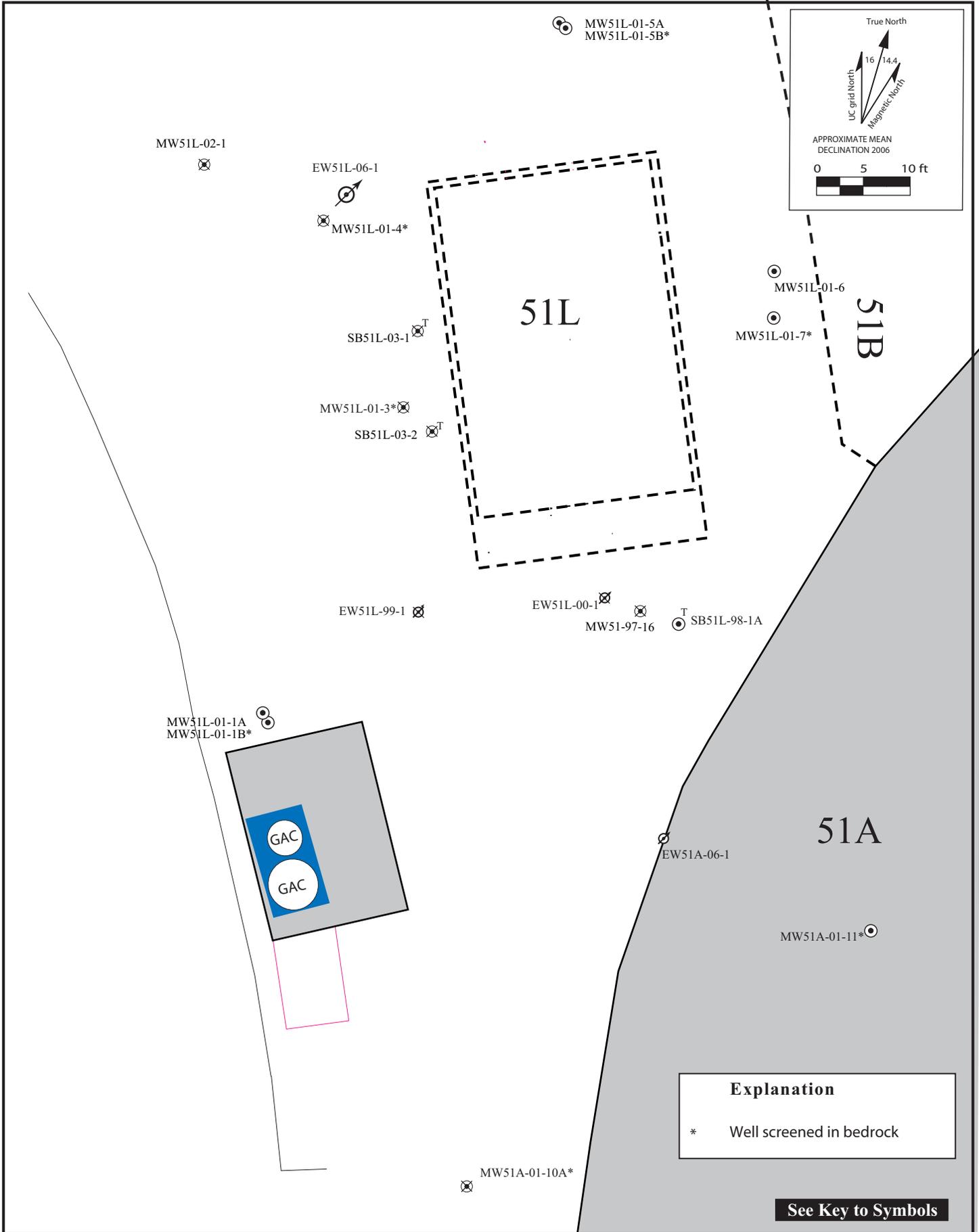


Figure 6g. Well Location Map of the Building 51L Area, Lawrence Berkeley National Laboratory.

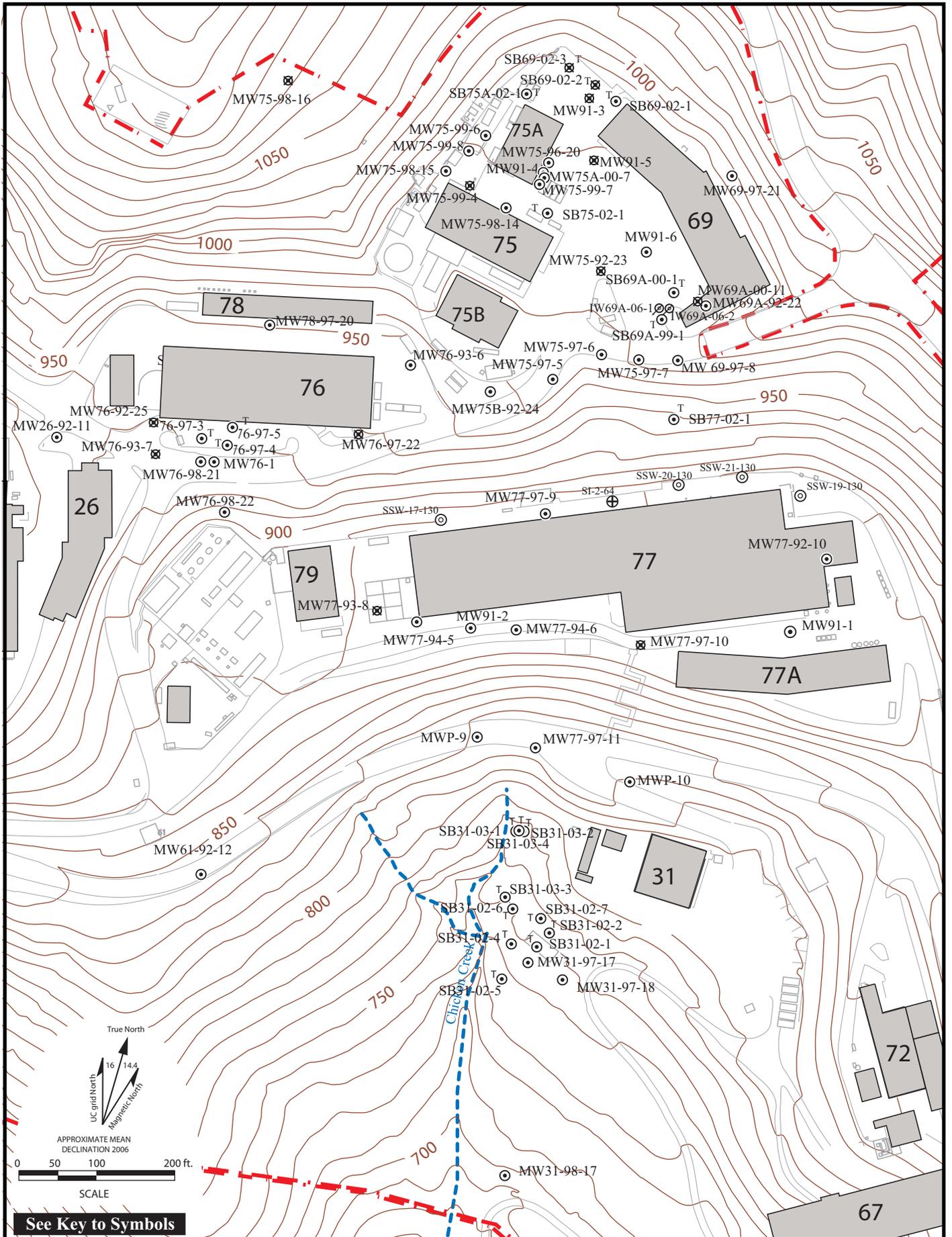


Figure 6h. Well Location Map of the Corporation Yard Area, Lawrence Berkeley National Laboratory.

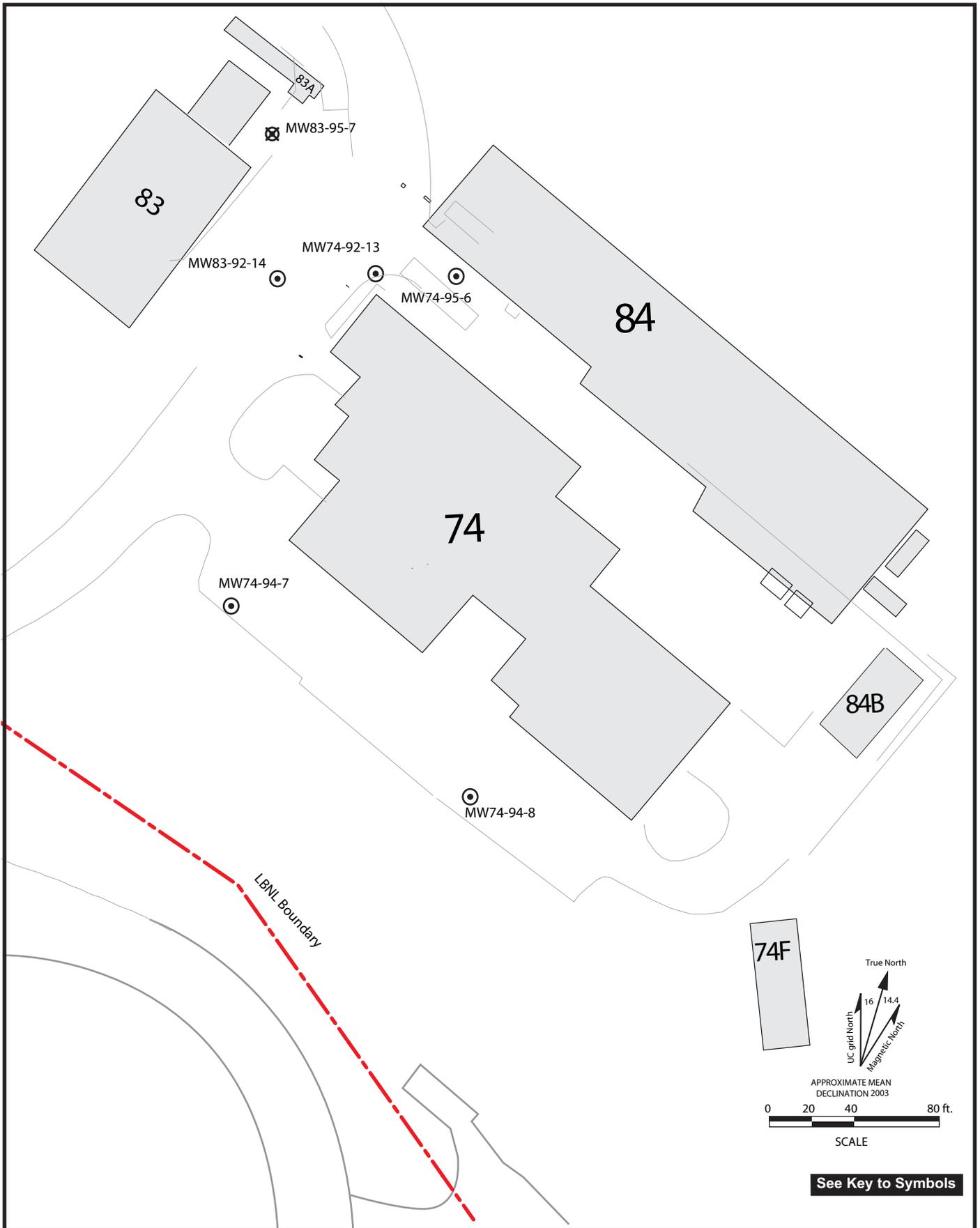


Figure 6i. Well Location Map of the Building 74 Area, Lawrence Berkeley National Laboratory

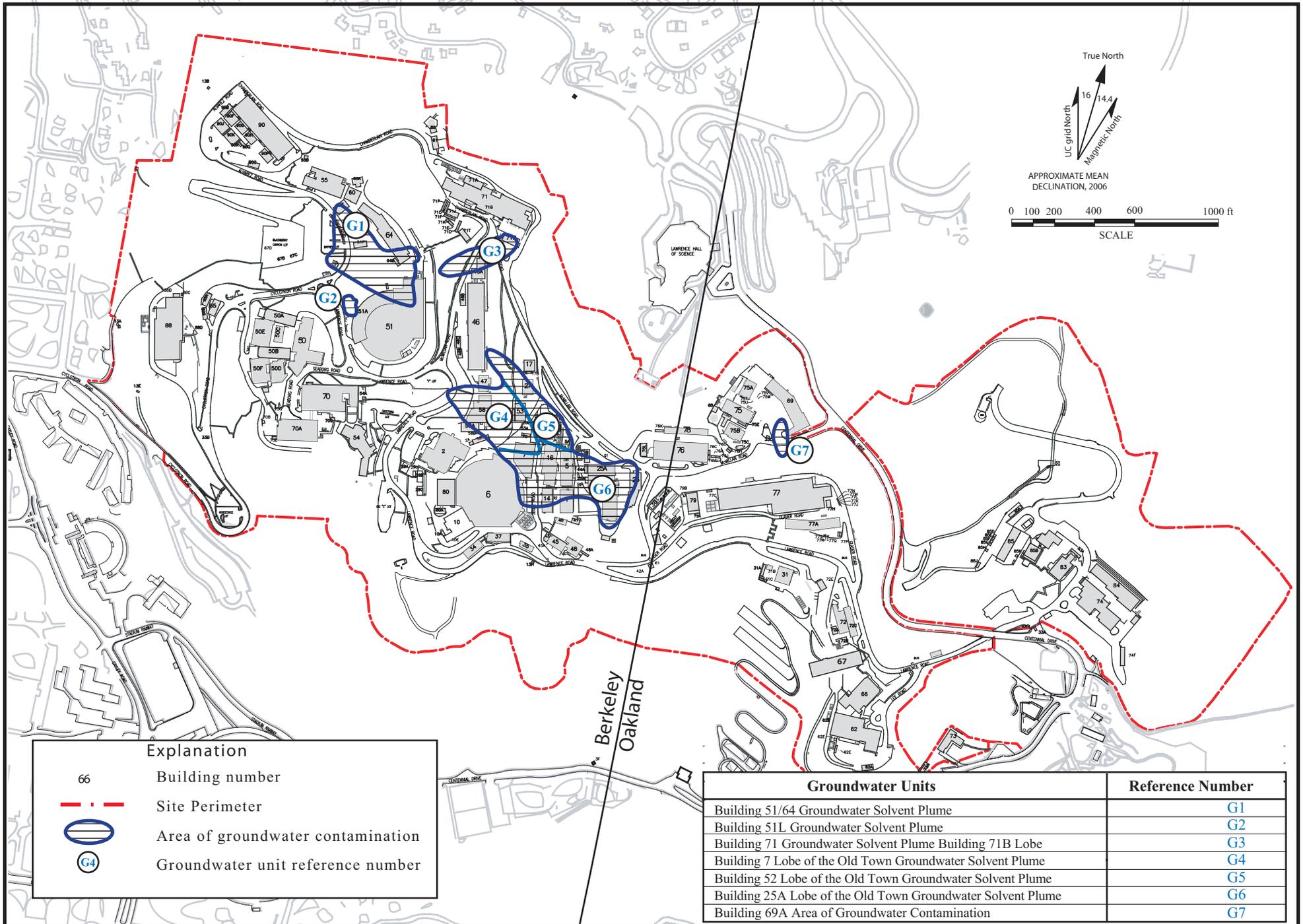


Figure 7. Locations of Groundwater Units Requiring Corrective Measures.

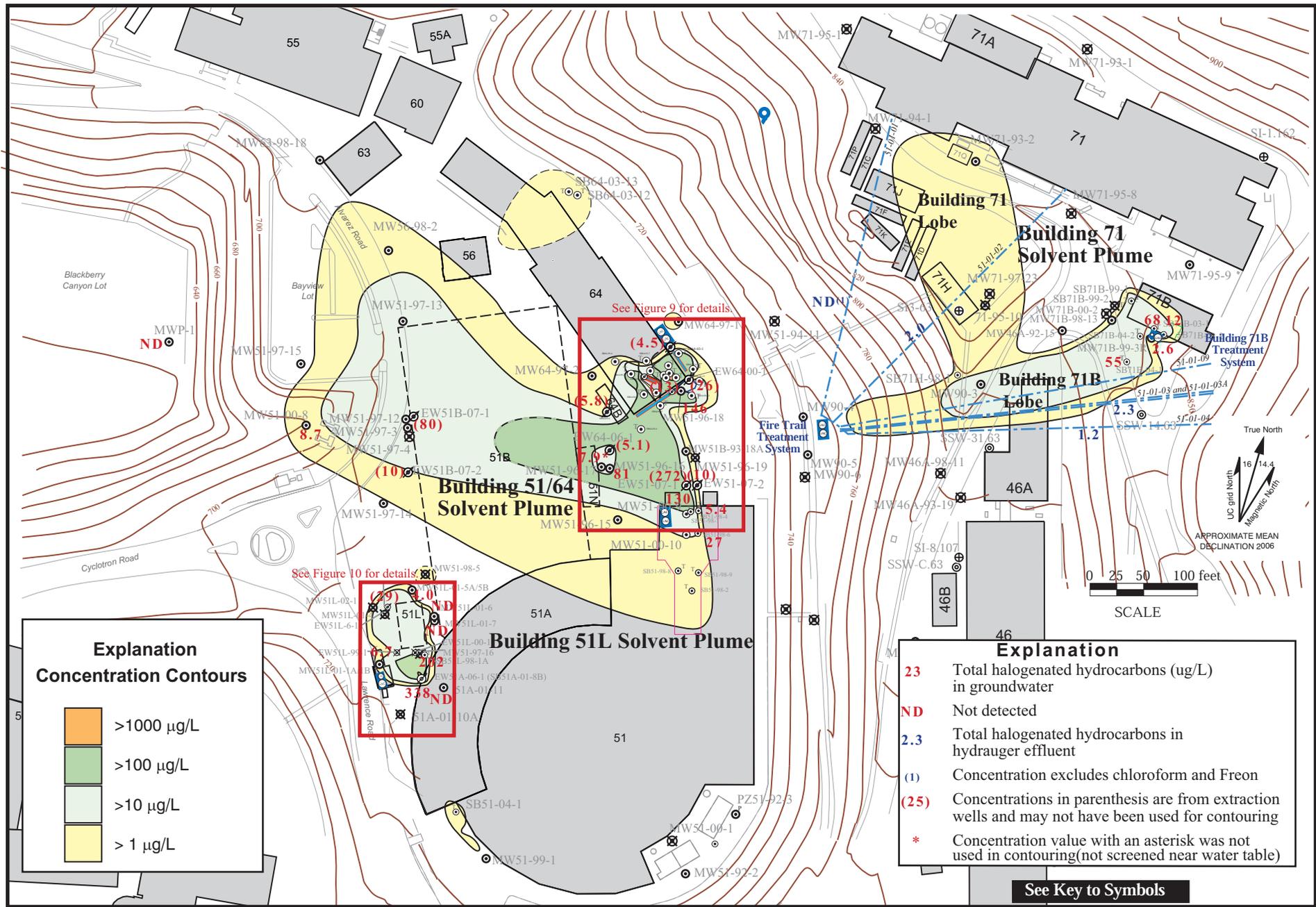


Figure 8. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater (ug/L) in the Bevalac Area, First Quarter FY08.

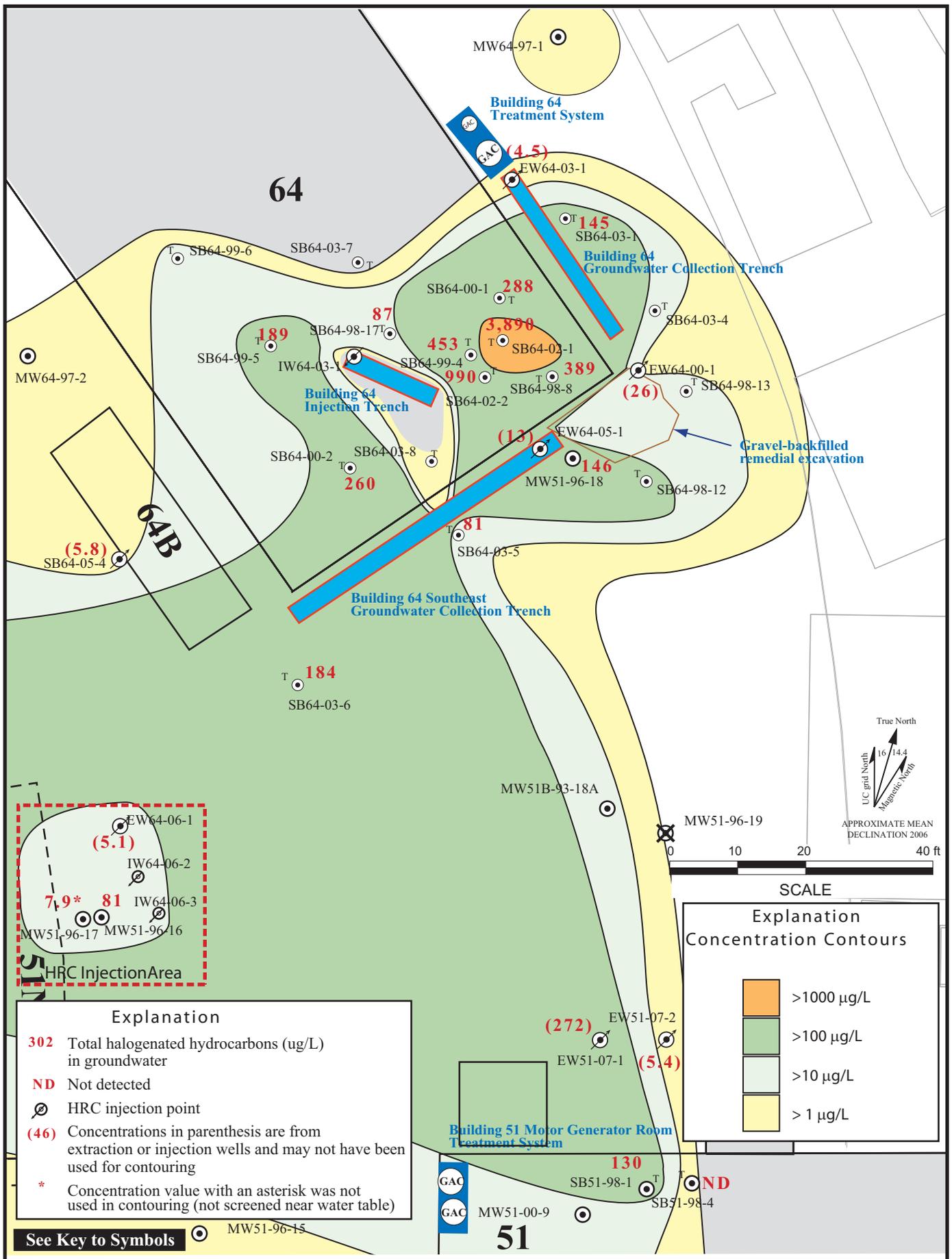


Figure 9. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater ($\mu\text{g/L}$) in the Source Area of the Building 51/64 Solvent Plume, First Quarter FY08.

