



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



United States Department of Energy

ENVIRONMENTAL RESTORATION PROGRAM

QUARTERLY PROGRESS REPORT THIRD QUARTER FISCAL YEAR 2007 (April 1 to June 30, 2007)

for the
Lawrence Berkeley National Laboratory
Hazardous Waste Facility Permit

November 2007

**QUARTERLY PROGRESS REPORT
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(April 1 to June 30, 2007)**

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Hazardous Waste Facility Permit

Environment, Health and Safety Division
Lawrence Berkeley National Laboratory
Berkeley, CA 94720

November 2007

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ENVIRONMENTAL RESTORATION PROGRAM

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November 2007



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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
ICMs	Interim Corrective Measures
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
TCE	Trichloroethene
TPH	Total Petroleum Hydrocarbons
TSCA	Toxic Substances Control Act
UC	University of California
USB	User Support Building
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 April 1 through June 30, 2007 (third quarter of fiscal year 2007 [FY07]), the current reporting period. The primary activity conducted during the reporting period was monitoring of 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 DTSC. The corrective measures required for soil have been completed. The corrective measures required for groundwater consist of 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

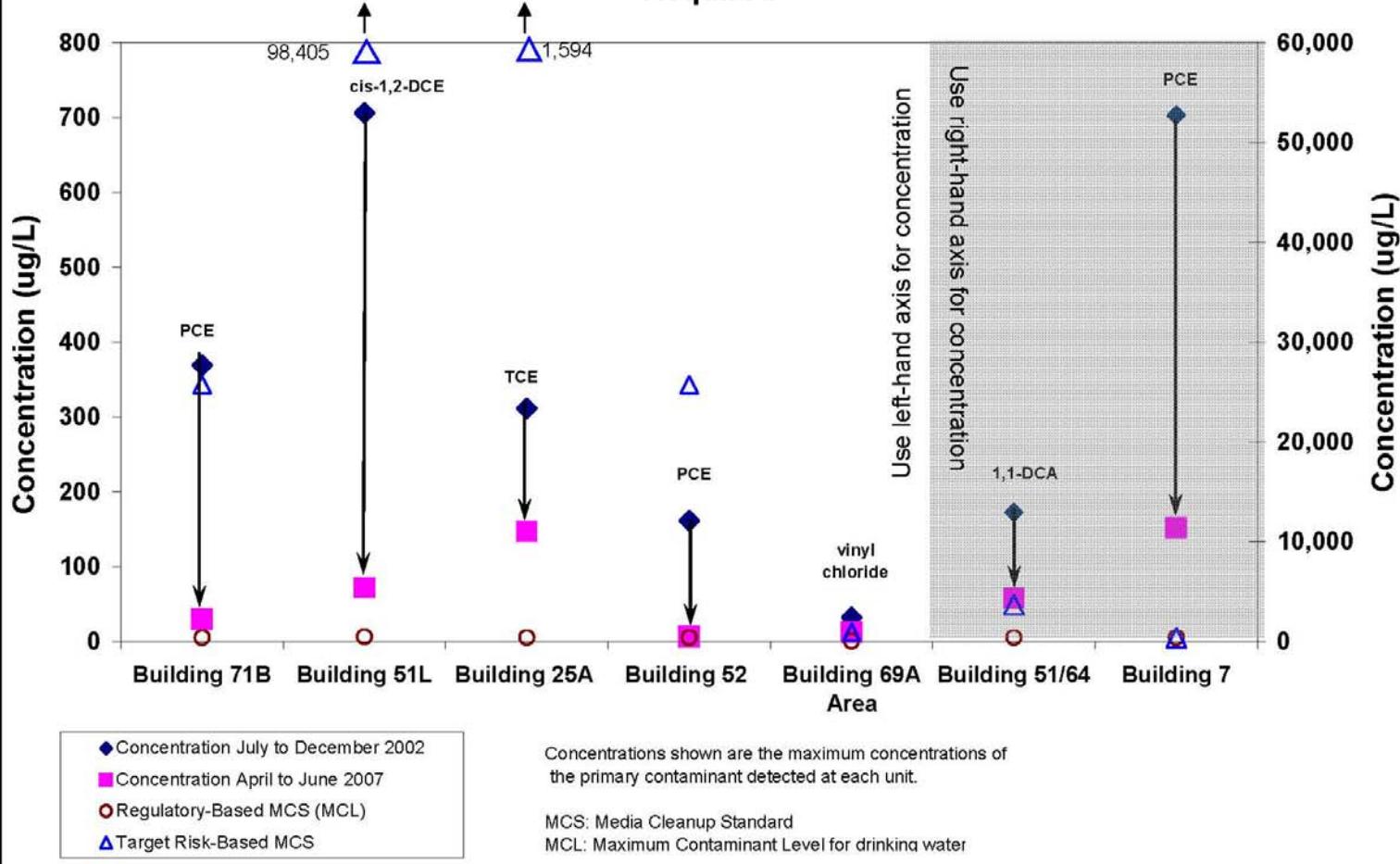
Groundwater Unit	Ongoing Corrective Measure
Building 51/64 Groundwater Solvent Plume	<ul style="list-style-type: none"> • In situ soil flushing in the source area. • MNA for contaminants in the downgradient plume area. • HRC injection in the upgradient core area. • Extraction and treatment of contaminated water from the Building 51 subfloor drainage system.
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 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 7 Lobe of the 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 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 of the 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 of the Old Town Groundwater Solvent Plume	<ul style="list-style-type: none"> • In situ soil flushing (groundwater infiltration bed and extraction trench) 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.

During the current reporting period, four additional groundwater extraction wells were installed to enhance the existing corrective measures for the Building 51/64 Groundwater Solvent Plume. Extraction wells EW51-07-1 and EW51-07-2 were constructed to control migration of contaminated groundwater southward under Building 51. Extraction wells EW51B-07-1 and EW51B-07-2 were constructed to control any potential downgradient migration.

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, the concentration of the primary contaminant detected at each of the groundwater units where corrective measures are required has been substantially reduced over the five-year period since 2002. Similar reductions have been observed in the other contaminants detected at each unit.

Cleanup Progress at Groundwater Units where Corrective Measures are Required



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 for the past three years. Concentrations of VOCs detected in MWP-7 have been decreasing, with all concentrations below MCLs for drinking water since May 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 soil flushing purposes. The remainder is discharged under permit to the sanitary sewer. During the reporting period 2,831,833 gallons of water were treated, with more than 73 million gallons treated to date.

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.

Soil water samples collected from lysimeters installed in vadose zone monitoring well TS-1 and from three borings installed with lysimeters were analyzed for tritium during the reporting period. Concentrations of tritium in the soil water have decreased significantly since closure of the NTLF, with the maximum detected concentration declining from more than 70,000 pCi/L to 18,300 pCi/L during the reporting period.

SECTION 1

INTRODUCTION

1.1 PURPOSE AND SCOPE

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 April 1 through June 30, 2007 (third quarter of fiscal year 2007 [FY07]), the current reporting period.

The primary purpose of this 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) and approved by the California Environmental Protection Agency Department of Toxic Substances Control (DTSC). 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. To accomplish this secondary objective, the reports include evaluations of both historical and current groundwater contaminant concentration trends.

1.2 BACKGROUND

The LBNL Hazardous Waste Handling Facility (HWHF) operates under a 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 CAP requirements. All work under the CAP has been conducted by the LBNL Environmental Restoration Program (ERP).

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. The corrective measures required for soil have been completed. The corrective measures required for contaminated groundwater consist of the operation of soil flushing and groundwater capture systems, subsurface injection of Hydrogen Release Compound® (HRC), and Monitored Natural Attenuation (MNA). These measures have been implemented and are operational.

Quarterly summaries of RCRA CAP activities conducted 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 also 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 FY06 report (LBNL, 2007a).

1.3 SITE DESCRIPTION

LBNL is a research facility managed 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 diversified to include materials sciences, chemistry, earth sciences, biosciences, and energy conservation research. The facility is located 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.

1.4 PROJECT ORGANIZATION

The DOE provides funding and oversight for the operation of LBNL facilities. Investigation and cleanup of areas of environmental contamination at LBNL are conducted by the LBNL ERP, which is part of a nationwide effort by the DOE to identify and clean up contaminated areas at its facilities. The ERP is a program of the Environmental Services Group of the LBNL Environment, Health and Safety (EH&S) Division.

For reporting purposes, the RCRA Facility Assessment (RFA) (LBNL, 1992a) subdivided LBNL into 15 Areas. Subsequently, during the 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.

SECTION 2

ENVIRONMENTAL ACTIVITIES CONDUCTED DURING THE REPORTING PERIOD (Third Quarter 2007 - April through June 2007)

2.1 GROUNDWATER MONITORING

Summary of the Groundwater Monitoring Program

The primary objectives of groundwater monitoring during the CMI are to evaluate the effectiveness of the implemented corrective measures and to document the continued stability of groundwater plumes. To accomplish these objectives, groundwater samples are collected from groundwater monitoring wells and analyzed for VOCs in accordance with the schedule approved by the Regional Water Quality Control Board - San Francisco Bay Region (Water Board) (LBNL, 2005b). In addition, selected samples are analyzed for metals, polychlorinated biphenyls (PCBs) and total petroleum hydrocarbons (TPH). The complete list of VOC (Method 8260) analytes and quantitation limits (assuming no sample dilution) for each laboratory is shown in Table 1. Quantitation limits for other analyses are included in the results tables. 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.

Groundwater samples are also periodically collected from temporary groundwater sampling points, slope stability wells, groundwater extraction wells, and hydraugers. The locations of slope stability wells are shown on Figure 4. The locations of groundwater monitoring wells, temporary groundwater sampling points, extraction wells, and hydraugers are shown on Figure 5 and Figures 6a through 6i. Slope stability wells and hydraugers were not installed for groundwater monitoring purposes, and therefore the results from these installations are not considered valid for quantitative determination of groundwater concentrations.

A listing of analytical methods used for groundwater sampling at each of the sampling locations during the current period is presented in Table 2. The data continue to indicate that the groundwater plumes at LBNL are stable or attenuating and that contaminants are not migrating offsite in the groundwater, as discussed in the following sections. 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 summarized in the tables listed in the following index:

Table Numbering for Groundwater Analytical Results

Chemical	Area	Groundwater Monitoring Wells	Temporary Groundwater Sampling Points	Groundwater Extraction or Injection Wells	Other Locations	Hydraugers
Volatile Organic Compounds (VOCs) ^(a)	Bevalac	5-1	5-2 and 9	5-3	—	8
	Old Town	6-1	6-2	6-3	6-4	—
	Support Services	7-1	7-2	—	—	—
	Outlying	—	—	—	—	—
Tritium ^(b)	Support Services and Bevalac	11	11	—	11	11

(a) Includes results only for current reporting period.

(b) Includes results for four quarters.

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, and VOCs that have only been detected to a limited extent are listed in Table 9.

Monitoring the Effectiveness of the Implemented Corrective Measures

The Corrective Measures Study Report (LBNL, 2005a) recommended that corrective measures be implemented in seven areas of solvent-contaminated groundwater (two groundwater plumes, four groundwater plume lobes, and one localized area of groundwater contamination). These seven areas are listed in the following table, which also lists the corresponding figure

numbers for groundwater elevation maps and concentration maps for halogenated hydrocarbons. The locations of the seven areas are shown on Figure 7.

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 (e.g. 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.

In addition to this primary objective, the overall long-term goal for all groundwater at LBNL is to reduce contaminant concentrations to MCLs, 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).

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	—

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 were not required. 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) (Water Board, 2005). The three areas are listed in the following table, along with the figure numbers for the corresponding contaminant concentration and groundwater elevation maps. The locations of the three areas are shown on Figure 15.

**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.

The locations where concentrations of VOCs exceeded MCLs during the reporting period and the specific VOCs that exceeded MCLs are listed in Table 10. The areas where MCLs were exceeded are shown on Figure 17. The maximum concentrations of halogenated VOCs detected above MCLs in each of the areas are listed in the following table.

**Maximum Concentrations ($\mu\text{g/L}$) of Halogenated VOCs Detected Above MCLs
during the Third Quarter of FY07**

Area	Groundwater Unit	1,1-	1,2-	1,1-	cis-1,2-	trans-1,2-	PCE	TCE	vinyl	carbon
		DCA	DCA	DCE	DCE	DCE			chloride	tet
	MCL	5	0.5	6	6	10	5	5	0.5	0.5
Bevalac	Building 71B Lobe				13		30	13	3.4	
	Building 51/64 Plume	4,340	3.3	639	219	26	203	704	462	
	Building 51L Plume				72		14	750		19
Old Town	Old Town Plume				209	18	11,400	6,760	4.4	379
	Building 7 Lobe						5.4	147		0.51
	Building 25A Lobe			25						
Support Services	Building 52 Lobe						6.6			
	Building 69A Area								13	
	Building 75/75A Area				66				8.9	
	Building 76 Area*									
	Building 77 Area*									

DCA: dichloroethane

PCE: tetrachloroethene

DCE: dichloroethene

TCE: trichloroethene

carbon tet: carbon tetrachloride

* not sampled during reporting period.

Monitoring wells (MWP-1, MWP-2, MWP-4 through MWP-8, and CD-92-28) were constructed to monitor the potential offsite migration of contaminated groundwater. Several other wells also monitor the quality of groundwater downgradient from the developed areas of the site including MW88-93-11A, MW62-92-26, MW62-92-27, MW74-94-7, MW74-94-8; MW61-92-12; MW25-95-27, MW31-98-17, and OW3-225. These 17 monitoring wells have been designated as site perimeter wells (Water Board, 1999) and their locations are shown on Figure 18. No VOCs were detected in MWP-1, the only perimeter well sampled during the current reporting period. Except for MWP-7, no VOCs were detected in any of the perimeter wells during the previous reporting period. Concentrations of halogenated hydrocarbons detected in MWP-7 have been below MCLs since May 2000.

Monitoring Other Chemicals in the Groundwater

Aromatic or Non-Halogenated Hydrocarbons

Wells in which aromatic or non-halogenated hydrocarbons were detected during the reporting period are listed in the following table. Concentrations of aromatic or non-halogenated hydrocarbons detected did not exceed MCLs for drinking water.

Aromatic or Non-Halogenated Hydrocarbons Detected in Groundwater During the Third Quarter of FY07

Chemical	MCL ($\mu\text{g/L}$)	Well Number	Maximum Concentration ($\mu\text{g/L}$)
benzene	1	SB69A-99-1	1.0
toluene	150	SB64-02-1 SB64-02-2 SB69A-99-1	3.5 (maximum) 2.4 (maximum) 1.3
p-isopropyltoluene	not established	MW25A-98-1 MW69-97-8	3.5 4.4

Tritium

The Building 75 Tritium Plume extends from the Corporation Yard (the area between Buildings 69 and 75) southward toward Chicken Creek (Figure 19). Concentrations of tritium have been declining in almost all wells monitoring the plume since closure of the National Tritium Labeling Facility (NTLF) in December 2001, with a concurrent reduction in the lateral extent of the plume. The only wells sampled for tritium during the current reporting period were MW69-97-21 (east of Building 69) and MW31-98-17 downgradient from the plume (Table 11). No tritium was detected in either well. Concentrations of tritium have been below the MCL (<20,000 pCi/L) in all wells since February 2005.

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. No wells in that area were sampled for tritium during the current reporting period.

New Well Construction

On June 12, 2007, MP7-99-2B was overcored and replaced with a new well (MP7-99-2BR) to obtain more representative samples of overall groundwater quality. Construction details are provided in the following table.

Construction Details for MP7-99-2BR

Location	Completion Date	Boring Diameter	Casing Diameter	Total Depth	Screened Interval (0.02-inch slot)
MP7-99-2BR	6/12/07	14 inch	5 inch	54.5 feet	19-54 feet

2.2 SOIL WATER SAMPLING

Soil water samples collected from lysimeters installed at nine depths (4.25 feet to 55 feet) in vadose-zone monitoring well TS-1 and from lysimeters installed within borings SB75-96-1, SB75-96-2, and SB75-96-3 were analyzed for tritium during the reporting period. The sampling locations are shown on Figure 19. Concentrations of tritium detected are listed in Table 12. Concentration trends for tritium detected in the soil water samples are plotted on Figure 20, which shows that concentrations of tritium have been declining in the soil water since closure of the NTLF in December 2001, with the maximum detected concentration declining from more than 70,000 pCi/L to 18,300 pCi/L. Consistent with previous results, no tritium was detected in the deepest five lysimeters within vadose-zone monitoring well TS-1 (16.5 feet to 55 feet).

2.3 DOCUMENTS AND MEETINGS

Documents

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

- On April 2, 2007 LBNL submitted the Corrective Measures Implementation (CMI) Report (LBNL, 2007b) to the DTSC. On July 13, 2007, DTSC approved the report.
- On May 14, 2007, LBNL submitted the Quarterly Progress Report for the First Quarter of FY07 to the DTSC.

Meetings

The following meeting was held with the regulatory agencies:

- A Remedial Project Managers (RPM) Meeting was held in DTSC's Berkeley Office on May 10, 2007. Representatives of the DTSC, City of Berkeley, DOE, and LBNL attended.

SECTION 3

STATUS OF CORRECTIVE MEASURES

On April 2, 2007, LBNL submitted its RCRA Corrective Measures Implementation (CMI) Report to the DTSC (LBNL, 2005c). The Corrective Measures Implementation Report, which was approved by DTSC on July 13, 2007 (DTSC, 2007), 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 were completed at the two soil units included in the CMI, and documented that the implemented measures have generally been effective in reducing COC concentrations in the groundwater.

3.1 CORRECTIVE MEASURES FOR GROUNDWATER

Long-Term Concentration Reductions

To illustrate the progress of groundwater cleanup measures, Figures 21, Figure 22, and Figure 23 compare the areal extent of total halogenated VOC concentrations exceeding 10 µg/L, 100 µg/L, and 1,000 µg/L, respectively, for groundwater during both the current reporting period and in 1999. These comparisons indicate 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 subsequent final Corrective Measures.

Ongoing Corrective Measures

A listing of the ongoing corrective measures that have been implemented for groundwater is provided in the following table. In addition to the corrective measures listed in the table, operation of the Building 6 dual-phase (groundwater and soil vapor) extraction system continued during the reporting period.

Summary of DTSC Approved Corrective Measures for Groundwater

Groundwater Unit	Ongoing Corrective Measure
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.
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 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 7 Lobe of the 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 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 of the 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 of the Old Town Groundwater Solvent Plume	<ul style="list-style-type: none"> • In situ soil flushing (groundwater infiltration bed and extraction trench) 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.

Enhancements to Existing Corrective Measures

Building 51/64 Groundwater Solvent Plume

Two groundwater extraction wells (EW51-07-1 and EW51-07-2) were constructed on the north side of Building 51 in April 2007 to control migration of contaminated groundwater southward under Building 51 from the Building 51/64 Groundwater Solvent Plume source area. Construction details are provided in the following table. The locations of the wells are shown on Figure 6f. The extracted groundwater is treated at the Building 51 Motor Generator Room Treatment System.

Two groundwater extraction wells (EW51B-07-1 and EW51B-07-2) were constructed west of the former location of Building 51B on June 13 and 14, 2007 to control any potential downgradient migration of the Building 51/64 Groundwater Solvent Plume. Construction details are provided in the following table. The locations of the wells are shown on Figure 6e. The extracted groundwater is treated at the Building 51L Treatment System.

Construction Details for New Groundwater Extraction Wells

Location	Completion Date	Boring Diameter	Casing Diameter	Total Depth	Screened Interval
EW51-07-1	4/10/07	14 inch	5 inch	41.5 feet	15-40.5 feet
EW51-07-2	4/6/07	14 inch	5 inch	41.5 feet	10-40.5 feet
EW51B-07-1	6/13/2007	12 inch	5 inch	70 feet	29.5-69.5 feet
EW51B-07-2	6/14/2007	12 inch	5 inch	71 feet	30.5-70.5 feet

Enhanced Bioremediation

HRC is being injected into the groundwater in the following locations to enhance the natural biodegradation of groundwater contaminants.

1. Building 51/64 Groundwater Solvent Plume downgradient core area
2. Building 71B Groundwater Solvent Plume source area
3. Building 69A Area of Groundwater Contamination.

To assess the effectiveness of enhanced bioremediation in achieving the required MCSS in these areas, VOC concentrations and hydrochemical parameters indicative of the potential for

biodegradation are being monitored. 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). The analytical results for these parameters are listed in Table 13. In general, the analytical parameters indicate favorable conditions for biodegradation in most of the monitored wells. In particular, the presence of methane and ethane 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 BUILDING 17 FORMER SCRAPYARD AND DRUM STORAGE AREA

The Toxic Substances Control Act (TSCA) self-implementing cleanup level for PCBs in soil in “high” occupancy areas is 1 mg/kg. ICMs previously conducted at the unit had reduced residual concentrations of PCBs in soil to less than 1 mg/kg, except for one sample location beneath the southwest end of Building 17. Therefore, on June 13, 2007, seven shallow soil samples were collected beneath the building to determine the extent of excavation that would be required to achieve the TSCA level, and make the unit acceptable for unrestricted land use. Sampling locations are shown on Figure 24. No PCBs were detected (Table 14).

3.3 ENVIRONMENTAL INVESTIGATION AT THE FORMER BUILDING 10 SITE

In June and July 2007, Building 10 was demolished to make way for construction of the Advanced Light Source (ALS) User Support Building (USB). Following removal of the structure, the concrete foundation was removed, along with the underlying cast-iron sanitary sewer lines. Prior to removal, the sewer lines were exposed to allow a visual inspection for breaks or holes that could have been a source of release of contaminants to the environment. Breaks were found at two locations. The former locations of the sewer lines and the area where the two breaks were identified are shown on Figure 25

Dry sediment was found within the pipe at the two break locations. Samples of the sediment (SS-B10-07-1 and SS-B10-07-2) were analyzed for potential contaminants, including metals and volatile organic compounds (VOCs). The sediment inside the pipe contained detectable concentrations of five non-halogenated VOCs (toluene, xylenes, acetone, carbon disulfide, and methyl ethyl ketone) and concentrations of nine metals (cadmium, chromium, copper, lead, mercury, molybdenum, nickel, silver, and zinc) that exceeded LBNL soil background levels (Table 15). To assess whether the breaks resulted in releases to the environment, soil samples were collected at approximately 6-inches and 24-inches beneath the pipe break locations and analyzed for VOCs and metals (Samples SS-B10-07-3 through SS-B10-07-6). No VOCs were detected in the soil samples collected beneath the pipe breaks, and concentrations of metals in the soil were within LBNL background levels (LBNL, 2002) (Table 14). These results indicated that the breaks in the sewer line were unlikely to have resulted in a release of contaminants to the environment.

The sediment within the pipe and the soil immediately beneath the pipe breaks were also analyzed for radionuclides. The sediment within the pipe contained elevated levels of natural uranium. There were no elevated levels of radionuclides detected in the soil samples collected beneath the pipe breaks or in additional soil samples collected in the area of the breaks. Results of the radionuclide investigation are not presented in this report, but were reported to the United States Department of Energy (DOE), which is the regulatory agency responsible for regulation of radionuclides.

3.4 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 Third Quarter FY07 (gallons)	Total Volume Treated (gallons)	Discharge/Reuse
Building 6 Bioventing	203,043	3,318,163	Soil flushing
Building 7 Trench	696,690	12,917,954	Recirculated or sanitary sewer
Building 25	73606	505,989	Recirculated
Building 25A	205,084	1,934,818	Recirculated
Building 37*	0	1,818,711	
Building 46	598,584	19,726,606	Recirculated or sanitary sewer
Building 51 Firetrail	403,785	10,935,551	Sanitary sewer or soil flushing
Building 51 Hydraugers**	0	9,482,665	
Building 51 MGR Basement	93,921	4,462,532	Sanitary sewer
Building 51L	23,193	1,207,502	Sanitary sewer
Building 53	214,432	4,701,651	Recirculated
Building 64	300,410	2,219,878	Recirculated
Building 71B	19,085	315,315	Recirculated
Total Volume Treated	2,831,833	73,547,335	

* System was dismantled in June 2006.

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

SECTION 4

SUMMARY OF PROBLEMS ENCOUNTERED

4.1 DEFINITIONS

In accordance with the LBNL RCRA Part B Hazardous Waste Facility Permit, Quarterly Progress Reports are required to address problems encountered and actions taken to rectify problems. 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 ANALYTICAL METHODS

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

Analytical Laboratory

Analytical Method	Groundwater	Soil	Soil Water
VOCs (EPA 8260)	EML/BC	BC	
PCBs (EPA 8082)		BC	
Metals (EPA 6000 & 7000 series)		BC	
Tritium (EPA 906)	Eberline		Eberline
Anions	BC		
Volatile Fatty Acids (VFA) (AM23G)	Microseeps		
Light Hydrocarbon gasses (LHG) (Methane, Ethane, Ethene) (AM20GAX)			

Notes: VOCs: Volatile organic compounds
PCBs: Polychlorinated biphenyls

4.3 QUALITY ASSURANCE / QUALITY CONTROL

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

Field Quality Control

Five groundwater field (equipment/rinse) blanks and ten groundwater trip blanks were collected and analyzed for VOCs during the reporting period (Table 16). In addition, one soil water trip blank was analyzed for tritium (Table 12). No analytes were detected in the blanks.

Laboratory Quality Control

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	5199	Water	Matrix spike holding time was exceeded for NO ³ .

SECTION 5

ACTIVITIES FOR UPCOMING REPORTING PERIODS

5.1 FOURTH QUARTER FY07

This section describes the activities that were completed during the fourth quarter of FY07, the upcoming reporting period. Results of these activities will be reported in the next Quarterly Progress Report, scheduled for submittal to DTSC in February 2008.

Groundwater Monitoring

The number of groundwater samples submitted for each type of analysis during the fourth quarter of FY07 is shown in the following table:

Number of Groundwater Samples Collected During the Fourth Quarter of FY 2007

	VOCs	TPH				PCBs	Metals	Tritium	Total
		D	G	K	FI				
Monitoring Wells Primary Samples	162	6	1	3	7	6	13	13	211
Temporary Sampling Points	118					1	7	15	141
Extraction/Injection Wells	72								72
Slope Stability Wells								4	4
Duplicate Samples	6			1		1	1	1	10
Trip Blanks	15								15
Rinse Blanks	11								11

VOCs: Volatile Organic Compounds

TPH-D: Total Petroleum Hydrocarbons in the diesel range

TPH-G: Total Petroleum Hydrocarbons in the gasoline range

TPH-K: Total Petroleum Hydrocarbons in the kerosene range

TPH-FI: Total Petroleum Hydrocarbons-fuel identification

PCBs: Polychlorinated Biphenyls

In addition to the samples noted above, 28 samples were collected and analyzed for hydrochemical parameters indicative of natural attenuation.

Documents

The following documents were submitted to the regulatory agencies:

- On July 26, 2007, LBNL submitted a permit application to the City of Berkeley to construct two groundwater extraction wells (EW58-07-1 and EW58-07-2) and one temporary groundwater sampling point (SB10-07-1).
- On May 14, 2007, LBNL submitted the Quarterly Progress Report for the First Quarter of FY07 to the DTSC, in compliance with LBNL's RCRA Part B Permit.
- On August 16, 2007, LBNL notified the DTSC of a possible newly discovered release of hazardous waste or hazardous constituents at the Building 10 demolition site. On September 12, 2007, LBNL submitted a letter to DTSC rescinding the August 24 Release Notification based on the results of an extensive environmental investigation of the site. On October 12, 2007 (first quarter of FY08), LBNL submitted the Environmental Investigation Report for the Former Building 10 Site to the DTSC.
- On August 18, 2007, LBNL submitted a permit application to the City of Berkeley to construct five temporary groundwater sampling points (SB10-07-2 through SB10-07-6) at the former Building 10 site.

Meetings

On August 2, 2007, LBNL together with DTSC staff presented the status of LBNL ERP activities to the City of Berkeley Community Environmental Advisory Commission (CEAC)

Corrective Measures for Groundwater

The corrective measures for groundwater described in Section 3.1 continued through the third quarter of FY07. In addition, the following new activities were implemented to enhance the existing corrective measures or evaluate their effectiveness.

Old Town Groundwater Solvent Plume (Building 7 lobe)

One groundwater extraction well (EW58-07-1) was installed at the downgradient edge of the core area of the Building 7 lobe of the Old Town Groundwater Solvent Plume. The purpose of the extraction wells is to provide additional control on plume migration and to flush contaminants from the groundwater. The well was installed to a total depth of 30.1 feet and constructed with 5-inch diameter PVC casing. Twenty feet of screen was installed in the bottom

of the well. The extracted water will be piped to the holding tank on the Building 53/58 slope and treated at the Building 7 Treatment System.

Environmental Investigation at the Former Building 10 Site

The environmental investigations at the Former Building 10 site continued. To assess potential impacts to groundwater, a temporary groundwater sampling point (SB10-07-1) was installed on August 1, 2007 to a depth of 70 feet in the estimated downgradient direction (south-southeastward) from the area of the pipe breaks. Soil samples were collected from the well boring at depths of 5 feet and 10 feet, then at 10-foot intervals to the total depth. All of the samples were analyzed for VOCs and the 5-foot sample was also analyzed for metals. On August 15, 2007, a pre-development groundwater sample was collected from SB10-07-1 and analyzed for VOCs and for metals. On August 21, 22, and 23, 2007, five additional temporary groundwater sampling points (SB10-07-2 through SB10-07-6) were installed beneath the former Building 10 footprint. The purpose of the additional sampling points was to provide a detailed evaluation of potential groundwater contamination in the Building 10 area and to determine the local groundwater gradient. Soil samples were collected at 5-foot intervals from all five well borings and analyzed for VOCs.

On September 4, 2007, following development of all six temporary sampling points, groundwater samples were collected and analyzed for VOCs and on September 5, 2007 groundwater samples were collected and analyzed for metals. On September 6, 2007, duplicate groundwater samples were collected from temporary groundwater sampling point SB10-07-1 and analyzed for VOCs.

To provide a more comprehensive evaluation of potential releases from the sewer lines, 30 soil gas probes were installed on July 19 and July 24, 2007 along the former sewer line alignments under Building 10. Soil gas screening was conducted on October 1 and October 2, 2007.

The Building 76 Present and Former Waste Accumulation Area (WAA) #3, (SWMU 4-6)

Ten soil samples were collected from five borings at the Building 76 Present and Former Waste Accumulation Area (WAA) #3 and analyzed for cadmium. The purpose of the sampling was to collect sufficient data to assess cadmium concentrations near a previous sampling location where the cadmium concentration in a single sample slightly exceeded the background level.

5.2 FIRST 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 first quarter of FY08 (October 1, 2007 to December 31, 2007):

- Submit the Quarterly Progress Report for the third quarter of FY07 to the DTSC.
- Continue to hold RPM meetings with the regulatory agencies as needed.
- Conduct quarterly groundwater sampling and continue depth-to-water measurements.
- Submit a report describing the environmental investigations at the Former Building 10 site to the DTSC.

SECTION 6

REFERENCES

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- LBNL, 1992a.** RCRA Facility Assessment at the Lawrence Berkeley Laboratory. Lawrence Berkeley Laboratory Environmental Restoration Program, Lawrence Berkeley Laboratory, Berkeley, California, September 30, 1992.
- LBNL, 1992b.** RCRA Facility Investigation Work Plan for the Lawrence Berkeley Laboratory. Environmental Restoration Program, Lawrence Berkeley Laboratory, Berkeley, California, October 30, 1992.
- LBNL, 1993-2007.** Quarterly Progress Reports, (includes reports covering Second Quarter Fiscal Year 1993 [January 1 to March 31, 1993] through Second Quarter Fiscal Year 2007 [January 1 to March 31, 2007] for the LBNL Hazardous Waste Facility Permit. Environmental Restoration Program, Lawrence Berkeley National Laboratory, Berkeley, California, August 1993 through August 2007.
- LBNL 2002.** Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory, Environmental Restoration Program, June, 2002.
- LBNL, 2005a.** RCRA Corrective Measures Study Report for the Lawrence Berkeley National Laboratory Environmental Restoration Program. Lawrence Berkeley National Laboratory, Berkeley, California, February 2005.
- LBNL, 2005b.** RCRA Corrective Measures Implementation (CMI) Workplan for the Lawrence Berkeley National Laboratory Environmental Restoration Program. Lawrence Berkeley National Laboratory, Berkeley, California, November 2005.
- LBNL, 2005c.** 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.** Quarterly Progress Report and Annual Status Summary, Fourth Quarter Fiscal Year 2006 (July 1 to September 30, 2006) for the Lawrence Berkeley National Laboratory Hazardous Waste Facility Permit, Environmental Restoration Program, Lawrence Berkeley National Laboratory, Berkeley, California, February 2007.
- LBNL, 2007b.** RCRA Corrective Measures Implementation (CMI) Report for the Lawrence Berkeley National Laboratory Environmental Restoration Program. Lawrence Berkeley National Laboratory, Berkeley, California, January 2007.

Water Board, 1999. Proposal for Revised Groundwater Monitoring Schedule dated June 1999, Letter from Michael Rochette (Water Board) to Iraj Javandel (LBNL), July 27, 1999.

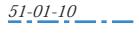
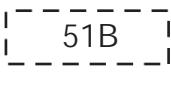
Water Board, 2005. Water Board Approval of the Proposal for a Revised Groundwater Monitoring Schedule for Lawrence Berkeley National Laboratory, May 2005, Letter from Michael Rochette (Water Board) to Iraj Javandel (LBNL), File No. 2199.9026 (MBR), August 1, 2005.

LIST OF FIGURES

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- Figure 1. Regional Setting of the Lawrence Berkeley National Laboratory (LBNL).
- Figure 2. Site Topography and Surface Water Sampling Locations, Third Quarter FY06.
- Figure 3. Location 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 6b. Well Location Map of the Central Old Town Area, Lawrence Berkeley National Laboratory.
- Figure 6c. Well Location Map of the Old Town Plume Source Area, Lawrence Berkeley Laboratory.
- Figure 6d. Well Location Map of the Building 71 Area, Lawrence Berkeley National Laboratory.
- Figure 6e. Well Location Map of the Building 51 and Building 64 Area, 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 of Map of the Building 51L Area, Lawrence Berkeley National Laboratory.
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- 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, Third Quarter FY07.
- Figure 9. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater, Source Area Building 51/64 Solvent Plume, Third Quarter FY07.

- Figure 10. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater in Fill, Building 51L Groundwater Solvent Plume, Third Quarter FY07.
- Figure 11. Water Level Elevation Map in the Bevalac Area, Third Quarter FY07.
- Figure 12. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater in the Old Town Area, Third Quarter FY07.
- Figure 13. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater in the Source Area of the Old Town Solvent Plume, Third Quarter FY07.
- Figure 14. Water Level Elevation Map in the Bevalac Area, Third Quarter FY07.
- Figure 15. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater in the Support Services Area, Third Quarter FY07.
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- Figure 17. Extent of Groundwater Contamination Above MCLs, Third Quarter FY07.
- Figure 18. Total Halogenated Hydrocarbons in Groundwater (ug/L) in the Outlying Areas and Perimeter Monitoring Wells, Third Quarter FY07.
- Figure 19. Tritium Concentrations in Groundwater (pCi/L) in Corporation Yard Area, Third Quarter FY07.
- Figure 20. Concentrations of Tritium Detected in Soil Water Samples.
- Figure 21. Extent of Groundwater Contamination (Total VOCs>100ug/L) Third Quarter FY07 Compared to 1999.
- Figure 22. Extent of Groundwater Contamination (Total VOCs>1,000 ug/L) Third Quarter FY07 Compared to 1999.

 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	 17	Surface structure (e.g. buildings, etc.)
 SI-3.63	Slope indicator well	 51B	Former building location
71-95-10 	Vadose zone monitoring well		Groundwater collection trench
	Shallow soil sampling location		Granular activated carbon (GAC) treatment system
 PZ51-92-3	Soil boring		
	Piezometer		
	Spring		
	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.

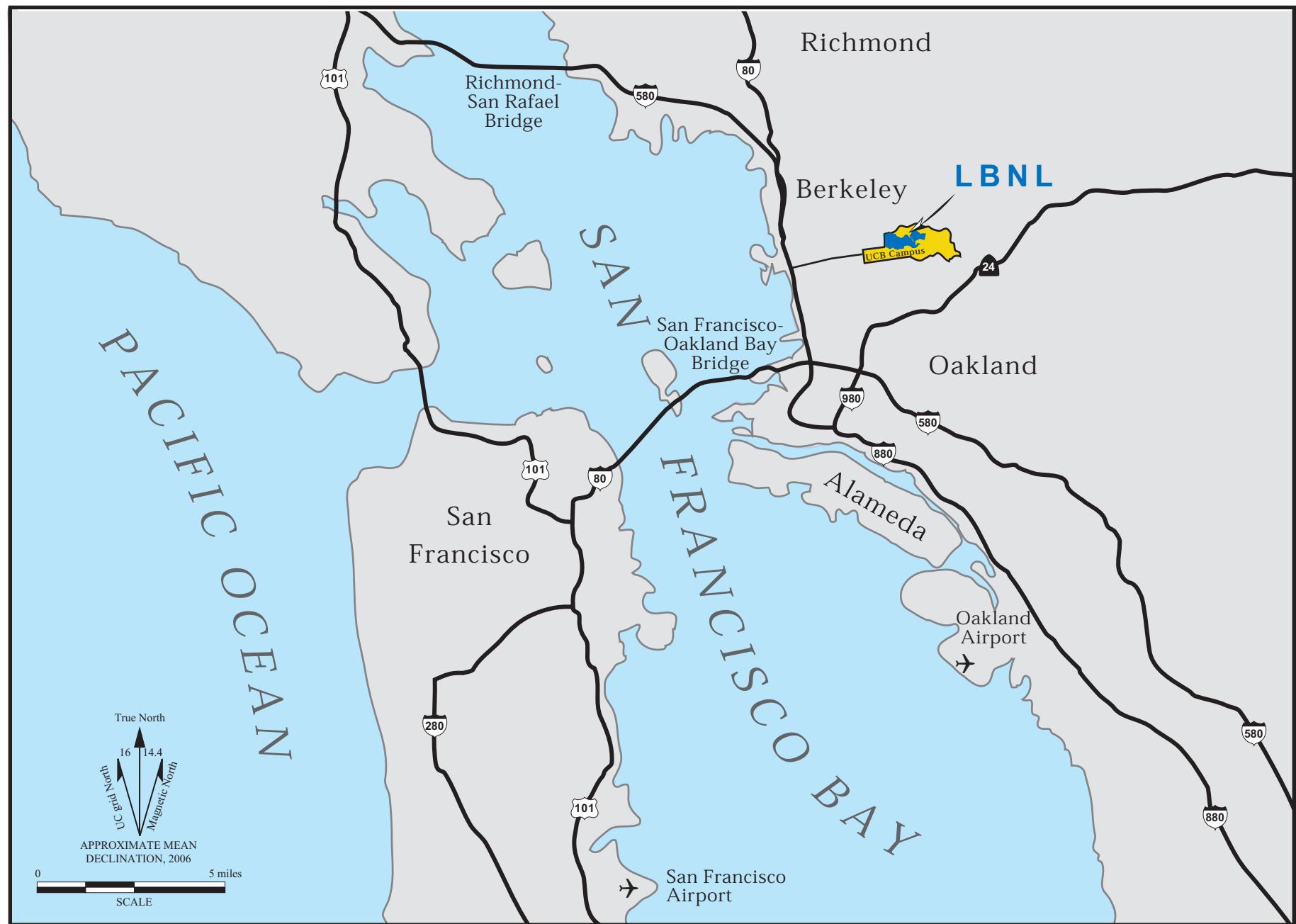


Figure 1. Regional Setting of the Lawrence Berkeley National Laboratory (LBNL).

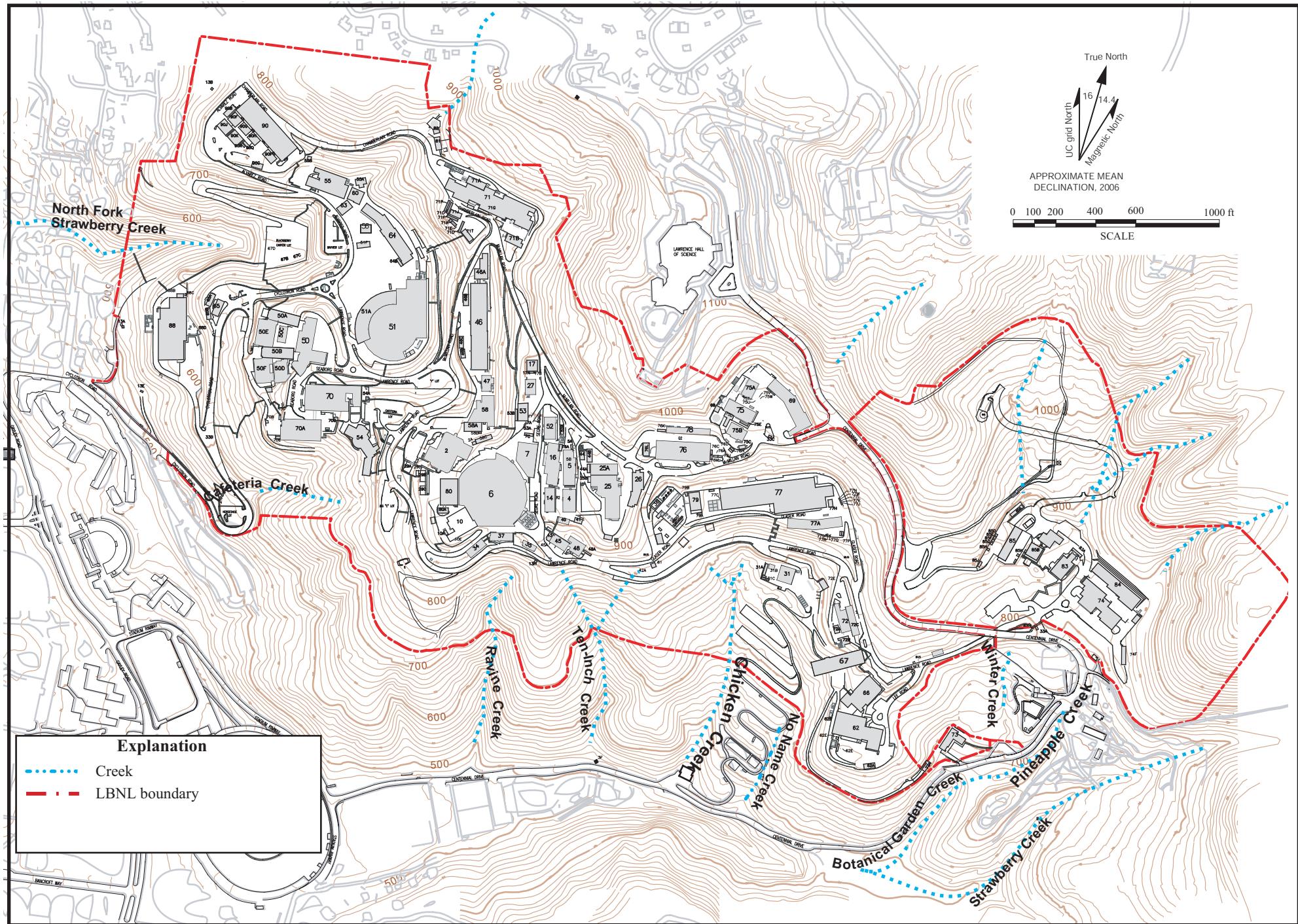


Figure 2. Site Map and Topography, Lawrence Berkeley National Laboratory.

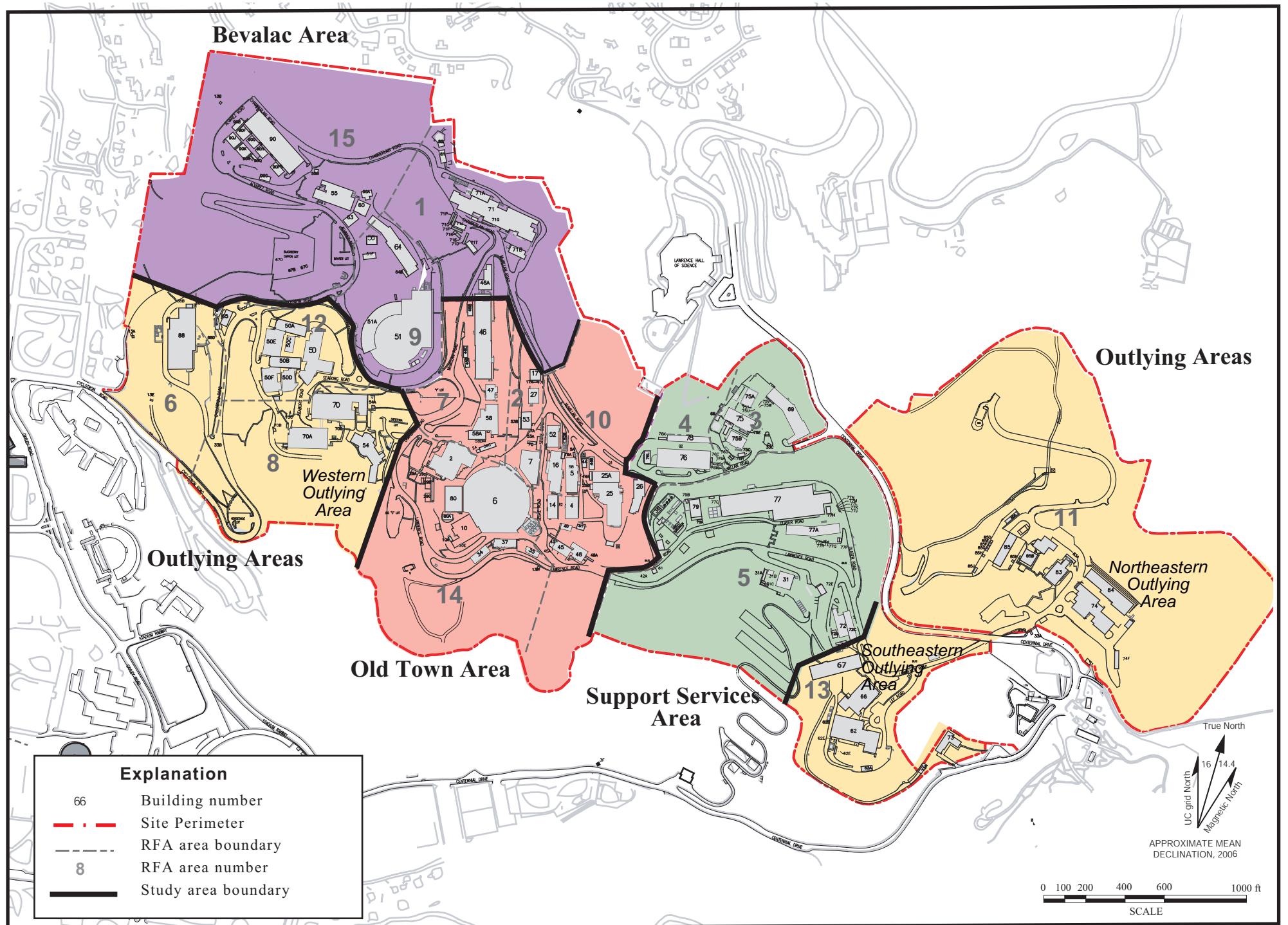


Figure 3. Locations of Study Areas, Lawrence Berkeley National Laboratory.

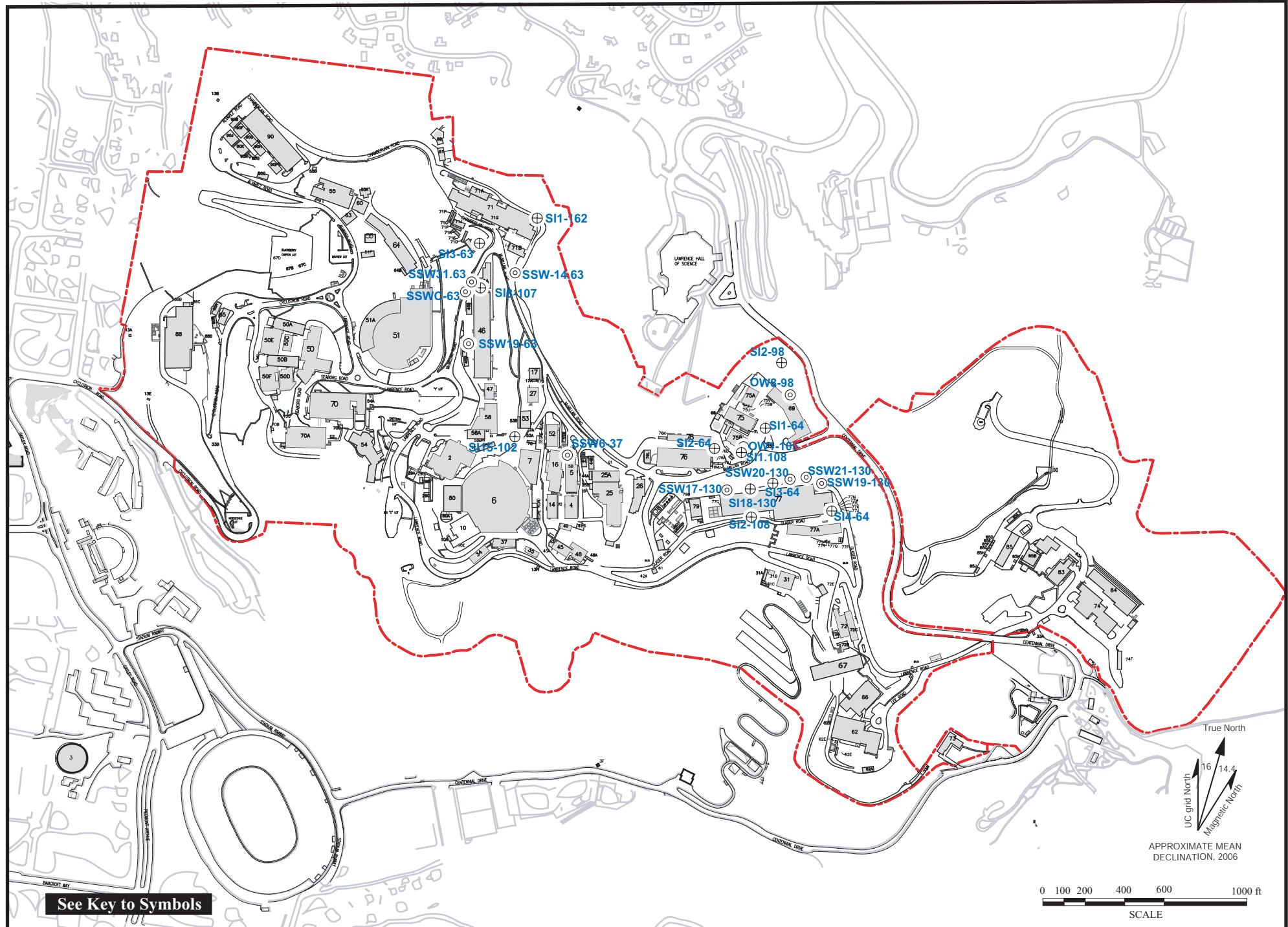


Figure 4. Slope Stability, Slope Indicator, and Observation Well Locations, Lawrence Berkeley National Laboratory (LBNL).

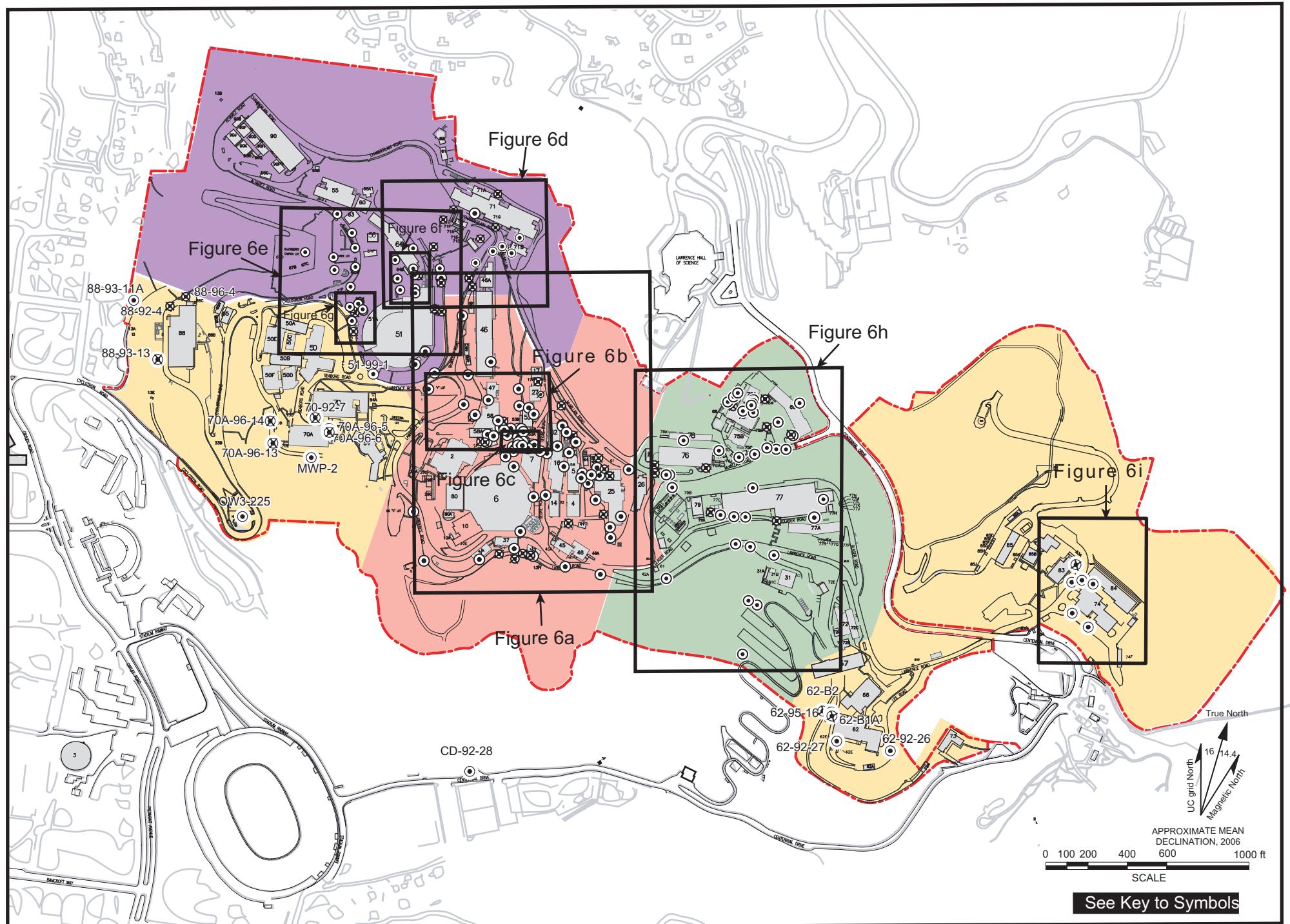


Figure 5. Monitoring Well Locations at Lawrence Berkeley National Laboratory.

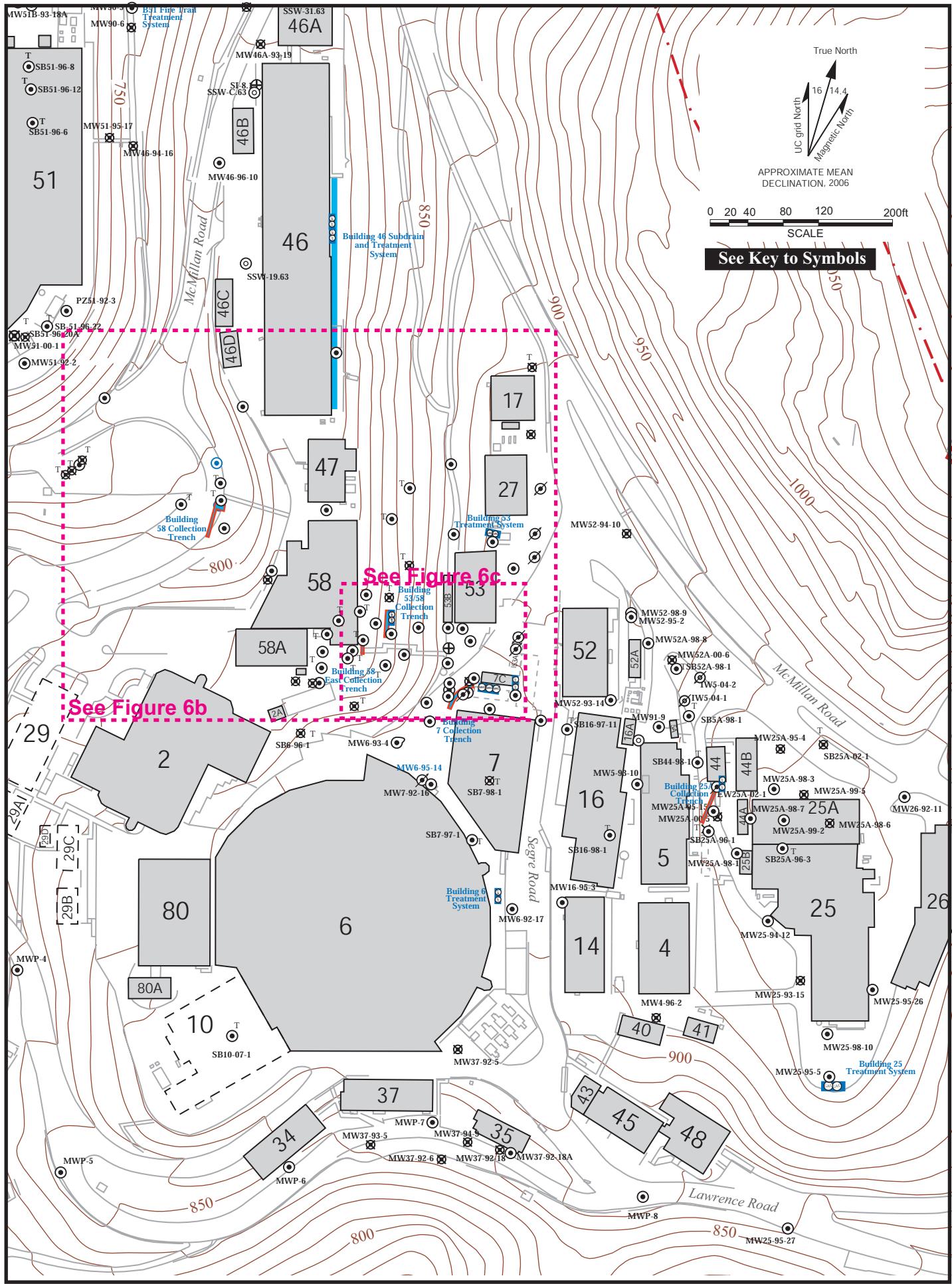


Figure 6a. Well Location Map of Old Town Area, Lawrence Berkeley National Laboratory

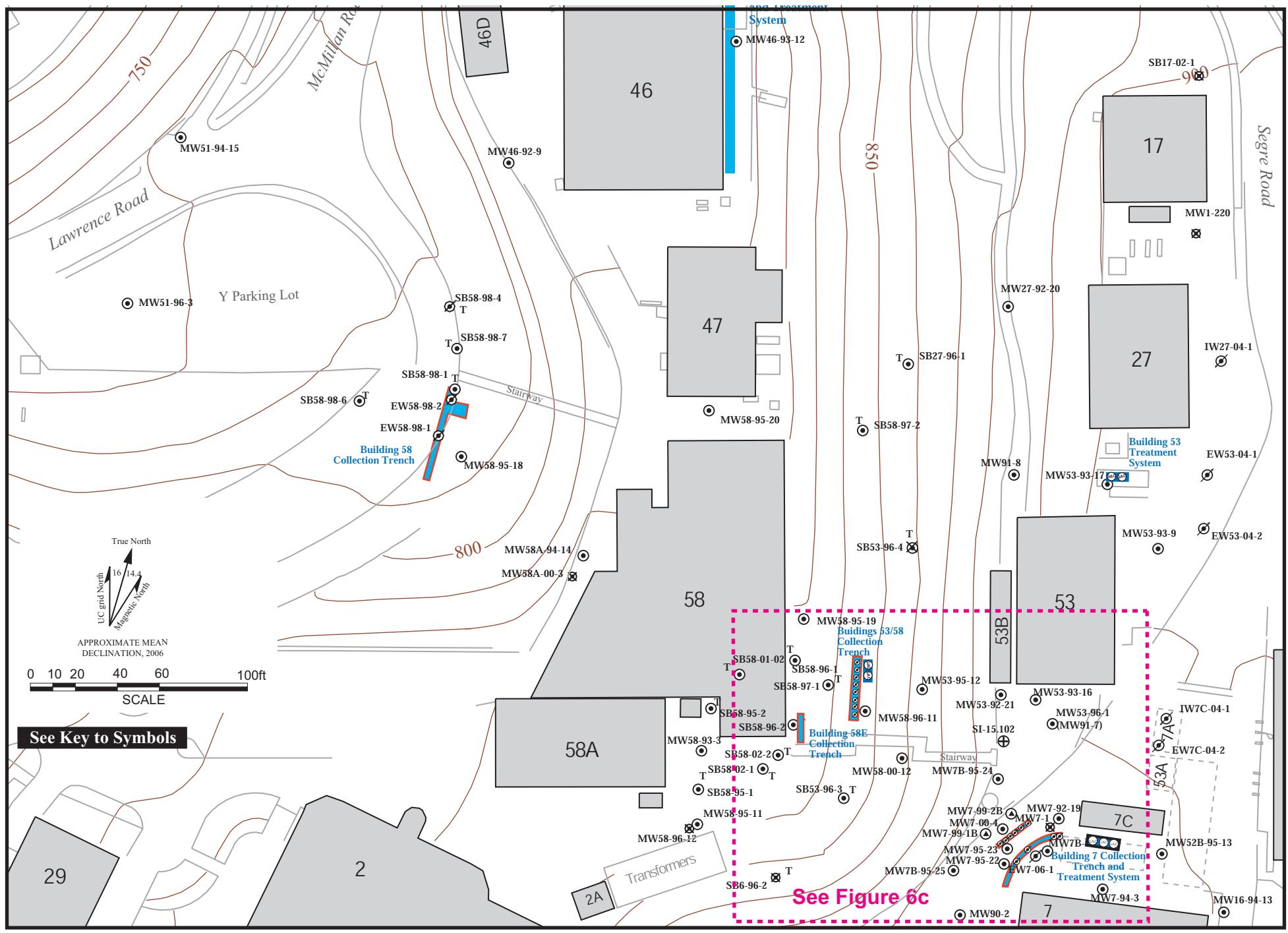


Figure 6b. Well Location Map of the Central Old Town Area, Lawrence Berkeley National Laboratory.