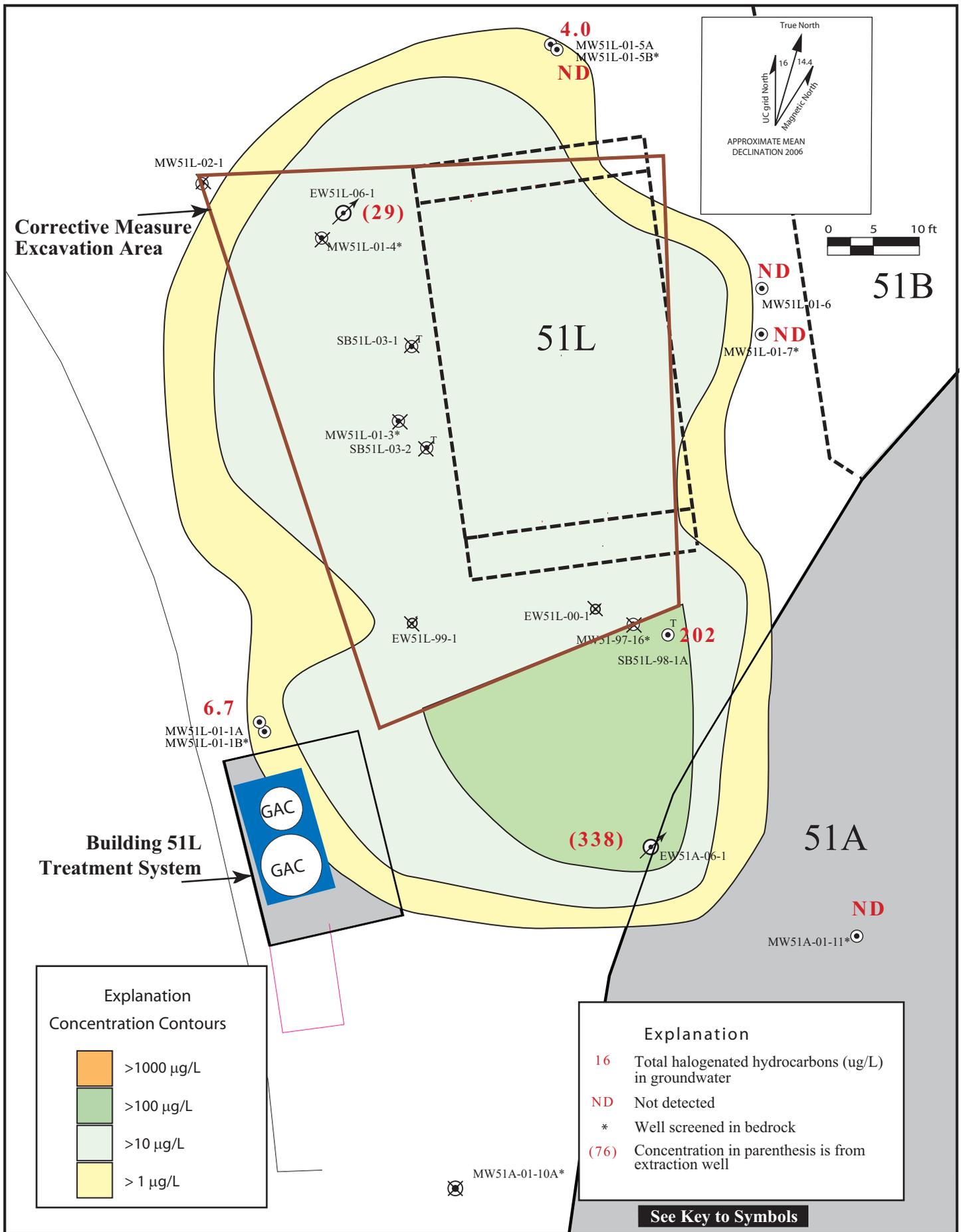


Figure 10. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater in Fill (µg/L), Building 51L Groundwater Solvent Plume, First Quarter FY08.

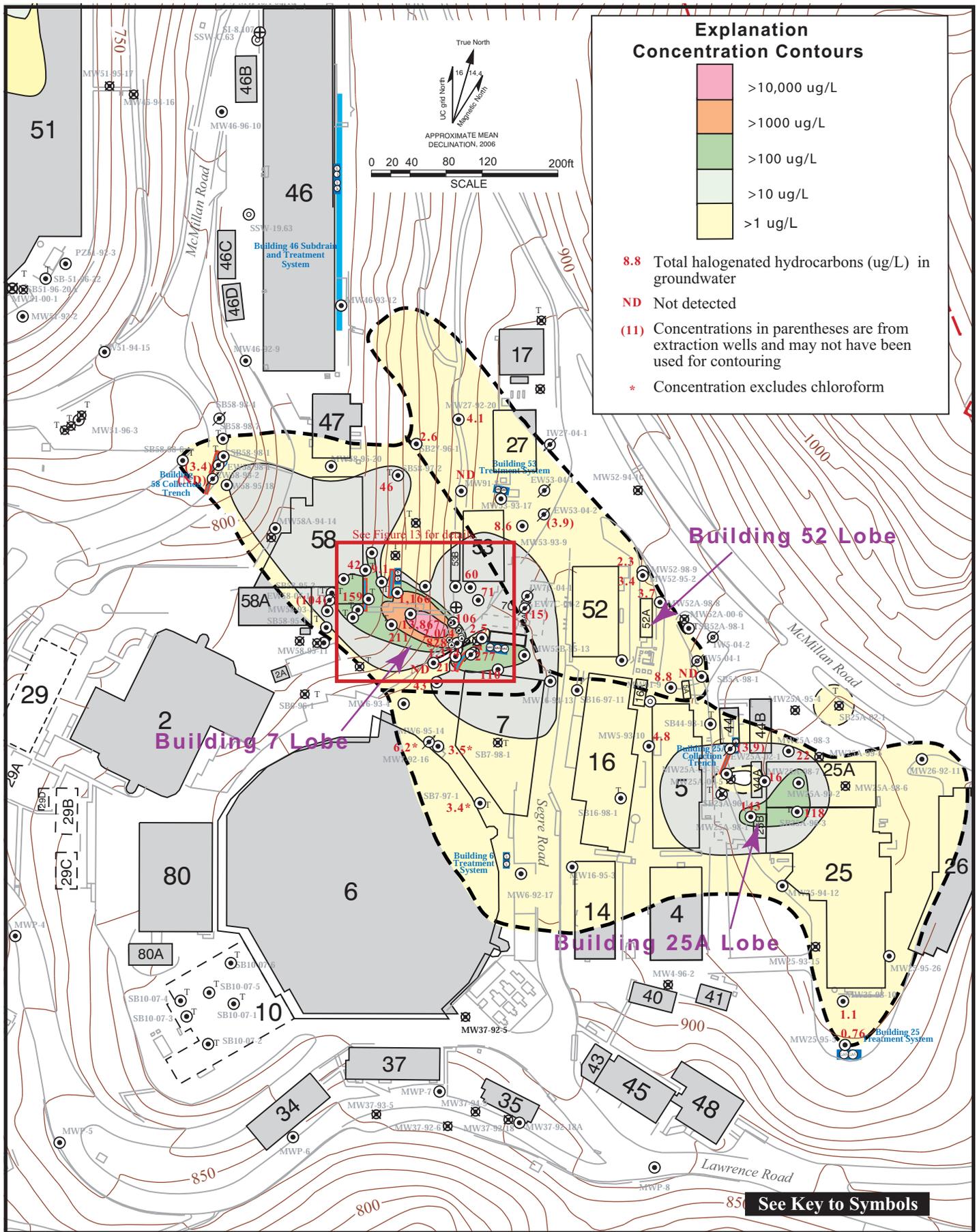


Figure 12. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater (ug/L) in the Old Town Area, First Quarter FY08.

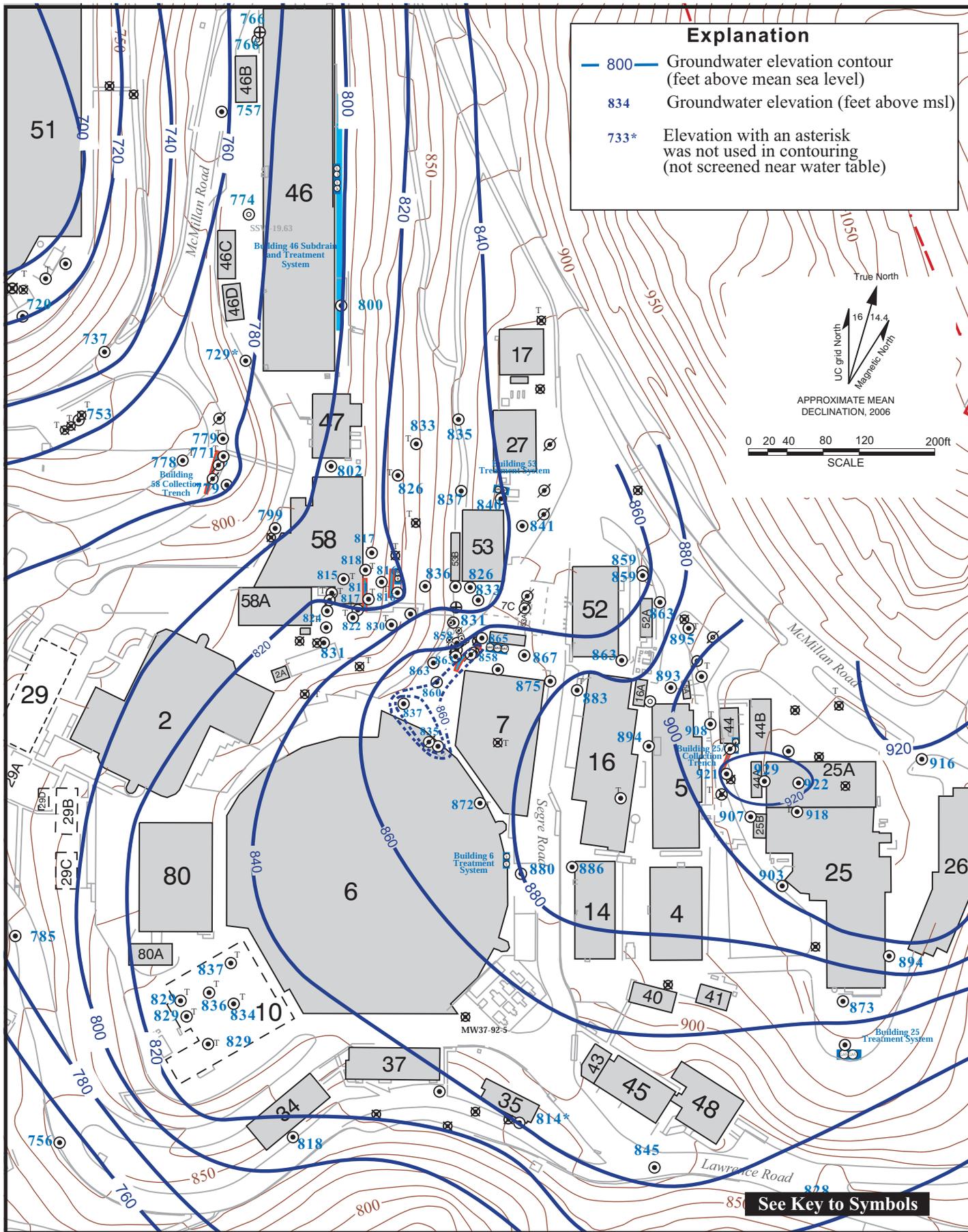


Figure 14. Water Level Elevation Map of the Old Town Area, First Quarter FY08.

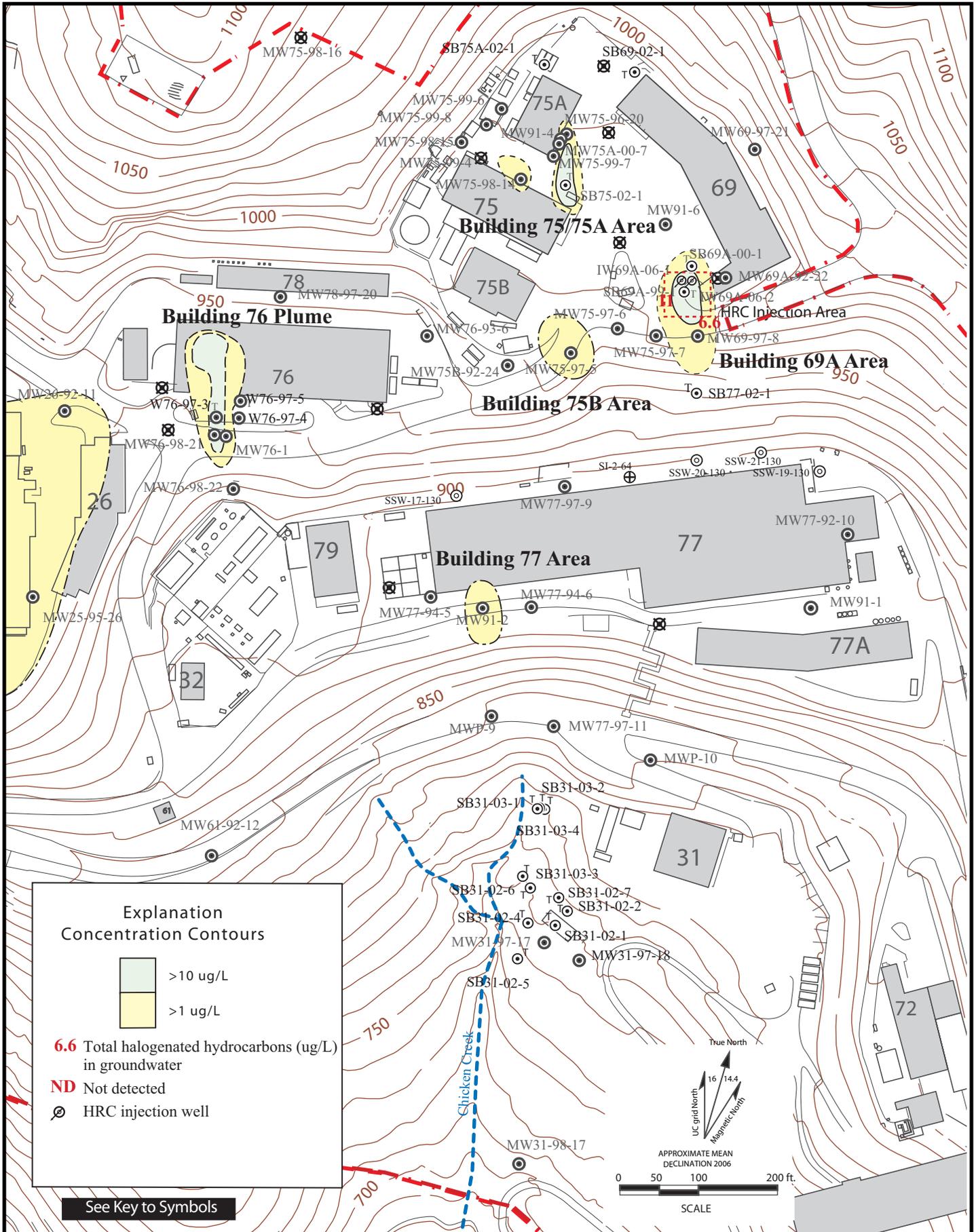


Figure 15. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater (ug/L) in the Support Services Area, First Quarter FY08.

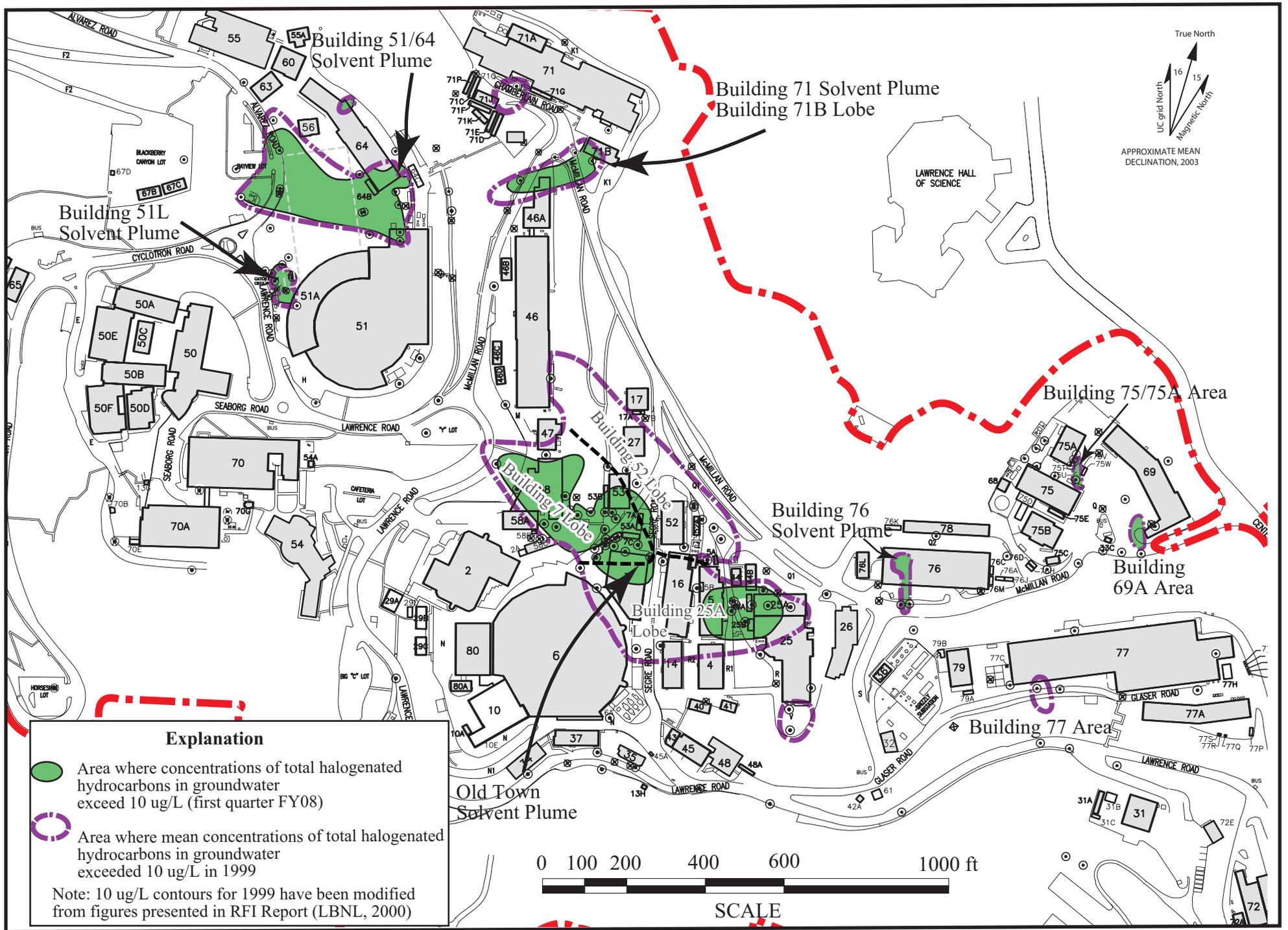


Figure 17. Extent of Groundwater Contamination (Total VOCs > 10 ug/L) First Quarter FY08 Compared to 1999.

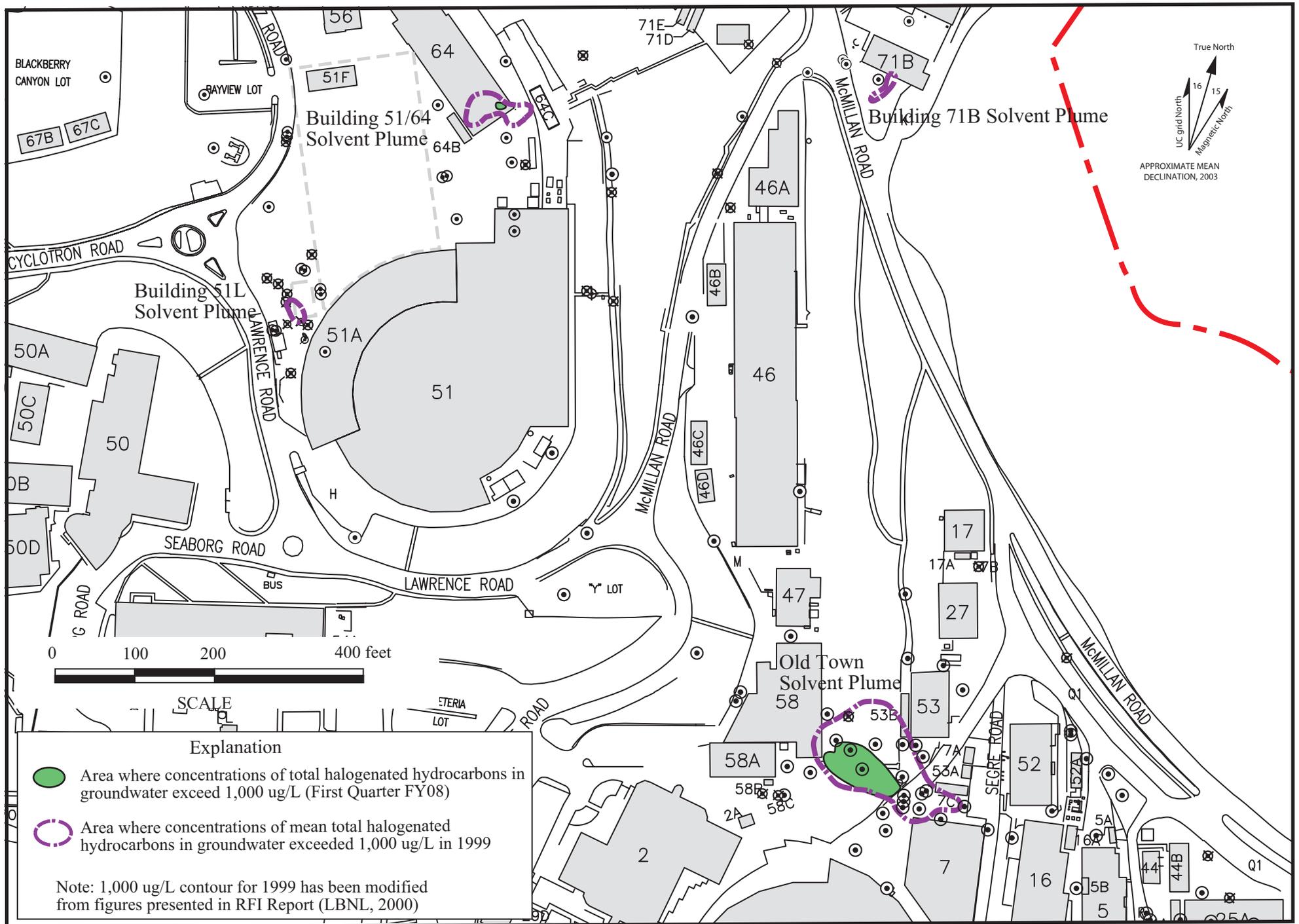


Figure 19. Extent of Groundwater Contamination (Total VOCs > 1,000 ug/L) First Quarter FY08 Compared to 1999.

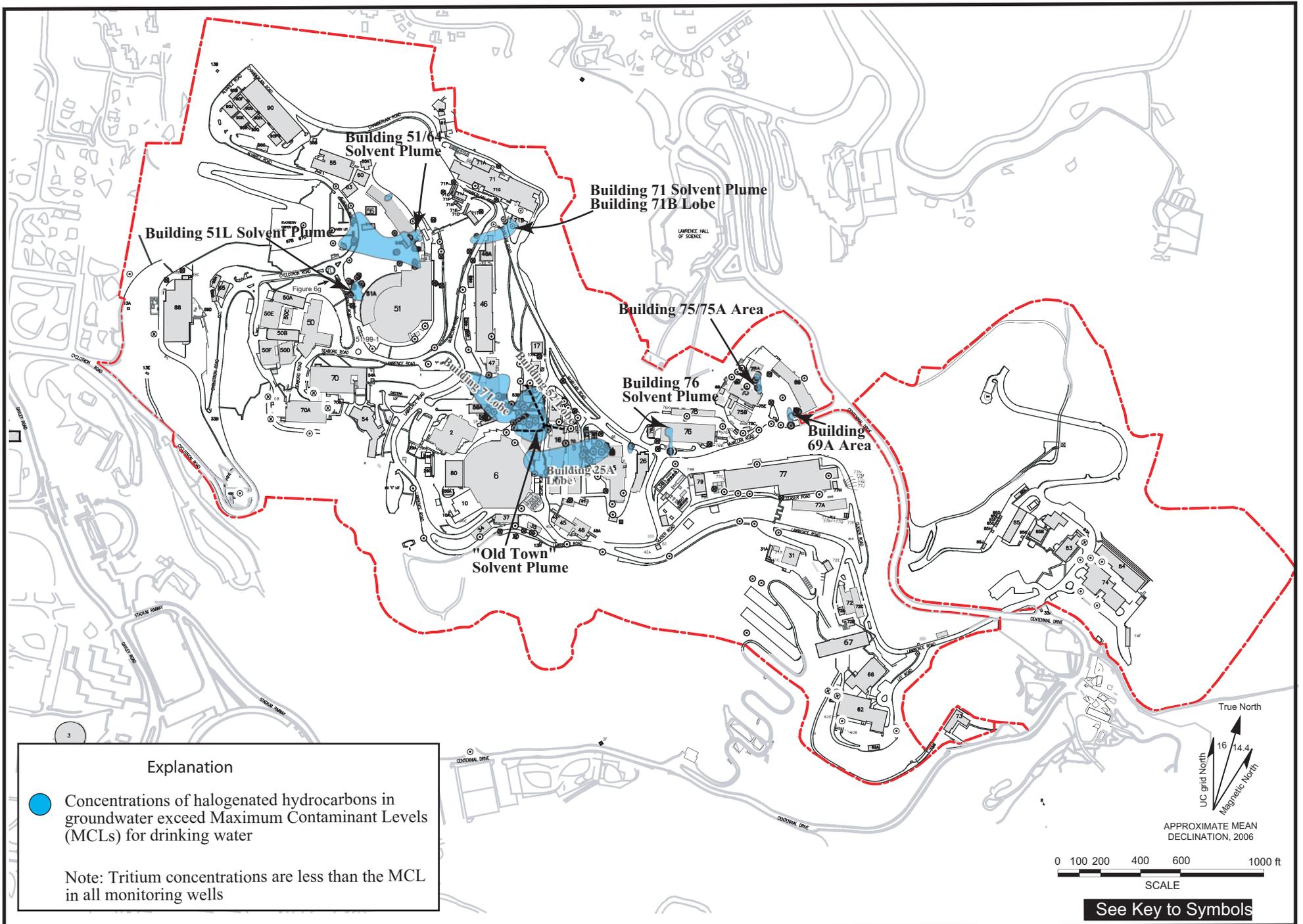


Figure 20. Extent of Halogenated Hydrocarbons in Groundwater Above MCLs, First Quarter FY08.

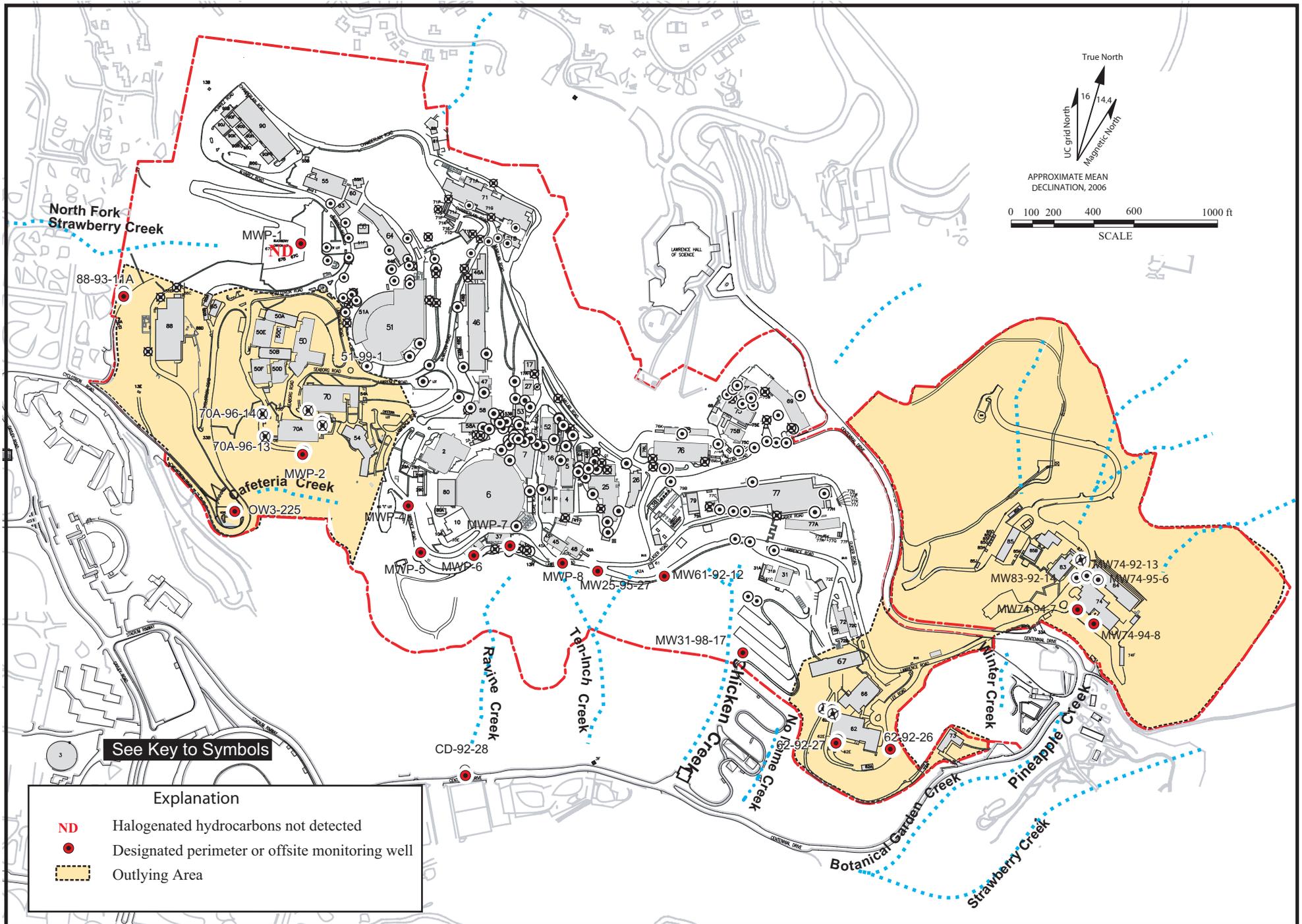


Figure 21. Total Halogenated Hydrocarbons in Groundwater (ug/L) in the Outlying Areas and Perimeter Monitoring Wells, First Quarter FY08.

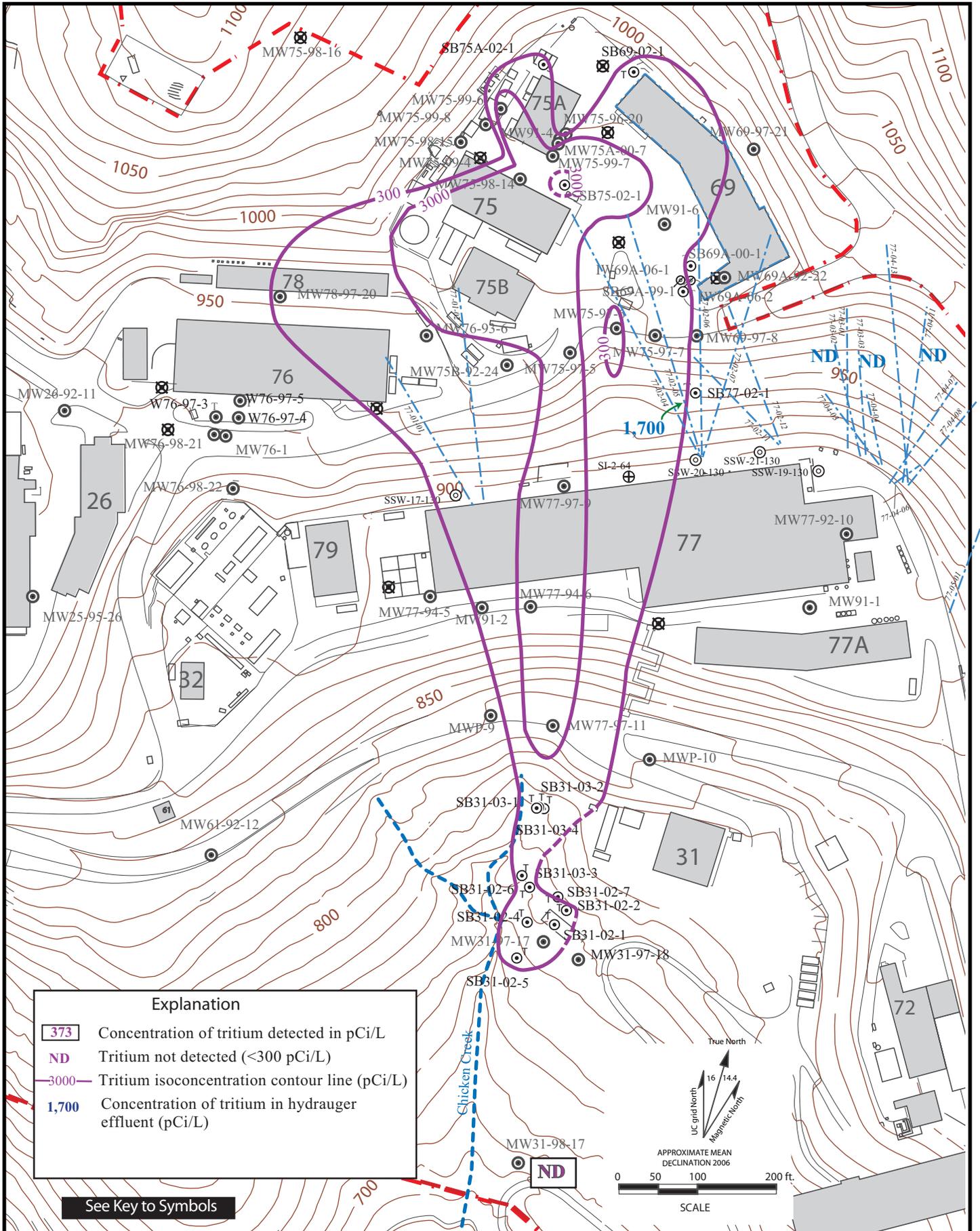


Figure 22. Tritium Concentrations in Groundwater (pCi/L) in Corporation Yard Area, First Quarter FY08.

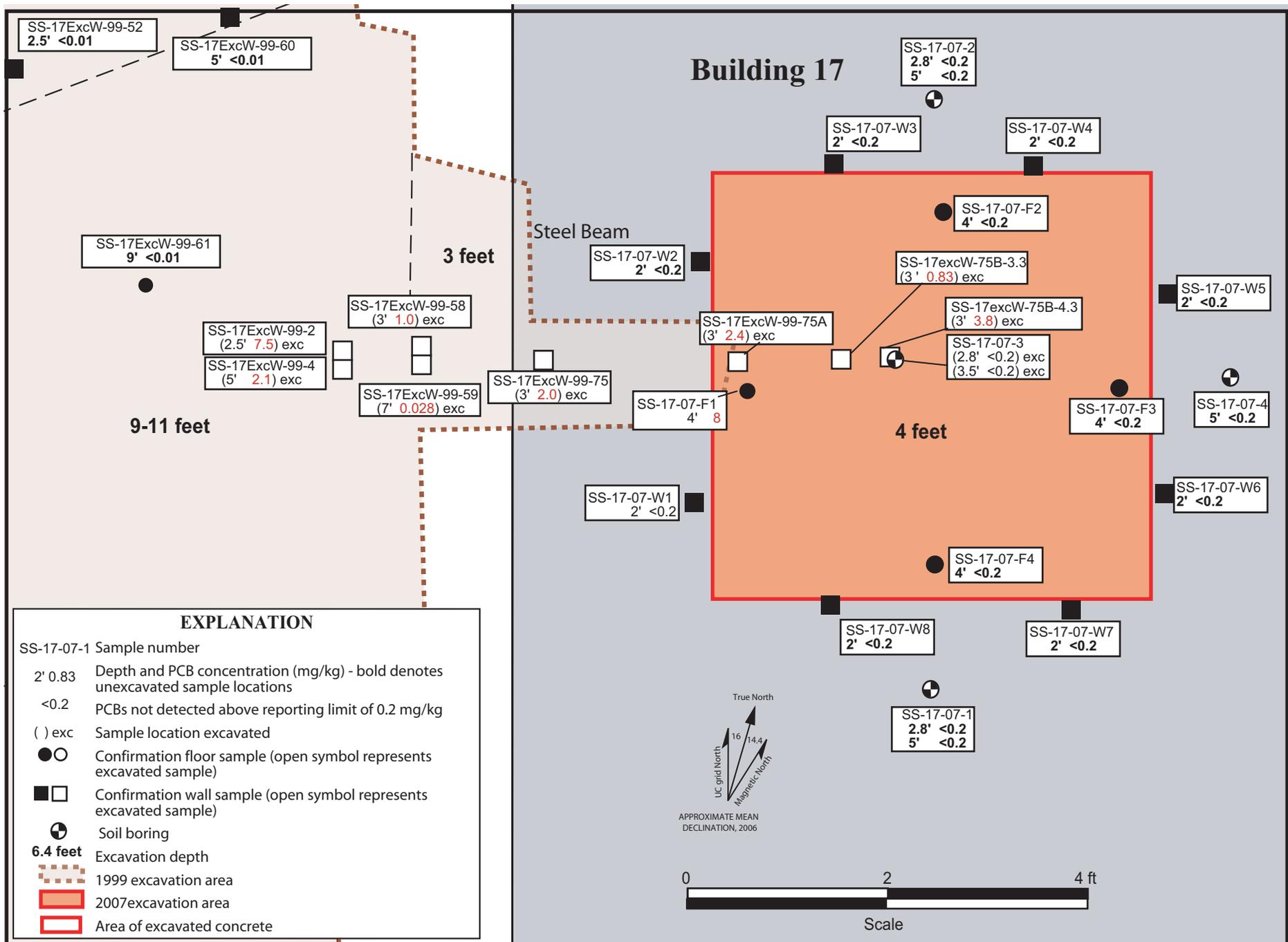


Figure 23. Residual Concentrations of PCBs in Soil in December 2007, Building 17 Former Scrapyard and Drum Storage Area (SWMU 2-3).

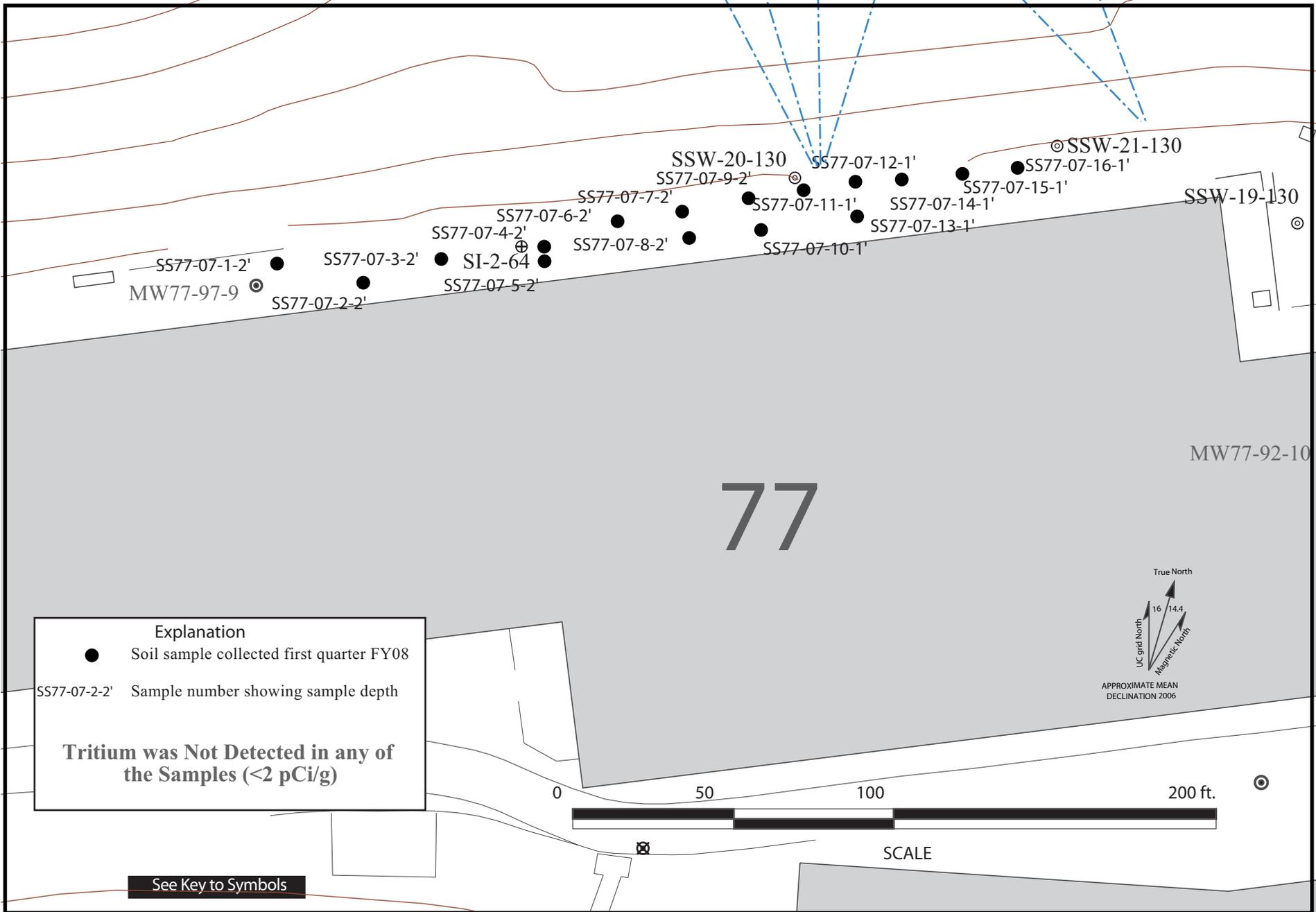


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Table 1
EPA Method 8260 Quantitation Limits
for Soil and Groundwater Samples
1st Quarter FY 2008

Compound	Water Samples µg/L	
	LBNL EML	BC Laboratories
Benzene	1.0	0.5
Bromobenzene	1.0	
Bromochloromethane	2.0	
Bromodichloromethane	1.0	0.5
Bromoform	2.0	0.5
Bromomethane	10.0	0.5
n-Butylbenzene	1.0	
sec-Butylbenzene	1.0	
tert-Butylbenzene	1.0	
Carbon Tetrachloride	1.0	0.5
Chlorobenzene	1.0	0.5
Chlorodifluoromethane (Freon-22)	30.0	
Chloroethane	30.0	0.5
Chloroform	3.0	0.5
Chloromethane	10.0	0.5
2-Chlorotoluene	2.0	
4-Chlorotoluene	2.0	
Dibromochloromethane	2.0	0.5
1,2-Dibromo-3-chloropropane	2.0	1
1,2-Dibromoethane	2.0	
Dibromomethane	1.0	
1,2-Dichlorobenzene	1.0	
1,3-Dichlorobenzene	1.0	
1,4-Dichlorobenzene	1.0	
Dichlorodifluoromethane (Freon-12)	3.0	0.5
1,1-Dichloroethane	1.0	0.5
1,2-Dichloroethane	2.0	0.5
1,1-Dichloroethene	1.0	0.5
cis-1,2-Dichloroethene	1.0	0.5
trans-1,2-Dichloroethene	1.0	0.5
Dichlorofluoromethane (Freon-21)	3.0	
1,2-Dichloropropane	1.0	0.5
1,3-Dichloropropane	1.0	
2,2-Dichloropropane	1.0	
1,1-Dichloropropene	1.0	
cis-1,3-Dichloropropene	1.0	0.5
trans-1,3-Dichloropropene	1.0	0.5
1,2-Dichlorotetrafluoroethane (Freon-114)	3.0	
Dichlorotrifluoroethane (Freon-123)	1.0	
1,2-Dichlorotrifluoroethane (Freon-123A)	1.0	
Ethylbenzene	1.0	0.5
Hexachlorobutadiene	3.0	
Isopropylbenzene	2.0	

Table 1 (Cont'd)
EPA Method 8260 Quantitation Limits
for Soil and Groundwater Samples
1st Quarter FY 2008

Compound	Water Samples µg/L	
	LBNL EML	BC Laboratories
p-Isopropyltoluene	1.0	
Methylene Chloride	1.0	1
Methyl tert-Butyl Ether	5.0	
Naphthalene	2.0	
n-Propylbenzene	1.0	
Styrene	1.0	0.5
1,1,2,2-Tetrachloroethane	1.0	0.5
1,1,1,2-Tetrachloroethane	2.0	0.5
Tetrachloroethene	1.0	0.5
Toluene	1.0	0.5
1,2,3-Trichlorobenzene	2.0	
1,2,4-Trichlorobenzene	1.0	
1,1,1-Trichloroethane	1.0	0.5
1,1,2-Trichloroethane	1.0	0.5
Trichloroethene	1.0	0.5
Trichlorofluoromethane (Freon-11)	2.0	0.5
1,2,3-Trichloropropane	1.0	1
Trichlorotrifluoroethane (Freon-113)	1.0	0.5
1,2,4-Trimethylbenzene	1.0	
1,3,5-Trimethylbenzene	1.0	
Vinyl Chloride	1.0	0.5
Total-Xylene	2.0	1
Acetone		10
Acetonitrile		100
Acrolein		50
Acrylonitrile		50
Carbon Disulfide		5
2-Chloroethyl vinyl ether		10
Chloroprene		5
trans-1,4-Dichloro-2-butene		5
1,4-Dioxane		100
Ethanol		1000
2-Hexanone		10
Methyl ethyl ketone		10
Methyl isobutyl ketone		10
Vinyl Acetate		20

= Compound not included in analysis

Table 2
Groundwater Sampling Locations and Analytical Methods
1st Quarter FY 2008

Location	Area	VOCs - 8260			PCBs 608	Tritium 906
		Page #	Oct	Nov		
Trip Blank		T-57	√√√√	√√√	√√√	
Field Blank		T-57	√√√√√	√√√√	√√	
MW90-2 ^S	2	T-36	√			
MW90-3 ^S	1					
MW90-4 ^A	1					
MW90-5 ^S	1					
MW91-1 ^A	5					
MW91-2 ^S	5					
MW91-4 ^N	3					
MW91-6 ^N	3					
MW91-8 ^S	2	T-36	√	√		
MW91-9 ^A	10	T-36	√	√	√	
MWP-1	15	T-23	√			
MWP-2 ^S	8					
MWP-4 ^S	14					
MWP-5 ^S	14					
MWP-6 ^S	14					
MWP-7 ^T	14					
MWP-8 ^S	10					
MWP-9 ^A	5					
MWP-10 ^N	5					
MW76-1 ^A	4					
51-92-2 ^N	9					
37-92-6 ^N	14					
46-92-9 ^A	7					
77-92-10 ^N	5					
26-92-11 ^A	10					
61-92-12 ^S	5					
74-92-13 ^N	11					
83-92-14 ^N	11					
46A-92-15 ^A	1					
7-92-16 ^S	2	T-32	√			
6-92-17 ^S	14					
37-92-18A ^N	14					
7-92-19 ^S	2	T-32	√		√	
27-92-20 ^Q	2	T-34	√	√	√	
53-92-21-130 ^N	2					
53-92-21-147 ^N	2					
53-92-21-167 ^N	2					
53-92-21-193 ^N	2					
69A-92-22 ^A	3					
75B-92-24 ^N	3					

Table 2 (Cont'd)
Groundwater Sampling Locations and Analytical Methods
1st Quarter FY 2008

Location	Area	VOCs - 8260			PCBs 608	Tritium 906
		Page #	Oct	Nov		
62-92-26 ^S	13					
62-92-27 ^S	13					
CD-92-28 ^S	OS					
71-93-2 ^N	1					
58-93-3 ^S	7					
6-93-4 ^A	2					
76-93-6 ^N	4					
53-93-9 ^Q	2	T-35	√	√	√	
5-93-10 ^S	10	T-32	√	√	√	
88-93-11A ^S	6					
46-93-12 ^S	7					
88-93-13 ^N	6					
52-93-14 ^A	10					
53-93-16-42 ^A	2					
53-93-16-69 ^S	2	T-35	√	√	√	
53-93-17 ^N	2					
51B-93-18A ^S	9					
7-94-3 ^S	2	T-32	√		√	
77-94-5 ^N	5					
77-94-6 ^N	5					
74-94-7 ^S	11					
74-94-8 ^S	11					
25-94-12 ^A	10					
16-94-13 ^A	10					
58A-94-14 ^S	7					
51-94-15 ^A	7					
52-95-2A	10					
52-95-2B ^S	10	T-34	√	√	√	
16-95-3 ^N	10					
25-95-5 ^N	10	T-33	√	√	√	
74-95-6 ^A	11					
71-95-9 ^N	1					
58-95-11 ^A	7					
53-95-12 ^S	2					
52B-95-13 ^A	2					
6-95-14 ^A	2	T-32	√			
25A-95-15 ^S	10					
58-95-18 ^A	7					
58-95-19 ^S	7					
58-95-20 ^A	7					
7B-95-21 ^S	2	T-33	√	√	√	
7-95-22 ^S	2	T-32	√	√	√	

Table 2 (Cont'd)
Groundwater Sampling Locations and Analytical Methods
1st Quarter FY 2008

Location	Area	VOCs - 8260			PCBs 608	Tritium 906
		Page #	Oct	Nov		
7-95-23 ^Q	2	T-32	√	√	√	
7B-95-24 ^Q	2	T-33	√	√	√	
7B-95-25 ^S	2	T-33		√		
25-95-26 ^A	10					
25-95-27 ^S	10					
53-96-1 ^A	2	T-35	√	√	√	
51-96-3 ^A	7					
46-96-10 ^A	7					
58-96-11 ^Q	2	T-36	√	√	√	
51-96-15 ^S	9					
51-96-16 ^S	9	T-22	√	√	√	
51-96-17 ^A	9	T-22	√	√	√	
51-96-18 ^S	9	T-22	√	√	√	
75-96-20 ^A	3					
64-97-1 ^A	9					
64-97-2 ^S	9					
51-97-3 ^A	9					
75-97-5 ^N	3					
75-97-6 ^N	3					
75-97-7 ^N	3					
69-97-8 ^S	3	T-43	√	√	√	
77-97-9 ^N	5					
77-97-11 ^N	5					
51-97-12 ^S	9					
51-97-13 ^A	9					
51-97-14 ^A	9					
51-97-15 ^S	9					
31-97-17 ^N	5					
31-97-18 ^N	5					
78-97-20 ^N	4					
69-97-21 ^N	3					
25A-98-1 ^S	10	T-34	√	√	√	
56-98-2 ^A	9					
25A-98-3 ^S	10	T-34	√	√	√	
25A-98-7 ^S	10	T-34	√	√	√	
52A-98-8A ^A	10					
52A-98-8B ^S	10	T-35	√	√	√	
52-98-9 ^A	10	T-35	√	√	√	
25-98-10 ^A	10	T-33	√	√	√	
71B-98-13 ^S	1					
75-98-14 ^A	3					
75-98-15 ^N	3					