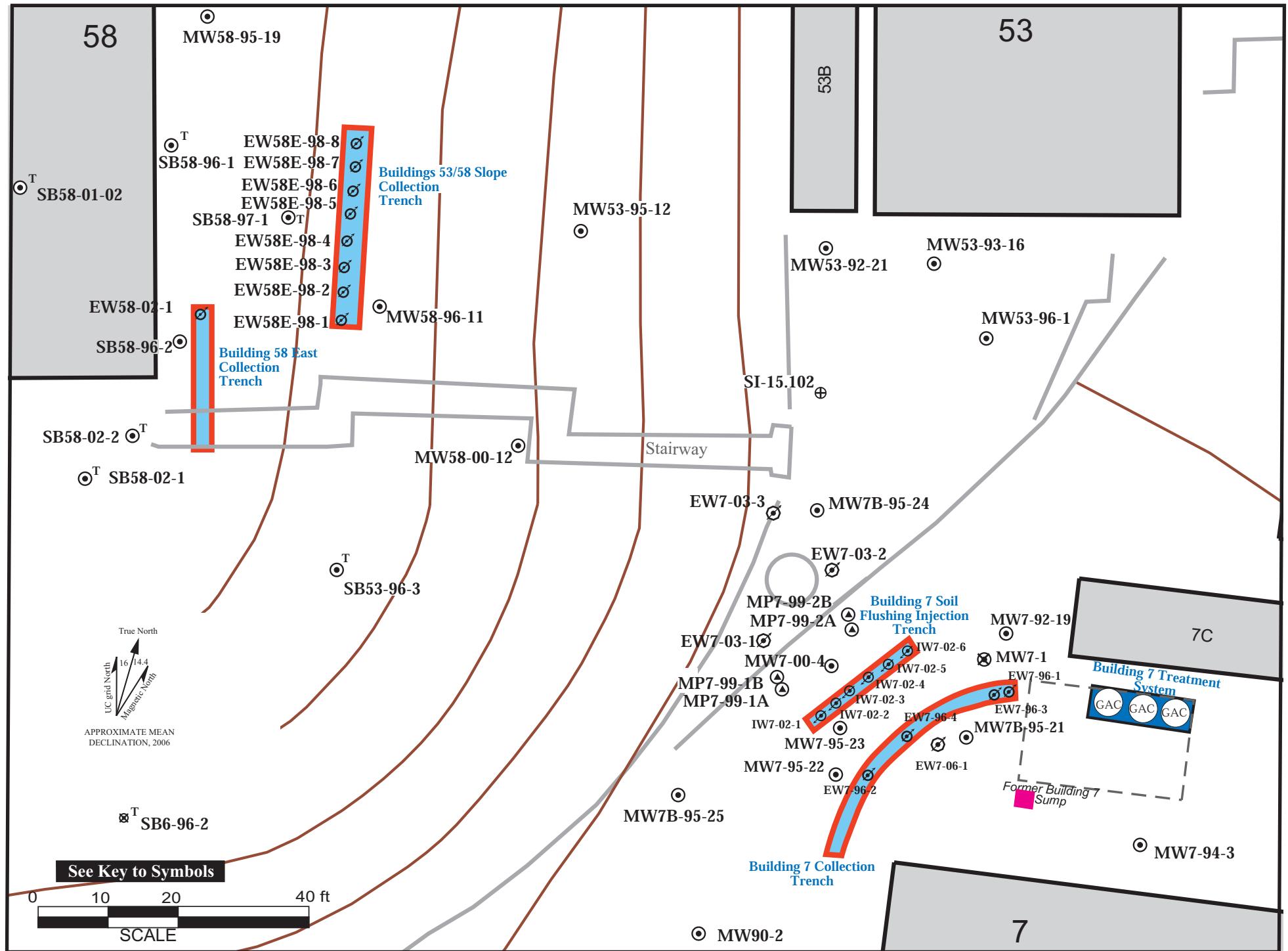
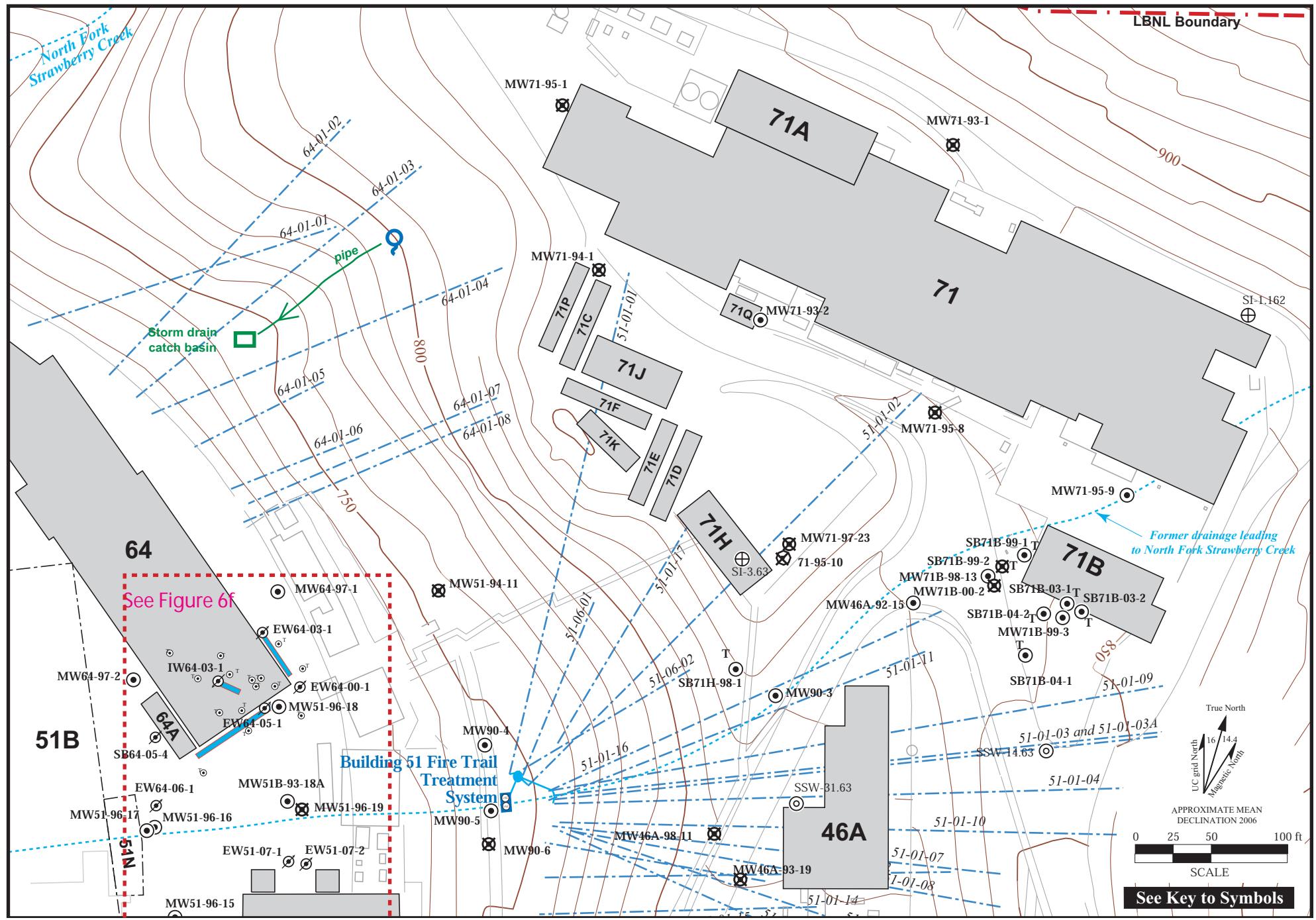


Figure 6c. Well Location Map of the Old Town Plume Source Area, Lawrence Berkeley National Laboratory.



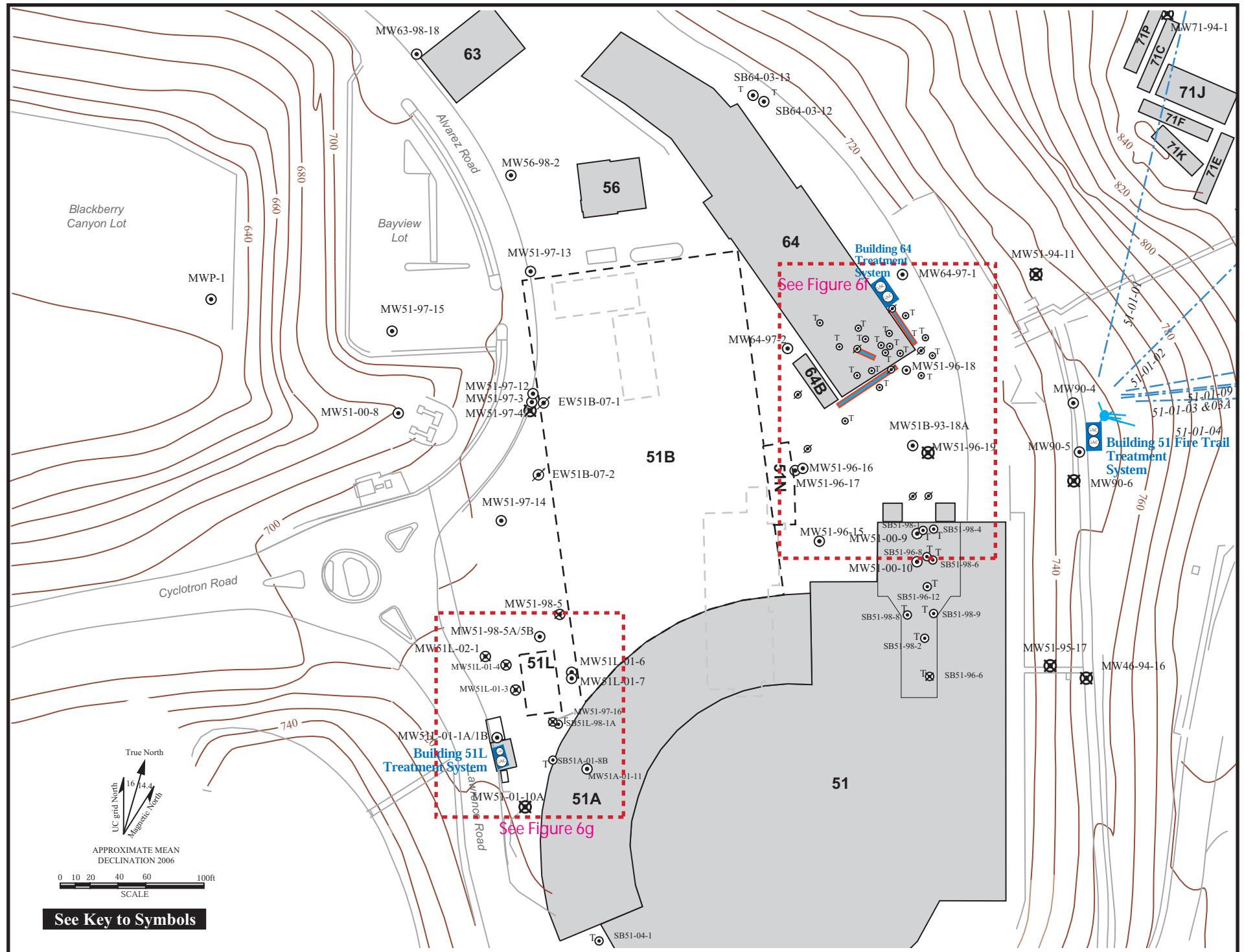


Figure 6e. Well Location Map of the Building 51 and Building 64 Areas, Lawrence Berkeley National Laboratory.

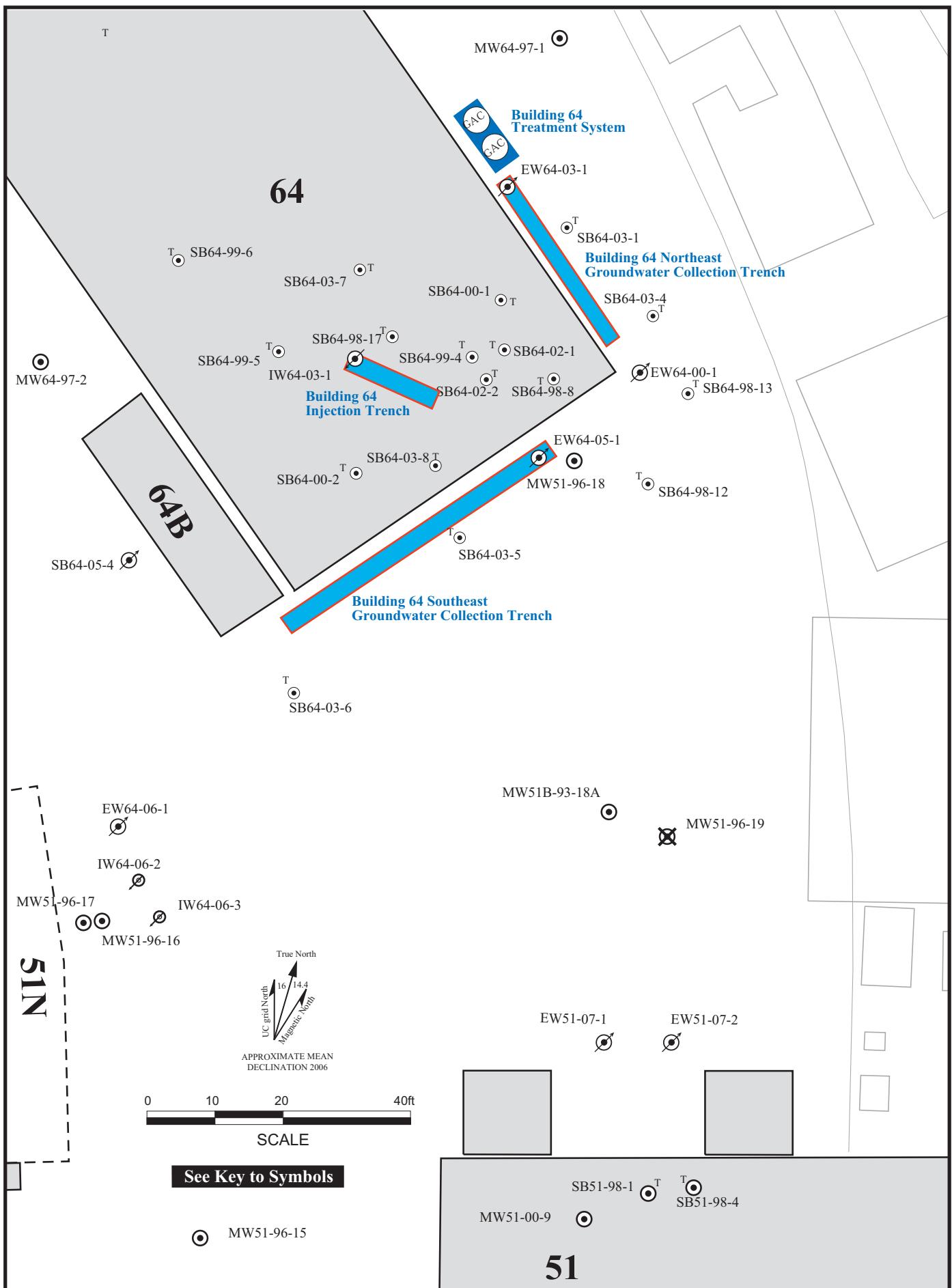


Figure 6f. Well Location Map of the Building 51/64 Plume Source Area, Lawrence Berkeley National Laboratory.

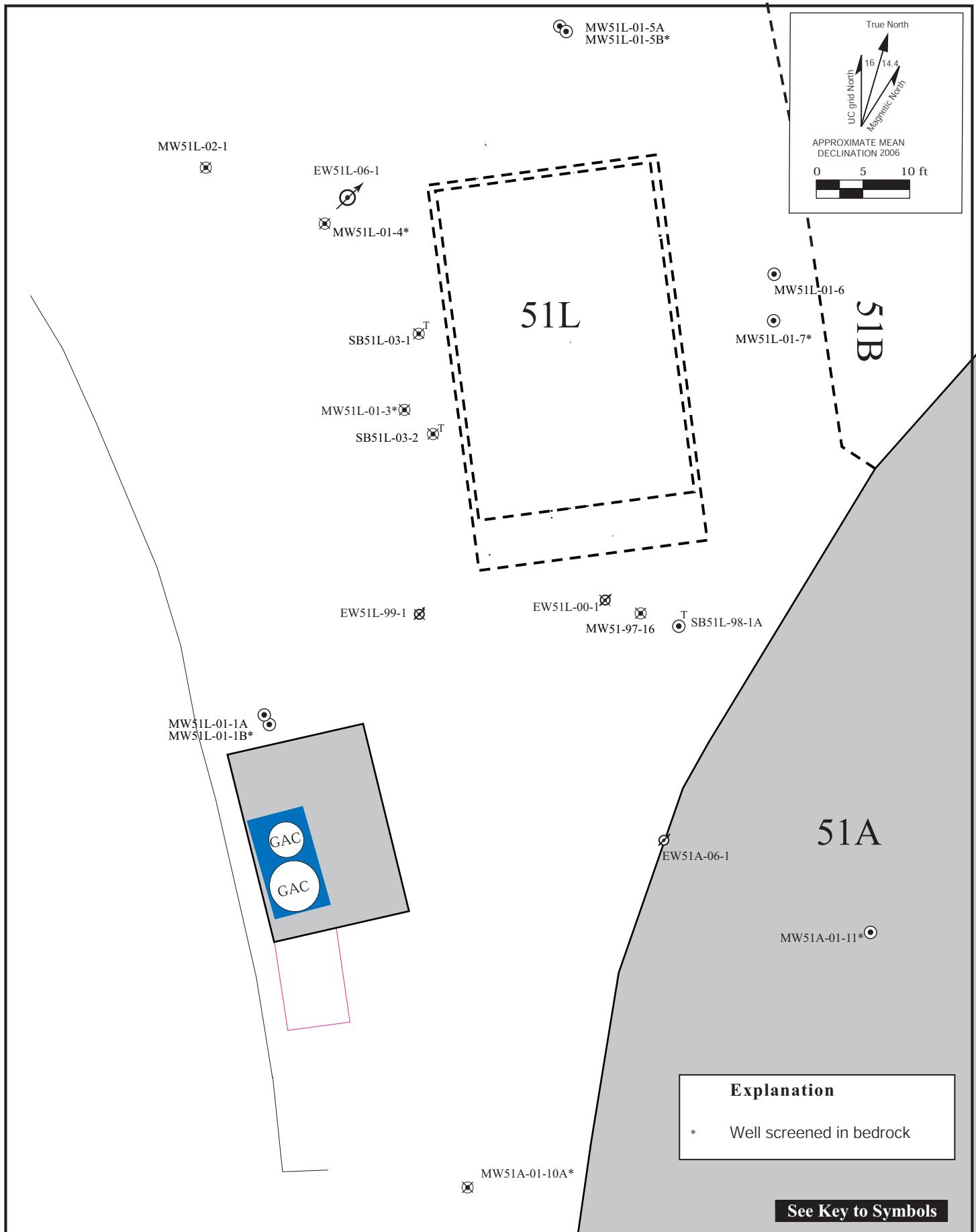


Figure 6g. Well Location Map of the Building 51L Area, Lawrence Berkeley National Laboratory.

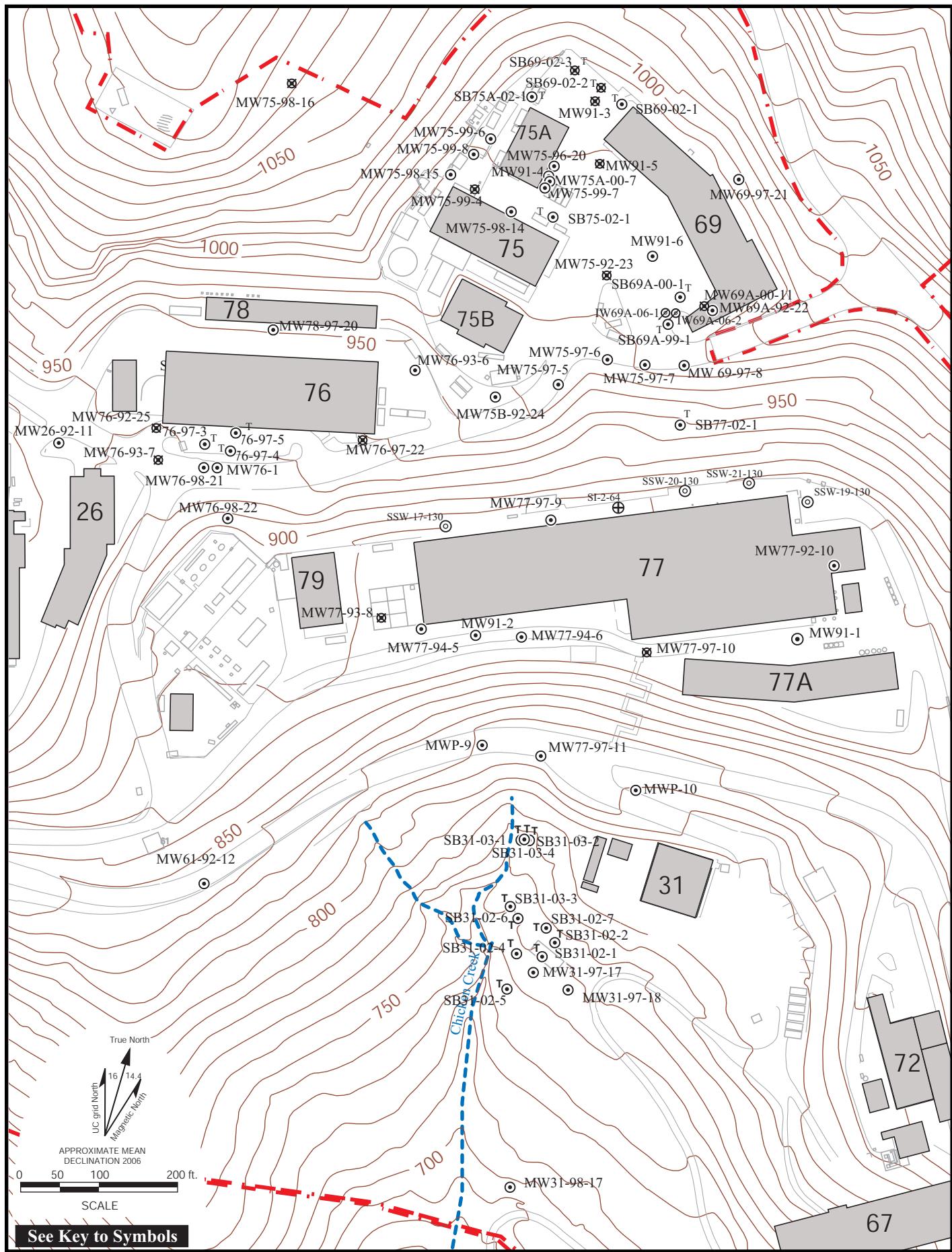


Figure 6h. Well Location Map of the Corporation Yard Area, Lawrence Berkeley National Laboratory.

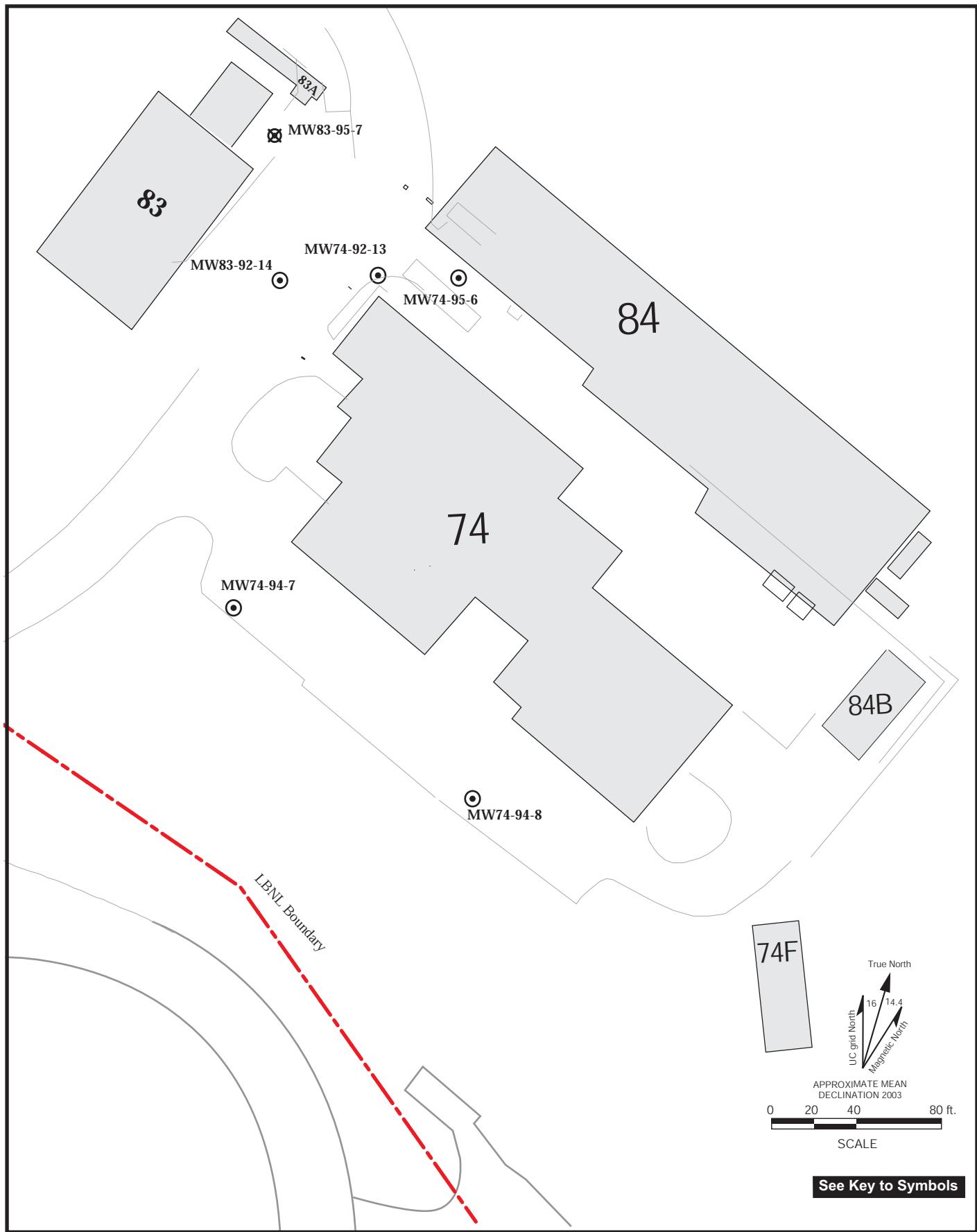


Figure 6i. Well Location Map of the Building 74 Area, Lawrence Berkeley National Laboratory

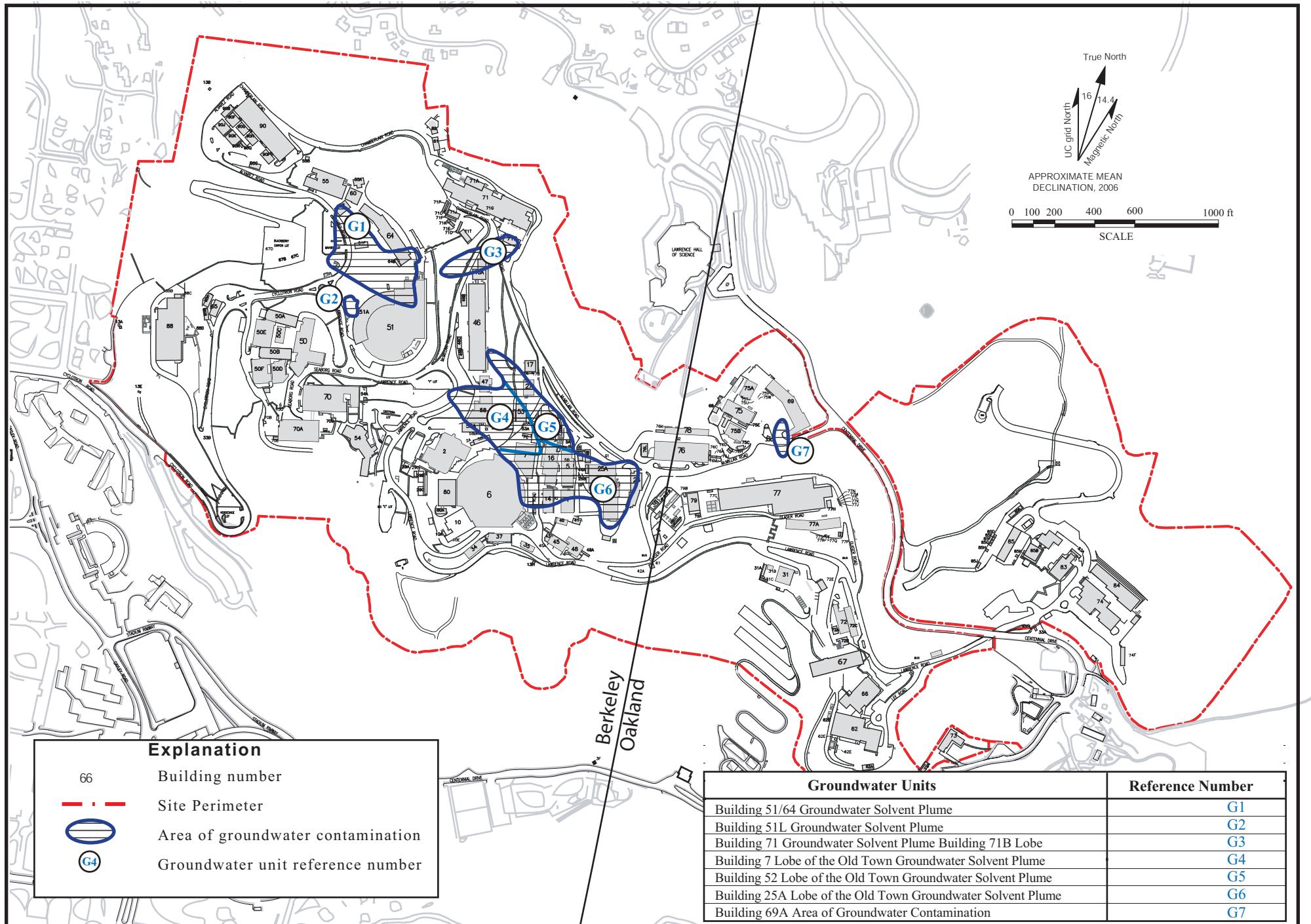


Figure 7. Locations of Groundwater Units Requiring Corrective Measures.