Table 2 (Cont'd)
Groundwater Sampling Locations and Analytical Methods
1st Quarter FY 2008

Location	Area	VOCs - 8260			PCBs 608	Tritium 906
		Page #	Oct	Nov		
31-98-17 ^S	5					√
63-98-18 ^A	15					
76-98-21 ^S	4					
76-98-22 ^S	4					
51-99-1 ^N	9					
25A-99-2 ^S	10					
71B-99-3R ^Q	1	T-23		√		
75-99-6 ^N	3					
75-99-7 ^N	3					
75-99-8 ^N	3					
7-00-4 ^A	2					
75A-00-7 ^A	3					
51-00-8 ^Q	9	T-22	√			
51-00-9 ^N	9					
51-00-10 ^A	9					
58-00-12 ^Q	7	T-36	√	√,D	√	
51L-01-1A ^A	9	T-23		√		
51L-01-1B ^N	9					
51L-01-5A ^A	9	T-23	√			
51L-01-5B ^A	9	T-23	√			
51L-01-6 ^A	9	T-23	√			
51L-01-7 ^A	9	T-23	√			
51A-01-11 ^A	9	T-23	√			
51L-02-1 ^A	9					
OW3-225 ^S	8					
Hydraugers						
37-01-01	14					
51-01-01	9	T-45	√			
51-01-02	9	T-45	√			
51-01-03	9	T-45	√			
51-01-03A	9					
51-01-04	9	T-45	√			
77-02-05	5					√
77-03-2	5					√
77-03-3	5					√
77-04-11	5					√
Slope Stability and Slope Indicator Facilities						
SSW19-63	7					
SSW17-130	5					
SSW19-130	5					
SSW20-130	5					
SSW21-130	5					

Table 2 (Cont'd)
Groundwater Sampling Locations and Analytical Methods
1st Quarter FY 2008

Location	Area	Page #	VOCs - 8260			PCBs 608	Tritium 906
			Oct	Nov	Dec		
Temporary Groundwater Sampling Points							
SB5A-98-1	10	T-37	√	√			
SB7-97-1	2	T-37	√				
SB16-97-11	10						
SB16-98-1	10						
SB25A-96-3	10	T-37	√				
SB27-96-1	5	T-37	√	√	√		
SB31-02-1	5						
SB31-02-2	5						
SB31-02-4	5						
SB31-02-5	5						
SB31-02-6	5						
SB31-02-7	5						
SB31-03-1	5						
SB31-03-2	5						
SB31-03-3	5						
SB31-03-4	5						
SB44-98-1	10						
SB51-96-6	9						
SB51-98-1	9	T-24	√			√	
SB51-98-2	9						
SB51-98-4	9	T-24	√			√	
SB51-98-6	9	T-24	√			√	
SB51-98-8	9						
SB51-98-9	9						
SB51-04-1	9						
SB51A-01-8B	9						
SB51L-98-1A	9	T-24		√			
SB52A-98-1	2						
SB53-96-3	2	T-37	√	√	√		
SB58-95-1	7						
SB58-95-2	7						
SB58-96-1	7	T-37		√			
SB58-96-2	7	T-37		√			
SB58-97-1	7	T-37		√			
SB58-97-2	7	T-37	√	√	√		
SB58-98-1	7						
SB58-98-6	7						
SB58-98-7	7						
SB58-01-2	7						
SB58-02-1	7						

Table 2 (Cont'd)
Groundwater Sampling Locations and Analytical Methods
1st Quarter FY 2008

Location	Area	VOCs - 8260			PCBs 608	Tritium 906
		Page #	Oct	Nov		
Temporary Groundwater Sampling Points						
SB58-02-2	7					
SB64-98-8	9	T-24	√	√	√	
SB64-98-12	9					
SB64-98-13	9					
SB64-98-17	9	T-24	√	√	√	
SB64-99-4	9	T-24	√	√	√	
SB64-99-5	9	T-25	√	√	√	
SB64-99-6	9					
SB64-00-1	9	T-25	√	√	√	
SB64-00-2	9	T-25	√	√	√	
SB64-02-1A	9	T-25	√	√	√	
SB64-02-1B	9	T-26	√	√	√	
SB64-02-1C	9	T-26	√	√	√	
SB64-02-1D	9	T-26	√	√	√	
SB64-02-1E	9	T-26	√	√	√	
SB64-02-1F	9	T-26	√	√	√	
SB64-02-2A	9	T-27	√	√	√	
SB64-02-2B	9	T-27	√	√	√	
SB64-02-2C	9	T-27	√	√	√	
SB64-02-2D	9	T-27	√	√	√	
SB64-02-2E	9	T-27	√	√	√	
SB64-02-2F	9	T-28	√	√	√	
SB64-03-1A	9					
SB64-03-1B	9	T-28	√	√	√	
SB64-03-4	9					
SB64-03-5	9	T-28	√	√	√	
SB64-03-6	9	T-28	√	√	√	
SB64-03-7	9					
SB64-03-8	9					
SB64-03-12	9					
SB64-03-13	9					
SB64-05-4	9	T-28	√		√	
SB69-02-1A	3					
SB69-02-1B	3					
SB69A-99-1	3	T-44	√	√	√	
SB69A-00-1	3					
SB71B-99-1	1					
SB71B-99-2	1					
SB71B-03-1	1	T-29	√	√	√	
SB71B-03-2	1	T-29	√	√	√	

Table 2 (Cont'd)
Groundwater Sampling Locations and Analytical Methods
1st Quarter FY 2008

Location	Area	Page #	VOCs - 8260			PCBs 608	Tritium 906
			Oct	Nov	Dec		
Temporary Groundwater Sampling Points							
SB71B-04-1	1	T-29	√	√	√		
SB71B-04-3	1						
SB71H-98-1	1						
SB75-02-1	3						
SB75A-02-1A	3						
SB75A-02-1B	3						
SB77-02-1	5						
W76-97-3	4						
W76-97-4	4						
W76-97-5	4						
Other Locations							
MP7-99-1BR	2	T-42	√	√	√		
MP7-99-2BR	2	T-42	√,D	√	√		
Extraction/Injection Wells							
EW7-96-1	2	T-38	√	√	√		
EW7-96-2	2	T-38	√	√	√		
EW7-96-4R	2	T-38	√	√	√		
EW7-03-1	2	T-38	√	√	√		
EW7-03-2	2	T-38	√	√	√		
EW7-03-3	2	T-39	√	√	√		
EW7-06-1	2	T-39	√	√			
EW7C-04-2	2	T-39	√	√	√		
EW25A-02-1	10	T-39	√	√	√		
EW51-07-1	9	T-30	√	√			
EW51-07-2	9	T-30	√	√			
EW51A-06-1	9	T-30	√	√	√		
EW51B-07-1	9	T-30	√	√	√		
EW51B-07-2	9	T-30	√	√	√		
EW51L-99-1	9						
EW51L-00-1	9						
EW51L-06-1	9	T-31	√	√	√		
EW53-04-2	2	T-40	√	√	√		
EW58-98-1 ^T	7	T-40	√				
EW58-98-2 ^T	7	T-40	√				
EW58E-98-1	7	T-40		√			
EW58E-98-2	7	T-40		√			
EW58E-98-3	7	T-40		√			
EW58E-98-4	7	T-40		√			
EW58E-98-5	7	T-40		√			
EW58E-98-6	7	T-40		√			
EW58E-98-7	7	T-41		√			

Table 2 (Cont'd)
Groundwater Sampling Locations and Analytical Methods
1st Quarter FY 2008

Location	Area	Page #	VOCs - 8260			PCBs 608	Tritium 906
			Oct	Nov	Dec		
Extraction/Injection Wells							
EW58E-98-8	7	T-41		√			
EW58-02-1 ^T	7	T-41	√	√	√		
EW58-07-1	7	T-41	√	√	√		
EW64-00-1 ^T	9	T-31	√	√	√		
EW64-03-1 ^T	9	T-31	√	√	√		
EW64-05-1 ^T	9	T-31	√	√	√		
EW64-06-1 ^T	9	T-31	√				

 = all compounds less than Quantitation Limit or for tritium less than Minimum Detectable Activity

Minimum required groundwater monitoring well sampling schedule for VOCs

^A = Annual

^N = No sampling

^Q = Quarterly sampling

^S = Semi-annual

^T = Treatment system influent samples

D - each D represents one duplicate sample

OS = Offsite well

√ = each check represents one sample taken

VOCs = Volatile Organic compounds, EPA Method 8260

PCBs = Polychlorinated Biphenyls, EPA Method 608

Table 3
Groundwater Elevations in LBNL Monitoring Wells
1st Quarter FY 2008

Well Number	Top of Casing Elevation (feet)	Date	Depth to Water (feet)	Groundwater Elevation (feet msl)		Change from Previous Quarter
				Current Quarter	Previous Quarter	
Bevalac Area						
46A-92-15	830.10	11/28	16.04	814.06	812.98	1.08
51-92-2	724.69	11/27	4.66	720.03	717.36	2.67
51-96-15	709.83	11/27	21.03	688.80	687.30	1.50
51-96-16	709.72	11/27	18.31	691.41	691.45	-0.04
51-96-17	709.64	11/27	17.64	692.00	691.60	0.40
51-96-18	710.76	11/27	9.77	700.99	700.37	0.62
51-97-3	709.81	11/27	44.62	665.19	675.26	-10.07
51-97-12	709.37	11/27	43.50	665.87	675.39	-9.52
51-97-13	709.48	11/27	35.43	674.05	675.09	-1.04
51-97-14	708.89	11/27	49.49	659.40	659.86	-0.46
51-97-15	706.11	11/27	72.34	633.77	633.20	0.57
51-99-1	724.44	11/28	10.15	714.29	NM	
51-00-8	682.11	11/27	23.76	658.35	659.59	-1.24
51-00-9	698.16	11/27	2.90	695.26	693.62	1.64
51-00-10	698.18	11/27	3.12	695.06	692.43	2.63
51A-01-11	709.74	11/27	21.67	688.07	681.17	6.90
51B-93-18A	709.95	11/27	9.02	700.93	700.63	0.30
51L-01-1A	710.04	11/28	7.53	702.51	NM	
51L-01-1B	710.04	11/28	12.24	697.80	NM	
51L-01-5A	709.96	11/27	28.41	681.55	683.25	-1.70
51L-01-5B	709.94	11/27	45.93	664.01	664.13	-0.12
51L-01-6	709.80	11/27	24.44	685.36	688.98	-3.62
51L-01-7	709.76	11/27	39.53	670.23	679.47	-9.24
56-98-2	709.76	11/27	17.99	691.77	691.02	0.75
63-98-18	709.99	11/27	23.00	686.99	688.82	-1.83

Well Number	Top of Casing Elevation (feet)	Date	Depth to Water (feet)	Groundwater Elevation (feet msl)		Change from Previous Quarter
				Current Quarter	Previous Quarter	
Old Town						
64-97-1	709.94	11/27	4.76	705.18	702.91	2.27
64-97-2	709.65	11/27	11.31	698.34	697.36	0.98
71-93-2	844.39	11/28	34.97	809.42	808.18	1.24
71-95-9	854.18	11/28	22.57	831.61	830.94	0.67
71B-98-13	832.33	11/28	16.46	815.87	815.99	-0.12
71B-99-3R	840.13	11/28	4.45	835.68	823.60	12.08
MW90-3	820.60	11/28	42.52	778.08	778.17	-0.09
MW90-4	746.15	11/28	7.81	738.34	733.52	4.82
MW90-5	745.75	11/28	19.10	726.65	726.23	0.42
MWP-1	630.65	11/28	43.42	587.23	587.27	-0.04
5-93-10	914.90	11/27	20.44	894.46	892.58	1.88
6-92-17	891.20	11/27	11.26	879.94	879.76	0.18
6-93-4	881.60	11/27	44.16	837.44	840.27	-2.83
7-92-16	882.40	11/27	47.77	834.63	839.85	-5.22
7-92-19	884.80	11/27	19.31	865.49	866.96	-1.47
7-94-3	882.88	11/27	NM		NM	
7-95-22	882.16	11/27	19.14	863.02	864.31	-1.29
7-95-23	882.37	11/27	24.08	858.29	860.24	-1.95
7-00-4	883.18	11/27	83.34	799.84	804.75	-4.91
7B-95-21	883.63	11/27	25.93	857.70	858.15	-0.45
7B-95-24	883.88	11/27	52.62	831.26	844.17	-12.91
7B-95-25	882.03	11/27	18.56	863.47	865.80	-2.33
16-94-13	892.50	11/27	17.80	874.70	873.87	0.83
16-95-3	901.52	11/27	15.81	885.71	885.69	0.02

Table 3 (Cont'd)
Groundwater Elevations in LBNL Monitoring Wells
1st Quarter FY 2008

Well Number	Top of Casing Elevation (feet)	Date	Depth to Water (feet)	Groundwater Elevation (feet msl)		Change from Previous Quarter
				Current Quarter	Previous Quarter	
Old Town						
25-94-12	937.59	11/27	34.63	902.96	903.08	-0.12
25-95-5	932.88	11/27	NM		NM	
25-95-26	935.81	11/27	41.39	894.42	896.69	-2.27
25-95-27	859.83	11/27	32.19	827.64	829.85	-2.21
25-98-10	934.42	11/27	61.00	873.42	870.10	3.32
25A-95-15	931.68	11/27	10.42	921.26	912.16	9.10
25A-98-1	936.88	11/27	29.39	907.49	904.73	2.76
25A-98-3	940.14	11/27	NM		NM	
25A-98-7	942.71	11/27	13.82	928.89	928.60	0.29
25A-99-2	940.45	11/27	18.60	921.85	916.72	5.13
26-92-11	936.19	11/27	19.75	916.44	921.11	-4.67
27-92-20	881.10	11/27	46.10	835.00	835.23	-0.23
37-92-18A	861.20	11/27	46.89	814.31	815.28	-0.97
46-92-9	805.30	11/28	75.89	729.41	733.18	-3.77
46-93-12	807.57	11/28	7.53	800.04	800.02	0.02
46-96-10	790.35	11/28	33.49	756.86	757.83	-0.97
51-94-15	771.17	11/27	34.04	737.13	736.43	0.70
51-96-3	766.44	11/27	13.39	753.05	756.39	-3.34
52-93-14	900.03	11/27	36.80	863.23	866.10	-2.87
52-95-2A	910.27	11/27	44.21	866.06	866.75	-0.69
52-95-2B	910.23	11/27	51.63	858.60	860.28	-1.68
52-98-9	910.86	11/27	51.74	859.12	860.75	-1.63
52A-98-8A	913.56	11/27	31.62	881.94	881.90	0.04
52A-98-8B	913.51	11/27	50.65	862.86	865.47	-2.61
52B-95-13	887.40	11/27	20.22	867.18	869.18	-2.00

Well Number	Top of Casing Elevation (feet)	Date	Depth to Water (feet)	Groundwater Elevation (feet msl)		Change from Previous Quarter
				Current Quarter	Previous Quarter	
53-92-21-130	886.97	11/28	67.87	819.10	818.96	0.14
53-92-21-147	886.99	11/28	66.94	820.05	820.07	-0.02
53-92-21-167	886.97	11/28	68.31	818.66	819.07	-0.41
53-92-21-193	886.98	11/28	80.94	806.04	805.53	0.51
53-93-9	900.68	11/27	59.19	841.49	841.51	-0.02
53-93-16-42'	887.45	11/27	36.02	851.43	849.10	2.33
53-93-16-69'	887.40	11/27	61.78	825.62	826.35	-0.73
53-93-17	902.62	11/27	62.96	839.66	840.78	-1.12
53-95-12	867.45	11/27	31.87	835.58	835.71	-0.13
53-96-1	887.64	11/27	54.85	832.79	829.20	3.59
58-93-3	830.06	11/27	5.77	824.29	824.03	0.26
58-95-11	831.62	11/27	0.30	831.32	830.52	0.80
58-95-18	788.61	11/28	9.90	778.71	778.21	0.50
58-95-19	834.33	11/27	17.41	816.92	817.33	-0.41
58-95-20	818.81	11/28	17.07	801.74	801.69	0.05
58-96-11	848.23	11/28	31.77	816.46	816.52	-0.06
58-00-12	860.62	11/28	NM		NM	
58A-94-14	821.73	11/28	23.12	798.61	798.69	-0.08
MW90-2	880.78	11/27	21.12	859.66	860.49	-0.83
MW91-8	887.02	11/27	50.42	836.60	836.89	-0.29
MW91-9	915.67	11/27	22.50	893.17	893.56	-0.39
MWP-4	831.56	11/27	46.52	785.04	785.19	-0.15
MWP-5	852.37	11/27	96.22	756.15	757.22	-1.07
MWP-6	845.44	11/27	27.13	818.31	819.19	-0.88
MWP-8	872.34	11/27	27.03	845.31	845.60	-0.29

Table 3 (Cont'd)
Groundwater Elevations in LBNL Monitoring Wells
1st Quarter FY 2008

Well Number	Top of Casing Elevation (feet)	Date	Depth to Water (feet)	Groundwater Elevation (feet msl)		Change from Previous Quarter
				Current Quarter	Previous Quarter	
Support Services						
31-97-17	746.15	11/27	20.99	725.16	725.87	-0.71
31-97-18	747.80	11/27	23.20	724.60	725.65	-1.05
31-98-17	693.47	11/27	12.54	680.93	674.22	6.71
61-92-12	843.90	11/27	88.86	755.04	756.85	-1.81
69-97-8	975.75	11/28	42.35	933.40	934.18	-0.78
69-97-21	1003.40	11/28	31.82	971.58	972.87	-1.29
69A-92-22	977.06	11/28	24.51	952.55	950.80	1.75
75-96-20	979.07	11/28	12.45	966.62	967.34	-0.72
75-97-5	963.73	11/28	55.74	907.99	915.77	-7.78
75-97-6	967.89	11/28	56.42	911.47	913.15	-1.68
75-97-7	970.70	11/28	56.76	913.94	914.75	-0.81
75-98-14	977.94	11/28	17.41	960.53	965.16	-4.63
75-98-15	977.97	11/28	16.92	961.05	963.59	-2.54
75-99-6	979.94	11/28	12.95	966.99	971.65	-4.66
75-99-7	977.92	11/28	12.25	965.67	966.18	-0.51
75-99-8	979.34	11/28	11.24	968.10	970.56	-2.46
75A-00-7	978.32	11/28	120.22	858.10	876.38	-18.28
75B-92-24	956.90	11/28	39.92	916.98	918.36	-1.38
MW76-1	923.70	11/28	22.87	900.83	903.22	-2.39
76-93-6	948.61	11/28	21.15	927.46	931.15	-3.69
76-98-21	923.20	11/28	25.55	897.65	900.63	-2.98
76-98-22	904.57	11/28	16.84	887.73	889.86	-2.13
77-92-10	879.11	11/27	32.74	846.37	867.90	-21.53

NM = Not measured

Well Number	Top of Casing Elevation (feet)	Date	Depth to Water (feet)	Groundwater Elevation (feet msl)		Change from Previous Quarter
				Current Quarter	Previous Quarter	
77-94-5	878.96	11/27	36.82	842.14	NM	
77-94-6	876.76	11/27	53.29	823.47	826.21	-2.74
77-97-9	888.69	11/27	24.73	863.96	867.53	-3.57
77-97-11	814.67	11/27	34.10	780.57	782.34	-1.77
78-97-20	949.54	11/28	21.05	928.49	931.39	-2.90
MW91-1	877.98	11/27	24.07	853.91	854.65	-0.74
MW91-2	877.27	11/27	43.25	834.02	835.84	-1.82
MW91-4	978.55	11/28	97.59	880.96	907.03	-26.07
MW91-6	975.22	11/28	31.17	944.05	945.96	-1.91
MWP-9	818.83	11/27	33.42	785.41	786.59	-1.18
MWP-10	809.74	11/27	53.09	756.65	758.49	-1.84
Outlying Areas						
62-92-26	773.70	11/27	44.40	729.30	732.41	-3.11
62-92-27	769.90	11/27	37.98	731.92	738.68	-6.76
74-92-13	834.90	11/27	21.02	813.88	819.68	-5.80
74-94-7	819.82	11/27	15.26	804.56	806.01	-1.45
74-94-8	815.74	11/27	21.23	794.51	795.67	-1.16
74-95-6	838.66	11/27	26.00	812.66	818.32	-5.66
83-92-14	830.09	11/27	13.82	816.27	819.14	-2.87
88-93-11A	537.35	11/28	61.23	476.12	476.43	-0.31
CD-92-28	486.29	11/28	17.84	468.45	469.78	-1.33
MWP-2	710.33	11/28	56.45	653.88	657.13	-3.25
OW3-225	570.00	11/28	61.59	508.41	509.92	-1.51

Table 4
LBNL Monitoring Well Construction Details

Location ID	Area	Completion Date	Abandonment Date	UC Grid North Coordinate	UC Grid East Coordinate	Top of Casing Elevation (ft above MSL)	Casing Diameter (inches)	Approximate Screened Interval (ft below TOC)	Screened Geologic Unit
MW90-2	2	7/19/1990		253.21	2637.82	880.78	2	25-35	Orinda
MW90-3	1	7/23/1990		1134.60	2460.40	820.60	2	48-58	Colluvium
MW90-4	1	12/1/1990		1103.90	2289.30	746.15	2	15-25	Colluvium
MW90-5	1	12/1/1990		1067.30	2293.70	745.75	4	15-25	Colluvium
MW90-6	1	12/1/1990	9/17/2002	1046.70	2291.60	746.00	2	15-25	Colluvium / Orinda
MW91-1	5	5/30/1991		-69.08	4050.61	877.98	2	44-54	Orinda
MW91-2	5	5/31/1991		-65.83	3666.47	877.27	2	40-50	Orinda
MW91-3	3	6/4/1991	9/21/2005	566.47	3807.95	981.69	2	53-63	Orinda
MW91-4	3	12/2/1991		476.81	3756.52	978.55	2	115-145	Orinda
MW91-5	3	6/3/1991	9/21/2005	490.76	3815.48	978.28	2	30-40	Orinda
MW91-6	3	11/17/1991		382.38	3879.71	975.22	4	34-44	Orinda
MW91-8	2	1/9/1992		465.11	2662.97	887.02	2	65.5-75.5	Moraga
MW91-9	10	12/9/1991		246.20	2896.17	915.67	2	28.5-38.5	Orinda
MWP-1	15	6/6/1991		1177.15	1674.81	630.65	2	39-49	Colluvium
MWP-2	8	12/6/1991		219.37	1693.34	710.33	2	66-76	Great Valley
MWP-4	14	6/19/1991		-36.08	2169.41	831.56	2	43-53	Great Valley
MWP-5	14	6/25/1991		-262.06	2213.41	852.37	2	98-108	Great Valley
MWP-6	14	6/9/1991		-256.79	2476.38	845.44	2	27-37	Great Valley
MWP-7	14	6/10/1991		-206.48	2638.97	854.01	2	25-35	Orinda / Great Valley
MWP-8	10	6/14/1991		-292.68	2876.29	872.34	2	25-35	Orinda
MWP-9	5	6/18/1991		-196.07	3674.77	818.83	2	51-61	Great Valley
MWP-10	5	6/8/1991		-246.37	3862.41	809.74	2	57-67	Great Valley
MW1-220	2	9/24/1988	9/26/2005	578.73	2751.09	901.64	4	83-93	Moraga
MW7-1	2	8/12/1988	8/19/2006	295.97	2681.13	884.13	4	8-18	
MW62-B1A	13	9/26/1987	9/20/2005	-987.16	4129.20	757.70	2	23-33	
MW62-B2	13	9/1/1986	9/7/2005	-984.02	4127.06	756.60	2	24-34	
MW76-1	4	8/9/1988		137.13	3366.07	923.70	4	20-30	
51-92-2	9	3/19/1992		660.30	2174.22	724.69	2	6.5-16.5	Orinda
88-92-4	6	3/18/1992	9/28/2005	931.05	1029.80	590.82	2	49-59	Great Valley
37-92-5	14	3/28/1992	12/9/2005	-125.20	2668.23	881.56	2	85-105	Great Valley

Table 4 (Cont'd)
LBNL Monitoring Well Construction Details

Location ID	Area	Completion Date	Abandonment Date	UC Grid North Coordinate	UC Grid East Coordinate	Top of Casing Elevation (ft above MSL)	Casing Diameter (inches)	Approximate Screened Interval (ft below TOC)	Screened Formation Name
37-92-6	14	2/23/1992	2/19/2007	-245.60	2649.39	854.15	2	29-39	Great Valley
70-92-7	8	3/8/1992	9/12/2005	403.84	1708.83	762.93	2	20.8-25.8	Great Valley
46-92-9	7	3/1/1992		612.25	2423.20	805.30	2	68.5-78.5	Orinda
77-92-10	5	3/3/1992		19.05	4092.31	879.11	2	48-68	Orinda
26-92-11	10	3/9/1992		165.02	3175.74	936.19	2	20.5-30.5	Orinda
61-92-12	5	2/28/1992		-356.90	3347.90	843.90	2	89-99	Orinda
74-92-13	11	4/15/1992		-355.80	5301.10	834.90	2	38.2-48.2	San Pablo (?)
83-92-14	11	2/22/1992		-354.70	5254.65	830.09	2	48-58	San Pablo (?)
46A-92-15	1	9/12/1992		1187.20	2539.10	830.10	2	29-39	Colluvium / Orinda
7-92-16	2	8/28/1992		181.20	2635.90	882.40	2	39-59	Moraga
6-92-17	14	8/27/1992		40.50	2729.10	891.20	2	24-39	Moraga/Orinda
37-92-18	14	8/31/1992	9/25/2002	-237.40	2723.80	860.30	2	19-29	Orinda
37-92-18A	14	9/14/1992		-240.60	2730.30	861.20	2	49-69	Great Valley
7-92-19	2	8/29/1992		299.60	2684.50	884.80	2	24-39	Moraga/Orinda
27-92-20	2	10/14/1992		544.10	2661.00	881.10	2	63.5-83.5	Moraga/Orinda
53-92-21-130'	2	10/92		358.33	2657.18	886.97	2	125-130	Orinda
53-92-21-147'	2	10/92		357.94	2657.11	886.99	2	142-147	Orinda
53-92-21-167'	2	10/92		358.07	2656.90	886.97	2	162-167	Orinda
53-92-21-193'	2	10/92		358.35	2656.90	886.98	2	188-193	Orinda
69A-92-22	3	1/22/1993		320.97	3951.1	977.06	2	44-64	Orinda
75-92-23	3	9/2/1992	9/26/2005	361.19	3826.89	972.10	6	29-49	Colluvium
75B-92-24	3	9/1/1992		218.40	3692.30	956.90	2	37-57	Orinda
76-92-25	4	9/13/1992	9/18/2002	181.90	3293.20	928.70	2	23.5-38	Orinda
62-92-26	13	9/3/1992		-1157.60	4402.30	773.70	2	47-57	Great Valley
62-92-27	13	9/4/1992		-1112.00	4157.10	769.90	2	56-66	Great Valley
CD-92-28	OS	10/26/1992		-1240.92	2435.51	486.29	2	45-55	Great Valley
71-93-1	1	9/9/1993	9/19/2005	1458.58	2562.60	872.39	2	43-63	Moraga/Orinda
71-93-2	1	9/8/1993		1352.87	2441.60	844.39	2	39-59	Moraga
58-93-3	7	5/17/1994		331.23	2515.06	830.06	2	14-24	Colluvium/Moraga
6-93-4	2	9/10/1993		229.92	2599.52	881.60	2	35-50	Artificial Fill/Moraga

Table 4 (Cont'd)
LBNL Monitoring Well Construction Details

Location ID	Area	Completion Date	Abandonment Date	UC Grid	UC Grid	Top of Casing Elevation (ft above MSL)	Casing Diameter (inches)	Approximate	Screened Formation Name
				North Coordinate	East Coordinate			Screened Interval (ft below TOC)	
37-93-5	14	8/26/1993	9/18/2002	-230.96	2573.02	850.17	2	39-49	Great Valley
76-93-6	4	8/25/1993		252.62	3600.80	948.61	2	34-44	Orinda
76-93-7	4	8/28/1993	9/27/2005	141.90	3299.84	924.85	2	24-39	Orinda
77-93-8	5	8/23/1993	9/19/2005	-44.32	3554.55	879.01	2	16-26	Art Fill/Col/Orinda
53-93-9	2	9/9/1993		427.92	2732.45	900.68	2	68-88	Moraga/Orinda
5-93-10	10	9/10/1993		179.51	2873.28	914.90	2	22-37	Moraga/Orinda
88-93-11A	6	3/2/1994		956.00	864.20	537.35	2	55-65	Great Valley
46-93-12	7	9/7/1993		673.46	2530.88	807.57	2	8.5-13.5	Moraga/Orinda
88-93-13	6	11/1/1993	2/19/2007	671.81	980.85	581.50	2	118.5-138.5	Great Valley
52-93-14	10	12/9/1993		276.79	2842.59	900.03	2	24.5-39.5	Moraga/Orinda
25-93-15	10	11/8/1993	9/14/2005	-46.77	3057.62	936.44	2	55-75	Moraga/Orinda
53-93-16-42'	2	1/29/1994		356.87	2674.05	887.45	2	31.5-41.5	Moraga
53-93-16-69'	2	1/29/1994		356.74	2673.78	887.40	4	58.5-68.5	Moraga
53-93-17	2	11/2/1993		458.40	2707.41	902.62	2	60.5-75.5	Moraga
51B-93-18A	9	5/19/1994		1070.65	2174.99	709.95	2	23.5-43.5	Orinda
46A-93-19	1	1/15/1994	9/28/2005	1024.48	2439.82	809.77	2	44-64	Orinda
71-94-1	1	5/21/1994	9/16/2005	1381.17	2358.57	845.84	2	38.5-48.5	Moraga
7-94-3	2	5/13/1994		267	2705.26	882.88	2	22.5-42.5	Orinda
77-94-5	5	5/9/1994		-53.24	3604.82	878.96	2	43.5-63.5	Orinda
77-94-6	5	5/5/1994		-67.94	3722.2	876.76	2	40.5-60.5	Orinda
74-94-7	11	4/28/1994		-508.66	5233.24	819.82	2	33.5-43.5	San Pablo (?)
74-94-8	11	5/10/1994		-594.5	5343.25	815.74	2	20-30	Col/Alluv/San Pablo (?)
37-94-9	14	5/12/1994	9/9/2005	-228.55	2682.42	856.51	2	24-44	Orinda/Great Valley
52-94-10	10	10/17/1994	9/20/2005	465.38	2859.99	906.04	2	47-67	Moraga/Orinda
51-94-11	1	10/18/1994	9/16/2005	1194.70	2263.64	756.83	4	8-18	Moraga/Orinda
25-94-12	10	10/14/1994		24.60	3021.73	937.59	2	26-46	Moraga/Orinda
16-94-13	10	10/11/1994		253.46	2762.79	892.50	2	22-42	Orinda
58A-94-14	7	10/4/1994		424.85	2457.65	821.73	2	21-41	Moraga/Orinda
51-94-15	7	11/7/1994		625.97	2264.47	771.17	4	30-40	Orinda
46-94-16	9	11/7/1994	9/19/2002	906.27	2300.02	756.16	2		Orinda

Table 4 (Cont'd)
LBNL Monitoring Well Construction Details

Location ID	Area	Completion Date	Abandonment Date	UC Grid	UC Grid	Top of Casing Elevation (ft above MSL)	Casing Diameter (inches)	Approximate	Screened Formation Name
				North Coordinate	East Coordinate			Screened Interval (ft below TOC)	
71-95-1	1	4/11/1995	9/17/2002	1479.30	2335.13	846.94	2		Moraga
52-95-2A	10	8/29/1995		372.05	2864.37	910.27	2	34.5-44.5	Moraga
52-95-2B	10	8/29/1995		372.19	2864.56	910.23	2	65-110	Moraga/Orinda
16-95-3	10	4/18/1995		45.73	2787.74	901.52	2	23-30	Moraga/Orinda
25A-95-4	10	4/20/1995	9/19/2005	219.82	3033.97	938.35	2	28-48	Orinda
25-95-5	10	8/22/1995		-154.47	3091.60	932.88	2	69-94	Moraga/Orinda
74-95-6	11	7/14/1995		-354.67	5334.83	838.66	4	35-50	San Pablo (?)
83-95-7	11	7/14/1995	9/27/2005	-285.14	5246.70	840.75	4	36-46	San Pablo (?)
71-95-8	1	4/13/1995	9/16/2005	1298.86	2549.05	839.09	2	29-49	Orinda
71-95-9	1	4/14/1995		1249.27	2662.35	854.18	2	23.5-38.5	Artificial Fill/Colluvium
58-95-11	7	5/15/1995		296.22	2512.06	831.62	4	8.5-28.5	Moraga/Orinda
53-95-12	2	7/19/1995		360.87	2616.60	867.45	1	35-50	Moraga/Orinda
52B-95-13	10	7/21/1995		282.76	2732.91	887.40	1	16-31	Moraga/Orinda
6-95-14	2	8/15/1995		184.75	2631.08	881.43	4	22-67	Moraga/Orinda
25A-95-15	10	8/3/1995		148.22	2960.59	931.68	2	29-49	Orinda
62-95-16	13	8/4/1995	9/20/2005	-972.38	4088.45	741.06	4	18.5-33.5	Great Valley
51-95-17	9	2/12/1996	11/18/2002	913.86	2272.51	744.67	2	22-37	Orinda
58-95-18	7	8/9/1995		471.88	2401.55	788.61	4	7.5-17.5	Colluvium/Moraga/Orinda
58-95-19	7	9/13/1995		395.42	2562.55	834.33	1	20.5-30.5	Orinda
58-95-20	7	8/8/1995		494.26	2517.86	818.81	2	14.5-34.5	Moraga/Orinda
7B-95-21	2	8/11/1995		283.95	2679.19	883.63	4	13.5-38.5	Moraga/Orinda
7-95-22	2	8/10/1995		278.23	2659.08	882.16	4	13.5-38.5	Moraga
7-95-23	2	12/22/1995		285.15	2659.67	882.37	4	43-53	Moraga/Orinda
7B-95-24	2	12/18/1995		318.75	2655.51	883.88	4	53-73	Moraga/Orinda
7B-95-25	2	12/13/1995		274.27	2634.08	882.03	2	24-44	Moraga
25-95-26	10	4/29/1996		-54.01	3139.20	935.81	2	38-58	Moraga
25-95-27	10	12/20/1995		-327.09	3045.68	859.83	2	19.5-34.5	Orinda
53-96-1 (MW91-7)	2	4/19/1996		344.37	2682.54	887.64	4	67-82	Moraga/Orinda
4-96-2	10	4/17/1996	9/13/2005	-84.00	2889.05	912.64	2	45-65	Orinda
51-96-3	9	4/23/1996		546.48	2240.66	766.44	4		Colluvium

Table 4 (Cont'd)
LBNL Monitoring Well Construction Details

Location ID	Area	Completion Date	Abandonment Date	UC Grid	UC Grid	Top of Casing Elevation (ft above MSL)	Casing Diameter (inches)	Approximate	Screened Formation Name
				North Coordinate	East Coordinate			Screened Interval (ft below TOC)	
88-96-4	6	4/26/1996	9/6/2005	968.53	1105.35	594.25	2	46.5-66.5	Great Valley
70A-96-5	8	4/15/1996	11/13/2002	370.50	1757.93	762.68	4	15-30	Great Valley
70A-96-6	8	4/16/1996	11/13/2002	334.24	1764.19	762.67	4	20-40	Great Valley
46-96-10	7	11/4/1996		886.68	2397.81	790.35	2	22-37	Moraga
58-96-11	2	6/11/1996		350.19	2588.64	848.23	2	15-40	Moraga/Orinda
58-96-12	7	12/4/1996	9/16/2002	295.46	2508.67	831.84	4	2-7	Fill/Moraga
70A-96-13	8	9/24/1996	9/7/2005	292.97	1511.04	711.87	2	111-141	Great Valley
70A-96-14	8	9/24/1996	9/8/2005	392.41	1498.87	716.64	2	112-142	Great Valley
51-96-15	9	9/26/1996		1004.38	2109.8	709.83	2	20-40	Orinda
51-96-16	9	9/25/1996		1054.3	2095.66	709.72	2	10-30	Artificial Fill
51-96-17	9	9/25/1996		1054.56	2093.45	709.64	2	35-55	Orinda
51-96-18	9	9/27/1996		1126.37	2170.13	710.76	2	6-16	Orinda
51-96-19	9	9/27/1996	9/12/2005	1066.52	2184.14	709.40	2	5-15	Artificial Fill
75-96-20	3	2/13/1997		487.72	3762.28	979.07	2	24.5-49.5	Orinda ?
64-97-1	9	5/20/1997		1194.82	2167.79	709.94	2	4.5-24.5	Orinda
64-97-2	9	5/20/1997		1142.40	2085.16	709.65	2	9-29	Orinda
51-97-3	9	6/3/1997		1102.96	1902.48	709.81	2	54.5-74.5	Artificial Fill
51-97-4	9	6/25/1997	9/15/2005	1101.16	1902.01	709.66	2	89-104	Orinda
75-97-5	3	7/19/1997		232.73	3768.01	963.73	2	39-69	Orinda
75-97-6	3	5/22/1997		262.75	3819.22	967.89	4	53.5-73.5	Orinda
75-97-7	3	6/9/1997		253.44	3870.26	970.70	2	58.5-78.5	Orinda
69-97-8	3	9/13/1997		255.05	3921.16	975.75	2.25	50-70	Colluvium/Orinda
77-97-9	5	6/4/1997		76.53	3753.30	888.69	2	19-49	Colluvium/Orinda
77-97-10	5	5/21/1997	9/18/2002	-91.93	3871.35	877.73	2	32-52	Colluvium/Orinda
77-97-11	5	6/24/1997		-205.88	3749.71	814.67	2	22.5-42.5	Colluvium/Orinda
51-97-12	9	9/2/1997		1109.18	1904.55	709.37	2	29.5-49.5	Artificial Fill
51-97-13	9	9/11/1997		1196.36	1901.98	709.48	2	48-68	Artificial Fill
51-97-14	9	9/10/1997		1020.26	1883.14	708.89	2	44-64	Artificial Fill
51-97-15	9	9/12/1997		1155.18	1803.16	706.11	2	88-108	Artificial Fill
51-97-16	9	9/9/1997	3/17/2005	875.26	1917.64	709.58	2	14.5-34.5	Art. Fill/Great Valley

Table 4 (Cont'd)
LBNL Monitoring Well Construction Details

Location ID	Area	Completion Date	Abandonment Date	UC Grid North Coordinate	UC Grid East Coordinate	Top of Casing Elevation (ft above MSL)	Casing Diameter (inches)	Approximate	Screened Formation Name
								Screened Interval (ft below TOC)	
31-97-17	5	9/5/1997		-459.67	3738.68	746.15	2	21.5-31.5	Colluvium
31-97-18	5	9/4/1997		-480.52	3779.68	747.80	2	39.5-59.5	Colluvium/Great Valley
78-97-20	4	10/10/1997		298.21	3429.47	949.54	2	14-34	Orinda
69-97-21	3	9/23/1997		471.24	3985.45	1003.4	2	18.5-38.5	Orinda
76-97-22	4	10/17/1997	9/25/2002	165.14	3545.94	937.91	2	25-45	Colluvium/Orinda
71-97-23	1	9/8/1997	9/15/2005	1221.62	2469.83	844.45	2	39.5-59.5	Artificial Fill/Orinda
25A-98-1	10	4/23/1998		99.79	2986.86	936.88	2	30-50	Orinda
56-98-2	9	4/24/1998		1264.86	1887.99	709.76	2	35-55	Artificial Fill/Orinda
25A-98-3	10	4/21/1998		175.76	3027.87	940.14	2	25-45	Orinda
64-98-4	9	4/20/1998	3/15/2000	1133.05	2172.54	711.12	2	5-15	Orinda
51-98-5	9	5/8/1998	8/10/2006	951.70	1922.10	709.63	2	30-50	Colluvium
25A-98-6	10	10/2/1998	8/10/2006	134.29	3091.47	939.90	2	20.5-40.5	Moraga/Orinda
25A-98-7	10	9/1/1998		140.51	3001.67	942.71	2	19-34	Orinda
52A-98-8A	10	9/16/1998		339.79	2883.49	913.56	2	23-33	Colluvium
52A-98-8B	10	9/17/1998		339.86	2883.73	913.51	2	60-80	Moraga
52-98-9	10	9/11/1998		377.44	2864.09	910.86	2	60-80	Moraga
25-98-10	10	9/12/1998		-105.23	3087.97	934.42	2	70-90	Moraga/Orinda
46A-98-11	1	11/3/1998	11/16/2002	1049.68	2422.42	813.66	2	54-74	Orinda
71B-98-13	1	9/23/1998		1202.90	2583.97	832.33	2	15-30	Artificial Fill/Orinda
75-98-14	3	9/17/1998		436.14	3711.28	977.94	2	20-35	Orinda
75-98-15	3	9/21/1998		479.95	3640.78	977.97	2	20-35	Orinda
75-98-16	3	10/12/1998	9/16/2002	603.26	3451.27	1074.19	2	69-89	Orinda
31-98-17	5	9/14/1998		-719.39	3709.06	693.47	2	50-60	Colluvium
63-98-18	15	9/15/1998		1352.18	1819.94	709.99	2	20-35	Artificial Fill
64-98-19	9	2/1/1999	3/15/2000	1130.56	2178.51	711.11	2	21-26	Orinda
64-98-20	9	4/30/1999	8/2000	1133.29	2180.09	710.98	2	9.5-14.5	Orinda
76-98-21	4	9/25/1998		137.79	3352.42	923.20	2	15-35	Orinda
76-98-22	4	12/18/1998		72.85	3375.83	904.57	2	19-39	Orinda
51-99-1	9	5/1/1999		679.33	1978.83	724.44	2	25-35	Great Valley
25A-99-2	10	5/1/1999		137.70	3037.07	940.45	2	20-30	Moraga/Orinda

Table 4 (Cont'd)
LBNL Monitoring Well Construction Details

Location ID	Area	Completion Date	Abandonment Date	UC Grid North Coordinate	UC Grid East Coordinate	Top of Casing Elevation (ft above MSL)	Casing Diameter (inches)	Approximate Screened Interval (ft below TOC)	Screened Formation Name
71B-99-3	1	7/6/1999	10/2000	1179.35	2637.78	843.21	2	20-30	Orinda
71B-99-3R	1	4/5/2001		1178.62	2629.15	840.13	4	24-34	Orinda
75-99-4	3	7/20/1999	8/10/2006	462.42	3665.77	977.90	2	19.5-34.5	Orinda
25A-99-5	10	7/19/1999	9/23/2005	166.42	3062.06	940.16	2	24-44	Orinda
75-99-6	3	11/19/1999		519.69	3687.82	979.94	2	15.5-25.5	Orinda
75-99-7	3	11/19/1999		463.30	3749.60	977.92	2	14-24	Artificial Fill/Orinda
75-99-8	3	12/6/1999		502.05	3669.34	979.34	2	20-30	Orinda
51-00-1	9	2/5/2000	9/7/2005	690.86	2162.65	725.28	2	20-25	Orinda
71B-00-2	1	3/20/2000	8/10/2006	1197.37	2587.90	832.41	2	45-60	Orinda
58A-00-3	7	5/17/2000	8/10/2006	415.38	2454.06	822.54	2	69-84	Orinda
7-00-4	2	5/17/2000		294.69	2658.33	883.18	2	84-99	Orinda
25A-00-5	10	5/17/2000	8/10/2006	139.64	2965.28	933.12	2	68-83	Orinda
52A-00-6	10	5/17/2000	8/11/2006	321.30	2911.46	917.34	2	105-120	Orinda
75A-00-7	3	1/5/2001		469.39	3758.40	978.32	2	115-145	Orinda
51-00-8	9	9/7/2000		1095.81	1806.71	682.11	2	20-40	Artificial Fill/Orinda
51-00-9	9	10/2/2000		1008.33	2177.85	698.16	2	5-10	Orinda
51-00-10	9	10/3/2000		988.59	2177.76	698.18	2	5-10	Orinda
69A-00-11	3	9/8/2000	9/19/2005	321.66	3943.67	977.05	2	19.5-39.5	Orinda
58-00-12	7	10/5/2000		326.88	2607.24	860.62	2	38-59	Orinda/Mixed Unit
51L-01-1A	9	7/23/2001		864.13	1878.36	710.04	2	4-9	Artificial Fill/Colluvium
51L-01-1B	9	7/23/2001		863.88	1878.37	710.04	2	15-30	Great Valley
51L-01-3	9	12/20/2001	9/2006	896.88	1893.03	709.54	2	34.5-49.5	Great Valley
51L-01-4	9	7/23/2001	9/2006	915.93	1884.49	709.87	2	30-45	Great Valley
51L-01-5A	9	7/16/2001		936.13	1908.95	709.96	2	18-33	Artificial Fill/Colluvium
51L-01-5B	9	7/16/2001		936.09	1908.62	709.94	2	48.5-63.5	Great Valley
51L-01-6	9	7/18/2001		911.02	1931.44	709.80	2	20-30	Artificial Fill/Colluvium
51L-01-7	9	7/17/2001		906.47	1931.41	709.76	2	60-75	Great Valley
51A-01-10A	9	10/3/2001	9/14/2005	814.28	1900.05	709.78	2	15-30	Great Valley
51A-01-11	9	9/28/2001		841.85	1941.48	709.74	2	30-45	Great Valley
51L-02-1	9	1/11/2002	8/25/2006	921.03	1871.48	709.74	2	20-30	Artificial Fill/Colluvium/Great Valley

Table 4 (Cont'd)
LBL Monitoring Well Construction Details

Location ID	Area	Completion Date	Abandonment Date	UC Grid North Coordinate	UC Grid East Coordinate	Top of Casing Elevation (ft above MSL)	Casing Diameter (inches)	Approximate Screened Interval (ft below TOC)	Screened Formation Name
Soil Gas Wells									
74-95-6	11	7/14/1995					1	15-20	San Pablo (?)
83-95-7	11	7/14/1995					1	25-30	San Pablo (?)
71-95-10	1	4/17/1995	9/15/2005				3/4"	9.9-10.4	Artificial Fill
							3/4"	20.1-20.6	Artificial Fill
							3/4"	32.7-33.2	Artificial Fill

Artificial Fill: soils placed during grading activities

Colluvium: Quaternary soil/colluvium

Alluvium: Quaternary alluvium

San Pablo (?): shallow marine sandstones tentatively assigned to the San Pablo Group

Orinda: Orinda Formation sediments

Great Valley: Upper Cretaceous sedimentary rocks

Moraga: Moraga Formation volcanics

Table 5-1
Bevalac Area Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	51-96-16			51-96-17			51-96-18			51-00-8
		Oct-07	Nov-07	Dec-07*	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07
Aromatic or Non-Halogenated Hydrocarbons											
Benzene	1	1.7	1.5	1.7	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1		<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1		<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1		<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	300	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2		<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1		<1	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether	13	<5	<5		<5	<5	<5	<5	<5	<5	<5
Naphthalene		<2	<2		<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1		<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1		<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1		<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<1	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons		1.7	1.5	1.7							
Halogenated Hydrocarbons											
Bromodichloromethane	80	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Bromoform	80	<2	<2	<0.5	<2	<2	<2	<2	<2	<2	<2
Carbon Tetrachloride	0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Chloroethane		<30	<30	1.5	<30	<30	<30	<30	<30	<30	<30
Chloroform	80	<3	<3	<0.5	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	1.4	1.5	1.4	<1	<1	<1	40.9	19.5	24.4	4.2
1,2-Dichloroethane	0.5	<2	<2	<0.5	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	0.83	<1	<1	<1	7.2	2.7	4.1	<1
cis-1,2-Dichloroethene	6	33.3	33.5	29	3.5	3.4	3.2	2.4	<1	1.4	4.5
trans-1,2-Dichloroethene	10	22.5	21.7	21	3.1	2.3	2.3	<1	<1	<1	<1
1,2-Dichloropropane	5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane	1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	<0.5	<1	<1	<1	65.5	20.8	29.3	<1
1,1,1-Trichloroethane	200	<1	<1	<0.5	<1	<1	<1	1.0	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	6.7	7.3	8.0	<1	<1	<1	28.9	8.8	13.0	<1
Freon-11	150	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Freon-113	1200	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Freon-123A		<1	<1		<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	12.4	10.9	9.8	1.3	1.3	1.2	<1	<1	<1	<1
Total Halogenated Hydrocarbons		76.3	74.9	71.53	7.9	7.0	6.7	145.9	51.8	72.2	8.7
Total Concentration of VOCs		78.0	76.4	73.2	7.9	7.0	6.7	145.9	51.8	72.2	8.7