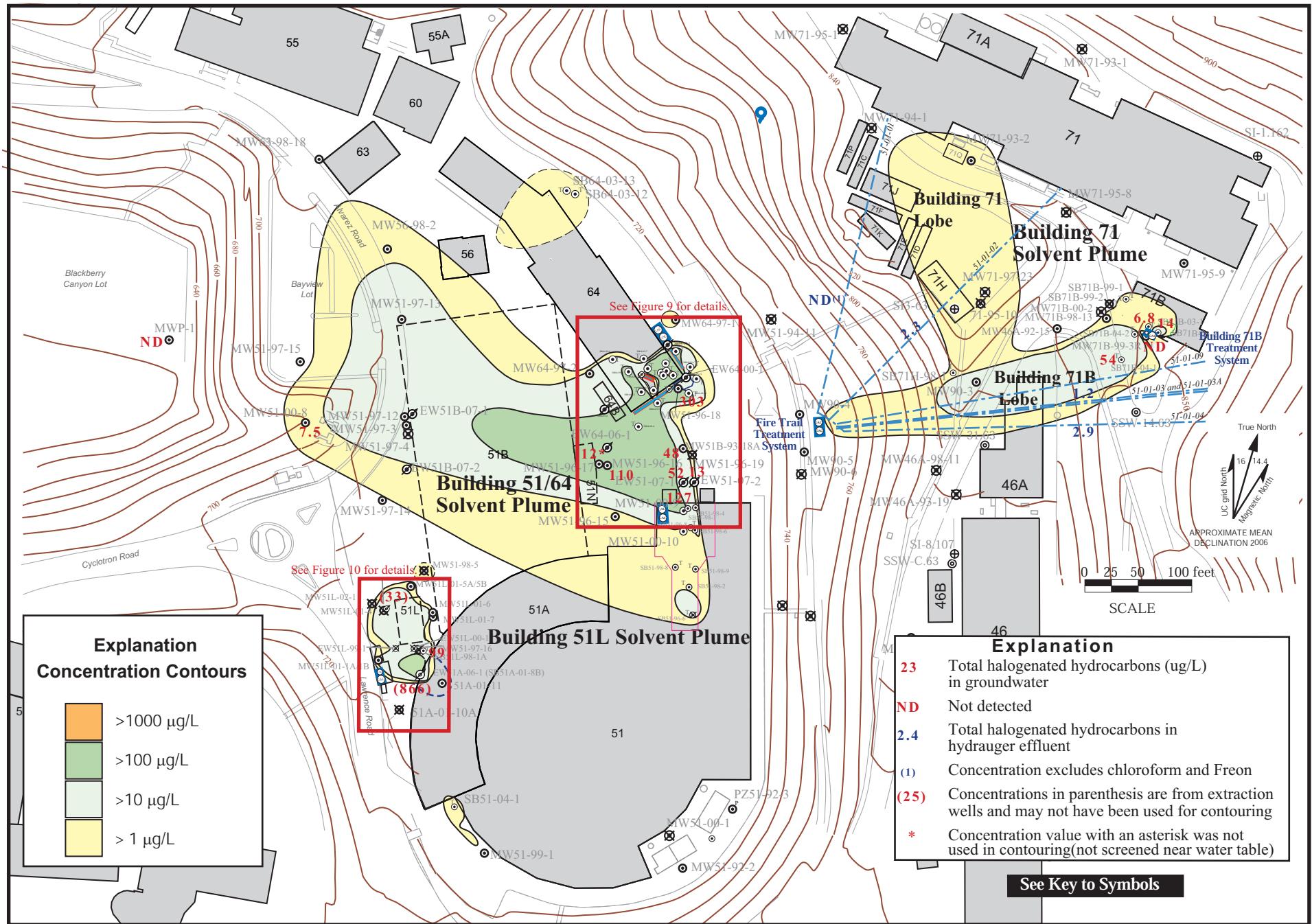


Figure 8. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater (ug/L) in the Bevalac Area, Third Quarter FY07.

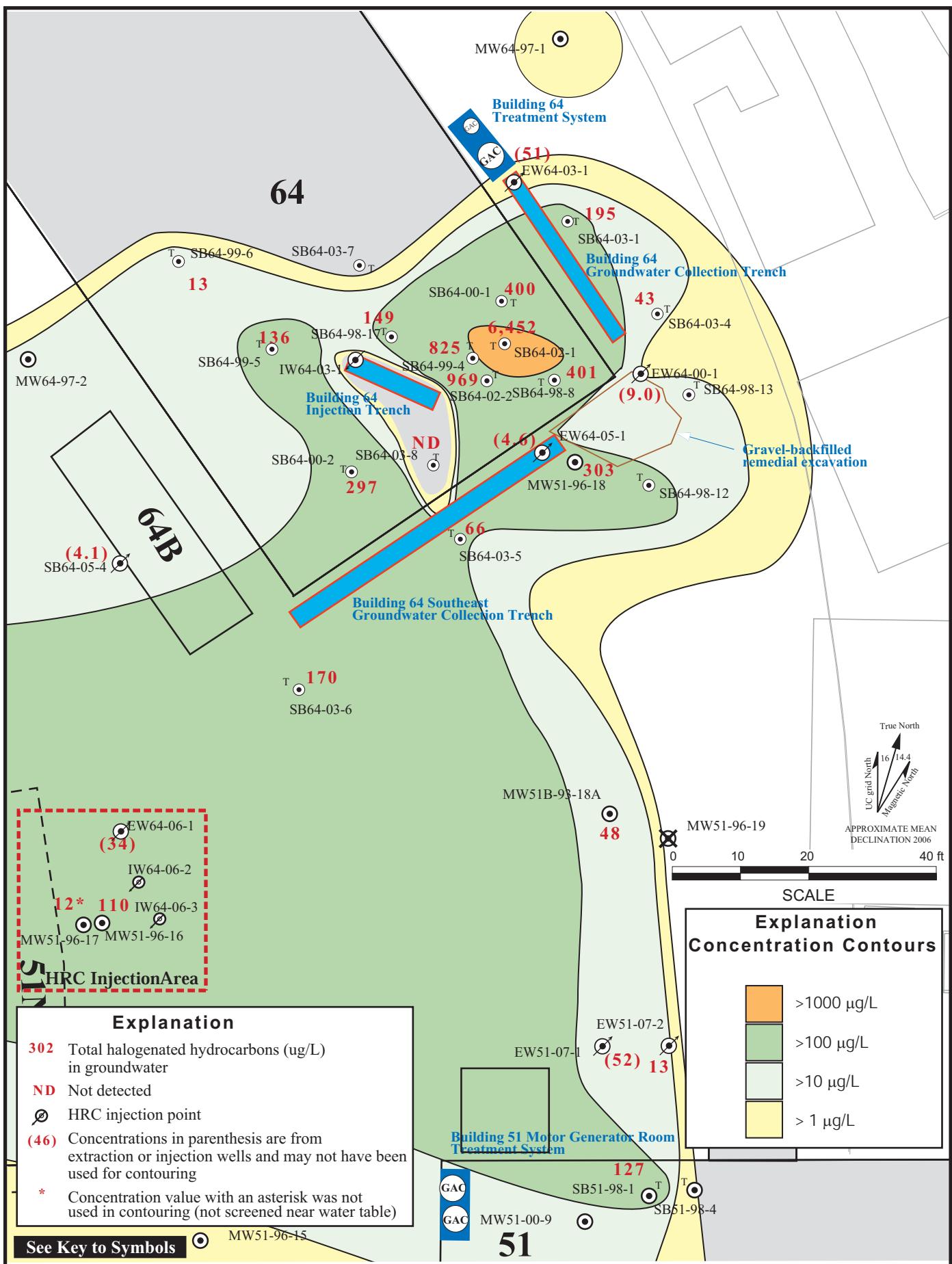


Figure 9. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater (ug/L) in the Source Area of the Building 51/64 Solvent Plume, Third Quarter FY07.

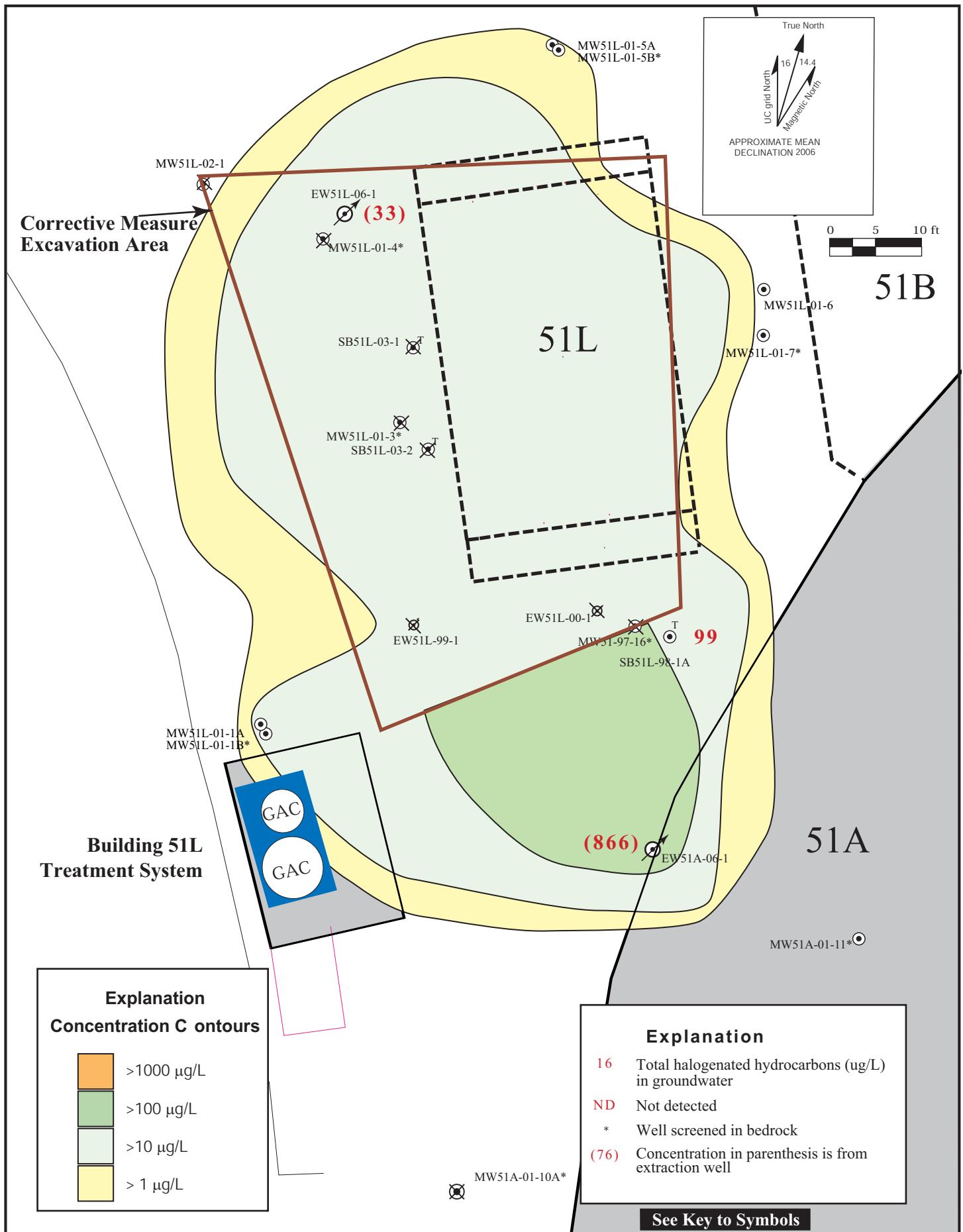


Figure 10. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater in Fill (ug/L), Building 51L Groundwater Solvent Plume, Third Quarter FY07.

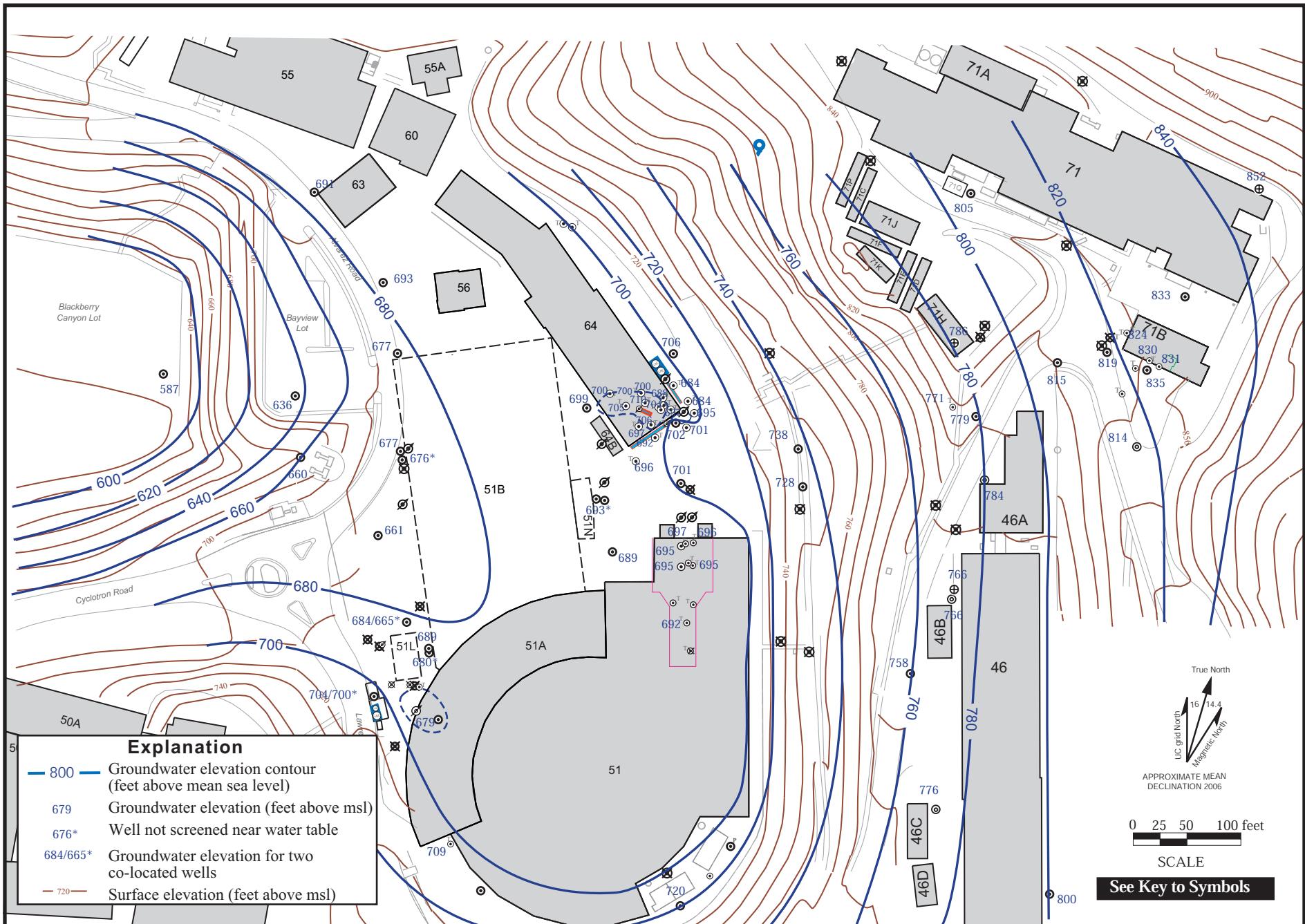


Figure 11. Water Level Elevation Map in the Bevalac Area, Third Quarter FY07.

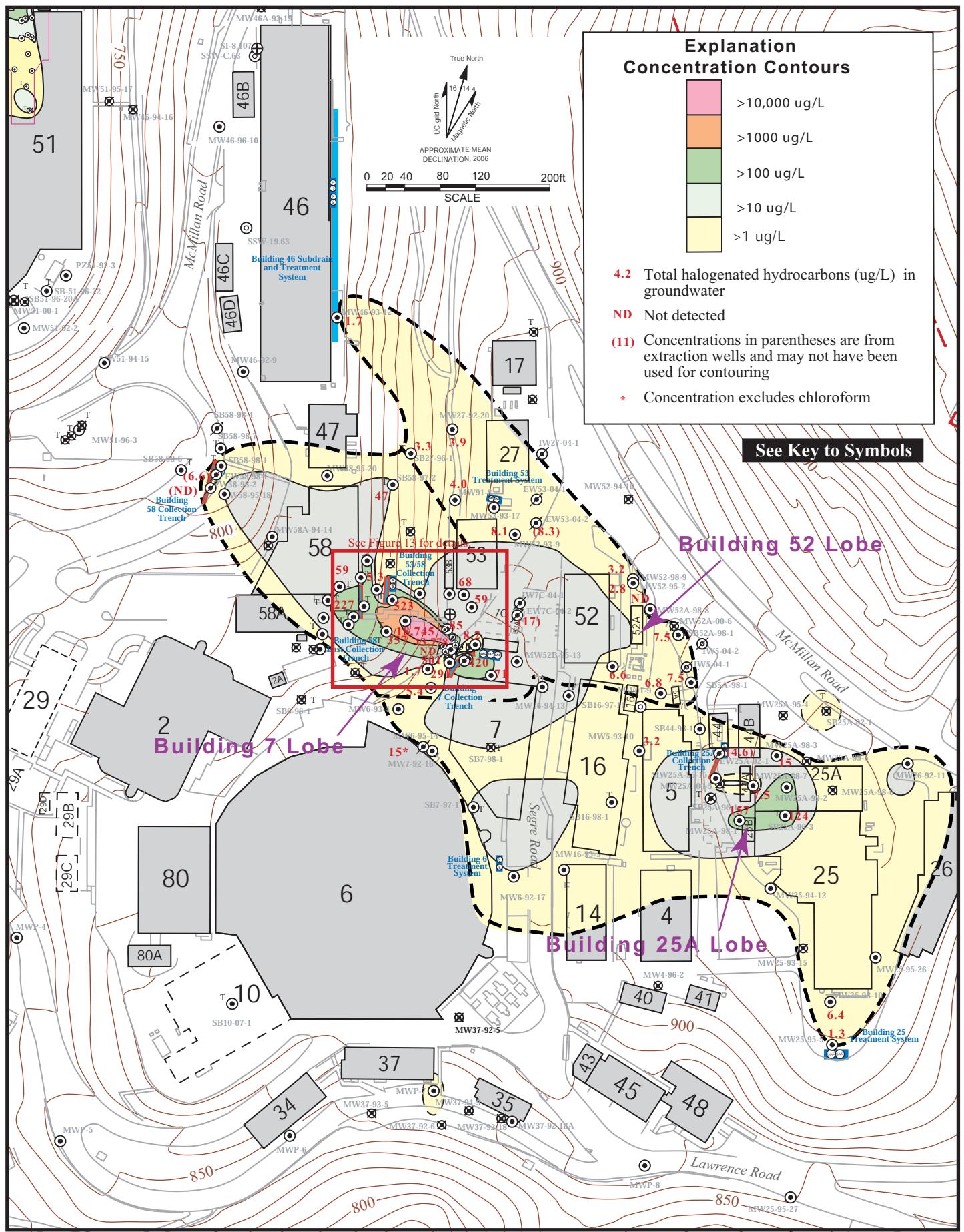


Figure 12. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater (ug/L) in the Old Town Area, Third Quarter FY07.

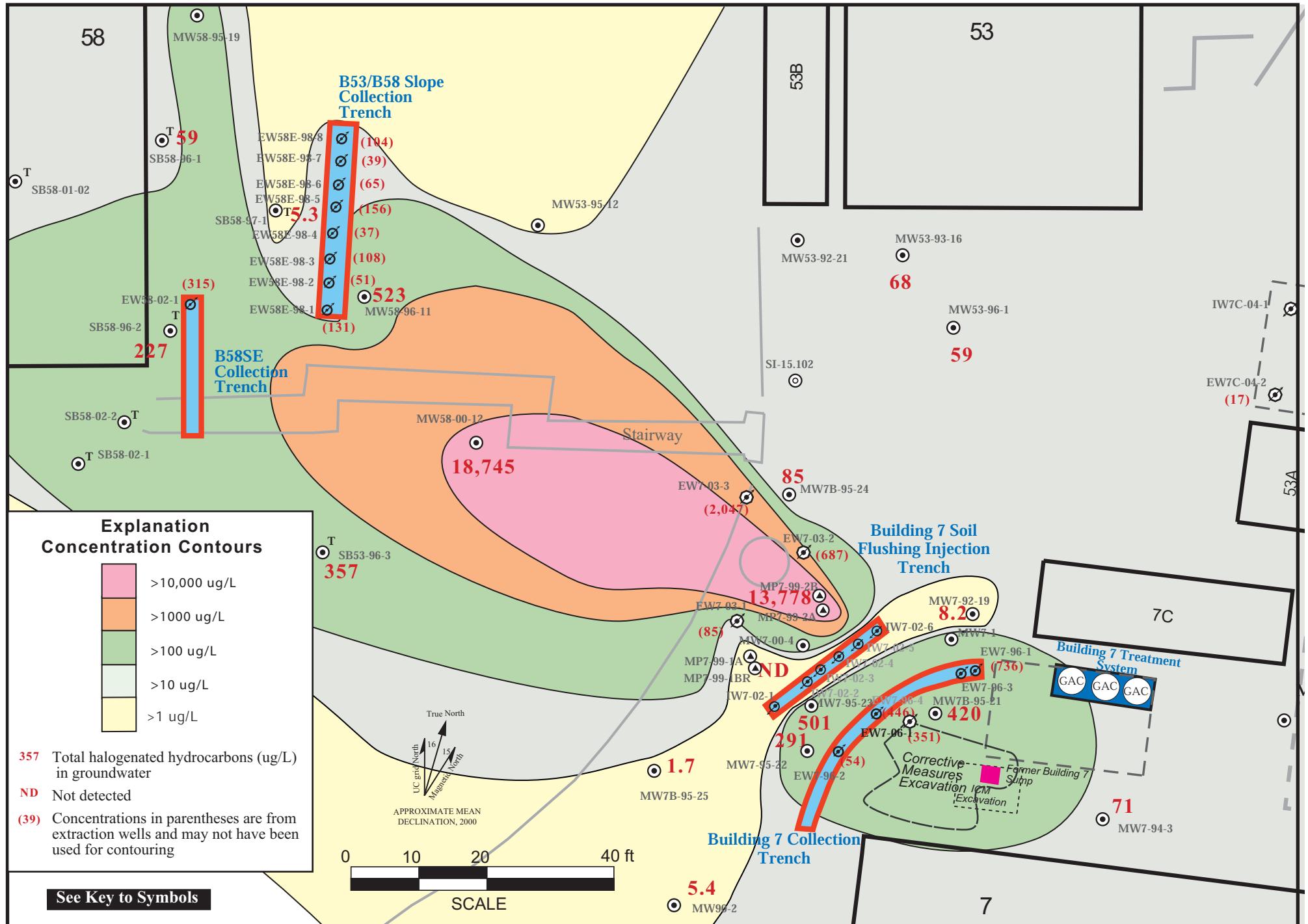


Figure 13. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater (ug/L) in the Source Area of the Old Town Solvent Plume, Third Quarter FY07.

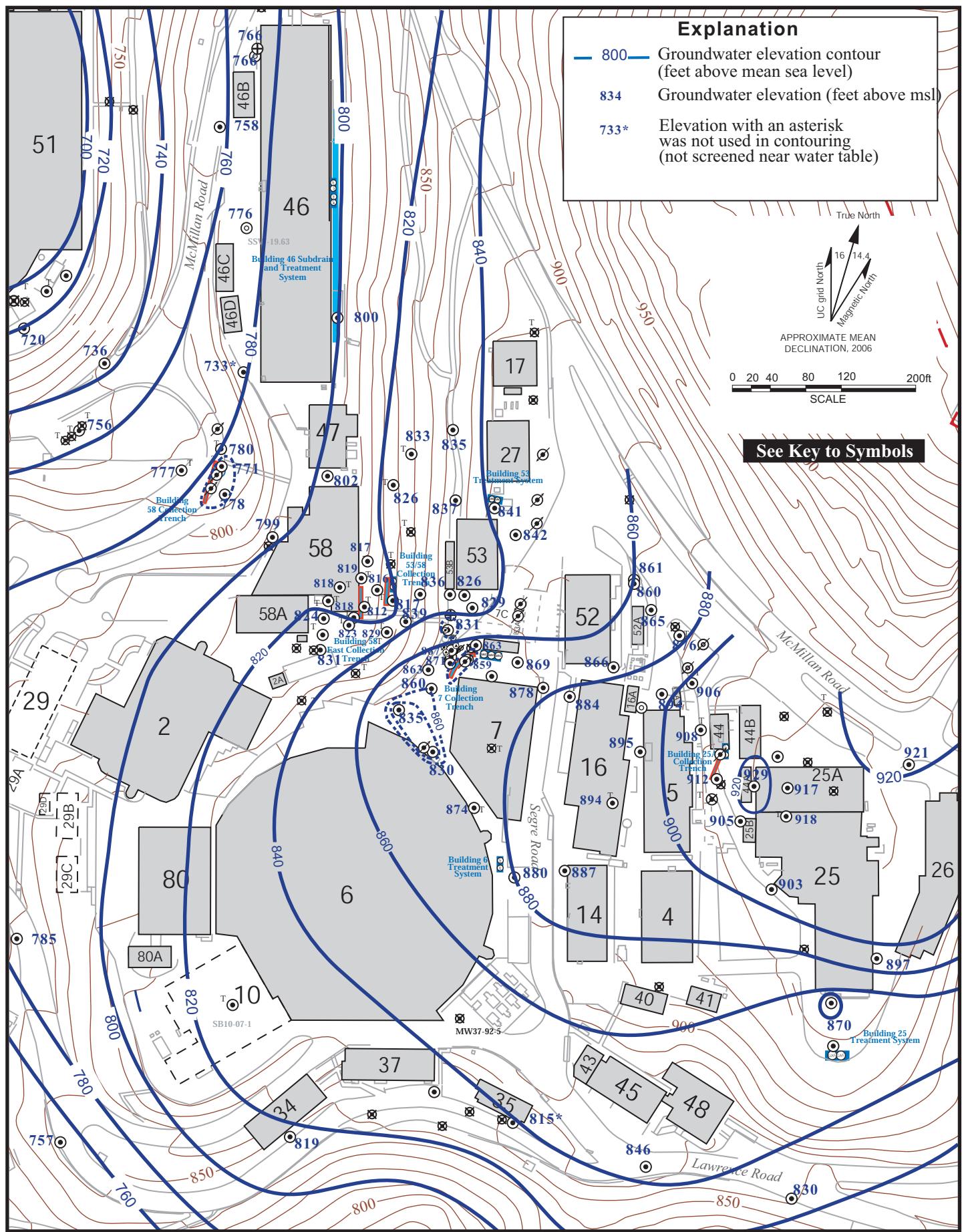


Figure 14. Water Level Elevation Map of the Old Town Area, Third Quarter FY07.

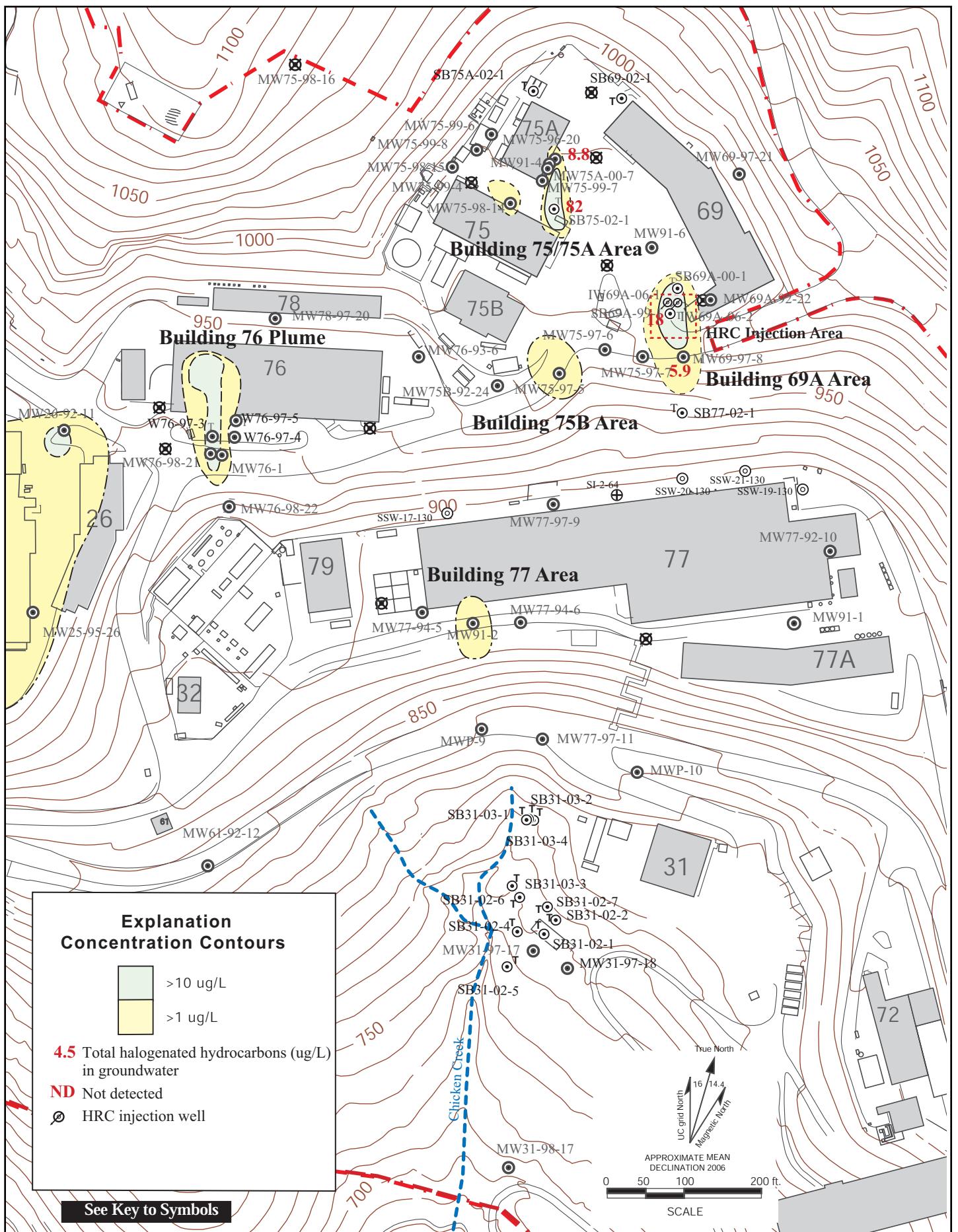


Figure 15. Isoconcentration Contour Map, Total Halogenated Hydrocarbons in Groundwater (ug/L) in the Support Services Area, Third Quarter FY07.