Table 5-1 (Cont'd)
Bevalac Area Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	51A-01-11	51L-01-1A	51L-01-5A	51L-01-5B	51L-01-6	51L-01-7	71B-99-3R	MWP-1
		Oct-07	Nov-07	Oct-07	Oct-07	Oct-07	Oct-07	Nov-07	Oct-07
Aromatic or Non-Halogenated Hydrocarbons									
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	300	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether	13	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene		<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons									
Halogenated Hydrocarbons									
Bromodichloromethane	80	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	80	<2	<2	<2	<2	<2	<2	<2	<2
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane		<30	<30	<30	<30	<30	<30	<30	<30
Chloroform	80	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	<1	<1	1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	6.7	3	<1	<1	<1	2.6	<1
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<1	<1	<1	<1	<1	<1	<1	<1
Freon-11	150	<1	<1	<1	<1	<1	<1	<2	<1
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1
Freon-123A		<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons			6.7	4.0				2.6	
Total Concentration of VOCs			6.7	4.0				2.6	

MCL: Maximum contaminant level for drinking water (determined by California DHS)
All analyses by LBNL EML unless otherwise noted
* = Analysis by BC Laboratories

< = Less than Quantitation Limit
= Compound not included in analysis

Table 5-2
Bevalac Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	SB51-98-1	SB51-98-4	SB51-98-6	SB51L-98-1A	SB64-98-8			SB64-98-17			SB64-99-4		
		Oct-07	Oct-07	Oct-07	Nov-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07
Aromatic or Non-Halogenated Hydrocarbons														
Benzene	1	<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
n-Butylbenzene		<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
sec-Butylbenzene		<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
ter-Butylbenzene		<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
Chlorobenzene		<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
Ethylbenzene	300	<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
Isopropylbenzene		<2	<2	<2	<2	<10	<10	<10	<2	<2	<2	<10	<10	<10
p-Isopropyltoluene		<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
Methyl tert-Butyl Ether	13	<5	<5	<5	<5	<25	<25	<25	<5	<5	<5	<25	<25	<25
Naphthalene		<2	<2	<2	<2	<10	<10	<10	<2	<2	<2	<10	<10	<10
n-Propylbenzene		<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
Toluene	150	<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
Xylenes, total	1750	<2	<2	<2	<2	<10	<10	<10	<2	<2	<2	<10	<10	<10
Total Aromatic Hydrocarbons														
Halogenated Non-Aromatic Hydrocarbons														
Bromodichloromethane	80	<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
Bromomethane	80	<10	<10	<10	<10	<50	<50	<50	<10	<10	<10	<50	<50	<50
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
Chloroethane		<30	<30	<30	<30	<150	<150	<150	<30	<30	<30	<150	<150	<150
Chloroform	80	<3	<3	<3	<3	<15	<15	<15	<3	<3	<3	<15	<15	<15
Chloromethane		<10	<10	<10	<10	<50	<50	<50	<10	<10	<10	<50	<50	<50
1,1-Dichloroethane	5	6.0	<1	<1	11	70.8	204	176	70	49.3	55.6	189	330	288
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<10	<10	<10	<2	<2	<2	<10	<10	<10
1,1-Dichloroethene	6	<1	<1	<1	<1	13	39.7	31.3	6.5	5.8	6.5	24.2	33.6	27.4
cis-1,2-Dichloroethene	6	106.0	<1	8.6	105.0	<5	6.0	5.0	2.6	1.3	1.8	10.5	18.5	22.1
trans-1,2-Dichloroethene	10	<1	<1	<1	12.4	<5	<5	<5	<1	<1	<1	<5	<5	<5
1,2-Dichloropropane	5	<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
Methylene Chloride	5	<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<10	<10	<10	<2	<2	<2	<10	<10	<10
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
Tetrachloroethene	5	<1	<1	11.2	3.7	19.5	50.2	40.9	<1	<1	<1	<5	8.9	5.5
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
Trichloroethene	5	18.1	<1	7.6	69.4	40.6	88.7	78.0	2.3	2.3	3.0	22.2	52.7	39.6
Freon-113	1200	<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
Freon-123A		<1	<1	<1	<1	<5	<5	<5	<1	<1	<1	<5	<5	<5
Vinyl Chloride	0.5	<1	<1	<1	<1	<5	<5	<5	5.4	<1	<1	9.8	8.8	27.9
Total Halogenated Hydrocarbon		130.1		27.4	201.5	143.9	388.6	331.2	86.8	58.7	66.9	255.7	452.5	410.5
Total Concentration of VOCs		130.1		27.4	201.5	143.9	388.6	331.2	86.8	58.7	66.9	255.7	452.5	410.5

Table 5-2 (Cont'd)
Bevalac Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	SB64-99-5			SB64-00-1			SB64-00-2			SB64-02-1A			SB64-02-1B
		Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07
Aromatic or Non-Halogenated Hydrocarbons														
Benzene	1	<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
n-Butylbenzene		<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
sec-Butylbenzene		<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
ter-Butylbenzene		<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
Chlorobenzene		<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
Ethylbenzene	300	<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
Isopropylbenzene		<2	<2	<2	<20	<2	<2	<20	<2	<2	<200	<200	<200	<20
p-Isopropyltoluene		<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
Methyl tert-Butyl Ether	13	<5	<5	<5	<50	<5	<5	<50	<5	<5	<500	<500	<500	<50
Naphthalene		<2	<2	<2	<20	<2	<2	<20	<2	<2	<200	<200	<200	<20
n-Propylbenzene		<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
Toluene	150	<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
Xylenes, total	1750	<2	<2	<2	<20	<2	<2	<20	<2	<2	<200	<200	<200	<20
Total Aromatic Hydrocarbons														
Halogenated Non-Aromatic Hydrocarbons														
Bromodichloromethane	80	<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
Bromomethane	80	<10	<10	<10	<100	<10	<10	<100	<10	<10	<1000	<1000	<1000	<100
Carbon Tetrachloride	0.5	<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
Chloroethane		<30	<30	<30	<300	<30	<30	<300	<30	<30	<3000	<3000	<3000	<300
Chloroform	80	<3	<3	<3	<30	<3	<3	<30	<3	<3	<300	<300	<300	<30
Chloromethane		<10	<10	<10	<100	<10	<10	<100	<10	<10	<1000	<1000	<1000	<100
1,1-Dichloroethane	5	50.5	106.0	60.7	135	231.0	189.0	26.5	29.0	26.4	2,730	2,450	2,900	331.0
1,2-Dichloroethane	0.5	<2	<2	<2	<20	<2	<2	<20	<2	<2	<200	<200	<200	<20
1,1-Dichloroethene	6	28.1	60.4	43.9	<10	11.3	10.3	111	160.0	104.0	318	322	424	69.1
cis-1,2-Dichloroethene	6	<1	<1	<1	<10	13.0	14.7	1.3	1.2	1.3	<100	<100	<100	122.0
trans-1,2-Dichloroethene	10	<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
1,2-Dichloropropane	5	<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
Methylene Chloride	5	<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
1,1,1,2-Tetrachloroethane		<2	<2	<2	<20	<2	<2	<20	<2	<2	<200	<200	<200	<20
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
Tetrachloroethene	5	2.9	5.2	4.6	<10	1.1	<1	16	21.6	13.2	<100	<100	145	<10
1,1,1-Trichloroethane	200	<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
1,1,2-Trichloroethane	5	<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
Trichloroethene	5	11.8	17.6	16.2	20.1	32.0	27.0	39.9	48.1	37.5	348	314	421	46.7
Freon-113	1200	<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
Freon-123A		<1	<1	<1	<10	<1	<1	<10	<1	<1	<100	<100	<100	<10
Vinyl Chloride	0.5	<1	<1	<1	<10	<1	1.5	<10	<1	<1	<100	<100	<100	62.6
Total Halogenated Hydrocarbons		93.3	189.2	125.4	155.1	288.4	242.5	194.7	259.9	182.4	3,396	3,086	3,890	631.4
Total Concentration of VOCs		93.3	189.2	125.4	155.1	288.4	242.5	194.7	259.9	182.4	3,396	3,086	3,890	631.4

Table 5-2 (Cont'd)
Bevalac Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	SB64-02-1B(cont'd)		SB64-02-1C			SB64-02-1D			SB64-02-1E			SB64-02-1F			
		Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	
Aromatic or Non-Halogenated Hydrocarbons																
Benzene	1	<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	
n-Butylbenzene		<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	
sec-Butylbenzene		<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	
ter-Butylbenzene		<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	
Chlorobenzene		<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	
Ethylbenzene	300	<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	
Isopropylbenzene		<20	<20	<20	<20	<20	<20	<2	<2	<2	<20	<2	<2	<2	<2	
p-Isopropyltoluene		<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	
Methyl tert-Butyl Ether	13	<50	<50	<50	<50	<50	<50	<5	<5	<5	<50	<5	<5	<5	<5	
Naphthalene		<20	<20	<20	<20	<20	<20	<2	<2	<2	<20	<2	<2	<2	<2	
n-Propylbenzene		<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	
Toluene	150	<10	<10	<10	<10	<10	<10	<1	<1	1.2	<10	1.9	1.9	3.7	3.3	3.5
Xylenes, total	1750	<20	<20	<20	<20	<20	<20	<2	<2	<2	<20	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons										1.2		1.9	1.9	3.7	3.3	3.5
Halogenated Non-Aromatic Hydrocarbons																
Bromodichloromethane	80	<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	
Bromomethane	80	<100	<100	<100	<100	<100	<100	<10	<10	<10	<100	<10	<10	<10	<10	
Carbon Tetrachloride	0.5	<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	
Chloroethane		<300	<300	<300	<300	<300	<300	<30	<30	<30	<300	<30	<30	<30	<30	
Chloroform	80	<30	<30	<30	<30	<30	<30	<3	<3	<3	<30	<3	<3	<3	<3	
Chloromethane		<100	<100	<100	<100	<100	<100	<10	<10	<10	<100	<10	<10	<10	<10	
1,1-Dichloroethane	5	301	212	880	909	900	123	113.0	142.0		61.6	60.2	79.9	145.0	124.0	107.0
1,2-Dichloroethane	0.5	<20	<20	<20	<20	<20	<20	<2	<2	<2	<20	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	89	55.5	95	108	97	24	23.6	32.7		16.6	17.7	25.4	26.0	20.8	17.8
cis-1,2-Dichloroethene	6	111	91.7	93.9	91.7	76.3	28.6	26.5	36.3		15.1	21.8	27.4	34.6	30.0	28.1
trans-1,2-Dichloroethene	10	<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	<1
Methylene Chloride	5	<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<20	<20	<20	<20	<20	<20	<2	<2	<2	<20	<2	<2	<2	<2	<2
1,1,2,2-Tetrachloroethane	1	<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	<1
Tetrachloroethene	5	<10	<10	<10	<10	<10	<10	2.4	1.7		<10	1.5	2.1	2.4	2.2	1.2
1,1,1-Trichloroethane	200	<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	<1
Trichloroethene	5	58.0	28.6	17.4	15.1	12.6	10.6	11.9	16.6		15.5	12.6	18.1	24.0	18.9	14.1
Freon-113	1200	<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	<1
Freon-123A		<10	<10	<10	<10	<10	<10	<1	<1	<1	<10	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	44.0	32.4	33.3	38.0	36.7	17.3	16.0	20.1		11.2	11.0	13.1	18.4	15.4	14.8
Total Halogenated Hydrocarbons		603.0	420.2	1,119.6	1,161.8	1,122.6	203.5	193.4	249.4		120.0	124.8	166.0	250.4	211.3	183.0
Total Concentration of VOCs		603.0	420.2	1,120	1,162	1,123	203.5	193.4	250.6		120.0	126.7	167.9	254.1	214.6	186.5

Table 5-2 (Cont'd)
Bevalac Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	SB64-02-2A			SB64-02-2B			SB64-02-2C			SB64-02-2D			SB64-02-2E
		Oct-07	Nov-07	Dec-07	Oct-07									
Aromatic or Non-Halogenated Hydrocarbons														
Benzene	1	<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
n-Butylbenzene		<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
sec-Butylbenzene		<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
ter-Butylbenzene		<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
Chlorobenzene		<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
Ethylbenzene	300	<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
Isopropylbenzene		<20	<2	<2	<20	<20	<2	<10	<2	<2	<10	<2	<2	<2
p-Isopropyltoluene		<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
Methyl tert-Butyl Ether	13	<50	<5	<5	<50	<50	<5	<25	<5	<5	<25	<5	<5	<5
Naphthalene		<20	<2	<2	<20	<20	<2	<10	<2	<2	<10	<2	<2	<2
n-Propylbenzene		<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
Toluene	150	<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	1.2	1.3	1.6
Xylenes, total	1750	<20	<2	<2	<20	<20	<2	<10	<2	<2	<10	<2	<2	<2
Total Aromatic Hydrocarbons												1.2	1.3	1.6
Halogenated Non-Aromatic Hydrocarbons														
Bromodichloromethane	80	<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
Bromomethane	80	<100	<10	<10	<100	<100	<10	<50	<10	<10	<50	<10	<10	<10
Carbon Tetrachloride	0.5	<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
Chloroethane		<300	<30	<30	<300	<300	<30	<150	<30	<30	<150	<30	<30	<30
Chloroform	80	<30	<3	<3	<30	<30	<3	<15	<3	<3	<15	<3	<3	<3
Chloromethane		<100	<10	<10	<100	<100	<10	<50	<10	<10	<50	<10	<10	<10
1,1-Dichloroethane	5	93.0	94.2	97.9	871	794	858	93.2	93.1	91.7	105	110	111	77.3
1,2-Dichloroethane	0.5	<20	<2	<2	<20	<20	3.8	<10	<2	<2	<10	<2	<2	<2
1,1-Dichloroethene	6	13.4	18.9	18.5	78.6	80.7	95.8	33.1	38.0	38.1	26.3	32.4	31.4	24.4
cis-1,2-Dichloroethene	6	42.6	56.1	35.3	23.1	16.6	15.6	20.4	18.8	19.8	11.8	13.5	13.3	15.3
trans-1,2-Dichloroethene	10	<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
1,2-Dichloropropane	5	<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
Methylene Chloride	5	<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
1,1,1,2-Tetrachloroethane		<20	<2	<2	<20	<20	<2	<10	<2	<2	<10	<2	<2	<2
1,1,2,2-Tetrachloroethane	1	<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
Tetrachloroethene	5	<10	5.8	5.4	<10	<10	1.8	<5	1.2	1.0	<5	1.1	<1	1.4
1,1,1-Trichloroethane	200	<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
1,1,2-Trichloroethane	5	<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
Trichloroethene	5	36.9	33.9	42.2	17.3	14.7	18.4	8.0	7.9	7.1	<5	7.2	5.6	4.5
Freon-113	1200	<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
Freon-123A		<10	<1	<1	<10	<10	<1	<5	<1	<1	<5	<1	<1	<1
Vinyl Chloride	0.5	<10	3.5	4.7	<10	<10	<1	<5	1.3	1.3	<5	<1	<1	<1
Total Halogenated Hydrocarbons		185.9	212.4	204.0	990.0	906.0	993.4	154.7	160.3	159.0	143.1	164.2	161.3	122.9
Total Concentration of VOCs		185.9	212.4	204.0	990.0	906.0	993.4	154.7	160.3	159.0	143.1	165.4	162.6	124.5

Table 5-2 (Cont'd)
Bevalac Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	SB64-02-2E(cont'd)		SB64-02-2F			SB64-03-1B			SB64-03-5			SB64-03-6		
		Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07
Aromatic or Non-Halogenated Hydrocarbons															
Benzene	1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene		<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	300	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether	13	<5	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene		<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	1.6	1.6	<5	1.6	2.4	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons		1.6	1.6		1.6	2.4									
Halogenated Non-Aromatic Hydrocarbons															
Bromodichloromethane	80	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	80	<10	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Carbon Tetrachloride	0.5	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane		<30	<30	<150	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
Chloroform	80	<3	<3	<15	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Chloromethane		<10	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethane	5	84.0	79.8	513	545	608	119	76.9	80.2	2.9	2.5	2.4	2.1	1.2	<1
1,2-Dichloroethane	0.5	<2	<2	<10	2.7	2.5	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	27.4	27.1	43.9	47.1	50.1	4.7	4.5	6.1	3.3	3.5	2.8	4	2.7	1.9
cis-1,2-Dichloroethene	6	15.5	15.2	28.0	25.0	32.3	3	2.4	3.0	2.5	3.3	2.7	15	6.4	3.9
trans-1,2-Dichloroethene	10	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1,2,2-Tetrachloroethane	1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	1.6	1.4	<5	1.1	<1	1	<1	<1	5.2	5.8	5.4	8.1	9.1	7.6
1,1,1-Trichloroethane	200	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	4.6	4.7	<5	4.3	3.8	17.6	11.0	11.4	22.7	65.8	52.1	155	120.0	88.7
Freon-113	1200	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon-123A		<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<5	1.5	1.8	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		133.1	128.2	584.9	626.7	698.5	145.3	94.8	100.7	36.6	80.9	65.4	184.2	139.4	102.1
Total Concentration of VOCs		134.7	129.8	584.9	628.3	700.9	145.3	94.8	100.7	36.6	80.9	65.4	184.2	139.4	102.1

Table 5-2 (Cont'd)
Bevalac Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	SB64-05-4		SB71B-03-1			SB71B-03-2			SB71B-04-1		
		Oct-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07
Aromatic or Non-Halogenated Hydrocarbons												
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	300	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons												
Halogenated Non-Aromatic Hydrocarbons												
Bromodichloromethane	80	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	80	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane		<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
Chloroform	80	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Chloromethane		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	1.1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<1	10.0	6.6	44.8	4.4	6.4	6.2	9.1	8.2	10.4
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	2.5	2.3	<1	<1	<1	3.9	2.7	1.6	14.0	12.8	31.5
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	2.3	2.4	1.1	<1	6.5	1.7	1.4	1.7	10.6	9.0	12.9
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon-123A		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	5.2	2.3	17.0	<1	1.3	2.0	<1	<1	<1
Total Halogenated Hydrocarbons		4.8	5.8	16.3	8.9	68.3	10.0	11.8	11.5	33.7	30.0	54.8
Total Concentration of VOCs		4.8	5.8	16.3	8.9	68.3	10.0	11.8	11.5	33.7	30.0	54.8

MCL: Maximum contaminant level for drinking water (determined by California DHS)
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

Table 5-3
Bevalac Area Extraction Well Sampling Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	EW51-07-1		EW51-07-2		EW51A-06-1			EW51B-07-1			EW51B-07-2		
		Oct-07*	Nov-07	Oct-07*	Nov-07	Oct-07*	Nov-07	Dec-07	Oct-07*≈	Nov-07	Dec-07	Oct-07*	Nov-07	Dec-07
Aromatic or Non-Halogenated Hydrocarbons														
Benzene	1	<0.5	<1	<0.5	<1	<0.5	<1	<1	<0.5	<1	<1	<0.5	<1	<1
n-Butylbenzene			<1		<1		<1	<1		<1	<1		<1	<1
sec-Butylbenzene			<1		<1		<1	<1		<1	<1		<1	<1
ter-Butylbenzene			<1		<1		<1	<1		<1	<1		<1	<1
Chlorobenzene		<0.5	<1	<0.5	<1	<0.5	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Ethylbenzene	300	<0.5	<1	<0.5	<1	<0.5	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Isopropylbenzene			<2		<2		<2	<2		<2	<2		<2	<2
p-Isopropyltoluene			<1		<1		<1	<1		<1	<1		<1	<1
Methyl tert-Butyl Ether	13		<5		<5		<5	<5		<5	<5		<5	<5
Naphthalene			<2		<2		<2	<2		<2	<2		<2	<2
n-Propylbenzene			<1		<1		<1	<1		<1	<1		<1	<1
Toluene	150	<0.5	<1	<0.5	<1	<0.5	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Xylenes, total	1750	<1	<2	<1	<2	<1	<2	<2	<1	<2	<2	<1	<2	<2
Total Aromatic Hydrocarbons														
Halogenated Non-Aromatic Hydrocarbons														
Bromodichloromethane	80	<0.5	<1	<0.5	<1	<0.5	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Bromoform	80	<0.5	<2	<0.5	<2	<0.5	<2	<2	<0.5	<2	<2	<0.5	<2	<2
Carbon Tetrachloride	0.5	<0.5	<1	<0.5	<1	6.6	10.7	8.0	<0.5	<1	<1	<0.5	<1	<1
Chloromethane		<0.5	<10	<0.5	<10	<0.5	<10	<10	<0.5	<10	<10	<0.5	<10	<10
Chloroform	80	<0.5	<3	<0.5	<3	2	<3	<3	<0.5	<3	<3	<0.5	<3	<3
1,1-Dichloroethane	5	7.3	7.8	1.7	1.9	0.69	<1	<1	12	12.8	13.7	<0.5	<1	<1
1,2-Dichloroethane	0.5	<0.5	<2	<0.5	<2	<0.5	<2	<2	<0.5	<2	<2	<0.5	<2	<2
1,1-Dichloroethene	6	5.7	6.1	<0.5	<1	<0.5	<1	<1	21	23.0	20.7	<0.5	<1	<1
cis-1,2-Dichloroethene	6	90	108	<0.5	<1	18	22.4	17.5	31	31.2	29.4	6	6.8	7.3
trans-1,2-Dichloroethene	10	4.6	5.7	<0.5	<1	0.93	<1	<1	2.4	2.6	1.6	<0.5	<1	<1
1,2-Dichloropropane	5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<0.5	<2	<0.5	<2	<0.5	<2	<2	<0.5	<2	<2	<0.5	<2	<2
1,1,1,2,2-Tetrachloroethane	1	<0.5	<1	<0.5	<1	<0.5	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Tetrachloroethene	5	<0.5	<1	0.67	<1	4.4	5.9	4.8	<0.5	<1	<1	<0.5	<1	<1
1,1,1-Trichloroethane	200	<0.5	<1	<0.5	<1	1.1	1.3	1.0	<0.5	<1	<1	<0.5	<1	<1
1,1,2-Trichloroethane	5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Trichloroethene	5	110	144	3	2.8	180	298	230	6.9	6.6	7.0	<0.5	<1	<1
Freon-113	1200	<0.5	<1	<0.5	<1	<0.5	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Freon-123A			<1		<1		<1	<1		<1	<1		<1	<1
Vinyl Chloride	0.5	1	<1	<0.5	<1	<0.5	<1	<1	2.8	3.3	2.4	1.6	2.2	2.7
Total Halogenated Hydrocarbon		218.6	271.6	5.37	4.7	213.72	338.3	261.3	76.1	79.5	74.8	7.6	9.0	10.0
Total Concentration of VOCs		218.6	271.6	5.4	4.7	213.7	338.3	261.3	105.1	79.5	74.8	7.6	9.0	10.0

Table 5-3 (Cont'd)
Bevalac Area Extraction Well Sampling Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	EW51L-06-1			EW64-00-1			EW64-03-1			EW64-05-1			EW64-06-1
		Oct-07*	Nov-07	Dec-07	Oct-07									
Aromatic or Non-Halogenated Hydrocarbons														
Benzene	1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene		<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	300	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether	13		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons														
Halogenated Non-Aromatic Hydrocarbons														
Bromodichloromethane	80	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	80	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Carbon Tetrachloride	0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane		<0.5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroform	80	<0.5	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	2.8	3.2	3.2	3.9	9.2	15.1	4.3	3.4	4.5	1.5	1.2	1.1	1.1
1,2-Dichloroethane	0.5	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<0.5	<1	<1	<1	2.0	2.5	<1	<1	<1	1.6	1.7	1.4	<1
cis-1,2-Dichloroethene	6	11	9.8	10.3	<1	<1	<1	<1	<1	<1	<1	<1	<1	4
trans-1,2-Dichloroethene	10	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1,2,2-Tetrachloroethane	1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<0.5	<1	<1	1.1	2.5	3.0	<1	<1	<1	4.7	3.3	2.9	<1
1,1,1-Trichloroethane	200	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	12	10.4	9.2	2.2	3.6	4.9	<1	<1	<1	4.3	7.0	7.3	<1
Freon-113	1200	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon-123A			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	3.6	2	2.6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbon		29.4	25.4	25.3	7.2	17.3	25.5	4.3	3.4	4.5	12.1	13.2	12.7	5.1
Total Concentration of VOCs		29.4	25.4	25.3	7.2	17.3	25.5	4.3	3.4	4.5	12.1	13.2	12.7	5.1