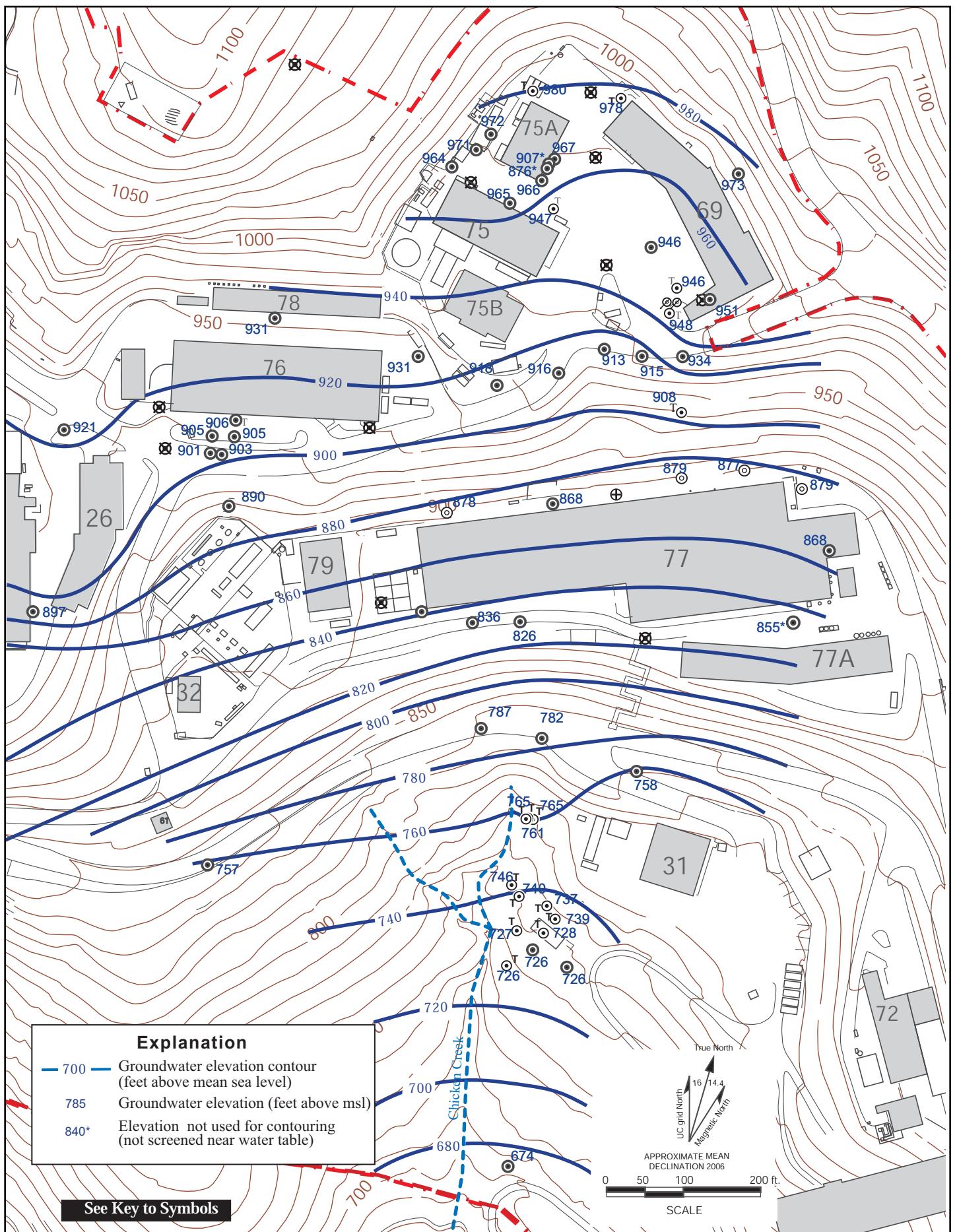


Figure 16. Water Level Elevation Map of the Support Services Area, Third Quarter FY07.

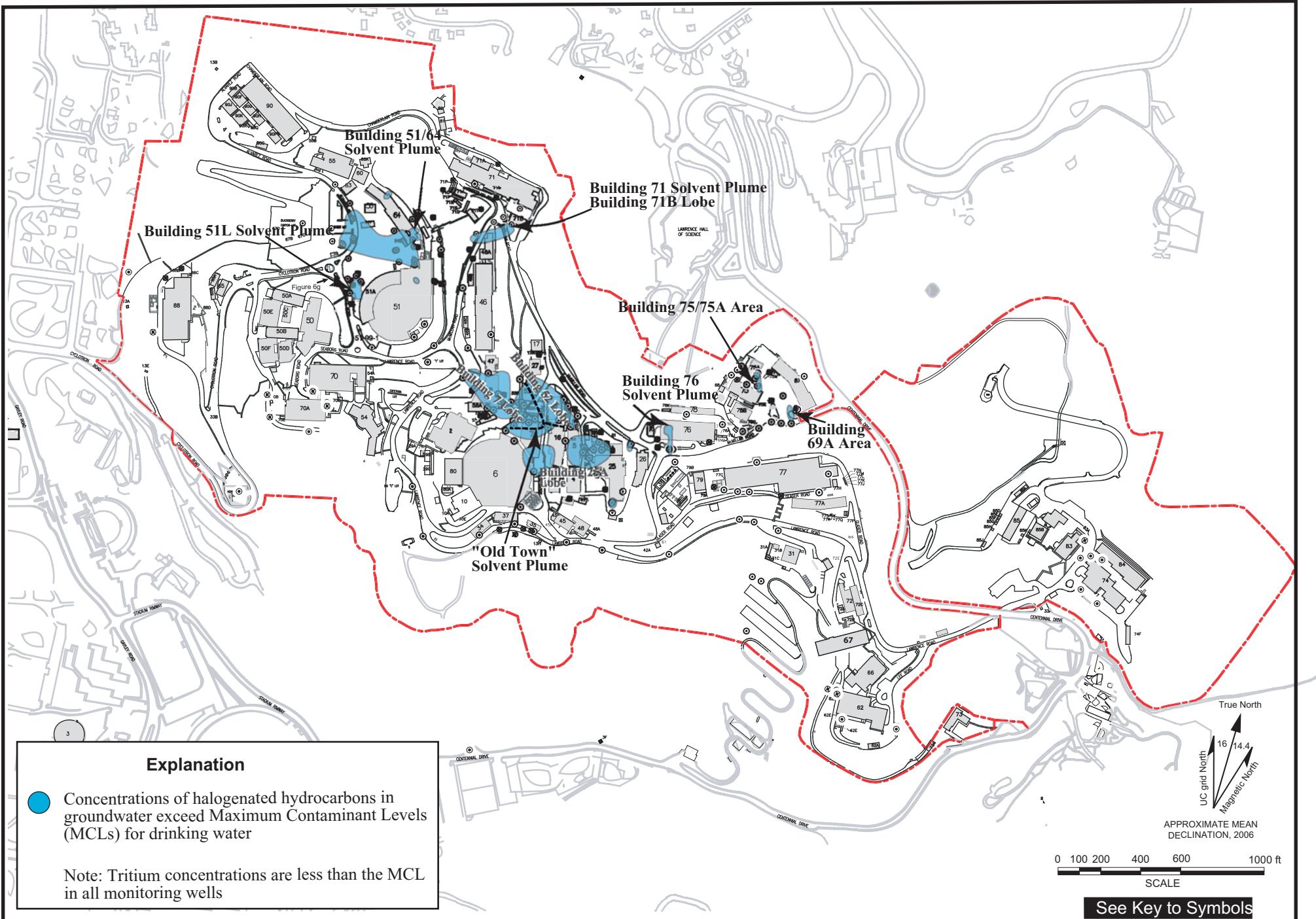


Figure 17. Extent of Groundwater Contamination Above MCLs, Third Quarter FY07.

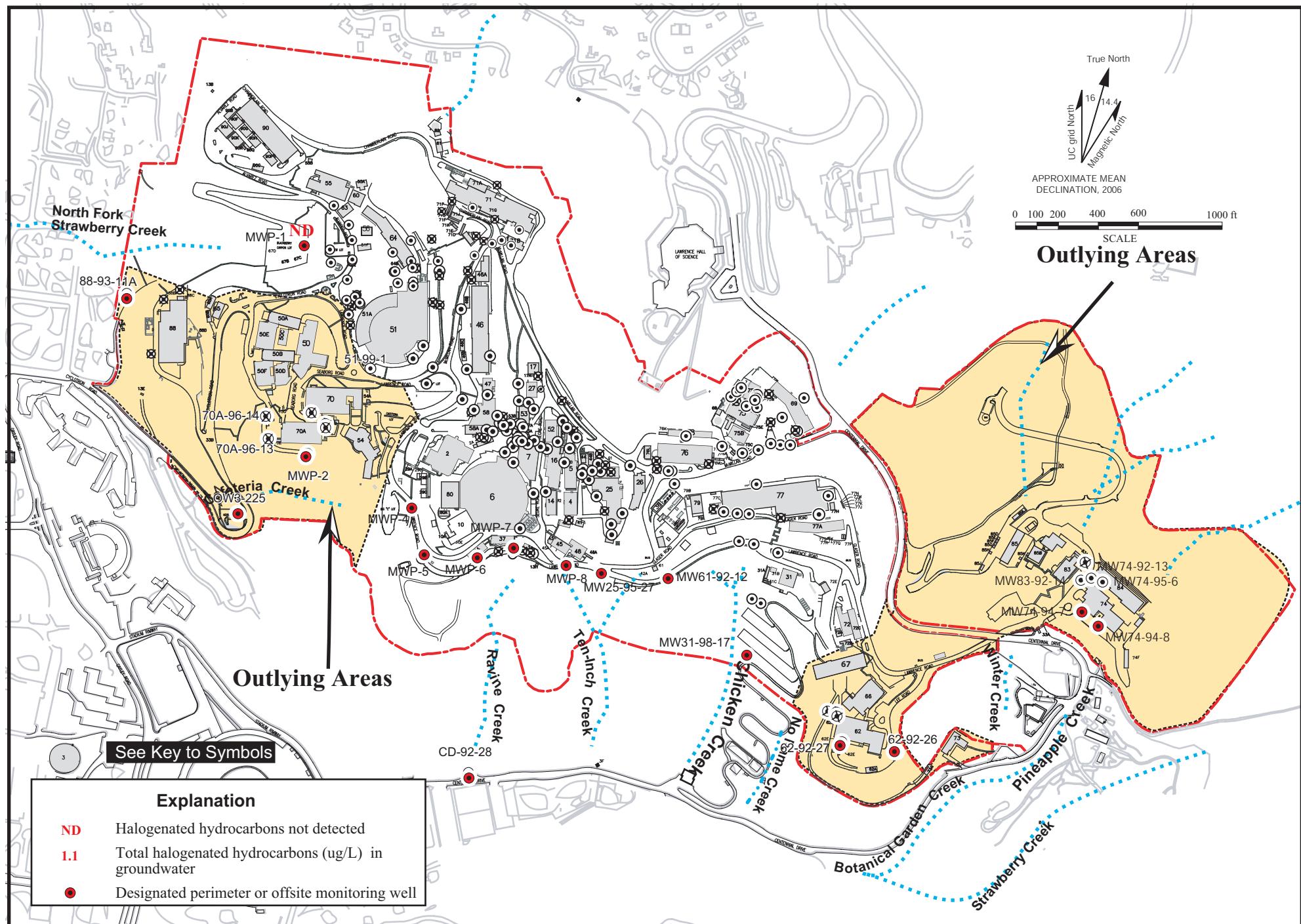


Figure 18. Total Halogenated Hydrocarbons in Groundwater (ug/L) in the Outlying Areas and Perimeter Monitoring Wells, Third Quarter FY07.

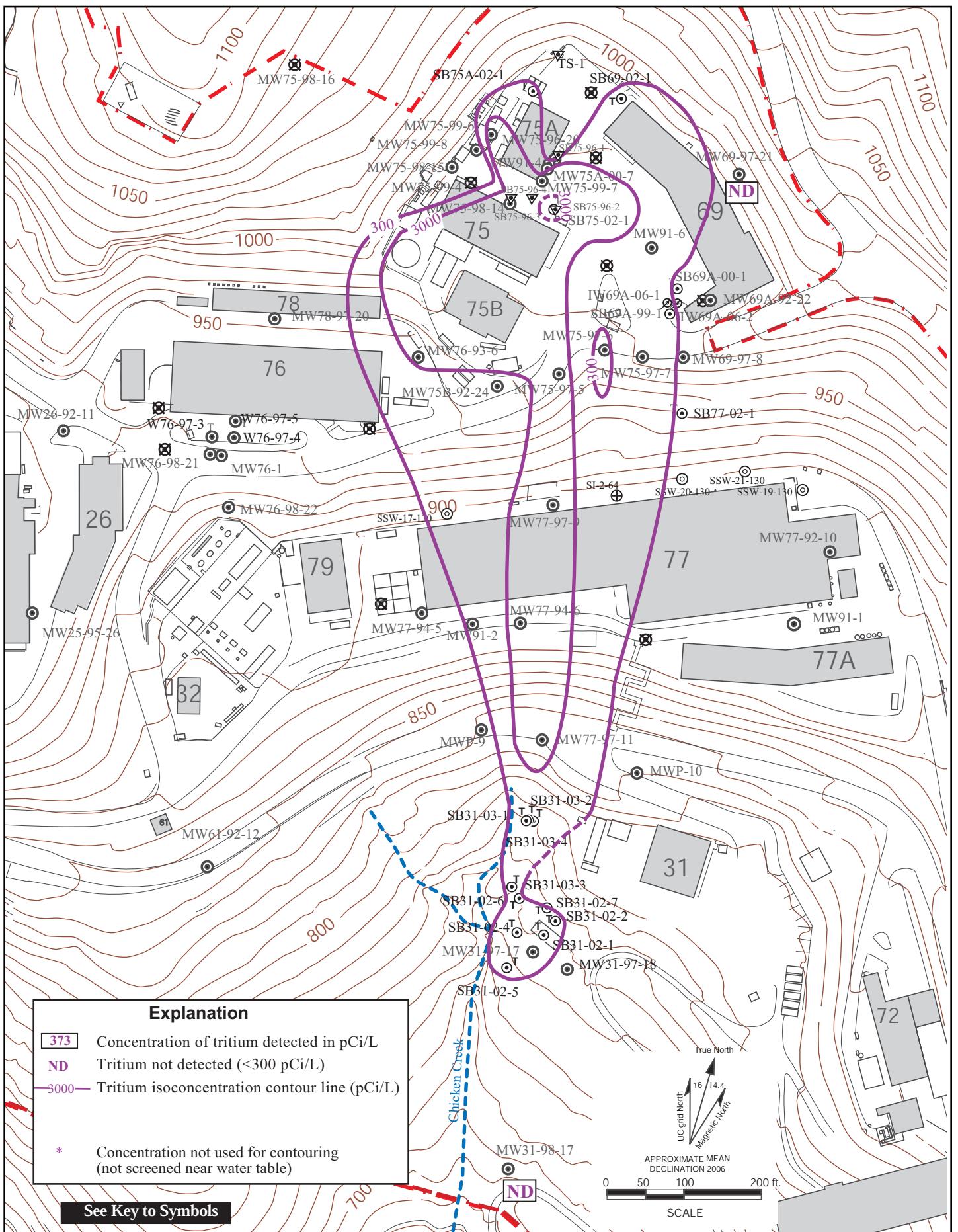


Figure 19. Tritium Concentrations in Groundwater (pCi/L) in Corporation Yard Area,¹ Third Quarter FY07.

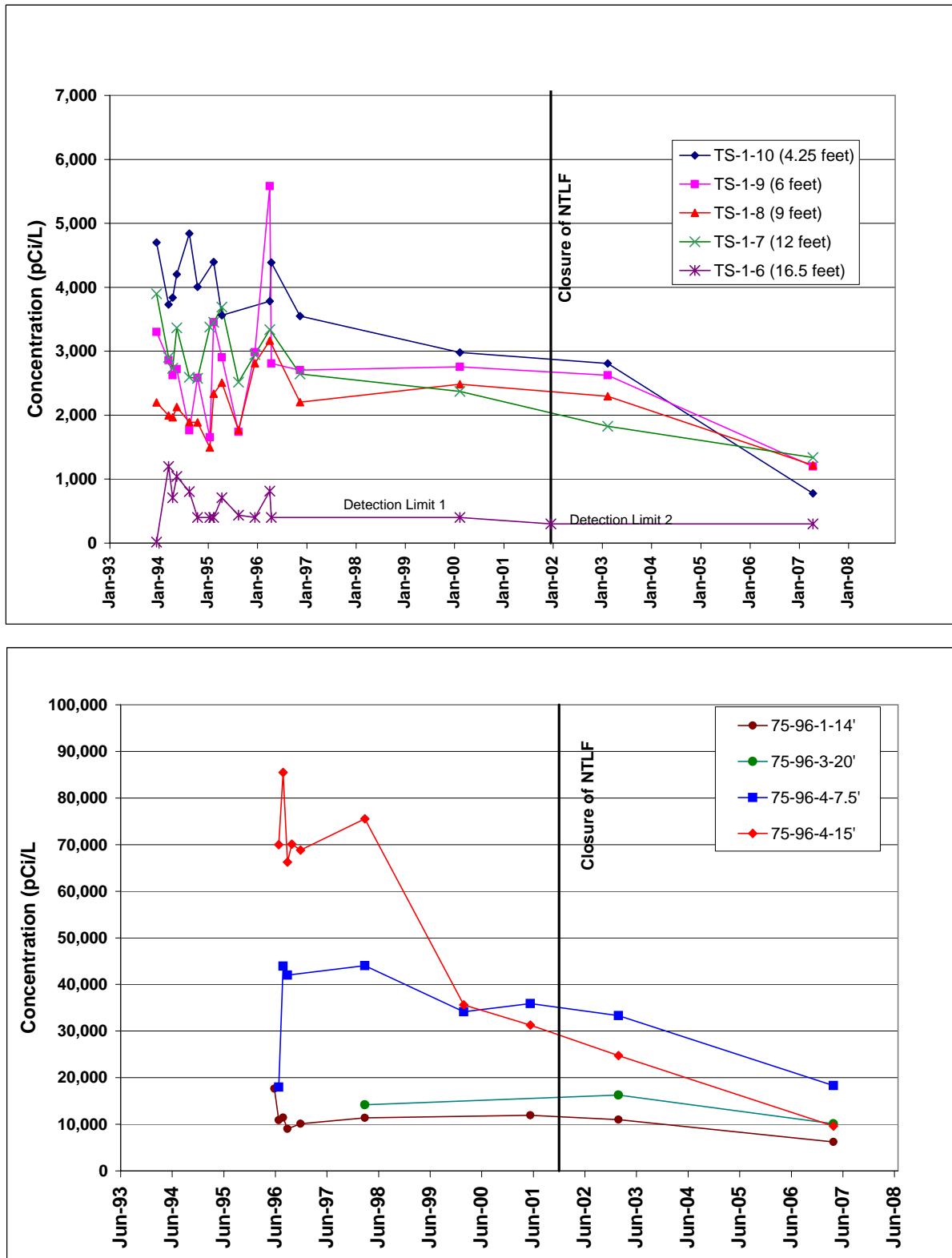


Figure 20. Concentrations of Tritium Detected in Soil Water Samples.

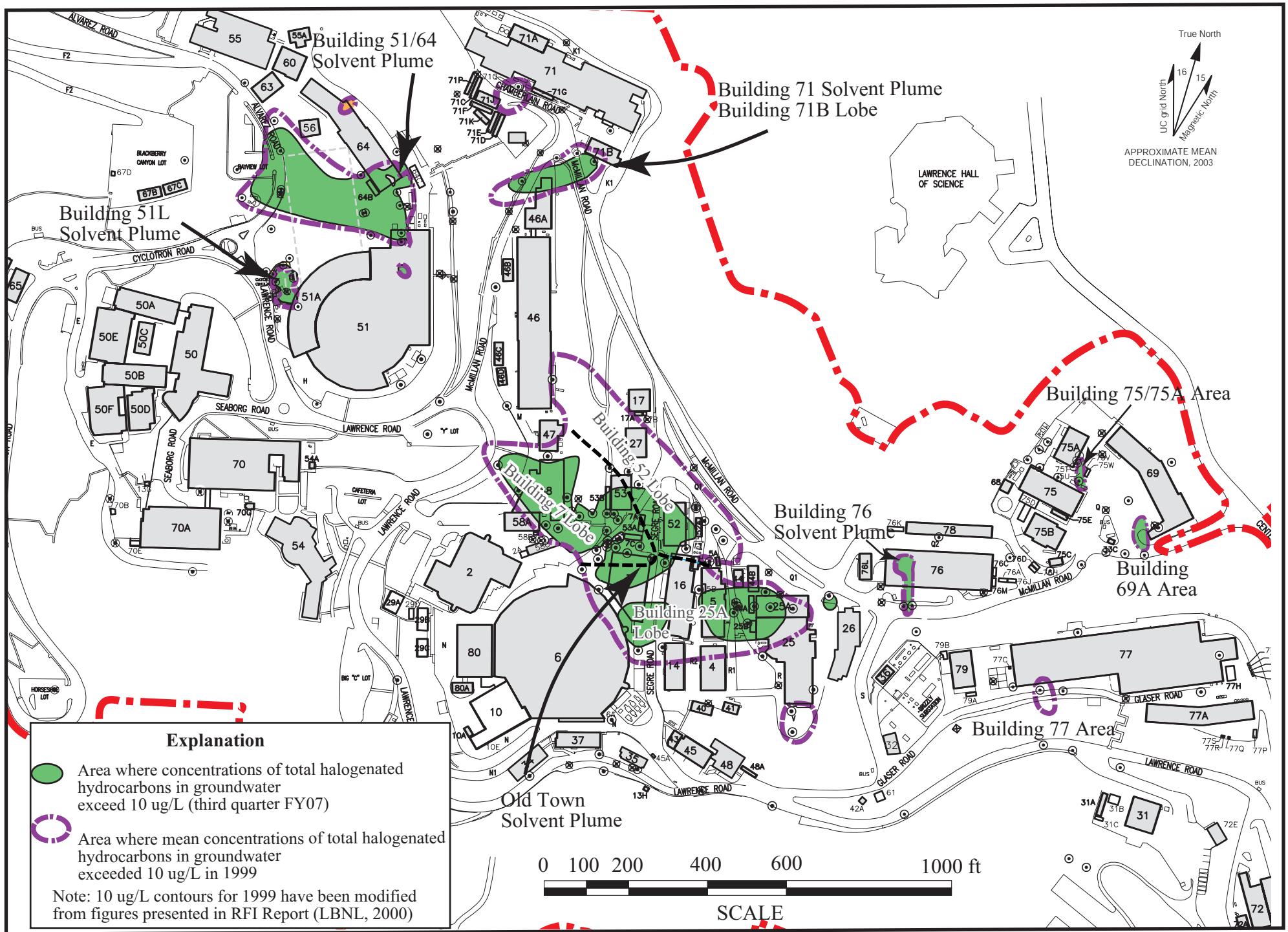


Figure 21. Extent of Groundwater Contamination (Total VOCs > 10 ug/L) Third Quarter FY07 Compared to 1999.

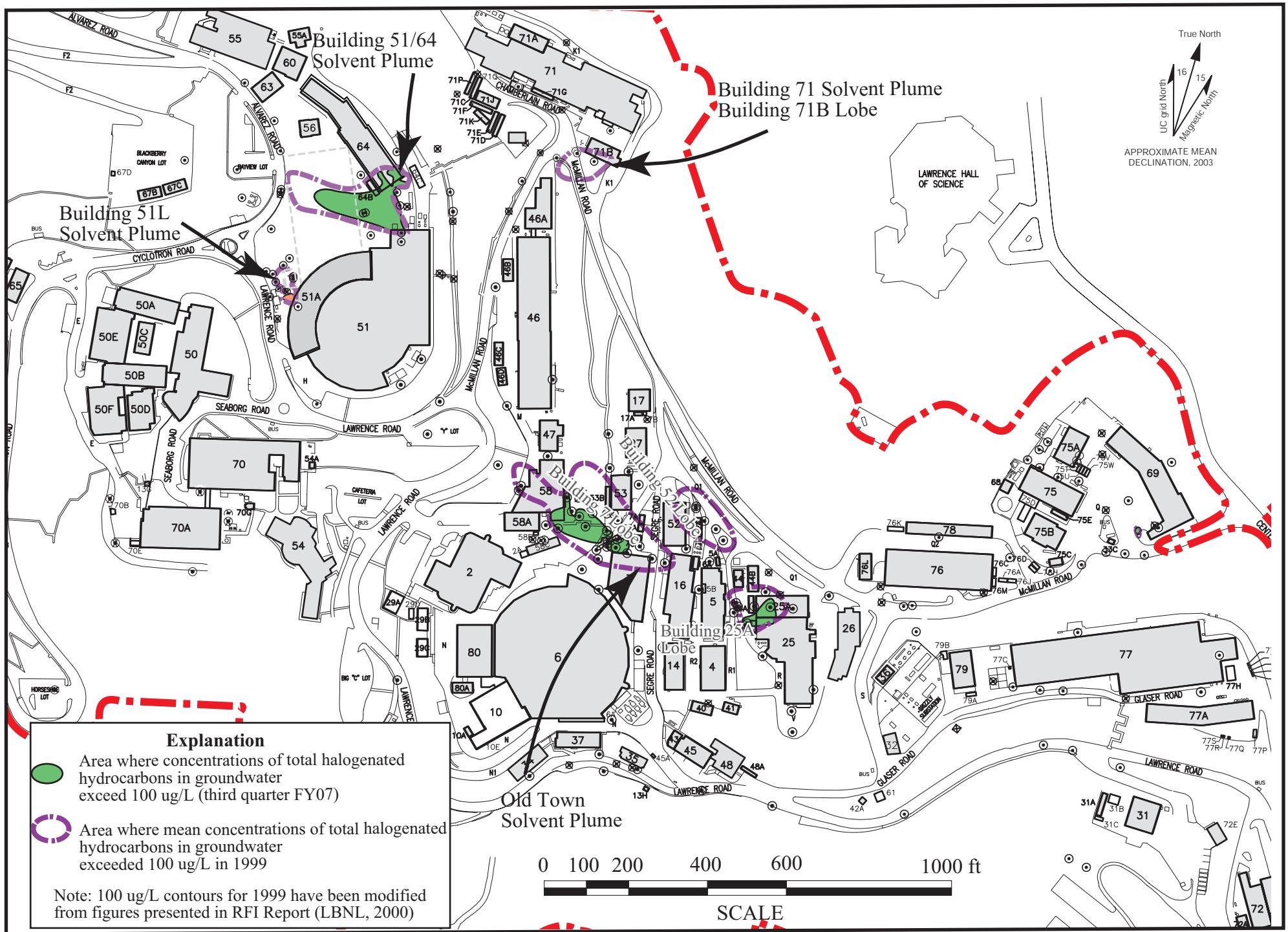


Figure 22. Extent of Groundwater Contamination (Total VOCs > 100 ug/L) Third Quarter FY07 Compared to 1999.

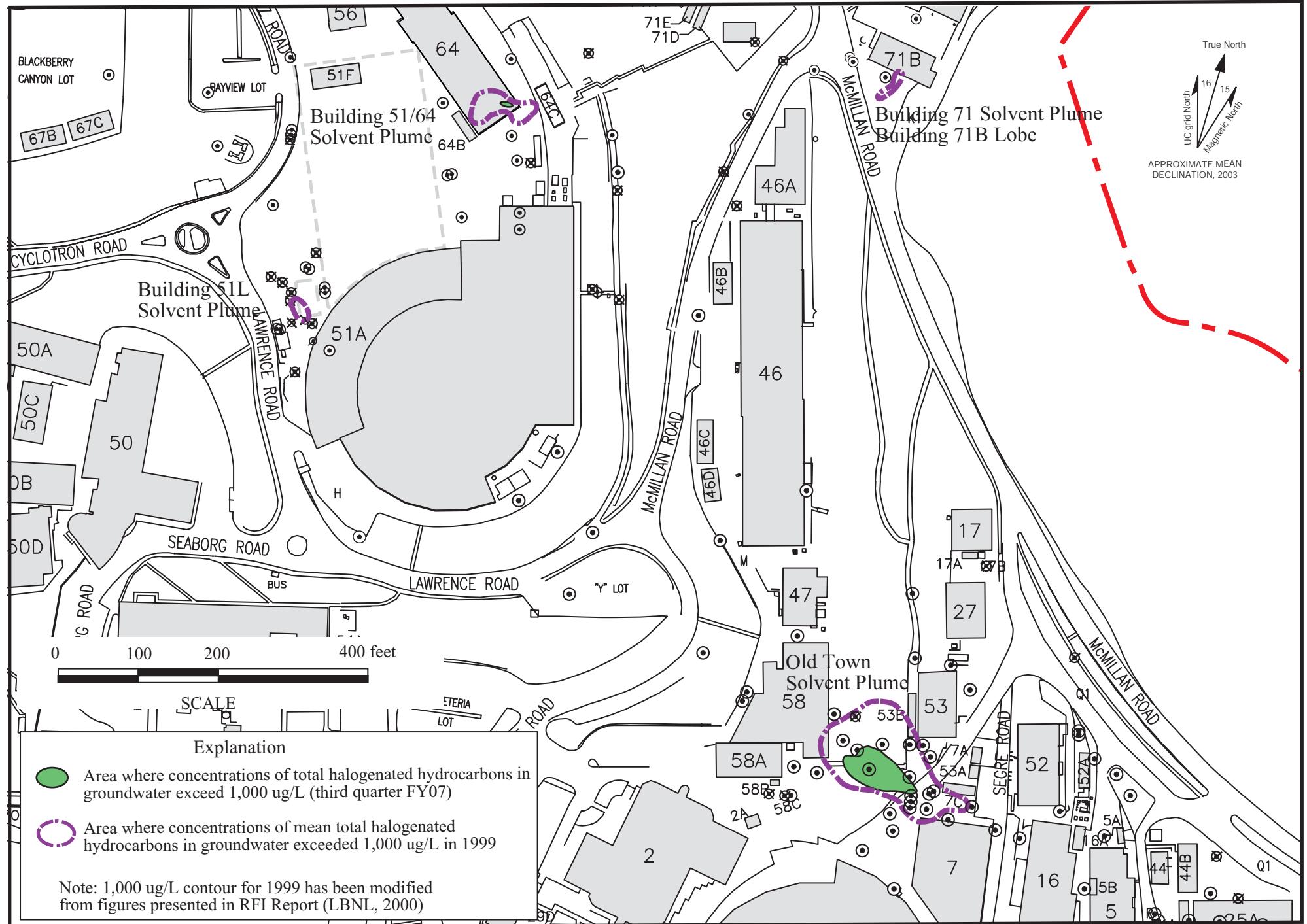
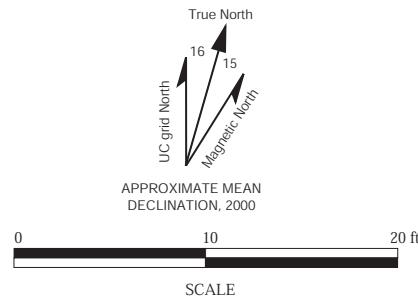


Figure 23. Extent of Groundwater Contamination (Total VOCs > 1,000 ug/L) Third Quarter FY07 Compared to 1999.



Building 17

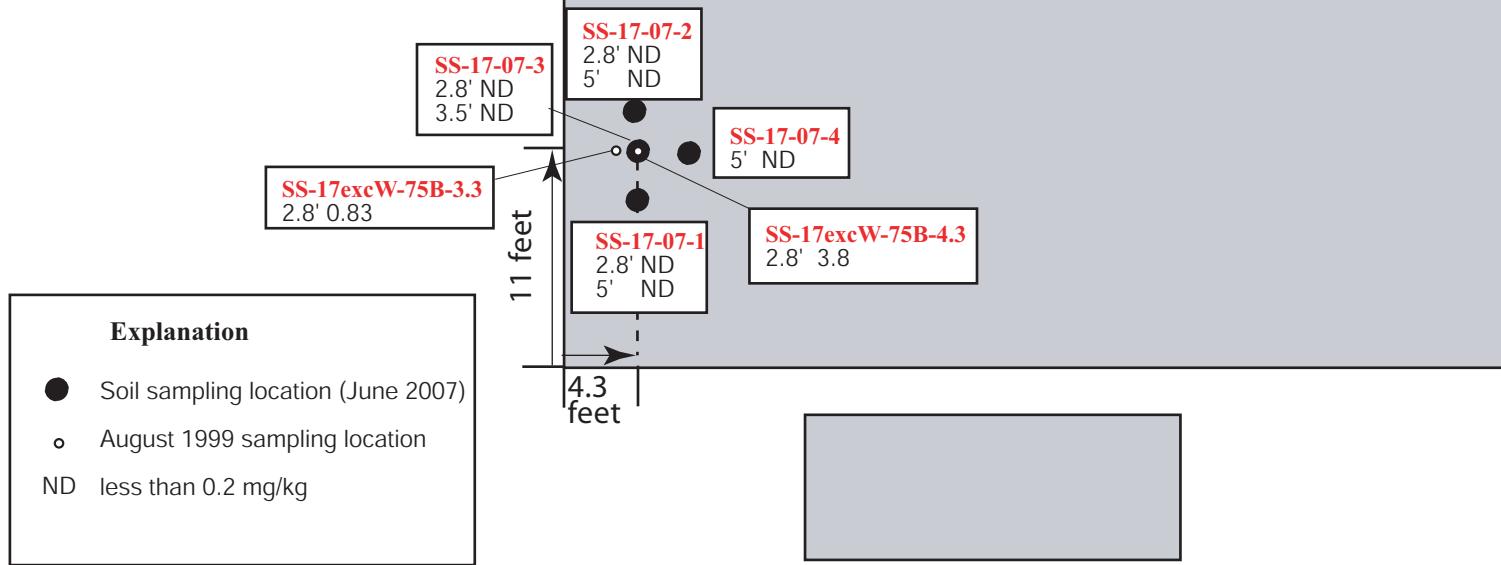


Figure 24 Soil Sampling Locations, Building 17 Former Scrapyard and Drum Storage Area (SWMU 2-3).

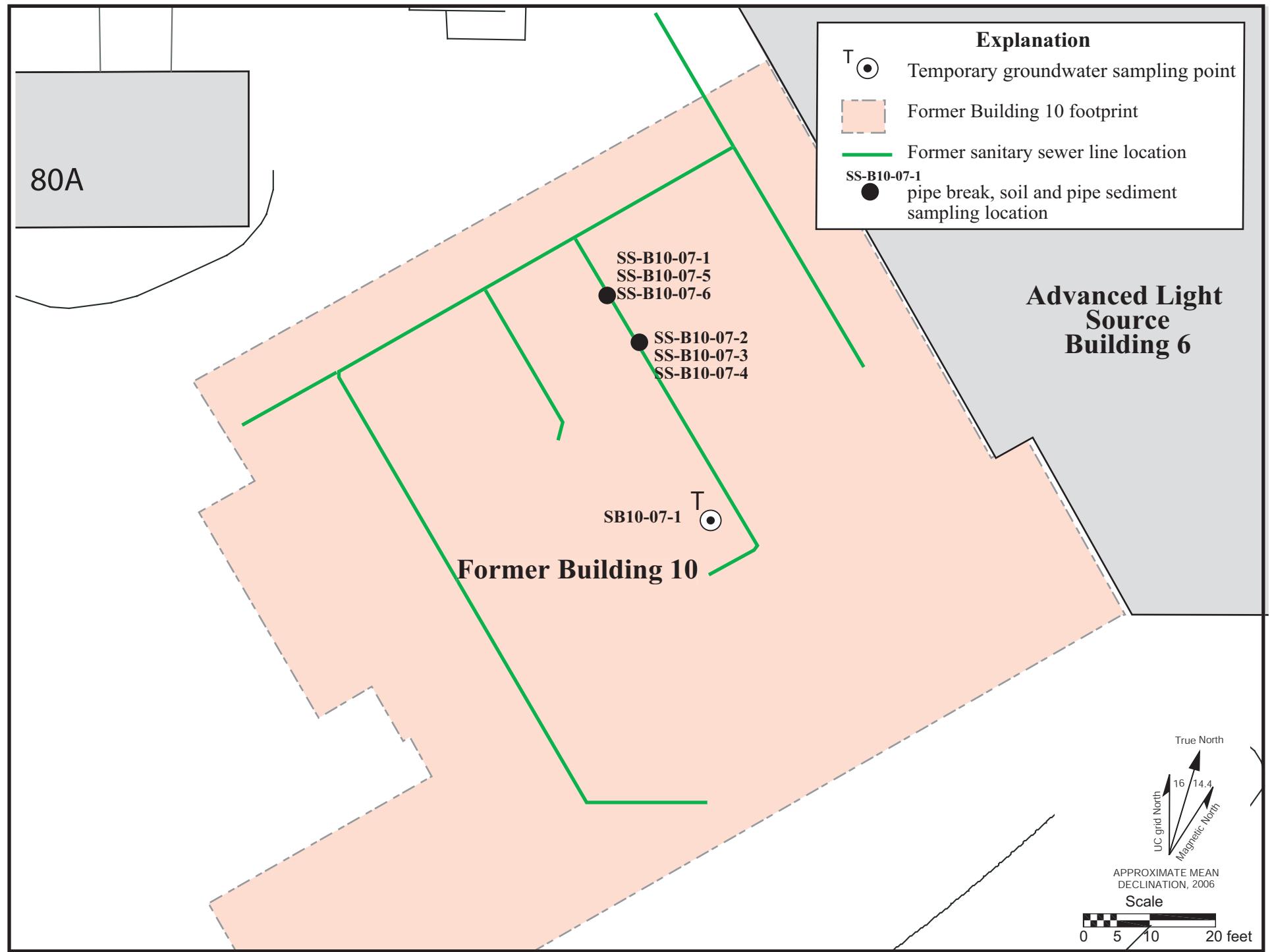


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Table 1
EPA Method 8260 Quantitation Limits
for Soil and Groundwater Samples
3rd Quarter FY 2007

Compound	Water Samples µg/L		Soil samples mg/kg BC Laboratories
	LBNL EML	BC Laboratories	
Benzene	1.0	0.5	0.005
Bromobenzene	1.0		
Bromochloromethane	2.0		
Bromodichloromethane	1.0	0.5	0.005
Bromoform	2.0	0.5	0.005
Bromomethane	10.0	1	0.005
n-Butylbenzene	1.0		
sec-Butylbenzene	1.0		
tert-Butylbenzene	1.0		
Carbon Tetrachloride	1.0	0.5	0.005
Chlorobenzene	1.0	0.5	0.005
Chlorodifluoromethane (Freon-22)	30.0		
Chloroethane	30.0	0.5	0.005
Chloroform	3.0	0.5	0.005
Chloromethane	10.0	0.5	0.005
2-Chlorotoluene	2.0		
4-Chlorotoluene	2.0		
Dibromochloromethane	2.0	0.5	0.005
1,2-Dibromo-3-chloropropane	2.0	1	0.005
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	0.005
1,1-Dichloroethane	1.0	0.5	0.005
1,2-Dichloroethane	2.0	0.5	0.005
1,1-Dichloroethene	1.0	0.5	0.005
cis-1,2-Dichloroethene	1.0	0.5	0.005
trans-1,2-Dichloroethene	1.0	0.5	0.005
Total 1,2-Dichloroethene		1	0.01
Dichlorofluoromethane (Freon-21)	3.0		
1,2-Dichloropropane	1.0	0.5	0.005
1,3-Dichloropropane	1.0		
2,2-Dichloropropane	1.0		
1,1-Dichloropropene	1.0		
cis-1,3-Dichloropropene	1.0	0.5	0.005
trans-1,3-Dichloropropene	1.0	0.5	0.005
1,2-Dichlorotetrafluoroethane (Freon-114)	3.0		
Dichlorotrifluoroethane (Freon-123)	1.0		
1,2-Dichlorotrifluoroethane (Freon-123A)	1.0		
Ethylbenzene	1.0	0.5	0.005
Hexachlorobutadiene	3.0		

Table 1 (Cont'd)
EPA Method 8260 Quantitation Limits
for Soil and Groundwater Samples
3rd Quarter FY 2007

Compound	Water Samples µg/L		Soil samples mg/kg BC Laboratories
	LBNL EML	BC Laboratories	
Isopropylbenzene	2.0		
p-Isopropyltoluene	1.0		
Methylene Chloride	1.0	1	0.01
Methyl tert-Butyl Ether	5.0		
Naphthalene	2.0		
n-Propylbenzene	1.0		
Styrene	1.0	0.5	0.005
1,1,2,2-Tetrachloroethane	1.0	0.5	0.005
1,1,1,2-Tetrachloroethane	2.0	0.5	0.005
Tetrachloroethene	1.0	0.5	0.005
Toluene	1.0	0.5	0.005
1,2,3-Trichlorobenzene	2.0		
1,2,4-Trichlorobenzene	1.0		
1,1,1-Trichloroethane	1.0	0.5	0.005
1,1,2-Trichloroethane	1.0	0.5	0.005
Trichloroethene	1.0	0.5	0.005
Trichlorofluoromethane (Freon-11)	2.0	0.5	
1,2,3-Trichloropropane	1.0	1	0.005
Trichlorotrifluoroethane (Freon-113)	1.0	0.5	0.005
1,2,4-Trimethylbenzene	1.0		
1,3,5-Trimethylbenzene	1.0		
Vinyl Chloride	1.0	0.5	0.005
Total-Xylene	2.0	1	0.01
Acetone		10	0.1
Acetonitrile		100	0.1
Acrolein		50	0.1
Acrylonitrile		50	0.1
Carbon Disulfide		1	0.05
2-Chloroethyl vinyl ether		10	
Chloroprene		5	0.05
trans-1,4-Dichloro-2-butene		5	0.005
1,4-Dioxane		100	
Ethanol		1000	10
2-Hexanone		10	0.005
Methyl ethyl ketone		10	0.005
Methyl isobutyl ketone		10	0.005
Vinyl Acetate		20	0.05

[Empty box] = Compound not included in analysis

Table 2
Groundwater Sampling Locations and Analytical Methods
3rd Quarter FY 2007

Location	Area	Page #	VOCs - 8260			Tritium
			April	May	June	
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-22		✓		
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					
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					
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
3rd Quarter FY 2007

Location	Area	Page #	VOCs - 8260			Tritium
			April	May	June	
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	T-34		✓		
52-93-14 ^A	10	T-34		✓		
53-93-16-42 ^A	2					
53-93-16-69 ^S	2	T-35	✓	✓	✓	
53-93-17 ^N	2					
51B-93-18A ^S	9	T-22		✓		
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-35	✓	✓		
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
3rd Quarter FY 2007

Location	Area	Page #	VOCs - 8260			Tritium
			April	May	June	
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	T-43		✓		
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-33	✓	✓	✓	
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
3rd Quarter FY 2007

Location	Area	Page #	VOCs - 8260			Tritium
			April	May	June	
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-22	✓		✓	
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	✓	✓	✓	
51L-01-1A ^A	9					
51L-01-1B ^N	9					
51L-01-5A ^A	9					
51L-01-5B ^A	9					
51L-01-6 ^A	9					
51L-01-7 ^A	9					
51A-01-11 ^A	9					
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					
77-02-06	5					
77-02-11	5					
77-02-12	5					
77-03-02	5					
77-03-03	5					
Slope Stability and Indicator Facilities						
SSW17-130	5					
SSW19-63	15	T-42		✓		
SSW19-130	5					
SSW20-130	5					

Table 2 (Cont'd)
Groundwater Sampling Locations and Analytical Methods
3rd Quarter FY 2007

Location	Area	Page #	VOCs - 8260			Tritium
			April	May	June	
Temporary Groundwater Sampling Points						
SB5A-98-1	10	T-37	✓		✓	
SB7-97-1						
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-23		✓		
SB51-98-2	9					
SB51-98-4	9					
SB51-98-6	9					
SB51-98-8	9					
SB51-98-9	9					
SB51-04-1	9					
SB51L-98-1A	9	T-23		✓		
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					
SB58-01-02	7					
SB58-02-1	7					
SB58-02-2	7					

Table 2 (Cont'd)
Groundwater Sampling Locations and Analytical Methods
3rd Quarter FY 2007

Location	Area	Page #	VOCs - 8260			Tritium
			April	May	June	
Temporary Groundwater Sampling Points						
SB64-98-8	9	T-23	✓	✓	✓	
SB64-98-12	9					
SB64-98-13	9					
SB64-98-17	9	T-23	✓	✓	✓	
SB64-99-4	9	T-23	✓	✓	✓	
SB64-99-5	9	T-24	✓	✓	✓	
SB64-99-6	9					
SB64-00-1	9	T-24	✓	✓	✓	
SB64-00-2	9	T-24	✓	✓	✓	
SB64-02-1A	9	T-24	✓	✓	✓	
SB64-02-1B	9	T-25	✓	✓	✓	
SB64-02-1C	9	T-25	✓	✓	✓	
SB64-02-1D	9	T-25	✓	✓	✓	
SB64-02-1E	9	T-25	✓	✓	✓	
SB64-02-1F	9	T-26	✓	✓	✓	
SB64-02-2A	9	T-26	✓	✓	✓	
SB64-02-2B	9	T-26	✓	✓	✓	
SB64-02-2C	9	T-26	✓	✓	✓	
SB64-02-2D	9	T-27	✓	✓	✓	
SB64-02-2E	9	T-27	✓	✓	✓	
SB64-02-2F	9	T-27	✓	✓	✓	
SB64-03-1A	9					
SB64-03-1B	9	T-27	✓	✓	✓	
SB64-03-4	9					
SB64-03-5	9	T-28	✓	✓	✓	
SB64-03-6	9	T-28	✓	✓	✓	
SB64-03-7	9					
SB64-03-8	9	T-28		✓		
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-03-1	1	T-28	✓	✓	✓	
SB71B-03-2	1	T-29	✓	✓	✓	
SB71B-04-1	1	T-29	✓	✓	✓	
SB71B-04-3	1					

Table 2 (Cont'd)
Groundwater Sampling Locations and Analytical Methods
3rd Quarter FY 2007

Location	Area	Page #	VOCs - 8260			Tritium
			April	May	June	
Temporary Groundwater Sampling Points						
SB71H-98-1	1					
SB75-02-1	3	T-44		✓		
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		✓		
MP7-99-2B	2	T-42	✓			
Extraction/Injection Wells						
EW7-96-1	2	T-38	✓	✓	✓	
EW7-96-2	2	T-38	✓	✓	✓	
EW7-96-4R	2	T-38	✓	✓	✓	
IW7-02-1	2					
IW7-02-6	2					
EW7-03-1	2	T-38	✓	✓	✓	
EW7-03-2	2	T-39	✓	✓	✓	
EW7-03-3	2	T-39	✓	✓	✓	
EW7-06-1	2	T-39	✓		✓	
EW7C-04-2	2	T-39	✓	✓	✓	
EW25A-02-1	10	T-40	✓	✓	✓	
EW51-07-1	9	T-30		✓		
EW51-07-2	9	T-30		✓		
EW51A-06-1	9	T-30	✓	✓	✓	
EW51B-07-1	9					
EW51B-07-2	9					
EW51L-99-1	9					
EW51L-00-1	9					
EW51L-06-1	9	T-30	✓	✓	✓	
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-41		✓		
EW58E-98-5	7	T-41		✓		
EW58E-98-6	7	T-41		✓		
EW58E-98-7	7	T-41		✓		

Table 2 (Cont'd)
Groundwater Sampling Locations and Analytical Methods
3rd Quarter FY 2007

Location	Area	Page #	VOCs - 8260			Tritium
			April	May	June	
Extraction/Injection Wells						
EW58E-98-8	7	T-41		✓		
EW58-02-1 ^T	7	T-41	✓	✓	✓	
EW64-00-1 ^T	9	T-30	✓	✓	✓	
EW64-03-1 ^T	9	T-31	✓	✓	✓	
EW64-05-1 ^T	9	T-31	✓	✓	✓	
EW64-06-1	9	T-31		✓	✓	
IW64-06-2	9					
IW64-06-3	9					
IW69A-06-1	3					
IW69A-06-2	3					

 = all compounds less than Quantitation Limit or Minimum Detectable Activity (Radionuclides)

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

Analytical Methods:

8260 = Volatile Organic compounds

Table 3
Groundwater Elevations in LBNL Monitoring Wells
3rd Quarter FY 2007

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	5/29	14.95	815.15	813.72	1.43
51-92-2	724.69	5/29	4.40	720.29	719.63	0.66
51-96-15	709.83	5/29	21.02	688.81	688.99	-0.18
51-96-16	709.72	5/29	NM		692.14	
51-96-17	709.64	5/29	16.43	693.21	692.54	0.67
51-96-18	710.76	5/29	9.12	701.64	701.74	-0.10
51-97-3	709.81	5/29	34.00	675.81	675.69	0.12
51-97-12	709.37	5/29	32.34	677.03	677.01	0.02
51-97-13	709.48	5/29	32.62	676.86	676.84	0.02
51-97-14	708.89	5/29	47.84	661.05	661.18	-0.13
51-97-15	706.11	5/29	70.58	635.53	NM	
51-99-1	724.44	5/29	NM		NM	
51-00-8	682.11	5/29	21.68	660.43	661.23	-0.80
51-00-9	698.16	5/29	2.96	695.20	695.49	-0.29
51-00-10	698.18	5/29	3.06	695.12	695.58	-0.46
51A-01-11	709.74	5/29	30.60	679.14	680.97	-1.83
51B-93-18A	709.95	5/29	9.34	700.61	700.89	-0.28
51L-01-1A	710.04	5/29	6.12	703.92	703.27	0.65
51L-01-1B	710.04	5/29	9.78	700.26	701.82	-1.56
51L-01-5A	709.96	5/29	26.31	683.65	683.28	0.37
51L-01-5B	709.94	5/29	45.24	664.70	665.02	-0.32
51L-01-6	709.80	5/29	20.73	689.07	689.15	-0.08
51L-01-7	709.76	5/29	29.60	680.16	681.50	-1.34
56-98-2	709.76	5/29	17.17	692.59	687.59	5.00
63-98-18	709.99	5/29	18.73	691.26	690.77	0.49

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	5/29	3.93	706.01	705.68	0.33
64-97-2	709.65	5/29	10.75	698.90	697.93	0.97
71-93-2	844.39	5/29	39.51	804.88	805.37	-0.49
71-95-9	854.18	5/29	21.34	832.84	833.22	-0.38
71B-98-13	832.33	5/29	13.23	819.10	814.95	4.15
71B-99-3R	840.13	5/29	5.16	834.97	823.31	11.66
MW90-3	820.60	5/29	41.94	778.66	778.56	0.10
MW90-4	746.15	5/29	8.36	737.79	738.60	-0.81
MW90-5	745.75	5/29	17.77	727.98	727.90	0.08
MWP-1	630.65	5/29	44.14	586.51	587.37	-0.86
Bevalac Area						
5-93-10	914.90	5/29	19.68	895.22	902.42	-7.20
6-92-17	891.20	5/29	11.14	880.06	879.54	0.52
6-93-4	881.60	5/29	46.25	835.35	844.18	-8.83
7-92-16	882.40	5/29	52.10	830.30	843.62	-13.32
7-92-19	884.80	5/29	21.95	862.85	864.82	-1.97
7-94-3	882.88	5/29	NM		NM	
7-95-22	882.16	5/29	19.05	863.11	863.49	-0.38
7-95-23	882.37	5/29	11.66	870.71	869.64	1.07
7-00-4	883.18	5/29	83.34	799.84	796.83	3.01
7B-95-21	883.63	5/29	24.82	858.81	864.45	-5.64
7B-95-24	883.88	5/29	52.90	830.98	830.51	0.47
7B-95-25	882.03	5/29	NM		865.36	
16-94-13	892.50	5/29	14.92	877.58	877.55	0.03
16-95-3	901.52	5/29	14.98	886.54	886.32	0.22

Table 3 (Cont'd)
Groundwater Elevations in LBNL Monitoring Wells
3rd Quarter FY 2007

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	5/29	34.51	903.08	904.71	-1.63
25-95-5	932.88	5/29	NM		NA	
25-95-26	935.81	5/29	39.12	896.69	897.03	-0.34
25-95-27	859.83	5/29	29.98	829.85	829.95	-0.10
25-98-10	934.42	5/29	64.32	870.10	NM	
25A-95-15	931.68	5/29	19.52	912.16	NM	
25A-98-1	936.88	5/29	32.15	904.73	920.90	-16.17
25A-98-3	940.14	5/29	NM		NM	
25A-98-7	942.71	5/29	14.11	928.60	928.99	-0.39
25A-99-2	940.45	5/29	23.73	916.72	915.63	1.09
26-92-11	936.19	5/29	15.08	921.11	921.88	-0.77
27-92-20	881.10	5/29	45.87	835.23	835.89	-0.66
37-92-18A	861.20	5/29	45.92	815.28	816.33	-1.05
46-92-9	805.30	5/29	72.12	733.18	732.08	1.10
46-93-12	807.57	5/29	7.55	800.02	800.03	-0.01
46-96-10	790.35	5/29	32.52	757.83	758.54	-0.71
51-94-15	771.17	5/29	34.74	736.43	738.20	-1.77
51-96-3	766.44	5/29	10.05	756.39	757.89	-1.50
52-93-14	900.03	5/29	33.93	866.10	866.03	0.07
52-95-2A	910.27	5/29	43.52	866.75	867.25	-0.50
52-95-2B	910.23	5/29	49.95	860.28	NM	
52-98-9	910.86	5/29	50.11	860.75	860.97	-0.22
52A-98-8A	913.56	5/30	31.66	881.90	885.04	-3.14
52A-98-8B	913.51	5/30	48.04	865.47	868.57	-3.10
52B-95-13	887.40	5/29	18.22	869.18	872.04	-2.86

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	5/29	68.01	818.96	818.85	0.11
53-92-21-147'	886.99	5/29	66.92	820.07	819.96	0.11
53-92-21-167'	886.97	5/29	67.90	819.07	819.10	-0.03
53-92-21-193'	886.98	5/29	81.45	805.53	805.18	0.35
53-93-9	900.68	5/29	59.17	841.51	849.83	-8.32
53-93-16-42'	887.45	5/29	38.35	849.10	850.94	-1.84
53-93-16-69'	887.40	5/29	61.05	826.35	NM	
53-93-17	902.62	5/29	61.84	840.78	841.68	-0.90
53-95-12	867.45	5/29	31.74	835.71	836.94	-1.23
53-96-1	887.64	5/29	58.44	829.20	832.28	-3.08
58-93-3	830.06	5/29	6.03	824.03	824.00	0.03
58-95-11	831.62	5/29	1.10	830.52	831.27	-0.75
58-95-18	788.61	5/29	10.40	778.21	781.63	-3.42
58-95-19	834.33	5/29	17.00	817.33	817.37	-0.04
58-95-20	818.81	5/29	17.12	801.69	NM	
58-96-11	848.23	5/29	31.71	816.52	816.57	-0.05
58-00-12	860.62	5/29	NM		NM	
58A-94-14	821.73	5/29	23.04	798.69	799.70	-1.01
MW90-2	880.78	5/29	20.29	860.49	861.89	-1.40
MW91-8	887.02	5/29	50.13	836.89	838.06	-1.17
MW91-9	915.67	5/29	22.11	893.56	901.05	-7.49
MWP-4	831.56	5/29	46.37	785.19	785.54	-0.35
MWP-5	852.37	5/29	95.15	757.22	757.48	-0.26
MWP-6	845.44	5/29	26.25	819.19	819.80	-0.61
MWP-8	872.34	5/29	26.74	845.60	844.29	1.31

Table 3 (Cont'd)
Groundwater Elevations in LBNL Monitoring Wells
3rd Quarter FY 2007

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	5/29	20.28	725.87	NM	
31-97-18	747.80	5/29	22.15	725.65	727.09	-1.44
31-98-17	693.47	5/29	19.25	674.22	679.51	-5.29
61-92-12	843.90	5/29	87.05	756.85	756.45	0.40
69-97-8	975.75	5/29	41.57	934.18	934.37	-0.19
69-97-21	1003.40	5/29	30.53	972.87	974.29	-1.42
69A-92-22	977.06	5/29	26.26	950.80	951.29	-0.49
75-96-20	979.07	5/29	11.73	967.34	967.77	-0.43
75-97-5	963.73	5/29	47.96	915.77	914.96	0.81
75-97-6	967.89	5/29	54.74	913.15	912.86	0.29
75-97-7	970.70	5/29	55.95	914.75	915.66	-0.91
75-98-14	977.94	5/29	12.78	965.16	965.74	-0.58
75-98-15	977.97	5/29	14.38	963.59	964.89	-1.30
75-99-6	979.94	5/29	8.29	971.65	971.40	0.25
75-99-7	977.92	5/29	11.74	966.18	966.77	-0.59
75-99-8	979.34	5/29	8.78	970.56	970.25	0.31
75A-00-7	978.32	5/29	101.94	876.38	864.20	12.18
75B-92-24	956.90	5/29	38.54	918.36	918.98	-0.62
MW76-1	923.70	5/29	20.48	903.22	903.48	-0.26
76-93-6	948.61	5/29	17.46	931.15	932.03	-0.88
76-98-21	923.20	5/29	22.57	900.63	903.20	-2.57
76-98-22	904.57	5/29	14.71	889.86	889.85	0.01
77-92-10	879.11	5/29	11.21	867.90	867.45	0.45

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	
Outlying Areas						
62-92-26	773.70	5/29	41.29	732.41	734.88	-2.47
62-92-27	769.90	5/29	31.22	738.68	733.62	5.06
74-92-13	834.90	5/29	15.22	819.68	821.41	-1.73
74-94-7	819.82	5/29	13.81	806.01	806.50	-0.49
74-94-8	815.74	5/29	20.07	795.67	795.74	-0.07
74-95-6	838.66	5/29	20.34	818.32	820.55	-2.23
83-92-14	830.09	5/30	10.95	819.14	820.17	-1.03
88-93-11A	537.35	5/30	60.92	476.43	477.00	-0.57
CD-92-28	486.29	5/29	16.51	469.78	469.46	0.32
MWP-2	710.33	5/30	53.20	657.13	657.02	0.11
OW3-225	570.00	5/29	60.08	509.92	512.08	-2.16

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 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
37-93-5	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 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
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 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
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 Interval (ft below TOC)	Screened Formation Name
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)
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
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: during grading activities

Colluvium: dry soil/colluvium

Alluvium: sandy alluvium

San Pablo (?): actively assigned to the San Pablo Group

Orinda: formation sediments

Great Valley:ous sedimentary rocks

Moraga: formation volcanics

Table 5-1
Bevalac Area Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
 (concentrations in µg/L)

Constituent	MCL	51-96-16			51-96-17			51-96-18			51-00-8	51B-93-18A	71B-99-3R	MWP-1	
		Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	May-07	May-07	Apr-07	Jun-07	May-07
Aromatic or Non-Halogenated Hydrocarbons															
Benzene	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
sec-Butylbenzene		<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
Ethylbenzene	300	<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
p-Isopropyltoluene		<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
Naphthalene		<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
Toluene	150	<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
1,3,5-Trimethylbenzene		<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
Total Aromatic Hydrocarbons															
Halogenated Hydrocarbons															
Bromodichloromethane	80	<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
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane		<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
Chloroform	80	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	2.4	3.1	2.7	<1	<1	<1	48.7	51.6	49.2	4.4	8.0	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	10.9	11.8	11.1	<1	1.2	<1	<1	<1
cis-1,2-Dichloroethene	6	36.8	54.3	40.5	4.2	4.0	4.2	2.6	2.9	3.1	3.1	22.1	<1	<1	<1
trans-1,2-Dichloroethene	10	14.6	26.2	23.7	5.1	4.5	3.8	<1	<1	<1	<1	1.3	<1	<1	<1
1,2-Dichloropropane	5	<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
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	<1	<1	<1	<1	171.0	178.0	155.0	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	1.9	1.9	2.0	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	7.3	10.9	8.5	<1	<1	<1	55.2	57.2	55.8	<1	13.3	<1	<1	<1
Freon-11	150	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<1
Freon-113	1200	<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
Vinyl Chloride	0.5	8.3	15.8	11.0	2.9	1.7	1.5	<1	<1	<1	<1	2.4	<1	<1	<1
Total Halogenated Hydrocarbon	69.4	110.3	86.4	12.2	10.2	9.5	290.3	303.4	276.2	7.5	48.3				
Total Concentration of VOCs	69.4	110.3	86.4	12.2	10.2	9.5	290.3	303.4	276.2	7.5	48.3				

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

All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

Table 5-2
Bevalac Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
 (concentrations in µg/L)

Constituent	MCL	SB51-98-1	SB51L-98-1A	SB64-98-8	SB64-98-17			SB64-99-4
		May-07	May-07	Apr-07	May-07	Jun-07	Apr-07	May-07
Aromatic or Non-Halogenated Hydrocarbons								
Benzene	1	<1	<1	<5	<5	<5	<1	<1
n-Butylbenzene		<1	<1	<5	<5	<5	<1	<1
sec-Butylbenzene		<1	<1	<5	<5	<5	<1	<1
ter-Butylbenzene		<1	<1	<5	<5	<5	<1	<1
Chlorobenzene		<1	<1	<5	<5	<5	<1	<1
Ethylbenzene	300	<1	<1	<5	<5	<5	<1	<1
Isopropylbenzene		<2	<2	<10	<10	<10	<2	<2
p-Isopropyltoluene		<1	<1	<5	<5	<5	<1	<1
Methyl tert-Butyl Ether	13	<5	<5	<25	<25	<25	<5	<5
Naphthalene		<2	<2	<10	<10	<10	<2	<2
n-Propylbenzene		<1	<1	<5	<5	<5	<1	<1
Toluene	150	<1	<1	<5	<5	<5	<1	<1
Xylenes, total	1750	<2	<2	<10	<10	<10	<2	<2
Total Aromatic Hydrocarbons								
Halogenated Non-Aromatic Hydrocarbons								
Bromodichloromethane	80	<1	<1	<5	<5	<5	<1	<1
Bromomethane	80	<10	<10	<50	<50	<50	<10	<10
Carbon Tetrachloride	0.5	<1	<1	<5	<5	<5	<1	<1
Chloroethane		<30	<30	<150	<150	<150	<30	<30
Chloroform	80	<3	<3	<15	<15	<15	<3	<3
Chloromethane		<10	<10	<50	<50	<50	<10	<10
1,1-Dichloroethane	5	5.5	4.9	159	219	193	65.6	45.8
1,2-Dichloroethane	0.5	<2	<2	<10	<10	<10	<2	<2
1,1-Dichloroethene	6	<1	<1	24.7	40.4	30.2	7.0	5.1
cis-1,2-Dichloroethene	6	86.9	54.9	<5	5.3	<5	1.7	1.3
trans-1,2-Dichloroethene	10	<1	8.0	<5	<5	<5	<1	<1
1,2-Dichloropropane	5	<1	<1	<5	<5	<5	<1	<1
Methylene Chloride	5	<1	<1	<5	<5	<5	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<10	<10	<10	<2	<2
1,1,2,2-Tetrachloroethane	1	<1	<1	<5	<5	<5	<1	<1
Tetrachloroethene	5	<1	<1	27.7	47.6	36.8	<1	<1
1,1,1-Trichloroethane	200	<1	<1	<5	<5	<5	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<5	<5	<5	<1	<1
Trichloroethene	5	33.3	30.8	54.1	81.0	66.5	1.9	1.4
Freon-113	1200	<1	<1	<5	<5	<5	<1	<1
Freon-123A		<1	<1	<5	<5	<5	<1	<1
Vinyl Chloride	0.5	1.1	<1	<5	8.1	9.3	1.6	<1
Total Halogenated Hydrocarbons	126.8	98.6	265.5	401.4	335.8		77.8	53.6
Total Concentration of VOCs	126.8	98.6	265.5	401.4	335.8		77.8	53.6
							149.0	149.0
							365.4	445.2
								824.5

Table 5-2 (Cont'd)
Bevalac Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
 (concentrations in µg/L)

Constituent	MCL	SB64-99-5			SB64-00-1			SB64-00-2			SB64-02-1A		
		Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07
Aromatic or Non-Halogenated Hydrocarbons													
Benzene	1	<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
n-Butylbenzene		<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
sec-Butylbenzene		<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
ter-Butylbenzene		<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
Chlorobenzene		<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
Ethylbenzene	300	<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
Isopropylbenzene		<2	<2	<2	<20	<20	<20	<2	<2	<2	<200	<200	<200
p-Isopropyltoluene		<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
Methyl tert-Butyl Ether	13	<5	<5	<5	<50	<50	<50	<5	<5	<5	<500	<500	<500
Naphthalene		<2	<2	<2	<20	<20	<20	<2	<2	<2	<200	<200	<200
n-Propylbenzene		<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
Toluene	150	<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
Xylenes, total	1750	<2	<2	<2	<20	<20	<20	<2	<2	<2	<200	<200	<200
Total Aromatic Hydrocarbons													
Halogenated Non-Aromatic Hydrocarbons													
Bromodichloromethane	80	<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
Bromomethane	80	<10	<10	<10	<100	<100	<100	<10	<10	<10	<1000	<1000	<1000
Carbon Tetrachloride	0.5	<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
Chloroethane		<30	<30	<30	<300	<300	<300	<30	<30	<30	<3000	<3000	<3000
Chloroform	80	<3	<3	<3	<30	<30	<30	<3	<3	<3	<300	<300	<300
Chloromethane		<10	<10	<10	<100	<100	<100	<10	<10	<10	<1000	<1000	<1000
1,1-Dichloroethane	5	70.1	44.4	43.2	227.0	262.0	322.0	33.5	35.6	32.1	3,150	4,340	3,060
1,2-Dichloroethane	0.5	<2	<2	<2	<20	<20	<20	<2	<2	<2	<200	<200	<200
1,1-Dichloroethene	6	42.7	19.5	10.8	15.2	17.9	20.6	141.0	189.0	152.0	438	639	422
cis-1,2-Dichloroethene	6	<1	<1	1.7	<10	<10	15.7	1.7	1.6	1.5	<100	104	<100
trans-1,2-Dichloroethene	10	<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
1,2-Dichloropropane	5	<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
Methylene Chloride	5	<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
1,1,1,2-Tetrachloroethane		<2	<2	<2	<20	<20	<20	<2	<2	<2	<200	<200	<200
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
Tetrachloroethene	5	6.1	1.2	2.0	<10	<10	<10	19.8	20.1	16.8	<100	203	<100
1,1,1-Trichloroethane	200	<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
1,1,2-Trichloroethane	5	<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
Trichloroethene	5	17.5	6.2	8.1	35.6	33.1	42.1	48.0	50.8	41.2	438	704	395
Freon-113	1200	<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
Freon-123A		<1	<1	<1	<10	<10	<10	<1	<1	<1	<100	<100	<100
Vinyl Chloride	0.5	<1	<1	<1	<10	<10	<10	<1	<1	<1	184	462	<100
Total Halogenated Hydrocarbon	136.4	71.3	65.8	277.8	313.0	400.4	244.0	297.1	243.6	4,210	6,452	3,877	
Total Concentration of VOCs	136.4	71.3	65.8	277.8	313.0	400.4	244.0	297.1	243.6	4,210	6,452	3,877	

Table 5-2 (Cont'd)
Bevalac Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
 (concentrations in µg/L)

Constituent	MCL	SB64-02-1B			SB64-02-1C			SB64-02-1D			SB64-02-1E		
		Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07
Aromatic or Non-Halogenated Hydrocarbons													
Benzene	1	<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
n-Butylbenzene		<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
sec-Butylbenzene		<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
ter-Butylbenzene		<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
Chlorobenzene		<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
Ethylbenzene	300	<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
Isopropylbenzene		<20	<20	<20	<20	<20	<20	<10	<2	<2	<10	<2	<2
p-Isopropyltoluene		<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
Methyl tert-Butyl Ether	13	<50	<50	<50	<50	<50	<50	<25	<5	<5	<25	<5	<5
Naphthalene		<20	<20	<20	<20	<20	<20	<10	<2	<2	<10	<2	<2
n-Propylbenzene		<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
Toluene	150	<10	<10	<10	<10	<10	<10	<5	<1	2	<5	1.2	2.2
Xylenes, total	1750	<20	<20	<20	<20	<20	<20	<10	<2	<2	<10	<2	<2
Total Aromatic Hydrocarbons										2.0			1.2
Halogenated Non-Aromatic Hydrocarbons													
Bromodichloromethane	80	<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
Bromomethane	80	<100	<100	<100	<100	<100	<100	<50	<10	<10	<50	<10	<10
Carbon Tetrachloride	0.5	<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
Chloroethane		<300	<300	<300	<300	<300	<300	<150	<30	<30	<150	<30	<30
Chloroform	80	<30	<30	<30	<30	<30	<30	<15	<3	<3	<15	<3	<3
Chloromethane		<100	<100	<100	<100	<100	<100	<50	<10	<10	<50	<10	<10
1,1-Dichloroethane	5	300.0	520	533	847	925	943	139	132.0	242.0	94.9	64.4	234.0
1,2-Dichloroethane	0.5	<20	<20	<20	<20	<20	<20	<10	<2	3.3	<10	<2	2.7
1,1-Dichloroethene	6	86.7	103	109	102	115	110	28.7	25.2	88.8	22.9	15.9	81.1
cis-1,2-Dichloroethene	6	187.0	182	195	83.3	92.8	101	31.6	25.7	83.4	22.3	14.1	68.4
trans-1,2-Dichloroethene	10	<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
1,2-Dichloropropane	5	<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
Methylene Chloride	5	<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
1,1,2-Tetrachloroethane		<20	<20	<20	<20	<20	<20	<10	<2	<2	<10	<2	<2
1,1,2,2-Tetrachloroethane	1	<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
Tetrachloroethene	5	<10	<10	<10	<10	<10	<10	<5	1.3	5.3	<5	1.7	7.5
1,1,1-Trichloroethane	200	<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
1,1,2-Trichloroethane	5	<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
Trichloroethene	5	25.6	47.9	49.3	17.1	14.6	15.8	14.1	11.2	53.5	20.3	13.5	73.8
Freon-113	1200	<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
Freon-123A		<10	<10	<10	<10	<10	<10	<5	<1	<1	<5	<1	<1
Vinyl Chloride	0.5	48.2	99.0	117.0	33.0	36.2	44.0	18.2	17.5	55.0	12.3	10.4	45.8
Total Halogenated Hydrocarbon	647.5	951.9	1,003.3		1,082.4	1,183.6	1,213.8	231.6	212.9	531.3	172.7	120.0	513.3
Total Concentration of VOCs	647.5	951.9	1,003.3		1,082.4	1,183.6	1,213.8	231.6	212.9	533.3	172.7	121.2	515.5

Table 5-2 (Cont'd)
Bevalac Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
 (concentrations in µg/L)

Constituent	MCL	SB64-02-1F			SB64-02-2A			SB64-02-2B			SB64-02-2C		
		Apr-07	May-07	Jun-07									
Aromatic or Non-Halogenated Hydrocarbons													
Benzene	1	<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
n-Butylbenzene		<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
sec-Butylbenzene		<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
ter-Butylbenzene		<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
Chlorobenzene		<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
Ethylbenzene	300	<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
Isopropylbenzene		<2	<2	<2	<10	<20	<20	<10	<20	<20	<2	<20	<2
p-Isopropyltoluene		<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
Methyl tert-Butyl Ether	13	<5	<5	<5	<25	<50	<50	<25	<50	<50	<5	<50	<5
Naphthalene		<2	<2	<2	<10	<20	<20	<10	<20	<20	<2	<20	<2
n-Propylbenzene		<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
Toluene	150	2.8	3.5	3.5	<5	<10	<10	<5	<10	<10	<1	<10	<1
Xylenes, total	1750	<2	<2	<2	<10	<20	<20	<10	<20	<20	<2	<20	<2
Total Aromatic Hydrocarbons		2.8	3.5	3.5									
Halogenated Non-Aromatic Hydrocarbons													
Bromodichloromethane	80	<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
Bromomethane	80	<10	<10	<10	<50	<100	<100	<50	<100	<100	<10	<100	<10
Carbon Tetrachloride	0.5	<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
Chloroethane		<30	<30	<30	<150	<300	<300	<150	<300	<300	<30	<300	<30
Chloroform	80	<3	<3	<3	<15	<30	<30	<15	<30	<30	<3	<30	<3
Chloromethane		<10	<10	<10	<50	<100	<100	<50	<100	<100	<10	<100	<10
1,1-Dichloroethane	5	123.0	231.0	112.0	238	225	218	666	727	841	79.7	79.3	105.0
1,2-Dichloroethane	0.5	<2	<2	<2	<10	<20	<20	<10	<20	<20	<2	<20	<2
1,1-Dichloroethene	6	32.0	30.1	30.7	30.8	28.1	31.5	65.1	80.1	86.5	25.2	34.4	45.3
cis-1,2-Dichloroethene	6	26.7	24.6	26.9	174.0	186	219	15.0	14.5	22.2	14.4	15.1	19.1
trans-1,2-Dichloroethene	10	<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
1,2-Dichloropropane	5	<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
Methylene Chloride	5	<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
1,1,1,2-Tetrachloroethane		<2	<2	<2	<10	<20	<20	<10	<20	<20	<2	<20	<2
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
Tetrachloroethene	5	2.0	2.0	1.3	<5	<10	<10	<5	<10	<10	<1	<10	<1
1,1,1-Trichloroethane	200	<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
Trichloroethene	5	27.5	23.8	22.0	34.7	32.4	34.4	15.8	17.1	19.0	5.9	<10	8.4
Freon-113	1200	<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
Freon-123A		<1	<1	<1	<5	<10	<10	<5	<10	<10	<1	<10	<1
Vinyl Chloride	0.5	21.6	21.7	25.0	23.6	23.1	25.3	<5	<10	<10	<1	<10	1.7
Total Halogenated Hydrocarbon		232.8	333.2	217.9	501.1	494.6	528.2	761.9	838.7	968.7	125.2	128.8	179.5
Total Concentration of VOCs		235.6	336.7	221.4	501.1	494.6	528.2	761.9	838.7	968.7	125.2	128.8	179.5

Table 5-2 (Cont'd)
Bevalac Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
 (concentrations in µg/L)

Constituent	MCL	SB64-02-2D			SB64-02-2E			SB64-02-2F			SB64-03-1B		
		Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	May-07≈	Jun-07
Aromatic or Non-Halogenated Hydrocarbons													
Benzene	1	<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
n-Butylbenzene		<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
sec-Butylbenzene		<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
ter-Butylbenzene		<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
Chlorobenzene		<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
Ethylbenzene	300	<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
Isopropylbenzene		<10	<2	<2	<2	<2	<2	<10	<2	<20	<2	<2	<2
p-Isopropyltoluene		<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
Methyl tert-Butyl Ether	13	<25	<5	<5	<5	<5	<5	<25	<5	<50	<5	<5	<5
Naphthalene		<10	<2	<2	<2	<2	<2	<10	<2	<20	<2	<2	<2
n-Propylbenzene		<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
Toluene	150	<5	<1	1.2	1.8	2.3	2.4	<5	2.3	<10	<1	<1	<1
Xylenes, total	1750	<10	<2	<2	<2	<2	<2	<10	<2	<20	<2	<2	<2
Total Aromatic Hydrocarbons				1.2	1.8	2.3	2.4		2.3				
Halogenated Non-Aromatic Hydrocarbons													
Bromodichloromethane	80	<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
Bromomethane	80	<50	<10	<10	<10	<10	<10	<50	<10	<100	<10	<10	<10
Carbon Tetrachloride	0.5	<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
Chloroethane		<150	<30	<30	<30	<30	<30	<150	<30	<300	<30	<30	<30
Chloroform	80	<15	<3	<3	<3	<3	<3	<15	<3	<30	<3	<3	<3
Chloromethane		<50	<10	<10	<10	<10	<10	<50	<10	<100	<10	<10	<10
1,1-Dichloroethane	5	104.0	80.3	112.0	80.0	62.1	97.2	469	505.0	490	155.0	130.0	165.0
1,2-Dichloroethane	0.5	<10	<2	<2	<2	<2	<2	<10	2.8	<20	<2	<2	<2
1,1-Dichloroethene	6	27.9	22.3	33.4	25.2	28.1	35.3	42.9	47.8	50	6.4	5.6	7.1
cis-1,2-Dichloroethene	6	11.0	9.8	12.3	14.9	10.7	19.9	25.3	30.1	28.6	3.0	2.7	3.1
trans-1,2-Dichloroethene	10	<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
1,2-Dichloropropane	5	<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
Methylene Chloride	5	<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
1,1,2-Tetrachloroethane		<10	<2	<2	<2	<2	<2	<10	<2	<20	<2	<2	<2
1,1,2,2-Tetrachloroethane	1	<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
Tetrachloroethene	5	<5	1.8	<1	1.3	1.3	1.7	<5	<1	<10	<1	<1	1.4
1,1,1-Trichloroethane	200	<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
1,1,2-Trichloroethane	5	<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
Trichloroethene	5	5.3	8.3	5.4	5.4	5.6	6.9	6.1	4.8	<10	15.9	13.9	18.0
Freon-113	1200	<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
Freon-123A		<5	<1	<1	<1	<1	<1	<5	<1	<10	<1	<1	<1
Vinyl Chloride	0.5	<5	<1	<1	<1	<1	<1	<5	1.1	<10	<1	<1	<1
Total Halogenated Hydrocarbon	148.2	122.5	163.1	126.8	107.8	162.2	543.3	591.6	568.6	180.3	152.2	194.6	
Total Concentration of VOCs	148.2	122.5	164.3	128.6	110.1	164.6	543.3	593.9	568.6	180.3	153.4	194.6	

Table 5-2 (Cont'd)
Bevalac Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
 (concentrations in µg/L)

Constituent	MCL	SB64-03-5			SB64-03-6			SB64-03-8			SB64-03-4			SB71B-03-1		
		Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	May-07	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	
Aromatic or Non-Halogenated Hydrocarbons																
Benzene	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	
sec-Butylbenzene		<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	
Chlorobenzene		<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	
Isopropylbenzene		<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	
Methyl tert-Butyl Ether	13	<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	
n-Propylbenzene		<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	
Xylenes, total	1750	<2	<2	<2	<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	<1	<1	<1	
Bromomethane	80	<10	<10	<10	<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	<1	<1	<1	
Chloroethane		<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	
Chloroform	80	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	
Chloromethane		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
1,1-Dichloroethane	5	4.2	4.1	4.7												
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
1,1-Dichloroethene	6	5.6	5.5	6.3												
cis-1,2-Dichloroethene	6	3.1	3.4	3.6											1.8	
trans-1,2-Dichloroethene	10	<1	<1	<1	<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	<1	<1	<1	
Methylene Chloride	5	<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	
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Tetrachloroethene	5	4.5	5.5	5.4												
1,1,1-Trichloroethane	200	<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	
Trichloroethene	5	30.5	47.7	43.0												
Freon-113	1200	<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	
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.2	
Total Halogenated Hydrocarbons		47.9	66.2	63.0											3.0	
Total Concentration of VOCs		47.9	66.2	63.0											3.0	

Table 5-2 (Cont'd)
Bevalac Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
 (concentrations in µg/L)

Constituent	MCL	SB71B-03-1 (cont'd)		SB71B-03-2			SB71B-04-1		
		May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-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
Chlorobenzene		<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
Bromomethane	80	<10	<10	<10	<10	<10	<10	<10	<10
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
Chloromethane		<10	<10	<10	<10	<10	<10	<10	<10
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	3.4	<1	6.1	5.5	7.1	11.6	13.0	9.6
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	<2	<2	<2	<2	<2	<2
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	3.3	3.0	1.8	30.1	23.3	17.5
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	2.4	1.7	2.0	12.6	11.7	9.1
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	3.4	<1	2.2	2.7	2.5	<1	<1	<1
Total Halogenated Hydrocarbons	6.8			14.0	12.9	13.4	54.3	48.0	36.2
Total Concentration of VOCs	6.8			14.0	12.9	13.4	54.3	48.0	36.2

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

All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

≈: Sum includes other concentration of other chemicals

Table 5-3
Bevalac Area Extraction Well Sampling Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY2007
 (concentrations in µg/L)

Constituent	MCL	EW51-07-1		EW51-07-2		EW51A-06-1			EW51L-06-1			EW64-00-1		
		May-07	May-07*	May-07*	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	
Aromatic or Non-Halogenated Hydrocarbons														
Benzene	1	<1		<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	
Chlorobenzene		<1		<1	<1	<1		<1	<1	<1	<1	<1	<1	
Ethylbenzene	300	<1		<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	<1		<1	<1	<1		<1	<1	<1	<1	<1	<1	
Xylenes, total	1750	<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	
Bromoform	80	<2		<2	<2	<2		<2	<2	<2	<2	<2	<2	
Carbon Tetrachloride	0.5	<1		<1	10.7	18.7	15.8	<1	<1	<1	<1	<1	<1	
Chloromethane		<10		<10	<10	<10		<10	<10	<10	<10	<10	<10	
Chloroform	80	<3		<3	<3	7.3	6.0	<3	<3	<3	<3	<3	<3	
1,1-Dichloroethane	5	2.5		<1	1.1	1.8	1.8	1.7	1.6	1.6	4.3	5.5	4.8	
1,2-Dichloroethane	0.5	<2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
1,1-Dichloroethene	6	2.8		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
cis-1,2-Dichloroethene	6	20.7		<1	38.6	72.1	64.4	7.3	10.4	8.3	<1	<1	<1	
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		<1		<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	
1,1,2,2-Tetrachloroethane	1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Tetrachloroethene	5	1.8		5.4	7.3	13.5	11.9	<1	<1	<1	1.4	1.5	<1	
1,1,1-Trichloroethane	200	<1		<1	1.6	2.5	2.7	<1	<1	<1	<1	<1	<1	
1,1,2-Trichloroethane	5	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Trichloroethene	5	24.2		7.2	377.0	750.0	650.0	6.2	21.3	10.3	1.7	2.0	1.5	
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 Hydrocarbons	52.0		12.6		436.3	865.9	752.6	15.2	33.3	20.2	7.4	9.0	6.3	
Total Concentration of VOCs	52.0		12.6		436.3	865.9	752.6	15.2	33.3	20.2	7.4	9.0	6.3	

Table 5-3 (Cont'd)
Bevalac Area Extraction Well Sampling Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY2007
 (concentrations in µg/L)

Constituent	MCL	EW64-03-1			EW64-05-1			EW64-06-1	
		Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	May-07	Jun-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
Chlorobenzene		<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	<1	<1	<1	<1	<1	<1
Chloromethane		<10	<10	<10	<10	<10	<10	<10	<10
Chloroform	80	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	43.0	37.3	44.1	<1	<1	<1	2.2	2.2
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	1.9	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<1	<1	<1	<1	<1	19.7	5.2
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	2.6	2.6
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	<2	<2	<2	<2	<2	<2
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	<1	1.3	1.7	1.8	<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	6.4	5.1	5.9	1.7	2.9	2.8	7.1	2.0
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	2.1	5.7
Total Halogenated Hydrocarbons	51.3	42.4	51.1	3.0	4.6	4.6	33.7	17.7	
Total Concentration of VOCs	51.3	42.4	51.1	3.0	4.6	4.6	33.7	17.7	

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

< = Less than Quantitation Limit
 ° indicates that the sample was predevelopment.

Table 6-1
Old Town Area Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
(bconcentrations in µg/L)

Constituent	MCL	5-93-10			6-95-14'			7-92-19		7-94-3		7-95-22			7-95-23		
		Apr-07	May-07	Jun-07	Apr-07	Apr-07	Jun-07	Apr-07	Jun-07	Apr-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07
Aromatic or Non-Halogenated Hydrocarbons																	
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
1,4-Dichlorobenzene	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
Ethylbenzene	300	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<10
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
Methyl tert-Butyl Ether	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<25
Naphthalene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<10
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
Toluene	150	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
1,2,4-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
1,3,5-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<10
Total Aromatic Hydrocarbons																	
Halogenated Hydrocarbons																	
Bromodichloromethane	80	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
Bromoform	80	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<10
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.1	1.7	3.3	4.3	9.6	10.4	7.3
Chloroform	80	<3	<3	<3	<3	7.0	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<15
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.1	<1	<1	<1	<5	<1	<5
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<10
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	5.1	<1	1.8	2.1	<5	<1	<5
cis-1,2-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	13.4	3.3	1.3	2.2	17.8	<5	1.4	<5
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	<1	<1	6.9	2.9	<1	<1	<1	<5	<1	<5
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<10
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
Tetrachloroethene	5	<1	<1	<1	<1	3.3	6.6	5.8	25.2	40.5	135.0	154.0	183	185	224.0	165	
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
Trichloroethene	5	2.3	2.0	3.2	4.4	1.6	1.5	8.1	17.0	30.1	53.6	84.1	236	265.0	211		
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
Freon-123A		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5
Total Halogenated Hydrocarbons		2.3	2.0	3.2	14.7	8.2	7.3	53.6	71.0	168.1	214.9	291.3	430.6	500.8	383.3		
Total Concentration of VOCs		2.3	2.0	3.2	14.7	8.2	7.3	53.6	71.0	168.1	214.9	291.3	430.6	500.8	383.3		

Table 6-1 (Cont'd)
Old Town Area Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
 (concentrations in µg/L)

Constituent	MCL	7B-95-21			7B-95-24			7B-95-25			25-95-5			25-98-10			25A-98-1
		Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	May-07	Apr-07*	May-07*	Jun-07*	Apr-07*	May-07*	Jun-07*	Apr-07		
Aromatic or Non-Halogenated Hydrocarbons																	
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2								<2	
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1								1.4	
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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<1	<1	<1	<1	<1	<1	<1	<2	
Total Aromatic Hydrocarbons																1.4	
Halogenated Hydrocarbons																	
Bromodichloromethane	80	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	
Bromoform	80	<2	<2	<2	<2	<2	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	1.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.51	
Chloroform	80	<3	<3	<3	<3	<3	<3	<3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<3	
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	
cis-1,2-Dichloroethene	6	<1	11.4	19.8	3.2	1.8	3.0	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	
trans-1,2-Dichloroethene	10	<1	9.3	17.6	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	
Tetrachloroethene	5	106.0	154.0	158.0	64.1	54.0	55.4	1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	
Trichloroethene	5	17.0	222.0	220.0	17.7	13.4	16.7	<1	0.59	0.57	1.30	<0.5	2.0	4.20	16.3		
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	
Freon-123A		<1	<1	<1	<1	<1	<1	<1								<1	
Vinyl Chloride	0.5	<1	1.6	4.4	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	
Total Halogenated Hydrocarbons	123.0	398.3	419.8	85.0	70.4	75.1	1.7	0.59	0.57	1.3	0.59	0.57	1.3	2	6.43	16.3	
Total Concentration of VOCs	123.0	398.3	419.8	85.0	70.4	75.1	1.7	0.6	0.6	1.3				2.0	6.4	17.7	

Table 6-1 (Cont'd)
Old Town Area Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
(bconcentrations in µg/L)

Constituent	MCL	25A-98-1(cont'd)		25A-98-3			25A-98-7			27-92-20			46-93-12		52-93-14	
		May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	May-07	May-07	May-07	May-07
Aromatic or Non-Halogenated Hydrocarbons																
Benzene	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	
sec-Butylbenzene		<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	
1,4-Dichlorobenzene	5	<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	
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
p-Isopropyltoluene		<1	3.5	<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	
Naphthalene		<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	
Toluene	150	<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	
1,3,5-Trimethylbenzene		<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	
Total Aromatic Hydrocarbons			3.5													
Halogenated Hydrocarbons																
Bromodichloromethane	80	<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	
Carbon Tetrachloride	0.5	<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	
1,1-Dichloroethane	5	<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	
1,1-Dichloroethene	6	5.6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
cis-1,2-Dichloroethene	6	2.9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
trans-1,2-Dichloroethene	10	1.3	<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	
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
1,1,2,2-Tetrachloroethane	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	1.4	1.2	1.3	<1	6.6	
1,1,1-Trichloroethane	200	<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	
Trichloroethene	5	147.0	13.8	15.2	13.1	10.8	6.8	7.5	6.7	2.5	2.0	2.2	1.7	<1	<1	
Freon-113	1200	<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	
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Total Halogenated Hydrocarbons		156.8	13.8	15.2	13.1	10.8	6.8	7.5	6.7	3.9	3.2	3.5	1.7	6.6		
Total Concentration of VOCs		156.8	17.3	15.2	13.1	10.8	6.8	7.5	6.7	3.9	3.2	3.5	1.7	6.6		

Table 6-1 (Cont'd)
Old Town Area Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
(bconcentrations in µg/L)

Constituent	MCL	52-95-2B			52-98-9			52A-98-8B			53-93-9			53-93-16-69*			53-96-1		
		Apr-07	May-07		Apr-07	May-07	Jun-07	Apr-07	May-07		Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07		
Aromatic or Non-Halogenated Hydrocarbons																			
Benzene	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		
sec-Butylbenzene		<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		
1,4-Dichlorobenzene	5	<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		
Isopropylbenzene		<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		
Methyl tert-Butyl Ether	13	<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		
n-Propylbenzene		<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		
1,2,4-Trimethylbenzene		<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		
Xylenes, total	1750	<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		
Bromoform	80	<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	<1	3.1	2.4	1.7	4.3		
Chloroform	80	<3	<3		<3	<3	<3	<3	<3		<3	3.2	<3	<3	<3	<3	<3		
1,1-Dichloroethane	5	<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		
1,1-Dichloroethene	6	<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	1.9	1.1	<1	2.3		
trans-1,2-Dichloroethene	10	<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		
1,1,1,2-Tetrachloroethane		<2	<2		<2	<2	<2	<2	<2		<2	<2	<2	<2	<2	<2	<2		
1,1,2,2-Tetrachloroethane	1	<1	<1		<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1		
Tetrachloroethene	5	<1	1.1		1.3	<1	<1	<1	<1		2.4	2.5	2.9	44.6	20.4	16.0	34.5		
1,1,1-Trichloroethane	200	<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		
Trichloroethene	5	1.8	1.7		1.9	2.1	2.0	<1	<1		2.0	2.4	2.5	18.0	9.4	7.0	13.7		
Freon-113	1200	<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		
Vinyl Chloride	0.5	<1	<1		<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1		
Total Halogenated Hydrocarbons		1.8	2.8		3.2	2.1	2.0				4.4	8.1	5.4	67.6	33.3	24.7	56.8		
Total Concentration of VOCs		1.8	2.8		3.2	2.1	2.0				4.4	8.1	5.4	67.6	33.3	24.7	56.8		

Table 6-1 (Cont'd)
Old Town Area Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
(bconcentrations in µg/L)

Constituent	MCL	53-96-1 (cont'd)		58-96-11		58-00-12			MW90-2	MW91-8			MW91-9		
		May-07	Jun-07	Apr-07	May-07	Apr-07	May-07	Jun-07	May-07	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07
Aromatic or Non-Halogenated Hydrocarbons															
Benzene	1	<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	5	<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	300	<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<100	<10	<100	<100	<100	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether	13	<5	<5	<250	<25	<250	<250	<250	<5	<5	<5	<5	<5	<5	<5
Naphthalene		<2	<2	<100	<10	<100	<100	<100	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<100	<10	<100	<100	<100	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons															
Halogenated Hydrocarbons															
Bromodichloromethane	80	<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
Bromoform	80	<2	<2	<100	<10	<100	<100	<100	<2	<2	<2	<2	<2	<2	<2
Carbon Tetrachloride	0.5	4.9	4.1	<50	12.0	347	379	330	<1	<1	<1	<1	<1	<1	<1
Chloroform	80	<3	<3	<150	<15	<150	<150	<150	<3	<1	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<2	<100	<10	<100	<100	<100	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	2.1	1.5	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	2.5	2.5	<50	7.7	209	206	162	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	10	<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<100	<10	<100	<100	<100	<2	<2	<2	<2	<2	<2	<2
1,1,2,2-Tetrachloroethane	1	<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	34.9	34.8	308	285	10,400	11,400	8,770	5.4	1.5	1.7	1.3	5.4	5.5	4.8
1,1,1-Trichloroethane	200	<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	14.5	13.4	215	187	6,260	6,760	5,350	<1	2.0	2.3	1.3	1.2	1.3	1.4
Freon-113	1200	<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
Freon-123A		<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<50	<5	<50	<50	<50	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		58.9	56.3	523	491.7	17,216	18,745	14,612	5.4	3.5	4.0	2.6	6.6	6.8	6.2
Total Concentration of VOCs		58.9	56.3	523	491.7	17,216	18,745	14,612	5.4	3.5	4.0	2.6	6.6	6.8	6.2

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 Line

Table 6-2
Old Town Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
(bconcentrations in µg/L)

Constituent	MCL	SB5A-98-1		SB25A-96-3		SB27-96-1			SB53-96-3			SB58-96-1		SB58-96-2		SB58-97-1		SB58-97-2		
		Apr-07	Jun-07	May-07		Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	May-07	May-07	May-07	May-07	May-07	May-07	Apr-07	May-07	Jun-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		4.1	3.7	<10		<1	1.6	<1	<1	<1	<1	<1	<1
Chloroform	80	<3	<3		<3	<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	1.5	<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	24.6	<1	<1	<1		2.1	1.9	<10		<1	4.3	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<1	4.0	<1	<1	<1		10.9	10.5	11.0		5.4	8.1	<1	40.8	28.6	32.5		
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	1.8	6.4		<1	1.4	<1	<1	253	214	203		29.1	143.0	5.3	<1	<1	<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	1.1	95.6	1.9	1.6	<1		87	71.4	67.0		24.8	68.8	<1	4.3	2.0	1.8		
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	2.3	1.5	1.9		
Total Halogenated Hydrocarbon		1.8	7.5	124.2	3.3	1.6			357.1	301.5	281.0		59.3	227.3	5.3	47.4	32.1	36.2		
Total Concentration of VOCs		1.8	7.5	124.2	3.3	1.6			357.1	301.5	281.0		59.3	227.3	5.3	47.4	32.1	36.2		

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

All analyses by LBNL EML unless otherwise noted

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= Less than Quantitation Limit

= Compound not included in analysis

Table 6-3
Old Town Area Extraction Well Sampling Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
(bconcentrations in µg/L)

Constituent	MCL	EW7-96-1			EW7-96-2			EW7-96-4R			EW7-03-1		
		Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07
Aromatic or Non-Halogenated Hydrocarbons													
Benzene	1	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
n-Butylbenzene		<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
sec-Butylbenzene		<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
ter-Butylbenzene		<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
1,4-Dichlorobenzene	5	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
Ethylbenzene	300	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
Isopropylbenzene		<20	<20	<20	<2	<2	<2	<20	<20	<2	<10	<2	<2
p-Isopropyltoluene		<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
Methyl tert-Butyl Ether	13	<50	<50	<50	<5	<5	<5	<50	<50	<5	<25	<5	<5
Naphthalene		<20	<20	<20	<2	<2	<2	<20	<20	<2	<10	<2	<2
n-Propylbenzene		<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
Toluene	150	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
Xylenes, total	1750	<20	<20	<20	<2	<2	<2	<20	<20	<2	<10	<2	<2
Total Aromatic Hydrocarbons													
Halogenated Non-Aromatic Hydrocarbons													
Bromodichloromethane	80	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
Bromoform	80	<20	<20	<20	<2	<2	<2	<20	<20	<2	<10	<2	<2
Carbon Tetrachloride	0.5	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
Chloromethane		<100	<100	<100	<10	<10	<10	<100	<100	<10	<50	<10	<10
Chloroform	80	<30	<30	<30	<3	<3	<3	<30	<30	<3	<15	<3	<3
1,1-Dichloroethane	5	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
1,2-Dichloroethane	0.5	<20	<20	<20	<2	<2	<2	<20	<20	<2	<10	<2	<2
1,1-Dichloroethene	6	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
cis-1,2-Dichloroethene	6	<10	<10	<10	<1	<1	<1	<10	<10	5.0	<5	<1	<1
trans-1,2-Dichloroethene	10	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
1,2-Dichloropropane	5	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
Methylene Chloride	5	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
1,1,1,2-Tetrachloroethane		<20	<20	<20	<2	<2	<2	<20	<20	<2	<10	<2	<2
1,1,2,2-Tetrachloroethane	1	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
Tetrachloroethene	5	716.0	528.0	302.0	42.3	12.1	20.9	131.0	347.0	27.3	59.3	9.7	8.8
1,1,1-Trichloroethane	200	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
1,1,2-Trichloroethane	5	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
Trichloroethene	5	20.4	17.5	<10	11.8	<1	6.7	<10	99.3	1.8	25.3	3.9	5.6
Freon-113	1200	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
Freon-123A		<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
Vinyl Chloride	0.5	<10	<10	<10	<1	<1	<1	<10	<10	<1	<5	<1	<1
Total Halogenated Hydrocarbon	736.4	545.5	302.0	54.1	12.1	27.6	131.0	446.3	34.1	84.6	13.6	14.4	
Total Concentration of VOCs	736.4	545.5	302.0	54.1	12.1	27.6	131.0	446.3	34.1	84.6	13.6	14.4	

Table 6-3 (Cont'd)
Old Town Area Extraction Well Sampling Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
(bconcentrations in µg/L)

Constituent	MCL	EW7-03-2			EW7-03-3			EW7-06-1		EW7C-04-2		
		Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	Jun-07	Apr-07	May-07	Jun-07
Aromatic or Non-Halogenated Hydrocarbons												
Benzene	1	<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	5	<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
Ethylbenzene	300	<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<2	<20	<20	<20	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether	13	<5	<5	<5	<50	<50	<50	<5	<5	<5	<5	<5
Naphthalene		<2	<2	<2	<20	<20	<20	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<2	<20	<20	<20	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons												
Halogenated Non-Aromatic Hydrocarbons												
Bromodichloromethane	80	<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
Bromoform	80	<2	<2	<2	<20	<20	<20	<2	<2	<2	<2	<2
Carbon Tetrachloride	0.5	11.5	14.6	12.7	27.4	31.1	27.6	<1	<1	1.8	1.9	1.9
Chloromethane		<10	<10	<10	<100	<100	<100	<10	<10	<10	<10	<10
Chloroform	80	<3	<3	<3	<30	<30	<30	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<2	<2	<20	<20	<20	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	1.1	1.2	1.2	18.5	15.0	16.5	5.3	8.1	<1	<1	<1
trans-1,2-Dichloroethene	10	<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<2	<20	<20	<20	<2	<2	<2	<2	<2
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
Tetrachloroethene	5	464	490	417	1490	1480	1350	299.0	303.0	12.5	11.7	12.4
1,1,1-Trichloroethane	200	<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
Trichloroethene	5	182	181	156	511	491	460	30.9	38.0	2.7	2.2	2.6
Freon-113	1200	<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
Freon-123A		<1	<1	<1	<10	<10	<10	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<1	<10	<10	<10	1.4	2.0	<1	<1	<1
Total Halogenated Hydrocarbon	658.6	686.8	586.9	2,046.9	2,017.1	1,854.1	336.6	351.1	17.0	15.8	16.9	
Total Concentration of VOCs	658.6	686.8	586.9	2,047	2,017	1,854	336.6	351.1	17.0	15.8	16.9	

Table 6-3 (Cont'd)
Old Town Area Extraction Well Sampling Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
 (concentrations in µg/L)

Constituent	MCL	EW25A-02-1			EW53-04-2			EW58-98-1 ^T		EW58-98-2 ^T		EW58E-98-1		EW58E-98-2		EW58E-98-3	
		Apr-07	May-07	Jun-07	Apr-07	May-07	Jun-07	Apr-07	Apr-07	May-07	May-07	May-07	May-07	May-07	May-07	May-07	
Aromatic or Non-Halogenated Hydrocarbons																	
Benzene	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
sec-Butylbenzene		<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
1,4-Dichlorobenzene	5	<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
Isopropylbenzene		<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
Methyl tert-Butyl Ether	13	<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
n-Propylbenzene		<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
Xylenes, total	1750	<2	<2	<2	<2	<2	<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	<1	<1	<1	<1	<1
Bromoform	80	<2	<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	<1	<1	1.8	<1	1.7		
Chloromethane		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroform	80	<3	<3	<3	<3	<3	3.2	<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
1,2-Dichloroethane	0.5	<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
cis-1,2-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	1.9	<1	3.5	2.2	2.9			
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<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	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	<1	<1	2.3	2.5	2.3	1.7	<1	72.6	24.1	57.1				
1,1,1-Trichloroethane	200	<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
Trichloroethene	5	4.6	4.1	4.0	2.2	2.6	2.3	3.0	<1	52.7	24.8	46.3					
Freon-113	1200	<1	<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	<1
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbon	4.6	4.1	4.0	4.5	8.3	4.6	6.6			130.6	51.1	108.0					
Total Concentration of VOCs	4.6	4.1	4.0	4.5	8.3	4.6	6.6			130.6	51.1	108.0					

Table 6-3 (Cont'd)
Old Town Area Extraction Well Sampling Results
Volatile Organic Compounds - EPA Method 8260

3rd Quarter FY 2007
 (concentrations in µg/L)

Constituent	MCL	EW58E-98-4 May-07	EW58E-98-5 May-07	EW58E-98-6 May-07	EW58E-98-7 May-07	EW58E-98-8 May-07	EW58-02-1 Apr-07	May-07	Jun-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	2.7	<1	<1	<1	3.9	2.3	3.1
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	<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	1.9	1.6	1.7
cis-1,2-Dichloroethene	6	2.1	7.2	8.5	7.1	12.1	10.5	7.2	10.1
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
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<2	<1	<1	<1
1,1,2,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	9.9	64.2	21.2	12.9	44.8	226	147.0	187.0
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	25.3	82.3	35.7	19.3	47.1	73.1	47.6	63.4
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 Hydrocarbon	37.3	156.4	65.4	39.3	104.0	315.4	205.7	265.3	
Total Concentration of VOCs	37.3	156.4	65.4	39.3	104.0	315.4	205.7	265.3	

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

All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

^TTreatment system influent samples

Table 6-4
Old Town Area Sampling Results from Other Locations
Volatile Organic Compounds - EPA Method 8260

3rd Quarter FY 2007
 (concentrations in µg/L)

Constituent	MCL	MP7-99-1BR		MP7-99-2B		SSW19-63	
		May-07		Apr-07		May-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	
Methyl tert-Butyl Ether	13	<5		<5		<5	
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							
Bromodichloromethane	80	<1		<1		<1	
Carbon Tetrachloride	0.5	<1		342		<1	
Chloroform	80	<3		5.6		<3	
1,1-Dichloroethane	5	<1		1.4		<1	
1,2-Dichloroethane	0.5	<2		<2		<2	
1,1-Dichloroethene	6	<1		4.8		<1	
cis-1,2-Dichloroethene	6	<1		10.8		<1	
trans-1,2-Dichloroethene	10	<1		<1		<1	
1,2-Dichloropropane	5	<1		<1		<1	
Methylene Chloride	5	<1		<1		<1	
1,1,1,2-Tetrachloroethane		<2		13.5		<2	
1,1,2,2-Tetrachloroethane	1	<1		<1		<1	
Tetrachloroethene	5	<1		9,320		<1	
1,1,1-Trichloroethane	200	<1		<1		<1	
1,1,2-Trichloroethane	5	<1		<1		<1	
Trichloroethene	5	<1		4,080		<1	
Freon-113	1200	<1		<1		<1	
Freon-123A		<1		<1		<1	
Vinyl Chloride	0.5	<1		<1		<1	
Total Halogenated Hydrocarbons				13,778.1			
Total Concentration of VOCs				13,778.1			

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

All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

Table 7-1
Support Services Area Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
(bconcentrations in µg/L)

Constituent	MCL	69-97-8			75-96-20
		Apr-07	May-07	Jun-07	May-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
Ethylbenzene	300	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<2	<2
p-Isopropyltoluene		1.4	<1	4.4	<1
Naphthalene		<2	<2	<2	<2
n-Propylbenzene		<1	<1	<1	<1
Toluene	150	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<2	<2
Total Aromatic Hydrocarbons		1.4		4.4	
Halogenated Non-Aromatic Hydrocarbons					
Carbon Tetrachloride	0.5	<1	<1	<1	<1
Chloroform	80	<3	<3	<3	<3
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	5.1	4.4	5.9	2.7
trans-1,2-Dichloroethene	10	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1
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	<1	<1	6.1
Freon-113	1200	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<1	<1
Total Halogenated Hydrocarbons		5.1	4.4	5.9	8.8
Total Concentration of VOCs		6.5	4.4	10.3	8.8

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

All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

Table 7-2
Support Services Area Temporary Groundwater Sampling Point Results
Volatile Organic Compounds - EPA Method 8260

3rd Quarter FY 2007
 (concentrations in µg/L)

Constituent	MCL	SB69A-99-1			SB75-02-1
		Apr-07	May-07	Jun-07	
Aromatic or Non-Halogenated Hydrocarbons					
Benzene	1	<1	1.0	<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	300	<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	1.3	1.1	<1	<1
Xylenes, total	1750	<2	<2	<2	<2
Total Aromatic Hydrocarbons		1.30	2.10		
Halogenated Non-Aromatic Hydrocarbons					
Bromodichloromethane	80	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<1	<1	<1	<1
Chloroethane		<30	<30	<30	<30
Chloroform	80	<3	<3	<3	5.0
1,1-Dichloroethane	5	<1	<1	<1	2.5
1,2-Dichloroethane	0.5	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	5.4	3.5	3.6	65.8
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	<1	<1	8.9
Freon-113	1200	<1	<1	<1	<1
Freon-123A		<1	<1	<1	<1
Vinyl Chloride	0.5	13.0	11.2	9.1	<1
Total Halogenated Hydrocarbons		18.4	14.7	12.7	82.2
Total Concentration of VOCs		19.7	16.8	12.7	82.2

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

All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

Table 8
Hydrauger Monitoring Results
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
(bconcentrations in µg/L)

Constituent	MCL	51-01-01		51-01-02		51-01-03		51-01-04	
		Apr-07	Apr-07	Apr-07	Apr-07	Apr-07	Apr-07	Apr-07	Apr-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	11.2		<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		1.2		1.7	
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		2.3		<1		1.2	
Freon-11		<2		<2		<2		<2	
Freon-113	1200	<1		<1		<1		<1	
Vinyl Chloride	0.5	<1		<1		<1		<1	
Total Halogenated Hydrocarbons		11.2		2.3		1.2		2.9	
Total Concentration of VOCs		11.2		2.3		1.2		2.9	

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
3rd Quarter FY 2007
(concentrations in µg/L)

Constituent	SB64-03-1B
	May-07
Halogenated Non-Aromatic Hydrocarbons	
2,2-Dichloropropane	1.2

No MCLs has been established for this chemical.

All analyses by LBNL EML unless otherwise noted.

Table 10
Volatile Organic Compounds Detected in Groundwater Above MCLs
EPA Method 8260
3rd Quarter FY 2007
(bconcentrations 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
Building 71 VOC Plume - Building 71B Lobe									
SB71B-03-1								3.4	
SB71B-03-2				7.1				2.7	
SB71B-04-1				13.0		30.1	12.6		
Building 51/64 VOC Plume									
MW51-96-16				54.3	26.2		10.9	15.8	
MW51-96-17								2.9	
MW51-96-18	51.6		11.8			178	57.2		
MW51B-93-18A	8			22.1			13.3	2.4	
SB51-98-1	5.5			86.9			33.3	1.1	
SB64-98-8	219		40.4			47.6	81	9.3	
SB64-98-17	129		11.7					2.1	
SB64-99-4	698		85.1	12.9		10	44	14.8	
SB64-99-5	70.1		42.7			6.1	17.5		
SB64-00-1	322		20.6	15.7			42.1		
SB64-00-2	35.6		189			20.1	50.8		
SB64-02-1A	4340		639	104		203	704	462	
SB64-02-1B	533		109	195			49.3	117	
SB64-02-1C	943		115	101			17.1	44	
SB64-02-1D	242	3.3	88.8	83.4		5.3	53.5	55	
SB64-02-1E	234	2.7	81.1	68.4		7.5	73.8	45.8	
SB64-02-1F	231		32	26.9			27.5	25	
SB64-02-2A	238		31.5	219			34.7	25.3	
SB64-02-2B	841		86.5	22.2			19		

Table 10 (Cont'd)
Volatile Organic Compounds Detected in Groundwater Above MCLs
EPA Method 8260
3rd Quarter FY 2007
(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
	5	0.5	6	6	10	5	5	0.5	0.5
SB64-02-2C	105		45.3	19.1			8.4	1.7	
SB64-02-2D	112		33.4	12.3			8.3		
SB64-02-2E	97.2		35.3	19.9			6.9	1.2	
SB64-02-2F	505	2.8	50	30.1			6.1	1.1	
SB64-03-1B	165		7.1				18		
SB64-03-5			6.3			5.5	47.7		
SB64-03-6				11.7		8.7	147		
EW51-07-1				20.7			24.2		
EW51-07-2						5.4	7.2		
EW64-00-1	5.5								
EW64-03-1	44.1						6.4		
EW64-06-1				19.7			7.1	5.7	
Building 51L Plume									
SB51L-98-1A				54.9			30.8		
EW51A-06-1				72.1		13.5	750		18.7
EW51L-06-1				10.4			21.3		
Old Town VOC Plume - Building 7 Lobe									
MW90-2						5.4			
MW7-92-19						6.6			
MW7-94-3				13.4		40.5	17		1.1
MW7-95-22				17.8		183	84.1		4.3
MW7-95-23						224	265		10.4
MW7B-95-21				19.8	17.6	158	222	4.4	
MW7B-95-24						64.1	17.7		1.2

Table 10 (Cont'd)
Volatile Organic Compounds Detected in Groundwater Above MCLs
EPA Method 8260
3rd Quarter FY 2007
(bconcentrations 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
MW53-93-16-69'						44.6	18		3.1	
MW53-96-1						34.9	14.5		4.9	
MW58-96-11				7.7		308	215		12	
MW58-00-12				209		11400	6760		379	
SB53-96-3				11		253	87		4.1	
SB58-96-1						29.1	24.8			
SB58-96-2				8.1		143	68.8		1.6	
SB58-97-1						5.3				
SB58-97-2				40.8				2.3		
EW7-96-1						716	20.4			
EW7-96-2						42.3	11.8			
EW7-96-4R						347	99.3			
EW7-03-1						59.3	25.3			
EW7-03-2						490	182		14.6	
EW7-03-3				18.5		1490	511		31.1	
EW7-06-1				8.1		303	38	2		
EW7C-04-2						12.5			1.9	
EW58E-98-1						72.6	52.7		1.8	
EW58E-98-2						24.1	24.8			
EW58E-98-3						57.1	46.3		1.7	
EW58E-98-4						9.9	25.3			
EW58E-98-5				7.2		64.2	82.3		2.7	
EW58E-98-6				8.5		21.2	35.7			
EW58E-98-7				7.1		12.9	19.3			

Table 10 (Cont'd)
Volatile Organic Compounds Detected in Groundwater Above MCLs
EPA Method 8260
3rd Quarter FY 2007
(bconcentrations in µg/L)

	Halogenated VOCs								Aromatic VOCs	
MCLs	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
EW58E-98-8				12.1		44.8	47.1			
EW58-02-1				10.5		226	73.1		3.9	
MP7-99-2B				10.8		9320	4080		342	
Old Town VOC Plume - Building 25A Lobe										
MW25-98-10									0.51	
MW25A-98-1							147			
MW25A-98-3							15.2			
MW25A-98-7							7.5			
SB25A-96-3			24.6				95.6			
Old Town VOC Plume - Building 52 Lobe										
MW91-9						5.5				
MW52-93-14						6.6				
SB5A-98-1						6.4				
Building 69 Area of Groundwater Contamination										
SB69A-99-1							13			1
Building 75A Area of Groundwater Contamination										
MW75-96-20							6.1			
SB75-02-1				65.8			8.9			

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
July 2006 through June 2007
(concentrations in pCi/L)

Area	Well No.	FY2006	FY2007	FY2007	FY2007
		Qtr 4 July-Sept	Qtr 1 Oct-Dec	Qtr 2 Jan-Mar	Qtr 3 Apr-June

Groundwater Monitoring Wells

1	71-95-9	<300		320	
3	69-97-21				<300
	75B-92-24			959	
	75-97-5	16,500		15,100	
		16,800 (D)		15,200 (D)	
	75-97-7	349		398	
	75-98-14	9,360		4,880	
				4,880 (D)	
	75-99-6	3,380		3,100	
	75-99-7			6,080	
4	76-93-6			3190	
5	MWP-9	<300			
	MWP-10	<300			
	77-94-6			6,020	
	77-97-11			3,950	
	31-97-17	1,120		1,310	
	31-98-17		<300	<300	<300

Temporary Groundwater Sampling Points

3	SB69A-99-1	517		585	
	SB69A-00-1	<300		<300	
	SB69-02-1A			724	
	SB69-02-1B			<300	
	SB75-02-1	1,100		971	
	SB75A-02-1A	636		745	
	SB75A-02-1B	<300		<300	
5	SB31-02-1	1,030		975	
	SB31-02-2	1,070		1,260	
	SB31-02-4	2,090		2,100	
	SB31-02-5	1,970		2,140	
	SB31-02-6	405		373	
	SB31-02-7	<300		<300	
	SB31-03-1	3,010		1,740	
	SB31-03-2	3,710		2,320	
	SB31-03-3			1,180	
	SB31-03-4	2,290		2,130	
	SB77-02-1	<300		<300	

Table 11 (Cont'd)
Groundwater Monitoring Results
Tritium- Modified Method E906
July 2006 through June 2007
(concentrations in pCi/L)

Area	Well No.	FY2006	FY2007	FY2007	FY2007
		Qtr 4 July-Sept	Qtr 1 Oct-Dec	Qtr 2 Jan-Mar	Qtr 3 Apr-June
Slope Stability/Indicator Facilities					
5	SSW17-130	308		736	
	SSW19-130	414		364	
	SSW20-130	977		986	
	SSW21-130	<300		<300	
Quality Assurance Samples					
	Rinse Blank	<300 <300			
Hydraugers					
5	77-02-05			1,470	
	77-02-06			436	
	77-02-11			<300	
	77-02-12			<300	
	77-03-02			<300	
	77-03-03			<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
Soil Water Sampling Results
Tritium
3rd Quarter FY 2007
(bconcentrations in pCi/L)

Location	Depth (ft)	Date	Tritium
TS-1-2	55	Apr-07	<300
TS-1-3	44.5		<300
TS-1-4	30		<300
TS-1-5	21.3		<300
TS-1-6	16.5		<300
TS-1-7	12		1,340
TS-1-8	9		1,220
TS-1-9	6		1,200
TS-1-10	4.25		777
SB75-96-1	14		6,200
SB75-96-3	20		10,100
SB75-96-4	7.5		18,300
	15		9,600
Trip Blank			<300

All samples were analyzed by Eberline Services

<

= Less than minimum detectable activity (MDA)

Table 13
Hydrochemical Indicator Parameters Sampling Results
3rd Quarter FY 2007

Parameter	Units	Optimum Range in Concentration	MW51-96-16		MW51-96-17		SB69A-99-1		SB71B-03-1		SB71B-03-2	
			Apr-07	Jun-07	Apr-07	Jun-07	Apr-07	Jun-07	Apr-07	Jun-07	Apr-07	Jun-07
Ethane (C ₂ H ₆)		>10	0.076	<0.025	0.18	0.054	0.027	<0.025	0.31	0.079	0.049	0.08
Ethene (C ₂ H ₄)	µg/L	>10	18	11	2.5	0.91	8	6.8	2.1	0.29	3.4	3.7
Methane (CH ₄)		>500	11,000	10,000	9,400	4,700	9,600	7,700	2,400	220	7,500	8,900
Volatile Fatty Acids (VFAs)	mg/L	>100	172.4	130.1	0.76	0.17	0.20	0.30	0.40	0.51	0.24	0.34
Nitrate (NO ₃ ⁻)	mg/L	<1	<1	<0.5	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
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
Sulfate (SO ₄ ²⁻)	mg/L	<20	2.9	2	<2	1.7	<2	1.1	9.5	22	12	10
Sulfide (H ₂ S)	mg/L	>1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ferrous Iron (Fe ²⁺)	mg/L	>1	2.8	3.6	ND	ND	3.4	3.8	3.7	ND	1.3	1
Carbon Dioxide (CO ₂)	ppm	> 2 times background	13	12	30	18	13	11	15	20	16	13
Dissolved Oxygen (DO)	mg/L	<0.5	0.05	0.04	0.08	0.08	0.05	0.02	0.52	0.51	0.28	0.23
pH	pH units	5 to 9	6.75	6.38	7.4	6.77	6.7	6.48	6.82	6.81	7.04	6.84
Temperature	°C	>20	17.9	17.6	17.8	17.3	18.1	19.5	17.2	16.6	17.6	16.7

(a) < indicates that analyte was not detected above method reporting limit noted.

(b) ND indicates analyte was not detected by instrument.

(d) Bold face type indicates that analytes were within optimum range in concentration.

Table 14
Soil Sampling Results
PCBs, VOCs & Metals
3rd Quarter FY 2007
(concentration in mg/kg)

Background*				PCBs	VOCs	Metals																
						Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
						<10	42	410	1.1	5.6	120	25	63	57	0.5	<5	270	5.1	3	10	90	140
Location	Sample ID	Depth (ft)	Date																			
B10-2	SS-B10-07-3	0.5	Jun-07		ND	<1	4.7	150	<0.5	<1	20	12	21	<10	0.016	<5	31	<2.5	<2.5	<25	15	45
	SS-B10-07-4	2			ND	<1	6.1	290	<1	<2	32	10	36	<20	0.041	<10	47	<5	<5	<50	38	72
B10-1	SS-B10-07-5	0.67			ND	<1	10	210	<0.5	<1	27	6.8	8.9	NA	0.058	<5	26	<2.5	<2.5	<25	17	37
	SS-B10-07-6	2			ND	<1	6	130	<0.5	<1	39	9.4	13	<10	0.029	<5	30	<2.5	<2.5	<25	21	44
B17	SS-17-07-1-2.8'	2.8	Jun-07	<0.2																		
	SS-17-07-1-5'	5		<0.2																		
	SS-17-07-2-2.8'	2.8		<0.2																		
	SS-17-07-2-5'	5		<0.2																		
	SS-17-07-3-2.8'	2.8		<0.2																		
	SS-17-07-3-5'	5		<0.2																		
	SS-17-07-4-5'	5		<0.2																		

All samples were analyzed by BC Laboratories.

* Berkeley Lab Maximum Background Level (Berkeley Lab, 2002)

NA indicates not analyzed.

< =analyte was not detected above method reporting limit

= Compound not included in analysis

ND indicates no VOCs detected

Table 15
Sewer Sediment Sampling Results
VOCs & Metals
3rd Quarter FY 2007
(bconcentration in mg/kg)

				VOCs					Metals																
Background*				Toluene	Total Xylenes	Acetone	Carbon disulfide	Methyl ethyl ketone	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
				10	42	410	1.1	5.6	120	25	63	57	0.5	5	270	5.1	3	10	90	140					
Background*																									
Location	Sample ID	Depth (ft)	Date	0.13	0.15	95	<0.5	0.69	2.3	6.8	74	<5	120	1200	<50	4500	830	28	100	800	<25	290	<250	<50	1400
B10-1	SS-B10-07-1	In pipe	6/27/07	0.06	<0.1	21	0.55	0.44	3.3	18	<50	<5	45	360	<50	4700	1400	30	<50	320	<25	260	<250	<50	2300
B10-2	SS-B10-07-2	In pipe																							

All samples were analyzed by BC Laboratories.

* Berkeley Lab Maximum Background Level for soil (Berkeley Lab, 2002)

Bold face type indicates concentration above background soil level.

< = analyte was not detected above method reporting limit.

Table 16
Groundwater Quality Control Samples
Volatile Organic Compounds - EPA Method 8260
3rd Quarter FY 2007
 (concentrations in µg/L)

Constituent	MCL	Equipment (Rinseate) Blanks					Trip Blank									
		Apr-07	Apr-07	May-07	May-07	Jun-07	Apr-07	Apr-07	May-07	May-07	May-07	May-07	May-07	Jun-07	Jun-07	Jun-07
Aromatic and 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-Trichlorobenzene	5	<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 Non-Aromatic Hydrocarbons																
Carbon Tetrachloride	0.5	<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
Dibromochloromethane	80	<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
1,2-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
cis-1,2-Dichloroethene	6	<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
Methylene Chloride	5	<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-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	<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
Vinyl Chloride	0.5	<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