MCL: Maximum contaminant level for drinking water (determined by California DHS)
All analyses by LBNL EML unless otherwise noted
* = Analysis by BC Laboratories

< = Less than Quantitation Limit
= Compound not included in analysis
≈ Total concentration include other chemicals, detail shown on Table 9

Table 6-1
Old Town Area Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	5-93-10			6-95-14 ¹	7-92-16	7-92-19		7-94-3		7-95-22			7-95-23
		Oct-07	Nov-07	Dec-07	Oct-07 ¹	Oct-07	Oct-07	Dec-07	Oct-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07
Aromatic or Non-Halogenated Hydrocarbons														
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
1,4-Dichlorobenzene	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
Ethylbenzene	300	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
Methyl tert-Butyl Ether	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25
Naphthalene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
Toluene	150	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
1,2,4-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
1,3,5-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
Total Aromatic Hydrocarbons														
Halogenated Hydrocarbons														
Bromodichloromethane	80	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
Bromoform	80	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	1.1	2.1	3.2	1.5	14.0
Chloroform	80	<3	<3	<3	7.3	11.8	<3	<3	<3	<3	<3	<3	<3	<15
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	1.6	<1	<1	<1	<5
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	2.6	6.8	<1	1.2	<1	<5
cis-1,2-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	28.6	3.4	7.3	6.9	1.9	21.9
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	<1	10.3	5.1	<1	<1	<1	<5
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
Tetrachloroethene	5	<1	<1	<1	2.4	<1	2.5	2.3	34.5	65.5	111.0	132.0	65.2	569
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
Trichloroethene	5	4.8	1.7	1.8	3.8	3.5	<1	<1	13.6	26.4	64.8	69.6	22	769
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
Freon-123A		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
Total Halogenated Hydrocarbons		4.8	1.7	1.8	13.5	15.3	2.5	2.3	89.6	109.9	185.2	212.9	90.6	1,373.9
Total Concentration of VOCs		4.8	1.7	1.8	13.5	15.3	2.5	2.3	89.6	109.9	185.2	212.9	90.6	1,374

Table 6-1 (Cont'd)
Old Town Area Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	7-95-23 (cont'd)		7B-95-21			7B-95-24			7B-95-25	25-95-5			25-98-10
		Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Nov-07	Oct-07*	Nov-07*	Dec-07*	Oct-07*
Aromatic or Non-Halogenated Hydrocarbons														
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1				
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1				
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1				
1,4-Dichlorobenzene	5	<1	<1	<1	<1	<1	<1	<1	<1	<1				
Ethylbenzene	300	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2	<2	<2				
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<1	<1				
Methyl tert-Butyl Ether	13	<5	<5	<5	<5	<5	<5	<5	<5	<5				
Naphthalene		<2	<2	<2	<2	<2	<2	<2	<2	<2				
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1				
Toluene	150	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1				
1,3,5-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1				
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1
Total Aromatic Hydrocarbons														
Halogenated Hydrocarbons														
Bromodichloromethane	80	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5
Bromoform	80	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.5	3.1	5.1	<1	<1	<1	1.9	1.2	<1	<1	<0.5	<0.5	<0.5	<0.5
Chloroform	80	<3	<3	<3	<3	<3	<3	<3	<3	<3	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	6	3.7	1.2	<1	6.2	1.8	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	10	<1	<1	<1	4.7	1.1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	5	105	123	13.2	103.0	46.4	82.5	61.0	46.0	<1	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5	144	162	13.3	163.0	48.0	21.5	11.5	9.1	<1	0.64	0.76	<0.5	0.65
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5
Freon-123A		<1	<1	<1	<1	<1	<1	<1	<1	<1				
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5
Total Halogenated Hydrocarbons		255.8	291.3	26.5	276.9	97.3	105.9	73.7	55.1		0.64	0.76		0.65
Total Concentration of VOCs		255.8	291.3	26.5	276.9	97.3	105.9	73.7	55.1		0.6	0.8		0.7

Table 6-1 (Cont'd)
Old Town Area Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	25-98-10 (cont'd)		25A-98-1			25A-98-3			25A-98-7			27-92-20			52-95-2B
		Nov-07*	Dec-07*	Oct-07	Nov-07	Dec-07	Oct-07*	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07
Aromatic or Non-Halogenated Hydrocarbons																
Benzene	1	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene				<1	<1	<1		<1	<1		<1	<1		<1	<1	<1
sec-Butylbenzene				<1	<1	<1		<1	<1		<1	<1		<1	<1	<1
ter-Butylbenzene				<1	<1	<1		<1	<1		<1	<1		<1	<1	<1
1,4-Dichlorobenzene	5			<1	<1	<1		<1	<1		<1	<1		<1	<1	<1
Ethylbenzene	300	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene				<2	<2	<2		<2	<2		<2	<2		<2	<2	<2
p-Isopropyltoluene				<1	<1	<1		<1	<1		<1	<1		<1	<1	<1
Methyl tert-Butyl Ether	13			<5	<5	<5		<5	<5		<5	<5		<5	<5	<5
Naphthalene				<2	<2	<2		<2	<2		<2	<2		<2	<2	<2
n-Propylbenzene				<1	<1	<1		<1	<1		<1	<1		<1	<1	<1
Toluene	150	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene				<1	<1	<1		<1	<1		<1	<1		<1	<1	<1
1,3,5-Trimethylbenzene				<1	<1	<1		<1	<1		<1	<1		<1	<1	<1
Xylenes, total	1750	<1	<1	<2	<2	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons																
Halogenated Hydrocarbons																
Bromodichloromethane	80	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	80	<0.5	<0.5	<2	<2	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2
Carbon Tetrachloride	0.5	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	80	<0.5	<0.5	<3	<3	<3	<0.5	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	<0.5	<0.5	<1	<1	<1	1.4	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<0.5	<0.5	<2	<2	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<0.5	<0.5	<1	5.7	4.2	<0.5	<1	1.1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<0.5	<0.5	2.2	3.9	3.0	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	10	<0.5	<0.5	<1	1.2	1.1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<0.5	<0.5	<2	<2	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1,2,2-Tetrachloroethane	1	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	1.4	1.9	1.2	<1
1,1,1-Trichloroethane	200	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<0.5	1.1	30.7	131	135	21	16.3	19.2	8.7	13.2	15.8	1.8	2.2	2.0	1.6
Freon-113	1200	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon-123A				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons			1.1	32.9	141.8	143.3	22.4	16.3	20.3	8.7	13.2	15.8	3.2	4.1	3.2	1.6
Total Concentration of VOCs			1.1	32.9	141.8	143.3	22.4	16.3	20.3	8.7	13.2	15.8	3.2	4.1	3.2	1.6

Table 6-1 (Cont'd)
Old Town Area Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	52-95-2B (cont'd)		52-98-9			52A-98-8B			53-93-9			53-93-16-69'			53-96-1
		Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07
Aromatic or Non-Halogenated Hydrocarbons																
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	300	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons																
Halogenated Hydrocarbons																
Bromodichloromethane	80	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	80	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	1.2	<1	1.1	2.8	2.2	1.8	3.6
Chloroform	80	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.7
cis-1,2-Dichloroethene	6	<1	1.0	<1	<1	<1	1.2	<1	<1	<1	<1	<1	1.7	<1	<1	3.9
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1,1,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	<1	<1	<1	<1	<1	<1	4.5	3.2	3.6	38.6	25.7	14.3	44.8
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	2.2	2.4	1.6	1.9	2.3	2.5	2.1	2.3	2.9	2.7	2.7	17.2	11.3	6.5	16.9
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon-123A		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		2.2	3.4	1.6	1.9	2.3	3.7	2.1	2.3	8.6	5.9	7.4	60.3	39.2	22.6	70.9
Total Concentration of VOCs		2.2	3.4	1.6	1.9	2.3	3.7	2.1	2.3	8.6	5.9	7.4	60.3	39.2	22.6	70.9

Table 6-1 (Cont'd)
Old Town Area Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	53-96-1(cont'd)		58-96-11			58-00-12				MW90-2	MW91-8		MW91-9		
		Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	(D)*	Dec-07	Oct-07	Oct-07	Nov-07	Oct-07	Nov-07	Dec-07
Aromatic or Non-Halogenated Hydrocarbons																
Benzene	1	<1	<1	<5	<5	<5	<50	<50	<0.5	<50	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<5	<5	<5	<50	<50		<50	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<5	<5	<5	<50	<50		<50	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<5	<5	<5	<50	<50		<50	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	5	<1	<1	<5	<5	<5	<50	<50		<50	<1	<1	<1	<1	<1	<1
Ethylbenzene	300	<1	<1	<5	<5	<5	<50	<50	<0.5	<50	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<10	<10	<10	<100	<100		<100	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<5	<5	<5	<50	<50		<50	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether	13	<5	<5	<25	<25	<25	<250	<250		<250	<5	<5	<5	<5	<5	<5
Naphthalene		<2	<2	<10	<10	<10	<100	<100		<100	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1	<5	<5	<5	<50	<50		<50	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<5	<5	<5	<50	<50	<0.5	<50	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<5	<5	<5	<50	<50		<50	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<5	<5	<5	<50	<50		<50	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<10	<10	<10	<100	<100	<1	<100	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons																
Halogenated Hydrocarbons																
Bromodichloromethane	80	<1	<1	<5	<5	<5	<50	<50	<0.5	<50	<1	<1	<1	<1	<1	<1
Bromoform	80	<2	<2	<10	<10	<10	<100	<100	4.2	<100	<2	<2	<2	<2	<2	<2
Carbon Tetrachloride	0.5	3.9	3.3	19.2	23.2	19.3	332	221	270	245	<1	<1	<1	<1	<1	<1
Chloroform	80	<3	<3	<15	<15	<15	<150	<150	8.8	<150	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	<1	<1	<5	<5	<5	<50	<50	4.7	<50	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<2	<10	<10	<10	<100	<100	1.4	<100	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	1.9	1.4	<5	<5	<5	<50	<50	41	<50	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	3.4	2.3	17.4	15.8	18.9	125	99.9	110	109	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	10	<1	<1	<5	<5	<5	<50	<50	<0.5	<50	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<5	<5	<5	<50	<50	<1	<50	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<10	<10	<10	<100	<100	<0.5	<100	<2	<2	<2	<2	<2	<2
1,1,2,2-Tetrachloroethane	1	<1	<1	<5	<5	<5	<50	<50	<0.5	<50	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	40.2	29.8	648	675	631	8,180	5,320	6,300	5,890	40.4	<1	<1	6.6	5.2	5.0
1,1,1-Trichloroethane	200	<1	<1	<5	<5	<5	<50	<50	<0.5	<50	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<5	<5	<5	<50	<50	<0.5	<50	<1	<1	<1	<1	<1	<1
Trichloroethene	5	16.6	12.6	452	452	471	5,230	3,420	3,700	4,240	2.8	<1	<1	2.2	1.7	1.5
Freon-113	1200	<1	<1	<5	<5	<5	<50	<50	<0.5	<50	<1	<1	<1	<1	<1	<1
Freon-123A		<1	<1	<5	<5	<5	<50	<50		<50	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<5	<5	<5	<50	<50	1.1	<50	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		66.0	49.4	1136.6	1166.0	1140.2	13,867	9,060.9	10,441.2	10,484	43.2			8.8	6.9	6.5
Total Concentration of VOCs		66.0	49.4	1,137	1,166	1,140	13,867	9,061	10,441	10,484	43.2			8.8	6.9	6.5

MCL: Maximum contaminant level for drinking water (determined by California DHS)
All analyses by LBNL EML unless otherwise noted
* = Analysis by BC Laboratories

< = Less than Quantitation Limit
= Compound not included in analysis

(D) = Duplicate sample
' = Treatment System Influent Line

Table 6-2
Old Town Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	SB5A-98-1		SB7-97-1	SB25A-96-3	SB27-96-1			SB53-96-3			SB58-96-1	SB58-96-2	SB58-97-1	SB58-97-2		
		Oct-07	Nov-07	Oct-07	Oct-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07	Nov-07	Nov-07	Nov-07	Oct-07	Nov-07	Dec-07
Aromatic or Non-Halogenated Hydrocarbons																	
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	300	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether	13	<5	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene		<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons																	
Halogenated Non-Aromatic Hydrocarbons																	
Bromodichloromethane	80	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1	<1	<10	<1	2.4	<1	1.3	<1	<1	<1	<1
Chloroform	80	<3	<3	11.5	<3	<3	<3	<3	<30	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	<1	23.3	<1	<1	<1	<10	<1	1.6	<1	3.0	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<1	<1	3.5	<1	<1	<1	10.3	3.5	7.0	4.9	5.7	2.1	35.6	40.6	35.6
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	<1	<1	1.4	1.0	<1	101	49.4	151.0	19.7	97.9	4.6	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<1	<1	3.4	91.2	1.2	1.1	<1	25.8	12.0	48.9	17.1	51.0	2.4	3.2	3.1	1.9
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
Freon-123A		<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	2.1	2.5	2.6
Total Halogenated Hydrocarbons				14.9	118.0	2.6	2.1		137.1	64.9	210.9	41.7	158.9	9.1	40.9	46.2	40.1
Total Concentration of VOCs				14.9	118.0	2.6	2.1		137.1	64.9	210.9	41.7	158.9	9.1	40.9	46.2	40.1

MCL: Maximum contaminant level for drinking water (determined by California DHS)
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

Table 6-3
Old Town Area Extraction Well Sampling Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	EW7-96-1			EW7-96-2			EW7-96-4R			EW7-03-1			EW7-03-2
		Oct-07*	Nov-07	Dec-07	Oct-07*	Nov-07	Dec-07	Oct-07*	Nov-07	Dec-07	Oct-07*	Nov-07	Dec-07	Oct-07*
Aromatic or Non-Halogenated Hydrocarbons														
Benzene	1	<0.5	<1	<10	<0.5	<1	<1	<0.5	<1	<10	<0.5	<1	<5	<0.5
n-Butylbenzene			<1	<10		<1	<1		<1	<10		<1	<5	
sec-Butylbenzene			<1	<10		<1	<1		<1	<10		<1	<5	
ter-Butylbenzene			<1	<10		<1	<1		<1	<10		<1	<5	
1,4-Dichlorobenzene	5		<1	<10		<1	<1		<1	<10		<1	<5	
Ethylbenzene	300	<0.5	<1	<10	<0.5	<1	<1	<0.5	<1	<10	<0.5	<1	<5	<0.5
Isopropylbenzene			<2	<20		<2	<2		<2	<20		<2	<10	
p-Isopropyltoluene			<1	<10		<1	<1		<1	<10		<1	<5	
Methyl tert-Butyl Ether	13		<5	<50		<5	<5		<5	<50		<5	<25	
Naphthalene			<2	<20		<2	<2		<2	<20		<2	<10	
n-Propylbenzene			<1	<10		<1	<1		<1	<10		<1	<5	
Toluene	150	<0.5	<1	<10	<0.5	<1	<1	<0.5	<1	<10	<0.5	<1	<5	<0.5
Xylenes, total	1750	<1	<2	<20	<1	<2	<2	<1	<2	<20	<1	<2	<10	<1
Total Aromatic Hydrocarbons														
Halogenated Non-Aromatic Hydrocarbons														
Bromodichloromethane	80	<0.5	<1	<10	<0.5	<1	<1	<0.5	<1	<10	<0.5	<1	<5	<0.5
Bromoform	80	<0.5	<2	<20	<0.5	<2	<2	<0.5	<2	<20	<0.5	<2	<10	<0.5
Carbon Tetrachloride	0.5	2.2	<1	<10	<0.5	<1	<1	0.75	<1	<10	2.2	<1	<5	11
Chloromethane		<0.5	<10	<100	<0.5	<10	<10	<0.5	<10	<100	<0.5	<10	<50	<0.5
Chloroform	80	<0.5	<3	<30	<0.5	<3	<3	<0.5	<3	<30	<0.5	<3	<15	0.8
1,1-Dichloroethane	5	<0.5	<1	<10	<0.5	<1	<1	<0.5	<1	<10	<0.5	<1	<5	<0.5
1,2-Dichloroethane	0.5	<0.5	<2	<20	<0.5	<2	<2	<0.5	<2	<20	<0.5	<2	<10	<0.5
1,1-Dichloroethene	6	<0.5	<1	<10	<0.5	<1	<1	<0.5	<1	<10	<0.5	<1	<5	<0.5
cis-1,2-Dichloroethene	6	0.92	<1	<10	<0.5	<1	<1	<0.5	<1	<10	0.77	<1	<5	13
trans-1,2-Dichloroethene	10	<0.5	<1	<10	<0.5	<1	<1	<0.5	<1	<10	<0.5	<1	<5	<0.5
1,2-Dichloropropane	5	<0.5	<1	<10	<0.5	<1	<1	<0.5	<1	<10	<0.5	<1	<5	<0.5
Methylene Chloride	5	<1	<1	<10	<1	<1	<1	<1	<1	<10	<1	<1	<5	<1
1,1,1,2-Tetrachloroethane		<0.5	<2	<20	<0.5	<2	<2	<0.5	<2	<20	<0.5	<2	<10	<0.5
1,1,1,2,2-Tetrachloroethane	1	<0.5	<1	<10	<0.5	<1	<1	<0.5	<1	<10	<0.5	<1	<5	<0.5
Tetrachloroethene	5	500	371	448	17	25.6	26.5	120	109.0	167.0	71	16.9	89.6	260
1,1,1-Trichloroethane	200	<0.5	<1	<10	<0.5	<1	<1	<0.5	<1	<10	<0.5	<1	<5	<0.5
1,1,2-Trichloroethane	5	<0.5	<1	<10	<0.5	<1	<1	<0.5	<1	<10	<0.5	<1	<5	<0.5
Trichloroethene	5	15	13.3	14.8	5.2	8.7	8.7	11	<1	14.9	31	7.4	50.3	120
Freon-113	1200	<0.5	<1	<10	<0.5	<1	<1	<0.5	<1	<10	<0.5	<1	<5	<0.5
Freon-123A			<1	<10		<1	<1		<1	<10		<1	<5	
Vinyl Chloride	0.5	<0.5	<1	<10	<0.5	<1	<1	<0.5	<1	<10	<0.5	<1	<5	<0.5
Total Halogenated Hydrocarbon		518.12	384.3	462.8	22.2	34.3	35.2	131.75	109.0	181.9	104.97	24.3	139.9	404.8
Total Concentration of VOCs		518.1	384.3	462.8	22.2	34.3	35.2	131.8	109.0	181.9	105.0	24.3	139.9	404.8

Table 6-3 (Cont'd)
Old Town Area Extraction Well Sampling Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	EW7-03-2 (cont'd)		EW7-03-3			EW7-06-1		EW7C-04-2			EW25A-02-1		
		Nov-07	Dec-07	Oct-07*	Nov-07	Dec-07	Oct-07	Nov-07	Oct-07	Nov-07	Dec-07	Oct-07*	Nov-07	Dec-07
Aromatic or Non-Halogenated Hydrocarbons														
Benzene	1	<1	<1	<0.5	<10	<10	<1	<1	<1	<1	<1	<0.5	<1	<1
n-Butylbenzene		<1	<1		<10	<10	<1	<1	<1	<1	<1		<1	<1
sec-Butylbenzene		<1	<1		<10	<10	<1	<1	<1	<1	<1		<1	<1
ter-Butylbenzene		<1	<1		<10	<10	<1	<1	<1	<1	<1		<1	<1
1,4-Dichlorobenzene	5	<1	<1		<10	<10	<1	<1	<1	<1	<1		<1	<1
Ethylbenzene	300	<1	<1	<0.5	<10	<10	<1	<1	<1	<1	<1	<0.5	<1	<1
Isopropylbenzene		<2	<2		<20	<20	<2	<2	<2	<2	<2		<2	<2
p-Isopropyltoluene		<1	<1		<10	<10	<1	<1	<1	<1	<1		<1	<1
Methyl tert-Butyl Ether	13	<5	<5		<50	<50	<5	<5	<5	<5	<5		<5	<5
Naphthalene		<2	<2		<20	<20	<2	<2	<2	<2	<2		<2	<2
n-Propylbenzene		<1	<1		<10	<10	<1	<1	<1	<1	<1		<1	<1
Toluene	150	<1	<1	<0.5	<10	<10	<1	<1	<1	<1	<1	<0.5	<1	<1
Xylenes, total	1750	<2	<2	<1	<20	<20	<2	<2	<2	<2	<2	<1	<2	<2
Total Aromatic Hydrocarbons														
Halogenated Non-Aromatic Hydrocarbons														
Bromodichloromethane	80	<1	<1	<0.5	<10	<10	<1	<1	<1	<1	<1	<0.5	<1	<1
Bromoform	80	<2	<2	<0.5	<20	<20	<2	<2	<2	<2	<2	<0.5	<2	<2
Carbon Tetrachloride	0.5	<1	4.5	15	<10	16.2	<1	<1	1.4	1.4	1.4	<0.5	<1	<1
Chloromethane		<10	<10	<0.5	<100	<100	<10	<10	<10	<10	<10	<0.5	<10	<10
Chloroform	80	<3	<3	0.78	<30	<30	<3	<3	<3	<3	<3	0.57	<3	<3
1,1-Dichloroethane	5	<1	<1	<0.5	<10	<10	<1	1.6	<1	<1	<1	<0.5	<1	<1
1,2-Dichloroethane	0.5	<2	<2	<0.5	<20	<20	<2	<2	<2	<2	<2	<0.5	<2	<2
1,1-Dichloroethene	6	<1	<1	2	<10	<10	<1	5.1	<1	<1	<1	<0.5	<1	<1
cis-1,2-Dichloroethene	6	31.6	1.1	5.3	<10	12.0	137	83.3	<1	<1	<1	<0.5	<1	<1
trans-1,2-Dichloroethene	10	<1	<1	<0.5	<10	<10	<1	2.9	<1	<1	<1	<0.5	<1	<1
1,2-Dichloropropane	5	<1	<1	<0.5	<10	<10	<1	<1	<1	<1	<1	<0.5	<1	<1
Methylene Chloride	5	<1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	0.69	<20	<20	<2	<2	<2	<2	<2	<0.5	<2	<2
1,1,2,2-Tetrachloroethane	1	<1	<1	<0.5	<10	<10	<1	<1	<1	<1	<1	<0.5	<1	<1
Tetrachloroethene	5	46.1	220	460	199	745	2.7	9.3	11.3	9.2	9.5	<0.5	<1	<1
1,1,1-Trichloroethane	200	<1	<1	<0.5	<10	<10	<1	<1	<1	<1	<1	<0.5	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<0.5	<10	<10	<1	<1	<1	<1	<1	<0.5	<1	<1
Trichloroethene	5	10.3	72.8	180	69.3	331	9.4	6.5	1.9	1.3	1.7	2.5	3.2	3.9
Freon-113	1200	<1	<1	<0.5	<10	<10	<1	<1	<1	<1	<1	<0.5	<1	<1
Freon-123A		<1	<1		<10	<10	<1	<1	<1	<1	<1		<1	<1
Vinyl Chloride	0.5	<1	<1	<0.5	<10	<10	<1	<1	<1	<1	<1	<0.5	<1	<1
Total Halogenated Hydrocarbon		88.0	298.4	663.77	268.3	1,104.2	149.1	108.7	14.6	11.9	12.6	3.07	3.2	3.9
Total Concentration of VOCs		88.0	298.4	663.8	268.3	1,104	149.1	108.7	14.6	11.9	12.6	3.1	3.2	3.9

Table 6-3 (Cont'd)
Old Town Area Extraction Well Sampling Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	EW53-04-2			EW58-98-1 ^T	EW58-98-2 ^T	EW58E-98-1	EW58E-98-2	EW58E-98-3	EW58E-98-4	EW58E-98-5	EW58E-98-6
		Oct-07	Nov-07	Dec-07	Oct-07 ^T	Oct-07 ^T	Nov-07	Nov-07	Nov-07	Nov-07	Nov-07	Nov-07
Aromatic or Non-Halogenated Hydrocarbons												
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	300	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons												
Halogenated Non-Aromatic Hydrocarbons												
Bromodichloromethane	80	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	80	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	3.3	2.7	1.6	<1	1.0	<1
Chloromethane		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroform	80	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	1.2	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<1	<1	1.4	<1	5.9	5.9	4.7	3.3	7.6	7.7
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	1.7	1.7	1.4	<1	<1	154	88.7	50.0	11.2	46.4	18.9
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	2.2	2.2	1.9	2.0	<1	122	95.3	66.2	34.5	76.7	42.5
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon-123A		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbon		3.9	3.9	3.3	3.4		286.4	192.6	122.5	49.0	131.7	69.1
Total Concentration of VOCs		3.9	3.9	3.3	3.4		286.4	192.6	122.5	49.0	131.7	69.1

Table 6-3 (Cont'd)
Old Town Area Extraction Well Sampling Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	EW58E-98-7	EW58E-98-8	EW58-02-1			EW58-07-1		
		Nov-07	Nov-07	Oct-07	Nov-07	Dec-07	Oct-07	Nov-07	Dec-07
Aromatic or Non-Halogenated Hydrocarbons									
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	5	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	300	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether	13	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene		<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons									
Halogenated Non-Aromatic Hydrocarbons									
Bromodichloromethane	80	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	80	<2	<2	<2	<2	<2	<2	<2	<2
Carbon Tetrachloride	0.5	<1	1.3	<1	<1	2.2	<1	2.9	2.1
Chloromethane		<10	<10	<10	<10	<10	<10	<10	<10
Chloroform	80	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	7.1	8.9	9.3
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	<1	1.2	1.5	12.6	20.5	20.7
cis-1,2-Dichloroethene	6	5.5	15.9	2.9	4.3	6.6	7.0	8.7	8.9
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<1	<2	<1	<1	<1	<1
1,1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	8.4	60.4	48	51.0	149	25.3	31.3	33.0
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	1.0	1.2	1.3
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	16.2	74.9	21.2	20.3	46.6	21.6	28.5	26.7
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1
Freon-123A		<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	1.5	1.8
Total Halogenated Hydrocarbon		30.1	152.5	72.1	76.8	205.9	74.6	103.5	103.8
Total Concentration of VOCs		30.1	152.5	72.1	76.8	205.9	74.6	103.5	103.8

MCL: Maximum contaminant level for drinking water (determined by California DHS)
 All analyses by LBNL EML unless otherwise noted
 * = Analysis by BC Laboratories

< = Less than Quantitation Limit
 = Compound not included in analysis
 * Treatment system influent samples

Table 6-4
Old Town Area Sampling Results from Other Locations
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	MP7-99-1BR			MP7-99-2BR			
		Oct-07	Nov-07	Dec-07	Oct-07	(D)*	Nov-07	Dec-07
Aromatic or Non-Halogenated Hydrocarbons								
Benzene	1	<10	<5	<5	<10	<5	<10	<10
n-Butylbenzene		<10	<5	<5	<10		<10	<10
sec-Butylbenzene		<10	<5	<5	<10		<10	<10
ter-Butylbenzene		<10	<5	<5	<10		<10	<10
Ethylbenzene	300	<10	<5	<5	<10	<5	<10	<10
Isopropylbenzene		<20	<10	<10	<20		<20	<20
p-Isopropyltoluene		<10	<5	<5	<10		<10	<10
Methyl tert-Butyl Ether	13	<50	<25	<25	<50		<50	<50
Naphthalene		<20	<10	<10	<20		<20	<20
n-Propylbenzene		<10	<5	<5	<10		<10	<10
Toluene	150	<10	<5	<5	<10	<5	<10	<10
1,2,4-Trimethylbenzene		<10	<5	<5	<10		<10	<10
1,3,5-Trimethylbenzene		<10	<5	<5	<10		<10	<10
Xylenes, total	1750	<20	<10	<10	<20	<10	<20	<20
Total Aromatic Hydrocarbons								
Halogenated Non-Aromatic Hydrocarbons								
Bromodichloromethane	80	<10	<5	<5	<10	<5	<10	<10
Carbon Tetrachloride	0.5	21.3	20.1	<5	41.5	27	30.2	37.8
Chloroform	80	<30	<15	<15	<30	<5	<30	<30
1,1-Dichloroethane	5	<10	<5	<5	<10	<5	<10	<10
1,2-Dichloroethane	0.5	<20	<10	<10	<20	<5	<20	<20
1,1-Dichloroethene	6	<10	<5	<5	<10	<5	<10	<10
cis-1,2-Dichloroethene	6	<10	5.2	<5	<10	<5	22.3	<10
trans-1,2-Dichloroethene	10	<10	<5	<5	<10	<5	<10	<10
1,2-Dichloropropane	5	<10	<5	<5	<10	<5	<10	<10
Methylene Chloride	5	<10	<5	<5	<10	<10	<10	<10
1,1,1,2-Tetrachloroethane		<20	<10	<10	<20	<5	<20	<20
1,1,2,2-Tetrachloroethane	1	<10	<5	<5	<10	<5	<10	<10
Tetrachloroethene	5	298	481	28.2	1,030	1,400	1,460	1,740
1,1,1-Trichloroethane	200	<10	<5	<5	<10	<5	<10	<10
1,1,2-Trichloroethane	5	<10	<5	<5	<10	<5	<10	<10
Trichloroethene	5	313	322	13.4	362	270	232	236
Freon-113	1200	<10	<5	<5	<10	<5	<10	<10
Freon-123A		<10	<5	<5	<10		<10	<10
Vinyl Chloride	0.5	<10	<5	<5	<10	<5	<10	<10
Total Halogenated Hydrocarbons		632.3	828.3	41.6	1,433.5	1,697	1,744.5	2,013.8
Total Concentration of VOCs		632.3	828.3	41.6	1,434	1,697	1,745	2,014

MCL: Maximum contaminant level for drinking water (determined by California DHS)
All analyses by LBNL EML unless otherwise notec
* = Analysis by BC Laboratories

< = Less than Quantitation Limit
= Compound not included in analysis
(D) = Duplicate sample

Table 7-1
Support Services Area Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	69-97-8		
		Oct-07	Nov-07	Dec-07
Aromatic or Non-Halogenated Hydrocarbons				
Benzene	1	<1	<1	<1
n-Butylbenzene		<1	<1	<1
sec-Butylbenzene		<1	<1	<1
ter-Butylbenzene		<1	<1	<1
Ethylbenzene	300	<1	<1	<1
Isopropylbenzene		<2	<2	<2
p-Isopropyltoluene		<1	<1	<1
Naphthalene		<2	<2	<2
n-Propylbenzene		<1	<1	<1
Toluene	150	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<1
Xylenes, total	1750	<2	<2	<2
Total Aromatic Hydrocarbons				
Halogenated Non-Aromatic Hydrocarbons				
Carbon Tetrachloride	0.5	<1	<1	<1
Chloroform	80	<3	<3	<3
1,1-Dichloroethane	5	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	<1
cis-1,2-Dichloroethene	6	6.6	5.2	4.0
trans-1,2-Dichloroethene	10	<1	<1	<1
Methylene Chloride	5	<1	<1	<1
Tetrachloroethene	5	<1	1.6	<1
1,1,1-Trichloroethane	200	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1
Trichloroethene	5	<1	<1	<1
Freon-113	1200	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<1
Total Halogenated Hydrocarbons		6.6	6.8	4.0
Total Concentration of VOCs		6.6	6.8	4.0

MCL: Maximum contaminant level for drinking water (determined by California DHS)

All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

Table 7-2
Support Services Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	SB69A-99-1		
		Oct-07	Nov-07	Dec-07
Aromatic or Non-Halogenated Hydrocarbons				
Benzene	1	1.0	1.1	<1
n-Butylbenzene		<1	<1	<1
sec-Butylbenzene		<1	<1	<1
ter-Butylbenzene		<1	<1	<1
Chlorobenzene		<1	<1	<1
Ethylbenzene	300	<1	<1	<1
Isopropylbenzene		<2	<2	<2
p-Isopropyltoluene		<1	<1	<1
Methyl tert-Butyl Ether	13	<5	<5	<5
Naphthalene		<2	<2	<2
n-Propylbenzene		<1	<1	<1
Toluene	150	1.2	<1	<1
Xylenes, total	1750	<2	<2	<2
Total Aromatic Hydrocarbons		2.2	1.1	
Halogenated Non-Aromatic Hydrocarbons				
Bromodichloromethane	80	<1	<1	<1
Carbon Tetrachloride	0.5	<1	<1	<1
Chloroethane		<30	<30	<30
Chloroform	80	<3	<3	<3
1,1-Dichloroethane	5	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	<1
cis-1,2-Dichloroethene	6	2.1	1.4	1.5
trans-1,2-Dichloroethene	10	<1	<1	<1
Methylene Chloride	5	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<2
Tetrachloroethene	5	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1
Trichloroethene	5	<1	<1	<1
Freon-113	1200	<1	<1	<1
Freon-123A		<1	<1	<1
Vinyl Chloride	0.5	8.8	6.0	4.6
Total Halogenated Hydrocarbons		10.9	7.4	6.1
Total Concentration of VOCs		13.1	8.5	6.1

MCL: Maximum contaminant level for drinking water (determined by California DHS)
All analyses by LBNL EML unless otherwise notec

< = Less than Quantitation Limit

Table 8
Hydrauger Monitoring Results
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	51-01-01 Oct-07	51-01-02 Oct-07	51-01-03 Oct-07	51-01-04 Oct-07
Aromatic or Non-Halogenated Hydrocarbons					
Benzene	1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<1	<1
Chlorobenzene		<1	<1	<1	<1
Ethylbenzene	700	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<1	<1
Methyl tert-Butyl Ether	13	<5	<5	<5	<5
Naphthalene		<2	<2	<2	<2
n-Propylbenzene		<1	<1	<1	<1
Toluene	150	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<2	<2
Total Aromatic Hydrocarbons					
Halogenated Non-Aromatic Hydrocarbons					
Bromodichloromethane	80	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<1	<1	<1	<1
Chloroform	80	21.2	<3	<3	<3
Chloroethane		<30	<30	<30	<30
1,1-Dichloroethane	5	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<1	2.3	1.2
trans-1,2-Dichloroethene	10	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2
Tetrachloroethene	5	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1
Trichloroethene	5	<1	2.0	<1	<1
Freon-11		<2	<2	<2	<2
Freon-113	1200	2.6	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<1	<1
Total Halogenated Hydrocarbons		23.8	2.0	2.3	1.2
Total Concentration of VOCs		23.8	2.0	2.3	1.2

MCL: Maximum contaminant level for drinking water (determined by California DHS)

All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

Table 9
Minor Chemical Detections in Site-Wide Wells
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	EW51B-07-1
	Oct-07*
Carbon disulfide	29

No MCLs have been established for these chemicals.

* = Analysis by BC Laboratories

Table 10
Volatile Organic Compounds Detected in Groundwater Above MCLs
EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

MCLs	Halogenated VOCs									Aromatic VOCs
	1,1-DCA	1,2-DCA	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	PCE	TCE	Vinyl Chloride	Carbon Tetrachloride	Benzene
	5	0.5	6	6	10	5	5	0.5	0.5	1
Building 71 VOC Plume - Building 71B Lobe										
SB71B-03-1				44.8			6.5	17.0		
SB71B-03-2				6.4				2.0		
SB71B-04-1				10.4		31.5	12.9			
Building 51/64 VOC Plume										
MW51-96-16				33.5	22.5		8	12.4		1.7
MW51-96-17								1.3		
MW51-96-18	40.9		7.2			65.5	28.9			
SB51-98-1	6			106			18.1			
SB51-98-6				8.6		11.2	7.6			
SB64-98-8	204		39.7	6		50.2	88.7			
SB64-98-17	70		6.5					5.4		
SB64-99-4	330		33.6	22.1		8.9	52.7	27.9		
SB64-99-5	106		60.4			5.2	17.6			
SB64-00-1	231		11.3	14.7			32	1.5		
SB64-00-2	29		160			21.6	48.1			
SB64-02-1A	2900		424			145	421			
SB64-02-1B	331		89	122			58	62.6		
SB64-02-1C	909		108	93.9			17.4	38		
SB64-02-1D	142		32.7	36.3			16.6	20.1		
SB64-02-1E	79.9		25.4	27.4			18.1	13.1		
SB64-02-1F	145		26	34.6			24	18.4		
SB64-02-2A	97.9		18.9	56.1		5.8	42.2	4.7		

Table 10 (Cont'd)
Volatile Organic Compounds Detected in Groundwater Above MCLs
EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

MCLs	Halogenated VOCs								Aromatic VOCs	
	1,1-DCA	1,2-DCA	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	PCE	TCE	Vinyl Chloride	Carbon Tetrachloride	Benzene
	5	0.5	6	6	10	5	5	0.5	0.5	1
SB64-02-2B	871	3.8	95.8	23.1			18.4			
SB64-02-2C	93.2		38.1	20.4			8	1.3		
SB64-02-2D	111		32.4	13.5			7.2			
SB64-02-2E	84		27.4	15.5						
SB64-02-2F	608	2.7	50.1	32.3				1.8		
SB64-03-1B	119		6.1				17.6			
SB64-03-5						5.8	65.8			
SB64-03-6				15		9.1	155			
EW51-07-1	7.8		6.1	108			144	1		
EW51B-07-1	13.7		23	31.2			7	3.3		
EW51B-07-2				7.3				2.7		
EW64-00-1	15.1									
EW64-05-1							7.3			
Building 51L Plume										
MW51L-01-1A				6.7						
SB51L-98-1A	11			105	12.4		69.4			
EW51A-06-1				22.4		5.9	298		10.7	
EW51L-06-1				11			12	3.6		
Old Town VOC Plume - Building 7 Lobe										
MW90-2						40.4				
MW7-94-3			6.8	28.6	10.3	65.5	26.4		1.1	
MW7-95-22				7.3		132	69.6		3.2	
MW7-95-23				21.9		569	769		14	

Table 10 (Cont'd)
Volatile Organic Compounds Detected in Groundwater Above MCLs
EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Halogenated VOCs										Aromatic VOCs
	1,1-DCA	1,2-DCA	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	PCE	TCE	Vinyl Chloride	Carbon Tetrachloride	Benzene
MCLs	5	0.5	6	6	10	5	5	0.5	0.5	1
MW7B-95-21				6.2		103	163			
MW7B-95-24						82.5	21.5		1.9	
MW53-93-16-69'						38.6	17.2		2.8	
MW53-96-1						44.8	16.9		3.9	
MW58-96-11				18.9		675	471		23.2	
MW58-00-12		1.4	41	125		8180	5230	1.1	332	
SB53-96-3				10.3		151	48.9		2.4	
SB58-96-1						19.7	17.1			
SB58-96-2						97.9	51		1.3	
SB58-97-2				40.6				2.6		
EW7-96-1						500	15		2.2	
EW7-96-2						26.5	8.7			
EW7-96-4R						167	14.9		0.75	
EW7-03-1						89.6	50.3		2.2	
EW7-03-2				31.6		260	120		11	
EW7-03-3				12		745	331		16.2	
EW7-06-1				137		9.3	9.4			
EW7C-04-2						11.3			1.4	
EW58E-98-1						154	122		3.3	
EW58E-98-2						88.7	95.3		2.7	
EW58E-98-3						50	66.2		1.6	
EW58E-98-4						11.2	34.5			
EW58E-98-5				7.6		46.4	76.7		1	
EW58E-98-6				7.7		18.9	42.5			

Table 10 (Cont'd)
Volatile Organic Compounds Detected in Groundwater Above MCLs
EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

MCLs	Halogenated VOCs								Aromatic VOCs	
	1,1-DCA	1,2-DCA	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	PCE	TCE	Vinyl Chloride	Carbon Tetrachloride	Benzene
	5	0.5	6	6	10	5	5	0.5	0.5	1
EW58E-98-7						8.4	16.2			
EW58E-98-8				15.9		60.4	74.9		1.3	
EW58-02-1				6.6		149	46.6		2.2	
EW58-07-1	9.3		20.7	8.9		33	28.5	1.8	2.9	
MP7-99-1BR						481	322		21.3	
MP7-99-2BR				22.3		1740	362		41.5	
Old Town VOC Plume - Building 25A Lobe										
MW25A-98-1							135			
MW25A-98-3							21			
MW25A-98-7							15.8			
SB25A-96-3			23.3				91.2			
Old Town VOC Plume - Building 52 Lobe										
MW91-9						6.6				
MW53-93-9									1.2	
Building 69 Area of Groundwater Contamination										
MW69-97-8				6.6						
SB69A-99-1								8.8		

MCL: Maximum contaminant level for drinking water (determined by California DHS)

Note: Where duplicate or split samples were collected, or more than one sample was collected during the quarter, the maximum detected concentrations is shown.

Table 11
Groundwater Monitoring Results
Tritium- Modified Method E906
January 2007 through December 2007
(concentrations in pCi/L)

Area	Well No.	FY2007 Qtr 2 Jan-Mar	FY2007 Qtr 3 Apr-June	FY2007 Qtr 4 July-Sept	FY2008 Qtr 1 Oct-Dec
Groundwater Monitoring Wells					
1	71-95-9	320		373	
3	69-97-21		<300		
	75B-92-24	959		1,370	
	75-97-5	15,100 15,200 (D)		15,600 15,400 (D)	
	75-97-7	398		652	
	75-98-14	4,880 4,880 (D)		5,510	
	75-99-6	3,100		5,280	
	75-99-7	6,080			
4	76-93-6	3,190		2,550	
5	MWP-9			<300	
	MWP-10			<300	
	77-94-6	6,020		6,160	
	77-97-11	3,950		4,000	
	31-97-17	1,310		1,330	
	31-98-17	<300	<300	<300	<300
Temporary Groundwater Sampling Points					
3	SB69A-99-1	585		544	
	SB69A-00-1	<300		<300	
	SB69-02-1A	724			
	SB69-02-1B	<300			
	SB75-02-1	971		1,020	
	SB75A-02-1A	745		730	
	SB75A-02-1B	<300		<300	
5	SB31-02-1	975		1,260	
	SB31-02-2	1,260		1,120	
	SB31-02-4	2,100		2,000	
	SB31-02-5	2,140		1,970	
	SB31-02-6	373		582	
	SB31-02-7	<300		<300	
	SB31-03-1	1,740		2,110	
	SB31-03-2	2,320		2,790	
	SB31-03-3	1,180			
	SB31-03-4	2,130		1,680	
	SB77-02-1	<300		<300	

Table 11 (Cont'd)
Groundwater Monitoring Results
Tritium- Modified Method E906
January 2007 through December 2007
 (concentrations in pCi/L)

Area	Well No.	FY2007 Qtr 2 Jan-Mar	FY2007 Qtr 3 Apr-June	FY2007 Qtr 4 July-Sept	FY2008 Qtr 1 Oct-Dec
Slope Stability/Indicator Facilities					
5	SSW17-130	736		835	
	SSW19-130	364		689	
	SSW20-130	986		1,320	
	SSW21-130	<300		<300	
Hydraugers					
5	77-02-05	1,470			1,700
	77-02-06	436			
	77-02-11	<300			
	77-02-12	<300			
	77-03-02	<300			<300
	77-03-03	<300			<300
	77-04-11				<300

Maximum contaminant level (MCL) for drinking water for tritium determined by California DHS = 20,000 pCi/L

All samples were analyzed by Eberline

 = Not Sampled

< = Less than minimum detectable activity (MDA)

(D) = Duplicate sample

Table 12
Groundwater Monitoring Well Results
Polychlorinated Biphenyl Compounds -EPA Method 608
1st Quarter FY 2008
(concentrations in µg/L)

Location	Area	Well No.	Date	PCBs
Building 51 Sanitary Sewer and Drainage System	9	SB51-98-1	Oct-07	<0.2
		SB51-98-4	Oct-07	0.32 (PCB-1016)
		SB51-98-6	Oct-07	<0.2

Maximum contaminant level (MCL) for drinking water for PCBs determined by California DHS = 0.5 µg/L
 All Samples were analyzed by BC Laboratories < = Less than Quantitation Limit

Table 13
Soil Sampling Results
Polychlorinated Biphenyls Compounds-EPA Method 8082
1st Quarter FY 2008
(concentration in mg/kg)

Location	Sample ID	Depth (ft)	Date	PCBs
Building 17 Former Scrapyard and Drum Storage Area	SS-17-07-W1	2	Dec-07	ND
	SS-17-07-W2	2		ND
	SS-17-07-W3	2		ND
	SS-17-07-W4	2		ND
	SS-17-07-W5	2		ND
	SS-17-07-W6	2		ND
	SS-17-07-W7	2		ND
	SS-17-07-W8	2		ND
	SS-17-07-F1	4		8 (PCB-1254)
	SS-17-07-F2	4		ND
	SS-17-07-F3	4		ND
	SS-17-07-F4	4		ND

All samples were analyzed by BC Laboratories
 ND indicates analyte was not detected (< 0.2 mg/kg)
 PCBs= Polychlorinated Biphenyls

Table 14
Soil Sampling Results
Tritium-Modified Method E906
1st Quarter FY 2008
(concentration in pCi/g)

Location	Sample ID	Depth (ft)	Date	Tritium
Building 77	SS77-07-1-2'	2	11/7/07	<2
	SS77-07-2-2'	2		<2
	SS77-07-3-2'	2		<2
	SS77-07-4-2'	2		<2
	SS77-07-5-2'	2		<2
	SS77-07-6-2'	2		<2
	SS77-07-7-2'	2		<2
	SS77-07-8-2'	2	11/8/07	<2
	SS77-07-9-2'	2		<2
	SS77-07-10-1'	1		<2
	SS77-07-11-1'	1		<2
	SS77-07-12-1'	1		<2
	SS77-07-13-1'	1		<2
	SS77-07-14-1'	1		<2
	SS77-07-15-1'	1		<2
	SS77-07-16-1'	1		<2

All samples were analyzed by Eberline Services.

Table 15
Hydrochemical Indicator Parameters Sampling Results
1st Quarter FY 2008

Parameter	Units	Optimum Range in Concentration	Building 51/64 Groundwater Solvent Plume				Building 69A Area of Groundwater Contamination		Building 71B Plume			
			MW51-96-16		MW51-96-17		SB69A-99-1		SB71B-03-1		SB71B-03-2	
			Oct-07	Dec-07	Oct-07	Dec-07	Oct-07	Dec-07	Oct-07	Dec-07	Oct-07	Dec-07
Ethane (C ₂ H ₆)	µg/L	>10	<0.025	<0.025	0.087	0.085	<0.025	<0.025	2.2	1.3	0.1	0.072
Ethene (C ₂ H ₄)		>10	8.1	6.7	1.3	1.1	6.5	6.2	2.5	2.8	0.56	2.5
Methane (CH ₄)		>500	13,000	12,000	4,400	2,500	10,000	7,400	2,200	810	1,600	5,000
Volatile Fatty Acids (VFAs)	mg/L	>100	103.2	81.3	0.20	0.45	0.43	0.14	0.51	0.26	0.22	0.13
Nitrate (NO ₃ ⁻)	mg/L	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.74	<0.5
Sulfate (SO ₄ ²⁻)	mg/L	<20	<1	<1	<1	4	<1	<1	8.9	29	14	17
Sulfide (H ₂ S)	mg/L	>1	ND	ND	ND	ND	ND	ND	0.17	ND	0.12	ND
Ferrous Iron (Fe ²⁺)	mg/L	>1	3.8	4.3	ND	0.8	2.6	2.5	2.2	2.2	0.4	0.1
Dissolved Oxygen (DO)	mg/L	<0.5	0.04	0.03	0.07	0.07	0.04	0.22	0.93	1.12	1.32	0.17
pH	pH	5 to 9	6.52	6.53	6.98	7.04	6.67	6.7	6.55	6.76	6.9	6.95
Temperature	°C	>20	19.6	16.9	18.3	16.2	19.2	17.9	17.6	16.2	17.2	16.7
Nitrite (NO ₂ ⁻)	mg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Dioxide (CO ₂)	ppm	> 2 times background	12	12	13	13.5	11.5	11.8	14	15	15	13

< indicates that analyte was not detected above method reporting limit noted.
 Boldface type indicates that analytes were within optimum range by biodegradation.

ND indicates analyte was not detected by instrument.

Table 16
Groundwater Quality Control Samples
Volatile Organic Compounds - EPA Method 8260
1st Quarter FY 2008
(concentrations in µg/L)

Constituent	MCL	Equipment (Rinseate) Blanks											Trip Blanks									
		Oct-07	Oct-07	Oct-07	Oct-07	Oct-07	Nov-07	Nov-07	Nov-07	Nov-07	Dec-07	Dec-07	Oct-07	Oct-07	Oct-07	Oct-07	Nov-07	Nov-07	Nov-07	Dec-07	Dec-07	Dec-07
Aromatic and Non-Halogenated Hydrocarbons																						
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,4-Dichlorobenzene	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Ethylbenzene	300	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Methyl tert-Butyl Ether	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Naphthalene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Toluene	150	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,2,4-Trichlorobenzene	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,2,4-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,3,5-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
Total Aromatic Hydrocarbons																						
Halogenated Non-Aromatic Hydrocarbons																						
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Chloroform	80	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	
Dibromochloromethane	80	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
cis-1,2-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Tetrachloroethene	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Trichloroethene	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Total Halogenated Hydrocarbons																						
Total Concentration of VOCs																						

MCL: Maximum contaminant level for drinking water (determined by California DHS)
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit