Boeing Plant 2
Seattle/Tukwila, Washington

Uplands Corrective Measures Study
Volume III: South Yard Area

Data Gap Investigation Work Plan
Section 1: South Yard Description
Section 2: Data Gap Analysis
Section 3: Data Gap Investigation Methods

Data Gap Investigation Report
Section 4: Data Gap Investigation Results
Section 5: Area-specific Constituents of Concern

Remedy Selection Report

Prepared for

The Boeing Company
Seattle, Washington

Prepared by

Environmental Partners, Inc.
FLOYD | SNIDER
Golder Associates Inc.

Data Gap Investigation Work Plan Submitted
December 2005

Table of Contents

Foreword

1.0 South Yard Area Description 1-1

1.1 DESCRIPTION AND SETTING 1-1

1.1.1 Jorgensen Forge 1-2

1.1.2 CMS Study Areas at Boeing Plant 2 1-3

1.1.2.1 The South Yard Area 1-3

1.1.3 Previous Investigations 1-3

1.1.3.1 Scope of Information Available 1-4

1.2 RCRA UNITS: SOLID WASTE MANAGEMENT UNITS (SWMUs), AREAS OF CONCERN (AOCs), OTHER AREA (OAs) 1-4

1.2.1 RCRA Regulated Units: Closed TSDs 1-5

1.2.1.1 SWMU 2-104.71 (OA 16) – Central Drummed Waste Staging Area 1-5

1.2.1.2 SWMU 2-91.70 – Deactivated Waste Oil and Coolant Holding Area 1-5

1.2.2 RCRA Units: No Further Action (NFA) Determination 1-6

1.2.2.1 SWMU 78.B – Oil/Water Separator at Building 2-87 1-6

1.2.2.2 AOC 2-84.62 – Machine Pit 1-7

1.2.2.3 OA 3 – Former UST PL-23 1-7

1.2.3 RCRA Units: Interim Measures 1-8

1.2.3.1 SWMU 79.A – Cisterns 1, 2, and 3 1-8

1.2.3.2 SWMU 79.B – Cistern 4 1-9

1.2.3.3 SWMU 79.C – Cistern 5 1-10

1.2.3.4 SWMU 2-87.65 – Machine Pit 1-10

1.2.3.5 OA 16 1-10

1.2.4 RCRA Regulated Units: Remaining for Consideration 1-11

1.2.4.1 SWMU 2-78.1(Oil/Water Separator) 1-11

1.2.4.2 SWMU 78.5 (Oil/Water Separator) 1-12

1.2.4.3 SWMU 2-80.56 (Sink Sump) 1-12

1.2.4.4 SWMU 2-80.57 (Generator Sump) 1-13

1.2.4.5 SWMU 2-89.68 (Reclamation Yard) 1-13
1.2.4.6 SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) 1-15
1.2.4.7 AOC 2-80.58 (Deactivated Sump) 1-16
1.2.4.8 AOC 2-86.63 (Wet Paint Booth) 1-16
1.2.4.9 OA 10 (Former UST PL-23) 1-17

2.0 Data Gap Analysis 2-1
2.1 APPROACH 2-1
2.2 DATA GAPS: PHYSICAL CONCEPTUAL SITE MODEL 2-4
2.2.1 Plant 2 Hydrogeologic Description 2-4
2.2.2 Geology Data Gaps 2-8
2.2.3 Hydrogeology Data Gaps 2-8
2.2.4 Summary of Physical Conceptual Model Data Gaps Investigation 2-9
2.3 GROUNDWATER QUALITY DATA GAPS 2-9
2.3.1 Current Data - Data Gap 2-9
2.3.2 Metals 2-10
2.3.2.1 Arsenic 2-10
2.3.2.2 Copper 2-11
2.3.2.3 Lead 2-12
2.3.2.4 Manganese 2-13
2.3.2.5 Nickel 2-14
2.3.2.6 Selenium 2-15
2.3.3 Semivolatile Organic Compounds and Polychlorinated Biphenyls 2-15
2.3.3.1 2,4-Dimethylphenol 2-16
2.3.3.2 bis(2-Ethylhexyl)phthalate 2-16
2.3.3.3 Aroclor 1254, Total Polychlorinated Biphenyls 2-17
2.3.4 Volatile Organic Compounds 2-18
2.3.4.1 Benzene 2-18
2.3.4.2 1,1-Dichloroethene 2-19
2.3.4.3 cis-1,2-Dichloroethene 2-20
2.3.4.4 Tetrachloroethene 2-20
2.3.4.5 1,1,2-Trichloroethane 2-21

2.3.4.6 Trichloroethene 2-21
2.3.4.7 Vinyl Chloride 2-22
2.3.5 Summary of Investigation Scope for Groundwater Data Gaps 2-23
2.4 SOIL QUALITY DATA GAPS 2-24
2.4.1 Metals and Cyanide 2-24
2.4.1.1 Arsenic 2-25
2.4.1.2 Cadmium 2-26
2.4.1.3 Copper 2-28
2.4.1.4 Hexavalent Chromium 2-30
2.4.1.5 Manganese 2-31
2.4.1.6 Mercury 2-32
2.4.1.7 Nickel 2-34
2.4.1.8 Selenium 2-36
2.4.1.9 Silver 2-38
2.4.1.10 Thallium 2-40
2.4.1.11 Zinc 2-42
2.4.2 Semivolatile Organic Compounds and Polychlorinated Biphenyls 2-44
2.4.2.1 Carcinogenic Polycyclic Aromatic Hydrocarbons 2-45
2.4.2.2 bis(2-Ethylhexyl)phthalate 2-47
2.4.2.3 Total Polychlorinated Biphenyls 2-49
2.4.3 Volatile Organic Compounds 2-52
2.4.3.1 Benzene 2-52
2.4.3.2 1,1-Dichloroethene 2-54
2.4.3.3 cis-1,2-Dichloroethene 2-56
2.4.3.4 Ethylbenzene 2-56
2.4.3.5 Methylene Chloride 2-57
2.4.3.6 Tetrachloroethene 2-58
2.4.3.7 Toluene 2-60
2.4.3.8 1,1,1-Trichloroethane 2-61
2.4.3.9 Trichloroethene 2-61
2.4.3.10 Vinyl Chloride 2-64
2.4.4 Petroleum Hydrocarbons 2-65

2.4.4.1 Total Petroleum Hydrocarbons 2-66
2.4.4.2 Gasoline Range Petroleum Hydrocarbons 2-67
2.4.4.3 Diesel Range Petroleum Hydrocarbons 2-67
2.4.5 Summary of Investigative Scope for Soil Data Gaps 2-68

3.0 Data Gap Investigation Methods 3-1
3.1 MONITORING WELL INSTALLATION 3-1
3.1.1 Monitoring Well Development 3-2
3.2 PROBE INSTALLATION 3-3
3.3. GROUNDWATER SAMPLING 3-3
3.3.1 Surveying and Water Level Measurements 3-5
3.3.2 Field Parameter Measurements 3-5
3.3.3 Groundwater Laboratory Analysis 3-6
3.4 SOIL SAMPLING 3-6
3.4.1 Geologic Soil Logging 3-7
3.4.2 Field Screening 3-7
3.4.3 Soil Laboratory Analysis 3-8
3.5 HYDROLOGIC ANALYSIS 3-8
3.6 QUALITY CONTROL SAMPLES 3-8
3.6.1 Trip Blank Samples 3-8
3.6.2 Equipment Blank Samples 3-8
3.6.3 Duplicate Samples 3-9
3.6.4 Matrix Spike/Matrix Spike Duplicate Samples 3-9
3.7 SAMPLE HANDLING AND SHIPPING 3-9
3.7.1 Sample Identification 3-9
3.8 LABORATORY ANALYTICAL METHODS 3-10
3.9 DECONTAMINATION PROCEDURES 3-11
3.9.1 Aqueous Sampling Equipment Decontamination 3-11
3.9.2 Nonaqueous Sampling Equipment Decontamination 3-12
3.9.3 Decontamination of Workers and Personal Protective Equipment 3-12
3.9.4 Decontamination of Sample Containers 3-13
3.10 DISPOSAL OF INVESTIGATION DERIVED WASTE 3-13

3.11 QUALITY ASSURANCE PROJECT PLAN....3-13
3.12 HEALTH AND SAFETY PLAN....3-13
3.13 SCHEDULE AND DELIVERABLES....3-14

References

List of Tables

Table 1-1 Previous Investigations
Table 1-2 Summary of Available Unit Information
Table 2-1 Screening Levels for Constituents of Concern
Table 2-2 Summary of Groundwater and Soil Data Gap Investigations
Table 2-3 Locations of COCs Detected Above Screening Levels in Groundwater
Table 2-4 Locations of COCs Detected Above Screening Levels in Soil
Table 3-1 Proposed CMS Data Gap Soil Sampling
Table 3-2 Laboratory Methods and Sample Requirements
Table 3-3 CMS Data Gap Groundwater Sampling
Table 3-4 Reporting Limits Compared to Screening Levels for Analytes

List of Figures

Figure 1-1 Vicinity Map
Figure 1-2 Site Plan with CMS Study Areas
Figure 1-3 South Yard
Figure 2-1 Groundwater Data Gap Sampling Locations
Figure 2-2 Groundwater Level Investigation Locations
Figure 3-1 Generalized Monitoring Well/Piezometer Construction Drawing

List of Attachments

Attachment A Groundwater Constituents of Concern, South Yard Area, Boeing Plant 2
Attachment B Soil Constituents of Concern, South Yard Area, Boeing Plant 2
Attachment C Health and Safety Plan, South Yard Area, Boeing Plant 2

This page intentionally left blank

List of Abbreviations/Acronyms

Abbreviation/Acronym	Definition
AOC	Area of Concern
AST	Aboveground storage tank
ASTM	American Society for Testing and Materials
bgs	Below ground surface
BTEX	Benzene, toluene, ethylbenzene, and xylene
CMS	Corrective Measures Study
COC	Constituent of concern
cPAHs	Carcinogenic polycyclic aromatic hydrocarbons
DO	Dissolved oxygen
DRPH	Diesel range petroleum hydrocarbons
GRPH	Gasoline range petroleum hydrocarbons
IM	Interim measure
LNAPL	Light non-aqueous phase liquid
MTCA	Model Toxics Control Act
NAPL	Non-aqueous phase liquid
NFA	No Further Action
NTU	Nephelometric turbidity unit
OA	Other Area
ORP	Oxidation-reduction potential
PAHs	Polycyclic aromatic hydrocarbons
PCB	Polychlorinated biphenyl
PCE	Tetrachlorethene
PTFE	Polytetrafluoroethylene
PID	Photo-ionization detector
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SVOC	Semivolatile organic compound

Abbreviation/Acronym	Definition
SWMU	Solid Waste Management Unit
TCE	Trichloroethene
TD	Total depth
TOC	Total organic carbon
TPH	Total petroleum hydrocarbon
TSCA	Toxic Substances Control Act
TSD	Treatment, storage, and disposal
USEPA	U.S. Environmental Protection Agency
UST	Underground storage tank
VOC	Volatile organic compound
WAC	Washington Administrative Code

Foreword

This Work Plan presents the scope and methodology for a Data Gap Investigation in the South Yard Area of Boeing Plant 2. The need for this investigative work was identified by The Boeing Company (Boeing) during the preparation of the Uplands Corrective Measures Study (Uplands CMS), well after the completion of the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI). The RFI used a RCRA unit-by-unit approach to investigate the site; when corrective measures were being evaluated for groundwater, this approach was found to be inadequate for remedy selection due to the more integrated nature of groundwater contaminant distributions. Boeing, with the concurrence of the United States Environmental Protection Agency (USEPA) and Washington State Department of Ecology (Ecology), has embarked on a series of focused investigations to enable the Uplands CMS to proceed. The results of these investigations will be reported in the CMS Report.

This Data Gap Investigation Work Plan comprises Sections 1 through 3 of Volume III of the CMS, which covers the South Yard Area at Boeing Plant 2. Section 4 will present the results of the Data Gap Investigation when they are available; while later sections of Volume III will evaluate and select the remedies for the South Yard Area. Similar processes are being implemented simultaneously for the other areas at Boeing Plant 2. This volume (III) will be proceeded in the CMS report by Volume I – Introduction and Volume II – Cleanup Level Evaluation Technical Memorandum. Volume I will contain introductory text explaining Plant 2 history, the RCRA CMS process, the Plant 2 physical conceptual site model, a description of the study areas, and a discussion of the site-wide RCRA unit accounting process.

The Work Plan and the CMS are being performed under the Administrative Order on Consent (Order) issued by USEPA to Boeing under the authority of Section 3008(h) of the RCRA of 1976, as amended, (42 USC 6928(h)). This Order (RCRA Docket Number 1092-01-22-3008(h)) became effective on January 18, 1994. The Order specifies activities necessary to correct actual or potential threats to human health and the environment resulting from the release or potential release of hazardous constituents from the Boeing Plant 2 Facility located at 7755 East Marginal Way South, Seattle/Tukwila, Washington.

This page intentionally left blank

1.0 South Yard Area Description

1.1 DESCRIPTION AND SETTING

The Boeing Plant 2 Facility (Plant 2) is located on the east bank of the Duwamish Waterway in Seattle and Tukwila, Washington (Figure 1-1). Historically, Plant 2 has specialized in manufacturing aluminum alloy, steel alloy, and titanium alloy parts for airplanes. Plant 2 was built on farmland in the late 1930s, and became a significant manufacturing facility during World War II. In recent years, the character of Plant 2 has shifted toward research and administration.

Plant 2 is bounded on the east by East Marginal Way South, a 4-lane arterial; on the south by Jorgensen Forge, an active steel and aluminum forge; on the north by Slip 4 and Emerald Services, Inc.; and on the west, by the Duwamish Waterway. The Duwamish Waterway is a federally-maintained shipping channel of the Duwamish River; Slip 4 is an off-channel extension of the waterway. Plant 2 is served by both truck and rail, and was historically accessible from the waterway. Plant 2 is divided into northern and southern sections by an arterial, 16th Ave S, which services the 16th Ave S Bridge over the Duwamish Waterway.

Plant 2 occupies approximately 109 acres of developed, topographically flat land covered by buildings and paved yards. Most buildings are slab on grade with below grade utilities.

The soils in the upper 100 feet beneath the South Yard Area consist of four major geological units. The first 3 to 9 feet of soil is generally a fill layer comprised of a dark gray to brown fill that is a loose to very dense, fine to medium sand and gray to grayish-brown gravel. Much of the fill appears to be alluvial in nature and probably reflects dredge spoils from modifications to the Duwamish River channel at the beginning of the 20th Century; some debris exists within the fill. The fill is underlain by a discontinuous layer of brownish to greenish-gray to black silt and soft organic silt that varies in thickness from 1 to 6 feet where present.

Beneath the silt is the shallow portion of the upper aquifer that consists of poorly-graded, dark gray, fine to medium sand with varying amounts of silt. This alluvial unit extends from approximately 10 feet below ground surface (bgs) to 40-50 feet bgs. Underlying this unit are the older Duwamish River alluvial deposits consisting of thick, coarsening-upward sequences of inter-bedded sand and silty sand. These alluvial deposits extend from approximately 40-50 bgs to 80 feet bgs.

At approximately 80 feet bgs, well logs from Plant 2 describe a distinctive marine silt layer with shell fragments. The contact between the overlying silty sand and the marine silt is sharp and is readily noted in the field. The marine silt layer is underlain by a dense gray glacial till unit. These two low-permeability deposits form an aquitard that isolates the shallow aquifer (upper 80 feet) from the deeper aquifers beneath Plant 2.

Groundwater occurs in the alluvial aquifer generally starting at 9 to 12 feet bgs. The approximate groundwater flow direction and horizontal gradient are west towards the Duwamish Waterway. Groundwater from Plant 2 flows directly to the waterway without crossing other

properties, except for possible migration across the southern property line and onto the northern portion of the Jorgensen Forge Facility. Even in that location, the dominant flow direction appears to be parallel to the fence line and towards the Duwamish Waterway (FSM 2004).

The Duwamish Waterway in the vicinity of Plant 2 is a tidally-controlled marine embayment with a fresh water lens of out-going river water on top of the denser (saltier) marine waters. The sediments, while alluvial in nature, have salinities consistent with the marine waters from Elliott Bay. A saltwater lens extends into the Uplands from the river, and deeper deposits (greater than 60 feet) show zones of high salinity due to trapped sea water that was present at the time of sedimentation. The water column is brackish ranging from saline at depth to fresh on the top (Boeing 2003).

1.1.1 Jorgensen Forge

The Jorgensen Forge site, which occupies approximately 20 acres on the east bank of the Duwamish River, is important to any consideration of the Plant 2 South Yard Area due to the potential for commingling of groundwater from the two sites. The site is bounded by Boeing Plant 2 to the north, by East Marginal Way to the east, by the vacant Issacson lot to the south and by the Duwamish River to the west.

The Jorgensen Forge Site was used almost continuously for steel forging and machining from 1943 through 1992. Current operations at Jorgensen Forge involve the construction of custom-shaped forgings from ingots and billets and heat-treating and machining forgings of steel and aluminum. Equipment includes an electric arc furnace that processes scrap steel, hollowbore machines and lathes used to machine billets to exact specifications, and large hydraulic presses to form steel and aluminum. Potential contaminants associated with small steel and aluminum forges include lead and other trace metals from site operations, petroleum hydrocarbons from fuels, oils, and hydraulic fluids, degreasing and cleaning solvents, ammonia and cyanide from quench baths, and polychlorinated biphenyls (PCBs) from hydraulic fluids, transformers, and capacitors (used until the late 1970s), (USEPA 1995).

Jorgensen Forge has undertaken several petroleum-related investigations and cleanups on-site. To date, four areas with significant petroleum contamination have been identified on-site. The largest such area is the Hollowbore Cutting Oil Plume (Area 1) beneath the Hollowbore Building immediately adjacent to Plant 2. The source area for this plume is a layer of Light Non-Aqueous Phase Liquid (LNAPL) consisting mainly of cutting oil – a petroleum-based oil used historically in the Hollowbore Building.

Data from monitoring wells at Jorgensen Forge show tetrachloroethene concentrations of 27,000 and 8,000 µg/L in samples of the LNAPL at two wells (MW-20 and MW-21) located within the Hollowbore Cutting Oil Plume on Jorgensen Forge property (SEACOR 1993).

The Hollowbore Area and its associated cutting oil plume are located within approximately 100 feet of the property boundary between the Jorgensen Forge Facility and the South Yard Area at Boeing Plant 2. Groundwater in this area flows westward toward the Duwamish Waterway in a flow path roughly parallel to the boundary between Plant 2 and Jorgensen Forge. Both facilities contain tetrachloroethene in the subsurface; however, while the Jorgensen Hollowbore Cutting

Oil Plume contains tetrachloroethene concentrations as high as 27,000 µg/L in LNAPL, the maximum concentration of tetrachloroethene detected in the South Yard Area groundwater is 36 µg/L. It is not clear if or how these plumes commingle, and if so, where the commingling may occur. This question will be addressed as part of the Plant 2 CMS.

1.1.2 CMS Study Areas at Boeing Plant 2

Plant 2 has been divided into seven "CMS Study Areas" to facilitate the development and screening of RCRA corrective measures. These areas are, from south to north:

- South Yard Area
- 2-60s Area
- 2-66 Area
- 2-40s Area
- 2-31 Area
- 2-10 Area
- North Area

These areas are shown in Figure 1-2, Site Plan with CMS Study Areas.

1.1.2.1 The South Yard Area

The southern portion of Plant 2, referred to as the South Yard Area, consists of approximately 13 acres. It extends from the northern exterior wall of Buildings 2-80, 2-81, and 2-85, south to the Jorgensen Forge property and railroad line, east to East Marginal Way, and west to the boundary line of Area 2-66; and is shown in Figure 1-3. The South Yard Area contains Buildings 2-80/81, 2-83, 2-84, 2-85, 2-88, 2-117, and 2-126.

1.1.3 Previous Investigations

Numerous investigations of Plant 2 have been carried out by Boeing consultants, including Roy F. Weston, Inc. (Weston) and Landau Associates Inc. (Landau). Key site-wide investigations include the following:

- Comprehensive RCRA Facility Investigation Report (Weston 1998)
- RFI Health Evaluation for Upland Soil (Weston 1998)
- RFI Groundwater Human Health and Environmental Evaluation (Weston 1996)
- RCRA Corrective Measures Study Technical Memorandum: SWMU/AOC/OA-Specific Data Presentation (Weston 2000a)

Investigations specific to the South Yard Area in addition to Plant 2 site-wide studies are listed in Table 1-1. These documents fall into the following categories: RCRA Facility Investigation work plans and reports, closure documents, Corrective Measures Study (CMS) technical memoranda justifying No Further Action (NFA) decisions on units, and interim measures (IMs) work plans and reports.

1.1.3.1 Scope of Information Available

All of the information gathered above has been combined into a comprehensive database. The information includes all groundwater analytical results since 1988, and all soil analytical results for existing soil. When an IM removed soil from a unit, samples representing the removed materials were identified as "removed" in the database and post-removal confirmatory samples were added to the database.

A total of 59 groundwater monitoring wells have been installed and 47 direct-push probes have been driven in the South Yard Area. Approximately 134 soil borings have been advanced throughout the South Yard Area. Constituent groups of interest in the South Yard Area have included volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), PCBs, and metals using standard USEPA Methods and total petroleum hydrocarbons (TPHs) using a variety of USEPA, American Society for Testing and Materials (ASTM), and Washington State Methods. Attachment A contains maps and tables displaying the groundwater data for groundwater constituents of concern (COCs) in the South Yard Area; Attachment B contains maps and tables for soil COCs in the South Yard Area. Please read the introductory sections of both Attachments for an explanation of how the information is displayed. The maps in Attachment A show current and historical groundwater sampling locations.

1.2 RCRA UNITS: SOLID WASTE MANAGEMENT UNITS (SWMUs), AREAS OF CONCERN (AOCs), OTHER AREA (OAs)

During the RFI and early stages of the CMS process, Plant 2 was evaluated following RCRA guidance and the RCRA Order for Plant 2, which generally uses a unit-by-unit approach. This approach has been extended to an area-by-area approach for consideration of groundwater remedies; however, many of the soil remedies in the CMS will continue to focus on a unit-by-unit approach. Therefore, it is critical that all RCRA Units identified during the RCRA Corrective Action process continue to be tracked. The following is a summary of the status of all RCRA Units in the South Yard Area.

Within the South Yard Area there are 18 identified RCRA Units (see Figure 1-3), that fall in the following categories:

- Two solid waste management units (SWMUs) that were RCRA regulated treatment, storage, and disposal (TSD) facilities.

- Ten SWMUs that were not TSD facilities but were defined in the Order as "any discernable unit at which solid wastes have been placed at any time."

- Three areas of concern (AOCs), a category of units defined in the Order as "any area of the facility where a release to the environment of a hazardous waste or hazardous constituents has occurred, is suspected to have occurred, or may occur."

- Three other areas (OAs), a category of units not defined within the Order, but which by practice are treated identically as an AOC.

1.2.1 RCRA Regulated Units: Closed TSDs

Within the South Yard Area, portions of two RCRA Units that were each a Treatment, Storage, and Disposal (TSD) facility, have been partially closed. Both closures were of the aboveground TSD structures only, and did not include closure or resolution of subsurface groundwater and soil issues. The two TSD units are:

- **SWMU 2-104.71.** This unit designation refers to the aboveground structures and has been partially closed. OA 16 was designated as a RCRA "Other Area" and includes any residual subsurface soil or groundwater contamination associated with SWMU 2-104.71.
- **SWMU 2-91.70.** For this unit the SWMU designation refers to the aboveground TSD structures and to subsurface groundwater and soil. The aboveground portion of this unit has been closed. Groundwater and soil at this unit will be further evaluated in the CMS.

1.2.1.1 SWMU 2-104.71 (OA 16) – Central Drummed Waste Staging Area

SWMU 2-104.71, a TSD Unit, was built in 1981 and functioned as a Central Drummed Waste Staging Area at Building 2-104 (TSD Area 1). Building 2-104 was formerly located on the northern edge of the reclamation yard in the South Yard Area of Plant 2 (Figure 1-3). The aboveground closure of this TSD was completed in 1994 prior to the RFI (Weston 1994). The aboveground closure did not include underlying soils or groundwater, rather Unit OA 16 has been designated as the unit containing any residual subsurface soil or groundwater contamination from the closed TSD. Groundwater and soil at OA 16 will be discussed further in the CMS.

1.2.1.2 SWMU 2-91.70 – Deactivated Waste Oil and Coolant Holding Area

SWMU 2-91.70 was a deactivated waste oil and coolant holding area, which operated in the 1950s, and was located within the South Yard Area reclamation yard. The sump and aboveground portions of the unit were demolished and removed in 1993, as documented in the TSD closure report (Weston 1994). The unit included a 3,100-gallon sump (11.5 feet long by 4 feet wide by 6 feet deep), a coolant separation tank (Oil/Water Separator), and four aboveground holding tanks located within a shed. Waste oil and coolant were temporarily stored at SWMU 2-91.70, and further waste processing was performed in Building 2-91. From the 1950s through the 1980s, the Oil/Water Separator was used to separate oil from water prior to storage, and the wastewater was discharged into the sanitary sewer.

Soil and groundwater samples collected at this unit contained constituents of concern (COCs) requiring further consideration in the CMS. Therefore, although the aboveground structures for this unit have been closed and represent a Closed TSD Facility, the subsurface soils and groundwater will be addressed during remedy selection in the CMS.

A Closure Plan has been submitted for subsurface soils at this unit that will remove the residual soil contamination down to the water table. This "dig and haul" option is the presumed remedy for soils at this unit. Groundwater at this unit will be discussed further in the CMS; for this reason contamination at this unit is discussed further in Section 1.2.6.6 below.

1.2.2 RCRA Units: No Further Action (NFA) Determination

There are three RCRA Units in the South Yard Area where the USEPA has already determined that "no further action" is needed for vadose zone soils. These units have been granted "NFA status for soils", and soil remedies for these units will not be discussed further in the CMS. As identified below, groundwater associated with these units will be discussed further in the CMS. These units are:

- SWMU 78.B (Oil/Water Separator).
- AOC 2-84.62 (Machine Pit).
- OA 3 (Former UST PL-23).

1.2.2.1 SWMU 78.B – Oil/Water Separator at Building 2-87

SWMU 78.B was an oil/water separator whose primary function was to remove residual oil from stormwater runoff. Separated oil was regularly pumped out of the separator and shipped off-site for disposal. The unit was located on the south side of Building 2-87 (Figure 1-3). During investigations at Plant 2, low levels of PCBs were detected in soil at 10 feet bgs. Consequently, SMWU 78.B was removed and the underlying soil was excavated. Soil at SWMU 78.B was approved for NFA in the RFI Work Plan (Weston 1994a).

An additional IM was performed in 1999 to remove the unit's concrete pavement, and the subsequent excavation removed an additional 15 cubic yards of soil. Confirmatory soil samples were collected from the excavation and analyzed for TPHs and PCBs. No TPH was detected; however, PCBs were detected in the sidewall and bottom samples, but were considerably lower than both the Ecology cleanup standards under the Model Toxics Control Act (MTCA; 10 mg/kg for an industrial site) and federal standards under Toxic Substances Control Act (TSCA; 1.0 mg/kg). As a result, Boeing requested and received approval to terminate the excavation since confirmatory sample concentrations were less than MTCA and TSCA standards; the excavation was then backfilled and compacted (Weston 2000b).

USEPA has determined that "no further action" is needed for vadose zone soil at this unit; therefore soil remedies for this unit will not be discussed further in the CMS. Groundwater at SWMU 78.B will be discussed further in the CMS.

1.2.2.2 AOC 2-84.62 – Machine Pit

The AOC 2-84.62 (Machine Pit) began operation in the 1940s and has since been decommissioned. It consisted of two machine pits located in the central portion of where Building 2-83 now stands that were used to collect oil and metal shaving debris from the associated machinery. The first pit was approximately 2 feet by 1 foot by 10 inches deep, located at Column B-3, which collected cutting oil and metal chips from a planer machine. The second pit was approximately 8 feet by 2 feet by 6 inches deep, located at Column C-4 and also collected cutting oil and metal chips.

Eight soil samples were collected from borings in the vicinity of the unit during the RFI (Weston 1997). Lead, zinc, and PCBs were detected in soil samples at concentrations requiring further consideration. An IM was conducted that included the removal of concrete in the PCB-impacted area, the excavation of approximately 50 cubic yards of lead, zinc and PCB-impacted soil. The excavation was completed in June 2000 and the removed soil disposed of off-site (Weston 2001a). Since the extent of excavation included the pre-delineated boundaries the pre-excavation delineation soil samples were used as confirmatory soil samples for the excavation. The unit was approved for NFA for soils only.

USEPA has determined that “no further action” is needed for vadose zone soil at this unit; therefore soil remedies for this unit will not be discussed further in the CMS. In accordance with the USEPA-approved RFI Work Plan (Weston 1994a), groundwater samples were not collected. Groundwater at AOC 2-84.64 will be discussed further in the CMS.

1.2.2.3 OA 3 – Former UST PL-23

Former UST PL-23, referred to as OA 3, was a 1,000 gallon gasoline underground storage tank (UST) located beneath the roadway south of Building 2-80 (Figure 1-3). UST PL-23 was installed in 1951 and removed in 1992. Exterior corrosion was observed at the tank discharge pipe. Holes were not evident in the tank; however, the soil underneath the tank appeared to be stained and reportedly had a moderate odor (Groundwater Technology 1992; Weston 1999a). During the removal of the UST, 5 cubic yards of soil were also excavated. During the RFI, three soil borings were drilled and sampled at distances of 15, 40, and 60 feet south of the tank. Soil samples from these borings were analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) and TPH-G (Weston 1997) and were non-detect for all analyzed constituents.

In 1998 after Building 2-80 was demolished, an IM was performed to remove additional TPH-contaminated soil which was made accessible as a result of the building demolition. Approximately 80 cubic yards of soil were removed. Three confirmatory soil samples were collected from the excavation for BTEX and TPH analysis. Based on the IM removal and results, Boeing requested and received approval for the unit to be designated NFA for soils (Weston 2001b).

USEPA has determined that “no further action” is needed for vadose zone soil at this unit; therefore soil remedies at this unit will not be discussed further in the CMS. Benzene was detected in groundwater in the vicinity of this unit. Groundwater at OA 3 will be discussed further in the CMS.

1.2.3 RCRA Units: Interim Measures

Sections of the South Yard Area have been redeveloped and the following IMs have been conducted at six RCRA Units as part of that redevelopment to facilitate the construction of new buildings. The IMs focused solely on soil cleanup, excavating the impacted soil associated with the RCRA Units. Where groundwater contamination was found to be present, the question of appropriate groundwater corrective measure has been deferred to the Uplands CMS (Weston 2000a). The IMs associated with the South Yard Area are described below along with references to reports documenting soil excavation and removal actions as well as sampling results.

IMs conducted at SWMU 78.B, AOC 2-84.62, and OA 3 are described above in Section 1.2.2.

1.2.3.1 SWMU 79.A – Cisterns 1, 2, and 3

SWMU 79.A consists of three cisterns (1, 2, and 3) and SWMU 79.B consists of an additional cistern (4), located along the eastern boundary of the South Yard Area. The IM for SWMU 79 includes Cisterns 1, 2, 3, and 4 located in the southernmost portion of Plant 2 along the eastern boundary of the plant near Buildings 2-89 (Cisterns 1, 2, 3) and Building 2-87 (Cistern 4). Cisterns 1, 2, and 3, were built in 1950 and used to dispose of process wastes from various operations until 1955. The cisterns were decommissioned in 1986. The cisterns were approximately 5 feet in diameter and 7 feet deep with open bottoms. They were constructed of brick without mortar or sealant to allow dissipation of the stored process wastes into the soil. The 1986 decommissioning included excavation of the brick structures and some of the soil immediately surrounding the cisterns.

Soil samples collected during the RFI at locations that surrounded the units were found to contain metals, PCBs, and one SVOC, bis(2-ethylhexyl)phthalate, at concentrations requiring further consideration. An IM was conducted at SWMU 79.A and SWMU 79.B in 1999 to remove soil that could potentially contact groundwater. This soil was identified as vadose zone soil at depths from 6 to 11 feet bgs. The excavation of soil near Cisterns 1, 2, and 3 consisted of removing approximately 750 cubic yards of soil. An existing storm drain and catch basin that were present in the excavation area were also removed. Performance samples were collected following excavation and metals were detected at concentrations requiring additional excavation. An additional 150 cubic yards of soil were removed. The final footprint of the excavation consisted of an area roughly rectangular in shape, with dimensions of approximately 40 feet in the east-west direction by 80 feet in the north-south direction. The depth ranged from 10 to 11 feet. Confirmatory sample analysis met IM objectives except where the excavation had to be terminated at existing railroad tracks and aboveground structures so not all impacted soil could be removed. Consequently, a NFA was not requested as COCs were present in the remaining soil.

Groundwater samples were collected from wells surrounding the cistern locations to evaluate the extent of potential constituent impact on groundwater prior to the 1999 IM. Six wells, approximately 30 to 175 feet downgradient of Cisterns 1, 2, and 3, were sampled from 1988 to 1995. Samples were analyzed for VOCs, SVOCs, PCBs, TPHs, and total and dissolved metals. Trichloroethene (TCE), vinyl chloride and arsenic were detected at concentrations requiring

further consideration. Therefore, groundwater and soil at SWMU 79.A will be discussed further in the CMS.

1.2.3.2 SWMU 79.B – Cistern 4

SWMU 79.B (Cistern 4) is located along the eastern boundary of the South Yard Area, north of Cisterns 1, 2, and 3, on the northeastern corner of Building 2-87. Cistern 4 was built in 1950 and used to dispose of process wastes from various operations until 1955, and was decommissioned in 1986. Cistern 4 is approximately 5 feet in diameter and 7 feet deep with an open bottom. Similar to Cisterns 1, 2, and 3, Cistern 4 was constructed of brick without mortar or sealant to allow dissipation of the stored process wastes into the soil. The 1986 decommission included the excavation of the brick structures and some soil immediately surrounding the cistern.

Soil samples collected during the RFI at Cistern 4 contained metals and PCBs at concentrations requiring further consideration. An IM was conducted at the four cisterns in 1999, and targeted soil that could potentially contact groundwater (6 to 11 feet bgs).

The excavation of soil near Cistern 4 extended to a depth of 10 to 11 feet, where groundwater was encountered. Metering and manhole subsurface structures prevented the removal of additional soil in some locations. Initially, approximately 420 cubic yards of soil was excavated. Performance soil samples were collected from two locations in the bottom of the excavation and from the north, east, southwest and northwest sidewalls. Performance soil data indicated chromium concentrations requiring further consideration from samples in the northwest wall. However, no further excavation was conducted due to inhibiting structures. After the installation of a new metering vault in July 1999, existing structures were removed and an additional 120 cubic yards of soil were removed and confirmatory samples met IM objectives. The final excavation boundary encompassed an area roughly triangular in shape, approximately 55 feet wide in the east-west direction, and 48 feet in the north-south direction from apex to base.

Groundwater samples were collected from 13 wells, at approximately 200 feet downgradient from Cistern 4, from 1988 to 1996. Samples were analyzed for VOCs, SVOCs, PCBs, TPHs, and total and dissolved metals. Various COCs were detected at concentrations requiring further consideration including:

- **VOCs:** 1,1-dichloroethene, 1,2-dichloroethene (total), cis-1,2-dichloroethene, trichloroethene, tetrachloroethene, and vinyl chloride.
- **SVOCs and PCBs:** bis(2-ethylhexyl)phthalate and Aroclor 1254.
- **Dissolved metals:** arsenic, chromium, copper and lead.

As a result, groundwater and soil at SWMU 79.B will be discussed further in the CMS.

1.2.3.3 SWMU 79.C – Cistern 5

SWMU 79.C (Cistern 5) was located along the southeast fence line, north of Building 2-83. It began operation in 1950, and ceased in 1955 when it was removed along with surrounding soil. Cistern 5 functioned as a dry well and was designed to receive liquid chemical waste for disposal. Waste reportedly included Freon, mixed acids, mixed bases, process wastes and solvents. The cistern consisted of an in-ground-bottomed sump, 5 feet in diameter and 7 feet deep, constructed of porous brick.

Soil samples were collected from two borings and analyzed for SVOCs, VOCs, and metals. Bis(2-ethylhexyl)phthalate and copper were detected at concentrations requiring further consideration.

In May 1988 and July 1992 groundwater samples were collected and analyzed for VOCs, SVOCs, PCBs, TPHs and metals. No constituents were detected at concentrations requiring further consideration at that time, however, groundwater and soil at SWMU 79.C will be discussed further in the CMS.

1.2.3.4 SWMU 2-87.65 – Machine Pit

The SWMU 2-87.65 Machine Pit was a reinforced concrete trench approximately 3 feet wide by 26 feet long and 2.4 feet deep located at the south wall of Building 2-109. The trench was used to collect coolant, lubricants, and hydraulic oils that dripped from the associated machinery. The concentrations of TPHs and PCBs in soil samples collected during the site-wide RFI were detected at concentrations requiring further consideration. Therefore, the unit was removed during an IM to allow for the construction of a new facility in May 1999.

The IM included the excavation of 220 cubic yards of impacted soil that was roughly a triangular shaped area of 33 feet along the north-south axis, 26 feet in the east-west direction, and approximately 5 feet deep and an additional 10 feet deep area under the former machine pit.

Confirmatory soil samples were collected and analyzed for TPHs and PCBs. PCB concentrations were found at levels requiring further consideration. Consequently, an additional 10 feet of soil was excavated and additional confirmatory samples were collected. PCB concentrations in the additional confirmatory samples met IM objectives, therefore, no further excavation was performed. The excavation was then backfilled and compacted in June 1999 (Weston 2000b).

Groundwater and soil at SWMU 2-87.65 will be discussed further in the CMS.

1.2.3.5 OA 16

OA 16 is the soil and groundwater unit associated with the above ground TSD, SWMU 2-104.71. SWMU 2-104.71 (Central Drummed Waste Staging Area) consisted of a 7-inch thick concrete area separated into four holding cells. Each cell sloped gradually into a steel grate-covered, concrete-lined retention trench. Spill retention trenches with shallow blind sumps were

located along the southern (open) side of the building. No drain or pump was located in the trenches (Weston 2000a).

Metals were detected in soil during the closure of SWMU 2-104.71, and solvents, metals, coolants, oily water, and PCBs were potentially associated with this unit based on its use.

Soil samples were collected below the bottom of the sump and adjacent to the sump and analyzed for VOCs, SVOCs, PCBs, and metals. Concentrations of constituents in the soil did not present a threat to groundwater; therefore, in accordance with the USEPA-approved RFI Work Plan, groundwater samples were not collected.

In 1999 an IM was conducted at OA 16 to remove soil containing cadmium, chromium, copper, mercury, and bis(2-ethylhexyl)phthalate. Approximately 80 cubic yards of soil were removed from an irregularly shaped area with dimensions of approximately 12 to 15 feet along the east-west axis, and 20 feet along the north-south axis. The excavation was roughly 10 feet deep.. Confirmatory soil samples were collected and analyzed for metals and bis(2-ethylhexyl)phthalate. Bis(2-ethylhexyl)phthalate was detected in one sample but not sufficiently elevated to require further consideration therefore no additional excavation was performed for OA 16.

The excavation was then backfilled and compacted in June 1999 (Weston 2000b).

Based on the above, SWMU 2-104.71 is considered a Closed RCRA Unit and removed from further consideration in the CMS. OA 16 is considered a remaining unit that has undergone a partial cleanup during an IM; post-IM confirmatory samples results will be included in the analysis of the unit during the CMS.

1.2.4 RCRA Regulated Units: Remaining for Consideration

1.2.4.1 SWMU 2-78.1(Oil/Water Separator)

SWMU 2-78.1 consists of an oil/water separator that is located in the middle of the southern boundary of the South Yard Area (see Figure 1-3). The oil/water separator collects stormwater runoff to remove oil. The stormwater is then discharged to the Metro sanitary sewer. The date when this separator began operation is unknown, but generally the oil/water separators in Plant 2 have been operational since the early 1940s and 1950s. This oil/water separator is still operating today.

Three soil samples were collected in August 1994 from one boring downgradient and adjacent to the oil/water separator. Samples were collected at depths of 1.5, 5.5, and 8 feet bgs and analyzed for petroleum hydrocarbons. Petroleum hydrocarbons were not detected. Therefore, groundwater sampling was not required per the RFI protocols (Weston 2000c). Table 1-2 summarizes the available data for SWMU 2-78.1.

A NFA decision has been requested from USEPA (Weston 1999c, 2000c). USEPA has requested groundwater and soil at SWMU 2-78.1 be discussed further in the CMS.

1.2.4.2 SWMU 78.5 (Oil/Water Separator)

SWMU 78.5 is an oil/water separator located southwest of Building 2-60 and next to Building 2-85. The separator is approximately 5 feet long by 5 feet wide and 10 feet in depth. The unit's walls and floors are constructed of concrete approximately six inches thick. The oil/water separator collects stormwater runoff to remove residual oils. The stormwater is then discharged to the Metro sanitary sewer. The date when this separator began operation is unknown, but generally the oil/water separators in Plant 2 have been operational since the early 1940s and 1950s.

Several soil samples were collected from seven borings and wells at depths ranging from 1.8 to 11 feet bgs and analyzed for VOCs, SVOCs, PCBs, and metals. No constituent was detected at concentrations requiring further consideration at that time. Petroleum hydrocarbons were also not detected in samples from nine other sampling locations within 50 feet of the unit. Table 1-2 summarizes the available data for SWMU 78.5.

A NFA decision has been requested from USEPA (Weston 1999c, 2000c). USEPA has requested groundwater and soil at SWMU 78.5 be discussed further in the CMS.

1.2.4.3 SWMU 2-80.56 (Sink Sump)

The SWMU 2-80.56 Sink Sump was located in Building 2-80 near Column DJ-28 and consisted of a sink that drained into a shallow concrete sump. Plaster objects and a variety of materials were washed in the sink sump with acetone and other solvents. Washing liquids from the sink were drained into the sump and discharged to the Metro wastewater treatment plant. A lime slurry sludge (from the plaster) that collected in the sump was removed and disposed of in a landfill. The sink sump was disconnected in 1993, after 15 to 20 years of operation and was removed in 1998. Large concrete structures and surrounding soil were also excavated and removed in 1998 to support construction of a new building.

In 1995, initial soil samples were taken from one boring at depths of 3.5 to 11.5 feet bgs. Following excavation of the sump, three additional soil samples were collected from the excavation bottom. The soil samples were analyzed for VOCs and metals. No VOCs were detected at concentrations requiring further consideration at that time. However, arsenic, copper, mercury, selenium, and silver were detected at concentrations requiring further consideration in samples collected at 10 feet bgs.

Groundwater samples were collected from two GeoProbe locations downgradient from the unit. The samples were analyzed for VOCs and petroleum hydrocarbons (both locations) and metals (one location). Dissolved arsenic and dissolved nickel were detected at concentrations requiring further consideration. Arsenic and nickel groundwater concentrations are discussed further in Section 2.1. Table 1-2 summarizes the available data for SWMU 2-80.56.

A NFA decision has been requested for SWMU 2-80.56 (Weston 2001b). USEPA has requested groundwater and soil at SWMU 2-80.56 be discussed further in the CMS.

1.2.4.4 SWMU 2-80.57 (Generator Sump)

The SWMU 2-80.57 generator sump consisted of an above-grade, concrete containment structure, measuring approximately 50 feet long by 20 feet wide by 1.5 feet high. It was located in Building 2-80 between Columns I-23 and J-26 and was decommissioned in 1993. The sump collected coolant oil that dripped from generators that rested on metal grating above the containment area. In February 1995 four soil samples were collected from two borings near the upgradient and downgradient ends of the sump. The soil samples were collected from depths ranging from 0.5 to 6 feet bgs, and were analyzed or VOCs, PCBs, petroleum hydrocarbons, and metals. No VOC, TPHs or PCBs were detected at concentrations requiring further consideration at that time. Silver was detected in a single sample at 0.6 feet bgs at a concentration requiring further consideration.

From July 1992 to March 1995, five groundwater samples were collected from two monitoring wells located adjacent to OA 3 (a former gasoline UST), and two GeoProbe locations located cross- and downgradient from the sump unit. Samples were analyzed for VOCs, petroleum hydrocarbons, and metals. Benzene was the only analyte detected in one of the wells at concentrations requiring further consideration at that time. Dissolved arsenic and dissolved copper were detected slightly above concentrations requiring further consideration at that time. Table 1-2 summarizes the available data for SWMU 2-80.57.

A NFA has been requested for SWMU 2-80.57 (Weston 2001b). USEPA has requested groundwater and soil at SWMU 2-80.57 be discussed further in the CMS.

1.2.4.5 SWMU 2-89.68 (Reclamation Yard)

SWMU 2-89.68 was a reclamation yard that was used from 1942 to 1996. The yard consisted of approximately 8 acres of concrete pavement located in the southeastern corner of the South Yard Area. This reclamation yard contains several SWMUs and an OA both within and adjacent to the assumed boundary of the unit. These SWMUs and OA include:

- SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), located at the northwestern boundary of SWMU 2-89.68,
- SWMU 2-78.1 (Oil/Water Separator), located in the northwestern area of SWMU 2-89.68 in the middle of the southern boundary of the South Yard Area,
- OA 16 (Central Waste Storage Area – SWMU 2-104.71), located on the northern boundary of SWMU 2-89.68,
- SWMU 78.B (Oil/Water Separator), located adjacent to OA 16, and
- SWMU 79.A (Cisterns 1, 2, 3), located upgradient along the eastern edge of SWMU 2-89.68.

SWMU 2-91.70 and SWMU 2-78.1 are discussed below, OA 16 and SWMU 79.A are discussed previously in Section 1.2.3, and SWMU 78.B is discussed in Section 1.2.2.1.

The reclamation yard stored recyclable materials, which included aluminum, brass, steel, and copper shavings generated from cutting operations. The shavings were brought to the reclamation yard in tub skids to the receiving area south of Building 2-104. The reclamation yard also recycled a variety of products including film, bulk metal, empty drums, and paint. Coolant and oils were sometimes associated with the scrap metal. Prior to 1992, scrap metal material was held outdoors in skid-mounted tubs. After 1992 any scrap metal with residual coolant or liquid was transferred from containers to tub skids in Building 2-41, and collected coolant was disposed of off-site.

Soil samples were collected from 39 soil boring and test pit locations from 1991 through 1994. Locations included both those throughout the reclamation yard and those on the Jorgensen Forge property to the south. Soil samples were collected from depths ranging from 0.5 to 90 feet bgs and were analyzed for one or more of the following analyte groups: VOCs, SVOCs, PCBs, TPHs, and metals.

Constituents detected in soil at concentrations requiring further consideration at that time were as follows:

- **VOCs:** Vinyl chloride was detected in one sample.
- **SVOCs:** Eight SVOCs (seven PAHs and one phthalate): benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)-anthracene, and indeno(1,2,3-cd)pyrene and bis(2-ethylhexyl)-phthalate were detected in several samples.
- **PCBs:** Aroclors 1254 and 1260 were detected in two samples.
- **TPHs:** TPHs were detected in eleven samples.
- **Metals and Inorganics:** Silver, selenium, zinc, and cyanide detected in one sample each (not the same locations). Arsenic and mercury in four samples each; and thallium in eight samples.

Groundwater samples were collected from 14 monitoring wells and 18 direct-push probe locations in the reclamation yard and on the Jorgensen Forge property between 1988 and 1996. Analytes included VOCs, SVOCs, PCBs, TPHs, and metals.

Except for chlorinated VOCs and arsenic, detections of constituents at concentrations requiring further consideration at that time were sporadic as summarized below:

- **SVOCs:** bis(2-Ethylhexyl)phthalate at one location.
- **Metals (except arsenic):** Copper and dissolved nickel each detected at a single location.

- Neither TPHs nor PCBs were detected at concentrations requiring further consideration.

Arsenic and vinyl chloride were detected at concentrations requiring further consideration in approximately half of the analyzed samples. Trichloroethene (eight samples) and 1,1-dichloroethene (one sample) were also detected at concentrations requiring further consideration at that time.

Table 1-2 summarizes the available data for SWMU 2-89.68. Groundwater and soil at SWMU 2-89.68 (Reclamation Yard) will be discussed further in the CMS.

1.2.4.6 SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)

SWMU 2-91.70 was a deactivated waste oil and coolant holding area that was operated in the 1950s, and was located within the South Yard Area reclamation yard. The sump and aboveground portions of the unit were demolished and removed in 1993, as documented in the TSD closure report (Weston 1994). Following demolition and removal of the tanks, concrete structures, and the building, the area was covered with a concrete pad. Closure of the subsurface soil at the former site of Building 2-91, which housed the Deactivated Waste Oil and Coolant Hold Area, has been proposed and the closure plan includes the removal of impacted soil and verification sampling of soil and groundwater beneath Building 2-91 (Weston 2003b).

Between 1989 and 1995 soil samples were collected from 40 locations within the unit and were analyzed for one or more of the following groups of analytes: VOCs, SVOCs, PCBs, TPHs, and metals. Soil samples were taken from depths ranging from 0 to 15 feet bgs. Chlorinated solvents and their degradation compounds (tetrachloroethene, trichloroethene, the dichloroethenes, and vinyl chloride) were detected at concentrations requiring further consideration in several locations. PCBs, TPHs, and multiple metals were also detected at concentrations requiring further consideration at that time and at multiple locations associated with this unit.

The only SVOC constituent detected at concentrations requiring further consideration at that time was bis(2-ethylhexyl)phthalate detected in a single sample at a maximum concentration of 8,000 µg/kg.

Groundwater samples were collected from seven wells surrounding the unit and analyzed for VOCs, SVOCs, TPHs, and metals. Samples were collected in January and August 1989, and again in March and August 1995. Several VOCs (chlorinated solvents, benzene, and toluene) were detected at concentrations requiring further consideration at that time in multiple groundwater samples. TPHs were not detected in any samples. Groundwater was not analyzed for PCBs based on the absence of soil detections surrounding the unit. Bis(2-Ethylhexyl)phthalate and 2,4-dimethylphenol were the only SVOCs detected at concentrations requiring further consideration.

Arsenic, dissolved copper and nickel were the only metals detected at concentrations requiring further consideration at that time.

Table 1-2 summarizes the available data for SWMU 2-91.70. Groundwater and soil at SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), will be discussed further in the CMS.

1.2.4.7 AOC 2-80.58 (Deactivated Sump)

AOC 2-80.58 consisted of two furnaces used to heat metal parts, two metal quench tanks, and a rack used to hold the metal parts. The tanks and furnaces were located in concrete pits used as secondary containment. The operation of the AOC 2-80.58 unit was believed to have begun in the early 1960s; the unit was decommissioned and removed prior to the Order.

Two soil borings were placed adjacent to the unit and samples were collected from depths ranging from 1.5 to 12 feet bgs, and analyzed for PCBs, TPHs, and metals.

PCBs (Aroclor 1260) and selenium were detected in individual soil samples collected from one boring at concentrations requiring further consideration at that time.

As a result of the low concentrations of constituents (PCBs) in the soil not presenting a threat to groundwater; groundwater samples were therefore not collected in accordance with the USEPA-approved RFI Work Plan. Table 1-2 summarizes the available data for AOC 2-80.58.

A NFA has been requested for AOC 2-80.58 (Weston 1999c). USEPA has requested groundwater and soil at AOC 2-80.58 be discussed further in the CMS.

1.2.4.8 AOC 2-86.63 (Wet Paint Booth)

AOC 2-86.63 was a 1,800-gallon-capacity steel aboveground storage tank (AST) used to contain paint wastewater. The unit was located in the northeast corner of Building 2-86. In 1992 the tank was removed and the unit was converted to a dry paint booth. Process chemicals included paints, lacquers, and solvents that contained inorganics and isocyanate.

Soil samples were collected from two soil borings to determine if the surrounding soil had been impacted from tank releases. Subsurface soil samples were collected at depths ranging from 1.5 to 11 feet bgs and analysis included VOCs, SVOCs, TPHs, metals, and cyanide. No VOCs, SVOCs, or TPHs were detected at concentrations requiring further consideration. Mercury was detected at a concentration requiring further consideration at that time in a single sample at 7 feet bgs.

Groundwater samples were collected in July 1992 and September 1994 from two monitoring wells located cross- and downgradient from the unit, approximately 40 feet north of the unit. Groundwater samples were analyzed for VOCs, TPHs, metals, and cyanide. VOCs and TPHs were not detected at concentrations requiring further consideration at that time.

Dissolved arsenic and copper were detected at concentrations requiring further consideration at that time. Table 1-2 summarizes the available data for AOC 2-86.63.

A NFA has been requested for AOC 2-86.63 (Weston 1999c, 2001b). USEPA has requested groundwater and soil at AOC 2-86.63 be further evaluated in the CMS.

1.2.4.9 OA 10 (Former UST PL-23)

OA 10 was the location of Former UST PL-20, between Buildings 2-68 and 2-80. UST PL-20 was primarily used for kerosene storage with a capacity of 2,000 gallons. The UST was installed in 1957 and removed in 1986 along with approximately 10 cubic yards of TPH impacted soil.

Soil samples were collected from seven soil borings near the former UST at depths from 5 to 17.5 feet bgs and analyzed for TPHs. TPH-HCID-gasoline and diesel range petroleum hydrocarbons (DRPHs) were detected in three samples from three of the seven borings

To assess the potential impact on groundwater from the UST, groundwater samples were collected from one downgradient well and three down/crossgradient direct-push probe locations. TPHs were not detected in any groundwater samples. Table 1-2 summarizes the available data for OA 10.

A NFA decision has been requested (Weston 1999c). USEPA has requested groundwater and soil at OA 10 be further evaluated in the CMS.

This page intentionally left blank

2.0 Data Gap Analysis

2.1 APPROACH

During the CMS remedy selection for groundwater, it became increasingly evident that several key data gaps existed that were limiting the evaluation of corrective measures. These data gaps had not been as evident when the unit-by-unit approach was applied to identify corrective measures for soil. This section is designed to identify those data gaps that are limiting the ability to proceed with the CMS, and to propose investigative solutions to those data gaps. Section 3.0 then outlines the specific field methods, in the form of a Sampling and Analysis Plan, to fill those gaps in a focused manner. This volume of the CMS is limited to the South Yard Area; other volumes of the CMS will address data gaps, if any, in other areas of Plant 2.

The data gap analysis presented in this section is focused on those data gaps that must be filled to proceed with the corrective measure analysis in the remainder of the CMS. Uncertainties in contaminant extent alone are not considered to be a data gap unless the information is required to select or conceptually design a corrective measure for a RCRA Unit or Remediation Action Area. That is, this information is intended to allow for remedy selection and conceptual design in the CMS, and to support the Statement of Basis for the decision; further information may be necessary for planning a specific remedy in a specific area for final design or for performance monitoring purposes during the Corrective Measures Implementation. Data gaps were identified by considering the following CMS questions:

- **Physical Conceptual Site Model for South Yard Area:** Is there any area-specific information that is needed to support the physical conceptual site model?
    - **Geological Data:** Is additional geologic information needed in order to screen or conceptually design remedies?
    - **Hydrologic Data:** Is additional hydrogeologic information needed in order to screen or conceptually design groundwater remedies?
- **Current Data:** Are the existing groundwater data sufficiently current and synoptic to allow for the identification of existing groundwater plumes, a designation of their current extent, and evaluation of whether they are likely to grow, remain steady, or shrink over time? Finally, are there sufficient nature and extent data to screen and conceptually design groundwater remedies?
- **Source Control:** Does sufficient information exist to select source control remedies?
    - **Hot Spots:** Are RCRA units characterized in sufficient detail to select and conceptually design source control remedies?
    - **New Sources:** Have areas of contamination been identified outside of existing RCRA Units that need further definition in order to select and conceptually design source control remedies, and to assign RCRA unit designation, if appropriate?

- **Completed Pathways:** Do sufficient data exist at specific units to determine whether a specific pathway from one media to another is complete? Complete means that the pathway has the potential to impact the affected media above screening levels.
    - **Soil to groundwater pathway:** Are COCs present in soil that impact groundwater above screening levels?
    - **Groundwater to surface water pathway:** Are COCs present in groundwater that reaches surface water above screening levels?
- **Background Data:** Is sufficient information available to set background concentrations for metals in groundwater and soil for remedy selection and planning?

In the South Yard Area, consideration of these questions resulted in the following:

- **Physical Conceptual Site Model for the South Yard Area**
    - **Geological Data:** No data gaps have been identified.
    - **Hydrogeologic Data:** Some data gaps have been identified, and are discussed in Section 2.2.3.
- **Current Data:** Current groundwater data are needed and this is discussed in Section 2.3.1.
- **Source Control**
    - **Hot spots:** All RCRA units in the South Yard Area were found to be sufficiently characterized therefore no data gaps have been identified.
    - **New sources:** Some data gaps were identified and are discussed in Section 2.4.
- **Completed Pathways**
    - **Soil to groundwater:** Some data gaps have been identified, and are discussed in Section 2.4.
    - **Groundwater to surface water:** The boundaries of the South Yard Area do not extend to surface water. Contaminant plumes that cross the boundary between the South Yard Area and the downgradient 2-66 Area will be discussed further in Volume V of the CMS.
- **Background Data:** This data gap will be filled later in the CMS process. When this occurs later in the CMS process, COCs requiring further consideration will be reevaluated.

The South Yard Area has been the subject of numerous separate investigations of RCRA Units. As a result of these investigations:

- 59 monitoring wells have been installed, of which 27 remain and 32 have been abandoned.
- 47 Direct-push probes have been advanced and sampled.
- 252 groundwater samples have been analyzed.
- 675 soil samples have been collected and analyzed.

Samples were analyzed for VOCs, SVOCs, PCBs, TPHs, and metals (and cyanide) in both groundwater and soil, but not at all locations.

The South Yard Area COCs for both groundwater and soil were identified using the same methodology presented in Volume II of the CMS, but applied to only the data from the South Yard Area. A South Yard Area COC for groundwater or soil is defined as any constituent detected at concentrations greater than the lowest screening level. As noted in Volume II of the CMS, screening levels were developed for the following pathways:

Media: Groundwater	**Media: Soil**
Surface Water Pathways	Surface Water Pathways
Ingestion of Aquatic Organisms Protection of Aquatic Organisms	Ingestion of Aquatic Organisms Protection of Aquatic Organisms
Direct Exposure Pathways	Direct Exposure Pathways
No complete pathway exists	Dermal Exposure by Industrial Workers Ingestion Exposure by Industrial Workers Trenching (Direct Exposure during Construction
Air Exposure Pathways	Air Exposure Pathways
Indoor Air Inhalation by Industrial Workers Outdoor Air Inhalation by Industrial Workers Trenching (Inhalation during Construction)	Indoor Air Inhalation by Industrial Workers Outdoor (including Fugitive Dust) Air Inhalation

The above risk-based exposures were then grouped by general pathway applicable at Plant 2: Surface Water, Direct Contact, and Air. This grouping greatly clarifies the CMS evaluation by grouping discussions regarding fate and transport, points of compliance, remedy selection, and compliance monitoring according to respective pathways. For the COC analysis, the lowest screening level for a specific exposure is used as the screening level for the general pathway to ensure that the analysis is complete. As indicated in Volume II of the CMS, one adjustment made to risk calculations to arrive at screening levels has included increasing levels to laboratory reporting limits assuming a “clean” matrix. This is the practical quantitation limit (PQL), as discussed in Volume II.

The South Yard Area COCs and screening levels are summarized in Table 2-1. Note that there are COCs representing each of the major analytical groups: VOCs, SVOCs, PCBs, TPHs, and metals.

To determine whether or not a specific data gap exists, COC concentrations in groundwater and soil are first compared to screening levels. Data gaps are then identified if there were insufficient data to answer any of the general data gap questions outlined previously.

Data gap analysis criteria are applied to each COC for each general pathway for each media to ensure the analysis is complete.

The following sections present this data gap analysis and the results for the South Yard Area.

2.2 DATA GAPS: PHYSICAL CONCEPTUAL SITE MODEL

2.2.1 Plant 2 Hydrogeologic Description

Plant 2 is located in the central portion of the Duwamish Valley adjacent to the tidally-influenced Duwamish Waterway as noted in Figure 1-1. The Duwamish Valley is bounded to the east by Beacon Hill, rising to an elevation of 300 feet and separating the valley from the Lake Washington drainage basin. The western boundary of the Duwamish Valley is a topographic divide that separates the valley from the Puget Sound.

The historic Duwamish River was dredged and realigned to form the current channel of the Duwamish Waterway. This realignment was completed in 1918 and moved the river from its former location at the present day King County International Airport to its current location to the west (Weston 1996). Industrial development of the area beginning in the 1930s resulted in pavement or buildings covering a large portion of Plant 2.

The topographic divides that bound the Duwamish Valley to the west and east are composed of sedimentary bedrock of Tertiary age overlain by Quaternary glacial deposits. The Duwamish Valley consists of recent sediments underlain and bounded by older Quaternary glacial deposits and, locally, Tertiary bedrock. The near-surface sediments of the Duwamish Valley are set within the trough of the Duwamish estuary, carved by glacial ice and subsequently in-filled by river sediment. The lower boundary of that trough is reached sporadically by deep borings, particularly in the southern half of the study area. The pattern of those data indicate that the trough lies roughly 200 feet below the modern ground surface along the axis of the valley, generally becoming more shallow to the south and also towards the east and west valley walls. The boundary of these deposits is marked either by bedrock (where present to the south) or by very dense sediment that has been glacially overridden (Booth and Herman 1998).

Above this boundary, the geologic history of the area suggests that a sequence of estuarine deposits, typically fine sands and silts with shells, should be found and should progress up into a more complex interbedded river-dominated sequence of sand, silt, and gravel marking the advance of the sedimentary wedge fed by the Osceola Mudflow and later deposits. The mudflow itself would have been very thin and subaqueous along the Duwamish Valley when first deposited, so the chances of intersecting (and recognizing) that layer by drill cores is probably

low. The upper part of the river-deposited sediment should, and does, show the classic signs of continued slow overbank deposition by fine sand and silt, colonization by marshland plants, and occasional erosion and refilling by coarser sediment associated with the main channel of the migrating Duwamish River (Booth and Herman 1998).

The most recent phase of the valley's geologic history includes the filling of tideflats and floodplains, and the subsequent dredging of a straightened channel of the meandering Duwamish River. Completed between 1913 and 1917 by the Duwamish Waterway District, the new channel was 4-1/2 miles in length south from the East and West Waterways. As a result of the waterway development, 12-1/2 miles of old river bed was abandoned. The excavated waterway material was used to fill the old channel areas and the lowlands above flood levels. Subsequent filling for land development purposes has resulted in a surficial layer of fill over most of the lower Duwamish Valley. The heterogeneous nature of fill materials can locally affect both infiltration characteristics and groundwater flow where the water table is below these fill materials. Because much of the thicker fills that occur below the water table are dredged from the Duwamish River, the silts and sands are difficult to distinguish from the native alluvium and have the same general hydrogeologic properties (Booth and Herman 1998).

A generalized cross sectional diagram of the stratigraphy beneath Plant 2 is presented in Volume I of the CMS. The oldest (deepest) sediments encountered during the RFI consist of marine silt (the lower silt unit) deposited on the underlying glacial till unit. These two low-permeability deposits form an aquitard that isolates the shallow aquifer from the deeper aquifers beneath Plant 2. Above the lower silt unit is a thick, water-bearing, coarsening-upward sequence consisting of interbedded sand and silty sand. A thin layer of fill material consisting of coarse sand with varying amounts of silt overlies the naturally-deposited sand that makes up the upper aquifer beneath Plant 2. The shallow portion of the upper aquifer consists of medium sand with varying amounts of silt.

Wells installed across the water table are referred to as A-Level wells. Wells installed deeper in this sand unit, (generally below 30 feet bgs) are referred to as B-Level wells. At approximately 60 feet bgs, the silt content increases in a gradational change that can be distinguished based on field observations (Weston 1996). The aquifer material below this layer is hereafter referred to as the "C-Level" of the upper aquifer. At approximately 80 feet bgs, a distinctive marine silt layer with shell fragments is noted in well logs from Plant 2. The contact between the silty sand and the marine silt is sharp and is readily noted in the field.

The distinction between the upper (A- and B-Levels) and C-Level is supported by increasing silt content and decreasing hydraulic conductivity with depth. The sand unit in the A- and B-Levels is generally more permeable than the deeper silty sand unit by approximately one order of magnitude. Hydraulic conductivity values, based on slug test data, in the A-Level and B-Level wells are generally 10^{-3} centimeters per second (cm/s) while measured hydraulic conductivity values in the C-Level wells are generally 10^{-4} cm/s.

Vertical hydraulic conductivity values also contrast sharply in the shallow versus deeper stratigraphic layers. Vertical hydraulic conductivity values from soil samples obtained from the A and B Levels are in the 10^{-5} cm/s range, while deeper soil samples from the C-Level yielded vertical hydraulic conductivities that are generally around 10^{-7} cm/s (Weston 1996).

Vertical hydraulic conductivities in each unit are consistently two to three orders of magnitude less than horizontal hydraulic conductivities indicating a high degree of anisotropy in all of the geologic units making up the A, B, and C-Levels of the upper aquifer.

Groundwater in C-Level wells is also distinctly more saline and electrically conductive than water in the A and B-Level wells. Field data indicate that groundwater becomes more conductive with depth. Groundwater in A-Level wells generally exhibit conductivity values less than 500 microseimens per centimeter (µS/cm). Conductivity values for most B-Level wells range between 1,000 and 4,000 µS/cm, while C-Level wells range between 5,000 and 10,000 µS/cm. Wells closer to the Duwamish Waterway are generally more conductive due to influence from the saltwater wedge beneath the Duwamish Waterway.

There are two major influences that control much of the groundwater flow beneath Plant 2. These two potentiometric controls are:

- Tidal influences from the Duwamish Waterway, which is affected by tidal levels in Elliott Bay and Puget Sound.
- Groundwater levels in the ridges flanking the Duwamish Valley.

Groundwater flows from areas of higher hydraulic head to areas with lower hydraulic head. The hydraulic head of groundwater in the Duwamish Valley is less than in the surrounding ridges flanking the valley, but is higher than the net level of the Duwamish Waterway. Groundwater ultimately discharges into the Duwamish Waterway because it has lower hydraulic head than the Duwamish Valley or the ridges flanking the valley. The Duwamish Waterway acts as a long linear groundwater sink along the axis of the valley, causing groundwater at Plant 2 to flow toward the waterway rather than down the valley northward toward Elliott Bay (Weston 1996).

Recharge to the shallow sand/silty sand aquifer is mainly from the surrounding ridges. Subsurface flow to valley aquifers from the adjacent uplands is expected to be uniform throughout the valley. Direct recharge to the shallow aquifer beneath Plant 2 is limited due to the high density of buildings and paved surfaces with most runoff directed to storm drains leading to the waterway.

Depth to groundwater at Plant 2 is generally within 10 to 12 feet of ground surface. On an area-wide scale the water table reflects the topography of the Duwamish Valley, with groundwater flowing toward the Duwamish Waterway. Groundwater close to the waterway is strongly influenced by tidal fluctuations. Tidal influence diminishes with increasing distance from the waterway and is negligible (less than 1 percent) at approximately 800 feet from the waterway. Tidal efficiency characteristics (i.e., the ratio of water level fluctuation in monitoring wells divided by water level fluctuations in the waterway) appear to be similar in both the A- and B-Levels. C-Level tidal efficiency has only been investigated at the south end of Plant 2. Tidal efficiency data from this portion of Plant 2 appear to be similar to the shallower A- and B-Levels.

Groundwater flow at Plant 2 is primarily horizontal with an average calculated velocity range of 25 feet per year in the upper A- and B-Levels of the aquifer and 4.2 feet per year in the C-Level of the aquifer. The difference in groundwater flow rate is due mainly to differences in hydraulic conductivity, which is lower in the C-Level of the aquifer. Horizontal hydraulic gradients

continually change in tidally-influenced areas in response to tidal fluctuation in the Duwamish Waterway. Groundwater flow directions temporarily reverse during high tide in areas immediately adjacent to the waterway. This phenomenon is temporary and does not prevent the eventual discharge of groundwater to the waterway. Groundwater discharge rates from Plant 2 to the waterway have been calculated at approximately 15 gallons per minute (Weston 1996).

Groundwater flow is also influenced by the presence of saline water that has intruded from the Duwamish Waterway. Following the initial dredging and realignment of the waterway in 1918, salt water extended back into the waterway and, driven by density differences, intruded downward below the waterway into the aquifer. As a result of this saltwater intrusion, a "saltwater wedge" has formed beneath the waterway. The presence of the salt water in the aquifer has been observed in several monitoring wells adjacent to the waterway and in deep wells, as indicated by very high specific conductance measurements and extremely elevated concentrations of dissolved sodium, chloride, bromide, and total dissolved solids (Weston 1996). Saltwater intrusion has been well documented in other tidally-influenced aquifers, and the same processes are expected to apply in the aquifers underlying Plant 2.

Saline groundwater has also been observed in deeper C-Level monitoring wells at locations that are not immediately adjacent to the waterway. This saline water is similar in composition to seawater; however concentrations of dissolved ions are substantially less than seawater. Isotope studies indicate that tritium was not detected in deeper C-Level groundwater samples, but was detected in the upper A- and B-Levels of the aquifer (Weston 1996). This study suggests that the saline groundwater in the C-Level of the aquifer may be significantly older than the fresh groundwater found in the upper A- and B-Levels of the aquifer.

The apparent stratification of the aquifer is not likely due to the intrusion of salt water from the Duwamish Waterway. If that were the case, the position of the saltwater/freshwater interface would be closer to the waterway. It is speculated that the saline groundwater found at depth away from the waterway might be remnants of connate water, which was marine water during sedimentation and has remained stratified at depth due to limited mixing with shallower groundwater. Groundwater mixing may be limited by density differences between the deeper, more-saline water and the overlying fresh water and also by the order of magnitude lower permeability of the C-Level portion of the aquifer relative to the A- and B-Levels.

The presence of a saltwater wedge will affect the movement of groundwater in the vicinity of the waterway with the saltwater wedge acting as a dense, stable mass that is in dynamic equilibrium with the surrounding, less-saline and therefore less dense, groundwater. The less dense fresh groundwater that migrates toward the waterway will be forced to move upward over the dense saline wedge. Limited mixing between the saline and fresh groundwater would be expected along this interface.

Data gap analysis associated with the geology and hydrogeology specific to the South Yard Area are presented in Sections 2.2.2 and 2.2.3 below.

2.2.2 Geology Data Gaps

The geology underlying the South Yard Area has been investigated and documented in sufficient extent and detail for the purposes of the CMS. Numerous monitoring wells, soil borings, and direct-push probe locations drilled throughout the South Yard Area provide enough geologic data coverage, both vertically and laterally, to proceed with the CMS. No additional geologic investigation, other than geologic logging during well and probe installation, is planned for the South Yard Area Data Gap Investigation.

2.2.3 Hydrogeology Data Gaps

Groundwater flow directions at Plant 2 were investigated as part of the RCRA Facility Investigation (RFI) (Weston 1996). Groundwater flow directions in the South Yard Area were shown to flow generally toward the Duwamish Waterway with the groundwater flow path approximately parallel to the Plant 2 property boundary with Jorgensen Forge.

Data from monitoring wells at Jorgensen Forge show tetrachloroethene concentrations of 27,000 and 8,000 µg/L in samples of the LNAPL at two wells (MW-20 and MW-21) located within the Hollowbore Cutting Oil Plume on Jorgensen Forge property (SEACOR 1993). By contrast, the highest concentration of tetrachloroethene detected in groundwater in the South Yard Area of Plant 2 is 36 µg/L in Well PL2-109A.

The presence of an apparent source of VOCs on the Jorgensen Forge property within 100 feet of the property boundary with Plant 2 makes it important to further refine groundwater flow directions on both sides of the property boundary so that Boeing can better distinguish VOCs originating from Plant 2 from those potentially originating from the Jorgensen Forge property.

Groundwater elevation data indicate that groundwater flow directions in the South Yard Area are generally parallel to the property boundary. Accurate and detailed groundwater flow direction data for the South Yard Area and northern part of the Jorgensen Forge property will be one tool used to help identify the extent to which contaminants from each side of the property boundary might be contributing to the chlorinated VOC occurrences noted downgradient of Plant 2 and Jorgensen Forge source areas.

Groundwater flow directions presented in the RFI did not consistently use data from the Jorgensen Forge property. Consequently, South Yard Area groundwater flow directions presented in the RFI are variable with much of the variability caused by lack of data from Jorgensen Forge wells. When only data from Plant 2 wells are used groundwater elevation contours indicate flow from Plant 2 toward Jorgensen Forge. However, when Jorgensen Forge well data are included (representing a more complete data set) groundwater elevation contours indicate flow approximately parallel to the property boundary.

A more thorough groundwater level investigation is proposed to provide concurrent water level data from the Plant 2 and Jorgensen Forge sides of the property boundary. Because the aquifer is tidally-influenced, data loggers will be used to obtain data over a 72-hour period. The data will be reduced to net groundwater levels using the method described by Serfes (1991).

Data loggers will be installed in the wells listed in Table 2-2 and will be set to measure water levels every 10 minutes for at least 72 hours. After the net groundwater levels are calculated they will be used to create a net water level elevation contour map for the South Yard Area extending onto the Jorgensen Forge property.

2.2.4 Summary of Physical Conceptual Model Data Gaps Investigation

The physical conceptual model data gap investigation of the South Yard Area will be performed to fill data gaps identified above. The main work element associated with the data gap investigation is summarized below:

Scope Item	Rationale
Installation of data loggers in selected Plant 2 and Jorgensen Forge monitoring wells to obtain net groundwater elevations and produce water level elevation contour maps with groundwater flow directions. The groundwater flow directions determined from this task will be used to help adjust locations for the six new monitoring wells noted above	Increased information on groundwater elevations will clarify groundwater flow directions and the potential for groundwater plumes from Plant 2 and Jorgensen Forge properties to commingle.

2.3 GROUNDWATER QUALITY DATA GAPS

The following sections present the data gaps analysis and evaluation for groundwater in the South Yard Area. The analysis is organized by constituents rather than by unit because this allows for a better understanding of area-wide groundwater issues.

2.3.1 Current Data - Data Gap

During the course of site investigation at Plant 2 and in the South Yard Area, groundwater samples were collected on a unit-by-unit basis. This unit-by-unit approach is consistent with RCRA procedures and works well for soils. The unit-by-unit approach can also work well for groundwater if the groundwater plumes do not commingle. However, in the South Yard Area, and indeed over much of Plant 2, groundwater plumes commingle and lose their ties to any individual RCRA Unit. In these cases, an area-wide sampling approach provides the data necessary to gain a current view of groundwater conditions in the area and to more accurately delineate and track the commingled plumes.

Concurrent, area-wide groundwater sampling has not been performed in the South Yard Area, making the available data difficult to use to delineate groundwater plumes at any point in time or to track whether or not the plumes are growing, shrinking, or have reached steady state. One round of groundwater sampling in all available South Yard Area monitoring wells will be performed to provide the data necessary to make decisions regarding corrective measures for use in the CMS. In addition, six new monitoring wells will be installed along the property

boundary between Plant 2 and Jorgensen Forge to further characterize groundwater conditions at the property boundary.

Although all existing South Yard Area wells will be sampled, they will be sampled for different constituents depending on their locations and sampling history. The different COCs and their associated sampling locations are presented in Table 2-2. Specific analyses to be performed on samples from each well are discussed in Section 3.3.3.

2.3.2 Metals

Analytical results for all site-wide metals and cyanide COCs were screened to determine which site-wide constituents are also COCs for the South Yard Area. The screening levels used for site-wide COCs are summarized in Table A-1. If a site-wide COC was detected in the South Yard Area analytical data at concentrations greater than or equal to the respective screening level, the site-wide COC is considered a COC for the South Yard Area. Resulting South Yard Area-specific COCs are listed and summarized in Table 2-1. Isoconcentrations maps and tables of maximum metal concentrations in the South Yard Area are presented in Attachment A. The metals that are COCs in the South Yard Area groundwater are:

Arsenic	Copper	Lead
Manganese	Nickel	Selenium

The occurrence of these metals in the South Yard Area is evaluated for the surface water exposure pathway in the sections below. Hexavalent chromium (chromium VI) is a COC for soils in the South Yard Area and will be analyzed at wells located near where it has been detected in the soil.

The exposure pathway for air is not evaluated because the metals are not volatile and will not partition to that media. The direct contact pathway is valid for metals and cyanide, but screening levels calculated for the direct contact pathway are higher than those for surface water and therefore do not drive cleanup.

2.3.2.1 Arsenic

Arsenic was analyzed in 83 South Yard Area groundwater samples and detected in 63 of those samples with a maximum detected concentration of 99.3 µg/L. All 63 of the arsenic detections were greater than the surface water screening level of 0.2 µg/L.

Background concentrations have not yet been established for arsenic in groundwater. When background concentrations are established later in the CMS process, the area of the arsenic concentrations requiring further consideration will be reevaluated.

Nevertheless, some of the higher concentrations of arsenic in groundwater are expected to be greater than the background arsenic groundwater concentration. Additionally, historical Plant 2

occurrences of arsenic concentrations greater than 10 µg/L have tended to occur in areas with existing organic contamination and with the presence of vinyl chloride. Because vinyl chloride is formed by the dechlorination of chlorinated ethenes under reducing conditions, it is likely that areas of reducing conditions exist in groundwater at the South Yard Area. Reducing groundwater conditions, in turn, result in the dissolution of the naturally-occurring arsenic from soil, causing a groundwater plume of dissolved arsenic from the naturally-occurring arsenic in soil resulting from the anaerobic groundwater conditions. This process is well studied and understood at RCRA landfills where anaerobic groundwater is common (McArthur et al. 2001). This also occurs anywhere there are high concentrations of organics in the groundwater coupled with aerobic degradation processes that drive the system anaerobic.

Arsenic is generally detected at elevated concentrations (for illustrative purposes, greater than 10 µg/L) in the A-Level of the aquifer beneath SWMU 2-89.68 (Reclamation Yard), SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), SWMU 79.A (Cisterns 1, 2, 3), and SWMU 79.B (Cistern 4). In the B- and C-Levels of the aquifer arsenic concentrations are elevated beneath SWMU 2-89.68 (Reclamation Yard), SWMU 79.A (Cisterns 1, 2, 3), and SWMU 79.B (Cistern 4) but not beneath SWMU 2-91.70 (deactivated waste oil and coolant storage). RCRA units located in or near areas of high arsenic concentrations in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where arsenic was detected.

Data gaps for arsenic are identified using the criteria from Section 2.1 and the results of the analysis are summarized below.

- The existing data are insufficient to give a current view of the arsenic groundwater plume; therefore, the sampling event discussed in Section 2.3.1 will include this COC as an analyte. This information will then be combined with historical data to develop inferences regarding whether the arsenic plume has reached steady state. Total organic carbon (TOC) and redox parameters will be added to the analyte list to assist in remedy selection for arsenic.

- Background concentrations have not yet been established for arsenic in groundwater at Plant 2. When this occurs later in the CMS process, the area of arsenic concentrations requiring further consideration will be reevaluated.

2.3.2.2 Copper

Copper was analyzed in 90 South Yard Area groundwater samples and detected in 33 of those samples with a maximum detected concentration of 39 µg/L. Eleven of the 33 copper detections were greater than the surface water screening level of 3.1 µg/L. Background concentrations have not yet been established for copper in groundwater. When background concentrations are established later in the CMS process, the area of copper concentrations requiring further consideration will be reevaluated.

The occurrence of copper at concentrations greater than the screening level in the A-Level of the aquifer is generally limited to the vicinity of SWMU 79.B (Cistern 4), beneath and just south

of Building 2-80, and on the Jorgensen Forge property downgradient of Jorgensen Forge's Hollowbore Building. Copper was detected at only two locations in the B-Level of the aquifer and neither value was greater than the screening level. Copper was detected at only one location (PL2-104A) in the C-Level of the aquifer at a concentration greater than the screening level. RCRA units located in or near areas of high copper concentrations in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where copper was detected.

Data gaps for copper are identified using the criteria from Section 2.1 and the results of the analysis are summarized below.

- Fate and transport modeling and available groundwater data indicate that copper will not reach the waterway from SWMU 79.B (Cistern 4). Nevertheless, copper will be analyzed at direct-push locations downgradient of SWMU 79.B (Cistern 4) to support fate and transport model conclusions. Fate and transport model conclusions will then be applied to other areas of the South Yard.

- The existing data are insufficient to give a current view of the distribution of copper in groundwater; therefore, the sampling event discussed in Section 2.3.1 will include this COC as an analyte. This information will then be combined with historical data to develop inferences regarding whether the copper distribution has reached steady state.

- Background concentrations have not yet been established for copper in groundwater at Plant 2. When this occurs later in the CMS process, the area of copper concentrations requiring further consideration will be reevaluated.

2.3.2.3 Lead

Lead was analyzed in 90 South Yard Area groundwater samples and detected in 14 of those samples at a maximum concentration of 10 µg/L. One of the 14 lead detections was greater than the surface water screening level of 8.1 µg/L. Background concentrations have not yet been established for lead in groundwater at Plant 2. When background concentrations are established later in the CMS process, the area of lead concentrations requiring further consideration will be reevaluated.

Lead was detected at a concentration greater than the screening level at only one location (PL2-104A) in the C-Level of the aquifer. This location is downgradient of SWMU 2-87.65 (machine pits), SMWU 2-104.71 (central waste storage area), and SWMU 78 B (oil/water separator). RCRA units located in or near areas of high lead concentrations in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where lead was detected.

Data gaps for lead are identified using the criteria from Section 2.1 and the results of the analysis are summarized below.

- The existing data are insufficient to give a current view of the distribution of lead in groundwater; therefore, the sampling event discussed in Section 2.3.1 will include this COC as an analyte. This information will then be combined with historical data to develop inferences regarding whether the lead distribution has reached steady state.

- Background concentrations have not yet been established for lead in groundwater at Plant 2. When this occurs later in the CMS process, the area of lead concentrations requiring further consideration will be reevaluated.

2.3.2.4 Manganese

Manganese was analyzed in 36 South Yard Area groundwater samples and detected in all 36 of those samples at a maximum concentration of 413 µg/L. Thirty five of the 36 manganese detections were greater than the surface water screening level of 100 µg/L.

Most detected concentrations for manganese were greater than 1,000 µg/L, with many of the high concentrations (for illustrative purposes greater than 2,000 µg/L) noted in samples obtained from SWMU 2-89.68 (Reclamation Yard), SWMU 2-87.65 (machine pit), SWMU 78B (oil/water separator), SWMU 79A (cisterns 1,2,3), SWMU 79B (cistern 4) SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), SMWU 2-104.71 (central waste storage area), OA 3 (former UST PL-23), and one sample at well PL2-120A.

Background concentrations have not yet been established for manganese in groundwater. When background concentrations are established later in the CMS process, the area of manganese concentrations requiring further consideration will be reevaluated. Manganese was not historically treated as a RCRA COC at Plant 2, since elevated concentrations are due to the release of naturally-occurring manganese from soil under reducing geochemical conditions.

Nevertheless, the higher concentrations of manganese noted in groundwater are expected to be greater than the background manganese groundwater concentration. Additionally, historical occurrences of manganese concentrations greater than 1,000 µg/L have tended to occur in areas with existing organic contamination, with the presence of vinyl chloride, and with elevated arsenic concentrations. Because chlorinated VOCs, such as trichloroethene, are dechlorinated to vinyl chloride under reducing conditions and because naturally-occurring arsenic will readily dissolved from soil under these conditions, it is likely that an area of reducing conditions exists in groundwater at the South Yard Area. Reducing groundwater conditions, in turn, result in the dissolution of the naturally-occurring manganese in soil, causing a groundwater plume of dissolved manganese whose source is the naturally-occurring manganese in soil, and whose "cause" is the occurrence of degradable organic compounds in groundwater. This process is well documented at RCRA landfills, and well understood (McArthur et al. 2001). This also occurs anywhere where there are high concentrations of organics in the groundwater coupled with aerobic degradation processes that drive the system anaerobic. RCRA units located in or near areas of high manganese concentrations in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where manganese was detected.

Data gaps for manganese are identified using the criteria from Section 2.1 and the results of the data gap analysis are summarized below.

- The existing data are insufficient to give a current view of the manganese groundwater plume; therefore, the sampling event discussed in Section 2.3.1 will include this COC as an analyte. This information will then be combined with historical data to develop inferences regarding whether the plume has reached steady state. TOC and redox parameters will be added to the analyte list to assist in remedy selection for manganese.

- Background concentrations have not yet been established for manganese in groundwater at Plant 2. When this occurs later in the CMS process, the area of manganese concentrations requiring further consideration will be reevaluated.

2.3.2.5 Nickel

Nickel was analyzed in 67 South Yard Area groundwater samples and detected in 37 of those samples at a maximum concentration of 20 µg/L. Two of the 37 nickel detections were greater than the surface water screening level of 8.2 µg/L. Background concentrations have not yet been established for nickel in groundwater. When background concentrations are established later in the CMS process, the area of nickel concentrations requiring further consideration will be reevaluated.

The occurrence of nickel at concentrations greater than the screening level in the A-Level of the aquifer is limited to SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) and west of OA-3 (Former UST PL-23). An additional occurrence of nickel at a concentration greater than the screening level exists on the Jorgensen Forge property downgradient of Jorgensen Forge's Hollowbore Building. RCRA units located in or near areas of high nickel concentrations in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where nickel was detected.

Detected values for nickel in the B-and C-Levels of the aquifer were all less than the surface water screening level and the locations of their occurrence corresponded to the A-Level detections.

Data gaps for nickel are identified using the criteria from Section 2.1 and the results of the analysis are summarized below.

- Fate and transport modeling indicate that nickel from SWMU 79.B (Cistern 4) would not reach surface water. This is the maximum soil concentration found onsite. As a precaution, additional groundwater results (from push probes) will be obtained closer to Cistern 4 to support the fate and transport model conclusion.

- The existing data are insufficient to give a current view of the distribution of nickel in groundwater; therefore, the sampling event discussed in Section 2.3.1 will include this COC as an analyte. This information will then be combined with historical data

to develop inferences regarding whether the nickel distribution has reached steady state. This is especially critical for nickel, where virtually all exceedances in groundwater correspond to a single sampling event in 1995.

- Background concentrations have not yet been established for nickel in groundwater at Plant 2. When this occurs later in the CMS process, the area of nickel concentrations requiring further consideration will be reevaluated.

2.3.2.6 Selenium

Selenium was analyzed in 79 South Yard Area groundwater samples and detected in 13 of those samples at a maximum concentration of 130 µg/L. Four of the 13 selenium detections were greater than the surface water screening level of 71 µg/L. All four samples with concentrations greater than the screening level are associated with new wells from a single sampling event in 2001. The wells are located at SWMU 79 B (cistern 4) and downgradient of SWMU 2-87.65 (machine pits), SWMU 2-104.71 (central waste storage area), and SWMU 78 B (oil/water separator). Three of the wells are screened in the C-Level and one is screened in the B-Level. Selenium has never been detected in the A-Level at concentrations greater than the screening level. RCRA units located in or near areas of high selenium concentrations in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where selenium was detected. Background concentrations for selenium in groundwater have not yet been established. When background concentrations are established later in the CMS process, the area of selenium concentrations requiring further consideration will be reevaluated.

Data gaps for selenium are identified using the criteria from Section 2.1 and the results of the analysis are summarized below.

- The source of selenium in the C-Level is unknown. Selenium concentrations will be confirmed in the C-level.

- The existing data are insufficient to give a current view of the distribution of selenium in groundwater in the C-Level; therefore, the sampling event discussed in Section 2.3.1 will include this COC as an analyte for the C-Level only. This information will then be combined with historical data to develop inferences regarding whether the selenium distribution has reached steady state.

- Background concentrations have not yet been established for selenium in groundwater at Plant 2. When this occurs later in the CMS process, the area of selenium concentrations requiring further consideration will be reevaluated.

2.3.3 Semivolatile Organic Compounds and Polychlorinated Biphenyls

Analytical results for all site-wide SVOC and PCB COCs were screened to determine which site-wide constituents are also COCs for the South Yard Area. The screening levels used for site-wide COCs are summarized in Table A-1. If a site-wide COC was detected in the South Yard

Area analytical data at concentrations greater than or equal to the respective screening level, the site-wide COC is considered a COC for the South Yard Area. Resulting South Yard Area-specific COCs are listed and summarized in Table 2-1. Isoconcentration maps and tables of maximum SVOC and PCB concentrations in the South Yard Area are presented in Attachment A.

Two SVOCs, 2,4-dimethylphenol and bis(2-ethylhexyl)phthalate and one PCB Aroclor, (Aroclor 1254), are included on the South Yard Area-specific COC list based on their occurrence at concentrations greater than screening levels. Total PCB concentrations were used to generate the PCB isoconcentration map to provide a more complete view of PCB occurrences in the South Yard Area.

The occurrence of these constituents in the South Yard Area is evaluated for the surface water exposure pathway in the sections below. The direct contact pathway is valid for SVOCs and PCBs, but screening levels calculated for the direct contact pathway are higher than those for surface water and therefore do not drive cleanup. The exposure pathway for air is not evaluated because SVOCs and PCBs are not volatile and will not partition to that media.

2.3.3.1 2,4-Dimethylphenol

2,4-Dimethlyphenol was analyzed in 24 South Yard Area groundwater samples and detected in two of those samples. Only one of the detected concentrations was greater than the surface water screening level of 201 µg/L.

The A-Level sample location where 2,4-dimethylphenol exceeded the screening level was from Well PL2-114A in SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). 2,4-Dimethylphenol was not detected in B-Level wells and was not analyzed in samples from C-Level sampling locations. 2,4-Dimethylphenol is not expected to be present in the C-Level because it was not detected in B-Level wells. RCRA units located in or near areas of high 2,4-dimethylphenol concentrations in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where 2,4-dimethylphenol was detected.

Data gaps for 2,4-dimethylphenol are identified using the criteria from Section 2.1 and results of the analysis are summarized below.

- Although there is no 2,4-dimethylphenol “plume” in the South Yard Area, the existing data are insufficient to give a current view of this COC; therefore, the groundwater sampling event discussed in Section 2.3.1 will include this COC as an analyte at selected sampling locations.

2.3.3.2 bis(2-Ethylhexyl)phthalate

bis(2-Ethylhexyl)phthalate was analyzed in 32 South Yard Area groundwater samples and detected in seven of those samples. Six of the seven detected values for bis(2-ethylhexyl)phthalate were greater than the surface water screening level of 3.0 µg/L.

The occurrences of bis(2-ethylhexyl)phthalate at concentrations greater than the screening level are at SWMU 79.B (Cistern 4), SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), and at one probe location on the Jorgensen Forge Facility, downgradient of Jorgensen Forge's Area 1, Hollowbore Area plume. bis(2-Ethylhexyl)phthalate was not detected in the B-Level of the aquifer and was only analyzed for and detected at one location in the C-Level, Well PL2-104C, which is downgradient of SMWU 79 (Cistern 4). The C-Level detection is unexpected in that bis(2-ethylhexyl)phthalate was not detected at co-located wells, PL2-104A and PL2-104B. RCRA units located in or near areas of high bis(2-ethylhexyl)phthalate concentrations in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where bis(2-ethylhexyl)phthalate was detected.

Data gaps for bis(2-ethylhexyl)phthalate are identified using the criteria from Section 2.1 and results of the analysis are summarized below.

- Fate and transport modeling indicates that bis(2-ethylhexyl)-phthalate will not reach the waterway from SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.C (Cistern 5), SWMU 2-91.70, or SWMU 2-89.68. SVOCs to be analyzed at direct-push and monitoring well locations downgradient of SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.C (Cistern 5), SWMU 2-91.70, and SWMU 2-89.68 will be used to support fate and transport model conclusions.

- The existing data are insufficient to give a current view of the distribution of bis(2-ethylhexyl)phthalate in groundwater; therefore, the sampling event discussed in Section 2.3.1 will include this COC as an analyte at selected sampling locations. This information will then be combined with historical data to develop inferences regarding whether the bis(2-ethylhexyl)phthalate distribution has reached steady state.

2.3.3.3 Aroclor 1254, Total Polychlorinated Biphenyls

PCBs were analyzed in 43 South Yard Area groundwater samples and detected in eight of those samples. All eight of the detected values for PCBs were greater than the surface water screening level of 0.01 µg/L.

The A-Level occurrences of PCBs at concentrations greater than the screening level are at SWMU 79.B (Cistern 4) and SWMU 2-89.68 (Reclamation Yard). There is one detection of PCBs in the B-Level and one in the C-Level of the aquifer. Both detections are at Wells PL2-152 (B and C), beneath SWMU 79.B (Cistern 4). RCRA units located in or near areas of high aroclor 1254 concentrations in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where aroclor 1254 was detected.

Data gaps for PCBs are identified using the criteria from Section 2.1 and results of the analysis are summarized below.

- Fate and transport modeling indicates that PCBs will not reach the waterway from SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), SWMU 2-91.70, AOC 2-80.58, or SWMU 2-89.68. PCBs to be analyzed at direct-push and/or monitoring well locations downgradient of SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), SWMU 2-91.70, and SWMU 2-89.68 will be used to support fate and transport model conclusions. The modeling results will be used to evaluate PCBs at Building 2-83 due to occurrences of PCBs in soil in this area.

- Although there is no PCB "plume" in the South Yard Area, the existing data are insufficient to give a current view of this COC; therefore, the current groundwater sampling event discussed in Section 2.3.1 will include this COC as an analyte at selected sampling locations.

2.3.4 Volatile Organic Compounds

Analytical results for all site-wide volatile organic compounds (VOC) COCs were screened to determine which site-wide constituents are also COCs for the South Yard Area. The screening levels used for site-wide COCs are summarized in Table A-1. If a site-wide COC was detected in the South Yard Area analytical data at concentrations greater than or equal to the respective screening level, the site-wide COC is considered a COC for the South Yard Area. Resulting South Yard Area-specific COCs are listed and summarized in Table 2-1. Isoconcentration maps and tables of maximum VOC concentrations in the South Yard Area are presented in Attachment A.

Seven VOCs are included on the South Yard Area-specific COC list based on their occurrence greater than screening levels. The VOCs that are COCs for the South Yard Area are: benzene, tetrachloroethene, 1,1,2-trichloroethene, trichloroethene, 1,1-dichloroethene, cis-1,2-dichloroethene, and vinyl chloride.

The occurrence of these constituents in the South Yard Area is evaluated for the surface water and air exposure pathways in the sections below. The direct contact pathway is valid for VOCs but screening levels calculated for the direct contact pathway are higher than those for surface water or air and therefore do not drive cleanup.

2.3.4.1 Benzene

Benzene was analyzed in 109 South Yard Area groundwater samples and detected in 18 of those samples. Five detected values for benzene are greater than the surface water screening level of 4.48 µg/L. None of the detected benzene concentrations were greater than the air screening level of 1,400 µg/L.

The A-Level occurrences of benzene at concentrations greater than the surface water screening level are at OA-3 (Former UST PL-23) and SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). RCRA units located in or near areas of benzene concentrations above its screening level in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where benzene was detected.

Benzene was not detected at concentrations greater than the screening level in the B- or C-Levels of the aquifer in the South Yard Area.

Benzene was detected at a concentration of 200 µg/L at monitoring well PL2-304A (at unit OA 3 [Former UST PL-23]) in 1992. Monitoring wells around unit OA 3 (Former UST PL-23) have been abandoned and can not be resampled. However, a data gap does not exist for benzene at this location for the following reasons:

- Samples obtained in 1992, 1994, and 1995 from wells and direct-push probes in the area surrounding PL2-304A were all non-detect at a RL of 1 µg/L.
- Well PL2-304A was re-sampled in 1995 with a benzene detection of 48 µg/L. A decrease of 76% over 3 years.
- Other areas of Plant 2 that have occurrences of benzene in groundwater such as unit OA 9 in the 2-60s Area, have data indicating that the benzene-impacted area is not expanding. Data from OA 3 indicate that the benzene-impacted area is also not expanding. It is likely that natural attenuation processes are the controlling factors for plume expansion.

Data gaps for benzene are identified using the criteria from Section 2.1 and results of the analysis are summarized below.

- The existing data are insufficient to give a current view of the distribution of benzene in groundwater; therefore, the sampling event discussed in Section 2.3.1 will include this COC as an analyte. This information will then be combined with historical data to develop inferences regarding whether the benzene distribution has reached steady state.

2.3.4.2 1,1-Dichloroethene

1,1-Dichloroethene was analyzed in 109 South Yard Area groundwater samples and detected in 19 of those samples. All 19 of the detected concentrations for 1,1-dichloroethene are greater than the surface water screening level of 0.382 µg/L. One of the detected 1,1-dichloroethene concentrations is also greater than the air screening level of 42.3 µg/L.

The A-Level occurrences of 1,1-dichloroethene at concentrations greater than the surface water screening level are at SWMU 79.B (Cistern 4), SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), and SWMU 2-89.68 (Reclamation Yard). The one detected value of 1,1-dichloroethene at a concentration greater than the air screening level is at SWMU 79.B (Cistern 4). 1,1-Dichloroethene was not detected in the B- or C-Levels of the aquifer in the South Yard Area. RCRA units located in or near areas of 1,1-dichloroethene concentrations above its screening level in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where 1,1-dichloroethene was detected.

Data gaps for 1,1-dichloroethene are identified using the criteria from Section 2.1 and results of the analysis are summarized below.

- The existing data are insufficient to give a current view of the 1,1-dichloroethene groundwater plume; therefore, the sampling event discussed in Section 2.3.1 will include this COC as an analyte. This information will then be combined with historical data to develop inferences regarding whether the plume has reached steady state.

2.3.4.3 cis-1,2-Dichloroethene

cis-1,2-Dichloroethene was analyzed in 99 South Yard Area groundwater samples and detected in 54 of those samples. Three detected concentrations for cis-1,2-dichloroethene are greater than the surface water screening level of 1,130 µg/L. One of the detected concentrations is also greater than the air screening level of 15,100 µg/L.

The A-Level occurrences of cis-1,2-dichloroethene at concentrations greater than the screening levels are at SWMU 79.B (Cistern 4). RCRA units located in or near areas of cis-1,2-dichloroethene concentrations above its screening level in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where cis-1,2-dichloroethene was detected.

cis-1,2-Dichloroethene was not detected at concentrations greater than screening levels in the B- or C-Levels of the aquifer in the South Yard Area.

Data gaps for cis-1,2-dichloroethene are identified using the criteria from Section 2.1 and results of the analysis are summarized below.

- The existing data are insufficient to give a current view of the cis-1,2-dichloroethene groundwater plume; therefore, the sampling event discussed in Section 2.3.1 will include this COC as an analyte. This information will then be combined with historical data to develop inferences regarding whether the plume has reached steady state.

2.3.4.4 Tetrachloroethene

Tetrachloroethene was analyzed in 109 South Yard Area groundwater samples and detected in 13 of those samples. Ten detected concentrations for tetrachloroethene are greater than the surface water screening level of 0.822 µg/L. None of the detected tetrachloroethene concentrations are greater than the air screening level of 1,520 µg/L.

The A-Level occurrences of tetrachloroethene at concentrations greater than the surface water screening level are at SWMU 79.B (Cistern 4), SWMU 2-87.65 (machine pit), SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), SWMU 2-89.68 (Reclamation Yard), and one detection noted in probe GP-08905 on the Jorgensen Forge property (not part of the South Yard Area). Tetrachloroethene was detected at concentrations greater than the screening level

at two locations in the B-Level of the aquifer; one at SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) and one at SWMU 2-89.68 (Reclamation Yard). Tetrachlorethene was detected at one location, PL2-110C, in the C-Level of the aquifer. This C-Level location is associated with SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). RCRA units located in or near areas of tetrachloroethene concentrations above its screening level in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where tetrachloroethene was detected.

Data gaps for tetrachloroethene are identified using the criteria from Section 2.1 and results of the analysis are summarized below.

- The existing data are insufficient to give a current view of the tetrachloroethene groundwater plume; therefore, the sampling event discussed in Section 2.3.1 will include this COC as an analyte. This information will then be combined with historical data to develop inferences regarding whether the plume has reached steady state.

2.3.4.5 1,1,2-Trichloroethane

1,1,2-Trichloroethane was analyzed in 109 South Yard Area groundwater samples and detected in three of those samples. One detected concentration of 1,1,2-trichloroethane is greater than the surface water screening level of 5.0 µg/L. None of the detected 1,1,2-trichloroethane concentrations are greater than the air screening level of 3,670 µg/L.

The A-Level occurrence of 1,1,2-trichloroethane at concentrations greater than the surface water screening level is at Well PL2-109A, which is downgradient of SWMU 2-87.65 (Machine Pit). RCRA units located in or near areas of 1,1,2-trichloroethene concentrations above its screening level in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where 1,1,2-trichloroethene was detected. 1,1,2-Trichloroethane was not detected in the B- or C-Levels of the aquifer.

Data gaps for 1,1,2-trichloroethane are identified using the criteria from Section 2.1 and results of the analysis are summarized below.

- Although there is no 1,1,2-trichlorethane “plume” in the South Yard Area, the existing data are insufficient to give a current view of this COC; therefore, the synoptic groundwater sampling event discussed in Section 2.3.1 will include this COC as an analyte.

2.3.4.6 Trichloroethene

Trichloroethene was analyzed in 109 South Yard Area groundwater samples and detected in 47 of those samples. All 47 of the detected concentrations of trichloroethene are greater than the surface water screening level of 0.302 µg/L. Ten of the detected trichloroethene concentrations are also greater than the air screening level of 62 µg/L.

The A-Level occurrences of trichloroethene at concentrations greater than the surface water screening level are at SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), SWMU 2-89.68 (Reclamation Yard), SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), and AOC 2-80.58 (Deactivated Sump). Trichloroethene was also detected at concentrations greater than the surface water screening level downgradient of Jorgensen Forge Area 1 (Hollowbore area), which contains a cutting oil and chlorinated VOC plume. Trichloroethene was detected at concentrations greater than the surface water screening level in one B-Level well, PL2-106B, which is associated with SWMU 2-89.68 (Reclamation Yard). There is also one trichloroethene detection greater than the surface water screening level in one C-Level well, PL2-109C. This well is downgradient of SWMU 79.B (Cistern 4) and SWMU 2-87.65 (Machine Pit). RCRA units located in or near areas of trichloroethene concentrations above its screening level in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where trichloroethene was detected.

Data gaps for trichloroethene are identified using the criteria from Section 2.1 and results of the analysis are summarized below.

- The existing data are insufficient to give a current view of the trichloroethene groundwater plume; therefore, the sampling event discussed in Section 2.3.1 will include this COC as an analyte. This information will then be combined with historical data to develop inferences regarding whether the plume has reached steady state.

2.3.4.7 Vinyl Chloride

Vinyl chloride was analyzed in 109 South Yard Area groundwater samples and detected in 69 of those samples. Fifty-seven of the detected concentrations of vinyl chloride are greater than the surface water screening level of 0.731 µg/L. Two of the detected vinyl chloride concentrations are also greater than the air screening level of 371 µg/L.

The A-Level occurrences of vinyl chloride at concentrations greater than the screening levels are at SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), SWMU 2-89.68 (Reclamation Yard), SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), SWMU 2-87.65 (Machine Pit), and AOC 2-80.58 (Deactivated Sump). Vinyl chloride was also detected at concentrations greater than the surface water screening level downgradient of Jorgensen Forge Area 1 (Hollowbore area), which contains a cutting oil and chlorinated VOC plume. Vinyl chloride was detected at concentrations greater than the surface water screening level in B-Level wells associated with SWMU 2-89.68 (Reclamation Yard). RCRA units located in or near areas of vinyl chloride concentrations above its screening level in groundwater are summarized in Table 2-3. Refer to the isoconcentration maps in Attachment A for sampling locations where vinyl chloride was detected. Vinyl chloride was not detected at concentrations greater than the surface water screening level in any C-Level wells.

Data gaps for vinyl chloride are identified using the criteria from Section 2.1 and results of the analysis are summarized below.

- The existing data are insufficient to give a current view of the vinyl chloride groundwater plume; therefore, the sampling event discussed in Section 2.3.1 will include this COC as an analyte. This information will then be combined with historical data to develop inferences regarding whether the plume has reached steady state.

2.3.5 Summary of Investigation Scope for Groundwater Data Gaps

The groundwater data gap investigation of the South Yard Area will be performed to fill data gaps identified above. The four main work elements associated with the South Yard Area Data Gap Investigation are summarized below:

Scope Item	Rationale
Installation of six new monitoring wells along the property boundary between Plant 2 and Jorgensen Forge. Three wells will be installed in the A-Level and three will be installed in the B-Level of the aquifer. New wells are not planned for the C-Level.	These six wells will be installed downgradient of existing wells with historical COC detections above screening levels. The wells will be sampled to provide groundwater quality data at the property boundary.
Groundwater sampling at all existing and new monitoring wells in the South Yard Area for VOCs and metals.	A current groundwater sampling event will clarify many questions discussed above regarding the distribution of groundwater plumes.
Installation and sampling of direct push probes and focused sampling at selected monitoring wells in the South Yard for additional metals, cyanide, TPH, SVOCs, PCBs, and natural attenuation parameters.	Current groundwater sampling data around historical isolated groundwater exceedances will clarify whether the exceedances are still present and their extent. Data from this task will also be used to support fate and transport modeling results for selected metals, SVOCs, and PCBs. Data from this task may also be used to develop fate and transport modeling for TPHs for CMS remedy evaluation, if it is needed.

A summary table showing the wells and probes to be sampled, constituent groups analyzed, and which general data gaps will be filled by the sampling is presented in Table 2-2. This table also lists the wells that will have data loggers installed as part of the groundwater elevation and flow direction data gap investigation. The rationale for sampling at each of the wells is provided in the right hand column of the table.

Locations of existing wells, new probes, and new wells to be sampled as part of the South Yard Area Data Gap Investigation are presented in Figure 2-1. Locations of wells that will have data loggers installed as part of the geology/hydrogeology data gap investigation are presented in Figure 2-2.

2.4 SOIL QUALITY DATA GAPS

Data gaps associated with the geology and the nature and extent of chemical constituents in the South Yard Area soils are presented below.

Analytical results for all site-wide COCs were screened to determine which site-wide constituents are COCs for the South Yard Area. The screening levels used for site-wide COCs are summarized in Table B-1. If a site-wide COC was detected in the South Yard Area analytical data at concentrations greater than or equal to the respective screening level, the site-wide COC is considered a COC for the South Yard Area. Resulting South Yard Area-specific COCs are listed and summarized in Tables 2-1 and B-2. Table 2-1 lists the South Yard Area COCs and exposure pathway specific screening levels. Table B-2 lists the South Yard Area COCs and identifies the number of exceedances for the specific exposure pathway.

Selected COC soil concentration maps are presented in Attachment B. The maps present the COC concentration data for three intervals (0 to 1 foot bgs, greater than 1 to 6 feet bgs and greater than 6 to 12 feet bgs) within the "vadose zone" soil column from 0 to 12 feet bgs. To provide necessary detail, the South Yard Area is presented on two maps (east and west) for each depth interval. Data tables summarizing all COC concentrations in the South Yard Area are also provided in Attachment B. Table 2-4 provides a list of the COCs for specific RCRA units. For soil, each major COC group and each COC within each group is discussed in turn below.

2.4.1 Metals and Cyanide

Analytical results for all site-wide metals and cyanide COCs were screened to determine which site-wide constituents are COCs in soil for the South Yard Area. Chemical analysis was conducted for cyanide and for one or more of the metal constituents on 407 soil samples collected in the South Yard Area. Metals analysis covered a total of 13 constituents, including hexavalent chromium (chromium VI), for which screening levels were established. Chemical analysis was also conducted for cyanide on 72 soil samples collected in the South Yard Area. Cyanide was not detected at concentrations greater than RLs in any of the samples; therefore cyanide is not considered a COC in the South Yard Area. Eleven metals are included on the South Yard Area-specific soil COC list. The metals that are COCs in soil for the South Yard Area are:

Arsenic	Cadmium	Chromium (VI)	Copper
Manganese	Mercury	Nickel (soluble salts)	Selenium
Silver	Thallium (soluble salts)	Zinc	

Cyanide, antimony, and lead were not detected at concentrations greater than the soil to surface water or direct contact pathway screening levels. Therefore, these constituents are not included on the South Yard Area cyanide/metals COC list, though they are considered a site-wide COC.

The occurrence of these metals in the South Yard Area is evaluated for the surface water exposure pathway in the following sections. In addition to the surface water pathway, cadmium is also evaluated for the direct contact pathway and mercury is evaluated for the air pathway. Data gaps via the surface water pathway are identified using the first three criteria presented in Section 2.1. The data gap evaluation for the direct contact and air pathways uses only the first two criteria in Section 2.1.

The exposure pathway for air is not evaluated for metals or cyanide with the exception of mercury because metals and cyanide are not volatile and will not partition to that media. The direct contact pathway is valid for metals, but screening levels calculated for the direct contact pathway are higher than the maximum concentration detected with the exception of one occurrence of cadmium.

2.4.1.1 Arsenic

Arsenic was analyzed in 187 South Yard Area soil samples and detected in 62 of those samples. A table of the analytical results for arsenic and maps presenting sample locations, concentration, and depth are provided in Attachment B. Of those samples where arsenic was detected, 13 were reported at concentrations greater than or equal to the 5.0 mg/kg soil screening level protective of surface water. The concentration of arsenic detected above this soil screening level ranged from 5.3 to 12 mg/kg, 1.1 to 2.4 times the screening level. The sample with the maximum concentration (12 mg/kg) of arsenic detected within the South Yard Area was collected from 4.5 feet bgs below the current 2-83 Building. This maximum concentration value does not exceed the direct contact exposure pathway screening level (33.3 mg/kg).

Background concentrations have not yet been established for arsenic in soil at Plant 2. When this occurs later in the CMS process, the area of arsenic concentrations requiring further consideration will be reevaluated. Ecology (1994) reported that the calculated naturally-occurring background concentration for arsenic in the Puget Sound Basin is 7.3 mg/kg. Using procedures specified under MTCA guidance (Ecology 1992), arsenic concentrations reported for South Yard Area soil samples are within the 95th percentile of naturally-occurring arsenic background concentrations in the Puget Sound Basin (Ecology 1994).

Data gaps for arsenic via the soil to surface water pathway are evaluated using the criteria from Section 2.1 and results of the analysis are summarized below.

- Arsenic is present at concentrations that fall within naturally occurring background levels for the Puget Sound Basin. Further assessment will be completed when background concentrations are established later in the CMS process.

Concentrations of arsenic did not exceed the direct contact pathway screening level, and the air pathway is not considered viable for arsenic.

2.4.1.2 Cadmium

Cadmium was analyzed in 209 South Yard Area soil samples and detected in 45 of those samples. A table of the analytical results for cadmium and maps presenting sample locations, concentration, and depth is provided in Attachment B. Of those samples where cadmium was detected, 13 were reported at concentrations greater than or equal to the soil screening level protective of surface water (1.01 mg/kg). The concentration of cadmium detected within the South Yard Area boundaries exceeding this soil screening level ranged from 1.6 mg/kg to 3,700 mg/kg, 1.6 to 3,700 times the screening level. Background concentrations have not yet been established for cadmium in soil at Plant 2. When this occurs later in the CMS process, the area of cadmium concentrations requiring further consideration will be reevaluated.

Cadmium was detected above the soil screening level protective of surface water at five locations in the 3 to 5 feet bgs interval and at 11 feet bgs in proximity to SWMU 79.A (Cisterns 1, 2, 3). Cadmium concentrations in this area ranged from 1.8 mg/kg to 255 mg/kg, 1.8 to 255 times the screening level. The maximum concentration (3,700 mg/kg) of cadmium detected in the South Yard Area was detected at SWMU 79.B (Cistern 4)at 11 feet bgs. This was the only sample in which cadmium concentrations also exceeded the direct contact pathway screening level of 667 mg/kg. Cadmium was also detected at a concentration (2.2 mg/kg) greater than the soil screening level protective of surface water in deeper soils (9 to 10 feet bgs) to the northeast of SWMU 79.C (Cistern 5), The analytical data indicate that the soil to surface water pathway may be complete for cadmium associated with SWMU 79 cistern areas.

There were three occurrences in SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) where cadmium was detected at concentrations greater than the soil screening level for the protection of surface water in surface soil samples collected in this unit. The concentrations of cadmium detected above the soil screening level protective of surface water associated with this unit ranged from 2.3 mg/kg to 4.5 mg/kg. Deeper soils in this unit were not analyzed for cadmium. However cadmium was not detected in soil samples collected from 1 to 12 feet bgs outside the perimeter of the unit. The SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) Subsurface Closure Plan requires all impacted soils exceeding closure performance standards be removed and disposed of in accordance with dangerous waste regulations.

Cadmium was never detected at concentrations greater than the screening level in groundwater in the South Yard Area; confirming that cadmium in the South Yard Area is not a threat to surface water at Plant 2.

Data gaps for cadmium via the surface water and direct contact pathway were evaluated using the criteria from Section 2.1, the results of the analysis is summarized below.

- Cadmium has never been detected at concentrations greater than the screening level in groundwater; and is not a risk along this pathway. However, cadmium concentrations greater than the screening level protective of surface water remain in soils at SWMU 79.A (Cisterns 1, 2, 3) and at SWMU 79.B (Cistern 4) below the water table and the soil to groundwater pathway may be complete at this areas. Analysis of soil in SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) for

cadmium was limited to surface soils. Therefore, existing monitoring wells and push probes will be sampled downgradient of SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), and SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). The fate and transport modeling results will be evaluated in association with results from SWMU 79.A (Cisterns 1, 2, 3). The conclusions may also be applied to SWMU 79.C (Cistern 5) and other areas of the South Yard Area as appropriate.

- Metals will be analyzed at direct-push and monitoring well locations identified in association with the RCRA units identified above. The measured groundwater information will be necessary to determine if the pathway is complete and groundwater has been impacted by sources of cadmium in the soil.

- Background concentrations have not yet been established for cadmium in soil at Plant 2. When this occurs later in the CMS process, the area of cadmium concentrations requiring further consideration will be reevaluated.

The data gap for cadmium via the surface water pathway consists of verifying that groundwater has not been impacted by concentrations of cadmium in soils at SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4) and SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). Groundwater sampling and analysis will be conducted at the following sample locations:

SWMU 79.A (Cisterns 1, 2, 3)
- DP-SY-2 through DP-SY-5,
- PL2-151A, and
- PL2-156A.

SWMU 79.B (Cistern 4)
- DP-SY-1,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)
- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

The maximum concentration detected for cadmium in the South Yard Area exceeded the direct contact pathway in a single location and is adequately defined for CMS purposes. The location of this potential source of cadmium is beneath existing Building 2-83 at 11 feet bgs and is

essentially inaccessible for direct contact. The air pathway is not considered a viable exposure pathway for cadmium.

2.4.1.3 Copper

Copper was analyzed in 209 South Yard Area soil samples and detected in all 209 of the samples. Analytical results for copper and maps presenting sample locations, concentration, and depth are provided in Attachment B. With only one exception, all of the samples were reported with concentrations above the soil screening level protective surface water (1.38 mg/kg). The concentrations of copper reported within the South Yard Area boundaries that exceeded the this soil screening level ranged from 7.1 mg/kg to 830 mg/kg, 5.1 to 600 times the screening level. The maximum concentration of copper detected in the South Yard Area (830 mg/kg) was detected at SWMU 79.B (Cistern 4) but did not exceed the direct contact exposure pathway screening level (49,300 mg/kg).

Background concentrations have not yet been established for copper in soil at Plant 2. When this occurs later in the CMS process, the area of copper concentrations requiring further consideration will be reevaluated. Ecology (1994) reported that the calculated naturally-occurring background concentration for copper in the Puget Sound Basin is 36.4 mg/kg. The background concentration of copper (36.4 mg/kg) is greater than the soil screening level protective of surface water (1.38 mg/kg). Consequently, the data gap evaluation for copper is restricted to the naturally occurring background concentration (36.4 mg/kg).

Copper was detected at approximately 5 feet bgs at concentrations greater than the background concentration at one location in the central portion of the South Yard Area near Building 2-83 and at one other location to the north of AOC 2-86.63 (Wet Paint Booth). The maximum copper concentration of copper in this area is 45.1 mg/kg. Copper was not detected at concentrations greater than background concentrations at greater depths in this general area. The analytical data indicate that the soil to surface water pathway is not complete in this area for copper.

Copper was also detected at concentrations greater than the background concentration in three surface soil samples (less than or equal to 1 foot bgs) collected within SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). The reported copper concentrations for these three samples ranged from 41.5 mg/kg to 118 mg/kg. Deeper soils in this unit were not analyzed for copper. However, copper was not detected in soil samples collected from 1 to 12 feet bgs outside the perimeter of the unit. The SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) Subsurface Closure Plan requires all impacted soils exceeding closure performance standards be removed and disposed of in accordance with dangerous waste regulations. The analytical data indicate that the soil to surface water pathway is not complete in this area for copper.

The maximum concentration of copper in the South Yard Area was detected at SWMU 79.B (Cistern 4) at 11 feet bgs at 830 mg/kg. Copper was detected (68.6 mg/kg) above the soil screening level protective of surface water 11 feet bgs at one other location at SWMU 79.B (Cistern 4).

Copper was also detected (50 mg/kg) slightly above background 11 feet bgs at SWMU 79.C (Cistern 5). The analytical data indicate that the soil to surface water pathway may be complete for copper in both SWMU 79.B (Cistern 4) and SWMU 79.C (Cistern 5).

Data gaps for copper are evaluated using the criteria from Section 2.1 and results of the analysis are summarized below.

- Metals will be analyzed at direct-push and monitoring well locations downgradient of SWMU 79.B (Cistern 4) and SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). Analysis at direct-push and monitoring well locations downgradient of the west end of Building 2-83, and near AOC 2-86.63 (Wet Paint Booth) are to be conducted for other COCs metals will be included though the soil to surface water pathway appears to be incomplete for copper.. The measured groundwater information will be necessary to determine if the pathway is complete and groundwater has been impacted by sources of copper in the soil.

- Background concentrations have not yet been established for copper in soil at Plant 2. When this occurs later in the CMS process, the area of copper concentrations requiring further consideration will be reevaluated.

The data gap for copper via the surface water pathway will be addressed through groundwater sampling and analysis at SWMU 79.B (Cistern 4), and SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). Groundwater sampling and analysis will be conducted at the following sample locations:

SWMU 79.B (Cistern 4)
- DP-SY-1,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)
- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

Near AOC 2-86.63 (Wet Paint Booth)
- PL2-120A.

West end of Building 2-83
- DP-SY-6 through DP-SY-9, and
- PL2-120A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

The maximum concentration detected for copper in the South Yard Area did not exceed the direct contact pathway. The air pathway is not considered a viable exposure pathway for copper.

2.4.1.4 Hexavalent Chromium

Hexavalent chromium (chromium VI) was analyzed in 22 South Yard Area soil samples and detected in 5 of those samples. A table of analytical results for chromium VI is provided in Attachment B. There was only one occurrence where the chromium VI value (1,300 mg/kg) was greater than the soil screening level protective of surface water of 19.2 mg/kg. The sample was located 11 feet bgs at SWMU 79.B (Cistern 4) and exceeded the screening level by 68 times.

The concentrations of chromium VI detected in the South Yard Area did not exceed the direct contact exposure pathway screening level of 4,000 mg/kg.

Data gaps for chromium VI are evaluated using the criteria from Section 2.1 and results of the analysis are summarized below.

- Metals will be analyzed at direct-push and monitoring well locations downgradient of SWMU 79.B(Cistern 4). The measured groundwater information will be necessary to determine if the pathway is complete and groundwater has been impacted by the source of Chromium VI in the soil.

The data gap for chromium VI via the surface water pathway at SWMU 79.B (Cistern 4) will be addressed through groundwater sampling and analysis at SWMU 79.B (Cistern 4). Groundwater sampling and analysis will be conducted at the following sample locations:

SWMU 79.B (Cistern 4)

- DP-SY-1,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

The maximum concentration detected for chromium VI in the South Yard Area did not exceed the direct contact or air pathway screening levels for chromium VI. The air pathway is not considered a viable exposure pathway for chromium VI.

2.4.1.5 Manganese

Manganese was analyzed in 83 South Yard Area soil samples and detected in all 83 of the samples. A table of the analytical results for manganese is provided in Attachment B. Of those samples with detected manganese, 44 were reported at concentrations greater than or equal to the soil screening level protective of surface water (130 mg/kg). The concentrations of manganese reported within the South Yard Area boundaries that exceeded this soil screening level ranged from 130 mg/kg to 517 mg/kg, 1 to 4 times the screening level. The maximum concentration of manganese detected in the South Yard Area (517 mg/kg) did not exceed the direct contact exposure pathway screening level (187,000 mg/kg).

Background concentrations have not yet been established for manganese in soil at Plant 2. When this occurs later in the CMS process, the area of manganese concentrations requiring further consideration will be reevaluated.

Data gaps for manganese are evaluated using the criteria in Section 2.1 and the results of the analysis are summarized below.

- Metals will be analyzed at direct-push and monitoring well locations downgradient of SWMU 79.B (Cistern 4), SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), the west end of Building 2-83, and near AOC 2-86.63 (Wet Paint Booth). The measured groundwater information will be necessary to determine if the pathway is complete and groundwater has been impacted by sources of manganese in the soil.

- Background concentrations have not yet been established for manganese in soil at Plant 2. When this occurs later in the CMS process, the area of manganese concentrations requiring further consideration will be reevaluated.

The data gap for manganese via the surface water pathway will be addressed through groundwater sampling and analysis at SWMU 79.B (Cistern 4), and SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). Groundwater sampling and analysis will be conducted at the following sample locations:

SWMU 79.B (Cistern 4)
- DP-SY-1,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)
- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

Near AOC 2-86.63 (Wet Paint Booth)

- PL2-120A.

West end of Building 2-83

- DP-SY-6 through DP-SY-9, and
- PL2-120A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

The maximum concentration detected for manganese in the South Yard Area did not exceed the direct contact or air pathway screening levels for manganese. The air pathway is not considered a viable exposure pathway for manganese.

2.4.1.6 Mercury

Mercury was analyzed in 192 South Yard Area soil samples and detected in 22 of those samples. Analytical results for mercury and maps presenting sample locations, concentration, and depth are provided in Attachment B. Of those samples with detected mercury, 20 were reported at concentrations greater than or equal to the soil screening level protective of surface water and air pathway screening levels of 0.05 mg/kg. Concentrations of mercury detected within the South Yard Area exceeding the screening levels ranged between 0.05 mg/kg and 1.72 mg/kg, 1.0 and 34.4 times the screening level. The both of the pathway screening levels are set at the laboratory RL (Table B-1). The maximum concentration of mercury (1.72 mg/kg) detected in the South Yard Area did not exceed the direct contact exposure pathway screening level (41.9 mg/kg).

Mercury was detected at concentrations greater than the soil screening level protective of surface water in five surface soil samples from SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). The maximum concentration of mercury (1.72 mg/kg) reported in the South Yard Area was located in this area. The concentrations of mercury detected above the soil screening level protective of surface water in this area ranged from 0.05 mg/kg to 1.72 mg/kg. Deeper soils in this unit were not analyzed for mercury. However, mercury was not detected in soil samples collected from 1 to 12 feet bgs outside the perimeter of the unit. In addition, the SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) Subsurface Closure Plan requires all impacted soils exceeding closure performance standards be removed and disposed of in accordance with dangerous waste regulations.

Mercury was detected at three sample locations at approximately 5 feet bgs, at concentrations (0.1 mg/kg to 0.11 mg/kg) greater than the soil screening level protective of surface water (0.05 mg/kg) in the central portion of the South Yard Area near Building 2-83 and Building 2-80. Mercury was also detected (0.11 mg/kg) at a single location to the north of AOC 2-86.63 (Wet Paint Booth) at 7 feet bgs, which exceeds the soil screening level protective of surface water. Mercury did not exceed the screening level at greater depths in these general areas.

Mercury was detected at concentrations greater than the soil screening level protective of surface water at three locations in the west end of SWMU 2-89.68 (Reclamation Yard) at depths of 4 to 5 feet bgs. Concentrations for these samples ranged from 0.08 mg/kg to 0.11 mg/kg. Mercury was not detected above the soil screening level protective of surface water in soils at greater depths in this general area.

Background concentrations have not yet been established for mercury concentrations in soil at Plant 2. When this occurs later in the CMS process, the area of mercury concentrations requiring further consideration will be reevaluated.

There was one occurrence where mercury was detected (0.07 mg/kg) above the soil screening level protective of surface water to the southeast of SWMU 79.A (Cistern 1,2,3). The sample was collected at 6.5 feet bgs. Mercury was not detected above this screening level at greater depths in this general area.

The analytical data indicate that the soil to surface water pathway is likely not complete in the preceding areas and locations for mercury.

Mercury was detected above the soil screening level protective of surface water in three locations from 5 to 11 feet bgs near SWMU 79.B (Cistern 4). Concentrations of mercury in this area ranged from 0.05 mg/kg to 0.1 mg/kg. Mercury was not detected is soil samples collected from other sample locations surrounding SWMU 79.B (Cistern 4). However, the analytical data indicate that the soil to surface water pathway may be complete for mercury at this location.

Data gaps for mercury via the surface water pathway are evaluated using the four criteria from Section 2.1 and results of the analysis are summarized below.

- Analysis of soil in SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) for mercury was limited to surface soils. Metals will be analyzed at direct-push and monitoring well locations downgradient of SWMU 79.B (Cistern 4), SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), the west end of Building 2-83, and near AOC 2-86.63 (Wet Paint Booth). The fate and transport modeling results will be evaluated in association with analytical results from SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). The conclusions may also be applied to the other areas of the South Yard Area as appropriate. In addition, the measured groundwater information will be necessary to determine if the pathway is complete and groundwater has been impacted by sources of mercury in the soil.

- Background concentrations have not yet been established for mercury in soil at Plant 2. When this occurs later in the CMS process, the area of mercury concentrations requiring further consideration will be reevaluated.

Data gaps for Mercury via the air pathway are evaluated using the first two criteria from Section 2.1. Concentrations of mercury were detected at concentrations greater than the proposed air pathway screening level (0.05 mg/kg) in 20 samples; data gaps associated with this pathway will be evaluated in the work plan addendum.

The data gap for mercury via the surface water pathway consists of verifying mercury in groundwater and evaluating fate and transport modeling at SWMU 79.B (Cistern 4), SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), the west end of Building 2-83, and near AOC 2-86.63 (Wet Paint Booth). Groundwater sampling and analysis will be conducted at the following sample locations:

SWMU 79.B (Cistern 4)

- DP-SY-1,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)

- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

Near AOC 2-86.63 (Wet Paint Booth)

- PL2-120A.

West end of Building 2-83

- DP-SY-6 through DP-SY-9, and
- PL2-120A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

There is no soil data gap in the South Yard Area for mercury via the direct contact pathway. Air is a viable pathway for mercury and will be further evaluated in the work plan addendum.

2.4.1.7 Nickel

Nickel was analyzed in 180 South Yard Area soil samples and detected in all 180 of those samples. Analytical results for nickel are provided in Attachment B. Of those samples with detected nickel, 94 were reported at concentrations greater than or equal to the soil screening level protective of surface water (10.7 mg/kg). The concentrations of nickel reported within the South Yard Area boundaries that exceeded the soil screening level protective of surface water ranged from 11 mg/kg to 610 mg/kg, 1 to 57 times the screening level. The maximum concentration of nickel detected in the South Yard Area (610 mg/kg) was detected at SWMU 79 (Cistern 4) but did not exceed the direct contact exposure pathway screening level (26,700 mg/kg).

Background concentrations have not yet been established for nickel in soil at Plant 2. When this occurs later in the CMS process, the area of nickel concentrations requiring further

consideration will be reevaluated.. Ecology (1994) reported that the calculated naturally-occurring background concentration for nickel in the Puget Sound Basin is 47.8 mg/kg. The naturally occurring background concentration of nickel (47.8 mg/kg) is greater than the soil screening level protective surface water (10.7 mg/kg).

There was a single occurrence were nickel was detected at a concentration (610 mg/kg) greater than the Puget Sound background concentration of 47.8 mg/kg. Nickel was detected at 11 feet bgs at SWMU 79 (Cistern 4). Nickel was not detected above the naturally occurring background concentration in any adjacent sample locations. However, the analytical data indicate that the soil to surface water pathway may be complete for nickel in this area.

Data gaps for nickel via the surface water pathway are evaluated using the four criteria from Section 2.1 and results of the analysis are summarized below.

- Nickel was not a constituent included in the fate and transport model for SWMU 79.B (Cistern 4). However, nickel was included in the fate and transport model for SWMU 2-91.70. Metals will be analyzed at direct-push and monitoring wells at locations at SWMU 79.B (Cistern 4) and SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) as identified on Table 2-2 and presented on Figure 2-1. The fate and transport modeling results will be evaluated in association with analytical results from SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). The conclusions may also be applied to SWMU 79 (Cistern 4) and other areas of the South Yard Area as appropriate.

- Metals will be analyzed at direct-push and monitoring well locations downgradient of SWMU 79.B (Cistern 4) identified in association with the above data gap. The measured groundwater information will be necessary to determine if groundwater is impacted by nickel.

- Background concentrations have not yet been established for nickel in soil at Plant 2. When this occurs later in the CMS process, the area of nickel concentrations requiring further consideration will be reevaluated.

The data gap for nickel via the surface water pathway at SWMU 79.B (Cistern 4) consists of verifying nickel in the groundwater and evaluating fate and transport modeling at SWMU 79.B (Cistern 4) and SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). Groundwater sampling and analysis will be conducted at the following sample locations:

SWMU 79.B (Cistern 4)

- DP-SY-1,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)

- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

The maximum concentration detected for nickel in the South Yard Area did not exceed the direct contact pathway. The air pathway is not considered a viable exposure pathway for nickel.

2.4.1.8 Selenium

Selenium was analyzed in 186 South Yard Area soil samples and detected in 17 of those samples. Analytical results for selenium are provided in Attachment B. Of those samples where selenium was detected, four were detected at concentrations greater than or equal to the soil screening level protective of surface water (7.38 mg/kg). The concentrations of selenium detected within the South Yard Area boundaries that exceeded soil screening level protective of surface water ranged from 8 mg/kg to 9 mg/kg, 1.1 to 1.2 times the screening level. The maximum concentration of selenium detected in the South Yard Area did not exceed the direct contact exposure pathway screening level (6,670 mg/kg).

Background concentrations have not yet been established for selenium in soil at Plant 2. When this occurs later in the CMS process, the area of selenium concentrations requiring further consideration will be reevaluated.

Selenium was detected at 4 to 5 feet bgs at one location at SWMU 79.C (Cistern 5) and one location at the west end of the SWMU 2-89.68 (Reclamation Yard) above the soil screening level protective of surface water. Selenium was not detected above the soil screening level protective of surface water in soils at greater depths in this general area. The analytical data indicate that the soil to surface water pathway is not complete in this area for selenium.

There were two occurrences where selenium detected at a single location in the vicinity of RCRA units, one to the west end of SWMU 2-80.56 (Sink Sump) and one to the north end of AOC-80.58 (Deactivated Sump). These samples were collected at 10 – 11.5 ft bgs. The analytical data soil data indicate that there is a potential for the soil to surface water pathway to be complete for selenium in this area. However, selenium groundwater concentrations in the A-Level throughout the South Yard Area were consistently less than the groundwater screening level.

Data gaps for selenium via the surface water pathway are evaluated using the criteria from Section 2.1 and results of the evaluation are summarized below.

- Fate and transport modeling and groundwater data indicate that selenium will not reach the waterway from AOC 2-80.58. Metals to be analyzed at direct-push locations downgradient of AOC 2-80.58 are identified on Table 2-2 and presented on Figure 2-1. The fate and transport modeling results will be evaluated in association with analytical results from AOC 2-80.58 (Deactivated Sump) and SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). The conclusions may also be applied to SWMU 79.C (Cistern 5), SWMU 2-80.56 (Sink Sump), and other areas of the South Yard Area as appropriate.

- Metals will be analyzed at direct-push location downgradient of AOC 2-80.58 as identified under Criterion 3. The measured groundwater information will be necessary to determine if groundwater is impacted by selenium.

- Background concentrations have not yet been established for selenium in soil at Plant 2. When this occurs later in the CMS process, the area of selenium concentrations requiring further consideration will be reevaluated.

The data gap via the surface water pathway consists of verifying selenium concentrations in the groundwater and evaluating fate and transport modeling at AOC 2-80.58 and SWMU 2-89.68 (Reclamation Yard). The data gap will be addressed through groundwater sampling and analysis at AOC 2-80.58 (Deactivated Sump), SWMU 2-89.68, (Reclamation Yard) SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) and to some extent downgradient of SWMU 2-80.56 (Sink Sump) at the following sample locations:

AOC 2-80.58 (Deactivated Sump)
- DP-SY-10,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 2-80.56 (Sink Sump)
- DP-SY-10,

SWMU 2-89.68 (Reclamation Yard)
- PL2-115A,
- PL2-117A,
- PL2-603A, and
- PL2-602A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)
- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

The maximum concentration detected for selenium in the South Yard Area did not exceed the direct contact pathway. The air pathway is not considered a viable exposure pathway for selenium.

2.4.1.9 Silver

Silver was analyzed in 180 South Yard Area soil samples and detected in 12 of those samples. Analytical results for silver are provided in Attachment B. Of those samples where silver was detected, eight were detected at concentrations greater than or equal to the soil screening level protective of surface water of 0.32 mg/kg. The concentrations of silver detected within the South Yard Area boundaries that exceeded the screening levels ranged from 0.4 mg/kg to 22 mg/kg 1.2 to 68 times the screening level. The maximum concentration of silver (22 mg/kg) detected in the South Yard Area did not exceed the direct contact exposure pathway screening level (6,670 mg/kg).

Background concentrations have not yet been established for silver concentrations in soil at Plant 2. When this occurs later in the CMS process, the area of silver concentrations requiring further consideration will be reevaluated.

Silver was detected in one sample collected from surface soils (less than 1 foot bgs) at concentrations greater than the soil screening level protective of surface water (0.32 mg/kg) at the west end of SWMU 2-80.57 (Generator Sump). Silver was not detected at concentrations greater than the screening level in samples collected at greater depths than the surface soil sample at this location. The analytical data indicate that the soil to surface water pathway is not complete for silver at this location.

Silver was also detected at three surface soil locations at concentrations greater than soil screening level protective of surface water in SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). Concentration of silver detected in SWMU 2-91.70 ranged from 0.5 mg/kg to 1.4 mg/kg. Soil samples collected from deeper in the soil column were not analyzed for silver in this unit. However, silver was not detected in soil samples collected from 1 to 12 feet bgs outside the perimeter of the unit. The analytical data indicate that the soil to surface water pathway is not complete for silver in this area. In addition, the SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) Subsurface Closure Plan requires all impacted soils exceeding closure performance standards be removed and disposed of in accordance with dangerous waste regulations.

Silver was detected 4 to 5 feet bgs at concentrations that exceeded the soil screening level protective of surface water at one location at the SWMU 79.C (Cistern 5) and at one location at the west end of SWMU 2-89.68 (Reclamation Yard). Concentrations reported for these two samples were 8 mg/kg and 9 mg/kg, respectively. Silver was not detected above the soil screening level protective of surface water in soils at greater depths in these general areas. The analytical data indicate that the soil to surface water pathway is not complete in these areas for silver.

There was a single occurrence where silver was detected at SWMU 79.B (Cistern 4) where the concentration (22 mg/kg) exceeded the soil screening level protective of surface water The sample was collected at 11 feet bgs. Silver was not detected is soil samples collected from other sample locations surrounding SWMU 79.B Cistern 4. However, the analytical data indicate that the soil to surface water pathway may be complete for silver in this area. .

Data gaps for silver via the surface water pathway are evaluated using the criteria from Section 2.1 and results of the evaluation are summarized below.

- Fate and transport modeling and groundwater data indicate that silver will not reach the waterway from SWMU 79.B (Cistern 4). Metals will be analyzed from samples at direct-push and monitoring well locations downgradient of SWMU 79.B (Cistern 4). The analytical results will be used to support fate and transport model conclusions. In addition, the measured groundwater concentrations will be used to determine if the soil to groundwater pathway is complete.

- Background concentrations have not yet been established for silver in soil at Plant 2. When this occurs later in the CMS process, the area of silver concentrations requiring further consideration will be reevaluated.

The data gap for silver via the surface water pathway consists of verifying the fate and transport model at SWMU 79.B (Cistern 4). The data gap will be addressed through groundwater sampling and analysis at SWMU 79.B (Cistern 4). Groundwater samples will also be collected down gradient of, SWMU 2-91.70, AOC 2-80.58 and the SWMU 2-89.68 and analyzed for metals. The results from these groundwater sampling activities will also be used to evaluate the fate and transport model. Groundwater samples will be collected at the following sample locations:

SWMU 79.B (Cistern 4)
- DP-SY-1,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

AOC 2-80.58 (Deactivated Sump)
- DP-SY-10,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 2-89.68 (Reclamation Yard)
- PL2-115A,
- PL2-117A,
- PL2-603A, and
- PL2-602A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)

- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

The maximum concentration detected for silver in the South Yard Area did not exceed the direct contact pathway. The air pathway is not considered a viable exposure pathway for silver.

2.4.1.10 Thallium

Thallium was analyzed in 186 South Yard Area soil samples and detected in 24 of those samples. Analytical results for thallium and maps presenting sample locations, concentration, and depth are provided in Attachment B. Of those samples where thallium was detected, 16 were reported at concentrations greater than or equal to the soil screening level protective of surface water (0.67 mg/kg). The concentrations of thallium detected within the South Yard Area that exceeded the soil screening level protective of surface water ranged from 6 mg/kg to 56 mg/kg, 9 to 84 times the screening level. The maximum concentration of thallium (56 mg/kg) was detected at SWMU 2-89.68 (Reclamation Yard) and did not exceed the direct contact exposure pathway screening level (86.4 mg/kg).

Background concentrations have not yet been established for thallium concentrations in soil at Plant 2. When this occurs later in the CMS process, the area of thallium concentrations requiring further consideration will be reevaluated.

Thallium was detected in eight samples at concentrations greater than the soil screening level protective of surface water at 2 to 4 feet bgs in the west end of the SWMU 2-89.68 (Reclamation Yard). Thallium was also detected at concentrations greater than the soil screening level protective of surface water at approximately 5 feet bgs from one sample collected under Building 2-80, one location at SWMU 79.C (Cistern 5) and from one sample collected at SWMU 2-80.57. Concentrations in these samples ranged from 6 mg/kg and 7 mg/kg. However, thallium was not detected at depths greater than 5 feet bgs in any of these areas. The analytical data indicate that the soil to surface water pathway is not complete for thallium in these areas.

Thallium was detected in three samples at 4 feet bgs at concentrations greater than the soil screening level protective of surface water outside the perimeter of SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). The concentrations ranged from 40 mg/kg to 46 mg/kg outside the unit. Thallium was not detected at concentrations greater than this soil screening level at greater depths than 4 feet bgs in this area. The analytical data indicate that the soil to surface water pathway is not complete for thallium in this area. In addition, the subsurface closure for SWMU 2-91.70 will remove a large portion of the area impacted by thallium.

Thallium was detected at concentrations (6 mg/kg to 9 mg/kg) greater than the soil screening level protective of surface water at the west end of the SWMU 2-80.56 (Sink Sump) form 6.5 to 11.5 feet bgs. Downgradient soil samples collected at AOC 2-80.58 were reported as non-detect for thallium. However, the analytical data indicate that the soil to surface water pathway may be complete for thallium in this area.

Fate and modeling was conducted for thallium in the South Yard Area for SWMU 2-89.68 (Reclamation Yard) and 2-91.70 (Waste Oil and coolant Storage Area) but not SWMU 2-80.56 (Sink Sump).

Data gaps for thallium via the surface water pathway are evaluated using the criteria from Section 2.1 and results of the evaluation are summarized below.

- South Yard Area RCRA Units (SWMU 79.C (Cistern 5), SWMU 2-89.68 and SWMU 2-91.70) are characterized for thallium adequately for CMS purposes. The lateral extent is not well defined at SWMU 2-80.57 (Generator Sump); however the vertical profile indicates that the soil-to-groundwater pathway is incomplete since thallium is not found at depths greater than 6 feet bgs with one exception. Thallium was detected at 11.5 feet bgs on the west end of SWMU 2-80.56 and likely encounters groundwater.

- The lateral extent of thallium is not well defined under Building 2-80; however the vertical profile indicates that the soil-to-groundwater pathway is incomplete, since thallium is not found at depths greater than 5 feet bgs.

- Fate and transport modeling was not conducted for SWMU 2-80.56. However, fate and transport modeling indicates that it will take over 8,000 years to reach the waterway from SWMU 2-89.68 and SWMU 2-91.70. Metals will be analyzed at direct-push and/or monitoring well locations downgradient of these units identified on Table 2-2 and presented on Figure 2-1. The results will be used to support fate and transport model conclusions. The modeling results from those units may be used to evaluate thallium at Building 2-83, SWMU 2-80.57 and SWMU 2-80.56.

- Metals will be analyzed at direct-push and monitoring well locations downgradient of SWMU 2-80.56 (Sink Sump) near AOC 2-80.58. The measured groundwater information will be necessary to determine if groundwater is impacted by thallium.

- Background concentrations have not yet been established for thallium in soil at Plant 2. When this occurs later in the CMS process, the area of thallium concentrations requiring further consideration will be reevaluated.

The data gap for thallium via the soil to surface water pathway consists of verifying the fate and transport model at SWMU 2-91.70, and SWMU 2-89.68 and evaluating groundwater quality downgradient of SWMU 2-80.58. The data gap will be addressed through groundwater sampling and analysis downgradient of, SWMU 2-91.70, AOC 2-80.58 and the SWMU 2-89.68

AOC 2-80.58 (Deactivated Sump)

- DP-SY-10,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 2-89.68 (Reclamation Yard)

- PL2-115A,
- PL2-117A,
- PL2-603A, and
- PL2-602A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)

- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

The maximum concentration detected for thallium in the South Yard Area did not exceed the direct contact pathway. The air pathway is not considered a viable exposure pathway for thallium.

2.4.1.11 Zinc

Zinc was analyzed in 204 South Yard Area soil samples and detected in all 204. Analytical results for zinc and maps presenting sample locations, concentration, and depth are provided in Attachment B. Of those samples where zinc was detected, 14 were detected at concentrations greater than or equal to the soil screening level protective of surface water (101 mg/kg). The concentrations of zinc detected within the South Yard Area that exceeded the soil screening level protective of surface water ranged from 104 mg/kg to 26,000 mg/kg, 1.1 to 257 times the screening level. The maximum concentration (26,000 mg/kg) of zinc detected in the South Yard Area did not exceed the direct contact exposure pathway screening level (40,000 mg/kg).

Background concentrations have not yet been established for zinc concentrations in soil at Plant 2. When this occurs later in the CMS process, the area of zinc concentrations requiring further consideration will be reevaluated.

Zinc was detected in seven samples at concentrations greater than the soil screening level protective of surface water 3 to 11 feet bgs at SWMU 79.A (Cisterns 1, 2, 3). Concentrations of zinc that exceed the screening level range between 125 mg/kg to 566 mg/kg at 3 to 5 feet bgs. Concentrations of zinc that exceed the screening level range between 116 mg/kg to 489 mg/kg at 8 to 11 feet bgs. Zinc was also detected above the soil screening level protective of surface

water in two samples collected near the vertical limit of the cistern removal excavation at SWMU 79.B (Cistern 4) 11 feet bgs. The concentrations of the two samples were reported at 3,070 mg/kg and 26,000 mg/kg.

The analytical data indicate that the soil to surface water pathway likely encounter groundwater and the soil to groundwater is complete for zinc in these areas. Elevated zinc concentrations in these areas coincide with the groundwater concentration contours.

Zinc was detected at a single sample location approximately 5 feet bgs at a concentration (437 mg/kg) greater than the soil screening level protective of surface water in the central portion of the South Yard Area to the north of AOC 2-86.63 (Wet Paint Booth) near Building 2-80. Zinc was not detected at concentrations greater than the screening level at greater depths in this general area. The analytical data indicate that the soil to surface water pathway is not complete for zinc at this location.

Zinc was detected in three surface soil samples at concentrations greater than the soil screening level protective of surface water within SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). Concentrations in these samples ranged from 104 mg/kg to 246 mg/kg. Zinc was not detected at concentrations greater than the screening level at depths greater than 1 foot bgs in this area. The analytical data indicate that the soil to surface water pathway is not complete for zinc in this area. In addition the subsurface closure for SWMU 2-91.70 will remove the area impacted by zinc.

Data gaps for zinc via the surface water pathway are evaluated using the criteria from Section 2.1 and the results of the evaluation are summarized below.

- The lateral extent of zinc is not well defined to the north of AOC 2-86.63 near Building 2-80. However, the vertical profile indicates that the soil-to-groundwater pathway is incomplete since zinc is not detected below 5 feet bgs.

- Fate and transport modeling indicates that zinc will not reach the waterway from SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), or SWMU 2-91.70 (Deactivated Waste Oil Storage and Coolant Storage Area). Metals are to be analyzed at direct-push and monitoring well locations downgradient of SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4) of these. The analytical data will be used to support fate and transport model conclusions.

- Metals will be analyzed at direct-push and monitoring well locations downgradient of SWMU (Cisterns 1,2,3) and SWMU (Cistern 4). The measured groundwater information will be necessary to determine if groundwater is impacted by zinc in this area.

- Background concentrations have not yet been established for zinc in soil at Plant 2. When this occurs later in the CMS process, the area of zinc concentrations requiring further consideration will be reevaluated.

The data gap for zinc via the surface water pathway consists of verifying the presence of zinc in groundwater and the fate and transport model at SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), and SWMU 2-91.70 (Deactivated Waste Oil Storage and Coolant Storage Area). The data gap will be addressed through groundwater sampling and analysis at these units. Groundwater sampling and analysis will be conducted at the following sample locations:

SWMU 79.A (Cisterns 1, 2, 3)

- DP-SY-2 through DP-SY-5,
- PL2-151A, and
- PL2-156A.

SWMU 79.B (Cistern 4)

- DP-SY-1,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)

- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

The maximum concentration detected for zinc in the South Yard Area did not exceed the direct contact pathway. The air pathway is not considered a viable exposure pathway for zinc.

2.4.2 Semivolatile Organic Compounds and Polychlorinated Biphenyls

Analytical results for all site-wide SVOC and PCB COCs were screened to determine which site-wide constituents are COCs for the South Yard Area. Chemical analysis was conducted for PCBs and SVOC constituents on 263 soil samples collected in the South Yard Area. Total PCBs and four Aroclors (1016/1242, 1248, 1254 and 1260) were identified as COCs for the South Yard Area. Eight SVOCs are included on the South Yard Area-specific soil COC list. Seven of the SVOC constituents are carcinogenic polycyclic aromatic hydrocarbons (cPAHs).

The cPAHs that are COCs for the South Yard Area are:

- Benzo(a)anthracene
- Benzo(b)fluoranthene
- Benzo(k)fluoranthene
- Benzo(a)pyrene

- Chrysene
- Dibenz(a,h)anthracene
- Indeno(1,2,3-cd)pyrene

The eighth SVOC COC, which is not a cPAH, is bis(2-ethylhexyl)phthalate.

Seven cPAHs, four PCB Aroclors, and one phthalate were detected in soils at Plant 2 at concentrations greater than the screening levels. The occurrence of these constituents in the South Yard Area is evaluated for the soil to surface water exposure pathway in the sections below. The direct contact pathway is valid for SVOCs and PCBs and except for the occurrence of Aroclor 1248 and Aroclor 1254 in a single sample, the maximum concentrations of PCB and SVOC constituents are less than the respective direct contact screening levels. The exposure pathway for air is not evaluated because SVOCs and PCBs are not volatile and will not partition to that media.

2.4.2.1 Carcinogenic Polycyclic Aromatic Hydrocarbons

A total of 88 soil samples were analyzed for cPAHs. With the exception of benzo(a)anthracene and chrysene, cPAHs were only detected at concentrations greater than the soil screening level protective of surface water in one sample. Benzo(a)anthracene and chrysene were detected at concentrations greater than their respective soil screening levels in two and six samples, respectively. The concentrations of cPAHs detected within the South Yard Area that exceeded the soil screening levels protective of surface water ranged from 1.4 to 12.3 times their respective screening levels. The maximum concentration detected of any cPAH was 2,000 µg/kg of indeno(1,2,3-cd)pyrene at 4 feet bgs on the west end of SWMU 2-89.68. The maximum concentration of individual cPAHs detected in the South Yard Area did not exceed the individual direct contact exposure pathway screening levels.

In every sample where cPAHs other than chrysene were detected at concentrations greater than their respective soil screening levels protective of surface water, chrysene was also detected at concentrations greater than its respective screening level. Therefore the pathway evaluation will be conducted using chrysene as an indicator for the cPAH group as a whole. Under this approach while conducting the data gap evaluation for chrysene the data gaps for the other cPAH COCs will be addressed. Tables of analytical results for all cPAH COCs are provided in Attachment B. Maps presenting sample locations, concentration, and depth for chrysene and benzo(a)pyrene are provided in Attachment B.

Chrysene was detected in five samples collected in the west side of the SWMU 2-89.68 (Reclamation Yard) from less than 1 foot bgs to depths of 4 feet bgs at concentrations greater than the soil screening level protective of surface water. Concentrations ranged from 70 µg/kg to 110 µg/kg. Chrysene was not detected at concentrations greater than the screening level at in deeper soils in the unit. The analytical data indicate that the soil to surface water pathway is not complete for chrysene in this area. However, the deeper samples were not collected at the same locations. The fate and transport model indicates that PAHs will not reach the waterway from this unit.

Chrysene was detected at approximately 5 feet bgs at concentrations greater than the screening level in the central portion of the South Yard Area near Building 2-83. Chrysene was not detected at concentrations greater than the screening level at greater depths. The analytical data indicate that the soil to surface water pathway is not complete for chrysene at this location.

Chrysene was not detected in SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) however, RLs for cPAH constituents were substantially greater (up to 11,000 µg/kg) than soil screening levels for a number of surface soil samples collected within the unit boundaries. Chrysene was also not detected at SWMU 79.A (Cisterns 1, 2, 3) and SWMU 79.C (Cistern 5), but RLs for cPAHs for a number of samples were substantially greater (up to 40,000 µg/kg) than the soil screening levels.

Data gaps for chrysene (cPAHs) via the surface water pathway are evaluated using the criteria from Section 2.1 and are summarized below.

- The cPAH RCRA Unit source areas in the South Yard Area are isolated in soils at SWMU 2-89.68 (Reclamation Yard).

- There was only one occurrence of cPAHs being detected in the South Yard Area that was not associated with a RCRA Unit. One sample was detected with 130 µg/kg of chrysene at 5 feet bgs at Building 2-83 chrysene was not detected in deeper soils at this location.

- Fate and transport modeling and groundwater data indicate that SVOCs including cPAHs will not reach the waterway from SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) or SWMU 2-89.68 (Reclamation Yard). However, SVOCs will be analyzed at direct-push and/or monitoring well locations downgradient of SWMU 79.A (Cisterns 1, 2, 3), and SWMU 2-89.68 to support fate and transport model conclusions. The modeling results will be used to evaluate cPAHs at Building 2-83.

- SVOCs including cPAHs will be analyzed at direct-push and monitoring well locations downgradient of SWMU 79.A (Cisterns 1,2,3) and SWMU 79.B (Cistern 4), SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) and SWMU 2-89.68 (Reclamation Yard) as identified under the Criterion 3. The measured groundwater information will be necessary to determine if groundwater is impacted by cPAHs in this area.

The data gap for cPAHs via the soil to surface water pathway consists of confirming the absence of cPAHS in groundwater and verifying the fate and transport model at SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), SWMU 2-91.70, and SWMU 2-89.68. Groundwater samples will be collected at the following sample locations:

SWMU 79.A (Cisterns 1, 2, 3)
- DP-SY-2 through DP-SY-5,
- PL2-151A, and
- PL2-156A.

SWMU 79.B (Cistern 4)

- DP-SY-1,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 2-89.68 (Reclamation Yard)

- PL2-115A,
- PL2-117A,
- PL2-603A, and
- PL2-602A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)

- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

There is no soil data gap in the South Yard Area for cPAHs via direct contact pathway. The air pathway is not considered a viable exposure pathway for cPAHs.

2.4.2.2 bis(2-Ethylhexyl)phthalate

A total of 103 soil samples were analyzed for SVOCs bis(2-ethylhexyl)phthalate was detected in 33 of those samples. Of those samples where bis(2-ethylhexyl)phthalate was detected, seven were detected at concentrations greater than or equal to the soil screening level protective of surface water (1,570 µg/kg). Analytical results for bis(2-ethylhexyl)phthalate and maps presenting sample locations, concentration, and depth are provided in Attachment B. The concentrations of bis(2-ethylhexyl)phthalate detected within the South Yard Area, which exceeded the soil screening level protective of surface water (1,570 µg/kg) ranged from 1,600 µg/kg to 330,000 µg/kg, 1.0 to 210 times the screening level. The maximum concentration of bis(2-ethylhexyl)phthalate (330,000 µg/kg) was detected 4 feet bgs near SWMU 79.C (Cistern 5). The concentration does exceed the direct contact exposure pathway screening level (1,790,000 µg/kg).

Bis(2-ethylhexyl)phthalate was detected at concentrations greater than the soil screening level protective of surface water in three soil samples collected at 1 to 5 feet bgs from locations within the west side of the SWMU 2-89.68 (Reclamation Yard). Concentrations of these samples ranged between 1,600 µg/kg and 4,200 µg/kg. Bis(2-ethylhexyl)phthalate was not detected at concentrations greater than the soil screening level protective of surface water at greater depths. The analytical data indicate that the soil to surface water pathway is not complete for

bis(2-ethylhexyl)phthalate in this area. However, deeper soils were not tested below 3 feet at one of the locations.

Bis(2-ethylhexyl)phthalate was detected in three samples at concentrations greater than the soil screening level protective of surface water in SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) in surface and subsurface soils to depths of 5 feet bgs. Concentrations of bis(2-ethylhexyl)phthalate ranged from 2,500 µg/kg to 8,000 µg/kg. Bis(2-ethylhexyl)phthalate was not detected at concentrations greater than the soil screening level protective of surface water at greater depths. The analytical data indicate that the soil to surface water pathway is not complete for bis(2-ethylhexyl)phthalate in this unit. In addition, the RLs for bis(2-ethylhexyl)phthalate was substantially greater (2,300 µg/kg to 11,000 µg/kg) than the screening level for four surface soil samples collected within the SWMU 2-91.70 boundaries.

Bis(2-ethylhexyl)phthalate was detected in one sample collected 4 feet bgs at a concentration (330,000 µg/kg) greater than the soil screening level protective of surface water at SWMU 79.C (Cistern 5). Bis(2-ethylhexyl)phthalate was not detected at concentrations greater than the soil screening level protective of surface water at greater depths. The analytical data indicate that the soil to surface water pathway is not complete for bis(2-ethylhexyl)phthalate at this sample location. It was also noted that the RL (40,000 µg/kg) for one sample collected at 11 feet bgs at SWMU 79.A (Cistern 1, 2, 3 was substantially greater than the soil screening level for bis(2-ethylhexyl)phthalate).

Data gaps for bis(2-ethylhexyl)phthalate via the surface water pathway are evaluated using the criteria from Section 2.1 and are summarized below.

- The bis(2-ethylhexyl)phthalate source areas in the South Yard Area are isolated in soils at SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.C (Cistern 5), SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) and SWMU 2-89.68 (Reclamation Yard).

- Fate and transport modeling indicates that bis(2-ethylhexyl)-phthalate will not reach the waterway from SWMU 79.A (Cisterns 1, 2, 3), SWMU 2-91.70, or the SWMU 2-89.68. SVOCs will be analyzed at direct-push and monitoring well locations downgradient of SWMU 79.A (Cisterns 1, 2, 3). Analysis for SVOCs will also be conducted at SWMU 2-91.70, and SWMU 2-89.68. The analytical results will be used to support fate and transport model conclusions.

- SVOCs will be analyzed at direct-push and monitoring well locations downgradient of the RCRA units identified under the Criterion 3. The measured groundwater information will be necessary to determine if groundwater is impacted by bis(2-ethylhexyl)-phthalate in these areas.

The data gap for bis(2-ethylhexyl)phthalate via the surface water pathway consists of verifying the fate and transport model at SWMU 79.A (Cisterns 1, 2, 3) and evaluating whether groundwater has been impacted by the COC. SVOC will also be analyzed at SWMU 2-91.70, and SWMU 2-89.68 for model verification purposes. The data gap will be addressed through groundwater sampling and analyses at the following sample locations:

SWMU 79.A (Cisterns 1, 2, 3)

- DP-SY-2 through DP-SY-5,
- PL2-151A, and
- PL2-156A.

SWMU 2-89.68 (Reclamation Yard)

- PL2-115A,
- PL2-117A,
- PL2-603A, and
- PL2-602A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)

- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

There is no soil data gap in the South Yard Area for bis(2-ethylhexyl)phthalate via the direct contact pathway. The air pathway is not considered a viable exposure pathway for bis(2-ethylhexyl)phthalate.

2.4.2.3 Total Polychlorinated Biphenyls

A total of 199 soil samples were analyzed for PCBs in the South Yard Area and reported as Aroclors. The sum of Aroclor results within a single sample analysis represents the total PCBs. PCBs were detected at concentrations greater than the soil screening level protective of surface water (33 µg/kg) in 12 samples. The soil screening level protective of surface water is equal to the laboratory's reported RL for Aroclors.

Tables of the analytical results for individual Aroclors identified as South Yard Area COCs are provided in Attachment B with the exception of Aroclor 1248. Aroclor 1248 was detected in a single sample at a concentration of 130,000 µg/kg. Analytical results for total PCBs and maps presenting sample locations, concentration, and depth are provided in Attachment B. The concentrations of total PCBs detected within the South Yard Area that exceeded the surface water pathway screening level (33 µg/kg) ranged from 45 µg/kg to 211,900 µg/kg, 1.9 to 6,421 times the screening level. There was one occurrence where Aroclor 1254 was detected at a concentration (81,000 µg/kg) greater than the individual direct contact pathway screening level of 13,300 µg/kg.

There was one significant occurrence of total PCBs that was detected at a concentration (211,900 µg/kg) greater than the soil screening level protective of surface water and the direct contact screening level at SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area).

This location coincides with the maximum concentration detected in the South Yard Area for Aroclor 1254 and Aroclor 1248. The sample was collected from surface soils within an area which is currently paved. The location is within the impacted area designated for closure under the subsurface closure plan for SWMU 2-91.70.

In addition, due to interferences during analysis RLs for PCBs were substantially greater (300 µg/kg to 6,500 µg/kg) than screening levels for a number of surface soil samples collected within the boundaries of SWMU 2-91.70. PCBs were not detected at concentrations greater than normal RLs at depth within the unit. Aroclor-specific RLs are reflected in the non-detect (U) results provided on the individual tables and concentration maps in Attachment B. PCBs were also detected (360 µg/kg) at 2.5 feet bgs to the east of SWMU 2-91.70 just outside the boundary. PCBs were not detected at concentrations greater than the soil screening level protective of surface water at greater depths. The analytical data indicate that the soil to surface water pathway is not complete for PCBs at this unit.

There were isolated single occurrences were PCBs were detected at concentrations greater than the soil screening level protective of surface water 4 to 5 feet bgs at SWMU 79.A (Cistern 1, 2, 3) ,SWMU 2-87.65 (Machine Pit), SWMU 2-89.68 (Reclamation Yard), near Building 2-83 and adjacent to the east side of SWMU 2-89.68 (Reclamation Yard). PCBs were also detected above the soil screening level protective of surface water at AOC 2-80.58 (Deactivated Sump) in soils approximately 8 feet bgs. PCB concentrations in these samples range from 52 µg/kg to 820 µg/kg. The sample reported with the maximum concentration (820 µg/kg) of these samples was collected from an area currently 4.5 feet underneath the 2-83 Building. PCBs were not detected at concentrations greater than the soil screening level protective of surface water at greater depths at these locations. The analytical data indicate that the soil to surface water pathway is not complete for PCBs at these locations.

PCBs were also detected (513 µg/kg) above the soil screening level protective of surface water 11 feet bgs at SWMU 79.B (Cistern 4). The analytical data indicate that the soil to surface water pathway is likely complete for PCBs at this location.

Data gaps for PCBs via the surface water pathway are evaluated using the criteria from Section 2.1 and are summarized below.

- The PCB source areas in the South Yard Area are isolated in soils at SWMU 79.A (Cisterns 1, 2, 3) and SWMU 79.B (Cistern 4), SWMU 2-89.68 (Reclamation Yard), SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) and AOC 2-80.58. The PCBs near AOC 2-80.58 are not adequately characterized for CMS purposes.

- The lateral extent is not well defined for the occurrence of PCBs detected at Building 2-83. However, the analytical data indicate that the soil to surface water pathway is not complete for PCBs at this location. As indicated in Table 2-2 and Figure 2-1 push-probes will be used to sample soil and ground water in the vicinity of Building 2-83. PCBs will be sampled at these locations.

- Fate and transport modeling indicates that PCBs will not reach the waterway from SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), SWMU 2-91.70, AOC 2-80.58 or SWMU 2-89.68. PCBs to be analyzed at direct-push and/or monitoring well locations downgradient of these units. The analytical results will be used to support fate and transport model conclusions. The modeling results will be used to evaluate PCBs at Building 2-83.

- PCBs will be analyzed at direct-push and monitoring well locations downgradient of the RCRA units and Building 2-83. The measured groundwater information will be necessary to determine if groundwater is impacted by PCBs in these areas.

The data gap for PCBs via the surface water pathway consists of verifying the fate and transport model at SWMU 79.A (Cistern 1, 2, 3), SWMU 79.B (Cistern 4), SWMU 2-91.70, AOC 2-80.58, and SWMU 2-89.68 and evaluating whether groundwater has been impacted by the COC in these areas. The data gap will be addressed through groundwater sampling and analysis at the following sample locations:

SWMU 79.A (Cisterns 1, 2, 3)
- DP-SY-2 through DP-SY-5,
- PL2-151A, and
- PL2-156A.

SWMU 79.B (Cistern 4)
- DP-SY-1,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 2-89.68 (Reclamation Yard)
- PL2-115A,
- PL2-117A,
- PL2-603A, and
- PL2-602A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

In addition, the extent and source of PCBs will also be better defined near Building 2-83 and AOC 2-80.58. This data gap will be addressed by drilling and groundwater and soil sampling an additional direct-push location downgradient of these areas at DP-SY-6 through DP-SY-8 and DP-SY-10 through DP-SY-12, respectively.

There is no soil data gap in the South Yard Area for PCBs via direct contact pathway. The air pathway is not considered a viable exposure pathway for PCBs.

2.4.3 Volatile Organic Compounds

Analytical results for all site-wide VOC COCs were screened to determine which site-wide constituents are COCs for the South Yard Area. Chemical analysis was conducted for VOC constituents on 271 soil samples collected in the South Yard Area. VOC analyses included a total of 21 constituents for which screening levels were established. Ten VOCs were identified as COCs for the South Yard Area:

South Yard Soil VOC COCs	Groundwater COC?	Exceeded Soil Screening Level?
Volatile Aromatics		
Benzene	Yes	Yes
Ethylbenzene	No	Yes
Toluene	No	Yes
Volatile Chlorinated Ethenes and Ethanes		
Tetrachloroethene	Yes	Yes
Trichloroethene	Yes	Yes
1,1-Dichloroethene	Yes	Yes
cis-1,2-Dichloroethene	Yes	Yes
1,1,1-Trichloroethane	No	Yes
Vinyl Chloride	Yes	Yes
Other Chlorinated Solvents		
Methylene Chloride	No	Yes

The occurrence of these VOCs in the South Yard Area is evaluated for the surface water exposure pathway in the sections below except cis-1,2-dichloroethene and 1,1,1-trichloroethane. These two constituents exceeded the air exposure pathway and not the surface water exposure pathway. The air exposure pathway is viable and requires a data gap evaluation. However, the screening levels for this exposure pathway are not finished being developed and adjustments to the Johnson & Ettinger Model are ongoing. The air pathway will be evaluated and the results presented as a part of the work described the Uplands CMS Volume II: Attachment C, Johnson and Ettinger Work Plan. The direct contact pathway is valid for VOCs, but screening levels calculated for the direct contact pathway are higher than the maximum concentration detected for individual VOCs.

2.4.3.1 Benzene

A total of 240 soil samples were analyzed for benzene in the South Yard Area. Benzene was detected in 22 of those samples. Analytical results for benzene and maps presenting sample locations, concentration, and depth are provided in Attachment B. Of those samples where

benzene was detected, five were detected at concentrations greater than or equal to the soil screening level protective of surface water (25.3 µg/kg). The concentrations of benzene detected within the South Yard Area that exceeded soil screening level protective of surface water ranged from 33 µg/kg to 49,000 µg/kg, 1.3 to 1,937 times the screening level.

Concentrations of benzene were detected at concentrations greater than the proposed air pathway screening level (104 µg/kg) in three samples; data gaps associated with this pathway will be evaluated and the results presented as part of the work planned and described in the Uplands CMS Volume II: Attachment C, Johnson and Ettinger Work Plan.

There were three occurrences where benzene was detected at concentrations greater than the soil screening level protective of surface water in deeper soils (7.5 to 10 feet bgs) at OA-3 (Former UST PL-23). Concentrations of benzene ranged from 280 µg/kg to 49,000 µg/kg. The presence of benzene in this area coincides with the benzene plume contours. It appears as though benzene in the deep soils has impacted the groundwater at OA-3 or the soil has been impacted by groundwater. OA-3 (Former UST PL-23), is under a NFA status for soil, granted by Ecology.

Benzene was also identified in the vicinity of the east corner of SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), which coincides with benzene groundwater plumes in this area. Benzene was detected in three samples collect at 7.5 to 9.5 feet bgs and the concentrations ranged from 25.3 µg/kg to 37 µg/kg. It appears as though benzene in soils has impacted the groundwater at this unit. In addition, there were a number of samples that had elevated RLs were results were reported as not-detect. These soils will be removed under the subsurface closure slated for this unit.

Benzene was not detected at concentrations greater than the soil screening level protective of surface water in the west side of SWMU 2-89.68 (Reclamation Yard). However, there were three samples that had elevated RLs (670 µg/kg to 1,300 µg/kg) were results were reported as not-detect at 1 to 3 feet bgs. Samples collected from deeper soils (8 to 10 feet bgs) in this area were reported as non-detect with standard RLs.

Data gaps for benzene via the surface water pathway are evaluated using the criteria from Section 2.1 and are summarized below.

- VOCs are to be analyzed at direct-push and/or monitoring well locations downgradient of OA-3 (Former UST PL-23) at SWMU 78.5 (Oil/Water Separator) and AOC 2-80.58 (Deactivated Sump) and locations down gradient of SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). The results will be used to determine if groundwater remains impacted and the pathway is complete.

Soil data gaps in the South Yard Area for benzene via the surface water pathway will be addressed by groundwater sampling to determine if the soil to groundwater pathway is complete. The data gap will be addressed through groundwater sampling and analyses at the following sample locations:

AOC 2-80.58 (Deactivated Sump)

- DP-SY-10,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 78.5 (Oil/Water Separator)

- DP-SY-11, and
- DP-SY-12.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)

- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

There is no soil data gap in the South Yard Area for benzene via the direct contact pathway. Air is a viable exposure pathway and will be evaluated and the results presented as part of the work planned and described in the Uplands CMS Volume II: Attachment C, Johnson and Ettinger Work Plan.

2.4.3.2 1,1-Dichloroethene

A total of 237 soil samples were analyzed for 1,1-dichloroethene in the South Yard Area. 1,1-dichloroethene was detected in nine of those samples. Analytical results for 1,1-dichloroethene and maps presenting sample locations, concentration, and depth are provided in Attachment B. Of those samples where 1,1-dichloroethene was detected eight were reported at concentrations that exceeded the soil screening level protective of groundwater (2.73 µg/kg). The concentrations of 1,1-dichloroethene detected within the South Yard Area that exceeded screening level ranged from 11 µg/kg to 230 µg/kg, 2.1 to 84.3 times the screening level. Concentrations of 1,1-dichloroethene were not detected at concentrations greater than the proposed air pathway screening level (1,230 µg/kg).

There were three occurrences where 1,1-Dichloroethene was detected at concentrations greater than the screening level at 5 to 7.5 feet bgs in the vicinity of the west corner of 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) and to the east of the unit. Concentrations for these same samples ranged from 5.6 µg/kg to 230 µg/kg. The location of the impacted area coincides with underlying 1,1-dichloroethene plume contours. However, 1,1-dichloroethene was not detected in deeper soils (8 to 10 feet bgs) in the west corner area. There were a number of samples that had elevated RLs were results were reported as not-detect. Soils within 2-91.70 will be removed under the subsurface closure slated for this unit.

1,1-Dichloroethene was also detected in four samples in the west side of SWMU 2-89.68 (Reclamation Yard) 8 feet bgs at concentrations greater than the soil screening level protective of surface water. There were also two samples collected at 3 feet bgs that had elevated RLs (1,300 µg/kg and 2,600 µg/kg) where the results were reported as non-detect in the same general area of the Reclamation Yard. The analytical data indicate that the soil to surface water pathway is not complete for 1,1-dichloroethene at these locations.

One occurrence of 1,1-dichloroethene was identified to the west of SWMU 2-87.65 (Machine Pit), at 9 feet bgs. 1,1-dichloroethene was detected at a concentration of 8.1 µg/kg. The location of the impacted area coincides with underlying 1,1-dichloroethene plume contours to the west of SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), and SWMU 79.C (Cistern 5).

Data gaps for 1,1-dichloroethene via the surface water pathway are evaluated using the criteria from Section 2.1 and are summarized below.

- VOCs will be analyzed at direct-push and/or monitoring well locations downgradient of SWMU 2-87.65, SWMU 2-91.70, and SWMU 2-89.68. The analytical results will be used to determine if groundwater is impacted and the pathway is complete.

Soil data gaps in the South Yard Area for 1,1-dichloroethene associated with the surface water pathway will be addressed by groundwater sampling to evaluate if the pathway is complete. The data gap will be addressed through groundwater sampling and analyses at the following sample locations:

SWMU 2-87.65 (Machine Pit),
- DP-SY-1,
- DP-SY-2,
- PL2-153A, and
- PL2-154A.

SWMU 2-89.68 (Reclamation Yard)
- PL2-115A,
- PL2-117A,
- PL2-603A, and
- PL2-602A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)
- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

There is no soil data gap in the South Yard Area for 1,1-dichloroethene via the direct contact pathway. Air is a viable exposure pathway for 1,1-dichloroethene, however it does not appear that concentrations representative of the South Yard Area soils will exceed the pathway screening level. The air pathway will be evaluated and the results presented as part of the work planned and described in the Uplands CMS Volume II: Attachment C, Johnson and Ettinger Work Plan.

2.4.3.3 cis-1,2-Dichloroethene

A total of 197 soil samples were analyzed for cis-1,2-dichloroethene in the South Yard Area. cis-1,2-Dichloroethene was detected in 43 of those samples. The table of the analytical results for cis-1,2-dichloroethene is provided in Attachment B. None of the samples analyzed exceeded the soil screening level protective of surface water (5,660 µg/kg).

Concentrations of cis-1,2-dichloroethene were detected at concentrations greater than the proposed air pathway screening level (794 µg/kg) in five samples; data gaps associated with this pathway will be evaluated and the results presented as part of the work planned and described in the Uplands CMS Volume II: Attachment C, Johnson and Ettinger Work Plan.

2.4.3.4 Ethylbenzene

A total of 240 soil samples were analyzed for ethylbenzene in the South Yard Area. Ethylbenzene was detected in 26 of those samples. A table of analytical results for ethylbenzene is provided in Attachment B. Of those samples where ethylbenzene was detected, one was detected at a concentration (260,000 µg/kg) greater than the soil screening level protective of surface water (18,100 µg/kg).

Concentrations of ethylbenzene also exceeded the proposed air pathway screening level (2,520 µg/kg) in two samples; data gaps associated with this pathway will be evaluated in the work plan addendum.

Ethylbenzene was only detected at concentrations greater than the screening level in deeper soils (7.5 to 10 feet bgs) at OA-3 (Former UST PL-23), which coincides with the ethylbenzene plume contours. It appears as though ethylbenzene in the deep soils has impacted the groundwater at OA-3 (Former UST PL-23) or the soil has been impacted by groundwater. OA-3 (Former UST PL-23) is under a NFA status (for soil) granted by Ecology.

Data gaps for ethylbenzene via the surface water pathway are evaluated using the criteria from Section 2.1 and are summarized below.

- VOCs are to be analyzed at direct-push and/or monitoring well locations downgradient of OA-3 (Former UST PL-23) at SWMU 78.5 (Oil/Water Separator) and AOC 2-80.58 (Deactivated Sump). The results will be used to determine if groundwater remains impacted and the pathway is complete.

Soil data gaps in the South Yard Area for ethylbenzene via the surface water pathway will be addressed by groundwater sampling to determine if the soil to groundwater pathway is complete. The data gap will be addressed through groundwater sampling and analyses at the following sample locations:

AOC 2-80.58 (Deactivated Sump)

- DP-SY-10,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 78.5 (Oil/Water Separator)

- DP-SY-11, and
- DP-SY-12.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

There is no soil data gap in the South Yard Area for ethylbenzene via direct contact pathway. Air is a viable pathway and will be evaluated and the results presented as part of the work planned and described in the Uplands CMS Volume II: Attachment C, Johnson and Ettinger Work Plan.

2.4.3.5 Methylene Chloride

A total of 237 soil samples were analyzed for methylene chloride in the South Yard Area. Methylene chloride was detected in 87 of those samples. A table of analytical results for methylene chloride is provided in Attachment B. Of those samples where methylene chloride was detected, two were detected at concentrations greater than or equal to the soil screening level protective of surface water (828 µg/kg). The methylene chloride was detected at one location in the west side of SWMU 2-89.68 (Reclamation Yard) at depths of 1 and 3 feet bgs. The concentrations of methylene chloride detected that exceeded the soil screening level protective of surface water were reported at 1,100 µg/kg and 1,900 µg/kg, 1.3 to 2.3 times the screening level. The concentration of methylene chloride decreased with depth. However samples collected below 3 feet were not analyzed for VOCs. The analytical data indicate that the soil to surface water pathway could potentially be complete for methylene chloride at these locations.

The concentration (1,900 µg/kg) reported for the 1 foot deep also exceeded the proposed air pathway screening level for methylene chloride of 1,890 µg/kg,

Data gaps for methylene chloride via the surface water pathway are evaluated using the criteria from Section 2.1 and are summarized below.

- South Yard Area RCRA Units are characterized for methylene chloride adequately for CMS purposes. However the vertical extent of methylene chloride was not determined for one location at SWMU 2-89.68 (Reclamation Yard).

- VOCs will be analyzed at direct-push and/or monitoring well locations downgradient of SWMU 2-89.68, which will allow for verification that methylene chloride is not present in the groundwater.

Soil data gaps in the South Yard Area for methylene chloride associated with the surface water pathway will be addressed by groundwater sampling to evaluate if the soil to groundwater pathway is complete.

SWMU 2-89.68 (Reclamation Yard)

- PL2-115A,
- PL2-117A,
- PL2-603A, and
- PL2-602A.

There is no soil data gap in the South Yard Area for methylene chloride via direct contact pathway. Air is a viable pathway and will be evaluated and the results presented as part of the work planned and described in the Uplands CMS Volume II: Attachment C, Johnson and Ettinger Work Plan.

2.4.3.6 Tetrachloroethene

A total of 237 soil samples were analyzed for tetrachloroethene in the South Yard Area. Tetrachloroethene was detected in 65 of those samples. Analytical results for tetrachloroethene and maps presenting sample locations, concentration, and depth are provided in Attachment B. Of those samples where tetrachloroethene was detected, 25 were detected at concentrations greater than or equal to the soil screening level protective of surface water (8.72 µg/kg). The concentrations of tetrachloroethene detected within the South Yard Area that exceeded this screening level ranged from 9.1 µg/kg to 3,300 µg/kg, 1.0 to 378 times the screening level.

Concentrations of tetrachloroethene were detected at concentrations greater than the proposed air pathway screening level (199 µg/kg) in seven samples; data gaps associated with this pathway will be evaluated and the results presented as part of the work planned and described in the Uplands CMS Volume II: Attachment C, Johnson and Ettinger Work Plan.

Tetrachloroethene was detected in 12 samples in and adjacent to SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), from 1 to 5.5 feet bgs at concentrations greater than the soil screening level protective of surface water. Concentrations of tetrachloroethene in these samples ranged from 11 µg/kg to 3,300 µg/kg. A tetrachloroethene groundwater plume underlies SWMU 2-91.70. However, tetrachloroethene was not detected at concentrations greater than the screening level in deeper soils (7.5 to 10 feet bgs) below the unit. The analytical data indicate that the soil to surface water pathway is not complete for tetrachloroethene at these locations. There were also three samples from 7.5 to 10.5 feet bgs

that had elevated RLs (68 µg/kg to 190 µg/kg) where the results were reported as non-detected. These soils, along with the impacted soils, will be removed under the subsurface closure currently slated for this unit.

Tetrachloroethene was detected at eight locations from surface to 7.5 feet bgs where concentrations were greater than the soil screening level protective of surface water on the west side of SWMU 2-89.68 (Reclamation Yard). The concentrations ranged from 9.1 µg/kg to 230 µg/kg at these locations. Tetrachloroethene was also detected at two locations at concentrations (9.7 µg/kg and 17 µg/kg) greater than the screening level on the east side of SWMU 2-89.68 from surface to 5 feet bgs. The impacted soils are located to the west of SWMU79A (Cisterns 1, 2, 3). There was also one occurrence of tetrachloroethene detected at a concentration greater than the same screening level at the east end of AOC 2-80.57 at 6 feet bgs. Tetrachloroethene was not detected at concentrations greater than the soil screening level protective of surface water at greater depths at these locations. The analytical data indicate that the soil to surface water pathway is not complete for tetrachloroethene at these locations.

Data gaps for tetrachloroethene via the surface water pathway are evaluated using the criteria from Section 2.1 and are summarized below.

- The tetrachloroethene source in the South Yard Area is isolated in soils at SWMU 2-89.68 (Reclamation Yard) and SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). A subsurface closure is to be conducted for SWMU 2-91.70 that will remove the impacted soils. South Yard Area RCRA Units are characterized for tetrachloroethene adequately for CMS purposes.

- VOCs are to be analyzed at direct-push and/or monitoring well locations downgradient of SWMU 2-91.70 and SWMU 2-89.68 to determine if groundwater remains impacted and the pathway is complete.

Soil data gaps in the South Yard Area for tetrachloroethene via the surface water pathway will be addressed by groundwater sampling to determine if the soil to groundwater pathway is complete. The data gap will be addressed through groundwater sampling and analyses at the following sample locations:

SWMU 2-89.68 (Reclamation Yard)
- PL2-115A,
- PL2-117A,
- PL2-603A, and
- PL2-602A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)
- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

There is no soil data gap in the South Yard Area for tetrachloroethene via direct contact pathway. Air is a viable pathway and will be evaluated and the results presented as part of the work planned and described in the Uplands CMS Volume II: Attachment C, Johnson and Ettinger Work Plan.

2.4.3.7 Toluene

A total of 240 soil samples were analyzed for toluene in the South Yard Area. Toluene was detected in 92 of those samples. A table of analytical results for toluene is provided in Attachment B. Of those samples where toluene was detected, only one sample was detected at a concentration (650,000 µg/kg) greater than or equal to the soil screening level protective of surface water 109,000 µg/kg. The same sample also exceeded the air pathway screening level of 19,000 µg/kg.

The sample was collected from deeper soils (8 feet bgs) at OA-3 (Former UST PL-23), which coincides with the toluene plume. It appears as though toluene in the deep soils has impacted the groundwater at OA-3 (Former UST PL-23). OA-3 (Former UST PL-23) is under a NFA status granted by USEPA.

Data gaps for toluene via the surface water pathway are evaluated using the criteria from Section 2.1 and are summarized below.

- The toluene source in the South Yard Area is isolated in soils at OA-3 (Former UST PL-23). South Yard Area RCRA Units are characterized for toluene adequately for CMS purposes.

- VOCs are to be analyzed at direct-push and/or monitoring well locations downgradient of OA-3 (Former UST PL-23) at SWMU 78.5 (Oil/Water Separator) and AOC 2-80.58 (Deactivated Sump) to determine if groundwater remains impacted by toluene and the pathway is complete.

Soil data gaps in the South Yard Area for toluene via the surface water pathway will be addressed by groundwater sampling to determine if the soil to groundwater pathway is complete. The data gap will be addressed through groundwater sampling and analyses at the following sample locations:

AOC 2-80.58 (Deactivated Sump)
- DP-SY-10,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 78.5 (Oil/Water Separator)

- DP-SY-11, and
- DP-SY-12.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

There is no soil data gap in the South Yard Area for toluene via direct contact pathway. Air is a viable pathway and will be evaluated and the results presented as part of the work planned and described in the Uplands CMS Volume II: Attachment C, Johnson and Ettinger Work Plan.

2.4.3.8 1,1,1-Trichloroethane

A total of 237 soil samples were analyzed for 1,1,1-trichloroethane in the South Yard Area and was detected in 38 of those samples. A table of analytical results for 1,1,1-trichloroethane is provided in Attachment B. None of the samples analyzed exceeded the soil screening level protective of surface water (1,200,000 µg/kg). A single occurrence of 1,1,1-trichloroethane was detected at a concentration (110,000 µg/kg) greater than the proposed air pathway screening level (27,800 µg/kg) in a surface soil sample in SWMU 2-91.70 (Waste Oil and Coolant Storage Area). Data gaps associated with this pathway will be evaluated and the results presented as part of the work planned and described in the Uplands CMS Volume II: Attachment C, Johnson and Ettinger Work Plan.

2.4.3.9 Trichloroethene

A total of 247 soil samples were analyzed for trichloroethene in the South Yard Area. Trichloroethene was detected in 111 of those samples. Analytical results for trichloroethene as well as maps presenting sample locations, concentrations and depth are provided in Attachment B. Of those samples where trichloroethene was detected, 87 were detected at concentrations greater than or equal to the surface water pathway screening level of 2.0 µg/kg. The concentrations of trichloroethene detected within the South Yard Area that exceeded this screening level ranged from 2.0 µg/kg to 7,600 µg/kg, 1.0 to 3800 times the screening level.

Concentrations of trichloroethene were detected at concentrations greater than the proposed air pathway screening level (8.86 µg/kg) in 60 samples; data gaps associated with this pathway will be evaluated in the work plan addendum.

Trichloroethene was identified at numerous sample locations throughout the South Yard Area; in and adjacent to SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), SWMU 2-89.68 (Reclamation Yard), SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), and SWMU 78.B (Machine Pit) and to the west of SWMU 78.5 (Oil/Water Separator) from ground surface to 11 feet bgs at concentrations greater than the soil screening level protective of surface water. Trichloroethene groundwater plumes underlie all of these areas.

Trichloroethene was detected above the soil screening level protective of surface water at 11 surface soil locations at SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)

Concentrations ranged from 2.5 µg/kg to 7,600 µg/kg. The constituent was detected above the same screening level in 15 samples collected from 4 to 5 feet bgs in and adjacent to this unit. Concentrations over the 4 to 5 feet bgs interval ranged from 4.8 µg/kg to 200 µg/kg, Trichloroethene was detected above the same screening level in five samples collected from 7.5 to 10 feet bgs in this unit. Concentrations over the 7.5 to 10 feet bgs interval ranged from 2.1 µg/kg to 120 µg/kg, Soils at SWMU 2-91.70 will be removed as indicated in the unit subsurface closure work plan.

Trichloroethene was detected above the soil screening level protective of surface water at three surface soil locations on the west side of the 2-89.68 (Reclamation Yard). Concentrations ranged from 3.9 µg/kg to 29 µg/kg. The constituent was detected above the same screening level in 15 samples collected from 1.5 to 5 feet bgs in and adjacent to this unit. Concentrations over the 1.5 to 5 feet bgs interval ranged from 3.9 µg/kg to 170 µg/kg, This same constituent was detected above the soil screening level protective of surface water in 10 samples collected from 7.5 to 10 feet bgs in this unit. Concentrations over the 7.5 to 10 feet bgs interval ranged from 3.9 µg/kg to 2,100 µg/kg,

Trichloroethene was detected above the soil screening level protective of surface water at seven sample locations on the east side of the 2-89.68 (Reclamation Yard) and in the vicinity of SWMU 79.A (Cisterns 1,2,3) from 3 to 5 feet bgs Concentrations over the 3 to 5 feet bgs interval ranged from 5 µg/kg to 41 µg/kg, This same constituent was detected above the soil screening level protective of surface water in seven samples collected from 7.5 to 11 feet bgs in this unit. Concentrations over the 7.5 to 11 feet bgs interval ranged from 3.6 µg/kg to 150 µg/kg,

Trichloroethene was detected above the soil screening level protective of surface water at five sample locations in the vicinity of SWMU 79.B (Cistern 4) from 3 to 11 feet bgs Concentrations over interval ranged from 2.2 µg/kg to 220 µg/kg,

Trichloroethene was detected above the soil screening level protective of surface water at five sample locations in the general area of SWMU 2-87.65 (Machine Pit), SWMU 78.B (Oil/Water Separator) and OA 16 (Central Waste Storage Area) from 6 to 10 feet bgs Concentrations over interval ranged from 18 µg/kg to 480 µg/kg,

Trichloroethene was detected above the soil screening level protective of surface water at five sample locations in the vicinity of SWMU 78.5 (Oil/Water Separator) from 5.5 to 11 feet bgs Concentrations over interval ranged from 3.1 µg/kg to 36 µg/kg,

The analytical data indicate that the soil to surface water pathway is likely complete for trichloroethene any one of these areas. Data gaps for trichloroethene via the surface water pathway are evaluated using the criteria from Section 2.1 and are summarized below.

- VOCs are to be analyzed at direct-push and/or monitoring well locations downgradient of SWMU 2-91.70, SWMU 2-89.68, SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), and SWMU 78.B to determine if groundwater remains impacted and the pathway is complete.

Soil data gaps in the South Yard Area for trichloroethene via the surface water pathway will be addressed by groundwater sampling to be conducted to determine if the soil to groundwater pathway is complete at RCRA Units SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), SWMU 2-89.68 (Reclamation Yard), SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), SWMU 78.B (Oil/Water Separator), and SWMU 78.5 (Machine Pit). The data gap will be addressed through groundwater sampling and analyses at the following sample locations:

SWMU 78.B (Oil/Water Separator),

- DP-SY-1,
- DP-SY-2.
- PL2-153A, and
- PL2-154A.

SWMU 78.5 (Machine Pit)

- DP-SY-11, and
- DP-SY-12.

SWMU 79.A (Cisterns 1, 2, 3)

- DP-SY-2 through DP-SY-5,
- PL2-151A, and
- PL2-156A.

SWMU 79.B (Cistern 4)

- DP-SY-1,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 2-89.68 (Reclamation Yard)

- PL2-115A,
- PL2-117A,
- PL2-603A, and
- PL2-602A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)

- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

There is no soil data gap in the South Yard Area for trichloroethene via the direct contact pathway. Air is a viable pathway and will be evaluated and the results presented as part of the work planned and described in the Uplands CMS Volume II: Attachment C, Johnson and Ettinger Work Plan.

2.4.3.10 Vinyl Chloride

A total of 247 soil samples were analyzed for vinyl chloride in the South Yard Area. Vinyl chloride was detected in 19 of those samples. Analytical results for vinyl chloride as well as maps presenting sample locations, concentration, and depth are provided in Attachment B. Of those samples where vinyl chloride was detected, 15 were detected at concentrations greater than or equal to the soil screening level protective of surface water (4.59 µg/kg). The concentrations of vinyl chloride detected within the South Yard Area that exceeded this screening level ranged from 8.2 µg/kg to 1,100 µg/kg, 1.8 to 239 times the screening level.

Concentrations of vinyl chloride were detected at concentrations greater than the proposed air pathway screening level (16.4 µg/kg) in 10 samples; data gaps associated with this pathway will be evaluated in the work plan addendum.

Vinyl chloride was detected at five locations at concentrations greater than the soil screening level protective of surface water on the west side of SWMU 2-89.68 (Reclamation Yard) and two locations on the east side of the unit from 7 to 10 feet bgs. Concentrations ranged from 8.2 µg/kg to 1,100 µg/kg.

Vinyl chloride was detected at five locations at concentrations greater than the soil screening level protective of surface water in and adjacent to SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area) from 7.5 to 9.5 feet bgs. Concentrations ranged from 8.9 µg/kg to 320 µg/kg. Soils at SWMU 2-91.70 will be removed as indicated in the unit subsurface closure work plan.

Vinyl chloride was detected 9 feet bgs at concentrations greater than the soil screening level protective of surface water at one location at both SWMU 79.B (Cistern 4), and SWMU 78.B (Machine Pit) Concentrations were reported at 22 µg/kg to 32 µg/kg, respectively.

Vinyl Chloride was only detected at concentrations greater than the soil screening levels in the deeper soils 7.5 to 11 feet bgs and was conspicuously absent in the soils above 7.5 feet bgs. The analytical data indicate that the soil to surface water pathway is likely complete for vinyl chloride any of these areas which coincides with the groundwater data as vinyl chloride groundwater plumes underlie all of these areas.

Data gaps for vinyl chloride via the surface water pathway are evaluated using the from Section 2.1 and are summarized below.

- VOCs are to be analyzed at direct-push and/or monitoring well locations downgradient of SWMU 2-91.70, SWMU 2-89.68, SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), and OA-16 to determine if groundwater remains impacted and the pathway is complete.

Soil data gaps in the South Yard Area for vinyl chloride via the surface water pathway will be addressed by groundwater sampling to determine if the soil to groundwater pathway is complete. The data gap will be addressed through groundwater sampling and analyses at the following sample locations:

SWMU 79.A (Cisterns 1, 2, 3)
- DP-SY-2 through DP-SY-5,
- PL2-151A, and
- PL2-156A.

SWMU 79.B (Cistern 4)
- DP-SY-1,
- PL2-152A,
- PL2-153A, and
- PL2-154A.

SWMU 2-89.68 (Reclamation Yard)
- PL2-115A,
- PL2-117A,
- PL2-603A, and
- PL2-602A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)
- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

There is no soil data gap in the South Yard Area for vinyl chloride via the direct contact pathway. Air is a viable pathway and will be evaluated and the results presented as part of the work planned and described in the Uplands CMS Volume II: Attachment C, Johnson and Ettinger Work Plan.

2.4.4 Petroleum Hydrocarbons

Analytical results for all site-wide petroleum hydrocarbon COCs were screened to determine which site-wide constituents are COCs for the South Yard Area. Chemical analysis was conducted for four categories of petroleum hydrocarbons, which consisted of TPHs (diesel through oil range), gasoline range, diesel range, and motor oil range petroleum hydrocarbons.

Three categories of petroleum hydrocarbons were identified as COCs for the South Yard Area total petroleum, gasoline range and diesel range. Motor oil range petroleum hydrocarbons are

not a COC for the South Yard Area. The occurrence of the petroleum hydrocarbons in the South Yard Area are evaluated for the surface water exposure pathway in the sections below. The direct contact and air pathways are not evaluated specifically for the petroleum hydrocarbons. They are, however, accounted for by the evaluation of individual constituents that are components of the various range petroleum hydrocarbons. For example benzene is a component of gasoline and is evaluated for the other pathways with the VOC COCs for the South Yard Area (Section 2.2.4.3.1).

2.4.4.1 Total Petroleum Hydrocarbons

A total of 128 soil samples were analyzed for TPHs in the South Yard Area. TPHs were detected in 77 of those samples. Analytical results for TPHs and maps presenting sample locations, concentration, and depth are provided in Attachment B. Of those samples where TPHs were detected, 26 were detected at concentrations greater than or equal to the screening level of 2,000 mg/kg. The concentrations of TPHs detected within the South Yard Area that exceeded screening level ranged from 1.1 to 28 times the screening level.

TPHs were detected at concentrations greater than the soil screening level protective of surface water at two surface soil locations on the west side of SWMU 2-89.68 (Reclamation Yard). The concentrations were reported at 5,600 mg/kg and 17,000 mg/kg. The TPH impacts appear more pervasive in the interval from 1.5 to 4 feet in this area as TPHs were detected above this soil screening level in eight samples. Concentrations ranged from 2,400 mg/kg to 27,000 mg/kg in the interval from 1.5 to 4 feet bgs. TPHs were not detected in the unit soils below the 4 foot depth. The analytical data indicate that the soil to surface water pathway is likely not complete for TPH in this area. However, analysis below 4 feet was limited to four locations.

TPHs were detected at concentrations greater than the soil screening level protective of surface water at seven surface sample locations within SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area). The concentrations were reported at 4,100 mg/kg and 54,000 mg/kg. The TPHs were detected in seven samples and TPH impacts appear just as pervasive in the interval from 2 to 5 feet as the surface in this area. Concentrations in the 2 to 5 feet bgs interval ranged from 2,379 mg/kg to 56,827 mg/kg. TPHs were not detected in the unit soils below the 5 foot depth above the soil screening level with one exception. There was one occurrence of TPH (11,684 mg/kg) at 7.5 feet bgs within the unit that exceeded the screening level. The analytical data indicate that the soil to surface water pathway is likely not complete for TPH in this area except for the one exception. In addition, a subsurface closure is to be conducted for SWMU 2-91.70 that will remove the impacted soils.

Data gaps for TPHs via the surface water pathway are evaluated using the criteria from Section 2.1 and are summarized below.

- TPH will be analyzed at direct-push and/or monitoring well locations at SWMU 2-91.70 and SWMU 2-89.68 to determine if groundwater has been impacted.

The data gap for TPHs via the surface water pathway consists of verifying that groundwater is not impacted. The data gap will be addressed through groundwater sampling and analysis at the following sample locations:

SWMU 2-89.68 (Reclamation Yard)

- PL2-115A,
- PL2-117A,
- PL2-603A, and
- PL2-602A.

SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area)

- PL2-112A,
- PL2-113A,
- PL2-115A,
- PL2-116A, and
- PL2-117A.

All analyses to be conducted in association with these locations are identified on Table 2-2 and their locations presented on Figure 2-1.

2.4.4.2 Gasoline Range Petroleum Hydrocarbons

A total of 94 soil samples were analyzed for GRPHs in the South Yard Area. GRPHs were detected in four of those samples. A table of analytical results for GRPH is provided Attachment B. Of those samples where GRPHs were detected, three were detected at concentrations greater than or equal to the screening level of 30 mg/kg. The concentrations of GRPH detected within the South Yard Area that exceeded the screening level ranged from 40 to 467 times the screening level and were limited to the area associated with OA-3 (Former UST PL-23).

GRPHs were detected at concentrations greater than the screening level at 2 feet bgs at OA-3 (Former UST PL-23). GRPHs were also detected at concentrations greater than the screening level in deeper soils (8 feet bgs). OA-3 (Former UST PL-23) is under a NFA status granted by Ecology.

Data gaps for GRPH via the surface water pathway are evaluated using the criteria from Section 2.1 and are summarized below.

- The GRPH source in the South Yard Area is isolated in soils at OA-3 (Former UST PL-23). South Yard Area RCRA Units are characterized for GRPH adequately for CMS purposes.

There is no soil data gap in the South Yard Area for GRPH via the surface water pathway.

2.4.4.3 Diesel Range Petroleum Hydrocarbons

A total of 90 soil samples were analyzed for DRPHs in the South Yard Area. DRPHs were detected in four of those samples. A table of analytical results for DRPH is provided in Attachment B. Of those samples where DRPHs were detected, four were detected at

concentrations greater than or equal to the screening level of 2,000 mg/kg. The concentrations of DRPH detected within the South Yard Area that exceeded screening level ranged from 2,400 mg/kg to 14,000 mg/kg, 1.2 to 7 times the screening level.

DRPHs were only detected at concentrations greater than the screening level in deeper soils (8 feet bgs) at OA-10 (Former UST PL-20). DRPHs were not detected in adjacent borings at similar depths.

Data gaps for DRPH via the surface water pathway are evaluated using the criteria from Section 2.1 and are summarized below.

- The DRPH source in the South Yard Area is isolated in deeper (10 feet bgs) soils at OA-10 (Former UST PL-20). South Yard Area RCRA Units are characterized for DRPH adequately for CMS purposes.

There is no soil data gap in the South Yard Area for DRPH via the surface water pathway.

2.4.5 Summary of Investigative Scope for Soil Data Gaps

The soil data gap investigation of the South Yard Area will be conducted to fill the data gaps identified above. The main elements associated with the South Yard Area Soil Data Gap Investigation consist of:

Scope Item	Rationale
Installation and sampling of direct push probes in the South Yard for additional PCB analysis.	Define the extent of PCB impacted soil near the Building 2-83 and AOC 2-82.58 (Deactivated Sump) by collecting groundwater and soil samples for chemical analysis using direct-push drilling and sampling methods.
Installation and sampling of direct push probes and selected groundwater monitoring wells to determine if the soil to groundwater portion of the surface water pathway is complete, and to identify whether COCs related to sources in the soil are present in groundwater at concentrations that exceed the surface water pathway screening levels.	Groundwater sampling and analysis will be conducted as a “reality check” for the fate and transport modeling completed in association with AOC 2-80.58 (Deactivated Sump), SWMU 2-89.68 (Reclamation Yard), SWMU 2-91.70 (Deactivated Waste Oil and Coolant Storage Area), SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), SWMU 79.C (Cistern 5), and OA-16 (Central Drummed Waste Storage Area) soils. Modeling results may be used to evaluate other source areas in the South Yard Area.

Groundwater and soil sampling will be conducted from 12 direct-push probe locations and selected monitoring wells downgradient of potential source areas and RCRA Units. Groundwater samples to evaluate soil data gaps will be collected from the A-Level only. Groundwater sampling conducted in support of soil data gap investigations will be coordinated

with the groundwater sampling activities under the groundwater data gaps evaluation presented Section 2.1.

A summary table showing the wells and probes to be sampled, constituent groups analyzed, and the general soil data gaps that will be filled by the sampling is presented in Table 2-2. The rationale for sampling at each location is provided in the right hand column of the table.

Locations of existing wells, new probes, and new wells to be sampled as part of both the groundwater and soil South Yard Area Data Gap Investigation are presented in Figure 2-2.

This page intentionally left blank

3.0 Data Gap Investigation Methods

This section specifies investigation methods for sampling groundwater and soil in the South Yard Area to fill the data gaps discussed in Section 2. In general, the methods cover:

- Installation of six groundwater monitoring wells located along the property boundary between Boeing Plant 2 and Jorgensen Forge Facility. Three wells will be completed in the A-level of the aquifer paired with three wells completed in the B-level of the aquifer.
- Installation of 12 direct-push (probe) sampling locations located adjacent to existing SWMU/AOC/OA units located in the South Yard Area. Probes will be terminated in the A level of the aquifer.
- Soil sampling where wells or probes are installed. Soil sampling is conducted for one of two purposes, 1) to provide data to support characterization of the extent of impacted soil and 2) to indicate if overlying soils could impact the groundwater samples versus impacts from upgradient sources that the wells/probes are intended to monitor.
- Groundwater sampling of all monitoring wells in the South Yard Area.
- Hydrologic analysis of groundwater conditions. Because groundwater in the South Yard Area is tidally-influenced, data loggers will be used to obtain data over several full tidal cycles. Data loggers will be installed in the wells listed in Table 2-2 and will be set to measure water levels for at least 72 hours. After the net groundwater levels are calculated they will be used to create a net water level elevation contour map for the South Yard Area extending onto the Jorgensen Forge property.

Sample Analysis and Quality Assurance Plans that cover standard operating procedures at Plant 2 are referenced from the Compendium of Sampling and Analysis Plans and Quality Assurance Project Plans for Boeing Plant 2, Seattle/Tukwila, Washington (Golder 2003), hereafter referred to as the Compendium.

3.1 MONITORING WELL INSTALLATION

Six groundwater monitoring wells will be installed at the southern property boundary of the South Yard Area. Three wells will be installed in the A-Level and three wells will be installed in the B-Level of the aquifer. Proposed well locations are shown on attached Figure 2-1. The wells will be installed using standard hollow-stem-auger (HSA) drilling techniques and will be logged and sampled following the guidance described in Technical Procedure TP-1.2-5, Drilling, Sampling, and Logging of Soils (Golder 1996) referenced in the Compendium.

A summary of soil sampling intervals, and soil analyses for the new monitoring wells and direct-push probes is presented in Table 3-1. The shallower A-Level wells will be drilled to approximately 21 feet bgs and the B-Level wells will be drilled to approximately 50 feet bgs. A-Level wells will be screened from approximately 6 to 21 feet bgs, depending on where

groundwater is encountered, and B-Level wells will be screened from approximately 45 to 50 feet bgs.

The new monitoring wells will be drilled and installed to meet resource protection well construction standards found in WAC 173-160-420, Minimum Standards for Construction and Maintenance of Wells.

Monitoring wells will be installed generally following the guidance documented in Standard Operating Procedure 4.3 in the Compendium. The wells will be constructed of 2-inch diameter, flush-threaded, Schedule 40 PVC well casing and screen in conformance with WAC 173-160-430. Well screen assemblies will consist of 15-foot lengths for A-Level wells and 5-foot lengths for B-Level wells. Screens will be 0.010 inch (10-slot), flush-threaded, machine-slotted, Schedule 40 PVC set in a 20-40 CSSI, 2/12 Monterey, or equivalent silica sand filter pack. The well design includes a 0.5 foot-long flush-threaded, Schedule 40 PVC sump with a flush-threaded end cap. Flush-threaded, Schedule 40 PVC well casing extends from the top of the screened interval to approximately 6 inches bgs. A 2-inch diameter, locking, watertight PVC well cap will be installed to secure the well casing. Stainless steel centralizers will be installed immediately above and below the screened interval for both A-Level and B-Level wells and also at 20 foot intervals on B-Level wells.

The sand filter pack will extend from below the screened interval to 1 foot above the top of the screened interval. A minimum 2-foot thick seal of hydrated bentonite chips will be installed in the annular space immediately above the sand filter pack. The remainder of the annular space will be sealed with bentonite grout to within approximately one foot of the ground surface. A generalized construction diagram for the wells is presented in Figure 3-1.

The new monitoring wells will be secured with flush-completion steel protective monuments set in concrete. The monuments will be raised approximately 1-inch above the existing grade with a sloping concrete pad to minimize the potential for surface water entering the monument.

All down-hole well components will be either factory-decontaminated and in their original sealed packaging or decontaminated to the satisfaction of the on-site EPI engineer prior to installation. All drilling equipment will be decontaminated as discussed in Section 3.9.

3.1.1 Monitoring Well Development

New monitoring wells will be developed by the drilling subcontractor using a combination of pumping and surging generally following the guidance documented in Standard Operating Procedure 4.4 in the Compendium. Well development will be completed by continuous pumping at a steady rate using a submersible pump, or equivalent. Well development equipment used inside a well will be either new single-use equipment, or will be decontaminated to the satisfaction of the EPI engineer by pressure washing prior to use and between wells.

In general, well development should be performed soon after installation but no sooner than 48 hours after grouting. Information obtained during well development will be recorded by the subcontractor. Well development will continue until the well is free of sediment and the appropriate water volumes have been removed. Sediment free is considered achieved when

turbidity measurement is 5 nephelometric turbidity units (NTUs) or less. For wells where installation is completed without the use of drilling fluid such as water, five volumes of standing water in the well (volume of the water inside the well screen and casing plus saturated annulus) will be removed. For wells where drilling fluid was used, five times the volume of added water shall be removed along with five times the standing water volume in the well.

For instances where groundwater recharge is insufficient to produce water for removal, clean potable water may be introduced into the wells to facilitate sediment removal, at the approval of EPI engineer. An equivalent of five volumes of the water added must be removed to insure that all the water introduced into well has been removed.

During well development field parameters, including pH, temperature, conductivity, and turbidity will be measured and recorded. In addition, color changes of water before, during, and after development will be observed. Removed water from wells will be kept in closed containers labeled with well information and date. Characterization and disposal of well development water will be completed by Boeing. New wells being sampled for redox parameters will be allowed to stand undisturbed for a minimum of two weeks prior to commencement of purging and low-flow sampling.

3.2 PROBE INSTALLATION

A series of 12 locations will be sampled by direct-push probe methods. The direct-push probes will be used to obtain vadose zone soil samples and groundwater samples from the A-level of the aquifer. Sampling points will be located downgradient of SWMU 79.A (Cisterns 1, 2, 3), SWMU 79.B (Cistern 4), AOC 2-86.63 (Wet Paint Booth), AOC 2-80.58 (Deactivated Sump), SWMU 78.5 (Oil/Water Separator) and Building 2-83. Samples will be collected to determine current COC concentrations and to support data analysis of fate and transport modeling results. A summary of locations, sampling intervals, and soil sampling requirements for the probe locations is presented in Table 3-1.

3.3. GROUNDWATER SAMPLING

The six new wells and 12 probe locations along with the 27 existing wells will be sampled to provide current groundwater parameters for the data gap analysis. Groundwater sampling procedures include water level measurements, well purging, collection of field parameter data during purging and sample collection for laboratory analysis.

Sampling procedures that are common for all sampling events at the site are listed in the Technical Procedure TP-1.2-20 Collection of Groundwater Quality Samples and Technical Procedure TP-1.0 in the Compendium (Golder 1996).

Monitoring wells will be purged prior to sampling following low-flow purging. Low-flow purging procedures are used to minimize disturbance associated with turbidity and to provide quicker stabilization time for measured field parameters, including pH, dissolved oxygen (DO), temperature, conductivity and redox potential. Procedures and guidance for low flow purging

and sampling can be found in the document titled Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures (USEPA 1996).

In general, pumping should start at a low flow rate and increase to a rate of approximately 0.5 L/min. Water level will be measured periodically, approximately every 3 to 5 minutes. If well water drawdown is more than 0.3 foot, reduce the pumping rate to stabilize drawdown. Purging will continue until field parameters are stabilized, as discussed in the next section. To the extent possible, wells will not be purged to dryness. However, if a well exhibits very slow water level recovery and is purged to dryness, groundwater samples will be collected upon sufficient recovery. Sufficient recovery is considered as recovery to at least 80 percent of original static water level prior to purging.

Purge water will be temporarily contained in the 5-gallon buckets. After purging, the buckets will be collected for disposition. If this can not be accomplished immediately after purging the buckets will be sealed and labeled at which time purge water will be collected for disposition.

Stabilized readings for oxidation-reduction potential (ORP) and DO will be collected at the end of low-flow purging and recorded as part of the redox parameter suite. Meter probes will be housed in a flow-through cell to avoid potential geochemical changes caused by atmospheric gases.

Following field parameter stabilization after purging, groundwater samples will be collected following Low-Flow Well Sampling Procedures. For purged-dry wells, sample collection will occur after sufficient recovery to at least 80 percent of the original water level prior to purging. Procedures for groundwater sampling can be found in the technical document TP-1.2-20 in the Compendium. The appropriate use of field equipment and decontamination protocols will be followed to minimize or eliminate the potential for cross-contamination. Nitrile gloves will be changed, at a minimum, between wells and whenever the potential for cross contamination is suspected.

Groundwater samples from direct-push probes will be field-filtered for metal analyses. In-line 0.45 micron filters will be used to avoid introduction of oxygen into the sample. This will be critical, as ferrous iron is expected to be present in some samples and its precipitation prior to filtering and preservation can result in low bias in metal concentrations due to co-precipitation. Groundwater samples from monitoring wells will use total (unfiltered) samples for metal analyses unless turbidity is present at 5 NTUs or greater. If turbidity is present, then both filtered and unfiltered samples will be analyzed. Filtering will be accomplished in the field using the same method as for the direct-push samples.

Groundwater samples will be collected into laboratory-cleaned, pre-labeled sample bottles and preserved as appropriate for the analytical parameters. Table 3-2 lists requirements for sample containers, preservatives, and related handling instructions. Sample bottles should be filled starting with the most sensitive sample aliquot and ending with the least sensitive aliquot. The sample bottles will be filled in the following order:

1. VOCs
2. Inorganic Redox Parameters (sulfide, sulfate, nitrate, nitrite, and ammonia)

3. Ferrous Iron (Field kit)
4. SVOCs
5. PCBs
6. Total Organic Carbon (TOC)
7. Chromium VI
8. Metals (Antimony, Arsenic, Cadmium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver, Thallium, Vanadium and Zinc)

3.3.1 Surveying and Water Level Measurements

After installation, the new groundwater monitoring wells will be surveyed by EPI's subcontractor, Duane Hartman & Associates. Sampling point elevations will be surveyed from the National Geodetic Vertical Datum 1929 (NGVD 1929) or the North American Vertical Datum (NAVD 1988) to an accuracy of within 0.01 foot. Horizontal control accuracy will be within 0.1 foot.

Groundwater level measurements will be obtained prior to sampling at each well. Technical Procedures for Water Level Measurements are found in TP-1.4-6a and -6b in the Compendium.

In general, groundwater levels will be measured to the top of the well casing, a marked measuring point or to the north side of the casing if no measuring point is visible. Water level measurements, with a precision of at least 0.01 foot, will be recorded on EPI's Water Level Measurement Field Record.

3.3.2 Field Parameter Measurements

Temperature, DO, ORP, pH, specific conductance, and the turbidity of the purged water will be measured during purging and recorded in the field notebook every 3 to 5 minutes. In addition, notes will be taken describing the appearance or odor of the water. The purge stabilization criteria are based on three successive readings of the field water quality parameters. The following are the stabilization criteria for low-flow purging:

- pH ± 0.1 pH units
- Specific conductance ± 3 percent
- ORP ± 10 millivolts
- Turbidity ± 10 percent (when turbidity is greater than 10 NTUs)
- Dissolved oxygen ± 0.3 µg/L
- Temperature ± 0.1°C

When the above stabilization criteria have been met, the purge water is stabilized and sample collection can begin. ORP may not always be an appropriate stabilization parameter and its use as a stabilization parameter will depend on site-specific conditions. The total volume of water

purged from each well will be recorded in the field notebook. However, if a well exhibits very slow water level recovery and is purged to dryness, groundwater samples at that well will be collected upon sufficient recovery defined as 80 percent recovery of the pre-purge water column.

Prior to measurements, field instruments will be calibrated according to instructions in the EPI's TP-1.0 Standard Procedures for Field Parameter Measurement. The meters for DO and ORP will be housed in a flow-through cell to avoid entrainment of atmospheric gases during measurement.

3.3.3 Groundwater Laboratory Analysis

The proposed constituent groups for chemical laboratory analysis are based primarily on the COCs historically present at the wells and the need to fill data gaps due to the lack of concurrent recent data. This statement is generally applicable to VOCs and metals. For PCBs, data needs are based on the previously considered likelihood of potential migration pathway to individual well locations.

Table 3-3 provides an overall summary of the groundwater laboratory analyses for this sampling event. In general, VOCs and metals are proposed for all sampled wells. Redox parameters (part of natural attenuation parameters) are proposed in approximately one-third of the wells to better define conditions related to the arsenic and manganese plumes and to the degradation of chlorinated ethenes.

SVOCs (including cPAHs and bis(2-ethylhexyl)phthalate), PCBs, and additional metals (see list in Section 3.3) analyses are specified for selected wells to evaluate current conditions and support fate and transport modeling conclusions. Generally, these analyses are limited to areas downgradient of maximum soil concentrations to support fate and transport modeling or, in the case of cPAHs, in areas where previous groundwater reporting limits were inadequate and soil exceedances exist (e.g., the Reclamation Yard).

3.4 SOIL SAMPLING

Soil samples will be collected for laboratory analysis and geologic logging as part of the drilling, well installation, and direct-push sampling task. Soil samples will be obtained using decontaminated split spoon samplers. The split-spoon sampler will be equipped with new single-use liners unless the samples are intended for geologic logging purposes only. Soil samples obtained for laboratory analysis will be collected from A-Level wells only at 2.5 foot intervals from the surface to the water table, or about four samples per A-Level well location. The split spoon sampler will be decontaminated prior to use and between each sample as discussed in Section 3.9.2. The HSA stem will be advanced to the top of the desired sample interval and the drill rod will be removed. A decontaminated 2.5-inch diameter, 18-inch long steel split spoon sampler is then inserted into the auger stem. The split spoon will be driven through an 18-inch interval using either a down-hole hammer, or a slide hammer attached to drilling rods. Sampling will be continued until the full 18-inch sample interval is completed or until refusal is encountered (i.e., greater than 50 blows per 6-inch interval).

For VOC samples, the bottommost of the intact and relatively undisturbed sample (i.e., generally the bottommost 3-inch liner) will be submitted for laboratory analysis. In those instances when a sand catcher is used in the sampler, the higher of the two 3-inch liners will be retained for laboratory analysis. Samples in liners will be sealed with a sheet of polytetrafluoroethylene (PTFE) and plastic caps secured with electrical tape. Immediately upon collection, all samples will be labeled and placed in an iced cooler pending submittal to the laboratory, Analytical Resources, Inc., for analysis by USEPA Method 8260B. Sample labeling will follow procedures under the Sample Identification Section of this Work Plan (Section 3.7.1). A portion of the sample, usually the soil retained in the drive shoe of the sampler or the unused portion of the 3-inch liner will be retained for geologic logging and field screening purposes.

For selected metals and PCB analysis, soil samples will be collected into 4-oz and 8-oz wide-mouth borosilicate glass jars, respectively. All collected samples will be labeled and stored in a cooler filled with bagged ice until transported to the laboratory. Table 3-2 lists requirements for sample containers, preservatives, and related handling instructions.

3.4.1 Geologic Soil Logging

Soils encountered will be logged in accordance with the Unified Soil Classification System (USCS) visual manual procedures (ASTM 2488D) as documented in Technical Procedure TP1.2-6, in the Compendium. Samples will be obtained using decontaminated split spoon samplers without a liner. The HSA stem will be advanced to the top of the desired sample interval and the drill rod will be removed. A decontaminated 2.5-inch diameter, 18-inch long steel split spoon sampler is then inserted into the auger stem. The split spoon will be driven through an 18-inch interval using either a down-hole hammer, or a slide hammer attached to drilling rods. Blow counts will be obtained during soil sampling following ASTM D-1586-99 standards. Observed soil information at each well location will be recorded on a soil log sheet.

3.4.2 Field Screening

For all samples, the non-slough portion of the soil samples will be field screened to check for indications of the presence of VOCs and separate-phase hydrocarbons. Field personnel will use a photoionization detector (PID) to test for the presence of VOCs. Field personnel will also use sheen testing to screen for the presence of separate-phase hydrocarbons. The PID will be calibrated with 100 parts per million isobutylene standard prior to use each day following the calibration guidelines documented in Quality Procedure QP-11.1, in the Compendium.

For PID screening, a portion of the soil sample will be placed in a Ziploc™-type plastic bag, disaggregated and allowed to equilibrate for approximately 10 minutes. The PID inlet tube will then be inserted into the bag and the highest observed reading will be recorded.

For sheen testing, a portion of the sample will be placed in a clean PTFE-coated pan, sprayed with a small amount of de-ionized water and a qualitative assessment of any observed sheen will be recorded. The results of field screening will be noted in the field logbook and on the boring logs.

3.4.3 Soil Laboratory Analysis

For laboratory analysis, one soil sample will collected from three intervals (0 to 1 foot, 4 to 5 feet and 9 to 10 feet) from the three new A-Level wells and 12 direct push probes. Soil samples will be collected into pre-cleaned laboratory-provided containers. Constituent groups for laboratory analysis of soil samples are VOCs, metals, and PCBs. Refer to Table 3-1 for laboratory methods associated with these constituent groups. Table 3-2 lists the anticipated number of field samples and quality control (QC) samples include equipment blanks, trip blanks, matrix spikes and matrix spike duplicates (MS/MSD).

3.5 HYDROLOGIC ANALYSIS

Data loggers equipped with pressure sensing transducers will be installed in monitoring wells at each of the selected well locations shown in Figure 2-2. Data loggers will be set to record data for 72 hours. Water level data downloaded from the data loggers will be reduced to "net" groundwater elevations using the method described by Serfes (1991). These data will be used to generate a net groundwater elevation contour map for the South Yard Area.

3.6 QUALITY CONTROL SAMPLES

Quality control (QC) measures will be taken to evaluate laboratory precision, potential matrix interferences, and potential contamination from the ambient air.

Field duplicates, equipment blanks, trip blanks, and matrix spike/matrix spike duplicate (MS/MSD) samples will be collected as part of the field QC program. Each of these sample types is described in the following sections along with their purpose and collection frequency.

3.6.1 Trip Blank Samples

The potential for contamination from the ambient air will be evaluated using trip blank samples. The trip blank will originate at the contract laboratory and be re-labeled upon arrival at the site. Trip blank samples accompany one cooler of samples during sampling and shipping for each day during a sampling event. Trip blank samples will be analyzed for VOCs only.

3.6.2 Equipment Blank Samples

The potential for cross contamination from non-dedicated multiple-use sampling devices will be evaluated using equipment blank samples. The only multiple-use, non-dedicated sampling device anticipated to be used for this investigation are the split spoon samplers used to obtain soil samples during drilling. One equipment blank sample will be taken to evaluate the effectiveness of the decontamination steps. The equipment blank sample will be analyzed for VOC, SVOCs, metals, and PCBs.

3.6.3 Duplicate Samples

Laboratory and field sampling precision of the groundwater sampling task will be evaluated by collecting blind field duplicate samples. One field duplicate sample will be collected at a rate of 10 percent or a fraction thereof of the total number of groundwater samples. Field duplicate samples will be collected under conditions as nearly identical as possible to the original sample. Duplicate samples will not be collected for soils because it is not possible to homogenize soil samples sufficiently to produce representative duplicate sample volumes. Duplicate samples will be analyzed for the same constituent groups as the original sample.

3.6.4 Matrix Spike/Matrix Spike Duplicate Samples

Potential interferences from the sample matrix will be evaluated with MS/MSD samples. Triplicate volumes of samples will be collected at locations specified on the sample matrix. One MS/MSD sample will be obtained at a rate of 5 percent, or a fraction thereof, of the total number of samples collected per event. MS/MSD samples will be analyzed for the same constituent groups as the original sample.

3.7 SAMPLE HANDLING AND SHIPPING

After collection, all samples will be placed in coolers with enough bagged ice to maintain an internal temperature of 4°C for the duration of the sampling and transportation to the laboratory. Samples will be delivered to Analytical Resources, Inc. (ARI) for analysis after each day of sampling following the procedures outlined in TP-1.2-23 of the Compendium. ARI's address is given below.

4611 South 134th Place
Suite 100
Tukwila, WA 98168
Contact: Ms. Stephanie Lucas, (206) 695-6213

3.7.1 Sample Identification

All groundwater and soil samples collected will be assigned a unique identification code based on a consistent sample designation scheme. A sample tracking record will be kept as each sample is collected. Monitoring well and Probe groundwater and soil samples will be designated with unique alphanumeric sample identifiers (sample numbers) as follows:

- SY-PL2-153A (monitoring well samples)
- SY-DP-YY-XX (probe samples)

where:

SY	South Yard Area (project area)
PL2	Boeing Plant 2
153A	Specific well ID in the project area
XX	Bottom depth of sampler or screen (probe samples only)

DP Sample collected from a direct-push sampling location
YY Unique numeric location for a direct-push sampling location

Sample numbers will be recorded in the field notebook, on sample container labels, and chain-of-custody forms. Other information recorded on the sample container label includes:

- Time and date of sample collection
- Initials of sampler(s)
- Laboratory analyses to be performed
- Preservatives used

More detailed information regarding sample labels, sample handling, chain of custody, custody seals, and sample shipping are documented in Section 7.0 and in Technical Procedure TP1.2-20 in the Compendium.

3.8 LABORATORY ANALYTICAL METHODS

Laboratory analytical methods for groundwater and soil samples collected for the South Yard Area Data Gap Investigation are listed in Table 3-3.

In general, laboratory methods are selected based on:

- The media being sampled
- The constituent being analyzed
- The reporting limit necessary for comparison to constituent risk based screening level

Table 3-4 presents a list analytes, which includes all of the COCs that are commonly tested for at Boeing Pant 2 and the associated laboratory reporting limits. The laboratory reporting limits are compared to the lowest risk calculation or applicable background concentration (various metal concentrations in soil) to determine what analysis may be limiting evaluation of the site. Risk calculations were not completed for analytes that were never detected at the site or for analytes where USEPA or Ecology does not provide toxicological data necessary for the risk calculations (e.g., aluminum and iron).

Based on this analysis, as presented in Table 3-4, the laboratory reporting limit for PCBs (33 µg/kg) was the only set of reporting limits greater than the lowest associated risk based calculation for soil. This reporting limit is the same value as the PQL presented in the Technical Memorandum: *Appropriateness Evaluation Corrective Measure Study*, Boeing Plant 2, completed by Weston in March 1999.

Groundwater reporting limits for arsenic (0.2 µg/L), PCBs (0.01 µg/L), various PAHs (0.1 µg/L) and bis(2-ethylhexyl)phthalate (3 µg/L) were greater than the respective lowest risk based calculation. Of these, the arsenic, PCB, and bis(2-ethylhexyl)phthalate reporting limits are less

than the PQLs presented in the 1999 technical memorandum (Weston 1999a). The arsenic reporting limit is also less than the expected background concentration for arsenic concentrations in groundwater; therefore, it is not expected to limit the utility of the analyses. Because PAHs have not been detected in groundwater at Plant 2, and, therefore, also not listed as a COC in 1999, no PQL was requested for PAHs in 1999. The reporting limit used above is the standard reporting limit for PAHs using USEPA Method 8270 as modified for larger sample volumes and lower detection limits.

Table 3-3 lists the number of samples collected for each analytical constituent group and the number of QC samples collected for each constituent group by media (soil or groundwater) along with sample requirements.

3.9 DECONTAMINATION PROCEDURES

Purging and sampling equipment that comes into direct contact with sample media, sample containers, or the inside of a monitoring well will ideally be single-use, disposable equipment that is replaced between each sampling event, or will be dedicated equipment, assigned to and used at only one well. If the sampling equipment is not single-use disposable equipment or dedicated equipment, it will be decontaminated between each sampling event using the procedures summarized in Section 3.9.1.

In general, drill augers and the down-hole components of direct-push probes will be decontaminated between wells by steam cleaning. Split spoon samplers will be decontaminated between sampling using a non-phosphate detergent solution followed by a rinse with clean tap water. Particulate matter and surface film will be removed using a brush. A 10 percent nitric solution (ACS reagent grade) will be used to rinse sampling equipment because metal analysis will be performed on soil samples. Solvent rinse will not be used due to anticipated low levels of VOCs in the soil samples. Decontamination steps for soil sampling equipment are summarized in Section 3.9.2.

3.9.1 Aqueous Sampling Equipment Decontamination

If non-dedicated, multiple-use sampling equipment is used for groundwater sampling it will be decontaminated prior to use and between each sample according to the steps noted below. Examples of non-dedicated, multiple-use groundwater sampling equipment include: submersible pumps, bladder pumps, and transducers. Please note that nitric acid will not be used on transducers under any circumstances.

1. Wash in a solution of Liquinox™ (or equivalent) and potable tap water.
2. Rinse with potable tap water.
3. Rinse with 10 percent nitric acid (trace metal or higher-grade HNO3).
4. Rinse with distilled water.
5. Rinse with reagent-grade isopropyl alcohol.
6. Rinse with distilled water.

3.9.2 Nonaqueous Sampling Equipment Decontamination

If non-dedicated, multiple-use sampling equipment is used for soil sampling it will be decontaminated prior to use and between each sample according to the steps noted below. Examples of non-dedicated, multiple-use soil sampling equipment includes; split spoon samplers, sample catchers, scoops, spoons, and stainless steel bowls.

1. Wash in solution of Liquinox™ (or equivalent) and potable tap water.
2. Rinse with potable tap water.
3. Rinse with 10 percent nitric acid (trace metal or higher grade HNO_3
4. Rinse with distilled water.

Note: If visual contamination persists, or gross contamination is suspected, the decontamination steps used for aqueous sampling equipment will be used.

Decontamination fluids generated on-site will be retained in DOT-approved steel drums, properly-labeled, and stored on-site pending characterization and disposal.

3.9.3 Decontamination of Workers and Personal Protective Equipment

It is anticipated that all work associated with monitoring well installation and groundwater sampling at the South Yard Area at Boeing Plant 2 will be conducted in modified Level D protection. Requirements for upgrading to Level C protection are outlined in the Health and Safety Plan, which is provided in the Compendium.

Modified Level D protection includes the following components:

- Cotton or Tyvek™ coveralls
- Steel-toed, steel-shank rubber boots
- Safety glasses or equivalent
- Nitrile inner and outer gloves
- Hearing protection when appropriate (i.e., while drilling or working around blowers)
- Hard hat (when working around drilling or probe rigs)

Upon completion of each day's activities, personnel will wash and rinse their boots in a solution of Liquinox™ (or equivalent) and potable tap water followed by a tap water rinse. Boot wash containers will contain brushes to facilitate removal of soil and other contaminants. Following the boot wash station sampling personnel will remove their outer gloves, remove their boots, remove their coveralls, and then remove their inner gloves. Personnel will then wash their hands and faces with soap and water prior to eating or leaving the site.

Inner and outer gloves will be discarded as solid waste. Cotton coveralls will be laundered as needed or replaced if excessive contamination is suspected. Hard hats will be washed when visibly dirty or as necessary.

3.9.4 Decontamination of Sample Containers

All sample containers will be laboratory-prepared and pre-cleaned to standards as required under USEPA SW 846 protocols found in Section 4 of SW-846.

3.10 DISPOSAL OF INVESTIGATION DERIVED WASTE

Drill cuttings and sample spoils will be retained on-site in properly labeled DOT-approved steel drums pending characterization for disposal. Boeing will coordinate characterization of drum contents and disposal according to established procedures.

3.11 QUALITY ASSURANCE PROJECT PLAN

Quality Assurance procedures and requirements documented in the Approved Laboratory Quality Assurance Plan and Standard Operating Procedures – RFI Work Plan – February 2001 (Weston 2001) and October 2003 Quality Assurance Project Plan – Interim Measures for Sheetpile Structures will be followed for the scopes of work related to well installation, and groundwater and soil sampling and analysis at the South Yard Area. Copies of the QAPP documents can be found in the Compendium.

3.12 HEALTH AND SAFETY PLAN

Health and Safety procedures documented in the October 2003 Interim Measures Site Health and Safety Plan for Sheetpile Structure at Building 2-66 will be followed for the scopes of work related to well installation, and groundwater and soil sampling at the South Yard Area. A copy of the Health and Safety Plan can be found in Attachment C.

3.13 SCHEDULE AND DELIVERABLES

USEPA is reviewing this Work Plan in an expedited manner to facilitate an aggressive field schedule designed to collect data necessary for the CMS as quickly as possible. The following schedule and process is intended to support this aggressive schedule:

Task	Due Date
1. Field Mobilization	15 work days (3 weeks) after USEPA Approval of Work Plan
2. Completion of Sample Collection	20 work days (4 weeks) after completion of Task 1
3. Completion of sample analysis and data validation.	70 work days (14 weeks) after completion of Task 2
4. Draft Data Gaps Report	30 work days (6 weeks) after completion of Task 3

Notes:

Task 4: The Draft Data Gaps Report comprises sections 1 through 5 of Volume III, The South Yard Area, Uplands CMS, as follows:

- A revised draft of Sections 1 through 3 that reflects incorporation of the EPA comments on the Work Plan, as appropriate.
- Draft Section 4 of the CMS Volume III, which presents the results and findings of the Data Gap Investigation for the area.
- Draft Section 5 of the CMS Volume III, which presents the revised list of COCs, units, and groundwater plumes for the South Yard Area that will be carried into the CMS for remedy selection.

References

The Boeing Company (Boeing). 2003. *Boeing Response Concerning Disputed Work Directed by EPA that Would Expand the Plant 2 Duwamish Sediment Other Area Boundaries*. Seattle, Washington.

Booth, D., Herman, L. 1998. *Duwamish Basin Groundwater Pathways Conceptual Model Report*. Duwamish Industrial Area Hydrogeologic Pathways Project. Prepared for City of Seattle Office of Economic Development and King County Office of Budget and Strategic Planning with assistance from Floyd & Snider, Inc., Black & Veatch, Gambrell Urban, Inc., and the City of Seattle GIS Department. Produced by Hart Crowser, Inc. April.

EPA. 1995. *Profile of the Iron and Steel Industry.* Prepared by EPA Office of Compliance Sector Notebook Project. Office of Enforcement and Compliance Assurance. U.S. Environmental Protection Agency. Washington, DC. September.

Floyd Snider McCarthy, Inc. (FSM). 2004. *Phase 1 Transformer PCB Investigation Report*. Prepared for The Boeing Company. Seattle, Washington. 24 February.

Golder Associates Inc. (Golder). 1996. *Technical Procedure TP-1.2-5 Drilling, Sampling, and Logging of Soils.* Revision 9. Redmond, Washington. April.

Golder Associates Inc. (Golder). 2003. *Compendium of Sampling and Analysis Plans and Quality Assurance Plans for Boeing Plant 2, Seattle/Tukwila, Washington*. Prepared for The Boeing Company. July.

Groundwater Technology. 1992. *Tank Removal Report – UST PL-23*. Prepared by Groundwater Technology, Inc.

Landau Associates, Inc. 1993. *Soil & Groundwater Data Summary, Building 2-91*. 18 March.

McArthur, J. M., P. Ravenscroft, S. Safiulia, and M. F. Thirlwall. 2001. "Arsenic in groundwater: Testing pollution mechanisms for sedimentary aquifers in Bangladesh." *Water Resources Research,* 37(1):109-117. January.

Roy F. Weston, Inc. (Weston) 1994a. *RCRA Facility Investigation Work Plan, Boeing—Plant 2, Seattle/Tukwila, Washington*. Prepared for The Boeing Company. Seattle, Washington.

_____. 1994b. *Closure Certification Report, TSD Areas 1,2, and 3 Seattle/Tukwila, Washington*. Prepared for The Boeing Company. Seattle, Washington.

_____. 1996. *RCRA Facility Investigation Groundwater Investigation Interim Report*. Prepared for The Boeing Company. Seattle, Washington. January .

_____. 1997. *RFI Soil Investigation Interim Report*. Boeing-Plant 2, Seattle/Tukwila, Washington. Prepared for The Boeing Company. Seattle, Washington.

_____. 1998. *SWMU 2-87.65 Machine Pit, SWMU 77 PCB Retention Tank, SWMU 78.B Oil/Water Separator, and OI 16 Former Hazardous Waste Storage Facility Interim Measures Work Plan, Boeing-Plant 2, Seattle/Tukwila, WA*. Prepared for The Boeing Company. Seattle, Washington.

_____. 1999a. *Other Area 3 Former UST Pl-23 Interim Measures Completion Report*. Boeing Plant 2, Seattle, Washington. Submitted to: The Boeing Company. Seattle, Washington. February.

_____. 1999b. *Technical Memorandum Appropriateness Evaluation Corrective Measure Study Boeing Plant 2*. Seattle, Washington. March

_____. 1999c. *Technical Memorandum Justification for No Further Action SWMUs/AOCs/OAs RCRA Corrective Measures Study*. Prepared for The Boeing Company. Seattle, Washington. March.

_____. 2000a. *Technical Memorandum SWMU/AOC/OA-Specific Data Presentation RCRA Corrective Measures Study*. Volume III. Boeing-Plant 2, Seattle/Tukwila, WA. Prepared for The Boeing Company. Seattle, Washington.

_____. 2000b. SWMU 2-87.65 Machine Pit, SWMU 77 PCB Retention Tank, SWMU 78.B Oil/Water Separator, and OA 16 Former Hazardous Waste Storage Facility. Interim Measures Completion Report. Boeing Plant 2, Seattle/Tukwila, Washington. Prepared for The Boeing Company. Seattle, Washington.

_____. 2000c. Technical Memorandum Justification for No Further Action SWMUs/AOCs/OAs RCRA Corrective Measures Study. Prepared for The Boeing Company. Seattle, Washington.

_____. 2001a. AOC 2-84.62 Machine Pit Interim Measures Completion Report. Boeing Plant 2, Seattle/Tukwila, Washington. Prepared for The Boeing Company. Seattle, Washington.

_____. 2001b. Technical Memorandum Justification for No Further Action #2 SWMUs/AOCs/OAs RCRA Corrective Measures Study. Prepared for The Boeing Company. Seattle, Washington.

_____. 2003a. Treatment, Storage, and Disposal Facility Closure Certification SWMU 2-31.20 and SWMU 2-104.71. Boeing Plant 2, Seattle/Tukwila, Washington. Prepared for The Boeing Company. Seattle, Washington.

_____. 2003b. Subsurface Closure Plans, Building 2-31 Acid Hold Tank System, Buildings 2-09, 2-10 Chrome Waste Tank System, Building 2-91 Deactivated Waste Oil and Coolant Hold Area. Boeing Plant 2, Seattle/Tukwila, Washington. Prepared for The Boeing Company. Seattle, Washington. January.

SEACOR. 1993. *Draft Area 1 – Hollowbore Location Focused Remedial Investigation/Feasibility Study*. Jorgensen Forge Facility 8531 East Marginal Way South Seattle, Washington. 19 February.

Serfes, E.M. 1991. "Determining the Mean Hydraulic Gradient of Ground Water Affected by Tidal Fluctuations." *Ground Water,* 29(4). July-August.

United States Environmental Protection Agency (USEPA). 1996. Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures. USEPA Groundwater Issue, April.

Washington State Department of Ecology (Ecology). 1992. *Statistical Guidance for Ecology Site Managers*. August.

Washington State Department of Ecology (Ecology). 1994. *Natural Background Soil Metals Concentrations in Washington State*. Toxics Cleanup Program. Publication #94-115. October.

Boeing Plant 2
Seattle/Tukwila, Washington

Uplands Corrective Measures
Volume III: South Yard Area

Data Gap Investigation Work Plan

Tables

Table 1-1 Previous Investigations
South Yard Area
Boeing Plant 2

Document Title	Date	Consultant
Subsurface Closure Plans: Buildings 2-31 Acid Hold Tank System, Buildings 2-09, 2-10 Chrome Waste Tank System, Building 2-91 Deactivated Waste Oil and Coolant Hold Area.	January 2003	Roy F. Weston, Inc.
Treatment, Storage, and Disposal Facility Closure Certification	January 2003	Roy F. Weston, Inc.
Technical Memorandum Justification for No Further Action # 2SWMUs/AOCs/OAs RCRA Corrective Measures Study	October 2001	Roy F. Weston, Inc.
Groundwater Monitoring Report South Yard	March 2001	Roy F. Weston, Inc.
AOC 2-84.62 Machine Pit Interim Measures Completion Report	March 2001	Roy F. Weston, Inc.
SWMU 2-87.65 Machine Pit, SWMU 77 PCB Retention Tank, SWMU 78.B Oil/water Separator, and OA 16 Former Hazardous Waste Storage Facility Interim Measures Completion Report	May 2000	Roy F. Weston, Inc.
Technical Memorandum SWMU/AOC/OA, Specific Data Presentation, RCRA Corrective Measures Study Volumes I, II, III	April 2000	Roy F. Weston, Inc.
Technical Memorandum Justification for No Further Action RCRA Corrective Measures Study	April 2000	Roy F. Weston, Inc.
SWMU 79 Cistern Interim Measures Completion Report	October 1999	Roy F. Weston, Inc.
Technical Memorandum Justification for No Further Action SWMUs/AOCs/OAs RCRA Corrective Measures Study	March 1999	Roy F. Weston, Inc.
Other Area 3 Former UST PL-23 Interim Measures Completion Report	February 1999	Roy F. Weston, Inc.
Closure Certification Report TSD Areas 1, 2, 3 Plant 2	June 1994	Roy F. Weston, Inc.
Soil and Groundwater Data Summary Building 2-91 Boeing Plant 2 Facility Tukwila, Washington	March 1993	Landau Associates, Inc.
Site-wide Studies that Include the South Yard Area		
Comprehensive RCRA Facility Investigation Report	August 1998	Roy F. Weston, Inc.
RCRA Facility Investigation – Groundwater Human Health and Environmental Evaluation	August 1998	Roy F. Weston, Inc.
RFI Health Evaluation for Upland Soil	May 1996	Roy F. Weston, Inc.
RCRA Facility Investigation – Groundwater Investigation Interim Report Volumes I to IV	January 1996	Roy F. Weston, Inc.

Table 1-1 Previous Investigations
South Yard Area
Boeing Plant 2

Document Title	Date	Consultant
RCRA Facility Investigation – Soil Investigation Interim Report Volumes I to V	January 1996	Roy F. Weston, Inc.
RCRA Facility Investigation – Phase 1A Completion Report Volume I Soil and Groundwater Presentation	December 1994	Roy F. Weston, Inc.
RCRA Facility Investigation – Phase 1A Completion Report Volume II Soil and Groundwater Presentation	December 1994	Roy F. Weston, Inc.
RCRA Facility Investigation Work Plan	November 1994	Roy F. Weston, Inc.
Technical Memorandum, SWMU/AOC/OA-specific Data Presentation, RCRA Corrective Measures Study	April 2000	Roy F. Weston, Inc.

Table 1-2 Summary of Available Unit Information
South Yard Area
Boeing Plant 2

RCRA Unit	Unit Description	Years of Use	Function	Soil Samples	Groundwater Samples	Analytes
SWMU 2-104.71	Central Waste Storage Area	1981 to 1993	TSD unit	above ground closure only, no soil samples collected	above ground closure only, no soil samples collected	Not Applicable
SWMU 2-91.70	Deactivated Waste Oil and Coolant Storage	1950s Hazardous WMU; 1993 sump decommissioned and removed	Temporary storage for waste oil and coolant	1989 to 1995: 40 locations sampled to 15 ft bgs	1989 to 1995: 7 monitoring wells	VOCs, SVOCs, PCBs, TPHs, Metals
SWMU 78.B	Oil/Water Separator at Building 2-87	1940s to 1992, IM conducted in 1999	Oil removal from stormwater runoff	IM conducted in 1999, TPH and PCBs detected but below MTCA and TSCA standards	None	Not Applicable
AOC 2-84.62	Machine Pit	1940s to 1990s, IM completed in 2000	Collect coolant, lubricating, and hydraulic oils	8 samples	None	Metals and PCBs
OA-3	Former UST PL-23	1951 to 1992 (removed), IM conducted in 1998	1000 gallon gasoline storage	Soil samples collected during RFI and three samples collected during IM	None	TPH and BTEX
SWMU 79.A	Cisterns 1, 2, 3	1950 to 1955, 1986: decommissioned	Dispose of process wastes	1987 to 1998: numerous soil samples	1988 to 1995: 6 monitoring wells	VOCs, SVOCs, PCBs, TPHs, Metals
SWMU 79.B	Cistern 4	1950 to 1955, 1986: decommissioned	Dispose of process wastes	1987 to 1998: Numerous soil samples	1988 to 1996: 13 monitoring wells	VOCs, SVOCs, PCBs, TPHs, Metals
SWMU 79.C	Cistern 5	1950 to 1955	Dry well	1985: 1 boring 1994: 1 boring	1988 & 1992: 1 well	VOCs, SVOCs, Metals
SWMU 2-87.65	Machine Pit	Removed in 1999	Collect coolant, lubricating, and hydraulic oils	1992 & 1995: Samples from several borings	1992: 3 wells & 1 Geoprobe	VOCs, SVOCs, PCBs, Petroleum Hydrocabrons, Metals
OA 16	Central Waste Storage Area (includes SWMU 2-104.71)	Unknown	Store materials from reclamation yard	1994: 4 borings 1999: 5 grab samples	None	VOCs, SVOCs, PCBs, Petroleum Hydrocabrons, Metals
SWMU 2-78.1	Oil/Water Separator	1940s to current	Oil removal from stormwater runoff	1994: 3 samples from 1 boring	None	TPHs
SWMU 78.5	Oil/Water Separator	1940s to current	Oil removal from stormwater runoff	Several samples from seven borings from 1.8 to 11 ft bgs	None	VOCs, SVOCs, PCBs, Metals
SWMU 2-80.56	Sink Sump	mid-1970s to 1993	Plaster objects and solvents	1994: 1 boring 3.5 to 11.5 ft bgs 1998: 3 borings	1994: 1 geoprobe 1995: 1 geoprobe	VOCs, Metals
SWMU 2-80.57	Generator Sump	Decommissioned 1993	Collected coolant that dripped from generators	1995: 2 soil borings 0.5 to 6.0 ft bgs	1992 to 1995: 5 samples from two downgradient wells	VOCs, PCBs, TPHs, Metals
SWMU 2-89.68	Reclamation Yard	1942 to 1996	Store metal shavings, film, bulk metal, empty drums, paints	1991 to 1994: 39 soil borings (or samples?) and test pits from 0.5 to 90 ft bgs	1988 to 1996: Samples from 14 monitoring wells and 18 geoprobe locations in South Yard and on Jorgensen Forge property	VOCs, SVOCs, TPHs (soil only), Metals
AOC 2-80.58	Deactivated Sump and Quench Tank 2nd Containment	1960s to 1980s	Tanks held metal parts, soil and water during quench process	1994: 2 soil borings 1.5 to 12 ft bgs	None	PCBs, TPHs, Metals
AOC 2-86.63	Wet Paint Booth	Built date unknown; tank removed and converted to dry system in 1992	Tank contained paint waste and process chemicals of paint, lacquers, solvents, and isocyanate	1993 to 1994: 2 soil borings 1.5 to 11 ft bgs	1992 to 1994: 2 monitoring wells upgradient and downgradient of unit	VOCs, SVOCs, TPHss, Metals
OA 10	Former UST PL-20	1957 to 1986	Kerosene UST	7 Soil borings sampled from 5 to 17.5 ft bgs	4 Geoprobes	TPHs-gasoline & diesel

Notes:

ft bgs	feet below ground surface
PCBs	Polychlorinated biphenyls
SVOCs	Semivolatile organic compounds
TPHs	Total petroleum hydrocarbons
UST	Underground storage tank
VOCs	Volatile organic comounds

Table 2-1 Screening Levels for Constituents of Concern
South Yard Area
Boeing Plant 2

CAS Number	Sitewide Constituent of Concern	Area Soil COC?	Soil (see maximum detect units)						Area GW COC?	Groundwater (ug/L)			
			Maximum Detect[1] in South Yard Area		Minimum Screening Level	Direct Contact Screening Level	Air Screening Level	Surface Water Screening Level		Maximum Detect in South Yard Area	Minimum Screening Level	Air Screening Level	Surface Water Screening Level
Metals													
7440-36-0	Antimony		7.00E+00	mg/kg	3.40E+02	5.33E+02	- -	3.40E+02	Not a Site-Wide COC in Groundwater				
7440-38-2	Arsenic	x	**1.20E+01**	mg/kg	5.00E+00*	3.33E+01	3.22E+04	5.00E+00*	x	**9.93E+01**	2.00E-01*	- -	2.00E-01*
7440-43-9	Cadmium	x	**3.70E+03**	mg/kg	1.01E+00	6.67E+02	7.70E+04	1.01E+00		2 U	7.35E+00	- -	7.35E+00
18540-29-9	Chromium (VI)	x	**1.30E+03**	mg/kg	1.92E+01	4.00E+03	1.06E+04	1.92E+01	Not a Site-Wide COC in Groundwater				
7440-50-8	Copper	x	**8.30E+02**	mg/kg	1.38E+00	4.93E+04	- -	1.38E+00	x	**3.90E+01**	3.10E+00	- -	3.10E+00
7439-92-1	Lead	x	**7.60E+02**	mg/kg	2.50E+02**	2.50E+02**	- -	1.62E+03	x	**1.00E+01**	8.10E+00	- -	8.10E+00
7439-96-5	Manganese	x	**5.17E+02**	mg/kg	1.30E+02	1.87E+05	- -	1.30E+02	x	**4.13E+03**	1.00E+02	- -	1.00E+02
7439-97-6	Mercury	x	**1.72E+00**	mg/kg	5.00E-02*	4.19E+01	5.00E-02*	5.00E-02*		5.05E-03	2.50E-02	1.84E+02	2.50E-02
7440-02-0	Nickel (soluble salts)	x	**6.10E+02**	mg/kg	1.07E+01	2.67E+04	- -	1.07E+01	x	**2.00E+01**	8.20E+00	- -	8.20E+00
7782-49-2	Selenium	x	**9.00E+00**	mg/kg	7.38E+00	6.67E+03	- -	7.38E+00	x	**1.30E+02**	7.10E+01	- -	7.10E+01
7440-22-4	Silver	x	**2.20E+01**	mg/kg	3.23E-01	6.67E+03	- -	3.23E-01		5 U	1.90E+00	- -	1.90E+00
7440-28-0	Thallium (soluble salts)	x	**5.60E+01**	mg/kg	6.69E-01	8.64E+01	- -	6.69E-01		50 U	4.70E-01	- -	4.70E-01
7440-66-6	Zinc	x	**2.60E+04**	mg/kg	1.01E+02	4.00E+05	- -	1.01E+02		5.70E+01	8.10E+01	- -	8.10E+01
57-12-5	Cyanide		0.5 U	mg/kg	2.02E-01	2.67E+04	- -	2.02E-01		N/A	5.00E+00*	- -	5.00E+00*
Semivolatile Organic Compounds (SVOCs) and Polychlorinated Biphenyls (PCBs)													
56-55-3	Benzo(a)anthracene	x	**1.00E+02**	µg/kg	4.19E+01	3.42E+03	- -	4.19E+01		1 U	1.00E-01*	- -	1.00E-01*
205-99-2	Benzo(b)fluoranthene	x	**8.40E+02**	µg/kg	1.44E+02	3.42E+03	- -	1.44E+02		1 U	1.00E-01*	- -	1.00E-01*
207-08-9	Benzo(k)fluoranthene	x	**8.40E+02**	µg/kg	1.44E+02	3.42E+03	- -	1.44E+02		1 U	1.00E-01*	- -	1.00E-01*
50-32-8	Benzo(a)pyrene	x	**1.40E+03**	µg/kg	1.13E+02	3.42E+03	7.95E+07	1.13E+02		1 U	1.00E-01*	- -	1.00E-01*
218-01-9	Chrysene	x	**1.30E+02**	µg/kg	4.66E+01	3.42E+03	- -	4.66E+01		1 U	1.00E-01*	- -	1.00E-01*
53-70-3	Dibenz(a,h)anthracene	x	**1.90E+03**	µg/kg	2.10E+02	3.42E+03	- -	2.10E+02		1 U	1.00E-01*	- -	1.00E-01*
105-67-9	2,4-Dimethylphenol		6.80E+01	µg/kg	1.64E+03	1.33E+07	- -	1.64E+03	x	**5.20E+02**	2.01E+02	- -	2.01E+02
131-11-3	Dimethylphthalate		40000 U	µg/kg	1.24E+05	6.67E+08	- -	1.24E+05	Not a Site-Wide COC in Groundwater				
117-81-7	bis(2-Ethylhexyl)phthalate	x	**3.30E+05**	µg/kg	1.57E+03	1.79E+06	- -	1.57E+03	x	**1.30E+01**	3.00E+00*	- -	3.00E+00*
206-44-0	Fluoranthene		1.90E+02		3.23E+04	2.67E+07	- -	3.23E+04	Not a Site-Wide COC in Groundwater				
193-39-5	Indeno(1,2,3-cd)pyrene	x	**2.00E+03**	µg/kg	4.06E+02	3.42E+03	- -	4.06E+02		1 U	1.00E-01*	- -	1.00E-01*
-	Aroclor 1016/1242	x	**9.00E+02**	µg/kg	3.30E+01*	4.67E+04	- -	3.30E+01*		1 U	1.00E-02*	- -	1.00E-02*
11097-69-1	Aroclor 1254	x	**8.10E+04**	µg/kg	3.30E+01*	1.33E+04	- -	3.30E+01*	x	**1.90E+00**	1.00E-02*	- -	1.00E-02*
11097-69-1	Aroclor 1260	x	**2.60E+02**	µg/kg	3.30E+01*	- -	- -	3.30E+01*		1 U	1.00E-02*	- -	1.00E-02*
	Total PCBs	x	**8.10E+04**	µg/kg	3.30E+01*	- -	- -	3.30E+01*	x	**1.90E+00**	1.00E-02*	- -	1.00E-02*
Volatile Organic Compounds (VOCs)													
71-43-2	Benzene	x	**4.90E+04**	µg/kg	2.53E+01	1.36E+06	1.04E+02	2.53E+01	x	**2.00E+02**	4.48E+00	1.40E+03	4.48E+00
56-23-5	Carbon Tetrachloride		Not a Site-Wide COC in Soil							100 U	5.26E-01	1.52E+02	5.26E-01
74-87-3	Chloromethane		Not a Site-Wide COC in Soil							200 U	2.63E+01	2.44E+03	2.63E+01
104-51-8	n-Butylbenzene		N/A	µg/kg	4.64E+03	- -	4.64E+03	- -	Not a Site-Wide COC in Groundwater				
135-98-8	sec-Butylbenzene		N/A	µg/kg	7.86E+03	- -	7.86E+03	- -	Not a Site-Wide COC in Groundwater				
67-66-3	Chloroform		5.10E+00	µg/kg	3.96E+01	7.03E+06	3.96E+01	2.98E+02	Not a Site-Wide COC in Groundwater				
75-35-4	1,1-Dichloroethene	x	**2.30E+02**	µg/kg	2.73E+00	1.24E+05	1.23E+03	2.73E+00	x	**6.40E+01**	3.82E-01	4.23E+01	3.82E-01
107-06-2	1,2-Dichloroethane		Not a Site-Wide COC in Soil							9.10E+00	1.17E+01	1.78E+03	1.17E+01
156-59-2	cis-1,2-Dichloroethene	x	**1.50E+03**	µg/kg	7.94E+02	7.99E+06	7.94E+02	5.66E+03	x	**1.10E+05**	1.13E+03	1.51E+04	1.13E+03
156-60-5	trans-1,2-Dichloroethene		1.10E+02	µg/kg	8.99E+02	1.31E+07	8.99E+02	5.43E+04	Not a Site-Wide COC in Groundwater				
100-41-4	Ethylbenzene	x	**2.60E+05**	µg/kg	2.52E+03	1.45E+08	2.52E+03	1.81E+04		1.70E+03	2.10E+03	9.50E+03	2.10E+03

Table 2-1 Screening Levels for Constituents of Concern
South Yard Area
Boeing Plant 2

CAS Number	Sitewide Constituent of Concern	Area Soil COC?	Soil (see maximum detect units)						Area GW COC?	Groundwater (ug/L)			
			Maximum Detect[1] in South Yard Area		Minimum Screening Level	Direct Contact Screening Level	Air Screening Level	Surface Water Screening Level		Maximum Detect in South Yard Area	Minimum Screening Level	Air Screening Level	Surface Water Screening Level
98-82-8	Isopropylbenzene		N/A	µg/kg	1.27E+03	1.45E+08	1.27E+03	- -		Not a Site-Wide COC in Groundwater			
VOCs (cont'd)													
75-09-2	Methylene Chloride	x	**1.90E+03**	µg/kg	8.28E+02	9.94E+06	1.89E+03	8.28E+02		2.20E+01	1.90E+02	4.46E+04	1.90E+02
91-20-3	Naphthalene		5.70E+02	µg/kg	2.48E+04	1.44E+07	2.48E+04	4.99E+04		Not a Site-Wide COC in Groundwater			
103-65-1	n-Propylbenzene		N/A	µg/kg	1.36E+04	- -	1.36E+04	- -		Not a Site-Wide COC in Groundwater			
79-34-5	1,1,2,2-Tetrachloroethane		1400 U	µg/kg	7.19E+00	2.73E+05	3.48E+02	7.19E+00		Not a Site-Wide COC in Groundwater			
127-18-4	Tetrachloroethene	x	**3.30E+03**	µg/kg	8.72E+00	1.07E+06	1.99E+02	8.72E+00	x	**3.60E+01**	8.22E-01	1.52E+03	8.22E-01
108-88-3	Toluene	x	**6.50E+05**	µg/kg	1.90E+04	1.34E+08	1.90E+04	1.09E+05		Not a Site-Wide COC in Groundwater			
71-55-6	1,1,1-Trichloroethane	x	**1.10E+05**	µg/kg	2.78E+04	4.12E+08	2.78E+04	1.20E+06		Not a Site-Wide COC in Groundwater			
79-00-5	1,1,2-Trichloroethane		1.80E+00	µg/kg	2.78E+01	9.57E+05	2.90E+02	2.78E+01	x	**8.50E+00**	5.00E+00	3.67E+03	5.00E+00
79-01-6	Trichloroethene	x	**7.60E+03**	µg/kg	2.00E+00	1.36E+05	8.86E+00	2.00E+00	x	**3.30E+04**	3.02E-01	6.20E+01	3.02E-01
95-63-6	1,2,4-Trimethylbenzene		N/A		2.36E+03	7.27E+07	2.36E+03	- -		Not a Site-Wide COC in Groundwater			
108-67-8	1,3,5-Trimethylbenzene		N/A		2.47E+03	7.27E+07	2.47E+03	- -		Not a Site-Wide COC in Groundwater			
75-01-4	Vinyl Chloride	x	**1.10E+03**	µg/kg	4.59E+00	4.97E+04	1.64E+01	4.59E+00	x	**4.70E+03**	7.31E-01	3.71E+02	7.31E-01
Total Petroleum Hydrocarbons (TPH)													
-	TPH - Gasoline Range	x	**1.40E+04**	mg/kg	3.00E+01	3.00E+01				2.60E+02	8.00E+02	800	
-	TPH - Diesel Range	x	**1.40E+04**	mg/kg	2.00E+03	2.00E+03				10000 U	5.00E+02	500	
-	TPH - Oil Range		1.40E+01	mg/kg	2.00E+03	2.00E+03				25000 U	5.00E+02	500	
-	TPH (range not defined)	x	**5.68E+04**	mg/kg	2.00E+03	2.00E+03				Not a Site-Wide COC in Groundwater			

Notes:

All maximum detections for metals in groundwater represent dissolved metals.

- No CAS Number available.

- - Not calculated (generally, the exposure pathway is incomplete; refer to CMS Volume II for details).

* Screening level was adjusted to RL as referenced in Table 3-4.

** Background was used since no Direct Contact Screening Level for Lead was calculated.

COC Consituent of concern

N/A Not available or not analyzed

[1] In some cases, no detections were reported, therefore the maximum non-detect value is reported with a "U" qualifier (example: 1,1,2,2-Tetrachloroethane at 1400 U µg/kg)

Bold indicates maximum detect exceeds minimum screening level.

Table 2-2 Summary of Groundwater and Soil Data Gap Investigations
South Yard Area
Boeing Plant 2

		Constituent Groups with South Yard COCs								
Location	Date of Most Recent Sampling	VOCs[1]	SVOCs[2]	PCBs[2]	Metals[1]	TPH Dx/ TPH G[3]	Chromium VI[3]	Natural Attenuation[4]	Data Logger[5]	Rationale for Selection of Laboratory Analyses
GROUNDWATER SAMPLING SUMMARY										
Existing Wells										
PL2-027A	n/a								X	Part of groundwater level investigation only. Data gaps will be evaluated with the 2-66 Area.
PL2-106AR	8/20/2002	X			X				X	South Yard SVOC COCs never detected in PL2-106A, never analyzed in PL2-106AR; PCBs never detected in PL2-106A or PL2-106AR.
PL2-106B	3/28/1995	X			X					South Yard SVOC COCs were ND in most recent sampling; PCBs never analyzed but were ND in co-located A-level well.
PL2-106C	7/15/1992	X			X					South Yard SVOC COCs and PCBs not expected because they are ND in co-located A-level well.
PL2-110C	7/15/1992	X			X					SVOCs and PCBs were ND in shallower co-located wells.
PL2-112A	8/15/2002	Δ	Δ	X	Δ	O				All South Yard groundwater COCs to be analyzed. TPH-Dx and TPH-Gx analyzed in groundwater to fill a soil data gap.
PL2-112B	8/15/2002	X			X					VOCs ND in most recent sample; SVOCs and PCBs to be sampled at a later date if detected in PL2-112A.
PL2-113A	8/20/2002	Δ	Δ	X	Δ	O				All South Yard groundwater COCs to be analyzed. TPH-Dx and TPH-Gx analyzed in groundwater to fill soil data gap.
PL2-115A	8/20/2002	Δ	Δ	Δ	Δ	O		X	X	All South Yard groundwater COCs to be analyzed. TPH-Dx and TPH-Gx analyzed in groundwater to fill soil data gap.
PL2-116A	8/20/2002	Δ	Δ	X	Δ	O			X	All South Yard groundwater COCs to be analyzed. TPH-Dx and TPH-Gx analyzed in groundwater to fill soil data gap.
PL2-117A	8/16/2002	Δ	Δ	Δ	Δ	O		X		All South Yard groundwater COCs to be analyzed. TPH-Dx and TPH-Gx analyzed in groundwater to fill a soil data gap.
PL2-120A	9/26/1994	X	X	X	Δ		O	X	X	All South Yard groundwater COCs to be analyzed. Chromium VI analyzed in groundwater to fill a soil data gap.
PL2-151A	2/23/2001	Δ	Δ	O	Δ		O	X	X	South Yard SVOC COCs historically not detected in area (refer to note 6 below). PCB COCs never detected. Chromium VI analyzed to fill a soil data gap.
PL2-151B	2/23/2001	X			X					South Yard SVOC COCs historically not detected in area (refer to note 6 below); PCB COCs never detected.

Table 2-2 Summary of Groundwater and Soil Data Gap Investigations
South Yard Area
Boeing Plant 2

		Constituent Groups with South Yard COCs								
Location	Date of Most Recent Sampling	VOCs[1]	SVOCs[2]	PCBs[2]	Metals[1]	TPH Dx/ TPH G[3]	Chromium VI[3]	Natural Attenuation[4]	Data Logger[5]	Rationale for Selection of Laboratory Analyses
GROUNDWATER SAMPLING SUMMARY										
Existing Wells (cont'd)										
PL2-151C	2/23/2001	X			X					South Yard SVOC COCs historically not detected in area (refer to note 6 below); PCB COCs never detected.
PL2-152A	1/24/2001	Δ	Δ	Δ	Δ		O	X	X	South Yard SVOC COCs historically not detected in area (refer to note 6 below). Chromium VI analyzed to fill a soil data gap.
PL2-152B	1/24/2001	X		X	X					South Yard SVOC COCs historically not detected in area (refer to note 6 below).
PL2-152C	2/26/2001	X			X					South Yard SVOC COCs historically not detected in area (refer to note 6 below); PCB COCs ND in most recent sampling.
PL2-153A	2/26/2004	Δ	Δ	Δ	Δ		O	X	X	South Yard SVOC COCs never detected in area (refer to note below). Chromium VI analyzed in groundwater to fill a soil data gap.
PL2-153B	2/26/2004	X			X					South Yard SVOC COCs historically not detected in area (refer to note 6 below), PCB COCs never detected.
PL2-153C	2/27/2001	X			X					South Yard SVOC COCs historically not detected in area (refer to note 6 below), PCB COCs never detected..
PL2-154A	2/27/2001	Δ	Δ	Δ	Δ		O	X	X	All South Yard groundwater COCs to be analyzed. Chromium VI analyzed in groundwater to fill a soil data gap.
PL2-154B	2/27/2001	X			X					South Yard SVOC COCs historically not detected in area (refer to note 6 below), PCB COCs never detected.
PL2-154C	2/27/2001	X			X					South Yard SVOC COCs historically not detected in area (refer to note 6 below), PCB COCs never detected.
PL2-155A	1/22/2001	X	X	X	X		O	X	X	All South Yard groundwater COCs to be analyzed. Chromium VI analyzed in groundwater to fill a soil data gap.
PL2-155B	2/23/2001	X			X			X		South Yard SVOC COCs historically not detected in area (refer to note 6 below), PCB COCs never detected.

Table 2-2 Summary of Groundwater and Soil Data Gap Investigations
South Yard Area
Boeing Plant 2

		Constituent Groups with South Yard COCs								
Location	Date of Most Recent Sampling	VOCs[1]	SVOCs[2]	PCBs[2]	Metals[1]	TPH Dx/ TPH G[3]	Chromium VI[3]	Natural Attenuation[4]	Data Logger[5]	Rationale for Selection of Laboratory Analyses
GROUNDWATER SAMPLING SUMMARY										
Existing Wells (cont'd)										
PL2-155C	2/23/2001	X			X					South Yard SVOC COCs historically not detected in area (refer to note 6 below), PCB COCs never detected.
PL2-156A	1/23/2001	Δ	Δ	Δ	Δ		O			All South Yard groundwater COCs to be analyzed. Chromium VI analyzed in groundwater to fill a soil data gap.
PL2-JF02A	n/a								X	Part of the groundwater level investigation only. Data gaps will be evaluated with the 2-66 Area.
PL2-JF03A	n/a								X	Part of the groundwater level investigation only. Data gaps will be evaluated with the 2-66 Area.
PL2-JF006	n/a								X	Part of the groundwater level investigation only.
PL2-JF008	n/a								X	Part of the groundwater level investigation only.
PL2-JF015	n/a								X	Part of the groundwater level investigation only.
PL2-JF016	n/a								X	Part of the groundwater level investigation only.
PL2-JF022	n/a								X	Part of the groundwater level investigation only.
PL2-JF023	n/a								X	Part of the groundwater level investigation only.
PL2-JF024	n/a								X	Part of the groundwater level investigation only.
PL2-JF025	n/a								X	Part of the groundwater level investigation only.
New Wells										
PL2-601A	n/a	X		Δ	Δ			X		SVOC COCs not expected at this location because ugradient sampling locations are ND for SVOC COCs.
PL2-601B	n/a	X			X			X		SVOC and PCB COCs are not present above screening levels in the B-level of the aquifer based on existing groundwater data.
PL2-602A	n/a	Δ	Δ	Δ	Δ	O		X		All South Yard groundwater COCs to be analyzed.
PL2-602B	n/a	X			X			X		SVOC and PCB COCs are not present above screening levels in the B-level of the aquifer based on existing groundwater data.

Table 2-2 Summary of Groundwater and Soil Data Gap Investigations
South Yard Area
Boeing Plant 2

		Constituent Groups with South Yard COCs						Natural Attenuation[4]	Data Logger[5]	
Location	Date of Most Recent Sampling	VOCs[1]	SVOCs[2]	PCBs[2]	Metals[1]	TPH Dx/ TPH G[3]	Chromium VI[3]			Rationale for Selection of Laboratory Analyses
GROUNDWATER SAMPLING SUMMARY										
New Wells, (cont'd)										
PL2-603A	n/a	Δ	Δ	Δ	Δ	O		X		All South Yard groundwater COCs to be analyzed. TPH-Dx and TPH-Gx to be analyzed to fill a soil data gap.
PL2-603B	n/a	X			X			X		SVOC and PCB COCs are not present above screening levels in the B-level of the aquifer based on existing groundwater data.
Direct Push Locations										
DP-SY-1	n/a	Δ	Δ	Δ	Δ		O			All South Yard groundwater COCs to be analyzed. Chromium VI to be analyzed to fill a soil data gap. Location is downgradient of SWMU 79B (Cistern 4), east side of SWMU 2-89-68 (Reclamation Yard).
DP-SY-2	n/a	Δ	Δ	Δ	Δ		O			All South Yard groundwater COCs to be analyzed. Chromium VI to be analyzed to fill a soil data gap. Location is downgradient of SWMU 79A (Cisterns 1, 2, 3), east side of SWMU 2-89-68 (Reclamation Yard).
DP-SY-3	n/a	Δ	Δ	Δ	Δ		O			All South Yard groundwater COCs to be analyzed. Chromium VI to be analyzed to fill a soil data gap. Location is downgradient of SWMU 79A (Cisterns 1, 2, 3).
DP-SY-4	n/a	Δ	Δ	Δ	Δ		O			All South Yard groundwater COCs to be analyzed. Chromium VI to be analyzed to fill a soil data gap. Location is downgradient of SWMU 79A (Cisterns 1, 2, 3).
DP-SY-5	n/a	Δ	Δ	Δ	Δ		O			All South Yard groundwater COCs to be analyzed. Chromium VI to be analyzed to fill a soil data gap. Location is downgradient of SWMU 79A (Cisterns 1, 2, 3).
DP-SY-6	n/a	X	X	Δ	Δ					All South Yard groundwater COCs to be analyzed. Location is downgradient of Building 2-83.

Table 2-2 Summary of Groundwater and Soil Data Gap Investigations
South Yard Area
Boeing Plant 2

		Constituent Groups with South Yard COCs								
Location	Date of Most Recent Sampling	VOCs[1]	SVOCs[2]	PCBs[2]	Metals[1]	TPH Dx/ TPH G[3]	Chromium VI[3]	Natural Attenuation[4]	Data Logger[5]	Rationale for Selection of Laboratory Analyses
GROUNDWATER SAMPLING SUMMARY										
Direct Push Locations (cont'd)										
DP-SY-7	n/a	X	X	Δ	Δ					All South Yard groundwater COCs to be analyzed. Location is downgradient of Buiding 2-83.
DP-SY-8	n/a	X	X	Δ	Δ					All South Yard groundwater COCs to be analyzed. Location is downgradient of Buiding 2-83.
DP-SY-9	n/a	X	X	X	Δ					All South Yard groundwater COCs to be analyzed. Location is downgradient of Buiding 2-83.
DP-SY-10	n/a	Δ		Δ	Δ					All South Yard COCs to be analyzed. Locations is downgradient of AOC 2-80.58 (Deactivated Sump).
DP-SY-11	n/a	Δ		Δ	Δ					South Yard SVOC and PCB COCs were not detected in nearby upgradient sampling locations. Location is downgradient of SWMU 78.5 (Oil/Water Separator).
DP-SY-12	n/a	Δ		Δ	Δ					South Yard SVOC and PCB COCs were not detected in nearby upgradient sampling locations. Location is downgradient of SWMU 78.5 (Oil/Water Separator).
SOIL SAMPLING SUMMARY										
New Wells										
PL2-601A	n/a	#		#	#					Soil sample analyses to match groundwater analyses at this location
PL2-601B	n/a									Soil samples taken at A-level borehole only
PL2-602A	n/a	#	#	#	#					Soil sample analyses to match groundwater analyses at this location
PL2-602B	n/a									Soil samples taken at A-level borehole only
PL2-603A	n/a	#	#	#	#	#				Soil sample analyses to match groundwater analyses at this location
PL2-603B	n/a									Soil samples taken at A-level borehole only
Direct Push Locations										
DP-SY-1	n/a	#	#	#	#		#			Soil sample analyses to match groundwater analyses at this location
DP-SY-2	n/a	#	#	#	#		#			Soil sample analyses to match groundwater analyses at this location

Table 2-2 Summary of Groundwater and Soil Data Gap Investigations
South Yard Area
Boeing Plant 2

		Constituent Groups with South Yard COCs								
Location	Date of Most Recent Sampling	VOCs[1]	SVOCs[2]	PCBs[2]	Metals[1]	TPH Dx/ TPH G[3]	Chromium VI[3]	Natural Attenuation[4]	Data Logger[5]	Rationale for Selection of Laboratory Analyses
SOIL SAMPLING SUMMARY										
Direct Push Locations (cont'd)										
DP-SY-3	n/a	#	#	#	#		#			Soil sample analyses to match groundwater analyses at this location
DP-SY-4	n/a	#	#	#	#		#			Soil sample analyses to match groundwater analyses at this location
DP-SY-5	n/a	#	#	#	#		#			Soil sample analyses to match groundwater analyses at this location
DP-SY-6	n/a	#	#	#	#					Soil sample analyses to match groundwater analyses at this location
DP-SY-7	n/a	#	#	#	#					Soil sample analyses to match groundwater analyses at this location
DP-SY-8	n/a	#	#	#	#					Soil sample analyses to match groundwater analyses at this location
DP-SY-9	n/a	#	#	#	#					Soil sample analyses to match groundwater analyses at this location
DP-SY-10	n/a	#		#	#					Soil sample analyses to match groundwater analyses at this location
DP-SY-11	n/a	#		#	#					Soil sample analyses to match groundwater analyses at this location
DP-SY-12	n/a	#		#	#					Soil sample analyses to match groundwater analyses at this location

Notes:

X = groundwater sample to fill groundwater data gap
O = groundwater sample to fill soil data gap
Δ = groundwater sample to fill soil and groundwater data gap
= soil sample to fill soil data gap

1 VOCs and priority pollutant metals will be analyzed at all South Yard Area sampling locations to fill the area-wide data gap for current and concurrent data.

2 SVOC and PCBs will be analyzed at selected locations based on data gap evaluations for individual COCs and pathways.

3 Petroleum hydrocarbons and chromium VI will be analyzed for in groundwater at selected locations to support the soil data gap investigation process.

4 Natural Attenuation parameter sampling locations were selected to adequately account for spatial variability in NA parameter concentrations in the South Yard area.

5 Datalogger locations were selected to provide adequate spatial coverage to provide water level data that will be used to determine South Yard groundwater flow directions.

6 bis(2-Ethyhexyly)phthalate and 2,4-dimethylphenol historically analyzed at abandoned wells in the cisterns area: PL2-101A/B/C, PL2-102A/B/C, PL2-104A/B/C, PL2-105A/B/C, PL2-107A, PL2-108A, PL2-109A/B/C, and PL2-111A. All historical concentrations were less than screening levels, with the exception of bis(2-ethylhexyly)phthalate (5 µg/L) at PL2-104C.

n/a	Not applicable	TPH	Total petroleum hydrocarbon
NA	Natural attenuation parameters	VOCs	Volatile organic compounds
ND	Non-detect		
PCBs	Polychlorinated biphenyls		
SVOCs	Semivolatile organic compounds		

Table 2-3 Locations of COCs Detected Above Screening Levels in Groundwater
South Yard Area
Boeing Plant 2

CAS Number	Constituent of Concern	Range of Detects above Screening Levels (µg/L)	Nearest RCRA Unit								
			SWMU 2-89.68	SWMU 2-91.70	SWMU 79A	SWMU 79B	SWMU 2-87.65	SWMU 2-104.71	SWMU 78B	AOC 2-80.58	OA 3
Metals											
7440-38-2	Arsenic	0.4 to 99.3	Max	X	X	X					
7440-50-8	Copper	3.5 to 43				Max					
7439-92-1	Lead	10					Max	X	X		
7439-96-5	Manganese	102 to 6,770	Max	X	X	X	X	X	X		X
7440-02-0	Nickel (soluble salts)	10 to 20		X							Max
7782-49-2	Selenium	90 to 130				X	X	Max	X		
Semivolatile Organic Compounds (SVOCs) and Polychlorinated Biphenyls (PCBs)											
105-67-9	2,4-Dimethylphenol	520		Max							
117-81-7	bis(2-Ethylhexyl)phthalate	5 to 13		Max		X					
11097-69-1	Aroclor 1254/Total PCBs	0.018 to 1.9	X			Max					
Volatile Organic Compounds (VOCs)											
71-43-2	Benzene	5.1 to 200		X							Max
75-35-4	1,1-Dichloroethene	0.5 to 64	X	X		Max					
156-59-2	cis-1,2-Dichloroethene	2,400 to 110,000				Max					
127-18-4	Tetrachloroethene	1.1 to 36	X	X		X	Max				
79-00-5	1,1,2-Trichloroethane	8.5					Max				
79-01-6	Trichloroethene	0.5 to 33,000	X	X	X	Max	X			X	
75-01-4	Vinyl Chloride	0.75 to 4,700	X	X	X	Max	X			X	

Notes:

X COC detected above screening levels

Max maximum COC detection noted at this unit

Table 2-4 Locations of COCs Detected Above Screening Levels in Soil
South Yard Area
Boeing Plant 2

CAS Number	Constituent of Concern	Range of Detects Above Soil Screening Levels Protective of Surface Water and/or Direct Contact	RCRA Units																Non-RCRA Areas			
			AOC 2-80.58	AOC 2-84.62	AOC 2-86.63	SWMU 78.B	SWMU 78.1	SWMU 78.5	SWMU 79.A (Cistern 1,2,3)	SWMU 79.B (Cistern 4)	SWMU 79.C (Cistern 5)	SWMU 2-80.56	SWMU 2-80.57	SWMU 2-87.65	SWMU 2-89.68	SWMU 2-91.70	OA 3	OA 10	OA 16	Building 2-80	Building 2-83	Building 2-84	North of AOC 2-86.63
Metals (mg/kg)																						
7440-38-2	Arsenic	5.3 to 12			X				X						X	X					Max	X	
7440-43-9	Cadmium	1.6 to 3,700							X	Max	X					X					X		
7440-50-8	Copper[a]	7.1 to 830			X					Max	X					X					X		X
18540-29-9	Chromium (VI)	1,300								Max													
7439-96-5	Manganese[a]	130 to 517														X							
7439-97-6	Mercury	0.05 to 1.72								X					X	Max				X	X		Max
7440-02-0	Nickel (soluble salts)[a]	11 to 610								Max													
7440-50-8	Selenium	8 to 9	X								X	X			Max								
7439-92-1	Silver	0.4 to 22								Max	X		X		X	X							
7439-96-5	Thallium (soluble salts)	6 to 56	X								X	X	X		Max	X				X			
7782-49-2	Zinc	104 to 26,000							X	Max						Max							X
Semivolatile Organic Compounds (SVOCs) and Polychlorinated Biphenyls (PCBs), (µg/kg)																							
56-55-3	Benzo(a)anthracene	100													X						Max		
205-99-2	Benzo(b)fluoranthene	840													Max								
207-08-9	Benzo(k)fluoranthene	840													Max								
50-32-8	Benzo(a)pyrene	1,400													Max								
218-01-9	Chrysene	57 to 130										X			X						Max		
53-70-3	Dibenz(a,h)anthracene	1,900													Max								
117-81-7	bis(2-Ethylhexyl)phthalate	330,000									Max				X	X							
193-39-5	Indeno(1,2,3-cd)pyrene	2,000													Max								
-	Aroclor 1016/1242	820 to 900														Max					X		
-	Aroclor 1248	130,000														Max							
105-67-9	Aroclor 1254	56 to 81,000		X					X	X				X	X	Max							
117-81-7	Aroclor 1260	45 to 260	X							X				X	Max	X							
11097-69-1	Total PCBs	0.018 to 1.9	X	X					X	X				X	X	Max					X		
Volatile Organic Compounds (VOCs), (µg/kg)																							
71-43-2	Benzene	33 to 49,000														X	Max						
75-35-4	1,1-Dichloroethene	11 to 230												X	X	Max							
156-59-2	cis-1,2-Dichloroethene*	NA																					
100-41-4	Ethylbenzene	260,000															Max						
75-09-2	Methylene Chloride	1,100 to 1,900													Max								
127-18-4	Tetrachloroethene	9.1 to 3,300							X						X	Max							
108-88-3	Toluene	650,000															Max						
79-00-5	1,1,1-Trichloroethane*	NA																					
79-01-6	Trichloroethene	2.0 to 7,600				X		X	X	X				X	X	Max			X				
75-01-4	Vinyl Chloride	8.2 to 1,100				X				X					Max	X							

Notes:

a COC unit or area association is based on concentrations being exhibited above the Puget Sound Basin Ecology (1994) calculated background concentration.

X COC detected above screening levels

Max Maximum COC detection noted at this unit

* COC status is based solely on preliminary soil to air pathway screening level. An air pathway evaluation will be performed in the addendum to the work plan.

Table 3-1 Proposed CMS Data Gap Soil Sampling
South Yard Area
Boeing Plant 2

Sample Location	Soil Sampling Interval (feet bgs)	Approximate Screened Interval (feet bgs)	Analyses					
			VOCs (8260B)	SVOCs (8270C)	WTPH-G and WTPH-Dx	Chromium VI (7196)	PCBs (8082)	Priority Pollutant Metals (200.8/3500/6010/7000 Series)
New Wells								
PL2-601A	0 to 1 4 to 5 9 to 10	6 to 16	X				X	X
PL2-601B	0 to 1 4 to 5 9 to 10	45 to 50						
PL2-602A	0 to 1 4 to 5 9 to 10	6 to 16	X	X			X	X
PL2-602B	0 to 1 4 to 5 9 to 10	45 to 50						
PL2-603A	0 to 1 4 to 5 9 to 10	6 to 16	X	X	X		X	X
PL2-603B	0 to 1 4 to 5 9 to 10	45 to 50						

Table 3-1 Proposed CMS Data Gap Soil Sampling
South Yard Area
Boeing Plant 2

Sample Location	Soil Sampling Interval (feet bgs)	Approximate Screened Interval (feet bgs)	Analyses					
			VOCs (8260B)	SVOCs (8270C)	WTPH-G and WTPH-Dx	Chromium VI (7196)	PCBs (8082)	Priority Pollutant Metals (200.8/3500/6010/7000 Series)
Direct Push Probes								
DP-SY-1	0 to 1 4 to 5 9 to 10	10 to 14	X	X		X	X	X
DP-SY-2	0 to 1 4 to 5 9 to 10	10 to 14	X	X		X	X	X
DP-SY-3	0 to 1 4 to 5 9 to 10	10 to 14	X	X		X	X	X
DP-SY-4	0 to 1 4 to 5 9 to 10	10 to 14	X	X		X	X	X
DP-SY-5	0 to 1 4 to 5 9 to 10	10 to 14	X	X		X	X	X
DP-SY-6	0 to 1 4 to 5 9 to 10	10 to 14	X	X			X	X

Table 3-1 Proposed CMS Data Gap Soil Sampling
South Yard Area
Boeing Plant 2

Sample Location	Soil Sampling Interval (feet bgs)	Approximate Screened Interval (feet bgs)	Analyses					
			VOCs (8260B)	SVOCs (8270C)	WTPH-G and WTPH-Dx	Chromium VI (7196)	PCBs (8082)	Priority Pollutant Metals (200.8/3500/6010/7000 Series)
Direct Push Probes (cont'd)								
DP-SY-7	0 to 1 4 to 5 9 to 10	10 to 14	X	X			X	X
DP-SY-8	0 to 1 4 to 5 9 to 10	10 to 14	X	X			X	X
DP-SY-9	0 to 1 4 to 5 9 to 10	10 to 14	X	X			X	X
DP-SY-10	0 to 1 4 to 5 9 to 10	10 to 14	X				X	X
DP-SY-11	0 to 1 4 to 5 9 to 10	10 to 14	X					X
DP-SY-12	0 to 1 4 to 5 9 to 10	10 to 14	X					X

Notes:
bgs below ground surface

Table 3-2 Laboratory Methods and Sample Requirements
South Yard Area
Boeing Plant 2

Constituent Group	Method	Estimated Number of Samples	Containers per Sample	Handling & Preservation	Holding Time
Soil Samples					
VOCs	USEPA 8260B	45 field samples, 1 equipment blank, 2 MS, 2 MSD (50 total)	2-oz wide-mouth jar with septum cap	No headspace Stored at 4^{O}C	14 days
SVOCs	USEPA 8270C	33 field samples, 1 equipment blank 2 MS, 2 MSD (38 total)	8-oz wide-mouth jar	Stored at 4^{O}C	14 days to extract 40 days to analyze extracts
Gasoline-range Petroleum Hydrocarbons	NWTPH-G	3 field samples, 1 equipment blank (4 total)	2-oz wide-mouth jar with septum cap	No headspace Stored at 4^{O}C	14 days to extract 40 days to analyze extracts
Diesel-range Petroleum Hydrocarbons	NWTPH-Dx with silica jel cleanup	3 field samples, 1 equipment blank (4 total)	4-oz wide-mouth jar	Stored at 4^{O}C	14 days to extract 40 days to analyze extracts
Metals[1]	USEPA 200.8 3500, 6010- and 7000-Series	45 field samples, 1 equipment blank, 2 MS, 2 MSD (50 total)	4-oz wide-mouth jar	Stored at 4^{O}C	6 months 28 days for mercury
Chromium VI	USEPA 7196, 3060A	15 field samples, 1 equipment blank, 1 MS, 1 MSD (18 total)	4-oz wide-mouth jar	Stored at 4^{O}C	28 days
PCBs	USEPA 8082	39 field samples, 1 equipment blank, 2 MS, 2 MSD (44 total)	8-oz wide-mouth jar	Stored at 4^{O}C	14 days

Table 3-2 Laboratory Methods and Sample Requirements
South Yard Area
Boeing Plant 2

Groundwater Samples					
VOCs	USEPA 8260B	45 field samples, 4 duplicates, 4 trip blanks, 2 MS, 2 MSD (57 total)	Three 40-mL vials	Preserved with HCl to pH less than 2.0* No headspace Stored at 4^{O}C	14 days (preserved)
SVOCs	USEPA 8270C	23 field samples, 2 duplicates, 1 MS, 1 MSD (27 total)	Two 1-liter amber glass bottles	Stored at 4^{O}C	7 days to extract 40 days to analyze extracts
Diesel Range Petroleum Hydrocarbons	NWTPH-Dx with silica gel cleanup	7 field samples, 1 duplicate, 1 MS, 1 MSD (10 total)	two 500-mL amber glass bottles	Stored at 4^{O}C	7 days to extract 40 days to analyze extracts
Gasoline Range Petroleum Hydrocarbons	NWTPH-G	7 field samples, 1 duplicate, 1 MS, 1 MSD (10 total)	Two 40-mL vials	Preserved with HCl to pH less than 2.0* No headspace Stored at 4^{O}C	7 days (unpreserved) 14 days (preserved)
Dissolved Metals[1]	USEPA 200.8, 3500, 6010- and 7000-Series	Maximum 45 field samples, 4 duplicates, 2 MS, 2 MSD (53 total)	One 1-liter HDPE bottle	Filtered (probe and well samples) Preserved with HNO_3* Stored at 4^{O}C	6 months 28 days for mercury
Total Metals[1]	USEPA 200.8, 3500, 6010- and 7000-Series	Maximum 33 field samples, 3 duplicates, 2 MS, 2 MSD (40 total)	One 1-liter HDPE bottle	Unfiltered well samples (only if turbidity is <5 NTUs) Preserved with HNO_3* Stored at 4^{O}C	6 months 28 days for mercury
Chromium VI	USEPA 7196	12 field samples, 1 duplicate, 1 MS, 1 MSD (15 total)	One 500-mL HDPE bottle	Filtered (probe and well samples) Stored at 4^{O}C	24 hours
PCBs	USEPA 8082	28 field samples, 3 duplicates, 1 MS, 1 MSD (33 total)	Two 500 mL amber glass bottles	Stored at 4^{O}C	7 days (40 days for extract)
Redox Parameters: Nitrate, Nitrite, Sulfate	Various methods including USEPA 300-series	15 field samples, 1 field duplicate, 1 MS, 1 MSD (18 total)	One 500 mL HDPE bottle	Stored at 4^{O}C	48 hours for nitrate, nitrite 28 days for sulfate

Table 3-2 Laboratory Methods and Sample Requirements
South Yard Area
Boeing Plant 2

Ammonia	USEPA 350.1	15 field samples, 1 field duplicate, 1 MS, 1 MSD (18 total)	One 500 mL HDPE bottle	Preserved with H_2SO_4* to pH of < 2 Stored at 4^OC	28 days
Ferrous Iron	Hach Kit	15 field samples, 1 field duplicate, (16 total)	Analysis performed in the field	Analysis performed in the field	Analysis performed in the field
Sulfide	376.2	15 field samples, 1 field duplicate, 1 MS, 1 MSD (18 total)	One 500-mL HDPE bottle	Preserved with NaOH to pH greater than 9, Zinc Acetate (2N 4 drops/100 mL), no headspace Stored at 4^OC	7 days
TOC	USEPA 415.1	15 field samples, 1 field duplicate, 1 MS, 1 MSD (18 total)	250-mL amber glass bottle	Preserved with H_2SO_4* to pH of < 2 Stored at 4^OC	28 days

Notes:

* Sample containers provided by the laboratory are pre-preserved.
MS Matrix spike
MSD Matrix spike duplicate
PCBs Polychlorinated biphenyls
SVOCs Semivolatile organic compounds
TOC Total organic carbon
VOCs Volatile organic compounds
[1] Metals analysis to include all Plant 2 site-wide groundwater and soil constituents of concern plus iron and any other metal whose concentration is greater than one-half the groundwater or soil screening level: antimony, arsenic, cadmium, copper, iron, lead, manganese, mercury, nickel, selenium, silver, thallium, vanadium and zinc

Table 3-3 CMS Data Gap Groundwater Sampling
South Yard Area
Boeing Plant 2

Sample Locations	Analyses						
	VOCs (8260B)	SVOCs (8270C)	WTPH-G & WTPH-DX	PCBs (8082)	Priority Pollutant Metals (200.8/3500/6010/ 7000 Series)	Chromium VI (7196)	Natural Attenuation Parameters (various methods)
New Wells							
PL2-601A	X			X	X		X
PL2-601B	X				X		X
PL2-602A	X	X		X	X		X
PL2-602B	X				X		X
PL2-603A	X	X	X	X	X		X
PL2-603B	X				X		X
Existing Wells							
PL2-106-AR	X				X		
PL2-106B	X				X		
PL2-106C	X				X		
PL2-110C	X				X		
PL2-112A	X	X	X	X	X		
PL2-112B	X				X		
PL2-113A	X	X	X	X	X		
PL2-115A	X	X	X	X	X		X
PL2-116A	X	X	X	X	X		
PL2-117A	X	X	X	X	X		X

Table 3-3 CMS Data Gap Groundwater Sampling
South Yard Area
Boeing Plant 2

Sample Locations	Analyses						
	VOCs (8260B)	SVOCs (8270C)	WTPH-G & WTPH-DX	PCBs (8082)	Priority Pollutant Metals (200.8/3500/6010/ 7000 Series)	Chromium VI (7196)	Natural Attenuation Parameters (various methods)
Existing Wells (cont'd)							
PL2-120A	X	X		X	X	X	X
PL2-151A	X				X	X	X
PL2-151B	X				X		
PL2-151C	X				X		
PL2-152A	X			X	X	X	X
PL2-152B	X			X	X		
PL2-152C	X				X		
PL2-153A	X	X		X	X	X	X
PL2-153B	X				X		
PL2-153C	X				X		
PL2-154A	X	X		X	X	X	X
PL2-154B	X				X		
PL2-154C	X				X		
PL2-155A	X	X		X	X	X	X
PL2-155B	X				X		X
PL2-155C	X				X		
PL2-156A	X	X		X	X	X	

Table 3-3 CMS Data Gap Groundwater Sampling
South Yard Area
Boeing Plant 2

Sample Locations	Analyses						
	VOCs (8260B)	SVOCs (8270C)	WTPH-G & WTPH-DX	PCBs (8082)	Priority Pollutant Metals (200.8/3500/6010/ 7000 Series)	Chromium VI (7196)	Natural Attenuation Parameters (various methods)
Direct-Push Probes							
DP-SY-1	X	X		X	X	X	
DP-SY-2	X	X		X	X	X	
DP-SY-3	X	X		X	X	X	
DP-SY-4	X	X		X	X	X	
DP-SY-5	X	X		X	X	X	
DP-SY-6	X	X		X	X		
DP-SY-7	X	X		X	X		
DP-SY-8	X	X		X	X		
DP-SY-9	X	X		X	X		
DP-SY-10	X			X	X		
DP-SY-11	X				X		
DP-SY-12	X				X		

Notes:

* Metals analysis will include chromium (VI) by EPA Method 7196.

Table 3-4 Reporting Limits Compared to Screening Levels for Analytes
South Yard Area
Boeing Plant 2

		Soil (refer to Laboratory RL Units)										Groundwater (µg/L)						
CAS Number	Analytes	Analytical Method	Laboratory RL		Sitewide Soil COC	South Yard Area Soil COC	Background (Metals)	Minimum Calculated Soil Screening Level	Direct Contact Screening Level	Air Pathway Screening Level	Surface Water Pathway Screening Level	Analytical Method	Laboratory RL	Sitewide Groundwater COC	South Yard Area Groundwater COC	Minimum Calculated Groundwater Screening Level	Air Pathway Screening Level	Surface Water Pathway Screening Level
Metals and Cyanide																		
7429-90-5	Aluminum	6010	5.0	mg/kg			*		- -	- -	- -	6010	50.0				- -	- -
7440-36-0	Antimony	6010	5.0	mg/kg	X		*	3.40E+02	5.33E+02	- -	3.40E+02	6010	50.0			3.76E+02	- -	3.76E+02
7440-38-2	**Arsenic**	6010	**5.0**	mg/kg	X	X	7	1.13E-02	3.33E+01	3.22E+04	1.13E-02	200.8	**0.2**	X	X	1.94E-02	- -	1.94E-02
7440-39-3	Barium	6010	0.3	mg/kg			*	9.33E+04	9.33E+04	4.62E+05	- -	6010	3.0				- -	- -
7440-41-7	Beryllium	6010	0.1	mg/kg			*	1.63E+02	2.67E+03	2.64E+04	1.63E+02	6010	1.0			9.90E+01	- -	9.90E+01
7440-43-9	Cadmium	6010	0.2	mg/kg	X	X	1	1.01E+00	6.67E+02	7.70E+04	1.01E+00	6010	2.0	X		7.35E+00	- -	7.35E+00
16065-83-1	Chromium (III)			mg/kg			*		2.00E+06	- -	- -					8.82E+04	- -	8.82E+04
18540-29-9	Chromium (VI)	3500	0.2	mg/kg	X	X	*	1.92E+01	4.00E+03	1.06E+04	1.92E+01	3500	10.0			5.00E+01	- -	5.00E+01
7440-47-3	Chromium (Total)	6010	0.5	mg/kg			*		- -	- -	- -	6010	5.0				- -	- -
7440-48-4	Cobalt	6010	0.3	mg/kg			*		- -	- -	- -	6010	3.0				- -	- -
7440-50-8	Copper	6010	0.2	mg/kg	X	X	36	1.38E+00	4.93E+04	- -	1.38E+00	200.8	0.5	X	X	3.10E+00	- -	3.10E+00
7439-89-6	Iron	6010	5.0	mg/kg			*		- -	- -	- -	6010	50.0				- -	- -
7439-92-1	Lead	6010	2.0	mg/kg	X		24	1.62E+03	- -	- -	1.62E+03	200.8	1.0	X	X	8.10E+00	- -	8.10E+00
7439-95-4	Magnesium	6010	5.0	mg/kg			*		- -	- -	- -	6010	50.0				- -	- -
7439-96-5	Manganese	6010	0.1	mg/kg	X	X	1,200	1.30E+02	1.87E+05	- -	1.30E+02	6010	1.0	X	X	1.00E+02	- -	1.00E+02
7439-97-6	Mercury	7471	0.05	mg/kg	X	X	0.07	6.39E-03	4.19E+01	6.39E-03	2.61E-02	1631	0.03	X		2.50E-02	1.84E+02	2.50E-02
7439-98-7	Molybdenum	6010	0.5	mg/kg			*	6.67E+03	6.67E+03	- -	- -	6010	5.0				- -	- -
7440-02-0	Nickel (soluble salts)	6010	1.0	mg/kg	X	X	48	1.07E+01	2.67E+04	- -	1.07E+01	200.8	0.5	X	X	8.20E+00	- -	8.20E+00
7782-49-2	Selenium	6010	5.0	mg/kg	X	X	*	7.38E+00	6.67E+03	- -	7.38E+00	6010	50.0	X	X	7.10E+01	- -	7.10E+01
7440-22-4	Silver	6010	0.3	mg/kg	X	X	*	3.23E-01	6.67E+03	- -	3.23E-01	200.8	0.5	X		1.90E+00	- -	1.90E+00
7440-28-0	Thallium (soluble salts)	200.8	0.2	mg/kg	X	X	*	6.69E-01	8.64E+01	- -	6.69E-01	200.8	0.2	X		4.70E-01	- -	4.70E-01
7440-31-5	Tin	6010	1.0	mg/kg			*		8.00E+05	- -	- -	6010	10.0				- -	- -
7440-62-2	Vanadium	6010	0.3	mg/kg			*	9.33E+03	9.33E+03	- -	4.12E+04	6010	3.0			2.06E+03	- -	2.06E+03
7440-66-6	Zinc	6010	0.6	mg/kg	X	X	85	1.01E+02	4.00E+05	- -	1.01E+02	6010	6.0	X		8.10E+01	- -	8.10E+01
57-12-5	**Cyanide**	335.2	0.1	mg/kg	X		*	2.02E-01	2.67E+04	- -	2.02E-01	335.2	**5.0**	X		1.00E+00	- -	1.00E+00
Semivolatile Organic Compounds (SVOCs) and Polychlorinated Biphenyls (PCBs)																		
83-32-9	Acenaphthene	8270	67.0	µg/kg			*	2.38E+04	0.00E+00	- -	2.38E+04	8270	0.1			2.33E+02	- -	2.33E+02
208-96-8	Acenaphthylene	8270	67.0	µg/kg			*		0.00E+00	- -	- -	8270	0.1				- -	- -
120-12-7	Anthracene	8270	67.0	µg/kg			*	4.46E+06	0.00E+00	- -	4.46E+06	8270	0.1			9.40E+03	- -	9.40E+03
56-55-3	**Benzo(a)anthracene**	8270 (SIM)	6.7	µg/kg	X	X	*	4.19E+01	3.42E+03	- -	4.19E+01	8270	**0.1**	X		5.86E-03	- -	5.86E-03
205-99-2	**Benzo(b)fluoranthene**	8270 (SIM)	6.7	µg/kg	X	X	*	1.44E+02	3.42E+03	- -	1.44E+02	8270	**0.1**	X		5.86E-03	- -	5.86E-03
207-08-9	**Benzo(k)fluoranthene**	8270 (SIM)	6.7	µg/kg	X	X	*	1.44E+02	3.42E+03	- -	1.44E+02	8270	**0.1**	X		5.86E-03	- -	5.86E-03
191-24-2	Benzo(g,h,i)perylene	8270	67.0	µg/kg			*		- -	- -	- -	8270	0.1				- -	- -
50-32-8	**Benzo(a)pyrene**	8270 (SIM)	6.7	µg/kg	X	X	*	1.13E+02	3.42E+03	7.95E+07	1.13E+02	8270	**0.1**	X		5.86E-03	- -	5.86E-03
65-85-0	Benzoic Acid	8270	670.0	µg/kg			*		- -	- -	- -	8270	10.0				- -	- -
100-51-6	Benzyl alcohol	8270	330.0	µg/kg			*		- -	- -	- -	8270	5.0				- -	- -
101-55-3	4-Bromophenyl-phenylether	8270	67.0	µg/kg			*		- -	- -	- -	8270	1.0				- -	- -
85-68-7	Butylbenzylphthalate	8270	67.0	µg/kg			*	1.27E+05	1.33E+08	- -	1.27E+05	8270	1.0			4.54E+02	- -	4.54E+02
86-74-8	Carbazole	8270	67.0	µg/kg			*	1.25E+06	1.25E+06	- -	- -	8270	1.0				- -	- -
106-47-8	4-Chloroaniline	8270	200.0	µg/kg			*		- -	- -	- -	8270	3.0				- -	- -
111-91-1	bis(2-Chloroethoxy) Methane	8270	67.0	µg/kg			*		- -	- -	- -	8270	1.0				- -	- -
111-44-4	Bis-(2-Chloroethyl) Ether	8270	130.0	µg/kg			*		- -	- -	- -	8270	2.0				- -	- -
59-50-7	4-Chloro-3-methylphenol	8270	130.0	µg/kg			*		- -	- -	- -	8270	2.0				- -	- -
91-58-7	2-Chloronaphthalene	8270	67.0	µg/kg			*		- -	- -	- -	8270	1.0				- -	- -
95-57-8	2-Chlorophenol	8270	67.0	µg/kg			*		- -	- -	- -	8270	1.0				- -	- -
7005-72-3	4-Chlorophenyl-phenylether	8270	67.0	µg/kg			*		- -	- -	- -	8270	1.0				- -	- -
218-01-9	**Chrysene**	8270 (SIM)	6.7	µg/kg	X	X	*	4.66E+01	3.42E+03	- -	4.66E+01	8270	**0.1**	X		5.86E-03	- -	5.86E-03
53-70-3	**Dibenz(a,h)anthracene**	8270 (SIM)	6.7	µg/kg	X	X	*	2.10E+02	3.42E+03	- -	2.10E+02	8270	**0.1**	X		5.86E-03	- -	5.86E-03
132-64-9	Dibenzofuran	8270	67.0	µg/kg			*		- -	- -	- -	8270	0.1				- -	- -
84-74-2	Di-n-butylphthalate	8270	67.0	µg/kg			*	3.73E+04	6.67E+07	- -	3.73E+04	8270	1.0			1.06E+03	- -	1.06E+03
91-94-1	3,3'-Dichlorobenzidine	8270	330.0	µg/kg			*		- -	- -	- -	8270	5.0				- -	- -
120-83-2	2,4-Dichlorophenol	8270	200.0	µg/kg			*		- -	- -	- -	8270	10.0				- -	- -
84-66-2	Diethylphthalate	8270	67.0	µg/kg			*	5.81E+04	5.33E+08	- -	5.81E+04	8270	1.0			1.03E+04	- -	1.03E+04
105-67-9	2,4-Dimethylphenol	8270	200.0	µg/kg	X		*	1.64E+03	1.33E+07	- -	1.64E+03	8270	3.0	X	X	2.01E+02	- -	2.01E+02
131-11-3	Dimethylphthalate	8270	67.0	µg/kg	X		*	1.24E+05	6.67E+08	- -	1.24E+05	8270	1.0			2.61E+04	- -	2.61E+04
534-52-1	4,6-Dinitro-2-methylphenol	8270	670.0	µg/kg			*		- -	- -	- -	8270	10.0				- -	- -
117-84-0	Di-n-octylphthalate	8270	67.0	µg/kg			*	1.33E+07	1.33E+07	- -	- -	8270	1.0				- -	- -

Table 3-4 Reporting Limits Compared to Screening Levels for Analytes
South Yard Area
Boeing Plant 2

CAS Number	Analytes	Soil (refer to Laboratory RL Units)										Groundwater (µg/L)						
		Analytical Method	Laboratory RL		Sitewide Soil COC	South Yard Area Soil COC	Background (Metals)	Minimum Calculated Soil Screening Level	Direct Contact Screening Level	Air Pathway Screening Level	Surface Water Pathway Screening Level	Analytical Method	Laboratory RL	Sitewide Groundwater COC	South Yard Area Groundwater COC	Minimum Calculated Groundwater Screening Level	Air Pathway Screening Level	Surface Water Pathway Screening Level
SVOC's and PCB's (cont'd)																		
51-28-5	2,4-Dinitrophenol	8270	670.0	µg/kg			*		- -	- -	- -	8270	10.0				- -	- -
121-14-2	2,4-Dinitrotoluene	8270	330.0	µg/kg			*		- -	- -	- -	8270	5.0				- -	- -
606-20-2	2,6-Dinitrotoluene	8270	330.0	µg/kg			*		- -	- -	- -	8270	5.0				- -	- -
117-81-7	**bis(2-Ethylhexyl)phthalate**	8270	67.0	µg/kg	X	X	*	1.57E+03	1.79E+06	- -	1.57E+03	8270	**3.0**	X	X	7.05E-01	- -	7.05E-01
206-44-0	Fluoranthene	8270	67.0	µg/kg	X		*	3.23E+04	2.67E+07	- -	3.23E+04	8270	0.1			3.27E+01	- -	3.27E+01
86-73-7	Fluorene	8270	67.0	µg/kg			*	1.98E+05	2.67E+07	- -	1.98E+05	8270	0.1			1.25E+03	- -	1.25E+03
118-74-1	Hexachlorobenzene	8270	67.0	µg/kg			*		- -	- -	- -	8270	1.0				- -	- -
77-47-4	Hexachlorocyclopentadiene	8270	330.0	µg/kg			*		- -	- -	- -	8270	5.0				- -	- -
67-72-1	Hexachloroethane	8270	130.0	µg/kg			*		- -	- -	- -	8270	2.0				- -	- -
193-39-5	**Indeno(1,2,3-cd)pyrene**	8270 (SIM)	6.7	µg/kg	X	X	*	4.06E+02	3.42E+03	- -	4.06E+02	8270	**0.1**	X		5.86E-03	- -	5.86E-03
78-59-1	Isophorone	8270	67.0	µg/kg			*		- -	- -	- -	8270	1.0				- -	- -
91-57-6	2-Methylnaphthalene	8270	67.0	µg/kg			*		- -	- -	- -	8270	0.1				- -	- -
95-48-7	2-Methylphenol	8270	67.0	µg/kg			*	3.33E+07	3.33E+07	- -	- -	8270	1.0				- -	- -
106-44-5	4-Methylphenol	8270	67.0	µg/kg			*	3.33E+06	3.33E+06	- -	- -	8270	1.0				- -	- -
88-74-4	2-Nitroaniline	8270	330.0	µg/kg			*		- -	- -	- -	8270	5.0				- -	- -
99-09-2	3-Nitroaniline	8270	400.0	µg/kg			*		- -	- -	- -	8270	5.0				- -	- -
100-01-6	4-Nitroaniline	8270	330.0	µg/kg			*		- -	- -	- -	8270	5.0				- -	- -
98-95-3	Nitrobenzene	8270	67.0	µg/kg			*		- -	- -	- -	8270	1.0				- -	- -
88-75-5	2-Nitrophenol	8270	330.0	µg/kg			*		- -	- -	- -	8270	5.0				- -	- -
100-02-7	4-Nitrophenol	8270	330.0	µg/kg			*		- -	- -	- -	8270	5.0				- -	- -
621-64-7	N-Nitroso-di-n-propylamine	8270	130.0	µg/kg			*		- -	- -	- -	8270	2.0				- -	- -
86-30-6	N-Nitrosodiphenylamine	8270	67.0	µg/kg			*	5.10E+06	5.10E+06	- -	- -	8270	5.0				- -	- -
108-60-1	2,2'-Oxybis(1-Chloropropane)	8270	67.0	µg/kg			*		- -	- -	- -	8270	1.0				- -	- -
87-86-5	Pentachlorophenol	8270	330.0	µg/kg			*		- -	- -	- -	8270	5.0				- -	- -
85-01-8	Phenanthrene	8270	67.0	µg/kg			*		- -	- -	- -	8270	0.1				- -	- -
108-95-2	Phenol	8270	130.0	µg/kg			*	9.23E+05	2.00E+08	- -	9.23E+05	8270	2.0			2.02E+05	- -	2.02E+05
129-00-0	Pyrene	8270	67.0	µg/kg			*	1.28E+06	2.00E+07	- -	1.28E+06	8270	0.1			9.40E+02	- -	9.40E+02
95-95-4	2,4,5-Trichlorophenol	8270	330.0	µg/kg			*		- -	- -	- -	8270	5.0				- -	- -
88-06-2	2,4,6-Trichlorophenol	8270	330.0	µg/kg			*		- -	- -	- -	8270	5.0				- -	- -
12674-11-2	Aroclor 1016	8082	33.0	µg/kg			*		- -	- -	- -	8082	0.01				- -	- -
-	**Aroclor 1016/1242**	8082	**33.0**	µg/kg	X	X	*	1.38E-01	4.67E+04	- -	1.38E-01	8082	**0.01**	X		6.40E-05	- -	6.40E-05
11104-28-2	Aroclor 1221	8082	33.0	µg/kg			*		- -	- -	- -	8082	0.01				- -	- -
11141-16-5	Aroclor 1232	8082	33.0	µg/kg			*		- -	- -	- -	8082	0.01				- -	- -
53469-21-9	Aroclor 1242	8082	33.0	µg/kg			*		- -	- -	- -	8082	0.01				- -	- -
12672-29-6	Aroclor 1248	8082	33.0	µg/kg			*		- -	- -	- -	8082	0.01				- -	- -
11097-69-1	**Aroclor 1254**	8082	**33.0**	µg/kg	X	X	*	1.08E+00	1.33E+04	- -	1.08E+00	8082	**0.01**	X	X	6.40E-05	- -	6.40E-05
11096-82-5	**Aroclor 1260**	8082	**33.0**	µg/kg	X	X	*	1.05E+00	- -	- -	1.05E+00	8082	**0.01**	X		6.40E-05	- -	6.40E-05
37324-23-5	Aroclor 1262	8082	33.0	µg/kg			*		- -	- -	- -	8082	0.01				- -	- -
11100-14-4	**Aroclor 1268**	8082	33.0	µg/kg			*		- -	- -	- -	8082	**0.01**			6.40E-05	- -	6.40E-05
-	**Total PCBs**	8082	33.0	µg/kg	X	X	*		- -	- -	3.96E-01	8082	**0.01**	X	X	6.40E-05	- -	6.40E-05
Volatile Organic Compounds (VOCs)																		
67-64-1	Acetone	8260	5.0	µg/kg			*	3.55E+05	3.05E+08	3.55E+05	- -	8260	1.0			6.43E+06	6.43E+06	- -
107-02-8	Acrolein	8260	50.0	µg/kg			*		- -	- -	- -	8260	5.0				- -	- -
107-13-1	Acrylonitrile	8260	5.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
71-43-2	Benzene	8260	1.0	µg/kg	X	X	*	2.53E+01	1.36E+06	1.04E+02	2.53E+01	8260	0.2	X	X	4.48E+00	1.40E+03	4.48E+00
108-86-1	Bromobenzene	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
74-97-5	Bromochloromethane	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
75-27-4	Bromodichloromethane	8260	1.0	µg/kg			*	2.88E+01	8.80E+05	1.49E+02	2.88E+01	8260	0.2			5.52E+00	2.69E+03	5.52E+00
74-96-4	Bromoethane	8260	2.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
75-25-2	Bromoform	8260	1.0	µg/kg			*	2.84E+02	8.11E+07	1.33E+06	2.84E+02	8260	0.2			4.33E+01	1.19E+05	4.33E+01
74-83-9	Bromomethane	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
78-93-3	2-Butanone	8260	5.0	µg/kg			*	8.02E+05	1.19E+09	8.02E+05	- -	8260	1.0			1.49E+07	1.49E+07	- -
104-51-8	n-Butylbenzene	8260	1.0	µg/kg	X		*	4.64E+03	- -	4.64E+03	- -	8260	0.2			8.63E+06	8.63E+06	- -
135-98-8	sec-Butylbenzene	8260	1.0	µg/kg	X		*	7.86E+03	- -	7.86E+03	- -	8260	0.2			4.40E+08	4.40E+08	- -
98-06-6	tert-Butylbenzene	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
75-15-0	Carbon Disulfide	8260	1.0	µg/kg			*	3.64E+03	6.40E+07	3.64E+03	- -	8260	0.2			3.43E+04	3.43E+04	- -
56-23-5	Carbon Tetrachloride	8260	1.0	µg/kg			*	4.84E+00	5.73E+05	2.51E+01	4.84E+00	8260	0.2	X		5.26E-01	1.52E+02	5.26E-01

Table 3-4 Reporting Limits Compared to Screening Levels for Analytes
South Yard Area
Boeing Plant 2

CAS Number	Analytes	Soil (refer to Laboratory RL Units)										Groundwater (µg/L)						
		Analytical Method	Laboratory RL		Sitewide Soil COC	South Yard Area Soil COC	Background (Metals)	Minimum Calculated Soil Screening Level	Direct Contact Screening Level	Air Pathway Screening Level	Surface Water Pathway Screening Level	Analytical Method	Laboratory RL	Sitewide Groundwater COC	South Yard Area Groundwater COC	Minimum Calculated Groundwater Screening Level	Air Pathway Screening Level	Surface Water Pathway Screening Level
VOC's (cont'd)																		
108-90-7	Chlorobenzene	8260	1.0	µg/kg			*	6.13E+03	9.57E+06	6.13E+03	1.40E+04	8260	0.2			1.60E+03	1.00E+04	1.60E+03
75-00-3	Chloroethane	8260	1.0	µg/kg			*	2.77E+02	- -	2.77E+02	- -	8260	0.2			4.05E+03	4.05E+03	- -
110-75-8	2-Chloroethylvinylether	8260	5.0	µg/kg			*		- -	- -	- -	8260	0.5				- -	- -
74-87-3	Chloromethane	8260	1.0	µg/kg			*	4.63E+08	4.63E+08	- -	- -	8260	0.2	X		2.63E+01	2.44E+03	2.63E+01
95-49-8	2-Chlorotoluene	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
106-43-4	4-Chlorotoluene	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
124-48-1	Dibromochloromethane	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
74-95-3	Dibromomethane	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
96-12-8	1,2-Dibromo-3-chloropropane	8260	5.0	µg/kg			*		- -	- -	- -	8260	2.0				- -	- -
95-50-1	1,2-Dichlorobenzene	8260	1.0	µg/kg			*	1.52E+04	1.54E+08	1.67E+06	1.52E+04	8260	0.2			1.30E+03	- -	1.30E+03
541-73-1	1,3-Dichlorobenzene	8260	1.0	µg/kg			*	1.24E+04	- -	1.14E+05	1.24E+04	8260	0.2			9.60E+02	- -	9.60E+02
106-46-7	1,4-Dichlorobenzene	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
110-57-6	trans-1,4-Dichloro-2-butene	8260	5.0	µg/kg			*		- -	- -	- -	8260	1.0				- -	- -
75-34-3	1,1-Dichloroethane	8260	1.0	µg/kg			*		6.69E+07	7.95E+03	- -	8260	0.2			1.12E+05	1.12E+05	- -
107-06-2	1,2-Dichloroethane	8260	1.0	µg/kg			*	5.67E+01	8.19E+05	9.27E+01	5.67E+01	8260	0.2	X		1.17E+01	1.78E+03	1.17E+01
75-35-4	1,1-Dichloroethene	8260	1.0	µg/kg	X	X	*	2.73E+00	1.24E+05	1.23E+03	2.73E+00	8260	0.2	X	X	3.82E-01	4.23E+01	3.82E-01
156-59-2	cis-1,2-Dichloroethene	8260	1.0	µg/kg	X	X	*	7.94E+02	7.99E+06	7.94E+02	5.66E+03	8260	0.2	X	X	1.13E+03	1.51E+04	1.13E+03
156-60-5	trans-1,2-Dichloroethene	8260	1.0	µg/kg	X		*	8.99E+02	1.31E+07	8.99E+02	5.43E+04	8260	0.2			1.00E+04	1.39E+04	1.00E+04
540-59-0	1,2-Dichloroethene (total)	8260	-	µg/kg			*	1.79E+07	1.79E+07	- -	- -	8260	-				- -	- -
78-87-5	1,2-Dichloropropane	8260	1.0	µg/kg			*	2.36E+01	8.02E+05	6.92E+01	2.36E+01	8260	0.2			4.60E+00	- -	4.60E+00
142-28-9	1,3-Dichloropropane	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
594-20-7	2,2-Dichloropropane	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
563-58-6	1,1-Dichloropropene	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
10061-01-5	cis-1,3-Dichloropropene	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
10061-02-6	trans-1,3-Dichloropropene	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
100-41-4	Ethylbenzene	8260	1.0	µg/kg	X	X	*	2.52E+03	1.45E+08	2.52E+03	1.81E+04	8260	0.2	X		2.10E+03	9.50E+03	2.10E+03
106-93-4	Ethylene Dibromide	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
87-68-3	Hexachlorobutadiene	8260	5.0	µg/kg			*	6.38E+03	2.91E+05	8.89E+03	6.38E+03	8260	0.5			5.91E+00	- -	5.91E+00
591-78-6	2-Hexanone	8260	5.0	µg/kg			*		- -	- -	- -	8260	1.0				- -	- -
98-82-8	Isopropylbenzene	8260	1.0	µg/kg	X		*	1.27E+03	1.45E+08	1.27E+03	- -	8260	0.2			1.22E+03	1.22E+03	- -
99-87-6	4-Isopropyltoluene	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
75-09-2	Methylene Chloride	8260	2.0	µg/kg	X	X	*	8.28E+02	9.94E+06	1.89E+03	8.28E+02	8260	0.3	X		1.90E+02	4.46E+04	1.90E+02
74-88-4	Methyl Iodide	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
108-10-1	4-Methyl-2-Pentanone	8260	5.0	µg/kg			*	3.55E+04	1.16E+08	3.55E+04	- -	8260	1.0			1.56E+09	1.56E+09	- -
91-20-3	Naphthalene	8260	5.0	µg/kg	X		*	2.48E+04	1.44E+07	2.48E+04	4.99E+04	8260	0.5			1.79E+03	1.12E+04	1.79E+03
103-65-1	n-Propylbenzene	8260	1.0	µg/kg	X		*	1.36E+04	- -	1.36E+04	- -	8260	0.2			4.00E+04	4.00E+04	- -
100-42-5	Styrene	8260	1.0	µg/kg			*	7.10E+01	1.82E+06	4.65E+05	7.10E+01	8260	0.2			3.17E+00	- -	3.17E+00
630-20-6	1,1,1,2-Tetrachloroethane	8260	1.0	µg/kg			*		- -	- -	- -	8260	0.2					
79-34-5	1,1,2,2-Tetrachloroethane	8260	1.0	µg/kg	X		*	7.19E+00	2.73E+05	3.48E+02	7.19E+00	8260	0.2			1.28E+00	2.36E+03	1.28E+00
127-18-4	Tetrachloroethene	8260	1.0	µg/kg	X	X	*	8.72E+00	1.07E+06	1.99E+02	8.72E+00	8260	0.2	X	X	8.22E-01	1.52E+03	8.22E-01
108-88-3	Toluene	8260	1.0	µg/kg	X	X	*	1.90E+04	1.34E+08	1.90E+04	1.09E+05	8260	0.2			1.50E+04	1.17E+05	1.50E+04
87-61-6	1,2,3-Trichlorobenzene	8260	5.0	µg/kg			*		- -	- -	- -	8260	0.5				- -	- -
120-82-1	1,2,4-Trichlorobenzene	8260	5.0	µg/kg			*	3.08E+03	1.45E+07	1.77E+05	3.08E+03	8260	0.5			8.25E+01	- -	8.25E+01
71-55-6	1,1,1-Trichloroethane	8260	1.0	µg/kg	X	X	*	2.78E+04	4.12E+08	2.78E+04	1.20E+06	8260	0.2			1.51E+05	2.50E+05	1.51E+05
79-00-5	1,1,2-Trichloroethane	8260	1.0	µg/kg	X		*	2.78E+01	9.57E+05	2.90E+02	2.78E+01	8260	0.2	X	X	5.00E+00	3.67E+03	5.00E+00
79-01-6	Trichloroethene	8260	1.0	µg/kg	X	X	*	2.00E+00	1.36E+05	8.86E+00	2.00E+00	8260	0.2	X	X	3.02E-01	6.20E+01	3.02E-01
75-69-4	Trichlorofluoromethane	8260	1.0	µg/kg			*	5.71E+03	5.96E+08	5.71E+03	- -	8260	0.2			1.16E+04	1.16E+04	- -
76-13-1	1,1,2-Trichlorotrifluoroethane	8260	2.0	µg/kg			*	8.76E+05	5.96E+10	8.76E+05	- -	8260	0.2			1.17E+05	1.17E+05	- -
95-63-6	1,2,4-Trimethylbenzene	8260	1.0	µg/kg	X		*	2.36E+03	7.27E+07	2.36E+03	- -	8260	0.2			2.84E+03	2.84E+03	- -
108-67-8	1,3,5-Trimethylbenzene	8260	1.0	µg/kg	X		*	2.47E+03	7.27E+07	2.47E+03	- -	8260	0.2				- -	- -
108-05-4	Vinyl Acetate	8260	5.0	µg/kg			*		- -	- -	- -	8260	0.2				- -	- -
75-01-4	Vinyl Chloride	8260	1.0	µg/kg	X	X	*	4.59E+00	4.97E+04	1.64E+01	4.59E+00	8260	0.2	X	X	7.31E-01	3.71E+02	7.31E-01
-	m,p-Xylene	8260	1.0	µg/kg			*	2.91E+09	2.91E+09	- -	- -	8260	0.4				- -	- -
95-47-6	o-Xylene	8260	1.0	µg/kg			*	1.43E+05	3.92E+08	1.43E+05	- -	8260	0.2			4.01E+04	4.01E+04	- -
1330-20-7	Total Xylenes	8260	-	µg/kg			*	2.91E+08	2.91E+08	- -	- -	8260	-				- -	- -
Total Petroleum Hydrocarbons (TPH)																		
-	TPH - Diesel Range	NWTPH-D	5	mg/kg	X	X	*	2,000	2,000			NWTPH-D	500	X			500	

Table 3-4 Reporting Limits Compared to Screening Levels for Analytes
South Yard Area
Boeing Plant 2

		Soil (refer to Laboratory RL Units)									Groundwater (µg/L)						
CAS Number	Analytes	Analytical Method	Laboratory RL		Sitewide Soil COC	South Yard Area Soil COC	Background (Metals)	Minimum Calculated Soil Screening Level	Direct Contact Screening Level	Air Pathway Screening Level	Surface Water Pathway Screening Level	Analytical Method	Laboratory RL	Sitewide Groundwater COC	South Yard Area Groundwater COC	Minimum Calculated Groundwater Screening Level	Air Pathway Screening Level	Surface Water Pathway Screening Level
TPH (cont'd)																		
-	TPH - Oil Range	NWTPH-Dx	10	mg/kg	X		*	2,000	2,000			NWTPH-Dx	500	X			500	
-	TPH - Gasoline Range	NWPTH-G	5	mg/kg	X	X	*	30	30			NWPTH-G	250	X			800	

Notes:

Bolded analytes have reporting limits above lowest risk based calculation. Screening levels were adjusted on Table 2-1 accordingly. Analytes measured by the 8270 (SIM) method are also included in the 8270 analysis, but at a higher RL.

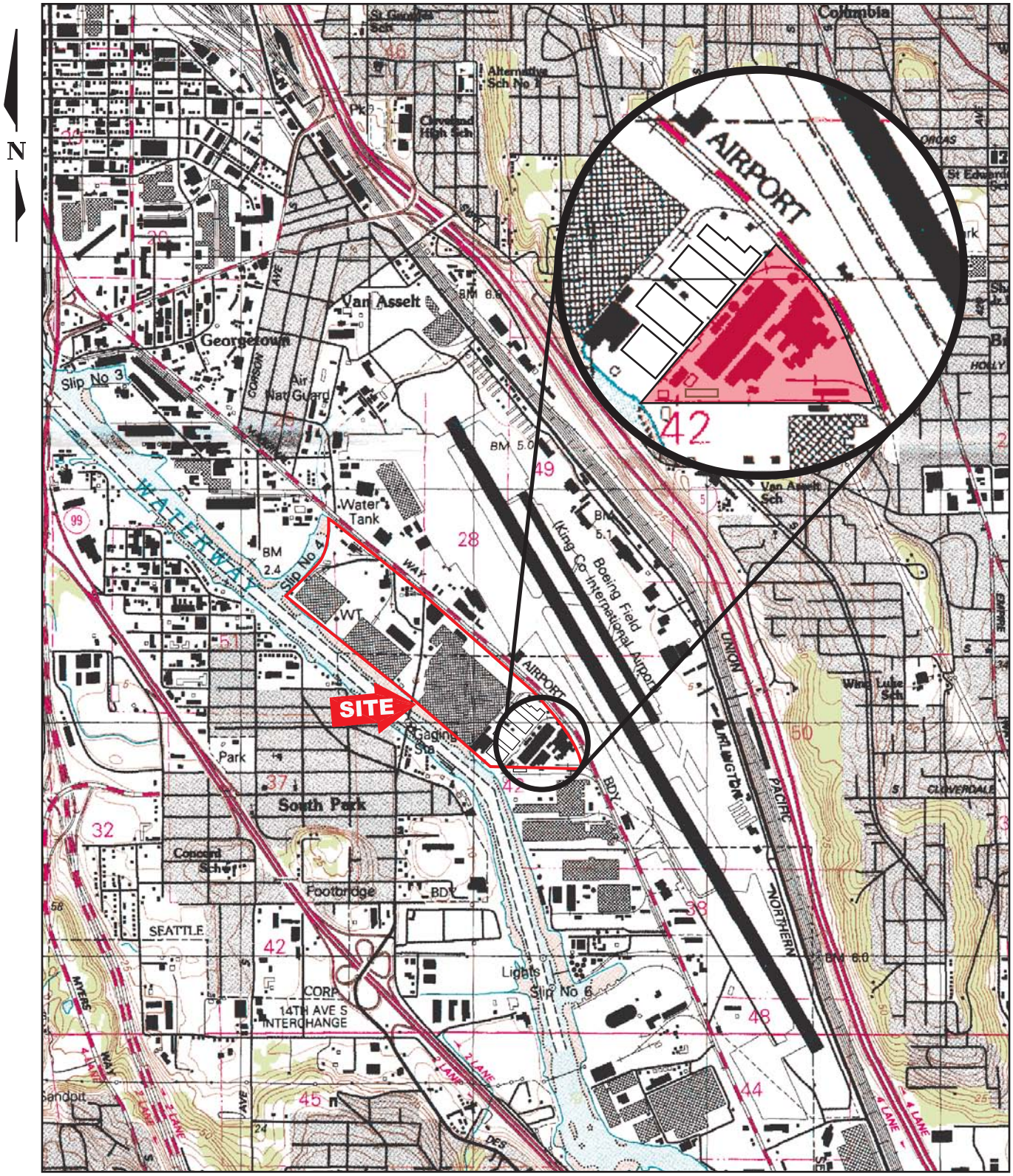
- No CAS number available

Boeing Plant 2
Seattle/Tukwila, Washington

Uplands Corrective Measures
Volume III: South Yard Area

Data Gap Investigation Work Plan

Figures



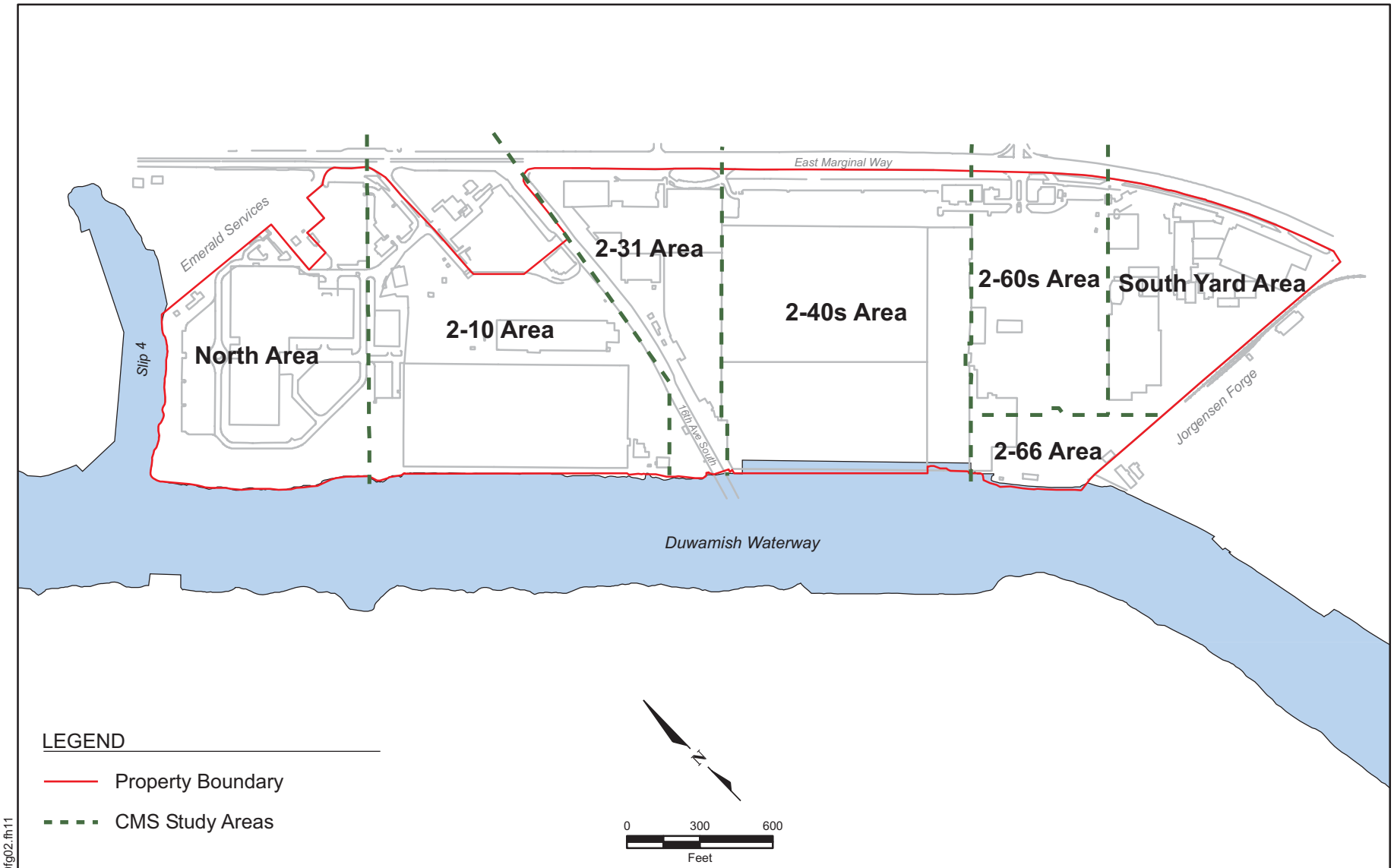
DRAWING NO. 013164600170Ofg01.fh11

Golder Associates

SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	EL	TN	12/21/05

Data Gaps Investigation Work Plan
South Yard Area
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 1-1
Vicinity Map



Source: Floyd Snider McCarthy, Inc (06/23/04)

DRAWING NO. 013164001700fg02.fh11

Golder Associates

SHEET	DRAWN BY
1 OF 1	EL
REVIEWED BY	DATE
TN	12/21/05

Data Gaps Investigation Work Plan
South Yard Area
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 1-2
Site Plan with CMS Study Areas

East Marginal Way

2-61

Bldg 2-85

Bldg 2-80

Bldg 2-81

Bldg 2-83

Bldg 2-83

Bldg 2-83

Bldg 2-84

Bldg 2-88

Bldg 2-126

Bldg 2-117

8 SWMU 79.C
Cistern 5

7 SWMU 79.B
Cistern 4

6 SWMU 79.A
Cistern 1, 2, 3

9 SWMU 2-87.65
Machine Pit

4 AOC 2-84.62
Machine Pit

18 OA 10
Former UST PL-20

SWMU 78.B
Oil/Water Separator

3

10 OA16
Central Waste Storage Area
(SWMU 2-104.71)

1

15 SWMU 2-89.68
Reclamation Yard

17 AOC 2-86.63
Wet Paint Booth

14 SWMU 2-80.57
Generator Sump

5 OA 3
Former UST PL-23

13 SWMU 2-80.56
Sink Sump

11 SWMU 2-78.1
Oil/Water Separator

16 AOC 2-80.58
Deactivated Sump

2 SWMU 2-91.70
Deactivated Waste Oil and Coolant Storage Area

2-108 Slab

AOC 108.73
Paint Booth Sump

12 SWMU 78.5
Oil/Water Seperator

AOC 108.72
Wet Paint Booth

Jorgensen Forge

OA 11
Building 2-72 Area

N

Feet
0 100 200
1 inch = 100 feet

Legend

- RCRA UNITS IN REMEDY SELECTION PHASE
- NFA REQUESTED
- NFA APPROVED
- SITE AREA
- SITE BOUNDARY
- DEMOLISHED BUILDINGS

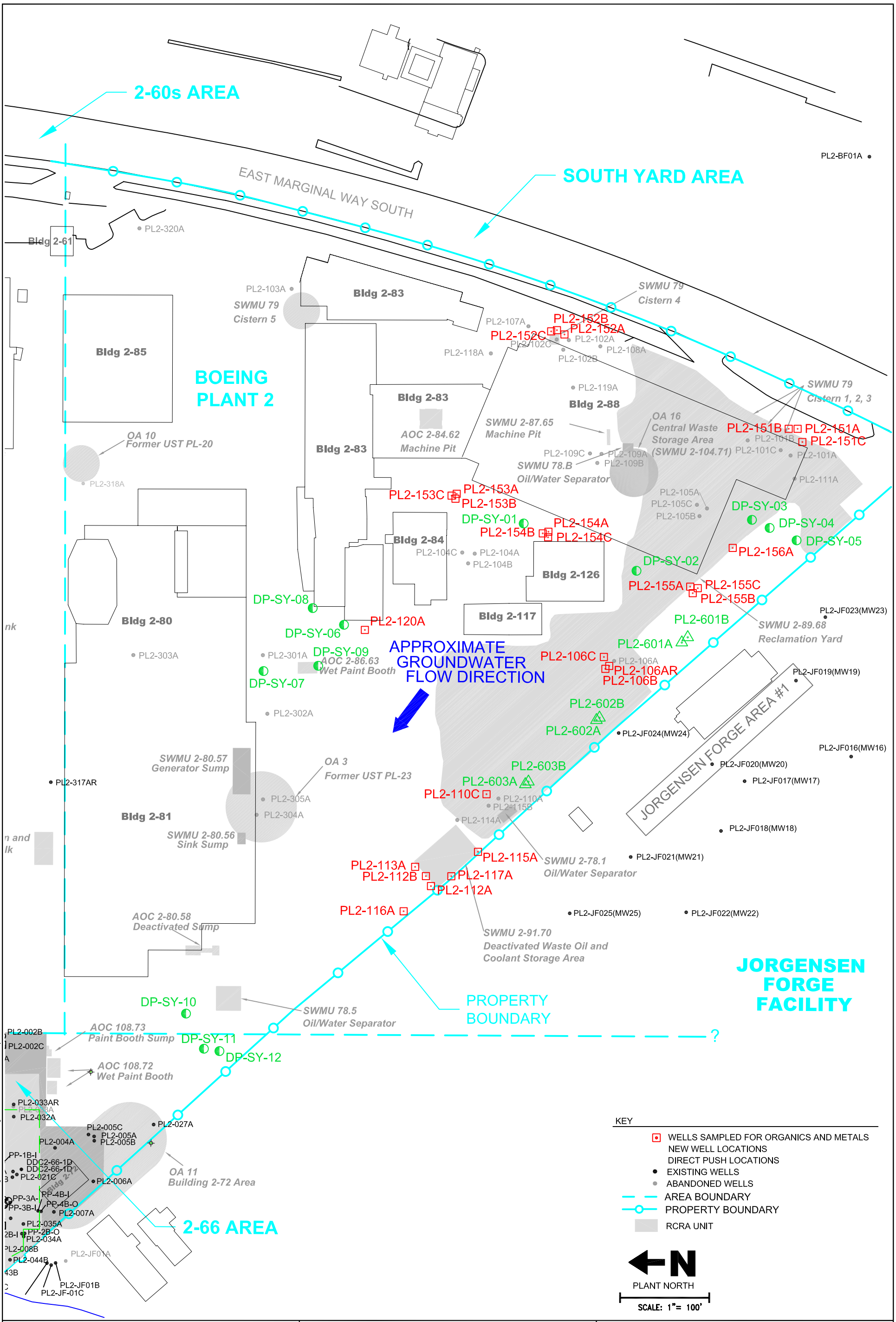
FLOYD | SNIDER
strategy • science • engineering

SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	DMK	TAF	12/21/05

Data Gaps Investigation Work Plan
South Yard Area
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 1-3
South Yard

DATE: 12/19/2005 11:03:57 AM
MXD NAME: F:\projects\Boeing - Plant 2\GIS\CMS Volume III\BP2 CMS III SY Figure 1-3 12.19.05.mxd



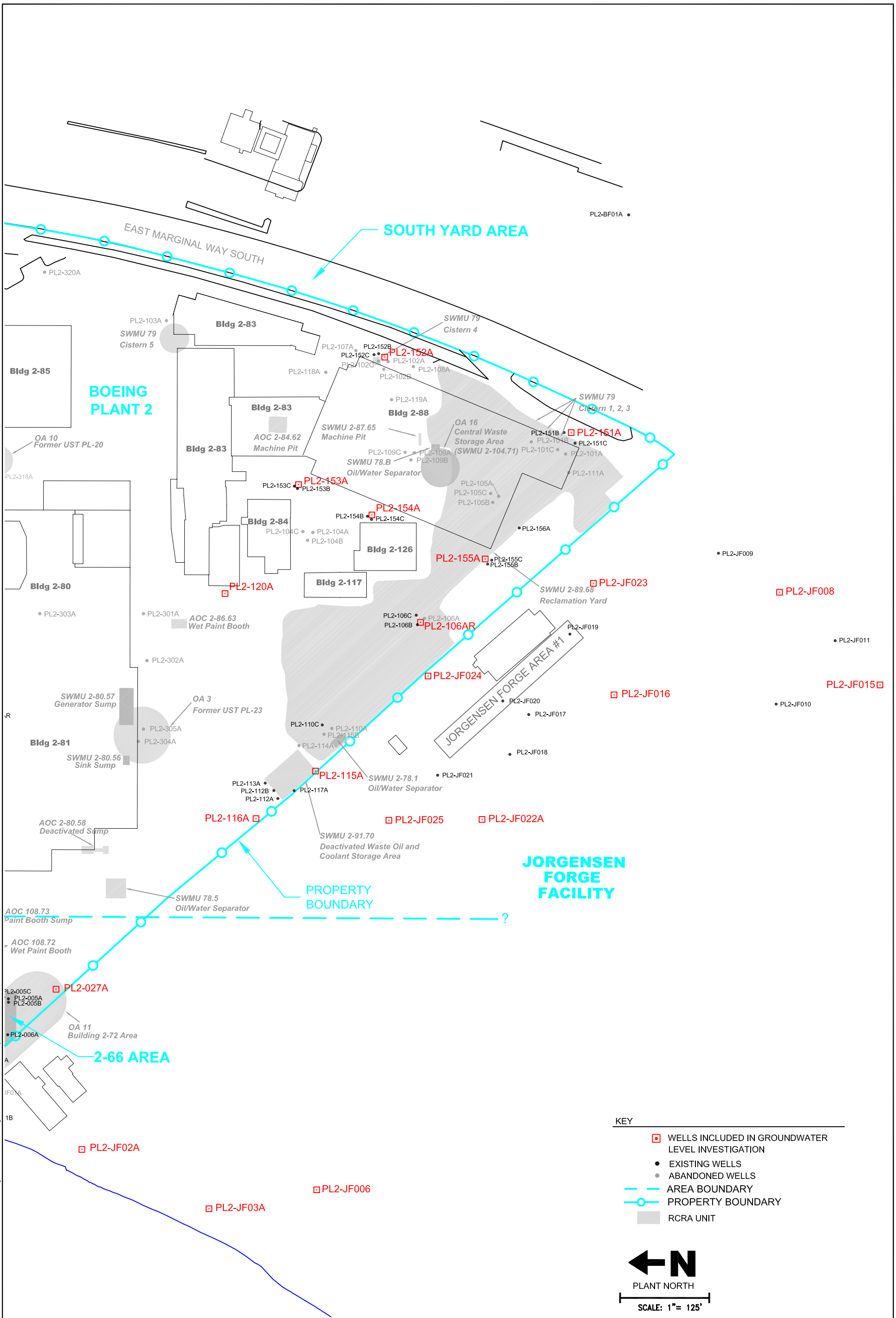
ENVIRONMENTAL PARTNERS INC

SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	SLG	DK	12/21/05

Data Gaps Investigation Work Plan
South Yard Area
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 2-1
Groundwater Data Gap
Sampling Locations

K:\CAD\Projects\20010131646\x0017000\Modified EPI DWGs\South Yard Fig 2-1-GAI-MOD.dwg 12/19/2005, 14:24 Layout: 11x17



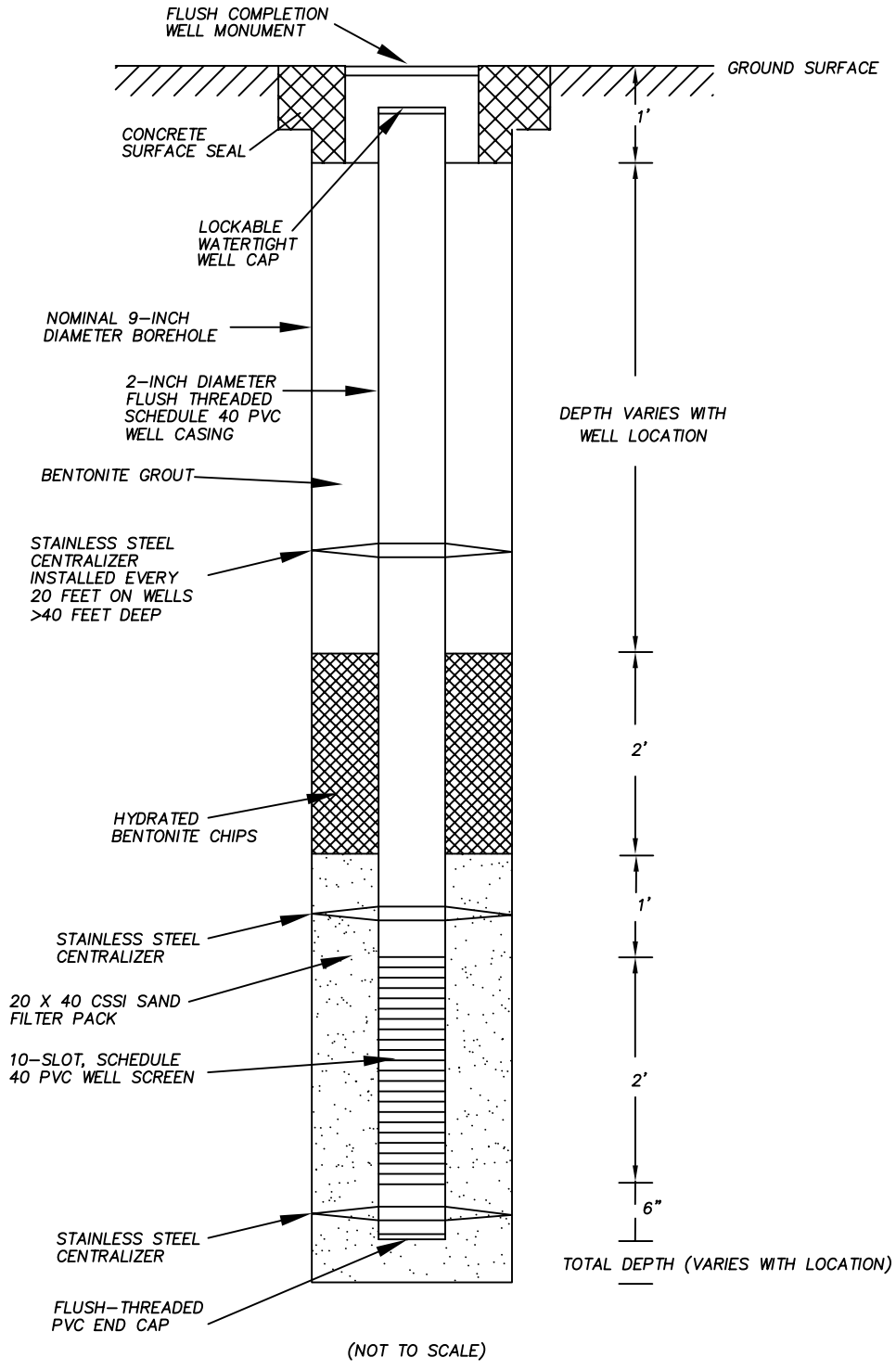
K:\CAD\Projects\2001\0131646\x001\700\Modified EPI DWGs\South Yard Fig 2-2-GAI-MOD.dwg 12/19/2005, 14:16 Layout: 11x17

ENVIRONMENTAL PARTNERS INC

SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	SLG	DK	12/21/05

Data Gaps Investigation Work Plan
South Yard Area
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 2-2
Groundwater Level
Investigation Locations



ENVIRONMENTAL PARTNERS INC			
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	JDB	DK	12/21/05

Data Gaps Investigation Work Plan
South Yard Area
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 3-1
Generalized Monitoring Well / Piezometer Construction Drawing

K:\CAD\Projects\2001\0131646\x001\700\Modified EPI DWGs\Figure 3-1-GAI-Mod.dwg 12/20/2005, 14:31 Layout: Model

Boeing Plant 2
Seattle/Tukwila, Washington

Uplands Corrective Measures
Volume III: South Yard Area

Data Gap Investigation Work Plan

Attachment A
Groundwater Constituents of Concern

Table of Contents

A1.0 Groundwater Constituents of Concern A-1

A1.1 IDENTIFICATION OF COCS A-1

A1.2 SPATIAL DISTRIBUTION OF COCS A-1

A1.3 DATA TABLES A-2

List of Tables

Table A-1 Screening Levels for Constituents of Concern in Site-wide Groundwater

Table A-2 Constituents of Concern Detected in South Yard Area Groundwater

List of Maps

Arsenic (Dissolved) Concentration in Level A Groundwater

Arsenic (Dissolved) Concentration in Level B Groundwater

Arsenic (Dissolved) Concentration in Level C Groundwater

Copper Concentration in Level A Groundwater

Lead (Dissolved) Concentration in Level C Groundwater

Manganese Concentration in Level A Groundwater

Manganese Concentration in Level B Groundwater

Manganese Concentration in Level C Groundwater

Nickel (Dissolved) Concentration in Level A Groundwater

Nickel (Dissolved) Concentration in Level B Groundwater

Selenium (Dissolved) Concentration in Level C Groundwater

2,4-Dimethylphenol Concentration in Level A Groundwater

bis(2-Ethylhexyl)phthalate Concentration in Level A Groundwater

Total PCBs Concentration in Level A Groundwater

Benzene Concentration in Level A Groundwater

1,1-Dichloroethene Concentration in Level A Groundwater

cis-1,2-Dichloroethene Concentration in Level A Groundwater

Tetrachloroethene Concentration in Level A Groundwater

1,1,2-Trichloroethane Concentration in Level A Groundwater

Trichloroethene Concentration in Level A Groundwater
Vinyl Chloride Concentration in Level A Groundwater
Vinyl Chloride Concentration in Level B Groundwater

List of Data Tables

Maximum Arsenic Concentrations in Groundwater
Maximum Copper Dissolved Concentrations in Groundwater
Maximum Lead Dissolved Concentrations in Groundwater
Maximum Manganese Dissolved Concentrations in Groundwater
Maximum Nickel Dissolved Concentrations in Groundwater
Maximum Selenium Dissolved Concentrations in Groundwater
Maximum 2,4-Dimethylphenol Concentrations in Groundwater
Maximum bis(2-Ethylhexyl)phthalate Concentrations in Groundwater
Maximum Aroclor 1254 Concentrations in Groundwater
Maximum Total PCB Concentrations in Groundwater
Maximum Benzene Concentrations in Groundwater
Maximum 1,1-Dichloroethene Concentrations in Groundwater
Maximum cis-1,2-Dichloroethene Concentrations in Groundwater
Maximum Tetrachloroethene Concentrations in Groundwater
Maximum 1,1,2-Trichloroethane Concentrations in Groundwater
Maximum Trichloroethene Concentrations in Groundwater
Maximum Vinyl Chloride Concentrations in Groundwater

A1.0 Groundwater Constituents of Concern

This attachment includes groundwater data information for the South Yard Area of Boeing Plant 2 (Plant 2). This information was used to prepare Section 2, Data Gap Analysis, of this Data Gap Investigation Work Plan and includes: tables summarizing site-wide and South Yard Area groundwater COCs, maps showing the distribution of COCs in the different groundwater zones of the South Yard Area, and data tables for each groundwater COC.

A1.1 IDENTIFICATION OF COCS

Table A-1 summarizes the screening levels for the site-wide groundwater COCs. All accepted groundwater data including any qualified data compiled since 1986 were used to prepare the table. It is important to note that these data include samples from the Jorgensen Forge area that likely do not represent constituents from Plant 2, but are included to present the most conservative and comprehensive result. A COC was identified when laboratory analysis of a sample resulted in a concentration greater than the screening level at least once in any groundwater zone at the site. Table A-1 also includes the risk calculation for the groundwater-to-air and groundwater-to-surface water pathways. As discussed in detail in Volume II, screening levels for groundwater are the same as risk calculation results, except in those instances where background metals or reporting limits are greater than the risk calculation. In those cases, the background concentration or the reporting limit, respectively, is used as the screening level. At the time of this submittal, background metal concentrations for Plant 2 have not been determined, so a blank column is included in the table as a placeholder. Background metals concentrations will be used to revise screening levels when the values are available later in the CMS process. Because no risk information is available, the TPH screening level was established according to the Model Toxics Control Act (MTCA) Method A.

Table A-2 presents the current groundwater COCs for the South Yard Area. COCs within the South Yard boundaries were identified by the same method as described above for Table A-1. All accepted groundwater data, including any qualified data compiled from within the South Yard Area boundaries since 1989 were used to prepare the table. It should be noted that Table A-2 and associated text does not include data collected at Jorgensen Forge to determine the frequency of COC detections within the South Yard boundaries. All other tables and figures in this appendix do include data collected at Jorgensen Forge.

A1.2 SPATIAL DISTRIBUTION OF COCS

Included in this attachment are maps showing the spatial distribution of each COC in Level A groundwater of the South Yard Area. Maps are also included that show the distribution of a COC in Levels B or C if there were enough detections to interpret a groundwater plume. The accepted maximum concentration of each COC was used to generate the maps. If a constituent was never detected at a particular location, then the reporting limit and date for the most recent non-detects is presented along with the number of times the constituent was sampled at that location. In addition to the groundwater COCs, maps showing the spatial distribution of three soil-only COCs are included for comparison with soil contaminant

distribution maps. The soil-only COCs are methylene chloride, toluene and ethylbenzene. All maps are oriented according to “plant” north.

A1.3 DATA TABLES

The data tables show all of the accepted maximum concentrations for each groundwater COC and the three soil COCs mentioned above. The data tables include data from all three groundwater levels, regardless of the frequency of detection.

Boeing Plant 2
Seattle/Tukwila, Washington

Uplands Corrective Measures
Volume III: South Yard Area

Data Gap Investigation Work Plan

Attachment A
Tables

Table A-1 Screening Levels for Constituents of Concern in Site-wide Groundwater
South Yard Area
Boeing Plant 2

CAS Number	Constituent of Concern	Maximum Detect (µg/l)	Laboratory RL (µg/l)	Air Risk Calculation[a] (µg/l)	Air Screening Level (µg/l)	Surface Water Risk Calculation[b] (µg/l)	Surface Water Screening Level (µg/l)
Metals and Cyanide							
7440-38-2	Arsenic	1.30E+02	2.00E-01	- -	- -	***1.94E-02***	***2.00E-01***
7440-43-9	Cadmium	1.02E+02	2.00E+00	- -	- -	***7.35E+00***	***7.35E+00***
7440-50-8	Copper	1.10E+02	5.00E-01	- -	- -	***3.10E+00***	***3.10E+00***
7439-92-1	Lead	1.00E+01	1.00E+00	- -	- -	***8.10E+00***	***8.10E+00***
7439-96-5	Manganese	6.77E+03	1.00E+00	- -	- -	***1.00E+02***	***1.00E+02***
7439-97-6	Mercury	9.00E-01	2.50E-02	1.84E+02	1.84E+02	***2.50E-02***	***2.50E-02***
7440-02-0	Nickel (soluble salts)	3.40E+02	5.00E-01	- -	- -	***8.20E+00***	***8.20E+00***
7782-49-2	Selenium	3.00E+02	5.00E+01	- -	- -	***7.10E+01***	***7.10E+01***
7440-22-4	Silver	3.00E+01	5.00E-01	- -	- -	***1.90E+00***	***1.90E+00***
7440-28-0	Thallium (soluble salts)	7.00E+01	2.00E-01	- -	- -	***4.70E-01***	***4.70E-01***
7440-66-6	Zinc	2.11E+03	6.00E+00	- -	- -	***8.10E+01***	***8.10E+01***
57-12-5	Cyanide	5.80E+02	5.00E+00	- -	- -	***1.00E+00***	***5.00E+00***
Semivolatile Organic Compounds (SVOCs) and Polychlorinated Biphenyls (PCBs)							
56-55-3	Benzo(a)anthracene	3.30E+00	1.00E-01	- -	- -	***5.86E-03***	***1.00E-01***
205-99-2	Benzo(b)fluoranthene	8.50E-01	1.00E-01	- -	- -	***5.86E-03***	***1.00E-01***
207-08-9	Benzo(k)fluoranthene	2.80E-01	1.00E-01	- -	- -	***5.86E-03***	***1.00E-01***
50-32-8	Benzo(a)pyrene	1.50E+00	1.00E-01	- -	- -	***5.86E-03***	***1.00E-01***
218-01-9	Chrysene	6.20E+00	1.00E-01	- -	- -	***5.86E-03***	***1.00E-01***
53-70-3	Dibenz(a,h)anthracene	1.90E-01	1.00E-01	- -	- -	***5.86E-03***	***1.00E-01***
105-67-9	2,4-Dimethylphenol	5.20E+02	3.00E+00	- -	- -	***2.01E+02***	***2.01E+02***
117-81-7	bis(2-Ethylhexyl)phthalate	1.30E+01	3.00E+00	- -	- -	***7.05E-01***	***3.00E+00***
193-39-5	Indeno(1,2,3-cd)pyrene	2.90E-01	1.00E-01	- -	- -	***5.86E-03***	***1.00E-01***
-	Aroclor 1016/1242	1.10E-01	1.00E-02	- -	- -	***6.40E-05***	***1.00E-02***
11097-69-1	Aroclor 1254	1.90E+00	1.00E-02	- -	- -	***6.40E-05***	***1.00E-02***
11097-69-1	Aroclor 1260	8.90E+00	1.00E-02	- -	- -	***6.40E-05***	***1.00E-02***
-	Total PCBs	8.90E+00	1.00E-02	- -	- -	***6.40E-05***	***1.00E-02***

Table A-1 Screening Levels for Constituents of Concern in Site-wide Groundwater
South Yard Area
Boeing Plant 2

CAS Number	Constituent of Concern	Maximum Detect (µg/l)	Laboratory RL (µg/l)	Air Risk Calculation[a] (µg/l)	Air Screening Level (µg/l)	Surface Water Risk Calculation[b] (µg/l)	Surface Water Screening Level (µg/l)
Volatile Organic Compounds (VOCs)							
71-43-2	Benzene	6.20E+03	2.00E-01	***1.40E+03***	***1.40E+03***	***4.48E+00***	***4.48E+00***
56-23-5	Carbon Tetrachloride	2.02E+02	2.00E-01	***1.52E+02***	***1.52E+02***	***5.26E-01***	***5.26E-01***
74-87-3	Chloromethane	4.80E+01	2.00E-01	2.44E+03	2.44E+03	***2.63E+01***	***2.63E+01***
107-06-2	1,2-Dichloroethane	2.30E+01	2.00E-01	1.78E+03	1.78E+03	***1.17E+01***	***1.17E+01***
75-35-4	1,1-Dichloroethene	5.00E+02	2.00E-01	***4.23E+01***	***4.23E+01***	***3.82E-01***	***3.82E-01***
156-59-2	cis-1,2-Dichloroethene	4.60E+05	2.00E-01	***1.51E+04***	***1.51E+04***	***1.13E+03***	***1.13E+03***
100-41-4	Ethylbenzene	2.30E+03	2.00E-01	9.50E+03	9.50E+03	***2.10E+03***	***2.10E+03***
75-09-2	Methylene Chloride	5.10E+02	3.00E-01	4.46E+04	4.46E+04	***1.90E+02***	***1.90E+02***
127-18-4	Tetrachloroethene	3.60E+01	2.00E-01	1.52E+03	1.52E+03	***8.22E-01***	***8.22E-01***
79-00-5	1,1,2-Trichloroethane	4.40E+02	2.00E-01	3.67E+03	3.67E+03	***5.00E+00***	***5.00E+00***
79-01-6	Trichloroethene	4.20E+05	2.00E-01	***6.20E+01***	***6.20E+01***	***3.02E-01***	***3.02E-01***
75-01-4	Vinyl Chloride	9.80E+04	2.00E-01	***3.71E+02***	***3.71E+02***	***7.31E-01***	***7.31E-01***
Total Petroleum Hydrocarbons (TPH)							
-	TPH-D	7.00E+03	5.00E+02	5.00E+02			
-	TPH-G	6.50E+04	2.50E+02	8.00E+02			
-	TPH-O	3.00E+03	5.00E+02	5.00E+02			

Notes

All maximum detections for metals represent dissolved metals.

Screening levels adjust risk calculations up to RL where applicable.

Bolded **Bolded** risk based and screening level concentrations are below maximum detect.

[a] Lowest groundwater concentration protective of indoor air, outdoor air, and trenching.

[b] Lowest groundwater concentration protective of human ingestion of aquatic organisms and protection of aquatic organisms.

RL Reporting Limit as detailed in Analytical Resources Inc. Laboratory Quality Assurance Plan, Version 11-022, dated 5/17/04 (generally equivalent to the practical quantitation limit in a clean matrix).

TPH Total Petroleum Hydrocarbons

- - Not calculated.

Table A-2: Constituents of Concern Detected in South Yard Area Groundwater
South Yard Area
Boeing Plant 2

CAS Number	Constituent of Concern	Maximum Detect (µg/l	Samples Analyzed	Detects	Samples above Air Screening Level	Samples above Surface Water Screening Level
Metals						
7440-38-2	Arsenic	9.93E+01	84	64	- -	64
7440-50-8	Copper	3.90E+01	91	33	- -	11
7439-92-1	Lead	1.00E+01	91	14	- -	1
7439-96-5	Manganese	4.13E+03	36	36	- -	35
7440-02-0	Nickel (soluble salts)	2.00E+01	67	37	- -	2
7782-49-2	Selenium	1.30E+02	80	13	- -	4
Semivolatile Organic Compounds (SVOCs) and Polychlorinated Biphenyls (PCBs)						
105-67-9	2,4-Dimethylphenol	5.20E+02	24	2	- -	1
117-81-7	bis(2-Ethylhexyl)phthalate	1.30E+01	32	7	- -	6
11097-69-1	Aroclor 1254	1.90E+00	43	8	- -	8
	Total PCBs	1.90E+00	43	8	- -	8
Volatile Organic Compounds (VOCs)						
71-43-2	Benzene	2.00E+02	110	19	0	5
75-35-4	1,1-Dichloroethene	6.40E+01	110	20	1	20
156-59-2	cis-1,2-Dichloroethene	1.10E+05	100	55	1	3
127-18-4	Tetrachloroethene	3.60E+01	110	13	0	10
79-00-5	1,1,2-Trichloroethane	8.50E+00	110	3	0	1
79-01-6	Trichloroethene	3.30E+04	110	48	10	48
75-01-4	Vinyl Chloride	4.70E+03	110	70	2	58

Notes:

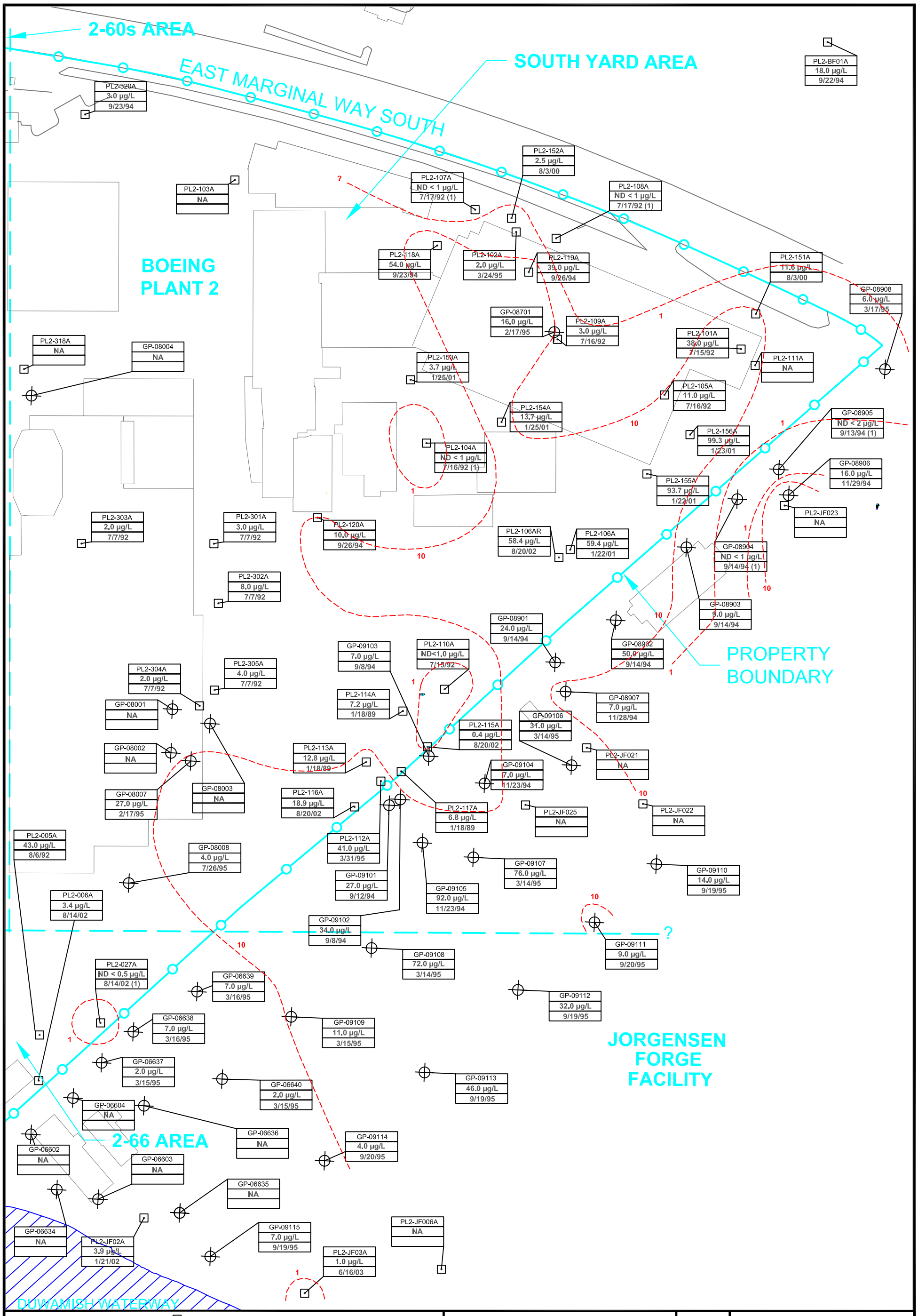
All maximum detections for metals represent dissolved metals.

Boeing Plant 2
Seattle/Tukwila, Washington

Uplands Corrective Measures
Volume III: South Yard Area

Data Gap Investigation Work Plan

Attachment A
Maps



KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 0.2 µg/L

N

SCALE: 1"= 100'

PL2-005A — WELL/PROBE NAME
7.02 µg/L — MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
4/25/04 (2) — DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
ARSENIC (DISSOLVED)
CONCENTRATIONS
IN LEVEL A GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET 1 of 1	DRAWN BY TK	REVIEWED BY DCK	DATE 6/9/04

2-60s AREA

EAST MARGINAL WAY SOUTH

SOUTH YARD AREA

BOEING
PLANT 2

PL2-152B
3.3 µg/L
1/24/01

PL2-102B
ND < 1 µg/L
7/17/92 (1)

PL2-151B
5.0 µg/L
8/2/00

PL2-101B
ND < 1 µg/L
3/24/95 (2)

GP-08908
ND < 1 µg/L
3/17/95 (1)

PL2-153B
4.0 µg/L
1/24/01

PL2-109B
ND < 5 µg/L
7/16/92 (1)

PL2-105B
ND < 5 µg/L
7/16/92 (1)

PL2-104B
ND < 1 µg/L
7/16/92 (1)

PL2-154B
2.0 µg/L
1/25/01

GP-08906
1.0 µg/L
11/29/94

PL2-155B
2.6 µg/L
1/23/01

PL2-106B
1.0 µg/L
3/28/95

PROPERTY
BOUNDARY

PL2-110B
ND < 5 µg/L
7/15/92 (1)

GP-08907
ND < 1 µg/L
11/28/94 (1)

PL2-112B
0.7 µg/L
8/15/02

GP-09104
1.0 µg/L
11/23/94

GP-09106
ND < 1 µg/L
3/14/95 (1)

GP-09105
ND < 1 µg/L
11/23/94(1)

GP-09107
ND < 1 µg/L
3/14/95 (1)

GP-09111
ND < 1 µg/L
9/20/95 (1)

GP-09110
1.0 µg/L
9/19/95

GP-06639
ND < 1 µg/L
3/16/95 (1)

GP-09108
ND < 1 µg/L
3/14/95 (1)

PL2-005B
ND < 1 µg/L
8/6/92 (2)

GP-06604
NA

GP-06638
ND < 1 µg/L
3/16/95 (1)

GP-09109
ND < 1 µg/L
3/15/95 (1)

GP-09112
1.0 µg/L
9/19/95

GP-06637
ND < 1 µg/L
3/15/95 (1)

GP-06640
ND < 1 µg/L
3/15/95 (1)

GP-09113
1.0 µg/L
9/19/95

JORGENSEN
FORGE
FACILITY

2-66 AREA

GP-06636
NA

GP-06602
NA

GP-06603
NA

GP-09114
1.0 µg/L
9/20/95

GP-06634
NA

GP-06635
NA

GP-09115
ND < 1 µg/L
9/19/95 (1)

DUWAMISH WATERWAY

KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 0.2 µg/L

N

SCALE: 1"= 100'

PL2-005A — WELL/PROBE NAME
7.02 µg/L — MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
4/25/04 (2) — DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
ARSENIC (DISSOLVED)
CONCENTRATIONS
IN LEVEL B GROUNDWATER

PROJECT	BOEING PLANT 2
PREPARED FOR	THE BOEING COMPANY
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON

SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	TK	DCK	6/9/04

2-60s AREA

EAST MARGINAL WAY SOUTH

SOUTH YARD AREA

BOEING
PLANT 2

PL2-152C
8.0 ug/L
8/3/00

PL2-102C
ND < 5 ug/L
7/17/92 (1)

PL2-109C
ND < 5 ug/L
7/16/92 (1)

PL2-151C
13.0 ug/L
8/3/00

PL2-153C
8.0 ug/L
1/24/01

PL2-101C
ND < 2 ug/L
7/15/92 (1)

PL2-105C
ND < 5 ug/L
7/16/92 (1)

PL2-104C
ND < 5 ug/L
7/16/92 (1)

PL2-154C
6.0 ug/L
1/25/01

PL2-155C
20.0 ug/L
8/4/00

GP-08906
ND < 1 ug/L
11/29/94 (1)

PL2-106C
ND < 5 ug/L
7/15/92 (1)

PL2-110C
ND < 1 ug/L
7/15/92 (1)

GP-08907
ND < 1 ug/L
11/29/94 (1)

PROPERTY
BOUNDARY

?

PL2-005C
ND < 5 ug/L
8/6/92 (2)

GP-06636
NA

2-66 AREA

GP-06634
NA

GP-06635
NA

DUWAMISH WATERWAY

JORGENSEN
FORGE
FACILITY

KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 0.2 µg/L

PL2-005A — WELL/PROBE NAME
7.02 µg/L — MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
4/25/04 (2) — DATE (NUMBER OF NON-DETECTS)

N

SCALE: 1"= 100'

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
ARSENIC (DISSOLVED)
CONCENTRATIONS
IN LEVEL C GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	TK	DCK	6/9/04

2-60s AREA

EAST MARGINAL WAY SOUTH

SOUTH YARD AREA

BOEING PLANT 2

PL2-320A
3.0 µg/L
3/24/95

PL2-BF01A
9.7 µg/L
8/27/02

PL2-103A
ND < 2 µg/L
5/4/88 (1)

PL2-107A
3.0 µg/L
7/17/92

PL2-152A
5.7 µg/L
8/3/00

PL2-108A
ND < 2 µg/L
7/17/92 (1)

PL2-118A
ND < 2 µg/L
9/23/94 (1)

PL2-102A
39.0 µg/L
5/4/88

PL2-119A
ND < 2 µg/L
9/26/94 (1)

PL2-151A
0.8 µg/L
8/3/00

GP-08908
6.0 µg/L
3/17/95

GP-08701
ND < 2 µg/L
2/17/95 (1)

PL2-109A
2.0 µg/L
7/16/92

PL2-318A
NA

GP-08004
NA

PL2-153A
0.9 µg/L
1/25/01

PL2-101A
ND < 2 µg/L
3/24/95 (3)

PL2-111A
NA

PL2-105A
2.0 µg/L
7/16/92

PL2-154A
0.6 µg/L
1/25/01

GP-08905
ND < 2 µg/L
9/13/94 (1)

PL2-156A
0.6 µg/L
8/4/00

PL2-104A
ND < 2 µg/L
7/16/92 (2)

GP-08906
ND < 2 µg/L
11/29/94 (1)

PL2-155A
0.6 µg/L
1/22/01

PL2-JF023
NA

PL2-303A
8.0 µg/L
7/7/92

PL2-301A
5.0 µg/L
7/7/92

PL2-120A
ND < 2 µg/L
9/26/94 (1)

PL2-106AR
0.8 µg/L
8/20/02

PL2-106A
1.4 µg/L
8/4/00

GP-08904
2.0 µg/L
9/14/94

PL2-302A
8.0 µg/L
7/7/92

GP-08903
ND < 2 µg/L
9/14/94(1)

GP-08901
2.0 µg/L
9/14/94

PROPERTY BOUNDARY

GP-09103
ND < 2 µg/L
9/8/94 (1)

PL2-110A
ND < 2 µg/L
7/15/92 (1)

GP-08902
ND < 2 µg/L
9/14/94(1)

PL2-304A
ND < 2 µg/L
7/7/92 (1)

PL2-305A
6.0 µg/L
7/7/92

PL2-114A
ND < 1 µg/L
1/18/89 (1)

GP-08907
3.0 µg/L
11/28/94

GP-08001
NA

GP-09106
43.0 µg/L
3/14/95

PL2-115A
1.0 µg/L
8/20/02

GP-08002
NA

PL2-113A
3.5 µg/L
1/18/89

PL2-JF021
NA

GP-09104
ND < 2 µg/L
11/23/94 (1)

GP-08007
ND < 2 µg/L
2/17/95 (1)

GP-08003
NA

PL2-116A
0.7 µg/L
8/20/02

PL2-117A
1.5 µg/L
1/18/89

PL2-JF025
NA

PL2-JF022
NA

PL2-005A
6.0 µg/L
12/10/91

GP-08008
ND < 2 µg/L
7/26/95 (1)

PL2-112A
0.6 µg/L
8/15/02

GP-09107
ND < 2 µg/L
3/14/95 (1)

GP-09110
7.0 µg/L
9/19/95

GP-09101
ND < 2 µg/L
9/12/94(1)

GP-09105
ND < 2 µg/L
11/23/94 (1)

PL2-006A
0.6 µg/L
8/14/02

GP-09102
ND < 2 µg/L
9/8/94 (1)

GP-09111
ND < 2 µg/L
9/20/95 (1)

GP-09108
3.0 µg/L
3/14/95

PL2-027A
2.4 µg/L
8/14/02

GP-06639
6.0 µg/L
3/16/95

GP-09112
ND < 2 µg/L
9/19/95 (1)

GP-06638
2.0 µg/L
3/16/95

GP-09109
7.0 µg/L
3/15/95

JORGENSEN FORGE FACILITY

GP-06637
4.0 µg/L
3/15/95

GP-09113
ND < 2 µg/L
9/19/95 (1)

GP-06640
ND < 2 µg/L
3/15/95 (1)

GP-06604
NA

GP-06636
NA

GP-09114
ND < 2 µg/L
9/20/95 (1)

2-66 AREA

GP-06602
NA

GP-06603
NA

GP-06635
NA

GP-06634
NA

PL2-JF02A
1.5 µg/L
1/21/02

GP-09115
ND < 2 µg/L
9/19/95 (1)

PL2-JF03A
2.9 µg/L
4/26/01

PL2-JF006A
NA

DUWAMISH WATERWAY

KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 3.1 µg/L

N

SCALE: 1"= 100'

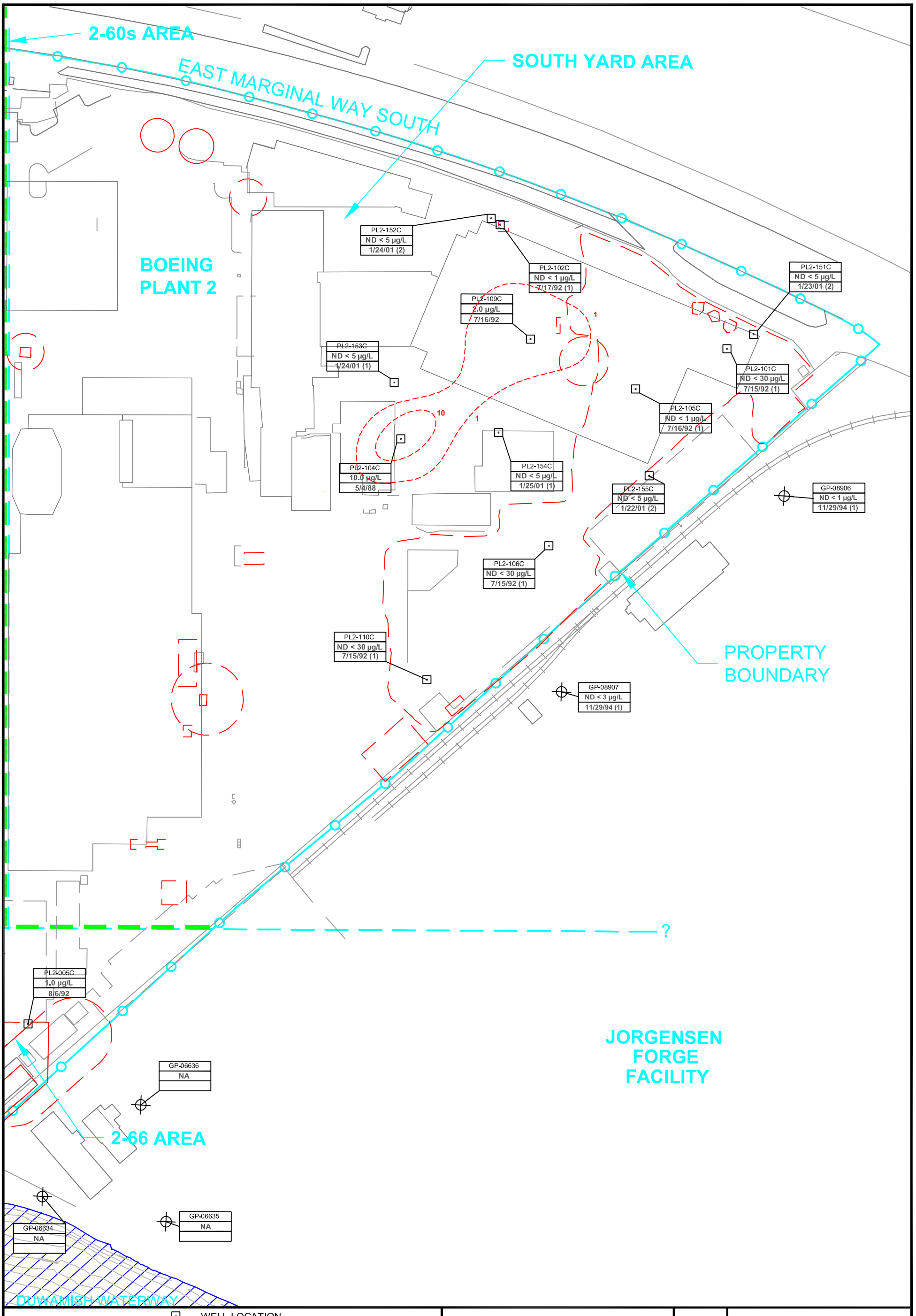
PL2-005A
7.02 µg/L
4/25/04 (2)

WELL/PROBE NAME
MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
COPPER CONCENTRATIONS
IN LEVEL A GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET 1 of 1	DRAWN BY TK	REVIEWED BY DCK	DATE 6/9/04



KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 8.1 µg/L

N

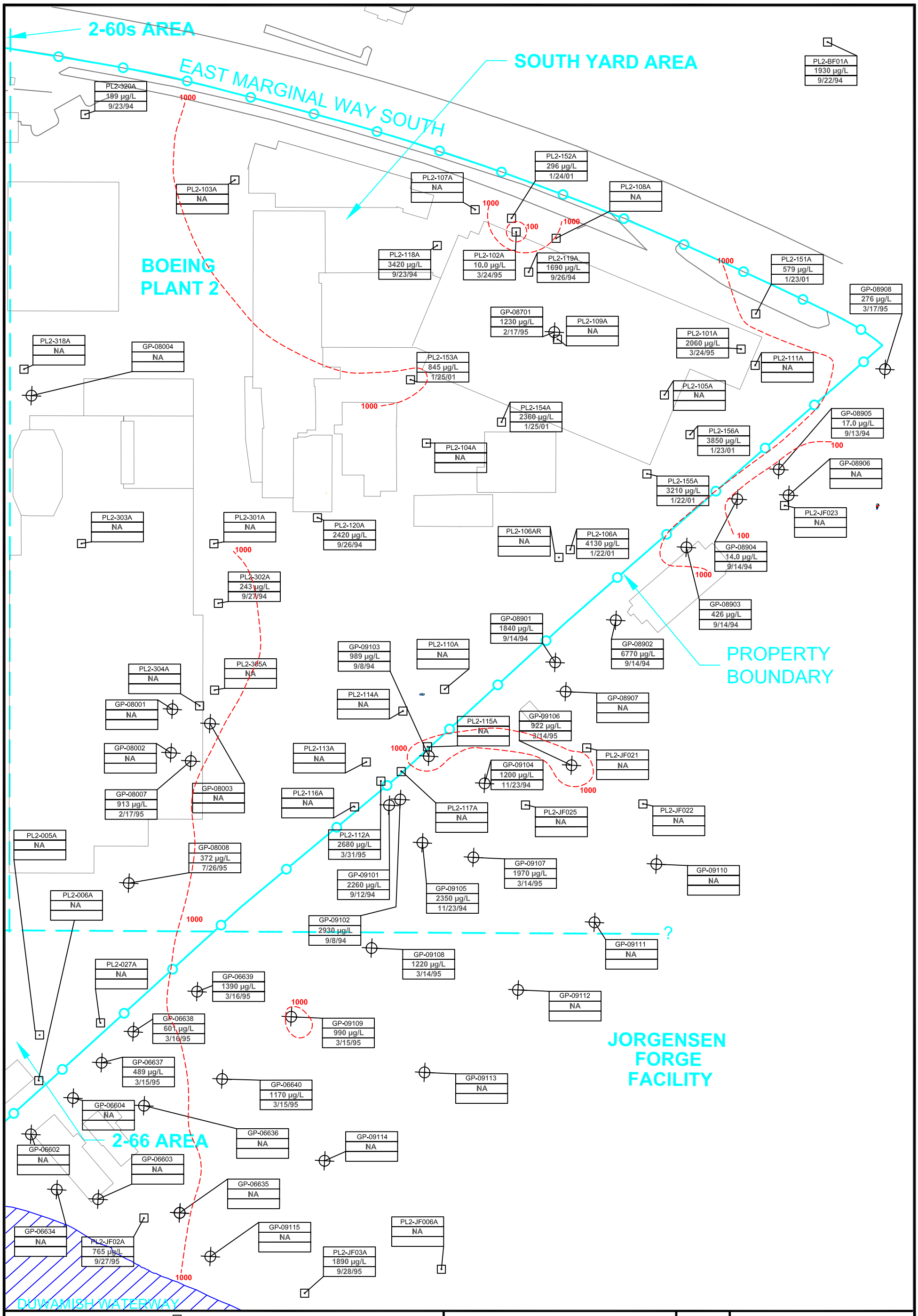
SCALE: 1"= 100'

PL2-005A	WELL/PROBE NAME
7.02 µg/L	MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
4/25/04 (2)	DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
LEAD (DISSOLVED)
CONCENTRATIONS
IN LEVEL C GROUNDWATER

PROJECT	BOEING PLANT 2			
PREPARED FOR	THE BOEING COMPANY			
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON			
SHEET	DRAWN BY	REVIEWED BY	DATE	
1 of 1	TK	DCK	6/14/04	



KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 100 µg/L

N

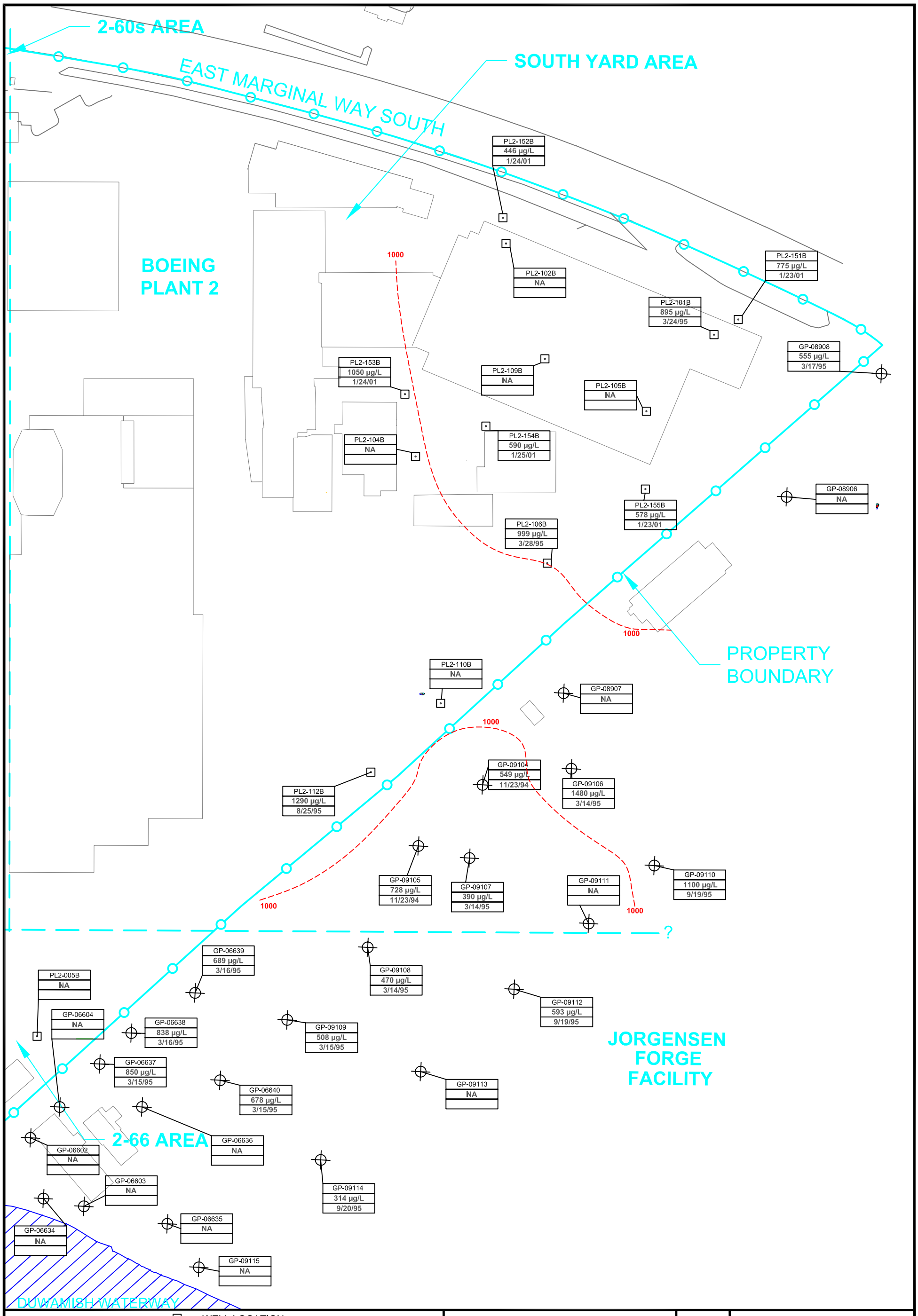
SCALE: 1"= 100'

PL2-005A	WELL/PROBE NAME
7.02 µg/L	MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
4/25/04 (2)	DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
MANGANESE CONCENTRATIONS
IN LEVEL A GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET 1 of 1	DRAWN BY TK	REVIEWED BY DCK	DATE 6/9/04



KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 100 µg/L

N

SCALE: 1"= 100'

PL2-005A	WELL/PROBE NAME
7.02 µg/L	MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
4/25/04 (2)	DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
MANGANESE CONCENTRATIONS IN LEVEL B GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	TK	DCK	6/9/04

2-60s AREA

EAST MARGINAL WAY SOUTH

SOUTH YARD AREA

BOEING
PLANT 2

PL2-152C
261 µg/L
1/24/01

PL2-102C
NA

PL2-109C
NA

PL2-151C
628 µg/L
1/23/01

PL2-153C
601 µg/L
1/24/01

PL2-101C
NA

PL2-105C
NA

PL2-104C
211 µg/L
8/22/95

PL2-154C
434 µg/L
1/25/01

PL2-155C
630 µg/L
1/22/01

GP-08906
NA

PL2-106C
NA

PL2-110C
227 µg/L
8/22/95

GP-08907
NA

PROPERTY
BOUNDARY

?

PL2-005C
NA

GP-06636
NA

2-66 AREA

JORGENSEN
FORGE
FACILITY

GP-06634
NA

GP-06635
NA

DUWAMISH WATERWAY

KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 100 µg/L

N

SCALE: 1"= 100'

PL2-005A	WELL/PROBE NAME
7.02 µg/L	MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
4/25/04 (2)	DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
MANGANESE CONCENTRATIONS
IN LEVEL C GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	TK	DCK	6/9/04

2-60s AREA

EAST MARGINAL WAY SOUTH

SOUTH YARD AREA

BOEING PLANT 2

PL2-320A
ND< 10 µg/L
3/24/95 (2)

PL2-BF01A
NA

PL2-103A
ND < 10 µg/L
5/4/88 (1)

PL2-107A
NA

PL2-152A
3.2 µg/L
8/3/00

PL2-108A
NA

PL2-118A
ND < 10 µg/L
9/23/94 (1)

PL2-102A
ND < 10 µg/L
3/24/95 (2)

PL2-119A
ND < 10 µg/L
9/26/94 (1)

PL2-151A
1.3 µg/L
8/3/00

GP-08908
20.0 µg/L
3/17/95

GP-08701
ND < 10 µg/L
2/17/95 (1)

PL2-109A
NA

PL2-318A
NA

GP-08004
NA

PL2-153A
1.0 µg/L
1/25/01

PL2-101A
ND < 10 µg/L
3/24/95 (2)

PL2-111A
NA

PL2-105A
ND < 10 µg/L
5/4/88 (1)

PL2-154A
0.7 µg/L
1/25/01

PL2-156A
1.5 µg/L
8/4/00

GP-08905
ND < 10 µg/L
9/13/94 (1)

PL2-104A
ND < 10 µg/L
5/4/88 (1)

PL2-155A
2.5 µg/L
8/4/00

GP-08906
ND < 10 µg/L
11/29/94 (1)

PL2-JF023
NA

PL2-303A
ND < 10 µg/L
7/7/92 (1)

PL2-301A
ND < 10 µg/L
7/7/92 (1)

PL2-120A
ND < 10 µg/L
9/26/94 (1)

PL2-106AR
4.3 µg/L
8/20/02

PL2-106A
3.8 µg/L
1/22/01

GP-08904
ND < 10 µg/L
9/14/94 (1)

PL2-302A
ND < 10 µg/L
9/27/94 (2)

GP-08903
ND < 10 µg/L
9/14/94 (1)

GP-08901
ND < 10 µg/L
9/14/94 (1)

GP-08902
ND < 10 µg/L
9/14/94 (1)

PROPERTY BOUNDARY

GP-09103
ND < 10 µg/L
9/8/94 (1)

PL2-110A
NA

PL2-304A
ND < 10 µg/L
7/7/92 (1)

PL2-305A
ND < 10 µg/L
7/7/92 (1)

GP-08907
ND < 10 µg/L
11/28/94 (1)

PL2-114A
3.8 µg/L
1/18/89

GP-09106
20.0 µg/L
3/14/95

GP-08001
NA

PL2-115A
4.2 µg/L
8/20/02

PL2-JF021
NA

GP-08002
NA

PL2-113A
10.1 µg/L
8/20/02

GP-09104
ND < 10 µg/L
11/23/94 (1)

GP-08007
20.0 µg/L
2/17/95

GP-08003
NA

PL2-116A
1.5 µg/L
8/20/02

PL2-117A
6.3 µg/L
8/16/02

PL2-JF025
NA

PL2-JF022
NA

PL2-005A
ND < 10 µg/L
8/6/92 (2)

GP-08008
ND < 10 µg/L
7/26/95 (1)

PL2-112A
2.9 µg/L
8/15/02

GP-09107
ND < 10 µg/L
3/14/95 (1)

GP-09110
ND < 10 µg/L
9/19/95 (1)

GP-09101
ND < 10 µg/L
9/12/94 (1)

GP-09105
ND < 10 µg/L
11/23/94 (1)

PL2-006A
2.8 µg/L
8/14/02

GP-09102
ND < 10 µg/L
9/8/94 (1)

GP-09111
ND < 10 µg/L
9/20/95 (1)

GP-09108
ND < 10 µg/L
3/14/95 (1)

PL2-027A
5.1 µg/L
8/14/02

GP-06639
ND < 10 µg/L
3/16/95 (1)

GP-09112
ND < 10 µg/L
9/19/95 (1)

GP-06638
10.0 µg/L
3/16/95

GP-09109
ND < 10 µg/L
3/15/95 (1)

JORGENSEN FORGE FACILITY

GP-06637
60.0 µg/L
3/15/95

GP-06640
20.0 µg/L
3/15/95

GP-09113
20.0 µg/L
9/19/95

GP-06604
NA

GP-06636
NA

GP-09114
ND < 10 µg/L
9/20/95 (1)

2-66 AREA

GP-06602
NA

GP-06603
NA

GP-06635
NA

GP-06634
NA

PL2-JF02A
2.4 µg/L
1/21/02

GP-09115
ND < 10 µg/L
9/19/95 (1)

PL2-JF03A
1.2 µg/L
6/16/03

PL2-JF006A
NA

DUWAMISH WATERWAY

KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 8.2 µg/L

N

SCALE: 1"= 100'

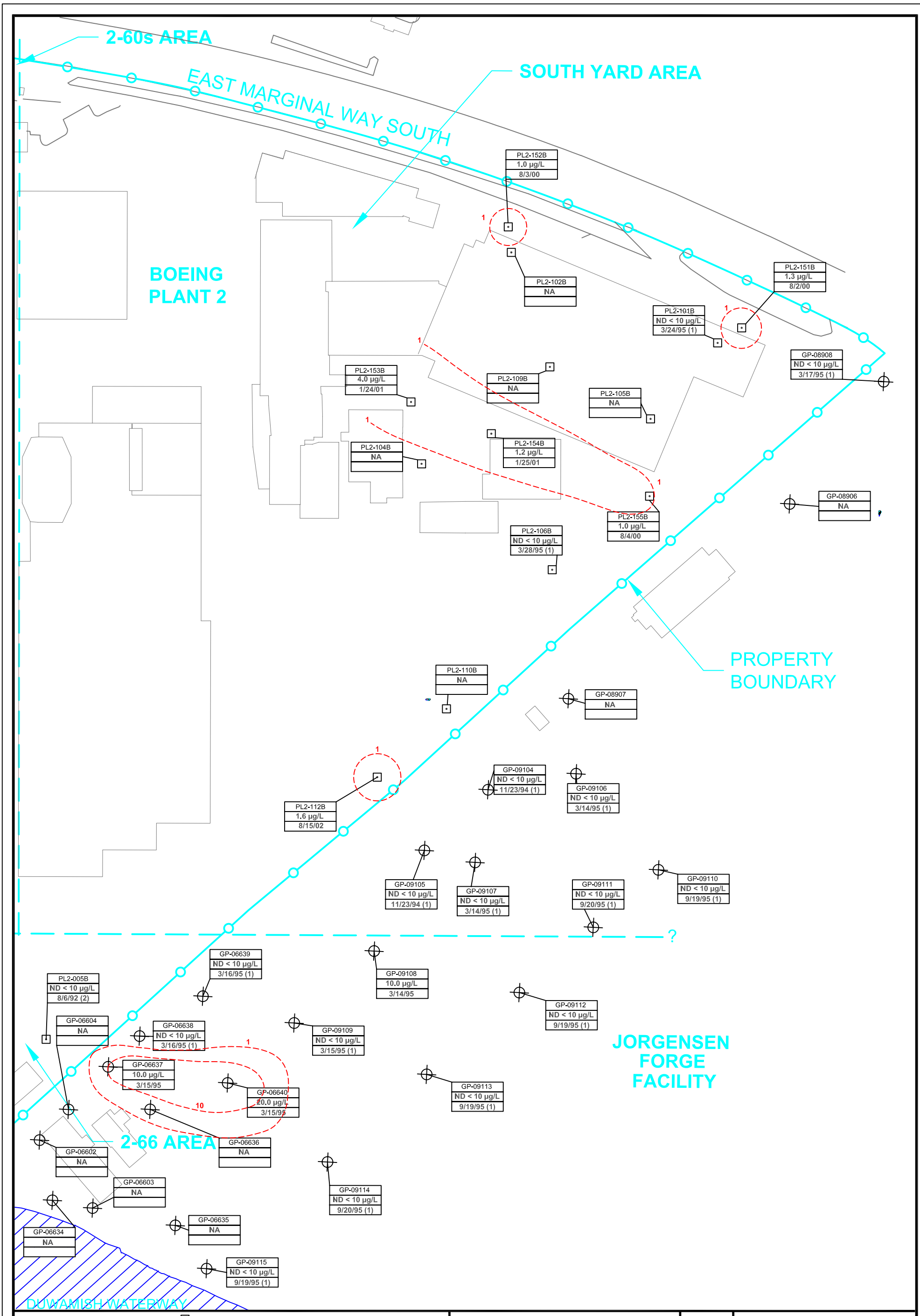
PL2-005A
7.02 µg/L
4/25/04 (2)

WELL/PROBE NAME
MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
NICKEL (DISSOLVED)
CONCENTRATIONS
IN LEVEL A GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET 1 of 1	DRAWN BY TK	REVIEWED BY DCK	DATE 6/9/04



KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 8.2 µg/L

N

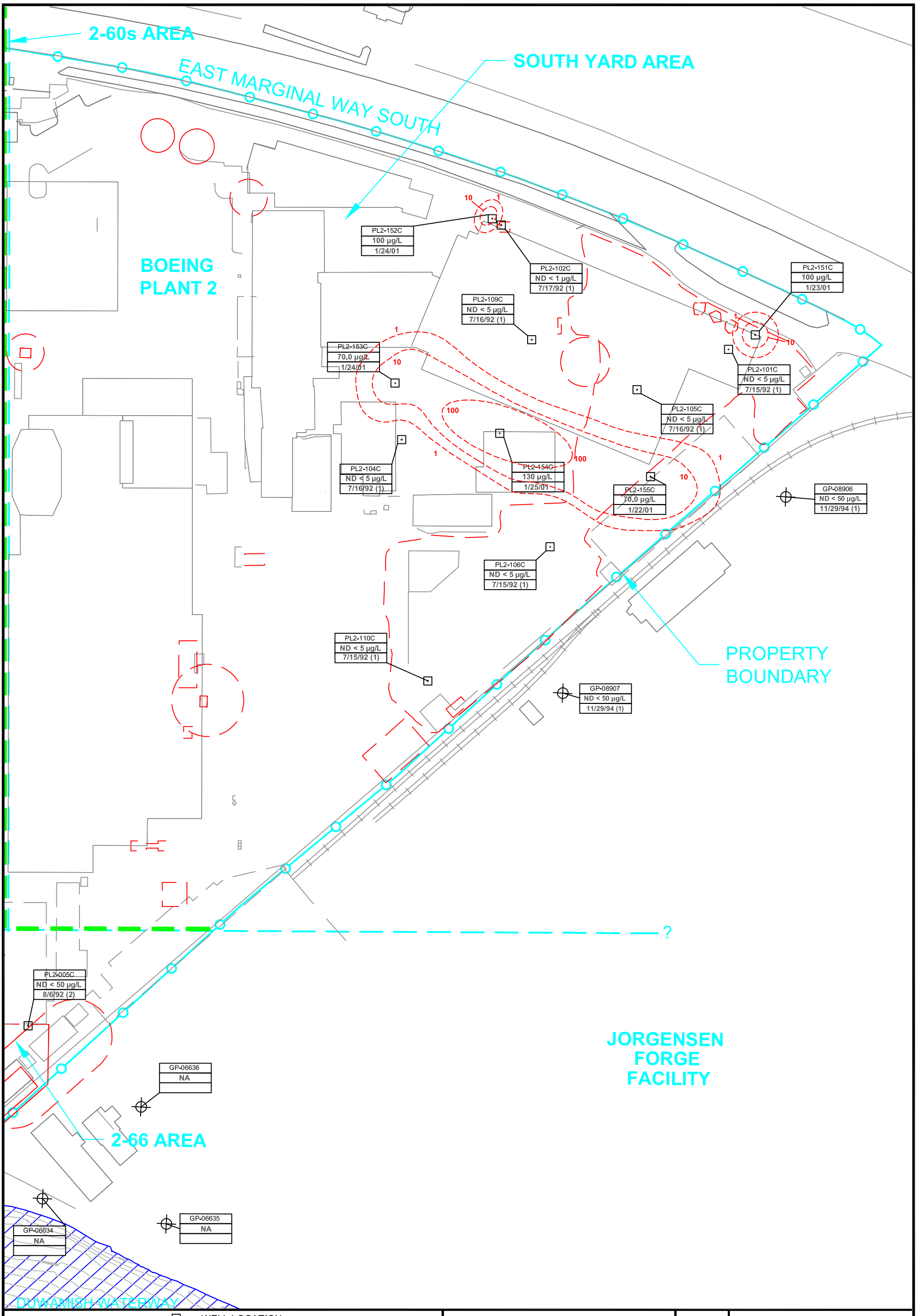
SCALE: 1"= 100'

PL2-005A	WELL/PROBE NAME
7.02 µg/L	MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
4/25/04 (2)	DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
NICKEL (DISSOLVED)
CONCENTRATIONS
IN LEVEL B GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	TK	DCK	6/9/04



KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 71 µg/L

N

SCALE: 1"= 100'

PL2-005A	WELL/PROBE NAME
7.02 µg/L	MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
4/25/04 (2)	DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
SELENIUM (DISSOLVED) CONCENTRATIONS
IN LEVEL C GROUNDWATER

PROJECT	BOEING PLANT 2			
PREPARED FOR	THE BOEING COMPANY			
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON			
SHEET	DRAWN BY	REVIEWED BY	DATE	
1 of 1	TK	DCK	6/14/04	

2-60s AREA

EAST MARGINAL WAY SOUTH

SOUTH YARD AREA

BOEING PLANT 2

PL2-320A NA

PL2-BF01A NA

PL2-103A ND < 2 µg/L 7/17/92 (1)

PL2-107A ND < 2 µg/L 7/17/92 (1)

PL2-152A NA

PL2-108A ND < 2 µg/L 7/17/92 (1)

PL2-118A ND < 3 µg/L 9/23/94 (1)

PL2-102A 1.4 µg/L 7/17/92

PL2-119A ND < 3 µg/L 9/26/94 (1)

PL2-151A NA

GP-08908 NA

GP-08701 ND < 3 µg/L 2/17/95 (1)

PL2-109A ND < 2 µg/L 7/16/92 (1)

PL2-318A NA

GP-08004 NA

PL2-153A NA

PL2-101A ND < 2 µg/L 7/15/92 (1)

PL2-111A ND < 2 µg/L 12/22/93 (1)

PL2-105A ND < 2 µg/L 7/16/92 (1)

PL2-154A NA

GP-08905 ND < 2 µg/L 9/13/94 (1)

PL2-156A NA

PL2-104A ND < 2 µg/L 7/16/92 (1)

GP-08906 NA

PL2-155A NA

PL2-JF023 NA

PL2-303A NA

PL2-301A NA

PL2-120A NA

PL2-106AR NA

PL2-106A ND < 2 µg/L 7/15/92 (1)

GP-08904 ND < 2 µg/L 9/14/94 (1)

PL2-302A NA

GP-08903 ND < 2 µg/L 9/14/94 (1)

GP-08901 ND < 2 µg/L 9/14/94 (1)

GP-08902 NA

PROPERTY BOUNDARY

GP-09103 ND < 2 µg/L 9/8/94 (1)

PL2-110A ND < 2 µg/L 7/15/92 (1)

PL2-304A NA

PL2-305A NA

PL2-114A 520 µg/L 1/18/89

GP-08907 NA

GP-08001 NA

GP-09106 NA

PL2-115A NA

GP-08002 NA

PL2-113A ND < 2 µg/L 1/18/89 (1)

PL2-JF021 NA

GP-09104 NA

GP-08007 NA

GP-08003 NA

PL2-116A NA

PL2-117A ND < 2 µg/L 1/18/89

PL2-JF025 NA

PL2-JF022 NA

PL2-005A NA

GP-08008 NA

PL2-112A ND < 2 µg/L 1/18/89 (1)

GP-09107 NA

GP-09110 NA

GP-09101 ND < 2 µg/L 9/12/94 (1)

PL2-006A NA

GP-09105 NA

GP-09102 ND < 2 µg/L 9/8/94 (1)

GP-09111 NA

GP-09108 NA

PL2-027A ND < 2 µg/L 12/21/93 (1)

GP-06639 NA

GP-09112 NA

GP-06638 NA

GP-09109 NA

JORGENSEN FORGE FACILITY

GP-06637 NA

GP-06640 NA

GP-09113 NA

GP-06604 NA

2-66 AREA

GP-06636 NA

GP-09114 NA

GP-06602 NA

GP-06603 NA

GP-06635 NA

GP-06634 NA

PL2-JF02A NA

GP-09115 NA

PL2-JF006A NA

PL2-JF03A NA

DUWAMISH WATERWAY

KEY

WELL LOCATION

PROBE LOCATION

AREA BOUNDARY

PROPERTY BOUNDARY

ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 201 µg/L

N

SCALE: 1"= 100'

PL2-005A — WELL/PROBE NAME

7.02 µg/L — MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT

4/25/04 (2) — DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
2,4-DIMETHYLPHENOL CONCENTRATIONS IN LEVEL A GROUNDWATER

PROJECT	BOEING PLANT 2
PREPARED FOR	THE BOEING COMPANY
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON

SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	JMW	DCK	6/14/04

2-60s AREA

EAST MARGINAL WAY SOUTH

SOUTH YARD AREA

BOEING PLANT 2

PROPERTY BOUNDARY

JORGENSEN FORGE FACILITY

2-66 AREA

DUWAMISH WATERWAY

PL2-320A NA

PL2-BF01A NA

PL2-103A ND < 1 µg/L 7/17/92 (2)

PL2-107A ND < 1 µg/L 7/17/92 (1)

PL2-152A NA

PL2-108A ND < 1 µg/L 7/17/92 (1)

PL2-118A ND < 1 µg/L 9/23/94 (1)

PL2-102A 5.0 µg/L 5/4/88

PL2-119A ND < 1 µg/L 9/26/94 (1)

PL2-151A NA

GP-08908 NA

GP-08701 ND < 1 µg/L 2/17/95 (1)

PL2-109A ND < 1 µg/L 7/16/92 (1)

PL2-101A ND < 1 µg/L 7/15/92 (2)

PL2-318A NA

GP-08004 NA

PL2-153A NA

PL2-111A ND < 1 µg/L 12/22/93 (1)

PL2-105A ND < 1 µg/L 7/16/92 (2)

PL2-154A NA

GP-08905 ND < 1 µg/L 9/13/94 (1)

PL2-156A NA

PL2-104A ND < 1 µg/L 7/16/92 (2)

GP-08906 NA

PL2-155A NA

PL2-JF023 NA

PL2-303A NA

PL2-301A NA

PL2-120A ND < 1 µg/L 9/26/94 (1)

PL2-106AR NA

PL2-106A ND < 1 µg/L 7/15/92 (2)

GP-08904 ND < 1 µg/L 9/14/94 (1)

PL2-302A NA

GP-08903 ND < 1 µg/L 9/14/94 (1)

GP-08901 12.0 µg/L 9/14/94

GP-08902 ND < 1 µg/L 9/14/94 (1)

GP-09103 ND < 1 µg/L 9/8/94 (1)

PL2-110A ND < 1 µg/L 7/15/92 (1)

PL2-304A NA

PL2-305A NA

PL2-114A 7.0 µg/L 1/18/89

GP-08907 NA

GP-08001 NA

GP-09106 NA

PL2-115A NA

GP-08002 NA

PL2-113A 6.0 µg/L 1/18/89

PL2-JF021 NA

GP-09104 NA

GP-08007 NA

GP-08003 NA

PL2-116A NA

PL2-117A 13.0 µg/L 1/18/89

PL2-JF025 NA

PL2-JF022 NA

PL2-005A NA

GP-08008 NA

PL2-112A 6.0 µg/L 1/18/89

GP-09101 ND < 1 µg/L 9/12/94 (1)

GP-09107 NA

GP-09110 NA

PL2-006A NA

GP-09105 NA

GP-09102 ND < 1 µg/L 9/8/94 (1)

GP-09111 NA

GP-09108 NA

PL2-027A ND < 1 µg/L 12/21/93 (1)

GP-06639 NA

GP-09112 NA

GP-06638 NA

GP-09109 NA

GP-06637 NA

GP-06640 NA

GP-09113 NA

GP-06604 NA

GP-06636 NA

GP-09114 NA

GP-06602 NA

GP-06603 NA

GP-06635 NA

GP-06634 NA

PL2-JF02A NA

GP-09115 NA

PL2-JF006A NA

PL2-JF03A NA

1

10

?

KEY

WELL LOCATION

PROBE LOCATION

AREA BOUNDARY

PROPERTY BOUNDARY

ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 3 µg/L

N

SCALE: 1"= 100'

PL2-005A — WELL/PROBE NAME

7.02 µg/L — MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT

4/25/04 (2) — DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
BIS(2-ETHYLHEXYL)PHTHALATE CONCENTRATIONS IN LEVEL A GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET 1 of 1	DRAWN BY TK	REVIEWED BY DCK	DATE 6/9/04

2-60s AREA

EAST MARGINAL WAY SOUTH

SOUTH YARD AREA

BOEING PLANT 2

PROPERTY BOUNDARY

JORGENSEN FORGE FACILITY

2-66 AREA

DUWAMISH WATERWAY

PL2-320A NA

PL2-BF01A NA

PL2-103A ND < 1 µg/L 7/17/92 (1)

PL2-107A 0.53 µg/L 7/17/92

PL2-152A 0.36 µg/L 8/3/00

PL2-108A ND < 1 µg/L 7/17/92 (1)

0.1

1

PL2-118A ND < 1 µg/L 9/23/94 (1)

PL2-102A 1.9 µg/L 7/17/92

PL2-119A ND < 1 µg/L 9/26/94 (1)

PL2-151A ND < 0.017 µg/L 2/23/01 (2)

GP-08908 NA

GP-08701 ND < 1 µg/L 2/17/95 (1)

PL2-109A ND < 1 µg/L 7/16/92 (1)

PL2-101A ND < 1 µg/L 7/15/92 (1)

PL2-318A NA

GP-08004 NA

PL2-153A ND < 0.017 µg/L 2/26/01 (1)

PL2-111A ND < 1 µg/L 12/22/93 (1)

PL2-105A ND < 1 µg/L 7/16/92 (1)

PL2-154A ND < 0.017 µg/L 2/27/01 (1)

GP-08905 NA

PL2-156A 0.018 µg/L 8/4/00

0.01

PL2-104A ND < 1 µg/L 7/16/92 (1)

GP-08906 NA

PL2-155A ND < 0.017 µg/L 2/23/01 (2)

PL2-303A NA

PL2-301A NA

PL2-120A ND < 1 µg/L 9/26/94 (1)

PL2-106AR ND < 0.017 µg/L 2/22/01 (1)

PL2-106A ND < 0.01 µg/L 8/4/00 (2)

PL2-JF023 NA

GP-08904 NA

PL2-302A NA

GP-08903 NA

GP-08901 ND < 1 µg/L 9/14/94 (1)

GP-08902 NA

GP-09103 ND < 1 µg/L 9/8/94 (1)

PL2-110A ND < 1 µg/L 7/15/92 (1)

PL2-304A NA

PL2-305A NA

PL2-114A NA

GP-08907 NA

GP-08001 NA

PL2-115A NA

GP-09106 NA

GP-08002 NA

PL2-113A NA

PL2-JF021 NA

GP-09104 NA

GP-08007 NA

GP-08003 NA

PL2-116A NA

PL2-117A NA

PL2-JF025 NA

PL2-JF022 NA

PL2-005A ND < 0.1 µg/L 8/6/92 (1)

GP-08008 NA

PL2-112A NA

GP-09107 NA

GP-09110 NA

GP-09101 ND < 1 µg/L 9/12/94 (1)

GP-09105 NA

PL2-006A 8.9 µg/L 3/31/95

GP-09102 ND < 1 µg/L 9/8/94 (1)

?

GP-09111 NA

GP-09108 NA

PL2-027A NA

GP-06639 NA

GP-09112 NA

GP-06638 NA

GP-09109 NA

0.1

1

GP-06637 NA

GP-09113 NA

GP-06640 NA

GP-06604 ND < 1 µg/L 9/13/94 (1)

GP-06636 NA

GP-09114 NA

GP-06602 ND < 1 µg/L 9/13/94 (1)

GP-06603 ND < 1 µg/L 9/12/94 (1)

GP-06635 NA

GP-06634 NA

PL2-JF02A ND < 0.01 µg/L 6/16/03 (1)

GP-09115 NA

PL2-JF006A NA

PL2-JF03A NA

KEY

WELL LOCATION

PROBE LOCATION

AREA BOUNDARY

PROPERTY BOUNDARY

ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 0.01 µg/L

N

SCALE: 1"= 100'

PL2-005A — WELL/PROBE NAME

7.02 µg/L — MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT

4/25/04 (2) — DATE (NUMBER OF NON-DETECTS)

epi ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
TOTAL PCBs CONCENTRATIONS IN LEVEL A GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET 1 of 1	DRAWN BY TK	REVIEWED BY DCK	DATE 6/9/04

2-60s AREA

EAST MARGINAL WAY SOUTH

SOUTH YARD AREA

BOEING PLANT 2

PL2-320A
NA

PL2-BF01A
ND < 1 µg/L
8/27/02 (1)

PL2-103A
ND < 1 µg/L
7/17/92 (2)

PL2-107A
ND < 1 µg/L
7/17/92 (1)

PL2-152A
ND < 1 µg/L
1/24/01 (2)

PL2-108A
NA

PL2-118A
ND < 1 µg/L
9/23/94 (1)

PL2-102A
ND < 100 µg/L
3/24/95 (3)

PL2-119A
ND < 1 µg/L
8/23/96 (5)

GP-08908
ND < 1 µg/L
3/17/95 (1)

GP-08701
ND < 1 µg/L
2/17/95 (1)

PL2-109A
ND < 1 µg/L
7/16/92 (1)

PL2-151A
ND < 1 µg/L
1/23/01 (2)

PL2-318A
NA

GP-08004
NA

PL2-101A
7.0 µg/L
5/4/88

PL2-111A
ND < 1 µg/L
12/22/93 (1)

PL2-153A
ND < 1 µg/L
1/25/01 (1)

PL2-105A
1.5 µg/L
7/16/92

PL2-154A
ND < 1 µg/L
1/25/01 (1)

PL2-156A
1.6 µg/L
8/4/00

GP-08905
ND < 1 µg/L
9/13/94 (1)

PL2-104A
ND < 1 µg/L
7/16/92 (2)

PL2-155A
ND < 1 µg/L
1/22/01 (2)

GP-08906
ND < 1 µg/L
11/29/94 (1)

PL2-JF023
NA

PL2-303A
ND < 1 µg/L
7/7/92 (1)

PL2-301A
ND < 1 µg/L
7/7/92 (1)

PL2-120A
ND < 1 µg/L
9/26/94 (1)

PL2-106AR
NA

PL2-106A
1.4 µg/L
11/21/95

GP-08904
ND < 1 µg/L
9/14/94 (1)

PL2-302A
ND < 1 µg/L
7/7/92 (1)

GP-08903
ND < 1 µg/L
9/14/94 (1)

GP-08901
12.0 µg/L
9/14/94

GP-08902
ND < 1 µg/L
9/14/94 (1)

PROPERTY BOUNDARY

GP-09103
ND < 1 µg/L
9/8/94 (1)

PL2-110A
3.2 µg/L
8/16/95

PL2-304A
200 µg/L
7/7/92

PL2-305A
ND < 1 µg/L
7/7/92 (1)

PL2-114A
18.0 µg/L
8/2/89

GP-08907
ND < 1 µg/L
11/28/94 (1)

GP-08001
ND < 1 µg/L
9/2/94 (1)

GP-09106
ND < 1 µg/L
3/14/95 (1)

PL2-115A
ND < 1 µg/L
8/20/02 (2)

GP-08002
ND < 1 µg/L
9/8/94 (1)

PL2-113A
5.1 µg/L
8/20/02

PL2-JF021
NA

GP-09104
2.7 µg/L
11/23/94

GP-08007
ND < 1 µg/L
2/17/95 (1)

GP-08003
ND < 1 µg/L
8/25/94 (1)

PL2-116A
ND < 1 µg/L
8/20/02 (2)

PL2-117A
ND < 1 µg/L
8/16/02 (3)

PL2-JF025
NA

PL2-JF022
NA

PL2-005A
0.6 µg/L
8/6/92

GP-08008
ND < 1 µg/L
7/26/95 (1)

PL2-112A
2.0 µg/L
8/2/89

GP-09107
7.2 µg/L
3/14/95

GP-09110
ND < 1 µg/L
9/19/95 (1)

GP-09101
ND < 1 µg/L
9/12/94 (1)

GP-09105
4.1 µg/L
11/23/94

PL2-006A
31.0 µg/L
8/6/92

GP-09102
ND < 1 µg/L
9/8/94 (1)

?

GP-09111
ND < 1 µg/L
9/20/95 (1)

GP-09108
5.4 µg/L
3/14/95

PL2-027A
ND < 1 µg/L
8/14/02 (2)

GP-06639
16.0 µg/L
3/16/95

GP-09112
ND < 1 µg/L
9/19/95 (1)

GP-06638
4.4 µg/L
3/16/95

GP-09109
5.8 µg/L
3/15/95

JORGENSEN FORGE FACILITY

GP-06637
1.0 µg/L
3/15/95

GP-06640
ND < 1 µg/L
3/15/95 (1)

GP-09113
ND < 1 µg/L
9/19/95 (1)

GP-06604
300 µg/L
9/13/94

2-66 AREA

GP-06636
7.8 µg/L
11/21/94

GP-09114
1.3 µg/L
9/20/95

GP-06602
32.0 µg/L
9/13/94

GP-06603
1.8 µg/L
9/12/94

GP-06635
ND < 1 µg/L
11/22/94 (1)

GP-06634
ND < 1 µg/L
11/22/94 (1)

PL2-JF02A
1.3 µg/L
9/27/95

GP-09115
ND < 1 µg/L
9/19/95 (1)

PL2-JF006A
NA

PL2-JF03A
ND < 1 µg/L
12/8/03 (12)

DUWAMISH WATERWAY

KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 4.48 µg/L

N

SCALE: 1"= 100'

PL2-005A
7.02 µg/L
4/25/04 (2)

WELL/PROBE NAME
MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
BENZENE CONCENTRATIONS
IN LEVEL A GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET 1 of 1	DRAWN BY TK	REVIEWED BY DCK	DATE 6/10/04

2-60s AREA

EAST MARGINAL WAY SOUTH

SOUTH YARD AREA

BOEING PLANT 2

PL2-320A
NA

PL2-BF01A
ND < 1 µg/L
8/27/02 (1)

PL2-103A
ND < 1 µg/L
7/17/92 (2)

PL2-107A
0.5 µg/L
7/17/92

PL2-152A
ND < 1 µg/L
1/24/01 (2)

PL2-108A
NA

PL2-118A
ND < 1 µg/L
9/23/94 (1)

PL2-102A
64.0 µg/L
5/4/88

PL2-119A
ND < 1 µg/L
8/23/96 (5)

10

1

GP-08908
ND < 1 µg/L
3/17/95 (1)

GP-08701
2.7 µg/L
2/17/95

PL2-109A
8.9 µg/L
7/16/92

PL2-151A
ND < 1 µg/L
1/23/01 (2)

PL2-101A
1.0 µg/L
5/4/88

PL2-318A
NA

GP-08004
NA

PL2-153A
ND < 1 µg/L
1/25/01 (1)

PL2-111A
ND < 1 µg/L
12/22/93 (1)

PL2-105A
ND < 1 µg/L
7/16/92 (2)

PL2-154A
ND < 1 µg/L
1/25/01 (1)

GP-08905
ND < 1 µg/L
9/13/94 (1)

PL2-156A
ND < 1 µg/L
1/23/01 (2)

PL2-104A
ND < 1 µg/L
7/16/92 (2)

PL2-155A
ND < 1 µg/L
1/22/01 (2)

GP-08906
ND < 1 µg/L
11/29/94 (1)

1

PL2-303A
ND < 1 µg/L
7/7/92 (1)

PL2-301A
ND < 1 µg/L
7/7/92 (1)

PL2-120A
ND < 1 µg/L
9/26/94 (1)

PL2-106AR
NA

PL2-106A
3.0 µg/L
5/4/88

PL2-JF023
NA

GP-08904
ND < 1 µg/L
9/14/94 (1)

PL2-302A
ND < 1 µg/L
7/7/92 (1)

GP-08903
ND < 1 µg/L
9/14/94 (1)

GP-08901
ND < 1 µg/L
9/14/94 (1)

GP-08902
ND < 1 µg/L
9/14/94 (1)

PROPERTY BOUNDARY

GP-09103
ND < 1 µg/L
9/8/94 (1)

PL2-110A
1.2 µg/L
7/15/92

1

PL2-304A
ND < 1 µg/L
3/24/95 (2)

PL2-305A
ND < 1 µg/L
7/7/92 (1)

GP-08907
ND < 1 µg/L
11/28/94 (1)

PL2-114A
ND < 1.3 µg/L
1/18/89 (2)

GP-08001
ND < 1 µg/L
9/2/94 (1)

GP-09106
ND < 1 µg/L
3/14/95 (1)

PL2-115A
ND < 1 µg/L
8/20/02 (2)

GP-08002
ND < 1 µg/L
9/8/94 (1)

1

PL2-113A
1.9 µg/L
8/20/02

10

PL2-JF021
NA

GP-09104
ND < 1 µg/L
11/23/94 (1)

GP-08007
ND < 1 µg/L
2/17/95 (1)

GP-08003
ND < 1 µg/L
8/25/94 (1)

PL2-116A
ND < 1 µg/L
8/20/02 (2)

PL2-117A
1.7 µg/L
8/2/89

PL2-JF025
NA

PL2-JF022
NA

PL2-005A
ND < 1 µg/L
8/6/92 (3)

PL2-112A
18.0 µg/L
3/31/95

GP-08008
1.3 µg/L
7/26/95

GP-09101
ND < 1 µg/L
9/12/94 (1)

GP-09107
ND < 1 µg/L
3/14/95 (1)

GP-09110
ND < 1 µg/L
9/19/95 (1)

GP-09105
ND < 1 µg/L
11/23/94 (1)

PL2-006A
ND < 1 µg/L
8/6/92 (5)

GP-09102
ND < 1 µg/L
9/8/94 (1)

?

GP-09111
ND < 1 µg/L
9/20/95 (1)

GP-09108
ND < 1 µg/L
3/14/95 (1)

PL2-027A
ND < 1 µg/L
12/21/93 (1)

GP-06639
ND < 1 µg/L
3/16/95 (1)

GP-09112
ND < 1 µg/L
9/19/95 (1)

GP-06638
ND < 1 µg/L
3/16/95 (1)

GP-09109
ND < 1 µg/L
3/15/95 (1)

JORGENSEN FORGE FACILITY

GP-06637
ND < 1 µg/L
3/15/95 (1)

GP-06640
ND < 1 µg/L
3/15/95 (1)

GP-09113
ND < 1 µg/L
9/19/95 (1)

GP-06604
ND < 1 µg/L
9/13/94 (1)

GP-06636
ND < 1 µg/L
11/21/94 (1)

GP-09114
ND < 1 µg/L
9/20/95 (1)

2-66 AREA

GP-06602
ND < 1 µg/L
9/13/94 (1)

GP-06603
ND < 1 µg/L
9/12/94 (1)

GP-06635
ND < 1 µg/L
11/22/94 (1)

GP-06634
ND < 1 µg/L
11/22/94 (1)

PL2-JF02A
ND < 1 µg/L
2/2/04 (14)

GP-09115
ND < 1 µg/L
9/19/95 (1)

PL2-JF03A
ND < 1 µg/L
12/8/03 (12)

PL2-JF006A
NA

DUWAMISH WATERWAY

KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

N

SCALE: 1"= 100'

SCREENING LEVEL (2004) = 0.382 µg/L

PL2-005A — WELL/PROBE NAME
7.02 µg/L — MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
4/25/04 (2) — DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
1,1-DICHLOROETHENE
CONCENTRATIONS
IN LEVEL A GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	TK	DCK	6/10/04

2-60s AREA

EAST MARGINAL WAY SOUTH

SOUTH YARD AREA

BOEING PLANT 2

PL2-320A
NA

PL2-BF01A
ND < 1 µg/L
8/27/02 (1)

PL2-103A
ND < 1 µg/L
7/17/92 (2)

PL2-107A
130 µg/L
7/17/92

PL2-152A
4.6 µg/L
8/3/00

PL2-108A
NA

PL2-118A
ND < 1 µg/L
9/23/94 (1)

PL2-102A
110,000 µg/L
5/4/88

PL2-119A
2.8 µg/L
9/26/94

GP-08908
ND < 1 µg/L
3/17/95 (1)

GP-08701
13.0 µg/L
2/17/95

PL2-109A
370 µg/L
7/16/92

PL2-151A
4.1 µg/L
8/3/00

PL2-318A
NA

GP-08004
NA

PL2-153A
ND < 1 µg/L
1/25/01 (1)

PL2-101A
23.0 µg/L
7/15/92

PL2-111A
70.0 µg/L
12/22/93

PL2-154A
ND < 1 µg/L
1/25/01 (1)

PL2-105A
8.0 µg/L
5/4/88

GP-08905
8.5 µg/L
9/13/94

PL2-104A
ND < 1 µg/L
7/16/92 (2)

PL2-156A
2.9 µg/L
8/4/00

GP-08906
40.0 µg/L
11/29/94

PL2-155A
6.6 µg/L
1/22/01

PL2-303A
ND < 1 µg/L
7/7/92 (1)

PL2-301A
1.0 µg/L
7/7/92

PL2-120A
ND < 1 µg/L
9/26/94 (1)

PL2-106AR
NA

PL2-106A
150 µg/L
11/21/95

PL2-JF023
NA

GP-08904
17.0 µg/L
9/14/94

PL2-302A
ND < 1 µg/L
7/7/92 (1)

GP-08903
53.0 µg/L
9/14/94

GP-08901
12.0 µg/L
9/14/94

GP-09103
ND < 1 µg/L
9/8/94 (1)

PL2-110A
23.0 µg/L
7/15/92

GP-08902
57.0 µg/L
9/14/94

PROPERTY BOUNDARY

PL2-304A
1.5 µg/L
7/7/92

PL2-305A
1.8 µg/L
7/7/92

PL2-114A
NA

GP-08907
60.0 µg/L
11/28/94

GP-08001
ND < 1 µg/L
9/2/94 (1)

GP-09106
58.0 µg/L
3/14/95

PL2-115A
94.0 µg/L
8/20/02

GP-08002
1.2 µg/L
9/8/94

PL2-113A
5.9 µg/L
8/20/02

PL2-JF021
NA

GP-09104
ND < 1 µg/L
11/23/94 (1)

GP-08007
ND < 1 µg/L
2/17/95 (1)

GP-08003
1.1 µg/L
8/25/94

PL2-116A
1.4 µg/L
8/20/02

PL2-117A
8.1 µg/L
8/16/02

PL2-JF025
NA

PL2-JF022
NA

PL2-005A
11.0 µg/L
2/13/91

GP-08008
5.8 µg/L
7/26/95

PL2-112A
7.7 µg/L
3/31/95

GP-09107
ND < 1 µg/L
3/14/95 (1)

GP-09110
ND < 1 µg/L
9/19/95 (1)

GP-09101
ND < 1 µg/L
9/12/94 (1)

PL2-006A
1,100 µg/L
2/13/91

GP-09105
ND < 1 µg/L
11/23/94 (1)

GP-09102
ND < 1 µg/L
9/8/94 (1)

GP-09111
ND < 1 µg/L
9/20/95 (1)

GP-09108
ND < 1 µg/L
3/14/95 (1)

PL2-027A
3.5 µg/L
12/21/93

GP-06639
4.0 µg/L
3/16/95

GP-09112
ND < 1 µg/L
9/19/95 (1)

GP-06638
1.3 µg/L
3/16/95

GP-09109
ND < 1 µg/L
3/15/95 (1)

JORGENSEN FORGE FACILITY

GP-06637
3.6 µg/L
3/15/95

GP-06640
ND < 1 µg/L
3/15/95 (1)

GP-09113
ND < 1 µg/L
9/19/95 (1)

GP-06604
ND < 1 µg/L
9/13/94 (1)

2-66 AREA

GP-06636
54.0 µg/L
11/21/94

GP-09114
ND < 1 µg/L
9/20/95 (1)

GP-06602
ND < 1 µg/L
9/13/94 (1)

GP-06603
5.6 µg/L
9/12/94

GP-06635
ND < 1 µg/L
11/22/94 (1)

GP-09115
ND < 1 µg/L
9/19/95 (1)

PL2-JF006A
NA

GP-06634
33.0 µg/L
11/22/94

PL2-JF02A
ND < 1 µg/L
2/2/04 (14)

PL2-JF03A
ND < 1 µg/L
12/8/03 (12)

DUWAMISH WATERWAY

KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

N

SCALE: 1"= 100'

SCREENING LEVEL (2004) = 1,130 µg/L

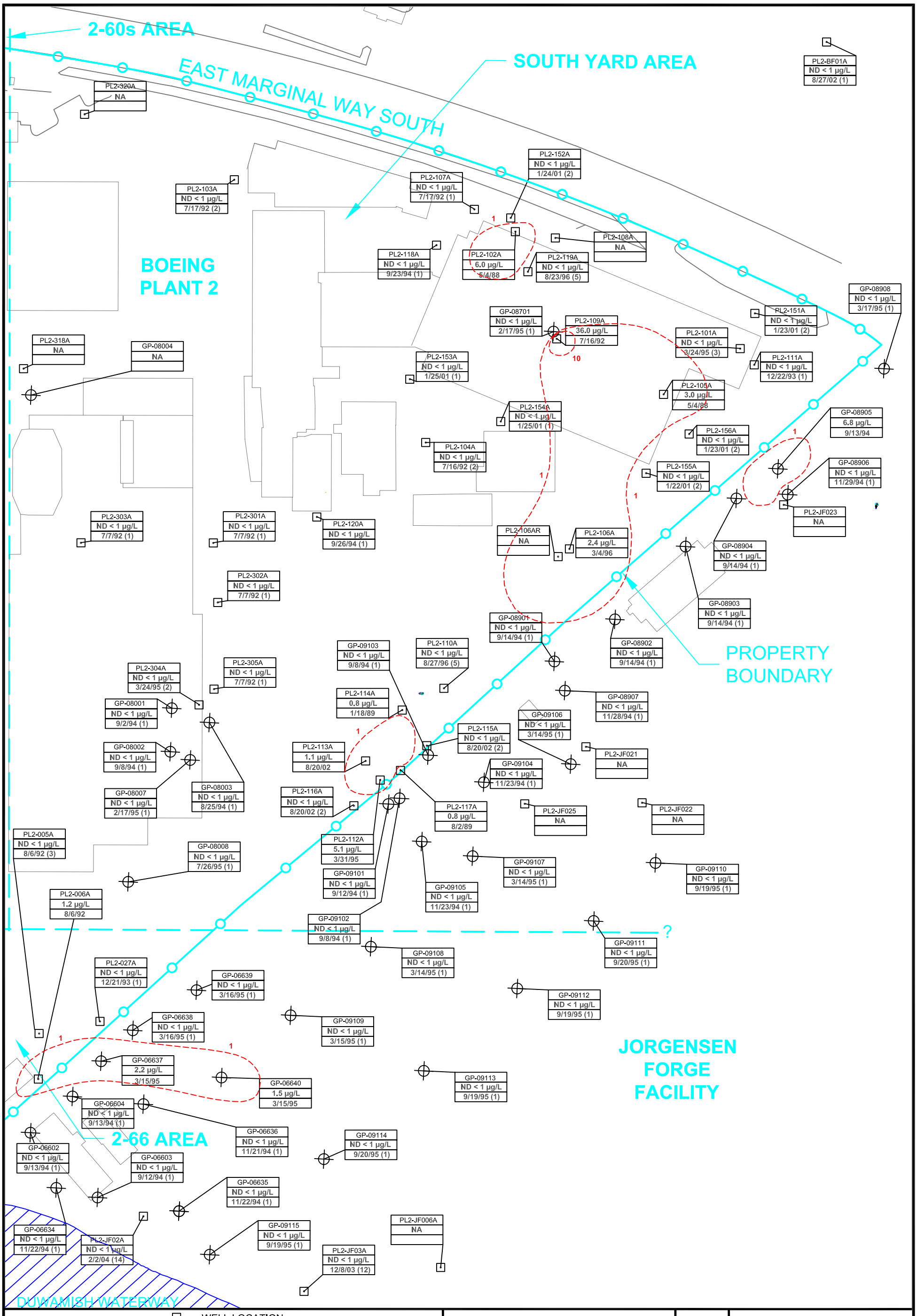
PL2-005A
7.02 µg/L
4/25/04 (2)

WELL/PROBE NAME
MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
CIS-1,2-DICHLOROETHENE CONCENTRATIONS IN LEVEL A GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	TK	DCK	6/10/04



KEY

- WELL LOCATION
- PROBE LOCATION
- AREA BOUNDARY
- PROPERTY BOUNDARY
- ISOCONCENTRATION LINE

N

SCALE: 1"= 100'

SCREENING LEVEL (2004) = 0.822 µg/L

PL2-005A	WELL/PROBE NAME
7.02 µg/L	MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
4/25/04 (2)	DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
TETRACHLOROETHENE
CONCENTRATIONS
IN LEVEL A GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET 1 of 1	DRAWN BY TK	REVIEWED BY DCK	DATE 6/10/04

2-60s AREA

EAST MARGINAL WAY SOUTH

SOUTH YARD AREA

BOEING PLANT 2

PL2-BF01A
NA

PL2-320A
NA

PL2-103A
ND < 1 µg/L
7/17/92 (2)

PL2-107A
ND < 1 µg/L
7/17/92 (1)

PL2-152A
ND < 1 µg/L
1/24/01 (2)

PL2-118A
ND < 1 µg/L
9/23/94 (1)

PL2-102A
ND < 1 µg/L
3/24/95 (3)

PL2-119A
ND < 1 µg/L
8/23/96 (5)

PL2-108A
NA

GP-08908
ND < 1 µg/L
3/17/95 (1)

GP-08701
ND < 1 µg/L
2/17/95 (1)

PL2-109A
8.5 µg/L
7/16/92

PL2-151A
ND < 1 µg/L
1/23/01 (2)

PL2-101A
ND < 1 µg/L
3/24/95 (3)

PL2-111A
ND < 1 µg/L
12/22/93 (1)

PL2-318A
NA

GP-08004
NA

PL2-153A
ND < 1 µg/L
1/25/01 (1)

PL2-105A
ND < 1 µg/L
7/16/92 (2)

PL2-154A
ND < 1 µg/L
1/25/01 (1)

GP-08905
ND < 1 µg/L
9/13/94 (1)

PL2-156A
ND < 1 µg/L
1/23/01 (2)

PL2-104A
ND < 1 µg/L
7/16/92 (2)

PL2-155A
ND < 1 µg/L
1/22/01 (2)

GP-08906
NA

PL2-JF023
NA

PL2-303A
ND < 1 µg/L
7/7/92 (1)

PL2-301A
ND < 1 µg/L
7/7/92 (1)

PL2-120A
ND < 1 µg/L
9/26/94 (1)

PL2-106AR
NA

PL2-106A
ND < 1 µg/L
1/22/01 (9)

GP-08904
ND < 1 µg/L
9/14/94 (1)

PL2-302A
ND < 1 µg/L
7/7/92 (1)

GP-08903
ND < 1 µg/L
9/14/94 (1)

GP-08901
ND < 1 µg/L
9/14/94 (1)

GP-08902
ND < 1 µg/L
9/14/94 (1)

PROPERTY BOUNDARY

GP-09103
ND < 1 µg/L
9/8/94 (1)

PL2-110A
ND < 1 µg/L
8/27/96 (5)

PL2-304A
ND < 1 µg/L
3/24/95 (2)

PL2-305A
ND < 1 µg/L
7/7/92 (1)

PL2-114A
1.0 µg/L
1/18/89

GP-08907
NA

GP-08001
ND < 1 µg/L
9/2/94 (1)

GP-09106
ND < 1 µg/L
3/14/95 (1)

PL2-115A
ND < 1 µg/L
8/20/02 (2)

GP-08002
ND < 1 µg/L
9/8/94 (1)

PL2-113A
ND < 1 µg/L
8/20/02 (3)

PL2-JF021
NA

GP-09104
ND < 1 µg/L
11/23/94 (1)

GP-08003
ND < 1 µg/L
8/25/94 (1)

GP-08007
ND < 1 µg/L
2/17/95 (1)

PL2-116A
ND < 1 µg/L
8/20/02 (2)

PL2-117A
0.6 µg/L
1/18/89

PL2-JF025
NA

PL2-JF022
NA

PL2-005A
ND < 1 µg/L
8/6/92 (3)

GP-08008
ND < 1 µg/L
7/26/95 (1)

PL2-112A
ND < 1 µg/L
3/31/95 (4)

GP-09101
ND < 1 µg/L
9/12/94 (1)

GP-09107
ND < 1 µg/L
3/14/95 (1)

GP-09110
ND < 1 µg/L
9/19/95 (1)

PL2-006A
ND < 1 µg/L
3/31/95 (5)

GP-09105
ND < 1 µg/L
11/23/94 (1)

GP-09102
ND < 1 µg/L
9/8/94 (1)

GP-09108
ND < 1 µg/L
3/14/95 (1)

GP-09111
ND < 1 µg/L
9/20/95 (1)

PL2-027A
ND < 1 µg/L
8/14/02 (1)

GP-06639
ND < 1 µg/L
3/16/95 (1)

GP-09112
ND < 1 µg/L
9/19/95 (1)

GP-06638
ND < 1 µg/L
3/16/95 (1)

GP-09109
ND < 1 µg/L
3/15/95 (1)

GP-06637
ND < 1 µg/L
3/15/95 (1)

GP-09113
ND < 1 µg/L
9/19/95 (1)

GP-06640
ND < 1 µg/L
3/15/95 (1)

JORGENSEN FORGE FACILITY

GP-06604
ND < 5 µg/L
9/13/94 (1)

2-66 AREA

GP-06636
NA

GP-09114
ND < 1 µg/L
9/20/95 (1)

GP-06602
ND < 1 µg/L
9/13/94 (1)

GP-06603
ND < 1 µg/L
9/12/94 (1)

GP-06635
NA

GP-06634
NA

PL2-JF02A
ND < 1 µg/L
2/2/04 (14)

GP-09115
ND < 1 µg/L
9/19/95 (1)

PL2-JF03A
ND < 1 µg/L
12/8/03 (12)

PL2-JF006A
NA

DUWAMISH WATERWAY

KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 5 µg/L

PL2-005A
7.02 µg/L
4/25/04 (2)

WELL/PROBE NAME
MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
DATE (NUMBER OF NON-DETECTS)

N

SCALE: 1"= 100'

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
1,1,2-TRICHLOROETHANE
CONCENTRATIONS
IN LEVEL A GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET 1 of 1	DRAWN BY JMW	REVIEWED BY DCK	DATE 6/11/04

2-60s AREA

EAST MARGINAL WAY SOUTH

SOUTH YARD AREA

BOEING PLANT 2

PL2-320A NA

PL2-BF01A ND < 1 µg/L 8/27/02 (1)

PL2-103A ND < 1 µg/L 7/17/92 (2)

PL2-152A 3.0 µg/L 8/3/00

PL2-107A 4.1 µg/L 7/17/92

PL2-108A NA

PL2-118A ND < 1 µg/L 9/23/94 (1)

PL2-102A 33,000 µg/L 5/4/88

PL2-119A ND < 1 µg/L 8/23/96 (5)

GP-08908 ND < 1 µg/L 3/17/95 (1)

GP-08701 23.0 µg/L 2/17/95

PL2-109A 1,200 µg/L 7/16/92

PL2-151A 9.2 µg/L 1/23/01

PL2-101A 7.0 µg/L 5/4/88

PL2-318A NA

GP-08004 NA

PL2-153A ND < 1 µg/L 1/25/01 (1)

PL2-111A 9.5 µg/L 12/22/93

PL2-105A 57.0 µg/L 5/4/88

PL2-154A ND < 1 µg/L 1/25/01 (1)

GP-08905 1.7 µg/L 9/13/94

PL2-156A 1.9 µg/L 8/4/00

PL2-104A ND < 1 µg/L 7/16/92 (2)

PL2-155A 1.8 µg/L 8/4/00

GP-08906 ND < 1 µg/L 11/29/94 (1)

PL2-JF023 NA

PL2-303A ND < 1 µg/L 7/7/92 (1)

PL2-301A ND < 1 µg/L 7/7/92 (1)

PL2-120A ND < 1 µg/L 9/26/94 (1)

PL2-106AR NA

PL2-106A 350 µg/L 11/21/95

GP-08904 ND < 1 µg/L 9/14/94 (1)

PL2-302A ND < 1 µg/L 7/7/92 (1)

GP-08903 ND < 1 µg/L 9/14/94 (1)

GP-08901 ND < 1 µg/L 9/14/94 (1)

GP-09103 ND < 1 µg/L 9/8/94 (1)

PL2-110A 34.0 µg/L 2/29/96

GP-08902 2.8 µg/L 9/14/94

PROPERTY BOUNDARY

PL2-304A ND < 1 µg/L 3/24/95 (2)

PL2-305A ND < 1 µg/L 7/7/92 (1)

PL2-114A 1.0 µg/L 1/18/89

GP-08001 ND < 1 µg/L 9/2/94 (1)

GP-08907 20.0 µg/L 1/28/94

GP-09106 ND < 1 µg/L 3/14/95 (1)

PL2-115A 94.0 µg/L 8/20/02

GP-08002 ND < 1 µg/L 9/8/94 (1)

PL2-113A 37.0 µg/L 8/2/89

PL2-JF021 NA

GP-09104 ND < 1 µg/L 11/23/94 (1)

GP-08007 ND < 1 µg/L 2/17/95 (1)

GP-08003 ND < 1 µg/L 8/25/94 (1)

PL2-116A ND < 0.8 µg/L 8/20/02 (2)

PL2-117A 13.0 µg/L 8/2/89

PL2-JF025 NA

PL2-JF022 NA

PL2-005A 3.0 µg/L 8/6/92

GP-08008 36.0 µg/L 7/26/95

PL2-112A 8.4 µg/L 3/31/95

GP-09101 ND < 1 µg/L 9/12/94 (1)

GP-09107 ND < 1 µg/L 3/14/95 (1)

GP-09110 ND < 1 µg/L 9/19/95 (1)

PL2-006A 23.0 µg/L 8/6/92

GP-09105 ND < 1 µg/L 11/23/94 (1)

GP-09102 ND < 1 µg/L 9/8/94 (1)

GP-09111 ND < 1 µg/L 9/20/95 (1)

GP-09108 ND < 1 µg/L 3/14/95 (1)

PL2-027A ND < 1 µg/L 12/21/93 (1)

GP-06639 ND < 1 µg/L 3/16/95 (1)

GP-09112 ND < 1 µg/L 9/19/95 (1)

GP-06638 ND < 1 µg/L 3/16/95 (1)

GP-09109 ND < 1 µg/L 3/15/95 (1)

JORGENSEN FORGE FACILITY

GP-06637 70.0 µg/L 3/15/95

GP-06640 ND < 1 µg/L 3/15/95 (1)

GP-09113 ND < 1 µg/L 9/19/95 (1)

GP-06604 ND < 1 µg/L 9/13/94 (1)

GP-06636 ND < 1 µg/L 11/21/94 (1)

GP-09114 ND < 1 µg/L 9/20/95 (1)

2-66 AREA

GP-06602 ND < 1 µg/L 9/13/94 (1)

GP-06603 1.1 µg/L 9/12/94

GP-06635 ND < 1 µg/L 11/22/94 (1)

GP-06634 43.0 µg/L 11/22/94

PL2-JF02A 1.6 µg/L 11/21/96

GP-09115 ND < 1 µg/L 9/19/95 (1)

PL2-JF006A NA

PL2-JF03A ND < 1 µg/L 12/8/03 (12)

DUWAMISH WATERWAY

KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 0.302 µg/L

PL2-005A — WELL/PROBE NAME
7.02 µg/L — MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
4/25/04 (2) — DATE (NUMBER OF NON-DETECTS)

N

SCALE: 1"= 100'

epi ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
TRICHLOROETHENE CONCENTRATIONS IN LEVEL A GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET 1 of 1	DRAWN BY TK	REVIEWED BY DCK	DATE 6/10/04

2-60s AREA

EAST MARGINAL WAY SOUTH

SOUTH YARD AREA

BOEING PLANT 2

PL2-320A NA

PL2-BF01A ND < 1 µg/L 8/27/02 (1)

PL2-103A ND < 0.2 µg/L 7/17/92 (2)

PL2-107A 40.0 µg/L 7/17/92

PL2-152A 5.8 µg/L 1/24/01

PL2-108A NA

PL2-118A 0.16 µg/L 9/23/94

PL2-102A 4,700 µg/L 3/24/95

PL2-119A 0.32 µg/L 8/4/95

PL2-151A 2.9 µg/L 8/3/00

GP-08908 ND < 0.02 µg/L 3/17/95 (1)

GP-08701 17.0 µg/L 2/17/95

PL2-109A 170 µg/L 7/16/92

PL2-318A NA

GP-08004 NA

PL2-153A ND < 1 µg/L 1/25/01 (1)

PL2-101A 26.0 µg/L 3/24/95

PL2-111A 7.3 µg/L 12/22/93

PL2-154A 8.5 µg/L 1/25/01

PL2-105A 12.0 µg/L 7/16/92

GP-08905 0.084 µg/L 9/13/94

PL2-104A 30.0 µg/L 5/4/88

PL2-156A 44.0 µg/L 8/4/00

GP-08906 22.0 µg/L 11/29/94

PL2-155A 9.4 µg/L 1/22/01

PL2-JF023 NA

PL2-303A ND < 2 µg/L 7/7/92 (1)

PL2-301A ND < 2 µg/L 7/7/92 (1)

PL2-120A 0.2 µg/L 9/26/94

PL2-106AR NA

PL2-106A 74.0 µg/L 5/4/88

GP-08904 0.26 µg/L 9/14/94

PL2-302A ND < 2 µg/L 7/7/92 (1)

GP-08903 25.0 µg/L 9/14/94

GP-08901 25.0 µg/L 9/14/94

GP-08902 54.0 µg/L 9/14/94

PROPERTY BOUNDARY

GP-09103 9.7 µg/L 9/8/94

PL2-110A 21.0 µg/L 7/15/92

PL2-304A 0.1 µg/L 3/24/95

PL2-305A ND < 2 µg/L 7/7/92 (1)

PL2-114A 32.0 µg/L 1/18/89

GP-08907 NA

GP-08001 ND < 0.02 µg/L 9/2/94 (1)

PL2-115A 160 µg/L 8/2/89

GP-09106 30.0 µg/L 3/14/95

GP-08002 0.14 µg/L 9/8/94

PL2-113A 27.0 µg/L 1/18/89

PL2-JF021 NA

GP-09104 13.0 µg/L 11/23/94

GP-08007 0.042 µg/L 2/17/95

GP-08003 0.05 µg/L 8/25/94

PL2-116A 2.7 µg/L 8/2/89

PL2-117A 58.0 µg/L 8/16/02

PL2-JF025 NA

PL2-JF022 NA

PL2-005A 7.9 µg/L 12/10/91

GP-08008 6.8 µg/L 7/26/95

PL2-112A 72.0 µg/L 1/18/89

GP-09101 ND < 0.034 µg/L 9/12/94 (1)

GP-09107 23.0 µg/L 3/14/95

GP-09110 1.4 µg/L 9/19/95

PL2-006A 1,600 µg/L 8/6/92

GP-09105 78.0 µg/L 11/23/94

GP-09102 0.71 µg/L 9/8/94

GP-09111 2.5 µg/L 9/20/95

GP-09108 21.0 µg/L 3/14/95

PL2-027A 3.4 µg/L 12/21/93

GP-06639 90.0 µg/L 3/16/95

GP-09112 1.6 µg/L 9/19/95

GP-06638 2.7 µg/L 3/16/95

GP-09109 77.0 µg/L 3/15/95

JORGENSEN FORGE FACILITY

GP-06637 1.1 µg/L 3/15/95

GP-09113 0.24 µg/L 9/19/95

GP-06640 0.3 µg/L 3/15/95

GP-06604 0.76 µg/L 9/13/94

GP-06636 1,800 µg/L 11/21/94

GP-09114 11.0 µg/L 9/20/95

2-66 AREA

GP-06602 0.54 µg/L 9/13/94

GP-06603 13.0 µg/L 9/12/94

GP-06635 0.8 µg/L 11/22/94

GP-09115 0.32 µg/L 9/19/95

PL2-JF006A NA

GP-06634 6.6 µg/L 11/22/94

PL2-JF02A 5.8 µg/L 10/24/01

PL2-JF03A 0.65 µg/L 9/28/95

DUWAMISH WATERWAY

KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 0.731 µg/L

N

SCALE: 1"= 100'

PL2-005A — WELL/PROBE NAME
7.02 µg/L — MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
4/25/04 (2) — DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
VINYL CHLORIDE CONCENTRATIONS IN LEVEL A GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET 1 of 1	DRAWN BY TK	REVIEWED BY DCK	DATE 6/9/04

2-60s AREA

EAST MARGINAL WAY SOUTH

SOUTH YARD AREA

BOEING PLANT 2

PL2-152B
ND < 1 µg/L
1/24/01 (2)

PL2-102B
ND < 0.2 µg/L
7/17/92 (1)

PL2-101B
ND < 0.02 µg/L
3/24/95 (1)

PL2-151B
ND < 1 µg/L
1/23/01 (2)

GP-08908
ND < 0.02 µg/L
3/17/95 (1)

PL2-153B
ND < 1 µg/L
1/24/01 (1)

PL2-109B
ND < 2 µg/L
7/16/92 (1)

PL2-105B
ND < 0.2 µg/L
7/16/92 (1)

PL2-104B
ND < 0.2 µg/L
7/16/92 (1)

PL2-154B
ND < 1 µg/L
1/25/01 (1)

GP-08906
7.2 µg/L
11/29/95

PL2-155B
3.0 µg/L
1/23/01

PL2-106B
29.0 µg/L
7/15/92

PROPERTY BOUNDARY

PL2-110B
5.7 µg/L
7/15/92

GP-08907
22 µg/L
11/28/94

PL2-112B
0.71 µg/L
8/25/95

GP-09104
0.17 µg/L
11/23/94

GP-09106
2.2 µg/L
3/14/95

GP-09105
0.68 µg/L
11/23/94

GP-09107
0.22 µg/L
3/14/95

GP-09111
16.0 µg/L
9/20/95

GP-09110
2.7 µg/L
9/19/95

GP-06639
4.1 µg/L
3/16/95

GP-09108
1.5 µg/L
3/14/95

PL2-005B
ND < 0.2 µg/L
8/6/92 (2)

GP-06604
0.82 µg/L
9/13/94

GP-06638
6.28 µg/L
3/16/95

GP-09109
0.21 µg/L
3/15/95

GP-09112
7.5 µg/L
9/19/95

JORGENSEN FORGE FACILITY

GP-06637
0.85 µg/L
3/15/95

GP-06640
0.32 µg/L
3/15/95

GP-09113
16.0 µg/L
9/19/95

2-66 AREA

GP-06636
1.3 µg/L
11/21/94

GP-06602
0.092 µg/L
9/13/94

GP-06603
26.0 µg/L
9/12/94

GP-09114
3.6 µg/L
9/20/95

GP-06634
0.3 µg/L
11/22/94

GP-06635
0.3 µg/L
11/22/94

GP-09115
0.4 µg/L
9/19/95

DUWAMISH WATERWAY

KEY

WELL LOCATION
PROBE LOCATION
AREA BOUNDARY
PROPERTY BOUNDARY
ISOCONCENTRATION LINE

SCREENING LEVEL (2004) = 0.731 µg/L

N

SCALE: 1"= 100'

PL2-005A
7.02 µg/L
4/25/04 (2)

WELL/PROBE NAME
MAXIMUM DETECTION OR NON-DETECT WITH DETECTION LIMIT
DATE (NUMBER OF NON-DETECTS)

ENVIRONMENTAL PARTNERS INC

BOEING PLANT 2
SOUTH YARD AREA
VINYL CHLORIDE CONCENTRATIONS IN LEVEL B GROUNDWATER

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	7725 EAST MARGINAL WAY SEATTLE/TUKWILA, WASHINGTON		
SHEET 1 of 1	DRAWN BY TK	REVIEWED BY DCK	DATE 6/9/04

Boeing Plant 2
Seattle/Tukwila, Washington

Uplands Corrective Measures
Volume III: South Yard Area

Data Gap Investigation Work Plan

Attachment A
Data Tables

South Yard Area - Maximum Arsenic Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = .0194 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602				N/A	
GP-06603				N/A	
GP-06604				N/A	
GP-06634				N/A	
GP-06635				N/A	
GP-06636				N/A	
GP-06637 -	03/15/95	2			
GP-06638 -	03/16/95	7			
GP-06639 -	03/16/95	7			
GP-06640 -	03/15/95	2			
GP-08001				N/A	
GP-08002				N/A	
GP-08003				N/A	
GP-08007 -	02/17/95	27			
GP-08008 -	07/26/95	4			
GP-08701 -	02/17/95	16			
GP-08901 -	09/14/94	24			
GP-08902 -	09/14/94	50			
GP-08903 -	09/14/94	9			
GP-08904 -		1 U	09/14/94	ND	1
GP-08906	11/29/94	16			
GP-08907	11/28/94	7			
GP-08907				N/A	
GP-08908 -	03/17/95	6			
GP-09101 -	09/12/94	27			
GP-09102 -	09/08/94	34			
GP-09103 -	09/08/94	7			
GP-09104 -	11/23/94	7			
GP-09105 -	11/23/94	92			
GP-09106 -	03/14/95	31			
GP-09107 -	03/14/95	76			
GP-09108 -	03/14/95	72			
GP-09109 -	03/15/95	11			
GP-09110 -	09/19/95	14			
GP-09111 -	09/20/95	9			
GP-09112 -	09/19/95	32			
GP-09113 -	09/19/95	46			
GP-09114 -	09/20/95	4			
GP-09115 -	09/19/95	7			
PL2-005A -	08/06/92	43			
PL2-006A -	08/14/02	3.4			
PL2-027A -		0.5 U	08/14/02	ND	1
PL2-101A -	07/15/92	38			
PL2-102A -	03/24/95	2			
PL2-103A				N/A	
PL2-104A -		1 U	07/16/92	ND	1
PL2-105A -	07/16/92	11			
PL2-106A -	01/22/01	59.4			
PL2-106AR	08/20/02	58.4			

South Yard Area - Maximum Arsenic Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = .0194 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-107A -		1 U	07/17/92	ND	1
A-Level					
PL2-108A -		1 U	07/17/92	ND	1
PL2-109A -	07/16/92	3			
PL2-110A -		1 U	07/15/92	ND	1
PL2-111A				N/A	
PL2-112A -	03/31/95	41			
PL2-113A -	01/18/89	12.8			
PL2-114A -	01/18/89	7.2			
PL2-115A -	08/20/02	0.4			
PL2-116A -	08/20/02	18.9			
PL2-117A -	01/18/89	6.8			
PL2-118A -	09/23/94	54			
PL2-119A -	09/26/94	39			
PL2-120A -	09/26/94	10			
PL2-151A -	08/03/00	11.6			
PL2-152A -	08/03/00	2.5			
PL2-153A -	01/25/01	3.7			
PL2-154A -	01/25/01	13.7			
PL2-155A -	01/22/01	93.7			
PL2-156A -	01/23/01	99.3			
PL2-301A -	07/07/92	3			
PL2-302A -	07/07/92	8			
PL2-303A -	07/07/92	2			
PL2-304A -	07/07/92	2			
PL2-305A -	07/07/92	4			
PL2-320A -	09/23/94	3			
PL2-BF01A	09/22/94	18			
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A	01/21/02	3.9			
PL2-JF03A	06/16/03	1			
B-Level					
GP-06602 -				N/A	
GP-06603 -				N/A	
GP-06604 -				N/A	
GP-06637 -		1 U	03/15/95	ND	1
GP-06638 -		1 U	03/16/95	ND	1
GP-06639 -		1 U	03/16/95	ND	1
GP-06640 -		1 U	03/15/95	ND	1
GP-08906	11/29/94	1			
GP-08907		1 U	11/28/94	ND	1
GP-08908 -		1 U	03/17/95	ND	1

South Yard Area - Maximum Arsenic Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = .0194 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-09104 -	11/23/94	1			
GP-09105 -		1 U	11/23/94	ND	1
B-Level					
GP-09106 -		1 U	03/14/95	ND	1
GP-09107 -		1 U	03/14/95	ND	1
GP-09108 -		1 U	03/14/95	ND	1
GP-09109 -		1 U	03/15/95	ND	1
GP-09110 -	09/19/95	1			
GP-09111 -		1 U	09/20/95	ND	1
GP-09112 -	09/19/95	1			
GP-09113 -	09/19/95	1			
GP-09114 -		1 U	09/20/95	ND	1
GP-09115 -		1 U	09/19/95	ND	1
PL2-005B -		1 U	08/06/92	ND	2
PL2-101B -		1 U	03/24/95	ND	2
PL2-102B -		1 U	07/17/92	ND	1
PL2-104B -		1 U	07/16/92	ND	1
PL2-105B -		5 U	07/16/92	ND	1
PL2-106B -	03/28/95	1			
PL2-109B -		5 U	07/16/92	ND	1
PL2-110B -		5 U	07/15/92	ND	1
PL2-112B -	08/15/02	0.7			
PL2-151B -	08/02/00	5			
PL2-152B -	01/24/01	3.3			
PL2-153B -	01/24/01	4			
PL2-154B -	01/25/01	2			
PL2-155B -	01/23/01	2.6			
C-Level					
GP-06634 -				N/A	
GP-06635 -				N/A	
GP-06636 -				N/A	
GP-08906 -		1 U	11/29/94	ND	1
GP-08907 -		1 U	11/29/94	ND	1
PL2-005C -		5 U	08/06/92	ND	2
PL2-101C -		2 U	07/15/92	ND	1
PL2-102C -		5 U	07/17/92	ND	1
PL2-104C -		5 U	07/16/92	ND	1
PL2-105C -		5 U	07/16/92	ND	1
PL2-106C -		5 U	07/15/92	ND	1
PL2-109C -		5 U	07/16/92	ND	1
PL2-110C -		1 U	07/15/92	ND	1
PL2-151C -	08/03/00	13			
PL2-152C -	08/03/00	8			
PL2-153C -	01/24/01	8			
PL2-154C -	01/25/01	6			
PL2-155C -	08/04/00	20			

South Yard Area - Maximum Copper - Dissolved Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 3.10 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602				N/A	
GP-06603				N/A	
GP-06604				N/A	
GP-06634				N/A	
GP-06635				N/A	
GP-06636				N/A	
GP-06637 -	03/15/95	4			
GP-06638 -	03/16/95	2			
GP-06639 -	03/16/95	6			
GP-06640 -		2 U	03/15/95	ND	1
GP-08001				N/A	
GP-08002				N/A	
GP-08003				N/A	
GP-08007 -		2 U	02/17/95	ND	1
GP-08008 -		2 U	07/26/95	ND	1
GP-08003				N/A	
GP-08007 -				N/A	
GP-08008 -				N/A	
GP-08701 -		2 U	02/17/95	ND	1
GP-08901 -	09/14/94	2			
GP-08902 -		2 U	09/14/94	ND	1
GP-08903 -		2 U	09/14/94	ND	1
GP-08904 -	09/14/94	2			
GP-08905 -		2 U	09/13/94	ND	1
GP-08906		2 U	11/29/94	ND	1
GP-08907	11/28/94	3			
GP-08908 -	03/17/95	6			
GP-09101 -		2 U	09/12/94	ND	1
GP-09102 -		2 U	09/08/94	ND	1
GP-09103 -		2 U	09/08/94	ND	1
GP-09104 -		2 U	11/23/94	ND	1
GP-09105 -		2 U	11/23/94	ND	1
GP-09106 -	03/14/95	43			
GP-09107 -		2 U	03/14/95	ND	1
GP-09108 -	03/14/95	3			
GP-09109 -	03/15/95	7			
GP-09110 -	09/19/95	7			
GP-09111 -		2 U	09/20/95	ND	1
GP-09112 -		2 U	09/19/95	ND	1
GP-09113 -		2 U	09/19/95	ND	1
GP-09114 -		2 U	09/20/95	ND	1
GP-09115 -		2 U	09/19/95	ND	1
PL2-005A -	12/10/91	6			
PL2-006A -	08/14/02	0.6			
PL2-027A -	08/14/02	2.4			
PL2-101A -		2 U	03/24/95	ND	3
PL2-102A -	05/04/88	39			
PL2-103A -		2 U	05/04/88	ND	1
PL2-104A -		2 U	07/16/92	ND	2

South Yard Area - Maximum Copper - Dissolved Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 3.10 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-105A -	07/16/92	2			
PL2-106A -	08/04/00	1.4			
PL2-106AR	08/20/02	0.8			
PL2-107A -	07/17/92	3			
A-Level					
PL2-108A -		2 U	07/17/92	ND	1
PL2-109A -	07/16/92	2			
PL2-110A -		2 U	07/15/92	ND	1
PL2-111A				N/A	
PL2-112A -	08/15/02	0.6			
PL2-113A -	01/18/89	3.5			
PL2-114A -		1 U	01/18/89	ND	1
PL2-115A -	08/20/02	1			
PL2-116A -	08/20/02	0.7			
PL2-117A -	01/18/89	1.5			
PL2-118A -		2 U	09/23/94	ND	1
PL2-119A -		2 U	09/26/94	ND	1
PL2-120A -		2 U	09/26/94	ND	1
PL2-151A -	08/03/00	0.8			
PL2-152A -	08/03/00	5.7			
PL2-153A -	01/25/01	0.9			
PL2-154A -	01/25/01	0.6			
PL2-155A -	01/22/01	0.6			
PL2-156A -	08/04/00	0.6			
PL2-301A -	07/07/92	5			
PL2-302A -	07/07/92	8			
PL2-303A -	07/07/92	8			
PL2-304A -		2 U	07/07/92	ND	1
PL2-305A -	07/07/92	6			
PL2-320A -	03/24/95	3			
PL2-BF01A	08/27/02	9.7			
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A	01/21/02	1.5			
PL2-JF03A	04/26/01	2.9			
B-Level					
GP-06602 -				N/A	
GP-06603 -				N/A	
GP-06604 -				N/A	
GP-06637 -		2 U	03/15/95	ND	1
GP-06638 -		2 U	03/16/95	ND	1
GP-06639 -		2 U	03/16/95	ND	1
GP-06640 -		2 U	03/15/95	ND	1

South Yard Area - Maximum Copper - Dissolved Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 3.10 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-08906		2 U	11/29/94	ND	1
GP-08907		2 U	11/28/94	ND	1
GP-08908 -		2 U	03/17/95	ND	1
GP-09104 -		2 U	11/23/94	ND	1
GP-09105 -		2 U	11/23/94	ND	1
GP-09106 -		2 U	03/14/95	ND	1
GP-09107 -		2 U	03/14/95	ND	1
GP-09108 -		2 U	03/14/95	ND	1
B-Level					
GP-09109 -		2 U	03/15/95	ND	1
GP-09110 -		2 U	09/19/95	ND	1
GP-09111 -		2 U	09/20/95	ND	1
GP-09112 -	09/19/95	2			
GP-09113 -		2 U	09/19/95	ND	1
GP-09114 -		4 UB	09/20/95	ND	1
GP-09115 -		2 U	09/19/95	ND	1
PL2-005B -		2 U	12/10/91	ND	1
PL2-101B -		2 U	03/24/95	ND	2
PL2-102B -		2 U	07/17/92	ND	1
PL2-104B -		2 U	07/16/92	ND	1
PL2-105B -		2 U	07/16/92	ND	1
PL2-106B -		2 U	03/28/95	ND	2
PL2-109B -		2 U	07/16/92	ND	1
PL2-110B -		2 U	07/15/92	ND	1
PL2-112B -	08/15/02	0.7			
PL2-151B -				N/A	
PL2-152B -		0.5 U	01/24/01	ND	2
PL2-153B -		1 U	01/24/01	ND	1
PL2-154B -		0.5 U	01/25/01	ND	1
PL2-155B -		0.5 U	01/23/01	ND	2
C-Level					
GP-06634 -				N/A	
GP-06635 -				N/A	
GP-06636 -				N/A	
GP-08906 -	11/29/94	2			
GP-08907 -		2 U	11/29/94	ND	1
PL2-005C -		2 U	08/06/92	ND	2
PL2-101C -		2 U	07/15/92	ND	1
PL2-102C -		2 U	07/17/92	ND	1
PL2-104C -	05/04/88	28			
PL2-105C -		2 U	07/16/92	ND	1
PL2-106C -		2 U	07/15/92	ND	1
PL2-109C -		2 U	07/16/92	ND	1
PL2-110C -		2 U	07/15/92	ND	1
PL2-151C -		2 U	01/23/01	ND	2
PL2-152C -		2 U	01/24/01	ND	2
PL2-153C -		2 U	01/24/01	ND	1
PL2-154C -		2 U	01/25/01	ND	1
PL2-155C -		2 U	01/22/01	ND	2

South Yard Area - Maximum Lead - Dissolved Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 8.1 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602				N/A	
GP-06603				N/A	
GP-06604				N/A	
GP-06634				N/A	
GP-06635				N/A	
GP-06636				N/A	
GP-06637 -		1 UJ	03/15/95	ND	1
GP-06638 -	03/16/95	1			
GP-06639 -	03/16/95	1			
GP-06640 -	03/15/95	1 J			
GP-08001				N/A	
GP-08002				N/A	
GP-08003				N/A	
GP-08007 -	02/17/95	2			
GP-08008 -		1 U	07/26/95	ND	1
GP-08701 -	02/17/95	1			
GP-08901 -		1 U	09/14/94	ND	1
GP-08902 -	09/14/94	2			
GP-08903 -	09/14/94	2			
GP-08904 -	09/14/94	3			
GP-08905 -	09/13/94	2			
GP-08906 - 25		1 UB	11/29/94	ND	1
GP-08907 -		2 UB	11/28/94	ND	1
GP-08908 -	03/17/95	1			
GP-09101 -		1 UB	09/12/94	ND	1
GP-09102 -	09/08/94	2			
GP-09103 -	09/08/94	4			
GP-09104 -	11/23/94	2			
GP-09105 -	11/23/94	2			
GP-09106 -	03/14/95	7			
GP-09107 -		1 U	03/14/95	ND	1
GP-09108 -	03/14/95	1			
GP-09109 -	03/15/95	1 J			
GP-09110 -		1 UB	09/19/95	ND	1
GP-09111 -		1 U	09/20/95	ND	1
GP-09112 -		1 U	09/19/95	ND	1
GP-09113 -		1 U	09/19/95	ND	1
GP-09114 -	09/20/95	8			
GP-09115 -	09/19/95	6			
PL2-005A -	08/06/92	2			
PL2-006A -	08/06/92	2			
PL2-027A -		1 U	08/14/02	ND	1
PL2-101A -	03/24/95	1			
PL2-102A -	03/24/95	2			
PL2-103A		10 U	05/04/88	ND	1
PL2-104A -	07/16/92	1			
PL2-105A -		1 U	07/16/92	ND	2
PL2-106A -		1 U	01/22/01	ND	5
PL2-106AR -		1 U	08/20/02	ND	1

South Yard Area - Maximum Lead - Dissolved Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 8.1 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
PL2-107A -		1 U	07/17/92	ND	1
PL2-108A -	07/17/92	2			
PL2-109A -		1 U	07/16/92	ND	1
PL2-110A -		30 U	07/15/92	ND	1
PL2-111A				N/A	
PL2-112A -		1 U	08/15/02	ND	3
PL2-113A -		1 U	08/20/02	ND	2
PL2-114A -	01/18/89	1			
PL2-115A -		1 U	08/20/02	ND	1
PL2-116A -		1 U	08/20/02	ND	1
PL2-117A -		1 U	08/16/02	ND	2
PL2-118A -		1 U	09/23/94	ND	1
PL2-119A -		1 U	09/26/94	ND	1
PL2-120A -		1 U	09/26/94	ND	1
PL2-151A -		1 U	01/23/01	ND	2
PL2-152A -		1 U	01/24/01	ND	2
PL2-153A -		1 U	01/25/01	ND	1
PL2-154A -		1 U	01/25/01	ND	1
PL2-155A -		1 U	01/22/01	ND	2
PL2-156A -		1 U	01/23/01	ND	2
PL2-301A -		1 U	07/07/92	ND	1
PL2-302A -	07/07/92	5			
PL2-303A -		1 U	07/07/92	ND	1
PL2-304A -		1 U	07/07/92	ND	1
PL2-305A -	07/07/92	2			
PL2-320A -	09/23/94	1			
PL2-BF01A		1 U	08/27/02	ND	3
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A -		1 U	02/02/04	ND	8
PL2-JF03A -		1 U	12/08/03	ND	6
B-Level					
GP-06602 -				N/A	
GP-06603 -				N/A	
GP-06604 -				N/A	
GP-06637 -		1 UJ	03/15/95	ND	1
GP-06638 -		1 U	03/16/95	ND	1
GP-06639 -		1 U	03/16/95	ND	1
GP-06640 -	03/15/95	1 J			
GP-08906		1 UB	11/29/94	ND	1
GP-08907		3 UB	11/28/94	ND	1
GP-08908 -	03/17/95	1			

South Yard Area - Maximum Lead - Dissolved Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 8.1 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
B-Level					
GP-09104 -		1 U	11/23/94	ND	1
GP-09105 -	11/23/94	1			
GP-09106 -		1 U	03/14/95	ND	1
GP-09107 -		1 U	03/14/95	ND	1
GP-09108 -		1 U	03/14/95	ND	1
GP-09109 -		1 UJ	03/15/95	ND	1
GP-09110 -		2 UB	09/19/95	ND	1
GP-09111 -		1 UB	09/20/95	ND	1
GP-09112 -		1 UB	09/19/95	ND	1
GP-09113 -		1 U	09/19/95	ND	1
GP-09114 -		3 UB	09/20/95	ND	1
GP-09115 -		2 UB	09/19/95	ND	1
PL2-005B -	08/06/92	2			
PL2-101B -		1 U	03/24/95	ND	2
PL2-102B -		1 U	07/17/92	ND	1
PL2-104B -		1 U	07/16/92	ND	1
PL2-105B -		1 U	07/16/92	ND	1
PL2-106B -		1 U	03/28/95	ND	2
PL2-109B -		1 U	07/16/92	ND	1
PL2-110B -		30 U	07/15/92	ND	1
PL2-112B -		1 U	08/15/02	ND	1
PL2-151B -		1 U	01/23/01	ND	2
PL2-152B -		1 U	01/24/01	ND	2
PL2-153B -		2 U	01/24/01	ND	1
PL2-154B -		1 U	01/25/01	ND	1
PL2-155B -		1 U	01/23/01	ND	2
C-Level					
GP-06634 -				N/A	
GP-06635 -				N/A	
GP-06636 -				N/A	
GP-08906 -		1 U	11/29/94	ND	1
GP-08907 -		3 UB	11/29/94	ND	1
PL2-005C	08/06/92	1			
PL2-101C		30 U	07/15/92	ND	1
PL2-102C		1 U	07/17/92	ND	1
PL2-104C	05/04/88	10			
PL2-105C		1 U	07/16/92	ND	1
PL2-106C		30 U	07/15/92	ND	1
PL2-109C	07/16/92	2			
PL2-110C		30 U	07/15/92	ND	
PL2-151C		5 U	01/23/01	ND	2
PL2-152C		5 U	01/24/01	ND	2
PL2-153C		5 U	01/24/01	ND	1
PL2-154C		5 U	01/25/01	ND	1
PL2-155C		5 U	01/22/01	ND	2

South Yard Area - Maximum Manganese - Dissolved Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 100 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602 -				N/A	
GP-06603 -				N/A	
GP-06604 -				N/A	
GP-06634				N/A	
GP-06635				N/A	
GP-06636				N/A	
GP-06637 -	03/15/95	489			
GP-06638 -	03/16/95	601			
GP-06639 -	03/16/95	1390			
GP-06640 -	03/15/95	1170			
GP-08001				N/A	
GP-08002				N/A	
GP-08003				N/A	
GP-08007 -	02/17/95	913			
GP-08008 -	07/26/95	372			
GP-08701 -	02/17/95	1230			
GP-08901 -	09/14/94	1840			
GP-08902 -	09/14/94	6770			
GP-08903 -	09/14/94	426			
GP-08904 -	09/14/94	14			
GP-08905 -	09/13/94	17			
GP-08906				N/A	
GP-08907				N/A	
GP-08908 -	03/17/95	276			
GP-09101 -	09/12/94	2260			
GP-09102 -	09/08/94	2930			
GP-09103 -	09/08/94	989			
GP-09104 -	11/23/94	1200			
GP-09105 -	11/23/94	2350			
GP-09106 -	03/14/95	922			
GP-09107 -	03/14/95	1970			
GP-09108 -	03/14/95	1220			
GP-09109 -	03/15/95	990			
GP-09110 -				N/A	
GP-09111 -				N/A	
GP-09112 -				N/A	
GP-09113 -				N/A	
GP-09114 -				N/A	
GP-09115 -				N/A	
PL2-005A -				N/A	
PL2-006A -				N/A	
PL2-027A -				N/A	
PL2-101A -	03/24/95	2060			
PL2-102A -	03/24/95	10			
PL2-103A -				N/A	
PL2-104A -				N/A	
PL2-105A -				N/A	
PL2-106A -	01/22/01	4130			
PL2-106AR				N/A	

South Yard Area - Maximum Manganese - Dissolved Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 100 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-107A -				N/A	
PL2-108A -				N/A	
PL2-109A -				N/A	
PL2-110A -				N/A	
PL2-111A -				N/A	
A-Level				N/A	
PL2-112A -	03/31/95	2680			
PL2-113A -				N/A	
PL2-114A -				N/A	
PL2-115A -				N/A	
PL2-116A -				N/A	
PL2-117A -				N/A	
PL2-118A -	09/23/94	3420			
PL2-119A -	09/26/94	1690			
PL2-120A -	09/26/94	2420			
PL2-151A -	01/23/01	579			
PL2-152A -	01/24/01	296			
PL2-153A -	01/25/01	845			
PL2-154A -	01/25/01	2360			
PL2-155A -	01/22/01	3210			
PL2-156A -	01/23/01	3850			
PL2-301A -				N/A	
PL2-302A -	09/27/94	243			
PL2-303A -				N/A	
PL2-304A -				N/A	
PL2-305A -				N/A	
PL2-320A -	09/23/94	199			
PL2-BF01A	09/22/94	1930			
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A	09/27/95	765			
PL2-JF03A	09/28/95	1890			
B-Level					
GP-06602 -				N/A	
GP-06603 -				N/A	
GP-06604 -				N/A	
GP-06637 -	03/15/95	850			
GP-06638 -	03/16/95	838			
GP-06639 -	03/16/95	689			
GP-06640 -	03/15/95	678			
GP-08906				N/A	
GP-08907				N/A	
GP-08908 -	03/17/95	555			

South Yard Area - Maximum Manganese - Dissolved Concentrations in Groundwater
Boeing Plant 2

Screening Level (2004) = 100 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-09104 -	11/23/94	549			
GP-09105 -	11/23/94	728			
GP-09106 -	03/14/95	1480			
GP-09107 -	03/14/95	390			
GP-09108 -	03/14/95	470			
GP-09109 -	03/15/95	508			
GP-09110 -	09/19/95	1100			
GP-09111 -				N/A	
GP-09112 -	09/19/95	593			
GP-09113 -				N/A	
B-Level					
GP-09114 -	09/20/95	314			
GP-09115 -				N/A	
PL2-005B -				N/A	
PL2-101B -	03/24/95	895			
PL2-102B -				N/A	
PL2-104B -				N/A	
PL2-105B -				N/A	
PL2-106B -	03/28/95	999			
PL2-109B -				N/A	
PL2-110B -				N/A	
PL2-112B -	08/25/95	1290			
PL2-151B -	01/23/01	775			
PL2-152B -	01/24/01	446			
PL2-153B -	01/24/01	1050			
PL2-154B -	01/25/01	590			
PL2-155B -	01/23/01	578			
C-Level					
GP-06634 -				N/A	
GP-06635 -				N/A	
GP-06636 -				N/A	
GP-08906 -				N/A	
GP-08907 -				N/A	
PL2-005C -				N/A	
PL2-101C				N/A	
PL2-102C				N/A	
PL2-104C	08/22/95	211			
PL2-105C				N/A	
PL2-106C				N/A	
PL2-109C				N/A	
PL2-110C	08/22/95	227			
PL2-151C	01/23/01	628			
PL2-152C	01/24/01	261			
PL2-153C	01/24/01	601			
PL2-154C	01/25/01	434			
PL2-155C	01/22/01	630			

South Yard Area - Maximum Manganese - Dissolved Concentrations in Groundwater
Boeing Plant 2

Screening Level (2004) = 100 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects

South Yard Area - Maximum Nickel - Dissolved Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 8.2 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602				N/A	
GP-06603				N/A	
GP-06604				N/A	
GP-06634				N/A	
GP-06635				N/A	
GP-06636				N/A	
GP-06637 -	03/15/95	60			
GP-06638 -	03/16/95	10			
GP-06639 -		10 U	03/16/95	ND	1
GP-06640 -	03/15/95	20			
GP-08001				N/A	
GP-08002				N/A	
GP-08003				N/A	
GP-08007 -	02/17/95	20			
GP-08008 -		10 U	07/26/95	ND	1
GP-08701 -		10 U	02/17/95	ND	1
GP-08901 -		10 U	09/14/94	ND	1
GP-08902 -		10 U	09/14/94	ND	1
GP-08903 -		10 U	09/14/94	ND	1
GP-08904 -		10 U	09/14/94	ND	1
GP-08905 -		10 U	09/13/94	ND	1
GP-08906		10 U	11/29/94	ND	1
GP-08907		10 U	11/28/94	ND	1
GP-08908 -	03/17/95	20			
GP-09101 -		10 U	09/12/94	ND	1
GP-09102 -		10 U	09/08/94	ND	1
GP-09103 -		10 U	09/08/94	ND	1
GP-09104 -		10 U	11/23/94	ND	1
GP-09105 -		10 U	11/23/94	ND	1
GP-09106 -	03/14/95	20			
GP-09107 -		10 U	03/14/95	ND	1
GP-09108 -		10 U	03/14/95	ND	1
GP-09109 -		10 U	03/15/95	ND	1
GP-09110 -		10 U	09/19/95	ND	1
GP-09111 -		10 U	09/20/95	ND	1
GP-09112 -		10 U	09/19/95	ND	1
GP-09113 -	09/19/95	20			
GP-09114 -		10 U	09/20/95	ND	1
GP-09115 -		10 U	09/19/95	ND	1
PL2-005A -		10 U	08/06/92	ND	2
PL2-006A -	08/14/02	2.8			
PL2-027A -	08/14/02	5.1			
PL2-101A -		10 U	03/24/95	ND	2
PL2-102A -		10 U	03/24/95	ND	2
PL2-103A		10 U	05/04/88	ND	1
PL2-104A -		10 U	05/04/88	ND	1
PL2-105A -		10 U	05/04/88	ND	1
PL2-106A -	01/22/01	3.8			
PL2-106AR	08/20/02	4.3			

South Yard Area - Maximum Nickel - Dissolved Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 8.2 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-107A -				N/A	
A-Level					
PL2-108A -				N/A	
PL2-109A -				N/A	
PL2-110A -				N/A	
PL2-111A				N/A	
PL2-112A -	08/15/02	2.9			
PL2-113A -	08/20/02	10.1			
PL2-114A -	01/18/89	3.8			
PL2-115A -	08/20/02	4.2			
PL2-116A -	08/20/02	1.5			
PL2-117A -	08/16/02	6.3			
PL2-118A -		10 U	09/23/94	ND	1
PL2-119A -		10 U	09/26/94	ND	1
PL2-120A -		10 U	09/26/94	ND	1
PL2-151A -	08/03/00	1.3			
PL2-152A -	08/03/00	3.2			
PL2-153A -	01/25/01	1			
PL2-154A -	01/25/01	0.7			
PL2-155A -	08/04/00	2.5			
PL2-156A -	08/04/00	1.5			
PL2-301A -		10 U	07/07/92	ND	1
PL2-302A -		10 U	09/27/94	ND	2
PL2-303A -		10 U	07/07/92	ND	1
PL2-304A -		10 U	07/07/92	ND	1
PL2-305A -		10 U	07/07/92	ND	1
PL2-320A -		10 U	03/24/95	ND	2
PL2-BF01A				N/A	
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A	01/21/02	2.4			
PL2-JF03A	06/16/03	1.2			
B-Level					
GP-06602 -			09/13/94	N/A	
GP-06603 -			09/12/94	N/A	
GP-06604 -			09/13/94	N/A	
GP-06637 -	03/15/95	10			
GP-06638 -		10 U	03/16/95	ND	1
GP-06639 -		10 U	03/16/95	ND	1
GP-06640 -	03/15/95	20			
GP-08906		10 U	11/29/94	ND	1
GP-08907		10 U	11/28/94	ND	1
GP-08908 -		10 U	03/17/95	ND	1

South Yard Area - Maximum Nickel - Dissolved Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 8.2 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-09104 -		10 U	11/23/94	ND	1
GP-09105 -		10 U	11/23/94	ND	1
B-Level					
GP-09106 -		10 U	03/14/95	ND	1
GP-09107 -		10 U	03/14/95	ND	1
GP-09108 -	03/14/95	10			
GP-09109 -		10 U	03/15/95	ND	1
GP-09110 -		10 U	09/19/95	ND	1
GP-09111 -		10 U	09/20/95	ND	1
GP-09112 -		10 U	09/19/95	ND	1
GP-09113 -		10 U	09/19/95	ND	1
GP-09114 -		10 U	09/20/95	ND	1
GP-09115 -		10 U	09/19/95	ND	1
PL2-005B -		10 U	08/06/92	ND	2
PL2-101B -		10 U	03/24/95	ND	1
PL2-102B -				N/A	
PL2-104B -				N/A	
PL2-105B -				N/A	
PL2-106B -		10 U	03/28/95	ND	1
PL2-109B -				N/A	
PL2-110B -				N/A	
PL2-112B -	08/15/02	1.6			
PL2-151B -	08/02/00	1.3			
PL2-152B -	08/03/00	1			
PL2-153B -	01/24/01	4			
PL2-154B -	01/25/01	1.2			
PL2-155B -	08/04/00	1			
C-Level					
GP-06634 -				N/A	
GP-06635 -				N/A	
GP-06636 -				N/A	
GP-08906 -		10 U	11/29/94	ND	1
GP-08907 -		10 U	11/29/94	ND	1
PL2-005C		10 U	08/06/92	ND	2
PL2-101C				N/A	
PL2-102C				N/A	
PL2-104C		10 U	05/04/88	ND	1
PL2-105C				N/A	
PL2-106C				N/A	
PL2-109C				N/A	
PL2-110C				N/A	
PL2-151C	01/23/01	4			
PL2-152C	01/24/01	3			
PL2-153C	01/24/01	4			
PL2-154C	01/25/01	6			
PL2-155C	01/22/01	7			

South Yard Area - Maximum Selenium - Dissolved Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 71 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602				N/A	
GP-06603				N/A	
GP-06604				N/A	
GP-06634				N/A	
GP-06635				N/A	
GP-06636				N/A	
GP-06637 -		50 U	03/15/95	ND	1
GP-06638 -		50 U	03/16/95	ND	1
GP-06639 -		50 U	03/16/95	ND	1
GP-06640 -		50 U	03/15/95	ND	1
GP-08001				N/A	
GP-08002				N/A	
GP-08003				N/A	
GP-08007 -		50 U	02/17/95	ND	1
GP-08008 -		50 U	07/26/95	ND	1
GP-08701 -		50 U	02/17/95	ND	1
GP-08901 -		50 U	09/14/94	ND	1
GP-08902 -		50 U	09/14/94	ND	1
GP-08903 -		50 U	09/14/94	ND	1
GP-08904 -		50 U	09/14/94	ND	1
GP-08905 -		50 U	09/13/94	ND	1
GP-08906				N/A	
GP-08907				N/A	
GP-08908 -		50 U	03/17/95	ND	1
GP-09101 -		50 U	09/12/94	ND	1
GP-09102 -		50 U	09/08/94	ND	1
GP-09103 -		50 U	09/08/94	ND	1
GP-09104 -		50 U	11/23/94	ND	1
GP-09105 -		50 U	11/23/94	ND	1
GP-09106 -		50 U	03/14/95	ND	1
GP-09107 -		50 U	03/14/95	ND	1
GP-09108 -		50 U	03/14/95	ND	1
GP-09109 -		50 U	03/15/95	ND	1
GP-09110 -		50 U	09/19/95	ND	1
GP-09111 -		50 U	09/20/95	ND	1
GP-09112 -		50 U	09/19/95	ND	1
GP-09113 -		50 U	09/19/95	ND	1
GP-09114 -		50 U	09/20/95	ND	1
GP-09115 -		50 U	09/19/95	ND	1
PL2-005A -		50 U	08/06/92	ND	2
PL2-006A -		0.5 U	08/14/02	ND	3
PL2-027A -		2 U	08/14/02	ND	1
PL2-101A -		1 U	03/24/95	ND	2
PL2-102A -		1 U	03/24/95	ND	2
PL2-103A				N/A	
PL2-104A -		1 U	07/16/92	ND	1
PL2-105A -		1 U	07/16/92	ND	1
PL2-106A -		1 U	01/22/01	ND	4
PL2-106AR		0.5 U	08/20/02	ND	1

South Yard Area - Maximum Selenium - Dissolved Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 71 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
PL2-107A -		1 U	07/17/92	ND	1
PL2-108A -		1 U	07/17/92	ND	1
PL2-109A -		1 U	07/16/92	ND	1
PL2-110A -		1 U	07/15/92	ND	1
PL2-111A				N/A	
PL2-112A -		0.5 U	08/15/02	ND	2
PL2-113A -		0.5 U	08/20/02	ND	1
PL2-114A -				N/A	
PL2-115A -		0.5 U	08/20/02	ND	1
PL2-116A -		0.5 U	08/20/02	ND	1
PL2-117A -	08/16/02	0.7			
PL2-118A -		50 U	09/23/94	ND	1
PL2-119A -		50 U	09/26/94	ND	1
PL2-120A -		50 U	09/26/94	ND	1
PL2-151A -		50 U	01/23/01	ND	2
PL2-152A -		50 U	01/24/01	ND	2
PL2-153A -		50 U	01/25/01	ND	1
PL2-154A -		50 U	01/25/01	ND	1
PL2-155A -		50 U	01/22/01	ND	2
PL2-156A -		50 U	01/23/01	ND	2
PL2-301A -	07/07/92	2			
PL2-302A -	07/07/92	1			
PL2-303A -		5 U	07/07/92	ND	1
PL2-304A -	07/07/92	1			
PL2-305A -	07/07/92	1			
PL2-320A -		50 U	03/24/95	ND	2
PL2-BF01A				N/A	
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A	09/02/03	2			
PL2-JF03A		0.5 U	12/08/03	ND	6
B-Level					
GP-06602 -				N/A	
GP-06603 -				N/A	
GP-06604 -				N/A	
GP-06637 -		50 U	03/15/95	ND	1
GP-06638 -		50 U	03/16/95	ND	1
GP-06639 -		50 U	03/16/95	ND	1
GP-06640 -		50 U	03/15/95	ND	1
GP-08906				N/A	
GP-08907				N/A	
GP-08908 -		50 U	03/17/95	ND	1

South Yard Area - Maximum Selenium - Dissolved Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 71 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
B-Level					
GP-09104 -		50 U	11/23/94	ND	1
GP-09105 -		50 U	11/23/94	ND	1
GP-09106 -		50 U	03/14/95	ND	1
GP-09107 -		50 U	03/14/95	ND	1
GP-09108 -		50 U	03/14/95	ND	1
GP-09109 -		50 U	03/15/95	ND	1
GP-09110 -		50 U	09/19/95	ND	1
GP-09111 -		50 U	09/20/95	ND	1
GP-09112 -		50 U	09/19/95	ND	1
GP-09113 -		50 U	09/19/95	ND	1
GP-09114 -		50 U	09/20/95	ND	1
GP-09115 -		50 U	09/19/95	ND	1
PL2-005B -		50 U	08/06/92	ND	2
PL2-101B -		1 U	03/24/95	ND	2
PL2-102B -		1 U	07/17/92	ND	1
PL2-104B -		1 U	07/16/92	ND	1
PL2-105B -		1 U	07/16/92	ND	1
PL2-106B -		1 U	03/28/95	ND	2
PL2-109B -		1 U	07/16/92	ND	1
PL2-110B -		1 U	07/15/92	ND	1
PL2-112B -	08/15/02	2.1			
PL2-151B -		50 U	01/23/01	ND	2
PL2-152B -		50 U	01/24/01	ND	2
PL2-153B -	01/24/01	90			
PL2-154B -		50 U	01/25/01	ND	1
PL2-155B -		50 U	01/23/01	ND	2
C-Level					
GP-06634 -				N/A	
GP-06635 -				N/A	
GP-06636 -				N/A	
GP-08906 -		50 U	11/29/94	ND	1
GP-08907 -		50 U	11/29/94	ND	1
PL2-005C		50 U	08/06/92	ND	2
PL2-101C		5 U	07/15/92	ND	1
PL2-102C		1 U	07/17/92	ND	1
PL2-104C		5 U	07/16/92	ND	1
PL2-105C		5 U	07/16/92	ND	1
PL2-106C		5 U	07/15/92	ND	1
PL2-109C		5 U	07/16/92	ND	1
PL2-110C		5 U	07/15/92	ND	1
PL2-151C	01/23/01	100			
PL2-152C	01/24/01	100			
PL2-153C	01/24/01	70			
PL2-154C	01/25/01	130			
PL2-155C	01/22/01	70			

South Yard Area - Maximum 2,4-Dimethylphenol Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 201 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602				N/A	
GP-06603				N/A	
GP-06604				N/A	
GP-06634				N/A	
GP-06635				N/A	
GP-06636				N/A	
GP-06637 -				N/A	
GP-06638 -				N/A	
GP-06639 -				N/A	
GP-06640 -				N/A	
GP-08001				N/A	
GP-08002				N/A	
GP-08003				N/A	
GP-08007 -				N/A	
GP-08008 -				N/A	
GP-08701 -		3 U	02/17/95	ND	1
GP-08901 -		2 U	09/14/94	ND	1
GP-08902 -				N/A	
GP-08903 -		2 U	09/14/94	ND	1
GP-08904 -		2 U	09/14/94	ND	1
GP-08905 -		2 U	09/13/94	ND	1
GP-08906				N/A	
GP-08907				N/A	
GP-08908 -				N/A	
GP-09101 -		2 U	09/12/94	ND	1
GP-09102 -		2 U	09/08/94	ND	1
GP-09103 -		2 U	09/08/94	ND	1
GP-09104 -				N/A	
GP-09105 -				N/A	
GP-09106 -				N/A	
GP-09107 -				N/A	
GP-09108 -				N/A	
GP-09109 -				N/A	
GP-09110 -				N/A	
GP-09111 -				N/A	
GP-09112 -				N/A	
GP-09113 -				N/A	
GP-09114 -				N/A	
GP-09115 -				N/A	
PL2-005A -				N/A	
PL2-006A -				N/A	
PL2-027A -		2 U	12/21/93	ND	1
PL2-101A -		2 U	07/15/92	ND	1
PL2-102A -	07/17/92	1.4			
PL2-103A -		2 U	07/17/92	ND	1
PL2-104A -		2 U	07/16/92	ND	1
PL2-105A -		2 U	07/16/92	ND	1
PL2-106A -		2 U	07/15/92	ND	1
PL2-106AR				N/A	

South Yard Area - Maximum 2,4-Dimethylphenol Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 201 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-107A -		2 U	07/17/92	ND	1
PL2-108A -		2 U	07/17/92	ND	1
PL2-109A -		2 U	07/16/92	ND	1
A-Level					
PL2-110A -		2 U	07/15/92	ND	1
PL2-111A		2 U	12/22/93	ND	1
PL2-112A -		2 U	01/18/89	ND	1
PL2-113A -		2 U	01/18/89	ND	1
PL2-114A -	01/18/89	520			
PL2-115A -				N/A	
PL2-116A -				N/A	
PL2-117A -		2 U	01/18/89	ND	1
PL2-118A -		3 UJ	09/23/94	ND	1
PL2-119A -		3 U	09/26/94	ND	1
PL2-120A -				N/A	
PL2-151A -				N/A	
PL2-152A -				N/A	
PL2-153A -				N/A	
PL2-154A -				N/A	
PL2-155A -				N/A	
PL2-156A -				N/A	
PL2-301A -				N/A	
PL2-302A -				N/A	
PL2-303A -				N/A	
PL2-304A -				N/A	
PL2-305A -				N/A	
PL2-320A -				N/A	
PL2-BF01A				N/A	
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A				N/A	
PL2-JF03A				N/A	
B-Level					
GP-06602 -				N/A	
GP-06603 -				N/A	
GP-06604 -				N/A	
GP-06637 -				N/A	
GP-06638 -				N/A	
GP-06639 -				N/A	
GP-06640 -				N/A	
GP-08906				N/A	
GP-08907				N/A	
GP-08908 -				N/A	

South Yard Area - Maximum 2,4-Dimethylphenol Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 201 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-09104 -				N/A	
GP-09105 -				N/A	
GP-09106 -				N/A	
GP-09107 -				N/A	
GP-09108 -				N/A	
GP-09109 -				N/A	
B-Level					
GP-09110 -				N/A	
GP-09111 -				N/A	
GP-09112 -				N/A	
GP-09113 -				N/A	
GP-09114 -				N/A	
GP-09115 -				N/A	
PL2-005B -				N/A	
PL2-101B -		2 U	07/15/92	ND	1
PL2-102B -		2 U	07/17/92	ND	1
PL2-104B -		2 U	07/16/92	ND	1
PL2-105B -		2 U	07/16/92	ND	1
PL2-106B -		2 U	07/15/92	ND	1
PL2-109B -		2 U	07/16/92	ND	1
PL2-110B -				N/A	
PL2-112B -				N/A	
PL2-151B -				N/A	
PL2-152B -				N/A	
PL2-153B -				N/A	
PL2-154B -				N/A	
PL2-155B -				N/A	
C-Level					
GP-06634 -				N/A	
GP-06635 -				N/A	
GP-06636 -				N/A	
GP-08906 -				N/A	
GP-08907 -				N/A	
PL2-005C				N/A	
PL2-101C				N/A	
PL2-102C				N/A	
PL2-104C -				N/A	
PL2-105C				N/A	
PL2-106C				N/A	
PL2-109C				N/A	
PL2-110C				N/A	
PL2-151C				N/A	
PL2-152C				N/A	
PL2-153C				N/A	
PL2-154C				N/A	
PL2-155C				N/A	

South Yard Area - Maximum bis(2-Ethylhexyl)phthalate Concentrations in Groundwater
Boeing Plant 2

Screening Level (2004) = 0.705 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602				N/A	
GP-06603				N/A	
GP-06604				N/A	
GP-06634				N/A	
GP-06635				N/A	
GP-06636				N/A	
GP-06637 -				N/A	
GP-06638 -				N/A	
GP-06639 -				N/A	
GP-06640 -				N/A	
GP-08001				N/A	
GP-08002				N/A	
GP-08003				N/A	
GP-08007 -				N/A	
GP-08008 -				N/A	
GP-08701 -		1 U	02/17/95	ND	1
GP-08901 -	09/14/94	12 J			
GP-08902 -		1 U	09/14/94	ND	1
GP-08903 -		1 U	09/14/94	ND	1
GP-08904 -		1 U	09/14/94	ND	1
GP-08905 -		1 U	09/13/94	ND	1
GP-08906				N/A	
GP-08907				N/A	
GP-08908 -				N/A	
GP-09101 -		1 U	09/12/94	ND	1
GP-09102 -		1 U	09/08/94	ND	1
GP-09103 -		1 U	09/08/94	ND	1
GP-09104 -				N/A	
GP-09105 -				N/A	
GP-09106 -				N/A	
GP-09107 -				N/A	
GP-09108 -				N/A	
GP-09109 -				N/A	
GP-09110 -				N/A	
GP-09111 -				N/A	
GP-09112 -				N/A	
GP-09113 -				N/A	
GP-09114 -				N/A	
GP-09115 -				N/A	
PL2-005A -				N/A	
PL2-006A -				N/A	
PL2-027A -		1 U	12/21/93	ND	1
PL2-101A -		1 U	07/15/92	ND	2
PL2-102A -	05/04/88	5			
PL2-103A -		1 U	07/17/92	ND	2
PL2-104A -		1 U	07/16/92	ND	2
PL2-105A -		1 U	07/16/92	ND	2
PL2-106A -		1 U	07/15/92	ND	2
PL2-106AR				N/A	

South Yard Area - Maximum bis(2-Ethylhexyl)phthalate Concentrations in Groundwater
Boeing Plant 2

Screening Level (2004) = 0.705 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-107A -		1 U	07/17/92	ND	1
PL2-108A -		1 U	07/17/92	ND	1
PL2-109A -		1 U	07/16/92	ND	1
PL2-110A -		1 U	07/15/92	ND	1
PL2-111A -		1 U	12/22/93	ND	1
PL2-112A -	01/18/89	6			
PL2-113A -	01/18/89	6			
PL2-114A -	01/18/89	7			
PL2-115A -				N/A	
A-Level					
PL2-116A -				N/A	
PL2-117A -	01/18/89	13			
PL2-118A -		1 U	09/23/94	ND	1
PL2-119A -		1 U	09/26/94	ND	1
PL2-120A -		1 U	09/26/94	ND	1
PL2-151A -				N/A	
PL2-152A -				N/A	
PL2-153A -				N/A	
PL2-154A -				N/A	
PL2-155A -				N/A	
PL2-156A -				N/A	
PL2-301A -				N/A	
PL2-302A -				N/A	
PL2-303A -				N/A	
PL2-304A -				N/A	
PL2-305A -				N/A	
PL2-320A -				N/A	
PL2-BF01A				N/A	
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A				N/A	
PL2-JF03A				N/A	
B-Level					
GP-06602 -				N/A	
GP-06603 -				N/A	
GP-06604 -				N/A	
GP-06637 -				N/A	
GP-06638 -				N/A	
GP-06639 -				N/A	
GP-06640 -				N/A	
GP-08906				N/A	
GP-08907				N/A	
GP-08908 -				N/A	

South Yard Area - Maximum bis(2-Ethylhexyl)phthalate Concentrations in Groundwater
Boeing Plant 2

Screening Level (2004) = 0.705 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-09104 -				N/A	
GP-09105 -				N/A	
GP-09106 -				N/A	
GP-09107 -				N/A	
GP-09108 -				N/A	
GP-09109 -				N/A	
GP-09110 -				N/A	
GP-09111 -				N/A	
GP-09112 -				N/A	
GP-09113 -				N/A	
GP-09114 -				N/A	
GP-09115 -				N/A	
PL2-005B -				N/A	
PL2-101B -		1 U	07/15/92	ND	1
PL2-102B -		1 U	07/17/92	ND	1
PL2-104B -		1 U	07/16/92	ND	1
PL2-105B -		1 U	07/16/92	ND	1
PL2-106B -		1 U	07/15/92	ND	1
B-Level					
PL2-109B -		1 U	07/16/92	ND	1
PL2-110B -				N/A	
PL2-112B -				N/A	
PL2-151B -				N/A	
PL2-152B -				N/A	
PL2-153B -				N/A	
PL2-154B -				N/A	
PL2-155B -				N/A	
C-Level					
GP-06634 -				N/A	
GP-06635 -				N/A	
GP-06636 -				N/A	
GP-08906 -				N/A	
GP-08907 -				N/A	
PL2-005C				N/A	
PL2-101C				N/A	
PL2-102C				N/A	
PL2-104C -	05/04/88	5			
PL2-105C				N/A	
PL2-106C				N/A	
PL2-109C				N/A	
PL2-110C				N/A	
PL2-151C				N/A	
PL2-152C				N/A	
PL2-153C				N/A	
PL2-154C				N/A	
PL2-155C				N/A	

South Yard Area - Maximum Aroclor 1254 Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = .000064 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602 -		1 U	09/13/94	ND	1
GP-06603 -		1 U	09/12/94	ND	1
GP-06604 -		1 U	09/13/94	ND	1
GP-06634				N/A	
GP-06635				N/A	
GP-06636				N/A	
GP-06637 -				N/A	
GP-06638 -				N/A	
GP-06639 -				N/A	
GP-06640 -				N/A	
GP-08001				N/A	
GP-08002				N/A	
GP-08003				N/A	
GP-08007 -				N/A	
GP-08008 -				N/A	
GP-08701 -		1 U	02/17/95	ND	1
GP-08901 -		1 U	09/14/94	ND	1
GP-08902 -				N/A	
GP-08903 -				N/A	
GP-08904 -				N/A	
GP-08905 -				N/A	
GP-08906				N/A	
GP-08907				N/A	
GP-08908 -				N/A	
GP-09101 -		1 U	09/12/94	ND	1
GP-09102 -		1 U	09/08/94	ND	1
GP-09103 -		1 U	09/08/94	ND	1
GP-09104 -				N/A	
GP-09105 -				N/A	
GP-09106 -				N/A	
GP-09107 -				N/A	
GP-09108 -				N/A	
GP-09109 -				N/A	
GP-09110 -				N/A	
GP-09111 -				N/A	
GP-09112 -				N/A	
GP-09113 -				N/A	
GP-09114 -				N/A	
GP-09115 -				N/A	
PL2-005A -		0.1 U	08/06/92	ND	1
PL2-006A -	08/06/92	1.2			
PL2-027A -				N/A	
PL2-101A -		1 U	07/15/92	ND	1
PL2-102A -	07/17/92	1.9			
PL2-103A -		1 U	07/17/92	ND	1
PL2-104A -		1 U	07/16/92	ND	1
PL2-105A -		1 U	07/16/92	ND	1
PL2-106A -		0.01 U	08/04/00	ND	2
PL2-106AR		0.017 UJ	02/22/01	ND	1

South Yard Area - Maximum Aroclor 1254 Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = .000064 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-107A -	07/17/92	0.53 J			
PL2-108A -		1 U	07/17/92	ND	1
PL2-109A -		1 U	07/16/92	ND	1
PL2-110A -		1 U	07/15/92	ND	1
A-Level					
PL2-111A -		1.1 U	12/22/93	ND	1
PL2-112A -				N/A	
PL2-113A -				N/A	
PL2-114A -				N/A	
PL2-115A -				N/A	
PL2-116A -				N/A	
PL2-117A -				N/A	
PL2-118A -		1 U	09/23/94	ND	1
PL2-119A -		1 U	09/26/94	ND	1
PL2-120A -		1 U	09/26/94	ND	1
PL2-151A -		0.017 U	02/23/01	ND	2
PL2-152A -	08/03/00	0.36			
PL2-153A -		0.017 U	02/26/01	ND	1
PL2-154A -		0.017 U	02/27/01	ND	1
PL2-155A -		0.017 U	02/23/01	ND	2
PL2-156A -	08/04/00	0.018			
PL2-301A -				N/A	
PL2-302A -				N/A	
PL2-303A -				N/A	
PL2-304A -				N/A	
PL2-305A -				N/A	
PL2-320A -				N/A	
PL2-BF01A				N/A	
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A		0.01 U	06/16/03	ND	1
PL2-JF03A				N/A	
B-Level					
GP-06602 -				N/A	
GP-06603 -				N/A	
GP-06604 -				N/A	
GP-06637 -				N/A	
GP-06638 -				N/A	
GP-06639 -				N/A	
GP-06640 -				N/A	
GP-08906				N/A	
GP-08907				N/A	
GP-08908 -				N/A	

South Yard Area - Maximum Aroclor 1254 Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = .000064 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-09104 -				N/A	
GP-09105 -				N/A	
GP-09106 -				N/A	
GP-09107 -				N/A	
GP-09108 -				N/A	
GP-09109 -				N/A	
GP-09110 -				N/A	
GP-09111 -				N/A	
B-Level					
GP-09112 -				N/A	
GP-09113 -				N/A	
GP-09114 -				N/A	
GP-09115 -				N/A	
PL2-005B -		0.1 U	08/06/92	ND	1
PL2-101B -				N/A	
PL2-102B -				N/A	
PL2-104B -				N/A	
PL2-105B -				N/A	
PL2-106B -				N/A	
PL2-109B -				N/A	
PL2-110B -				N/A	
PL2-112B -				N/A	
PL2-151B -		0.017 U	02/23/01	ND	2
PL2-152B -	02/26/01	0.062			
PL2-153B -		0.017 U	02/26/01	ND	1
PL2-154B -		0.017 U	02/27/01	ND	1
PL2-155B -		0.017 UJ	02/23/01	ND	2
C-Level					
GP-06634 -				N/A	
GP-06635 -				N/A	
GP-06636 -				N/A	
GP-08906 -				N/A	
GP-08907 -				N/A	
PL2-005C -		0.1 U	08/06/92	ND	1
PL2-101C				N/A	
PL2-102C				N/A	
PL2-104C				N/A	
PL2-105C				N/A	
PL2-106C				N/A	
PL2-109C				N/A	
PL2-110C				N/A	
PL2-151C -		0.017 U	02/23/01	ND	2
PL2-152C -	08/03/00	0.011			
PL2-153C -		0.017 U	02/27/01	ND	1
PL2-154C -		0.017 U	02/27/01	ND	1
PL2-155C -		0.017 U	02/23/01	ND	2

South Yard Area - Maximum Total PCB Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.33 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602		1 U	09/13/94	ND	1
GP-06603		1 U	09/12/94	ND	1
GP-06604		1 U	09/13/94	ND	1
GP-06634				N/A	
GP-06635				N/A	
GP-06636				N/A	
GP-06637 -				N/A	
GP-06638 -				N/A	
GP-06639 -				N/A	
GP-06640 -				N/A	
GP-08001				N/A	
GP-08002				N/A	
GP-08003				N/A	
GP-08007				N/A	
GP-08008 -				N/A	
GP-08701		1 U	02/17/95	ND	1
GP-08901		1 U	09/14/94	ND	1
GP-08902 -				N/A	
GP-08903 -				N/A	
GP-08904 -				N/A	
GP-08905 -				N/A	
GP-08906				N/A	
GP-08907				N/A	
GP-08908 -				N/A	
GP-09101		1 U	09/12/94	ND	1
GP-09102		1 U	09/08/94	ND	1
GP-09103		1 U	09/08/94	ND	1
GP-09104 -				N/A	
GP-09105 -				N/A	
GP-09106 -				N/A	
GP-09107 -				N/A	
GP-09108 -				N/A	
GP-09109 -				N/A	
GP-09110 -				N/A	
GP-09111 -				N/A	
GP-09112 -				N/A	
GP-09113 -				N/A	
GP-09114 -				N/A	
GP-09115 -				N/A	
PL2-005A		0.1 U	08/06/92	ND	1
PL2-006A	03/31/95	8.9			
PL2-027A -				N/A	
PL2-101A		1 U	07/15/92	ND	1
PL2-102A	07/17/92	1.9			
PL2-103A		1 U	07/17/92	ND	1
PL2-104A		1 U	07/16/92	ND	1
PL2-105A		1 U	07/16/92	ND	1
PL2-106A		0.01 U	08/04/00	ND	2
PL2-106AR		0.017 UJ	02/22/01	ND	1

South Yard Area - Maximum Total PCB Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.33 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-107A	07/17/92	0.53 J			
PL2-108A		1 U	07/17/92	ND	1
PL2-109A		1 U	07/16/92	ND	1
PL2-110A		1 U	07/15/92	ND	1
PL2-111A		1 U	12/22/93	ND	1
PL2-112A -				N/A	
PL2-113A -				N/A	
PL2-114A -				N/A	
PL2-115A -				N/A	
PL2-116A -				N/A	
PL2-117A -				N/A	
PL2-118A		1 U	09/23/94	ND	1
PL2-119A		1 U	09/26/94	ND	1
PL2-120A		1 U	09/26/94	ND	1
PL2-151A		0.017 U	02/23/01	ND	2
PL2-152A	08/03/00	0.36			
PL2-153A -					
PL2-153A		0.017 U	02/26/01	ND	1
PL2-154A		0.017 U	02/27/01	ND	1
PL2-155A		0.017 U	02/23/01	ND	2
PL2-156A	08/04/00	0.018			
PL2-301A -				N/A	
PL2-302A -				N/A	
PL2-303A -				N/A	
PL2-304A -				N/A	
PL2-305A -				N/A	
PL2-320A -				N/A	
PL2-BF01A				N/A	
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A		0.01 U	06/16/03	ND	1
PL2-JF03A -				N/A	
B-Level				N/A	
GP-06602 -				N/A	
GP-06603 -				N/A	
GP-06604 -				N/A	
GP-06637 -				N/A	
GP-06638 -				N/A	
GP-06639 -				N/A	
GP-06640 -				N/A	
GP-08906				N/A	
GP-08907				N/A	
GP-08908 -				N/A	

South Yard Area - Maximum Total PCB Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.33 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-09104 -				N/A	
GP-09105 -				N/A	
GP-09106 -				N/A	
GP-09107 -				N/A	
GP-09108 -				N/A	
GP-09109 -				N/A	
GP-09110 -				N/A	
GP-09111 -				N/A	
GP-09112 -				N/A	
GP-09113 -				N/A	
GP-09114 -				N/A	
GP-09115 -				N/A	
PL2-005B		0.1 U	08/06/92	ND	1
PL2-101B -				N/A	
PL2-102B -				N/A	
PL2-104B -				N/A	
PL2-105B -				N/A	
PL2-106B -				N/A	
PL2-109B -				N/A	
PL2-110B -				N/A	
PL2-112B -				N/A	
PL2-151B		0.017 U	02/23/01	ND	2
PL2-152B	02/26/01	0.062			
PL2-153B		0.017 U	02/26/01	ND	1
PL2-154B		0.017 U	02/27/01	ND	1
PL2-155B		0.017 UJ	02/23/01	ND	2
C-Level					
GP-06634 -				N/A	
GP-06635 -				N/A	
GP-06636 -				N/A	
GP-08906 -				N/A	
GP-08907 -				N/A	
PL2-005C		0.1 U	08/06/92	ND	1
PL2-101C				N/A	
PL2-102C				N/A	
PL2-104C				N/A	
PL2-105C				N/A	
PL2-106C				N/A	
PL2-109C				N/A	
PL2-110C				N/A	
PL2-151C		0.017 U	02/23/01	ND	2
PL2-152C	08/03/00	0.011			
PL2-153C		0.017 U	02/27/01	ND	1
PL2-154C		0.017 U	02/27/01	ND	1
PL2-155C		0.017 U	02/23/01	ND	2

South Yard Area - Maximum Benzene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 4.48 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602 -	09/13/94	32			
GP-06603 -	09/12/94	1.8			
GP-06604 -	09/13/94	300			
GP-06634		1 U	11/22/94	ND	1
GP-06635		1 U	11/22/94	ND	1
GP-06636	11/21/94	7.8			
GP-06637 -	03/15/95	1			
GP-06638 -	03/16/95	4.4			
GP-06639 -	03/16/95	16			
GP-06640 -		1 U	03/15/95	ND	1
GP-08001 -		1 U	09/02/94	ND	1
GP-08002 -		1 U	09/08/94	ND	1
GP-08003 -		1 U	08/25/94	ND	1
GP-08007 -		1 U	02/17/95	ND	1
GP-08008 -		1 U	07/26/95	ND	1
GP-08701 -		1 U	02/17/95	ND	1
GP-08901 -	09/14/94	12			
GP-08902 -		1 U	09/14/94	ND	1
GP-08903 -		1 U	09/14/94	ND	1
GP-08904 -		1 U	09/14/94	ND	1
GP-08905 -		1 U	09/13/94	ND	1
GP-08906		1 U	11/29/94	ND	1
GP-08907		1 U	11/28/94	ND	1
GP-08908 -		1 U	03/17/95	ND	1
GP-09101 -		1 U	09/12/94	ND	1
GP-09102 -		1 U	09/08/94	ND	1
GP-09103 -		1 U	09/08/94	ND	1
GP-09104 -	11/23/94	2.7			
GP-09105 -	11/23/94	4.1			
GP-09106 -		1 U	03/14/95	ND	1
GP-09107 -	03/14/95	7.2			
GP-09108 -	03/14/95	5.4			
GP-09109 -	03/15/95	5.8			
GP-09110 -		1 U	09/19/95	ND	1
GP-09111 -		1 U	09/20/95	ND	1
GP-09112 -		1 U	09/19/95	ND	1
GP-09113 -		1 U	09/19/95	ND	1
GP-09114 -	09/20/95	1.3			
GP-09115 -		1 U	09/19/95	ND	1
PL2-005A -	08/06/92	0.6 J			
PL2-006A -	08/06/92	31			
PL2-027A -		1 U	08/14/02	ND	2
PL2-101A -	05/04/88	7			
PL2-102A -		100 U	03/24/95	ND	3
PL2-103A -		1 U	07/17/92	ND	2
PL2-104A -		1 U	07/16/92	ND	2
PL2-105A -	07/16/92	1.5			
PL2-106A -	11/21/95	1.4			
PL2-106AR				N/A	

South Yard Area - Maximum Benzene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 4.48 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-107A -		1 U	07/17/92	ND	1
A-Level					
PL2-108A -				N/A	
PL2-109A -		1 U	07/16/92	ND	1
PL2-110A -	08/16/95	3.2			
PL2-111A -		1 U	12/22/93	ND	1
PL2-112A -	08/02/89	2			
PL2-113A -	08/20/02	5.1			
PL2-114A -	08/02/89	18			
PL2-115A -		1 U	08/20/02	ND	2
PL2-116A -		1 U	08/20/02	ND	2
PL2-117A -		1 U	08/16/02	ND	3
PL2-118A -		1 U	09/23/94	ND	1
PL2-119A -		1 U	08/23/96	ND	5
PL2-120A -		1 U	09/26/94	ND	1
PL2-151A -		1 U	01/23/01	ND	2
PL2-152A -		1 U	01/24/01	ND	2
PL2-153A -		1 U	01/25/01	ND	1
PL2-154A -		1 U	01/25/01	ND	1
PL2-155A -		1 U	01/22/01	ND	2
PL2-156A -	08/04/00	1.6			
PL2-301A -		1 U	07/07/92	ND	1
PL2-302A -		1 U	07/07/92	ND	1
PL2-303A -		1 U	07/07/92	ND	1
PL2-304A -	07/07/92	200			
PL2-305A -		1 U	07/07/92	ND	1
PL2-320A -				N/A	
PL2-BF01A				N/A	
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A	09/27/95	1.3			
PL2-JF03A		1 U	12/08/03	ND	12
P12 - 20		1 U	02/13/91	ND	1
B-Level					
GP-06602 -		1 U	09/13/94	ND	1
GP-06603 -	09/12/94	5.2			
GP-06604 -		1 U	09/13/94	ND	1
GP-06634		1 UJ	11/22/94	ND	1
GP-06635	11/22/94	2.3			
GP-06636	11/21/94	12			
GP-06637 -		1 U	03/15/95	ND	1
GP-06638 -		1 U	03/16/95	ND	1
GP-06639 -	03/16/95	7.2			

South Yard Area - Maximum Benzene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 4.48 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-06640 -		1 U	03/15/95	ND	1
GP-08906		1 U	11/29/94	ND	1
GP-08907		1 U	11/28/94	ND	1
GP-08908 -		1 U	03/17/95	ND	1
GP-09104 -		1 U	11/23/94	ND	1
B-Level					
GP-09105 -		1 U	11/23/94	ND	1
GP-09106 -		1 U	03/14/95	ND	1
GP-09107 -		1 U	03/14/95	ND	1
GP-09108 -		1 U	03/14/95	ND	1
GP-09109 -		1 U	03/15/95	ND	1
GP-09110 -		1 U	09/19/95	ND	1
GP-09111 -		1 U	09/20/95	ND	1
GP-09112 -		1 U	09/19/95	ND	1
GP-09113 -		1 U	09/19/95	ND	1
GP-09114 -		1 U	09/20/95	ND	1
GP-09115 -	09/19/95	1.5			
PL2-005B -		1 U	08/06/92	ND	2
PL2-101B -		1 U	03/24/95	ND	1
PL2-102B -		1 U	07/17/92	ND	1
PL2-104B -		1 U	07/16/92	ND	1
PL2-105B -		1 U	07/16/92	ND	1
PL2-106B -		1 U	03/28/95	ND	2
PL2-109B -		1 U	07/16/92	ND	1
PL2-110B -		1 U	07/15/92	ND	1
PL2-112B -		1 U	08/15/02	ND	2
PL2-151B -		1 U	01/23/01	ND	2
PL2-152B -		1 U	01/24/01	ND	2
PL2-153B -		1 U	01/24/01	ND	1
PL2-154B -		1 U	01/25/01	ND	1
PL2-155B -		1 U	01/23/01	ND	2
C-Level					
GP-06634 -		1 U	11/22/94	ND	1
GP-06635 -		1 U	11/22/94	ND	1
GP-06636 -		1 U	11/21/94	ND	1
GP-08906 -		1 U	11/29/94	ND	1
GP-08907 -		1 U	11/29/94	ND	1
PL2-005C -		1 U	08/06/92	ND	2
PL2-101C -		1 U	07/15/92	ND	1
PL2-102C -		1 U	07/17/92	ND	1
PL2-104C -		1 U	07/16/92	ND	2
PL2-105C -		1 U	07/16/92	ND	1
PL2-106C -		1 U	07/15/92	ND	1
PL2-109C -		1 U	07/16/92	ND	1
PL2-110C -		1.8 U	07/15/92	ND	1
PL2-151C -		1 U	01/23/01	ND	2
PL2-152C -		1 U	01/24/01	ND	2
PL2-153C -		1 U	01/24/01	ND	1
PL2-154C -		1 U	01/25/01	ND	1

South Yard Area - Maximum Benzene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 4.48 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-155C -		1 U	01/22/01	ND	2

South Yard Area - Maximum 1,1-Dichloroethene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.382 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602 -		1 U	09/13/94	ND	1
GP-06603 -		1 U	09/12/94	ND	1
GP-06604 -		1 U	09/13/94	ND	1
GP-06634		1 U	11/22/94	ND	1
GP-06635		1 U	11/22/94	ND	1
GP-06636		1 U	11/21/94	ND	1
GP-06637 -		1 U	03/15/95	ND	1
GP-06638 -		1 U	03/16/95	ND	1
GP-06639 -		1 U	03/16/95	ND	1
GP-06640 -		1 U	03/15/95	ND	1
GP-08001 -		1 U	09/02/94	ND	1
GP-08002 -		1 U	09/08/94	ND	1
GP-08003 -		1 U	08/25/94	ND	1
GP-08007 -		1 U	02/17/95	ND	1
GP-08008 -	07/26/95	1.3			
GP-08701 -	02/17/95	2.7			
GP-08901 -		1 U	09/14/94	ND	1
GP-08902 -		1 U	09/14/94	ND	1
GP-08903 -		1 U	09/14/94	ND	1
GP-08904 -		1 U	09/14/94	ND	1
GP-08905 -		1 U	09/13/94	ND	1
GP-08906		1 U	11/29/94	ND	1
GP-08907		1 U	11/28/94	ND	1
GP-08908 -		1 U	03/17/95	ND	1
GP-09101 -		1 U	09/12/94	ND	1
GP-09102 -		1 U	09/08/94	ND	1
GP-09103 -		1 U	09/08/94	ND	1
GP-09104 -		1 U	11/23/94	ND	1
GP-09105 -		1 U	11/23/94	ND	1
GP-09106 -		1 U	03/14/95	ND	1
GP-09107 -		1 U	03/14/95	ND	1
GP-09108 -		1 U	03/14/95	ND	1
GP-09109 -		1 U	03/15/95	ND	1
GP-09110 -		1 U	09/19/95	ND	1
GP-09111 -		1 U	09/20/95	ND	1
GP-09112 -		1 U	09/19/95	ND	1
GP-09113 -		1 U	09/19/95	ND	1
GP-09114 -		1 U	09/20/95	ND	1
GP-09115 -		1 U	09/19/95	ND	1
PL2-005A -		1 U	08/06/92	ND	3
PL2-006A -		1 U	08/06/92	ND	5
PL2-027A -		1 U	12/21/93	ND	1
PL2-101A -	05/04/88	1			
PL2-102A -	05/04/88	64			
PL2-103A -		1 U	07/17/92	ND	2
PL2-104A -		1 U	07/16/92	ND	2
PL2-105A -		1 U	07/16/92	ND	2
PL2-106A -	05/04/88	3			
PL2-106AR				N/A	

South Yard Area - Maximum 1,1-Dichloroethene Concentrations in Groundwater
Boeing Plant 2

Screening Level (2004) = 0.382 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-107A -	07/17/92	0.5 N			
PL2-108A -				N/A	

South Yard Area - Maximum 1,1-Dichloroethene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.382 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
PL2-109A -	07/16/92	8.9			
PL2-110A -	07/15/92	1.2			
PL2-111A -		1 U	12/22/93	ND	1
PL2-112A -	03/31/95	18			
PL2-113A -	08/20/02	1.9			
PL2-114A -		1.3 U	01/18/89	ND	2
PL2-115A -		1 U	08/20/02	ND	2
PL2-116A -		1 U	08/20/02	ND	2
PL2-117A -	08/02/89	1.7			
PL2-118A -		1 U	09/23/94	ND	1
PL2-119A -		1 U	08/23/96	ND	5
PL2-120A -		1 U	09/26/94	ND	1
PL2-151A -		1 U	01/23/01	ND	2
PL2-152A -		1 U	01/24/01	ND	2
PL2-153A -		1 U	01/25/01	ND	1
PL2-154A -		1 U	01/25/01	ND	1
PL2-155A -		1 U	01/22/01	ND	2
PL2-156A -		1 U	01/23/01	ND	2
PL2-301A -		1 U	07/07/92	ND	1
PL2-302A -		1 U	07/07/92	ND	1
PL2-303A -		1 U	07/07/92	ND	1
PL2-304A -		1 U	03/24/95	ND	2
PL2-305A -		1 U	07/07/92	ND	1
PL2-320A -				N/A	
PL2-BF01A				N/A	
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A -		1 U	02/02/04	ND	14
PL2-JF03A -		1 U	12/08/03	ND	12
P12 - 20		1 U	02/13/91	ND	1
B-Level					
GP-06602 -		1 U	09/13/94	ND	1
GP-06603 -		1 U	09/12/94	ND	1
GP-06604 -		1 U	09/13/94	ND	1
GP-06634		1 UJ	11/22/94	ND	1
GP-06635		1 U	11/22/94	ND	1
GP-06636		1 U	11/21/94	ND	1
GP-06637 -		1 U	03/15/95	ND	1
GP-06638 -		1 U	03/16/95	ND	1
GP-06639 -		1 U	03/16/95	ND	1
GP-06640 -		1 U	03/15/95	ND	1
GP-08906		1 U	11/29/94	ND	1

South Yard Area - Maximum 1,1-Dichloroethene Concentrations in Groundwater
Boeing Plant 2

Screening Level (2004) = 0.382 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-08907		1 U	11/28/94	ND	1
GP-08908 -		1 U	03/17/95	ND	1
GP-09104 -		1 U	11/23/94	ND	1

South Yard Area - Maximum 1,1-Dichloroethene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.382 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-09105 -		1 U	11/23/94	ND	1
GP-09106 -		1 U	03/14/95	ND	1
B-Level					
GP-09107 -		1 U	03/14/95	ND	1
GP-09108 -		1 U	03/14/95	ND	1
GP-09109 -		1 U	03/15/95	ND	1
GP-09110 -		1 U	09/19/95	ND	1
GP-09111 -		1 U	09/20/95	ND	1
GP-09112 -		1 U	09/19/95	ND	1
GP-09113 -		1 U	09/19/95	ND	1
GP-09114 -		1 U	09/20/95	ND	1
GP-09115 -		1 U	09/19/95	ND	1
PL2-005B -		1 U	08/06/92	ND	2
PL2-101B -		1 U	03/24/95	ND	1
PL2-102B -		1 U	07/17/92	ND	1
PL2-104B -		1 U	07/16/92	ND	1
PL2-105B -		1 U	07/16/92	ND	1
PL2-106B -		1 U	03/28/95	ND	2
PL2-109B -		1 U	07/16/92	ND	1
PL2-110B -		1 U	07/15/92	ND	1
PL2-112B -		1 U	08/15/02	ND	2
PL2-151B -		1 U	01/23/01	ND	2
PL2-152B -		1 U	01/24/01	ND	2
PL2-153B -		1 U	01/24/01	ND	1
PL2-154B -		1 U	01/25/01	ND	1
PL2-155B -		1 U	01/23/01	ND	2
C-Level					
GP-06634 -		1 U	11/22/94	ND	1
GP-06635 -		1 U	11/22/94	ND	1
GP-06636 -		1 U	11/21/94	ND	1
GP-08906 -		1 U	11/29/94	ND	1
GP-08907 -		1 U	11/29/94	ND	1
PL2-005C -		1 U	08/06/92	ND	2
PL2-101C -		1 U	07/15/92	ND	1
PL2-102C -		1 U	07/17/92	ND	1
PL2-104C -		1 U	07/16/92	ND	2
PL2-105C -		1 U	07/16/92	ND	1
PL2-106C -		1 U	07/15/92	ND	1
PL2-109C -		1 U	07/16/92	ND	1
PL2-110C -		1 U	07/15/92	ND	1
PL2-151C -		1 U	01/23/01	ND	2
PL2-152C -		1 U	01/24/01	ND	2
PL2-153C -		1 U	01/24/01	ND	1
PL2-154C -		1 U	01/25/01	ND	1
PL2-155C -		1 U	01/22/01	ND	2

South Yard Area - Maximum cis-1,2-Dichloroethene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 1,130 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602 -		1 U	09/13/94	ND	1
GP-06603 -	09/12/94	5.6			
GP-06604 -		1 U	09/13/94	ND	1
GP-06634	11/22/94	33			
GP-06635				N/A	
GP-06636	11/21/94	54			
GP-06637 -	03/15/95	3.6			
GP-06638 -	03/16/95	1.3			
GP-06639 -	03/16/95	4			
GP-06640 -		1 U	03/15/95	ND	1
GP-08001 -		1 U	09/02/94	ND	1
GP-08002 -	09/08/94	1.2			
GP-08003 -	08/25/94	1.1			
GP-08007 -		1 U	02/17/95	ND	1
GP-08008 -	07/26/95	5.8			
GP-08701 -	02/17/95	13			
GP-08901 -	09/14/94	12			
GP-08902 -	09/14/94	57			
GP-08903 -	09/14/94	53			
GP-08904 -	09/14/94	17			
GP-08905 -	09/13/94	8.5			
GP-08906	11/29/94	40			
GP-08907 -	11/28/94	60			
GP-08908 -		1 U	03/17/95	ND	1
GP-09101 -		1 U	09/12/94	ND	1
GP-09102 -		1 U	09/08/94	ND	1
GP-09103 -		1 U	09/08/94	ND	1
GP-09104 -		1 U	11/23/94	ND	1
GP-09105 -		1 U	11/23/94	ND	1
GP-09106 -	03/14/95	58			
GP-09107 -		1 U	03/14/95	ND	1
GP-09108 -		1 U	03/14/95	ND	1
GP-09109 -		1 U	03/15/95	ND	1
GP-09110 -		1 U	09/19/95	ND	1
GP-09111 -		1 U	09/20/95	ND	1
GP-09112 -		1 U	09/19/95	ND	1
GP-09113 -		1 U	09/19/95	ND	1
GP-09114 -		1 U	09/20/95	ND	1
GP-09115 -		1 U	09/19/95	ND	1
PL2-005A -	02/13/91	11			
PL2-006A -	02/13/91	1100			
PL2-027A -	12/21/93	3.5			
PL2-101A -	07/15/92	23			
PL2-102A -	05/04/88	110000			
PL2-103A -		1 U	07/17/92	ND	2
PL2-104A -		1 U	07/16/92	ND	2
PL2-105A -	05/04/88	8			
PL2-106A -	11/21/95	150			
PL2-106AR				N/A	

South Yard Area - Maximum cis-1,2-Dichloroethene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 1,130 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-107A -	07/17/92	130			
PL2-108A -				N/A	
PL2-109A -	07/16/92	370			
PL2-110A -	07/15/92	23			
PL2-111A -	12/22/93	70			
PL2-112A -	03/31/95	7.7			
A-Level					
PL2-113A -	08/20/02	5.9			
PL2-114A -				N/A	
PL2-115A -	08/20/02	94			
PL2-116A -	08/20/02	1.4			
PL2-117A -	08/16/02	8.1			
PL2-118A -		1 U	09/23/94	ND	1
PL2-119A -	09/26/94	2.8			
PL2-120A -		1 U	09/26/94	ND	1
PL2-151A -	08/03/00	4.1			
PL2-152A -	08/03/00	4.6			
PL2-153A -		1 U	01/25/01	ND	1
PL2-154A -		1 U	01/25/01	ND	1
PL2-155A -	01/22/01	6.6			
PL2-156A -	08/04/00	2.9			
PL2-301A -	07/07/92	1			
PL2-302A -		1 U	07/07/92	ND	1
PL2-303A -		1 U	07/07/92	ND	1
PL2-304A -	07/07/92	1.5			
PL2-305A -	07/07/92	1.8			
PL2-320A -				N/A	
PL2-BF01A				N/A	
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A -		1 U	02/02/04	ND	14
PL2-JF03A -		1 U	12/08/03	ND	12
P12 - 20	02/13/91	1.4			
				N/A	
B-Level				N/A	
GP-06602 -		1 U	09/13/94	ND	1
GP-06603 -		1 U	09/12/94	ND	1
GP-06604 -		1 U	09/13/94	ND	1
GP-06634		1 UJ	11/22/94	ND	1
GP-06635		1 U	11/22/94	ND	1
GP-06636		1 U	11/21/94	ND	1
GP-06637 -		1 U	03/15/95	ND	1
GP-06638 -		1 U	03/16/95	ND	1
GP-06639 -		1 U	03/16/95	ND	1

South Yard Area - Maximum cis-1,2-Dichloroethene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 1,130 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-06640 -		1 U	03/15/95	ND	1
GP-08906		1 U	11/29/94	ND	1
GP-08907		1 U	11/28/94	ND	1
GP-08908 -		1 U	03/17/95	ND	1
GP-09104 -		1 U	11/23/94	ND	1
GP-09105 -		1 U	11/23/94	ND	1
GP-09106 -		1 U	03/14/95	ND	1
GP-09107 -		1 U	03/14/95	ND	1
GP-09108 -		1 U	03/14/95	ND	1
GP-09109 -		1 U	03/15/95	ND	1
GP-09110 -		1 U	09/19/95	ND	1
GP-09111 -		1 U	09/20/95	ND	1
GP-09112 -		1 U	09/19/95	ND	1
GP-09113 -		1 U	09/19/95	ND	1
GP-09114 -		1 U	09/20/95	ND	1
B-Level					
GP-09115 -		1 U	09/19/95	ND	1
PL2-005B -		1 U	08/06/92	ND	2
PL2-101B -		1 U	03/24/95	ND	1
PL2-102B -	07/17/92	1.6			
PL2-104B -		2 UJ	07/16/92	ND	1
PL2-105B -		1 U	07/16/92	ND	1
PL2-106B -	03/28/95	25			
PL2-109B -				N/A	
PL2-110B -		1 U	07/15/92	ND	1
PL2-112B -		1 U	08/15/02	ND	2
PL2-151B -		1 U	01/23/01	ND	2
PL2-152B -		1 U	01/24/01	ND	2
PL2-153B -		1 U	01/24/01	ND	1
PL2-154B -		1 U	01/25/01	ND	1
PL2-155B -		1 U	01/23/01	ND	2
C-Level					
GP-06634 -		1 U	11/22/94	ND	1
GP-06635 -		1 U	11/22/94	ND	1
GP-06636 -		1 U	11/21/94	ND	1
GP-08906 -		1 U	11/29/94	ND	1
GP-08907 -		1 U	11/29/94	ND	1
PL2-005C -		1 U	08/06/92	ND	2
PL2-101C -		1 U	07/15/92	ND	1
PL2-102C -		1 U	07/17/92	ND	1
PL2-104C -		1 U	07/16/92	ND	2
PL2-105C -		1 U	07/16/92	ND	1
PL2-106C -		1 U	07/15/92	ND	1
PL2-109C -		1 U	07/16/92	ND	1
PL2-110C -	07/15/92	2.9			
PL2-151C -		1 U	01/23/01	ND	2
PL2-152C -		1 U	01/24/01	ND	2
PL2-153C -		1 U	01/24/01	ND	1
PL2-154C -		1 U	01/25/01	ND	1

South Yard Area - Maximum cis-1,2-Dichloroethene Concentrations in Groundwater
Boeing Plant 2

Screening Level (2004) = 1,130 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-155C -		1 U	01/22/01	ND	2

South Yard Area - Maximum Tetrachloroethene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.822 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602 -		1 U	09/13/94	ND	1
GP-06603 -		1 U	09/12/94	ND	1
GP-06604 -		1 U	09/13/94	ND	1
GP-06634		1 U	11/22/94	ND	1
GP-06635		1 U	11/22/94	ND	1
GP-06636		1 U	11/21/94	ND	1
GP-06637 -	03/15/95	2.2			
GP-06638 -		1 U	03/16/95	ND	1
GP-06639 -		1 U	03/16/95	ND	1
GP-06640 -	03/15/95	1.5			
GP-08001 -		1 U	09/02/94	ND	1
GP-08002 -		1 U	09/08/94	ND	1
GP-08003 -		1 U	08/25/94	ND	1
GP-08007 -		1 U	02/17/95	ND	1
GP-08008 -		1 U	07/26/95	ND	1
GP-08701 -		1 U	02/17/95	ND	1
GP-08901 -		1 U	09/14/94	ND	1
GP-08902 -		1 U	09/14/94	ND	1
GP-08903 -		1 U	09/14/94	ND	1
GP-08904 -		1 U	09/14/94	ND	1
GP-08905 -	09/13/94	6.8			
GP-08906		1 U	11/29/94	ND	1
GP-08907		1 U	11/28/94	ND	1
GP-08908 -		1 U	03/17/95	ND	1
GP-09101 -		1 U	09/12/94	ND	1
GP-09102 -		1 U	09/08/94	ND	1
GP-09103 -		1 U	09/08/94	ND	1
GP-09104 -		1 U	11/23/94	ND	1
GP-09105 -		1 U	11/23/94	ND	1
GP-09106 -		1 U	03/14/95	ND	1
GP-09107 -		1 U	03/14/95	ND	1
GP-09108 -		1 U	03/14/95	ND	1
GP-09109 -		1 U	03/15/95	ND	1
GP-09110 -		1 U	09/19/95	ND	1
GP-09111 -		1 U	09/20/95	ND	1
GP-09112 -		1 U	09/19/95	ND	1
GP-09113 -		1 U	09/19/95	ND	1
GP-09114 -		1 U	09/20/95	ND	1
GP-09115 -		1 U	09/19/95	ND	1
PL2-005A -		1 U	08/06/92	ND	3
PL2-006A -	08/06/92	1.2			
PL2-027A -		1 U	12/21/93	ND	1
PL2-101A -		1 U	03/24/95	ND	3
PL2-102A -	05/04/88	6			
PL2-103A -		1 U	07/17/92	ND	2
PL2-104A -		1 U	07/16/92	ND	2
PL2-105A -	05/04/88	3			
PL2-106A -	03/04/96	2.4			
PL2-106AR				N/A	

South Yard Area - Maximum Tetrachloroethene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.822 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-107A -		1 U	07/17/92	ND	1
PL2-108A -				N/A	
PL2-109A -	07/16/92	36			
PL2-110A -		1 U	08/27/96	ND	5
A-Level					
PL2-111A -		1 U	12/22/93	ND	1
PL2-112A -	03/31/95	5.1			
PL2-113A -	08/20/02	1.1			
PL2-114A -	01/18/89	0.8			
PL2-115A -		1 U	08/20/02	ND	2
PL2-116A -		1 U	08/20/02	ND	2
PL2-117A -	08/02/89	0.8			
PL2-118A -		1 U	09/23/94	ND	1
PL2-119A -		1 U	08/23/96	ND	5
PL2-120A -		1 U	09/26/94	ND	1
PL2-151A -		1 U	01/23/01	ND	2
PL2-152A -		1 U	01/24/01	ND	2
PL2-153A -		1 U	01/25/01	ND	1
PL2-154A -		1 U	01/25/01	ND	1
PL2-155A -		1 U	01/22/01	ND	2
PL2-156A -		1 U	01/23/01	ND	2
PL2-301A -		1 U	07/07/92	ND	1
PL2-302A -		1 U	07/07/92	ND	1
PL2-303A -		1 U	07/07/92	ND	1
PL2-304A -		1 U	03/24/95	ND	2
PL2-305A -		1 U	07/07/92	ND	1
PL2-320A -				N/A	
PL2-BF01A				N/A	
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A		1 U	02/02/04	ND	14
PL2-JF03A		1 U	12/08/03	ND	12
P12 - 20		1 U	02/13/91	ND	1
B-Level					
GP-06602 -		1 U	09/13/94	ND	1
GP-06603 -		1 U	09/12/94	ND	1
GP-06604 -		1 U	09/13/94	ND	1
GP-06634		1 UJ	11/22/94	ND	1
GP-06635		1 U	11/22/94	ND	1
GP-06636		1 U	11/21/94	ND	1
GP-06637 -		1 U	03/15/95	ND	1
GP-06638 -		1 U	03/16/95	ND	1
GP-06639 -		1 U	03/16/95	ND	1

South Yard Area - Maximum Tetrachloroethene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.822 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-06640 -		1 U	03/15/95	ND	1
GP-08906		1 U	11/29/94	ND	1
GP-08907		1 U	11/28/94	ND	1
GP-08908 -		1 U	03/17/95	ND	1
GP-09104 -		1 U	11/23/94	ND	1
GP-09105 -		1 U	11/23/94	ND	1
GP-09106 -		1 U	03/14/95	ND	1
GP-09107 -		1 U	03/14/95	ND	1
GP-09108 -		1 U	03/14/95	ND	1
GP-09109 -		1 U	03/15/95	ND	1
GP-09110 -		1 U	09/19/95	ND	1
B-Level					
GP-09111 -		1 U	09/20/95	ND	1
GP-09112 -		1 U	09/19/95	ND	1
GP-09113 -		1 U	09/19/95	ND	1
GP-09114 -		1 U	09/20/95	ND	1
GP-09115 -		1 U	09/19/95	ND	1
PL2-005B -		1 U	08/06/92	ND	2
PL2-101B -		1 U	03/24/95	ND	1
PL2-102B -		1 U	07/17/92	ND	1
PL2-104B -		1 U	07/16/92	ND	1
PL2-105B -		1 U	07/16/92	ND	1
PL2-106B -		1 U	03/28/95	ND	2
PL2-109B -		1 U	07/16/92	ND	1
PL2-110B -		1 U	07/15/92	ND	1
PL2-112B -		1 U	08/15/02	ND	2
PL2-151B -		1 U	01/23/01	ND	2
PL2-152B -		1 U	01/24/01	ND	2
PL2-153B -		1 U	01/24/01	ND	1
PL2-154B -		1 U	01/25/01	ND	1
PL2-155B -		1 U	01/23/01	ND	2
C-Level					
GP-06634 -		1 U	11/22/94	ND	1
GP-06635 -		1 U	11/22/94	ND	1
GP-06636 -		1 U	11/21/94	ND	1
GP-08906 -		1 U	11/29/94	ND	1
GP-08907 -		1 U	11/29/94	ND	1
PL2-005C -		1 U	08/06/92	ND	2
PL2-101C -		1 U	07/15/92	ND	1
PL2-102C -		1 U	07/17/92	ND	1
PL2-104C -		1 U	07/16/92	ND	2
PL2-105C -		1 U	07/16/92	ND	1
PL2-106C -		1 U	07/15/92	ND	1
PL2-109C -		1 U	07/16/92	ND	1
PL2-110C -		1 U	07/15/92	ND	1
PL2-151C -		1 U	01/23/01	ND	2
PL2-152C -		1 U	01/24/01	ND	2
PL2-153C -		1 U	01/24/01	ND	1
PL2-154C -		1 U	01/25/01	ND	1

South Yard Area - Maximum Tetrachloroethene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.822 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-155C -		1 U	01/22/01	ND	2

South Yard Area - Maximum 1,1,2-Trichloroethane Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 5 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602 -		1 U	09/13/94	ND	1
GP-06603 -		1 U	09/12/94	ND	1
GP-06604 -		5 U	09/13/94	ND	1
GP-06634				N/A	
GP-06635				N/A	
GP-06636				N/A	
GP-06637 -		1 U	03/15/95	ND	1
GP-06638 -		1 U	03/16/95	ND	1
GP-06639 -		1 U	03/16/95	ND	1
GP-06640 -		1 U	03/15/95	ND	1
GP-08001 -		1 U	09/02/94	ND	1
GP-08002 -		1 U	09/08/94	ND	1
GP-08003 -		1 U	08/25/94	ND	1
GP-08007 -		1 U	02/17/95	ND	1
GP-08008 -		1 U	07/26/95	ND	1
GP-08701 -		1 U	02/17/95	ND	1
GP-08901 -		1 U	09/14/94	ND	1
GP-08902 -		1 U	09/14/94	ND	1
GP-08903 -		1 U	09/14/94	ND	1
GP-08904 -		1 U	09/14/94	ND	1
GP-08905 -		1 U	09/13/94	ND	1
GP-08906				N/A	
GP-08907				N/A	
GP-08908 -		1 U	03/17/95	ND	1
GP-09101 -		1 U	09/12/94	ND	1
GP-09102 -		1 U	09/08/94	ND	1
GP-09103 -		1 U	09/08/94	ND	1
GP-09104 -		1 U	11/23/94	ND	1
GP-09105 -		1 U	11/23/94	ND	1
GP-09106 -		1 U	03/14/95	ND	1
GP-09107 -		1 U	03/14/95	ND	1
GP-09108 -		1 U	03/14/95	ND	1
GP-09109 -		1 U	03/15/95	ND	1
GP-09110 -		1 U	09/19/95	ND	1
GP-09111 -		1 U	09/20/95	ND	1
GP-09112 -		1 U	09/19/95	ND	1
GP-09113 -		1 U	09/19/95	ND	1
GP-09114 -		1 U	09/20/95	ND	1
GP-09115 -		1 U	09/19/95	ND	1
PL2-005A -		1 U	08/06/92	ND	3
PL2-006A -		1 U	03/31/95	ND	5
PL2-027A -		1 U	08/14/02	ND	1
PL2-101A -		1 U	03/24/95	ND	3
PL2-102A -		1 U	03/24/95	ND	3
PL2-103A -		1 U	07/17/92	ND	2
PL2-104A -		1 U	07/16/92	ND	2
PL2-105A -		1 U	07/16/92	ND	2
PL2-106A -		1 U	01/22/01	ND	9
PL2-106AR				N/A	

South Yard Area - Maximum 1,1,2-Trichloroethane Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 5 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-107A -		1 U	07/17/92	ND	1
PL2-108A -				N/A	
PL2-109A -	07/16/92	8.5			
PL2-110A -		1 U	08/27/96	ND	5
PL2-111A -		1 U	12/22/93	ND	1
PL2-112A -		1 U	03/31/95	ND	4
PL2-113A -		1 U	08/20/02	ND	3
A-Level					
PL2-114A -	01/18/89	1 N			
PL2-115A -		1 U	08/20/02	ND	2
PL2-116A -		1 U	08/20/02	ND	2
PL2-117A -	01/18/89	0.6 N			
PL2-118A -		1 U	09/23/94	ND	1
PL2-119A -		1 U	08/23/96	ND	5
PL2-120A -		1 U	09/26/94	ND	1
PL2-151A -		1 U	01/23/01	ND	2
PL2-152A -		1 U	01/24/01	ND	2
PL2-153A -		1 U	01/25/01	ND	1
PL2-154A -		1 U	01/25/01	ND	1
PL2-155A -		1 U	01/22/01	ND	2
PL2-156A -		1 U	01/23/01	ND	2
PL2-301A -		1 U	07/07/92	ND	1
PL2-302A -		1 U	07/07/92	ND	1
PL2-303A -		1 U	07/07/92	ND	1
PL2-304A -		1 U	03/24/95	ND	2
PL2-305A -		1 U	07/07/92	ND	1
PL2-320A -				N/A	
PL2-BF01A				N/A	
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A		1 U	02/02/04	ND	14
PL2-JF03A		1 U	12/08/03	ND	12
P12 - 20		1 U	02/13/91	ND	1
B-Level					
GP-06602 -		1 U	09/13/94	ND	1
GP-06603 -		1 U	09/12/94	ND	1
GP-06604 -		1 U	09/13/94	ND	1
GP-06637 -		1 U	03/15/95	ND	1
GP-06638 -		1 U	03/16/95	ND	1
GP-06639 -		1 U	03/16/95	ND	1
GP-06640 -		1 U	03/15/95	ND	1
GP-08906				N/A	
GP-08907				N/A	

South Yard Area - Maximum 1,1,2-Trichloroethane Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 5 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-08908				N/A	
GP-08908 -		1 U	03/17/95	ND	1
GP-09104 -		1 U	11/23/94	ND	1
GP-09105 -		1 U	11/23/94	ND	1
GP-09106 -		1 U	03/14/95	ND	1
GP-09107 -		1 U	03/14/95	ND	1
GP-09108 -		1 U	03/14/95	ND	1
GP-09109 -		1 U	03/15/95	ND	1
GP-09110 -		1 U	09/19/95	ND	1
GP-09111 -		1 U	09/20/95	ND	1
GP-09112 -		1 U	09/19/95	ND	1
GP-09113 -		1 U	09/19/95	ND	1
GP-09114 -		1 U	09/20/95	ND	1
GP-09115 -		1 U	09/19/95	ND	1
B-Level					
PL2-005B -		1 U	08/06/92	ND	2
PL2-101B -		1 U	03/24/95	ND	1
PL2-102B -		1 U	07/17/92	ND	1
PL2-104B -		1 U	07/16/92	ND	1
PL2-105B -		1 U	07/16/92	ND	1
PL2-106B -		1 U	03/28/95	ND	2
PL2-109B -		1 U	07/16/92	ND	1
PL2-110B -		1 U	07/15/92	ND	1
PL2-112B -		1 U	08/15/02	ND	2
PL2-151B -		1 U	01/23/01	ND	2
PL2-152B -		1 U	01/24/01	ND	2
PL2-153B -		1 U	1/24/2001	ND	1
PL2-154B -		1 U	1/25/2001	ND	1
PL2-155B -		1 U	1/23/2001	ND	2
C-Level					
GP-06634 -		1 U	11/22/94	ND	1
GP-06635 -		1 U	11/22/94	ND	1
GP-06636 -		1 U	11/21/94	ND	1
GP-08906 -		1 U	11/29/94	ND	1
GP-08907 -		1 U	11/29/94	ND	1
PL2-005C -		1 U	08/06/92	ND	2
PL2-101C -		1 U	07/15/92	ND	1
PL2-102C -		1 U	07/17/92	ND	1
PL2-104C -		1 U	07/16/92	ND	2
PL2-105C -		1 U	07/16/92	ND	1
PL2-106C -		1 U	07/15/92	ND	1
PL2-109C -		1 U	07/16/92	ND	1
PL2-110C -		1 U	07/15/92	ND	1
PL2-151C -		1 U	01/23/01	ND	2
PL2-152C -		1 U	01/24/01	ND	2
PL2-153C -		1 U	01/24/01	ND	1
PL2-154C -		1 U	01/25/01	ND	1
PL2-155C -		1 U	01/22/01	ND	2

South Yard Area - Maximum Trichloroethene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.302 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602		1 U	09/13/94	ND	1
GP-06603	09/12/94	1.1			
GP-06604		1 U	09/13/94	ND	1
GP-06634	11/22/94	43			
GP-06635		1 U	11/22/94	ND	1
GP-06636		1 U	11/21/94	ND	1
GP-06637 -	03/15/95	70			
GP-06638 -		1 U	03/16/95	ND	1
GP-06639 -		1 U	03/16/95	ND	1
GP-06640 -		1 U	03/15/95	ND	1
GP-08001		1 U	09/02/94	ND	1
GP-08002		1 U	09/08/94	ND	1
GP-08003		1 U	08/25/94	ND	1
GP-08007 -		1 U	02/17/95	ND	1
GP-08008 -	07/26/95	36			
GP-08701 -	02/17/95	23			
GP-08901 -		1 U	09/14/94	ND	1
GP-08902 -	09/14/94	2.8			
GP-08903 -		1 U	09/14/94	ND	1
GP-08904 -		1 U	09/14/94	ND	1
GP-08905 -	09/13/94	1.7			
GP-08906		1 U	11/29/94	ND	1
GP-08907	11/28/94	20			
GP-08908 -		1 U	03/17/95	ND	1
GP-09101 -		1 U	09/12/94	ND	1
GP-09102 -		1 U	09/08/94	ND	1
GP-09103 -		1 U	09/08/94	ND	1
GP-09104 -		1 U	11/23/94	ND	1
GP-09105 -		1 U	11/23/94	ND	1
GP-09106 -		1 U	03/14/95	ND	1
GP-09107 -		1 U	03/14/95	ND	1
GP-09108 -		1 U	03/14/95	ND	1
GP-09109 -		1 U	03/15/95	ND	1
GP-09110 -		1 U	09/19/95	ND	1
GP-09111 -		1 U	09/20/95	ND	1
GP-09112 -		1 U	09/19/95	ND	1
GP-09113 -		1 U	09/19/95	ND	1
GP-09114 -		1 U	09/20/95	ND	1
GP-09115 -		1 U	09/19/95	ND	1
PL2-005A -	08/06/92	3			
PL2-006A -	08/06/92	23			
PL2-027A -		1 U	12/21/93	ND	1
PL2-101A -	05/04/88	7			
PL2-102A -	05/04/88	33000			
PL2-103A		1 U	07/17/92	ND	2
PL2-104A -		1 U	07/16/92	ND	2
PL2-105A -	05/04/88	57			
PL2-106A -	11/21/95	350 D			
PL2-106AR				N/A	

South Yard Area - Maximum Trichloroethene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.302 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-107A -	07/17/92	4.1			
PL2-108A -				N/A	
PL2-109A -	07/16/92	1200			
PL2-110A -	02/29/96	34			
PL2-111A -	12/22/93	9.5			
A-Level					
PL2-112A -	03/31/95	8.4			
PL2-113A -	08/02/89	37			
PL2-114A -	01/18/89	1			
PL2-115A -	08/20/02	94			
PL2-116A -		0.8 U	08/20/02	ND	2
PL2-117A -	08/02/89	13			
PL2-118A -		1 U	09/23/94	ND	1
PL2-119A -		1 U	08/23/96	ND	5
PL2-120A -		1 U	09/26/94	ND	1
PL2-151A -	01/23/01	9.2			
PL2-152A -	08/03/00	3			
PL2-153A -		1 U	01/25/01	ND	1
PL2-154A -		1 U	01/25/01	ND	1
PL2-155A -	08/04/00	1.8			
PL2-156A -	08/04/00	1.9			
PL2-301A -		1 U	07/07/92	ND	1
PL2-302A -		1 U	07/07/92	ND	1
PL2-303A -		1 U	07/07/92	ND	1
PL2-304A -		1 U	03/24/95	ND	2
PL2-305A -		1 U	07/07/92	ND	1
PL2-320A -				N/A	
PL2-BF01A				N/A	
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A	11/21/96	1.6			
PL2-JF03A		1 U	12/08/03	ND	12
P12 - 20	02/13/91	0.9 J			
B-Level					
GP-06602 -		1 U	09/13/94	ND	1
GP-06603 -		1 U	09/12/94	ND	1
GP-06604 -		1 U	09/13/94	ND	1
GP-06634		1 UJ	11/22/94	ND	1
GP-06635		1 U	11/22/94	ND	1
GP-06636		1 U	11/21/94	ND	1
GP-06637 -		1 U	03/15/95	ND	1
GP-06638 -		1 U	03/16/95	ND	1
GP-06639 -		1 U	03/16/95	ND	1

South Yard Area - Maximum Trichloroethene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.302 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-06640 -		1 U	03/15/95	ND	1
GP-08906		1 U	11/29/94	ND	1
GP-08907		1 U	11/28/94	ND	1
GP-08908 -		1 U	03/17/95	ND	1
GP-09104 -		1 U	11/23/94	ND	1
GP-09105 -		1 U	11/23/94	ND	1
GP-09106 -		1 U	03/14/95	ND	1
GP-09107 -		1 U	03/14/95	ND	1
GP-09108 -		1 U	03/14/95	ND	1
GP-09109 -		1 U	03/15/95	ND	1
B-Level					
GP-09110 -		1 U	09/19/95	ND	1
GP-09111 -		1 U	09/20/95	ND	1
GP-09112 -		1 U	09/19/95	ND	1
GP-09113 -		1 U	09/19/95	ND	1
GP-09114 -		1 U	09/20/95	ND	1
GP-09115 -		1 U	09/19/95	ND	1
PL2-005B -	12/10/91	0.5 N			
PL2-101B -		1 U	03/24/95	ND	1
PL2-102B -		1 U	07/17/92	ND	1
PL2-104B -		1 U	07/16/92	ND	1
PL2-105B -		1 U	07/16/92	ND	1
PL2-106B -	03/28/95	6.4			
PL2-109B -		1 U	07/16/92	ND	1
PL2-110B -		1 U	07/15/92	ND	1
PL2-112B -		1 U	08/15/02	ND	2
PL2-151B -		1 U	01/23/01	ND	2
PL2-152B -		1 U	01/24/01	ND	2
PL2-153B -		1 U	01/24/01	ND	1
PL2-154B -		1 U	01/25/01	ND	1
PL2-155B -		1 U	01/23/01	ND	2
C-Level					
GP-06634 -		1 U	11/22/94	ND	1
GP-06635 -		1 U	11/22/94	ND	1
GP-06636 -		1 U	11/21/94	ND	1
GP-08906 -		1 U	11/29/94	ND	1
GP-08907 -		1 U	11/29/94	ND	1
PL2-005C	12/10/91	0.6 J			
PL2-101C		1 U	07/15/92	ND	1
PL2-102C		1 U	07/17/92	ND	1
PL2-104C		1 U	07/16/92	ND	2
PL2-105C		1 U	07/16/92	ND	1
PL2-106C		1 U	07/15/92	ND	1
PL2-109C	07/16/92	2.1			
PL2-110C		1 U	07/15/92	ND	1
PL2-151C		1 U	01/23/01	ND	2
PL2-152C		1 U	01/24/01	ND	2
PL2-153C		1 U	01/24/01	ND	1
PL2-154C		1 U	01/25/01	ND	1

South Yard Area - Maximum Trichloroethene Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.302 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-155C		1 U	01/22/01	ND	2

South Yard Area - Maximum Vinyl Chloride Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.731 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
A-Level					
GP-06602 -	09/13/94	0.54			
GP-06603 -	09/12/94	13			
GP-06604 -	09/13/94	0.76			
GP-06634	11/22/94	6.6			
GP-06635	11/22/94	0.8			
GP-06636	11/21/94	1800 D			
GP-06637 -	03/15/95	1.1			
GP-06638 -	03/16/95	2.7			
GP-06639 -	03/16/95	90			
GP-06640 -	03/15/95	0.3			
GP-08001 -		0.02 U	09/02/94	ND	1
GP-08002 -	09/08/94	0.14 J			
GP-08003 -	08/25/94	0.05			
GP-08906	11/29/94	22			
GP-08907	11/28/94	32			
GP-08007 -	02/17/95	0.042			
GP-08008 -	07/26/95	6.8			
GP-08701 -	02/17/95	17			
GP-08901 -	09/14/94	25			
GP-08902 -	09/14/94	54			
GP-08903 -	09/14/94	25			
GP-08904 -	09/14/94	0.26			
GP-08905 -	09/13/94	0.084			
GP-08906	11/29/94	22			
GP-08907	11/28/94	32			
GP-08908 -		0.02 U	03/17/95	ND	1
GP-09101 -		0.034 UB	09/12/94	ND	1
GP-09102 -	09/08/94	0.71			
GP-09103 -	09/08/94	9.7			
GP-09104 -	11/23/94	13			
GP-09105 -	11/23/94	78			
GP-09106 -	03/14/95	30			
GP-09107 -	03/14/95	23			
GP-09108 -	03/14/95	21			
GP-09109 -	03/15/95	77			
GP-09110 -	09/19/95	1.4			
GP-09111 -	09/20/95	2.5			
GP-09112 -	09/19/95	1.6			
GP-09113 -	09/19/95	0.24			
GP-09114 -	09/20/95	11			
GP-09115 -	09/19/95	0.32			
PL2-005A -	12/10/91	7.9			
PL2-006A -	08/06/92	1600			
PL2-027A -	12/21/93	3.4			
PL2-101A -	03/24/95	26			
PL2-102A -	03/24/95	4700			
PL2-103A -		0.2 U	07/17/92	ND	2
PL2-104A -	05/04/88	30			
PL2-105A -	07/16/92	12			

South Yard Area - Maximum Vinyl Chloride Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.731 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-106A -	05/04/88	74			
PL2-106AR				N/A	
PL2-107A -	07/17/92	40			
PL2-108A -				N/A	
A-Level					
PL2-109A -	07/16/92	170			
PL2-110A -	07/15/92	21			
PL2-111A -	12/22/93	7.3			
PL2-112A -	01/18/89	72			
PL2-113A -	01/18/89	27			
PL2-114A -	01/18/89	32			
PL2-115A -	08/02/89	160			
PL2-116A -	08/02/89	2.7			
PL2-117A -	08/16/02	58			
PL2-118A -	09/23/94	0.16			
PL2-119A -	08/04/95	0.32			
PL2-120A -	09/26/94	0.2			
PL2-151A -	08/03/00	2.9			
PL2-152A -	01/24/01	5.8			
PL2-153A -		1 U	01/25/01	ND	1
PL2-154A -	01/25/01	8.5			
PL2-155A -	01/22/01	9.4			
PL2-156A -	08/04/00	44			
PL2-301A -		2 U	07/07/92	ND	1
PL2-302A -		2 U	07/07/92	ND	1
PL2-303A -		2 U	07/07/92	ND	1
PL2-304A -	03/24/95	0.1			
PL2-305A -		2 U	07/07/92	ND	1
PL2-320A -				N/A	
PL2-BF01A				N/A	
PL2-JF006				N/A	
PL2-JF007				N/A	
PL2-JF008				N/A	
PL2-JF009				N/A	
PL2-JF010				N/A	
PL2-JF011				N/A	
PL2-JF015				N/A	
PL2-JF023				N/A	
PL2-JF02A	10/24/01	5.8			
PL2-JF03A	09/28/95	0.65			
P12 - 20		3 U	02/13/91	ND	1
B-Level					
GP-06602 -	09/13/94	0.092			
GP-06603 -	09/12/94	26			
GP-06604 -	09/13/94	0.82			
GP-06634 -	11/22/94	0.3			
GP-06635 -	11/22/94	0.21			
GP-06636-	11/21/94	1.3			
GP-06637 -	03/15/95	0.85			

South Yard Area - Maximum Vinyl Chloride Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.731 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
GP-06638 -	03/16/95	0.28			
GP-06639 -	03/16/95	4.1			
GP-06640 -	03/15/95	0.32			
GP-08906 -	11/29/94	7.2			
GP-08907 -	11/28/94	22			
GP-08908 -		0.02 U	03/17/95	ND	1
GP-09104 -	11/23/94	0.17			
GP-09105 -	11/23/94	0.68			
B-Level					
GP-09106 -	03/14/95	2.2			
GP-09107 -	03/14/95	0.22			
GP-09108 -	03/14/95	1.5			
GP-09109 -	03/15/95	0.21			
GP-09110 -	09/19/95	2.7			
GP-09111 -	09/20/95	16			
GP-09112 -	09/19/95	7.5			
GP-09113 -	09/19/95	16			
GP-09114 -	09/20/95	3.6			
GP-09115 -	09/19/95	0.4			
PL2-005B -		0.2 U	08/06/92	ND	2
PL2-101B -		0.02 U	03/24/95	ND	1
PL2-102B -		0.2 U	07/17/92	ND	1
PL2-104B -		0.2 U	07/16/92	ND	1
PL2-105B -		0.2 U	07/16/92	ND	1
PL2-106B -	07/15/92	29			
PL2-109B -		2 U	07/16/92	ND	1
PL2-110B -	07/15/92	5.7			
PL2-112B -	08/25/95	0.71			
PL2-151B -		1 U	01/23/01	ND	2
PL2-152B -		1 U	01/24/01	ND	2
PL2-153B -		1 U	01/24/01	ND	1
PL2-154B -		1 U	01/25/01	ND	1
PL2-155B -	01/23/01	3			
C-Level					
GP-06634 -		0.02 U	11/22/94	ND	1
GP-06635 -	11/22/94	0.036			
GP-06636 -	11/21/94	0.11			
GP-08906 -		0.02 U	11/29/94	ND	1
GP-08907 -		0.02 U	11/29/94	ND	1
PL2-005C -		0.2 U	08/06/92	ND	2
PL2-101C -		0.2 U	07/15/92	ND	1
PL2-102C -		0.2 U	07/17/92	ND	1
PL2-104C -		0.2 U	07/16/92	ND	2
PL2-105C -		0.2 U	07/16/92	ND	1
PL2-106C -		0.2 U	07/15/92	ND	1
PL2-109C -		0.2 U	07/16/92	ND	1
PL2-110C -	07/15/92	0.19 J			
PL2-151C -		1 U	01/23/01	ND	2
PL2-152C -		1 U	01/24/01	ND	2

South Yard Area - Maximum Vinyl Chloride Concentrations in Groundwater
Boeing Plant 2
Screening Level (2004) = 0.731 µg/L

Well or Probe Location	Maximum Concentration Date	Maximum Concentration or Detection Limit (µg/L)	Most Recent Non-Detect Date	Not Analyzed or Not Detected	Number of Non-Detects
PL2-153C -		1 U	01/24/01	ND	1
PL2-154C -		1 U	01/25/01	ND	1
PL2-155C -		1 U	01/22/01	ND	2

Boeing Plant 2
Seattle/Tukwila, Washington

Uplands Corrective Measures
Volume III: South Yard Area

Data Gap Investigation Work Plan

Attachment B
Soil Constituents of Concern

Table of Contents

B1.0 Soil Constituents of Concern B-1

B1.1 IDENTIFICATION OF COCS B-1

B1.2 SPATIAL DISTRIBUTION OF COCS B-1

B1.3 DATA TABLES B-2

List of Tables

Table B-1 Screening Levels for Constituents of Concern in Site-wide Soil

Table B-2 Constituents of Concern Detected in South Yard Area Soil

Table B-3 Explanation of Data Qualifiers

List of Maps

Arsenic in Soil, South Yard Area (East): Depth 0 - 1 Foot

Arsenic in Soil, South Yard Area (West): Depth 0 - 1 Foot

Arsenic in Soil, South Yard Area (East): Depth 1 - 6 Feet

Arsenic in Soil, South Yard Area (West): Depth 1 - 6 Feet

Arsenic in Soil, South Yard Area (East): Depth 6 - 12 Feet

Arsenic in Soil, South Yard Area (West): Depth 6 - 12 Feet

Cadmium in Soil, South Yard Area (East): Depth 0 - 1 Foot

Cadmium in Soil, South Yard Area (West): Depth 0 - 1 Foot

Cadmium in Soil, South Yard Area (East): Depth 1 - 6 Feet

Cadmium in Soil, South Yard Area (West): Depth 1 - 6 Feet

Cadmium in Soil, South Yard Area (East): Depth 6 - 12 Feet

Cadmium in Soil, South Yard Area (West): Depth 6 - 12 Feet

Copper in Soil, South Yard Area (East): Depth 0 - 1 Foot

Copper in Soil, South Yard Area (West): Depth 0 - 1 Foot

Copper in Soil, South Yard Area (East): Depth 1 - 6 Feet

Copper in Soil, South Yard Area (West): Depth 1 - 6 Feet

Copper in Soil, South Yard Area (East): Depth 6 - 12 Feet

Copper in Soil, South Yard Area (West): Depth 6 - 12 Feet

Mercury in Soil, South Yard Area (East): Depth 0 - 1 Foot
Mercury in Soil, South Yard Area (West): Depth 0 - 1 Foot
Mercury in Soil, South Yard Area (East): Depth 1 - 6 Feet
Mercury in Soil, South Yard Area (West): Depth 1 - 6 Feet
Mercury in Soil, South Yard Area (East): Depth 6 - 12 Feet
Mercury in Soil, South Yard Area (West): Depth 6 - 12 Feet
Thallium in Soil, South Yard Area (East): Depth 0 - 1 Foot
Thallium in Soil, South Yard Area (West): Depth 0 - 1 Foot
Thallium in Soil, South Yard Area (East): Depth 1 - 6 Feet
Thallium in Soil, South Yard Area (West): Depth 1 - 6 Feet
Thallium in Soil, South Yard Area (East): Depth 6 - 12 Feet
Thallium in Soil, South Yard Area (West): Depth 6 - 12 Feet
Zinc in Soil, South Yard Area (East): Depth 0 - 1 Foot
Zinc in Soil, South Yard Area (West): Depth 0 - 1 Foot
Zinc in Soil, South Yard Area (East): Depth 1 - 6 Feet
Zinc in Soil, South Yard Area (West): Depth 1 - 6 Feet
Zinc in Soil, South Yard Area (East): Depth 6 - 12 Feet
Zinc in Soil, South Yard Area (West): Depth 6 - 12 Feet
Benzo(a)pyrene in Soil, South Yard Area (East): Depth 0 - 1 Foot
Benzo(a)pyrene in Soil, South Yard Area (West): Depth 0 - 1 Foot
Benzo(a)pyrene in Soil, South Yard Area (East): Depth 1 - 6 Feet
Benzo(a)pyrene in Soil, South Yard Area (West): Depth 1 - 6 Feet
Benzo(a)pyrene in Soil, South Yard Area (East): Depth 6 - 12 Feet
Benzo(a)pyrene in Soil, South Yard Area (West): Depth 6 - 12 Feet
Chrysene in Soil, South Yard Area (East): Depth 0 - 1 Foot
Chrysene in Soil, South Yard Area (West): Depth 0 - 1 Foot
Chrysene in Soil, South Yard Area (East): Depth 1 - 6 Feet
Chrysene in Soil, South Yard Area (West): Depth 1 - 6 Feet
Chrysene in Soil, South Yard Area (East): Depth 6 - 12 Feet
Chrysene in Soil, South Yard Area (West): Depth 6 - 12 Feet
Bis(2-ethylhexyl)phthalate in Soil, South Yard Area (East): Depth 0 - 1 Foot
Bis(2-ethylhexyl)phthalate in Soil, South Yard Area (West): Depth 0 - 1 Foot

Bis(2-ethylhexyl)phthalate in Soil, South Yard Area (East): Depth 1 - 6 Feet
Bis(2-ethylhexyl)phthalate in Soil, South Yard Area (West): Depth 1 - 6 Feet
Bis(2-ethylhexyl)phthalate in Soil, South Yard Area (East): Depth 6 - 12 Feet
Bis(2-ethylhexyl)phthalate in Soil, South Yard Area (West): Depth 6 - 12 Feet
Total PCBs in Soil, South Yard Area (East): Depth 0 - 1 Foot
Total PCBs in Soil, South Yard Area (West): Depth 0 - 1 Foot
Total PCBs in Soil, South Yard Area (East): Depth 1 - 6 Feet
Total PCBs in Soil, South Yard Area (West): Depth 1 - 6 Feet
Total PCBs in Soil, South Yard Area (East): Depth 6 - 12 Feet
Total PCBs in Soil, South Yard Area (West): Depth 6 - 12 Feet
Benzene in Soil, South Yard Area (East): Depth 0 - 1 Foot
Benzene in Soil, South Yard Area (West): Depth 0 - 1 Foot
Benzene in Soil, South Yard Area (East): Depth 1 - 6 Feet
Benzene in Soil, South Yard Area (West): Depth 1 - 6 Feet
Benzene in Soil, South Yard Area (East): Depth 6 - 12 Feet
Benzene in Soil, South Yard Area (West): Depth 6 - 12 Feet
1,1-Dichloroethene in Soil, South Yard Area (East): Depth 0 - 1 Foot
1,1-Dichloroethene in Soil, South Yard Area (West): Depth 0 - 1 Foot
1,1-Dichloroethene in Soil, South Yard Area (East): Depth 1 - 6 Feet
1,1-Dichloroethene in Soil, South Yard Area (West): Depth 1 - 6 Feet
1,1-Dichloroethene in Soil, South Yard Area (East): Depth 6 - 12 Feet
1,1-Dichloroethene in Soil, South Yard Area (West): Depth 6 - 12 Feet
cis-1,2-Dichloroethene in Soil, South Yard Area (East): Depth 0 - 1 Foot
cis-1,2-Dichloroethene in Soil, South Yard Area (West): Depth 0 - 1 Foot
cis-1,2-Dichloroethene in Soil, South Yard Area (East): Depth 1 - 6 Feet
cis-1,2-Dichloroethene in Soil, South Yard Area (West): Depth 1 - 6 Feet
cis-1,2-Dichloroethene in Soil, South Yard Area (East): Depth 6 - 12 Feet
cis-1,2-Dichloroethene in Soil, South Yard Area (West): Depth 6 - 12 Feet
Tetrachloroethene in Soil, South Yard Area (East): Depth 0 - 1 Foot
Tetrachloroethene in Soil, South Yard Area (West): Depth 0 - 1 Foot
Tetrachloroethene in Soil, South Yard Area (East): Depth 1 - 6 Feet
Tetrachloroethene in Soil, South Yard Area (West): Depth 1 - 6 Feet

Tetrachloroethene in Soil, South Yard Area (East): Depth 6 - 12 Feet
Tetrachloroethene in Soil, South Yard Area (West): Depth 6 - 12 Feet
Trichloroethene in Soil, South Yard Area (East): Depth 0 - 1 Foot
Trichloroethene in Soil, South Yard Area (West): Depth 0 - 1 Foot
Trichloroethene in Soil, South Yard Area (East): Depth 1 - 6 Feet
Trichloroethene in Soil, South Yard Area (West): Depth 1 - 6 Feet
Trichloroethene in Soil, South Yard Area (East): Depth 6 - 12 Feet
Trichloroethene in Soil, South Yard Area (West): Depth 6 - 12 Feet
Vinyl Chloride in Soil, South Yard Area (East): Depth 0 - 1 Foot
Vinyl Chloride in Soil, South Yard Area (West): Depth 0 - 1 Foot
Vinyl Chloride in Soil, South Yard Area (East): Depth 1 - 6 Feet
Vinyl Chloride in Soil, South Yard Area (West): Depth 1 - 6 Feet
Vinyl Chloride in Soil, South Yard Area (East): Depth 6 - 12 Feet
Vinyl Chloride in Soil, South Yard Area (West): Depth 6 - 12 Feet
Total Petroleum Hydrocarbons in Soil, South Yard Area (East): Depth 0 - 1 Foot
Total Petroleum Hydrocarbons in Soil, South Yard Area (West): Depth 0 - 1 Foot
Total Petroleum Hydrocarbons in Soil, South Yard Area (East): Depth 1 - 6 Feet
Total Petroleum Hydrocarbons in Soil, South Yard Area (West): Depth 1 - 6 Feet
Total Petroleum Hydrocarbons in Soil, South Yard Area (East): Depth 6 - 12 Feet
Total Petroleum Hydrocarbons in Soil, South Yard Area (West): Depth 6 - 12 Feet

List of Data Tables

Arsenic Concentrations in Soil
Cadmium Concentrations in Soil
Hexavalent Chromium Concentrations in Soil
Copper Concentrations in Soil
Manganese Concentrations in Soil
Mercury Concentrations in Soil
Nickel Concentrations in Soil
Selenium Concentrations in Soil
Silver Concentrations in Soil
Thallium Concentrations in Soil

Zinc Concentrations in Soil
Benzo(a)anthracene Concentrations in Soil
Benzo(b)flouranthene Concentrations in Soil
Benzo(k)flouranthene Concentrations in Soil
Benzo(a)pyrene Concentrations in Soil
Chrysene Concentrations in Soil
Dibenz(a,h)anthracene Concentrations in Soil
bis(2-Ethylhexyl)phthalate Concentrations in Soil
Indeno(1,2,3-cd)pyrene Concentrations in Soil
Aroclor 1016/1242 Concentrations in Soil
Aroclor 1254 Concentrations in Soil
Aroclor 1260 Concentrations in Soil
Benzene Concentrations in Soil
1,1-Dichloroethene Concentrations in Soil
cis-1,2-Dichloroethene Concentrations in Soil
Ethylbenzene Concentrations in Soil
Methylene Chloride Concentrations in Soil
Tetrachloroethene Concentrations in Soil
Toluene Concentrations in Soil
1,1,1-Trichloroethane Concentrations in Soil
Trichloroethene Concentrations in Soil
Vinyl Chloride Concentrations in Soil
TPH-D Concentrations in Soil
TPH-G Concentrations in Soil
Total Petroleum Hydrocarbon Concentrations in Soil

B1.0 Soil Constituents of Concern

This attachment includes soil data information for the South Yard Area of Boeing Plant 2 (Plant 2). This information was used to prepare Section 2, Data Gap Analysis, of this Data Gap Investigation Work Plan and includes: tables summarizing site-wide and South Yard Area soil COCs, maps showing the distribution of COCs in the South Yard Area, and data tables for each soil COC.

B1.1 IDENTIFICATION OF COCS

Table B-1 summarizes the screening levels for the site-wide soil COCs. All accepted soil data including any qualified data compiled since 1985 were used to prepare the table with two exceptions:

1. Soil data below 12 feet (generally below the water table) were excluded.
2. Soil data from soil that was removed from the site as a result of interim actions were excluded.

A COC was identified when laboratory analysis of a sample resulted in a concentration greater than a soil screening level at least once in any soil sample from the site. Table B-1 also includes the risk calculation in soil for the direct, air, and surface water exposure pathways. As discussed in detail in Volume II, screening levels for soil are the same as risk calculations, except in those instances where reporting limits are greater than the risk calculation. In those cases, the reporting limit is used as the screening level. Because no risk information is available, the direct contact pathway screening level for TPH and lead were established according to MTCA Method A.

Table B-2 presents the current soil COCs for the South Yard Area. COCs within the South Yard boundaries were identified by the same method as described above for Table B-1. All accepted soil data, including any qualified data compiled from within the South Yard Area boundaries since 1989 were used to prepare the table. It should be noted that Table B-2 and associated text does not include data collected at Jorgensen Forge to determine the frequency of detects within the South Yard area boundaries. All other tables and figures in this appendix do include data collected at Jorgensen Forge.

Table B-3 presents the data qualifiers and associated explanations that are applied to the data presented in the data tables discussed in Section B1.3, below.

B1.2 SPATIAL DISTRIBUTION OF COCS

Included in this attachment are maps showing the spatial distribution of each COC in soil at the South Yard Area.

Maps showing the spatial distribution of each COC in soil (at three different depth intervals) in the South Yard are included in this attachment. The maps show the spatial distribution of each

COC at three depth intervals: 0 to 1 foot, 1 to 6 feet, and 6 to 12 feet below ground surface. The accepted maximum concentration of each COC for each interval was used to generate the maps. If a constituent was never detected at a particular location, then the reporting limit for the non-detect is presented, with the exception of Total PCBs, where only the sum of all detected aroclors is shown.

B1.3 DATA TABLES

The data tables show all of the accepted maximum concentrations each soil COC. The data tables include data from all soil intervals, regardless of the frequency of detection.

Boeing Plant 2
Seattle/Tukwila, Washington

Uplands Corrective Measures
Volume III: South Yard Area

Data Gap Investigation Work Plan

Attachment B
Tables

Table B-1 Screening Levels for Constituents of Concern in Site-wide Soil
South Yard Area
Boeing Plant 2

CAS Number	Constituent of Concern	Maximum Detected	Soil Units	Laboratory RL	Direct Contact Risk Calculation[a]	Direct Contact Screening Level	Air Risk Calculation[b]	Air Screening Level	Surface Water Risk Calculation[c]	Surface Water Screening Level
Metals and Cyanide										
7440-36-0	Antimony	5.76E+02	mg/kg	5.00E+00	***5.33E+02***	***5.33E+02***	- -	- -	***3.40E+02***	***3.40E+02***
7440-38-2	Arsenic	7.60E+01	mg/kg	5.00E+00	***3.33E+01***	***3.33E+01***	3.22E+04	3.22E+04	***1.13E-02***	***5.00E+00***
7440-43-9	Cadmium	7.10E+03	mg/kg	2.00E-01	***6.67E+02***	***6.67E+02***	7.70E+04	7.70E+04	***1.01E+00***	***1.01E+00***
18540-29-9	Chromium (VI)	2.40E+03	mg/kg	2.00E-01	4.00E+03	4.00E+03	1.06E+04	1.06E+04	***1.92E+01***	***1.92E+01***
7440-50-8	Copper	2.81E+04	mg/kg	2.00E-01	4.93E+04	4.93E+04	- -	- -	***1.38E+00***	***1.38E+00***
7439-92-1	Lead	1.73E+04	mg/kg	2.00E+00	***1.00E+03***	***1.00E+03***	- -	- -	***1.62E+03***	***1.62E+03***
7439-96-5	Manganese	3.17E+03	mg/kg	1.00E-01	1.87E+05	1.87E+05	- -	- -	***1.30E+02***	***1.30E+02***
7439-97-6	Mercury	3.00E+01	mg/kg	5.00E-02	4.19E+01	4.19E+01	***6.39E-03***	***5.00E-02***	***2.61E-02***	***5.00E-02***
7440-02-0	Nickel (soluble salts)	1.77E+03	mg/kg	1.00E+00	2.67E+04	2.67E+04	- -	- -	***1.07E+01***	***1.07E+01***
7782-49-2	Selenium	9.00E+00	mg/kg	5.00E+00	6.67E+03	6.67E+03	- -	- -	***7.38E+00***	***7.38E+00***
7440-22-4	Silver	2.74E+02	mg/kg	3.00E-01	6.67E+03	6.67E+03	- -	- -	***3.23E-01***	***3.23E-01***
7440-28-0	Thallium (soluble salts)	5.60E+01	mg/kg	2.00E-01	8.64E+01	8.64E+01	- -	- -	***6.69E-01***	***6.69E-01***
7440-66-6	Zinc	3.10E+04	mg/kg	6.00E-01	4.00E+05	4.00E+05	- -	- -	***1.01E+02***	***1.01E+02***
57-12-5	Cyanide	4.60E+03	mg/kg	1.00E-01	2.67E+04	2.67E+04	- -	- -	***2.02E-01***	***2.02E-01***
Semivolatile Organic Compounds (SVOCs) and Polychlorinated Biphenyls (PCBs)										
56-55-3	Benzo(a)anthracene	2.00E+05	µg/kg	6.70E+00	***3.42E+03***	***3.42E+03***	- -	- -	***4.19E+01***	***4.19E+01***
205-99-2	Benzo(b)fluoranthene	1.00E+05	µg/kg	6.70E+00	***3.42E+03***	***3.42E+03***	- -	- -	***1.44E+02***	***1.44E+02***
207-08-9	Benzo(k)fluoranthene	1.60E+05	µg/kg	6.70E+00	***3.42E+03***	***3.42E+03***	- -	- -	***1.44E+02***	***1.44E+02***
50-32-8	Benzo(a)pyrene	2.10E+05	µg/kg	6.70E+00	***3.42E+03***	***3.42E+03***	7.95E+07	7.95E+07	***1.13E+02***	***1.13E+02***
218-01-9	Chrysene	2.40E+05	µg/kg	6.70E+00	***3.42E+03***	***3.42E+03***	- -	- -	***4.66E+01***	***4.66E+01***
53-70-3	Dibenz(a,h)anthracene	3.30E+04	µg/kg	6.70E+00	***3.42E+03***	***3.42E+03***	- -	- -	***2.10E+02***	***2.10E+02***
105-67-9	2,4-Dimethylphenol	1.30E+05	µg/kg	2.00E+02	1.33E+07	1.33E+07	- -	- -	***1.64E+03***	***1.64E+03***
131-11-3	Dimethylphthalate	1.50E+05	µg/kg	6.70E+01	6.67E+08	6.67E+08	- -	- -	***1.24E+05***	***1.24E+05***
117-81-7	bis(2-Ethylhexyl)phthalate	5.20E+05	µg/kg	6.70E+01	1.79E+06	1.79E+06	- -	- -	***1.57E+03***	***1.57E+03***
206-44-0	Fluoranthene	4.10E+05	µg/kg	6.70E+01	2.67E+07	2.67E+07	- -	- -	***3.23E+04***	***3.23E+04***
193-39-5	Indeno(1,2,3-cd)pyrene	8.30E+04	µg/kg	6.70E+00	***3.42E+03***	***3.42E+03***	- -	- -	***4.06E+02***	***4.06E+02***
-	Aroclor 1016/1242	9.00E+02	µg/kg	3.30E+01	4.67E+04	4.67E+04	- -	- -	***1.38E-01***	***3.30E+01***
11097-69-1	Aroclor 1254	8.10E+04	µg/kg	3.30E+01	***1.33E+04***	***1.33E+04***	- -	- -	***1.08E+00***	***3.30E+01***
11096-82-5	Aroclor 1260	6.60E+05	µg/kg	3.30E+01	- -	- -	- -	- -	***1.05E+00***	***3.30E+01***
-	Total PCBs	6.60E+05	µg/kg	3.30E+01	- -	- -	- -	- -	***3.96E-01***	***3.30E+01***
Volatile Organic Compounds (VOCs)										
71-43-2	Benzene	4.90E+04	µg/kg	1.00E+00	1.36E+06	1.36E+06	***1.04E+02***	***1.04E+02***	***2.53E+01***	***2.53E+01***
104-51-8	n-Butylbenzene	3.70E+04	µg/kg	1.00E+00	- -	- -	***4.64E+03***	***4.64E+03***	- -	- -
135-98-8	sec-Butylbenzene	1.00E+04	µg/kg	1.00E+00	- -	- -	***7.86E+03***	***7.86E+03***	- -	- -
67-66-3	Chloroform	4.80E+02	µg/kg	1.00E+00	7.03E+06	7.03E+06	***3.96E+01***	***3.96E+01***	***2.98E+02***	***2.98E+02***
75-35-4	1,1-Dichloroethene	1.70E+03	µg/kg	1.00E+00	1.24E+05	1.24E+05	***1.23E+03***	***1.23E+03***	***2.73E+00***	***2.73E+00***
156-59-2	cis-1,2-Dichloroethene	7.30E+05	µg/kg	1.00E+00	7.99E+06	7.99E+06	***7.94E+02***	***7.94E+02***	***5.66E+03***	***5.66E+03***
156-60-5	trans-1,2-Dichloroethene	7.10E+03	µg/kg	1.00E+00	1.31E+07	1.31E+07	***8.99E+02***	***8.99E+02***	5.43E+04	5.43E+04
100-41-4	Ethylbenzene	2.60E+05	µg/kg	1.00E+00	1.45E+08	1.45E+08	***2.52E+03***	***2.52E+03***	***1.81E+04***	***1.81E+04***
98-82-8	Isopropylbenzene	1.80E+04	µg/kg	1.00E+00	1.45E+08	1.45E+08	***1.27E+03***	***1.27E+03***	- -	- -
75-09-2	Methylene Chloride	2.40E+04	µg/kg	2.00E+00	9.94E+06	9.94E+06	***1.89E+03***	***1.89E+03***	***8.28E+02***	***8.28E+02***
91-20-3	Naphthalene	5.20E+05	µg/kg	5.00E+00	1.44E+07	1.44E+07	***2.48E+04***	***2.48E+04***	***4.99E+04***	***4.99E+04***
103-65-1	n-Propylbenzene	4.20E+04	µg/kg	1.00E+00	- -	- -	***1.36E+04***	***1.36E+04***	- -	- -
79-34-5	1,1,2,2-Tetrachloroethane	1.70E+02	µg/kg	1.00E+00	2.73E+05	2.73E+05	3.48E+02	3.48E+02	***7.19E+00***	***7.19E+00***
127-18-4	Tetrachloroethene	2.00E+04	µg/kg	1.00E+00	1.07E+06	1.07E+06	***1.99E+02***	***1.99E+02***	***8.72E+00***	***8.72E+00***

Table B-1 Screening Levels for Constituents of Concern in Site-wide Soil
South Yard Area
Boeing Plant 2

CAS Number	Constituent of Concern	Maximum Detected	Soil Units	Laboratory RL	Direct Contact Risk Calculation[a]	Direct Contact Screening Level	Air Risk Calculation[b]	Air Screening Level	Surface Water Risk Calculation[c]	Surface Water Screening Level
108-88-3	Toluene	6.50E+05	µg/kg	1.00E+00	1.34E+08	1.34E+08	***1.90E+04***	***1.90E+04***	***1.09E+05***	***1.09E+05***
71-55-6	1,1,1-Trichloroethane	1.10E+05	µg/kg	1.00E+00	4.12E+08	4.12E+08	***2.78E+04***	***2.78E+04***	1.20E+06	1.20E+06
79-00-5	1,1,2-Trichloroethane	3.30E+03	µg/kg	1.00E+00	9.57E+05	9.57E+05	***2.90E+02***	***2.90E+02***	***2.78E+01***	***2.78E+01***
79-01-6	Trichloroethene	1.10E+07	µg/kg	1.00E+00	***1.36E+05***	***1.36E+05***	***8.86E+00***	***8.86E+00***	***2.00E+00***	***2.00E+00***
95-63-6	1,2,4-Trimethylbenzene	3.20E+05	µg/kg	1.00E+00	7.27E+07	7.27E+07	***2.36E+03***	***2.36E+03***	- -	- -
108-67-8	1,3,5-Trimethylbenzene	1.20E+05	µg/kg	1.00E+00	7.27E+07	7.27E+07	***2.47E+03***	***2.47E+03***	- -	- -
75-01-4	Vinyl Chloride	1.80E+04	µg/kg	1.00E+00	4.97E+04	4.97E+04	***1.64E+01***	***1.64E+01***	***4.59E+00***	***4.59E+00***
Total Petroleum Hydrocarbons (TPH)										
-	TPH - Diesel Range	1.10E+05	mg/kg	5.00E+00	***2.00E+03***					
-	TPH - Gasoline Range	2.50E+04	mg/kg	5.00E+00	***3.00E+01***					
-	TPH - Oil Range	2.00E+04	mg/kg	1.00E+01	***2.00E+03***					

Notes:

Screening levels adjust risk calculations up to the reporting limit (RL) where applicable.

Bolded **Bolded** risk based and screening level concentrations are below maximum detect.

[a] Lowest soil concentration protective of dermal contact, ingestion and trenching.

[b] Lowest soil concentration protective of indoor and outdoor air (inclusive of fugitive dust).

[c] Lowest soil concentration protective of human ingestion of aquatic organisms and protection of aquatic organisms.

* Constituent not listed.

- - Not calculated.

RL Reporting Limit as detailed in Analytical Resources Inc. Laboratory Quality Assurance Plan, Version 11-022, dated 5/17/04 (generally equivalent to the practical quantitation limit in a clean matrix).

TPH Total Petroleum Hydrocarbon.

Table B-2 Constituents of Concern Detected in South Yard Area Soil
South Yard
Boeing Plant 2

CAS Number	Constituent of Concern	Soil Units	Maximum Detected	Samples Analyzed	Detects	Samples above Direct Contact Screening Level	Samples above Air Screening Level	Samples above Surface Water Screening Level
Metals								
7440-38-2	Arsenic	mg/kg	1.20E+01	187	62	0	0	13
7440-43-9	Cadmium	mg/kg	3.70E+03	209	45	1	0	13
18540-29-9	Chromium (VI)	mg/kg	1.30E+03	22	5	0	0	1
7440-50-8	Copper	mg/kg	8.30E+02	209	209	0	- -	208
7439-96-5	Manganese	mg/kg	5.17E+02	83	83	0	- -	44
7439-97-6	Mercury	mg/kg	1.72E+00	192	22	0	20	20
7440-02-0	Nickel (soluble salts)	mg/kg	6.10E+02	180	180	0	- -	94
7782-49-2	Selenium	mg/kg	9.00E+00	186	17	0	- -	4
7440-22-4	Silver	mg/kg	2.20E+01	180	12	0	- -	8
7440-28-0	Thallium (soluble salts)	mg/kg	5.60E+01	186	24	0	- -	16
7440-66-6	Zinc	mg/kg	2.60E+04	204	204	0	- -	14
Semivolatile Organic Compounds (SVOCs) and Polychlorinated Biphenyls (PCBs)								
56-55-3	Benzo(a)anthracene	µg/kg	1.00E+02	88	5	0	- -	2
205-99-2	Benzo(b)fluoranthene	µg/kg	8.40E+02	88	4	0	- -	1
207-08-9	Benzo(k)fluoranthene	µg/kg	8.40E+02	88	4	0	- -	1
50-32-8	Benzo(a)pyrene	µg/kg	1.40E+03	88	4	0	0	1
218-01-9	Chrysene	µg/kg	1.30E+02	88	10	0	- -	6
53-70-3	Dibenz(a,h)anthracene	µg/kg	1.90E+03	88	2	0	- -	1
117-81-7	bis(2-Ethylhexyl)phthalate	µg/kg	3.30E+05	103	33	0	- -	7
193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	2.00E+03	88	4	0	- -	1
-	Aroclor 1016/1242	µg/kg	9.00E+02	94	2	0	- -	2
11097-69-1	Aroclor 1254	µg/kg	8.10E+04	199	8	1	- -	7
11096-82-5	Aroclor 1260	µg/kg	2.60E+02	199	7	- -	- -	7
-	Total PCBs	µg/kg		199	8	1	- -	7
Volatile Organic Compounds (VOCs)								
71-43-2	Benzene	µg/kg	4.90E+04	240	22	0	3	5
75-35-4	1,1-Dichloroethene	µg/kg	2.30E+02	237	9	0	0	8
156-59-2	cis-1,2-Dichloroethene	µg/kg	1.50E+03	197	43	0	5	0
100-41-4	Ethylbenzene	µg/kg	2.60E+05	240	26	0	2	1
75-09-2	Methylene Chloride	µg/kg	1.90E+03	237	87	0	1	2
127-18-4	Tetrachloroethene	µg/kg	3.30E+03	237	65	0	7	25
108-88-3	Toluene	µg/kg	6.50E+05	240	92	0	1	1
71-55-6	1,1,1-Trichloroethane	µg/kg	1.10E+05	237	38	0	1	0
79-01-6	Trichloroethene	µg/kg	7.60E+03	247	111	0	60	87
75-01-4	Vinyl Chloride	µg/kg	1.10E+03	247	19	0	10	15
Total Petroleum Hydrocarbons								
-	TPH - Gasoline Range	mg/kg	1.40E+04	94	4		3	
-	TPH - Diesel Range	mg/kg	1.40E+04	90	4		3	
-	TPH - (range not defined)	mg/kg	5.68E+04	128	77		26	

Notes:

TPH Total Petroleum Hydrocarbons

Table B-3 Explanation of Data Qualifiers
South Yard Area
Boeing Plant 2

Data Qualifier	Explanation
Data Qualifiers Used by the Contract Laboratory – Analytical Resources, Inc.	
U	The compound was analyzed for, but not detected at the reported concentration.
J	Indicates an estimated concentration when a value is less than the calculated reporting limit.
D	Indicates the surrogate/spike(s) was not detected, due to dilution of extract.
NR	Indicates the surrogate recovery cannot be reported due to matrix interference.
E	Indicates a value above the linear range of the detector, sample dilution is required.
S	Indicates no value reported due to saturation of the detector, sample dilution required.
NA	Indicates compound was not analyzed for.
M	Indicates an estimated value of analyte found and confirmed by the analyst but with a low spectral match (GC-MS).
B	Indicates possible/probable blank contamination. Flagged when the analyte is detected in the blank as well as in the sample.
Y	Indicates raised reporting limit due to background interference or to activity in the instrument. Compound is still not detected at or above the raised level.
C	Indicates a probably detection that cannot be confirmed due to matrix interferences.
P	Indicates a high RPD between detected concentrations for dual column GC analyses without obvious interference.
Data Validation Qualifiers for Organic Analyses	
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a “tentative identification”.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Table B-3 Explanation of Data Qualifiers
South Yard Area
Boeing Plant 2

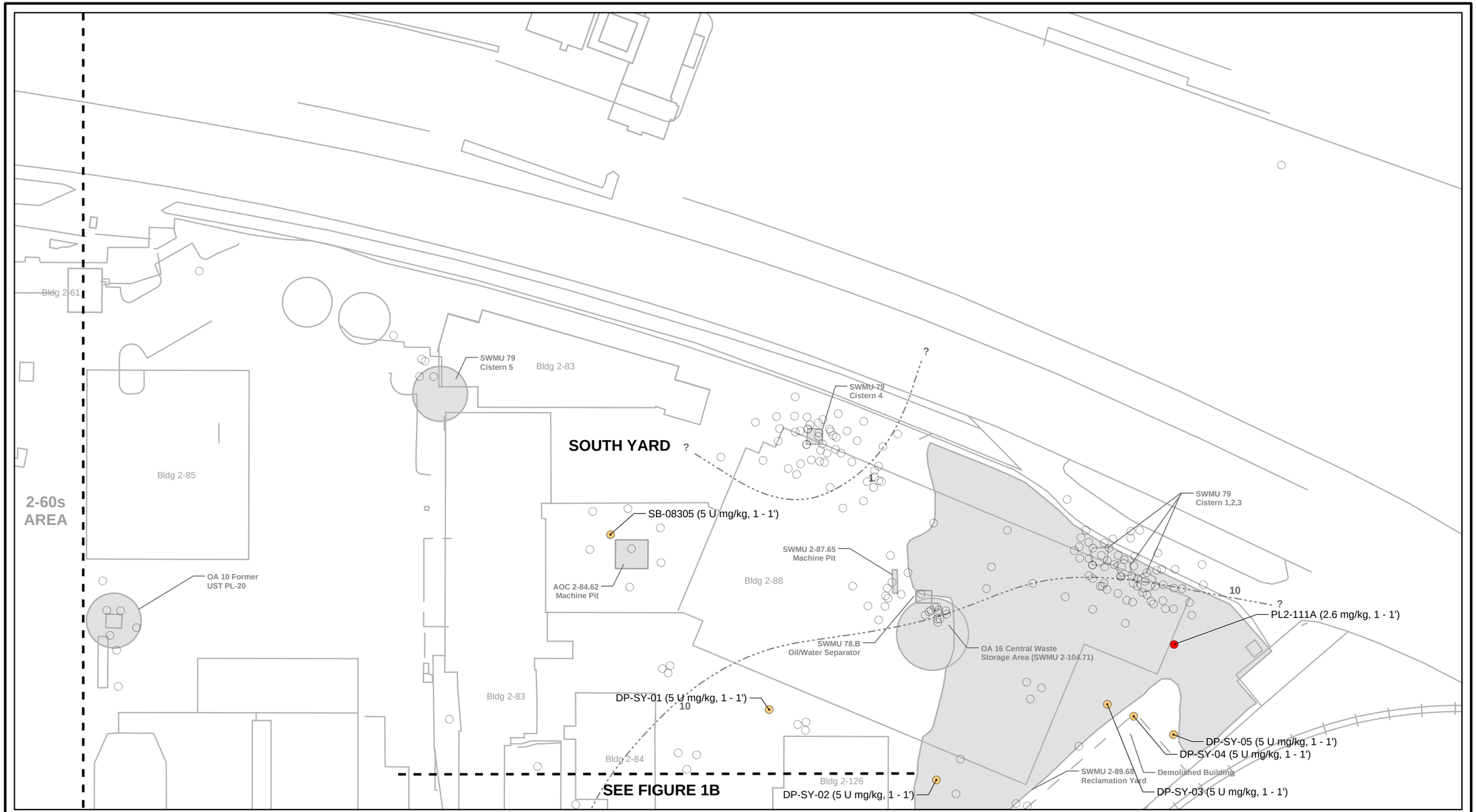
Data Qualifier	Explanation
Data Validation Qualifiers for Inorganic Analyses	
U	The compound was analyzed for, but was not detected above the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Boeing Plant 2
Seattle/Tukwila, Washington

Uplands Corrective Measures
Volume III: South Yard Area

Data Gap Investigation Work Plan

Attachment B
Maps



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 5.0 mg/kg
Proposed Media Cleanup Level (PMCL) = 7.3 mg/kg (Weston, 1999)

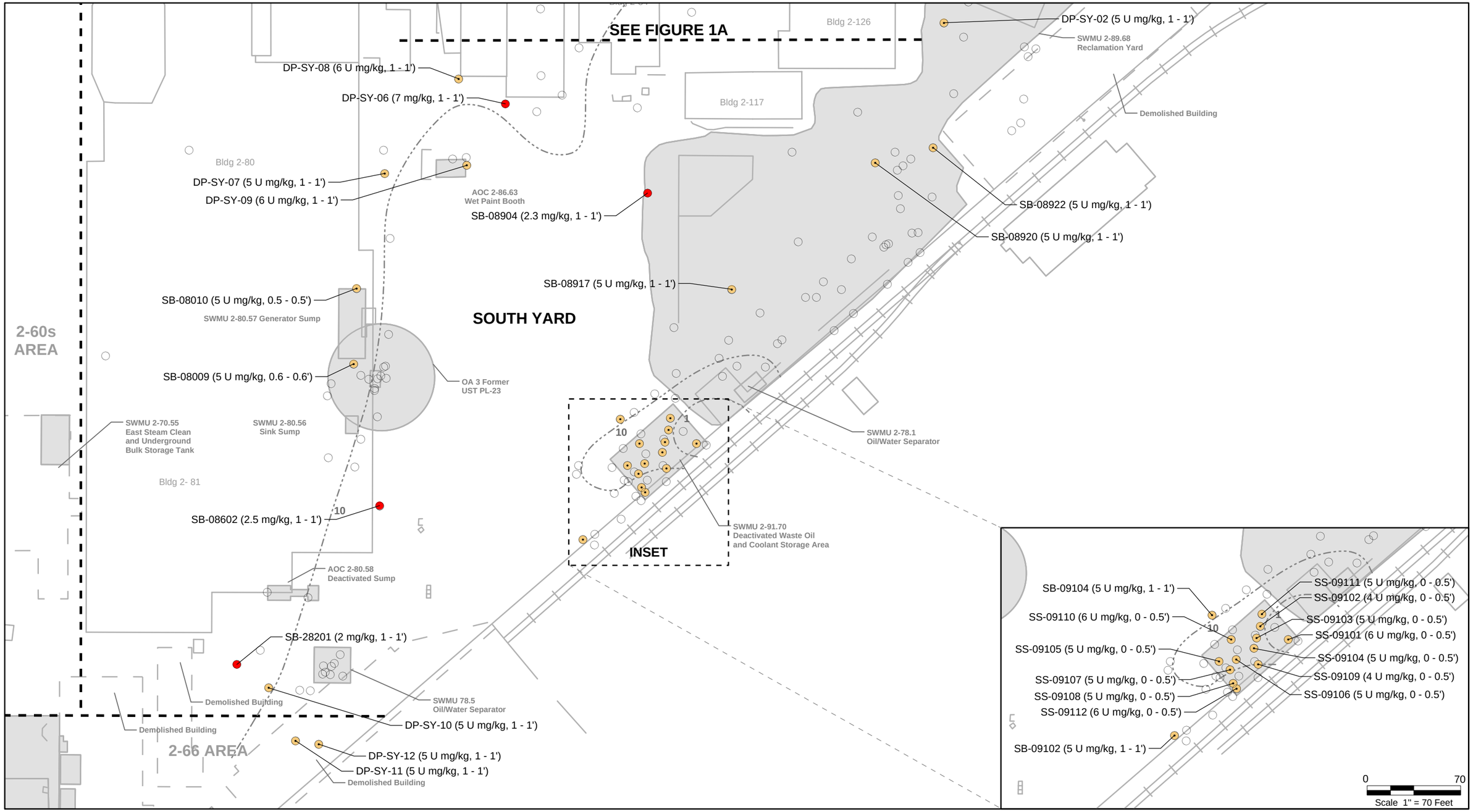
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
ARSENIC IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_ARSENIC_1A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 5.0 mg/kg
Proposed Media Cleanup Level (PMCL) = 7.3 mg/kg (Weston, 1999)

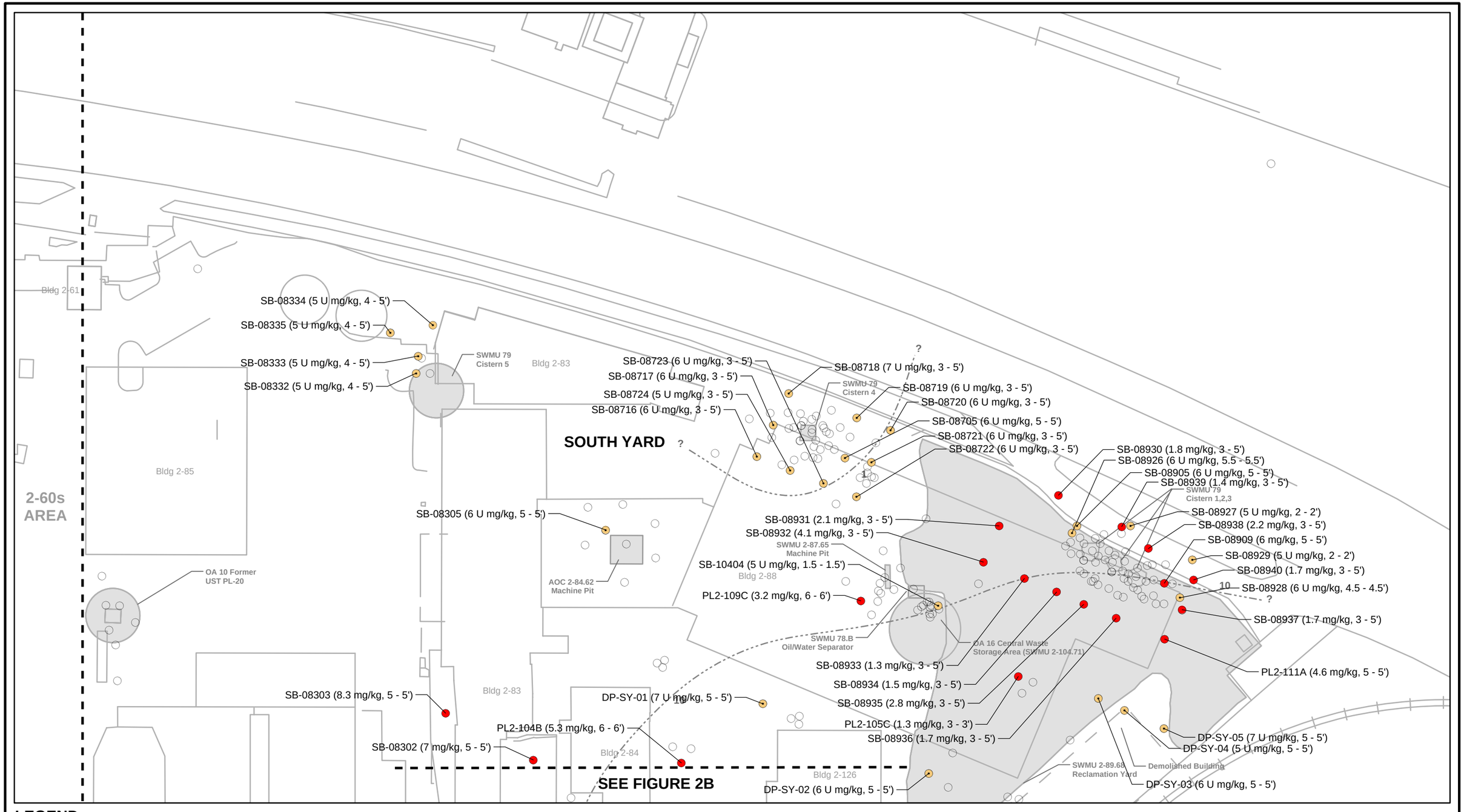
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
ARSENIC IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_ARSENIC_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 5.0 mg/kg
Proposed Media Cleanup Level (PMCL) = 7.3 mg/kg (Weston, 1999)

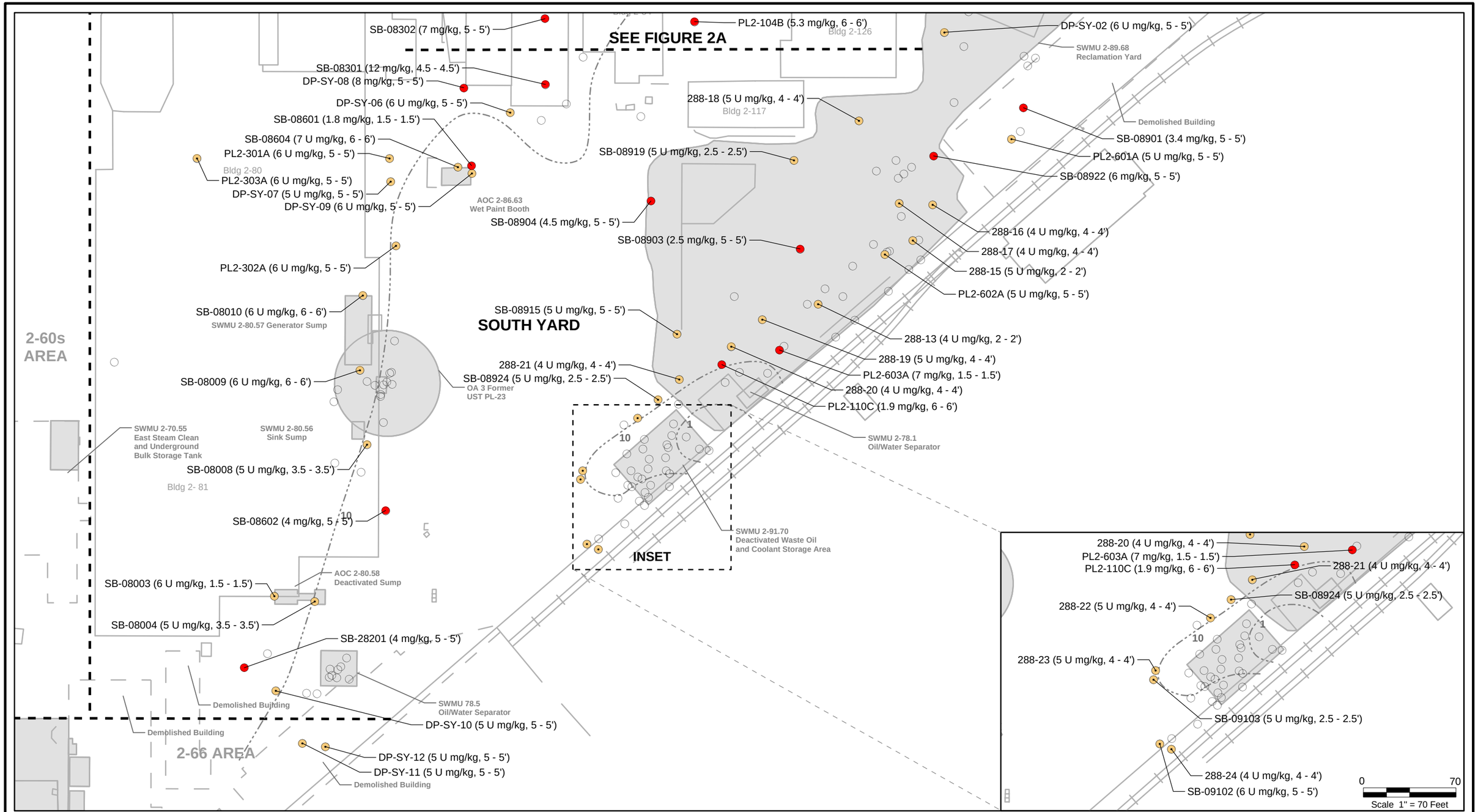
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
ARSENIC IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_ARSENIC_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 5.0 mg/kg
Proposed Media Cleanup Level (PMCL) = 7.3 mg/kg (Weston, 1999)

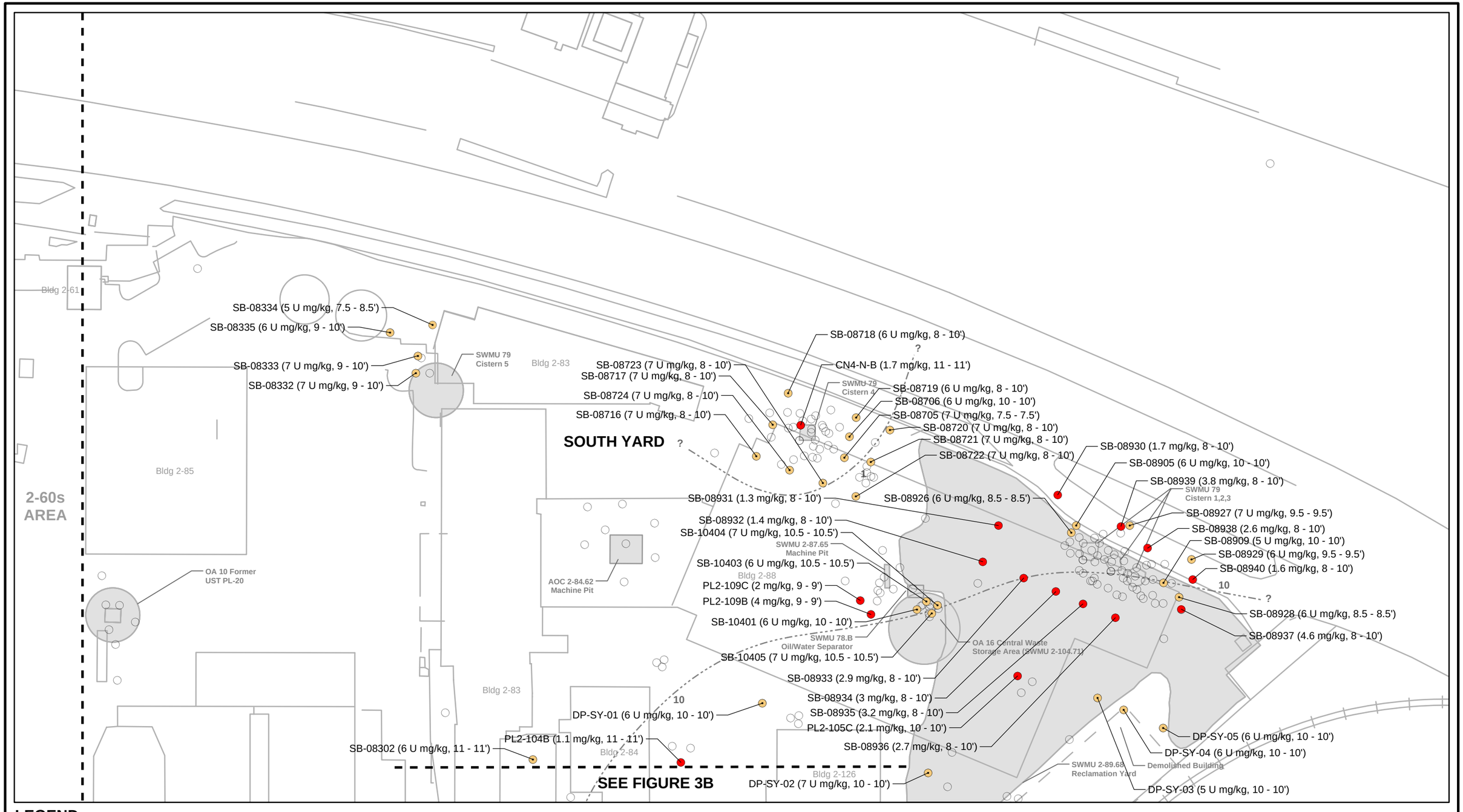
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
ARSENIC IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_ARSENIC_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 5.0 mg/kg
Proposed Media Cleanup Level (PMCL) = 7.3 mg/kg
(Weston, 1999)

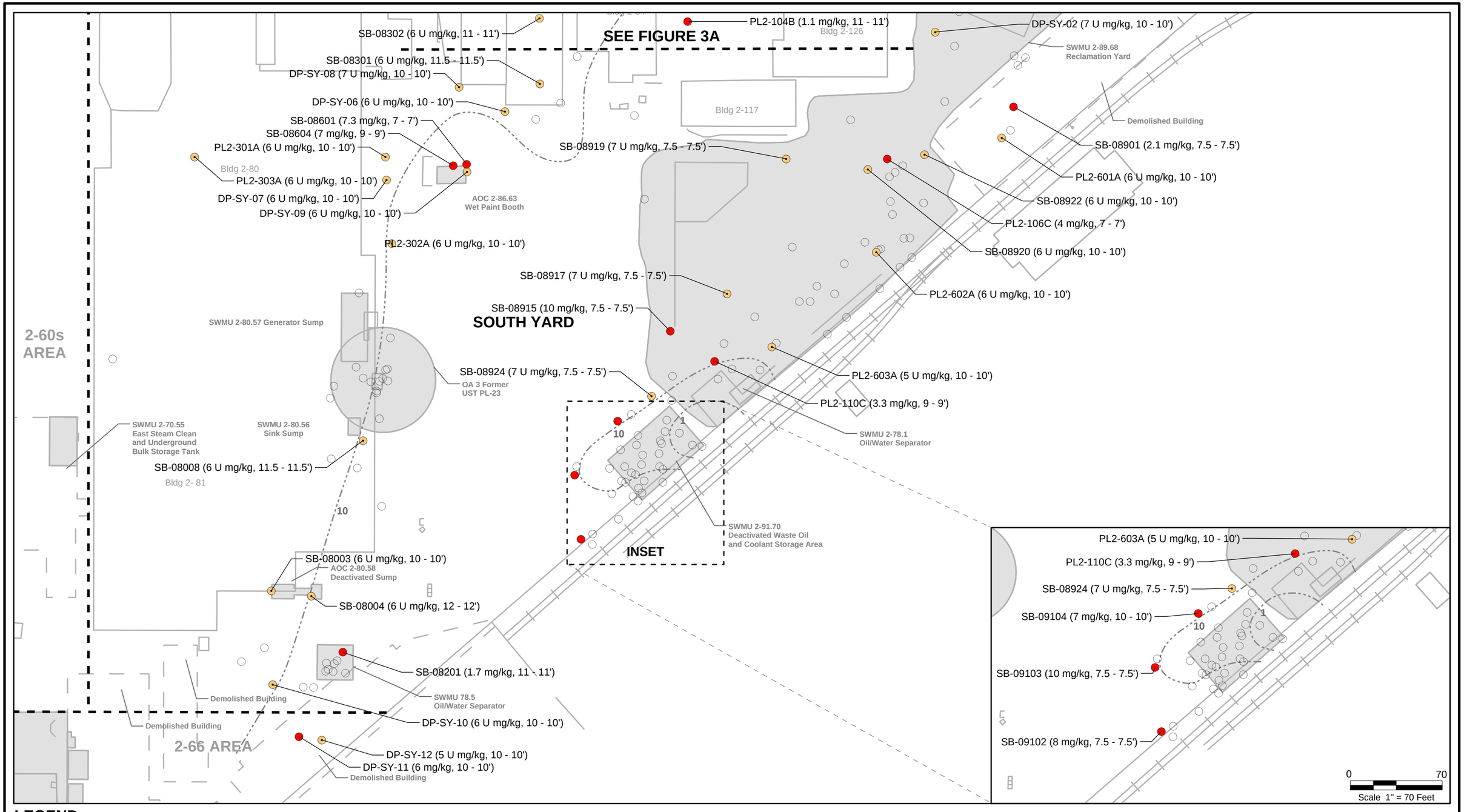
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
ARSENIC IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_ARSENIC_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 5.0 mg/kg
Proposed Media Cleanup Level (PMCL) = 7.3 mg/kg (Weston, 1999)

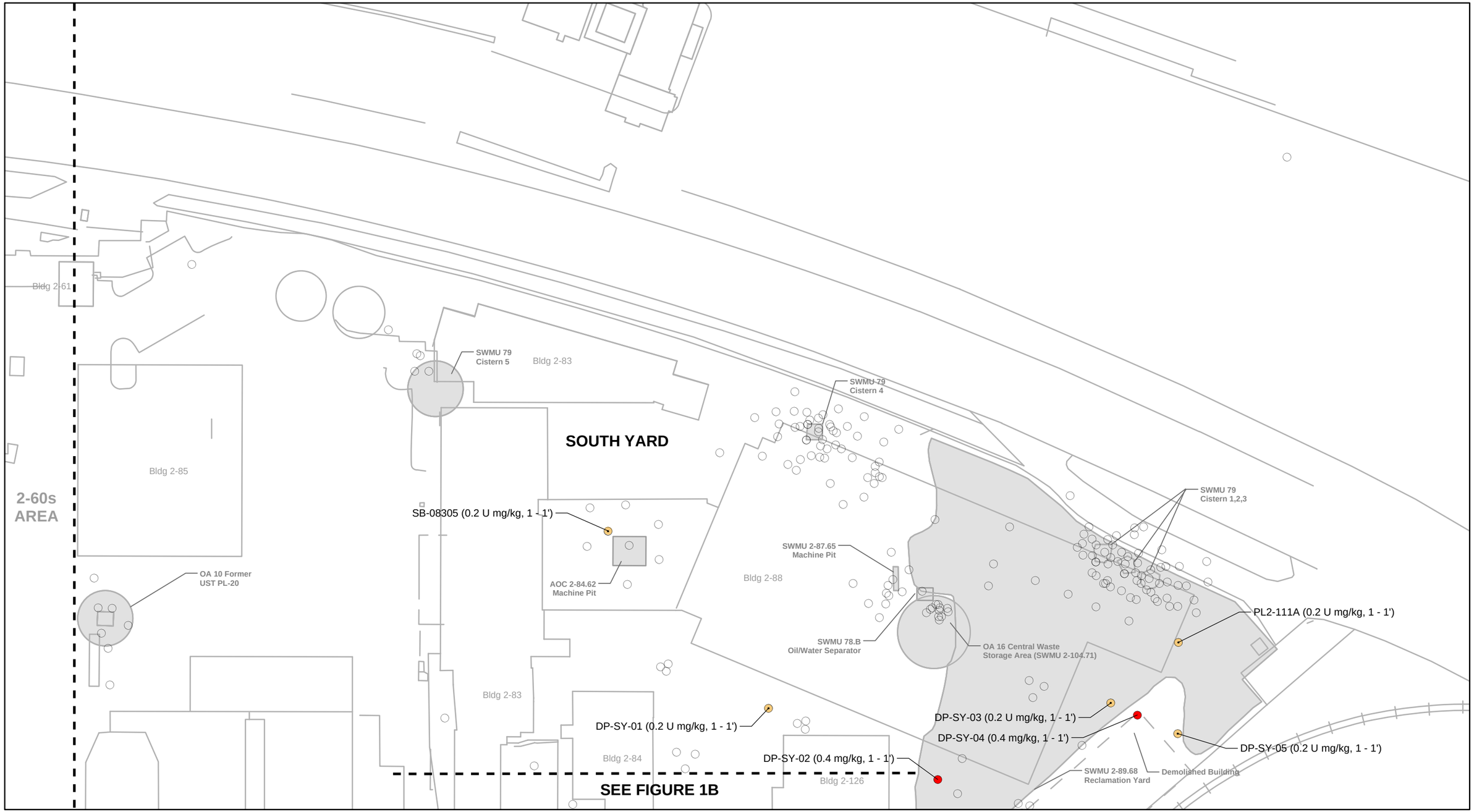
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
ARSENIC IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_ARSENIC_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 1.01 mg/kg
Proposed Media Cleanup Level (PMCL) = 1.28 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

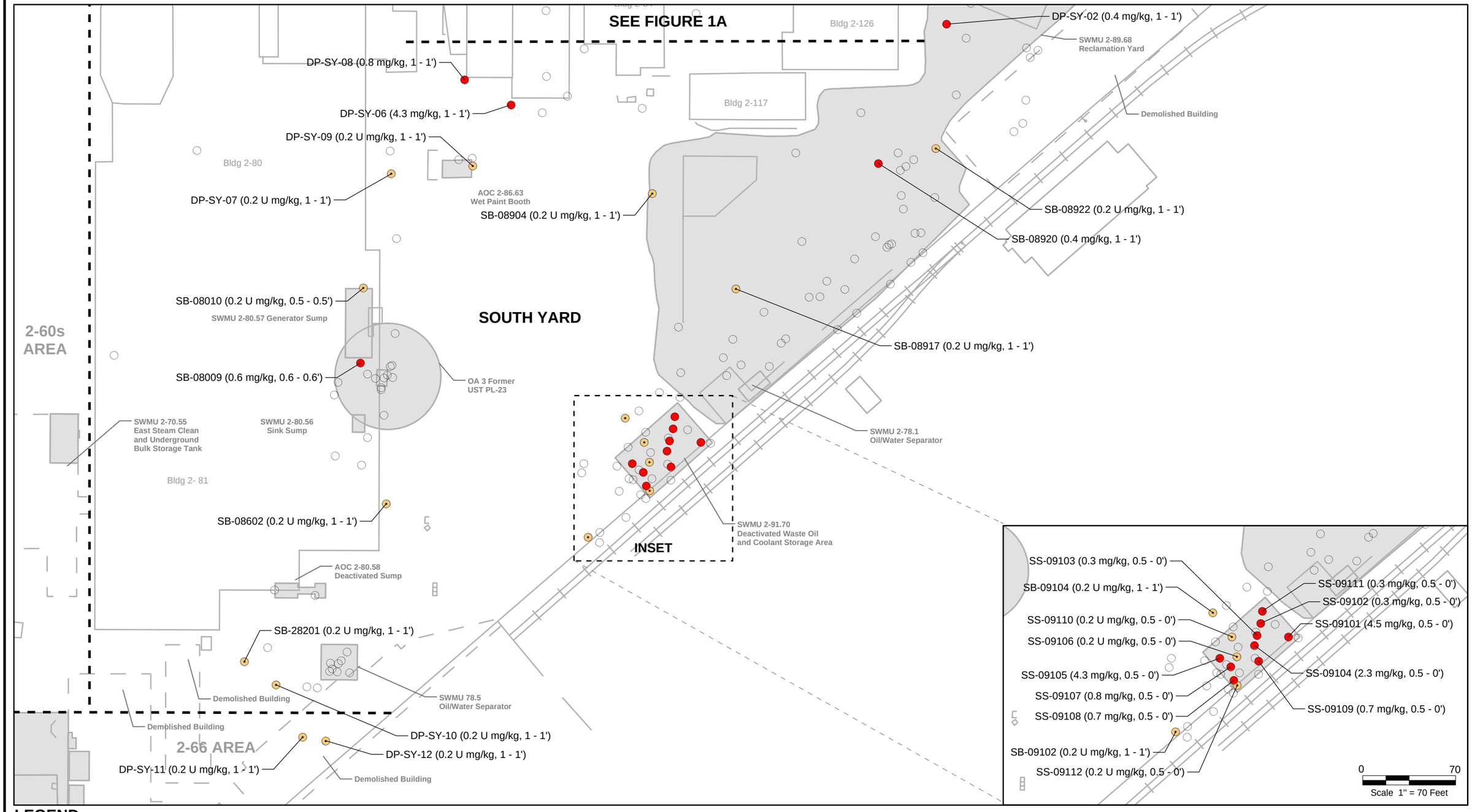
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
CADMIUM IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_CADMIUM_1A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 1.01 mg/kg
Proposed Media Cleanup Level (PMCL) = 1.28 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

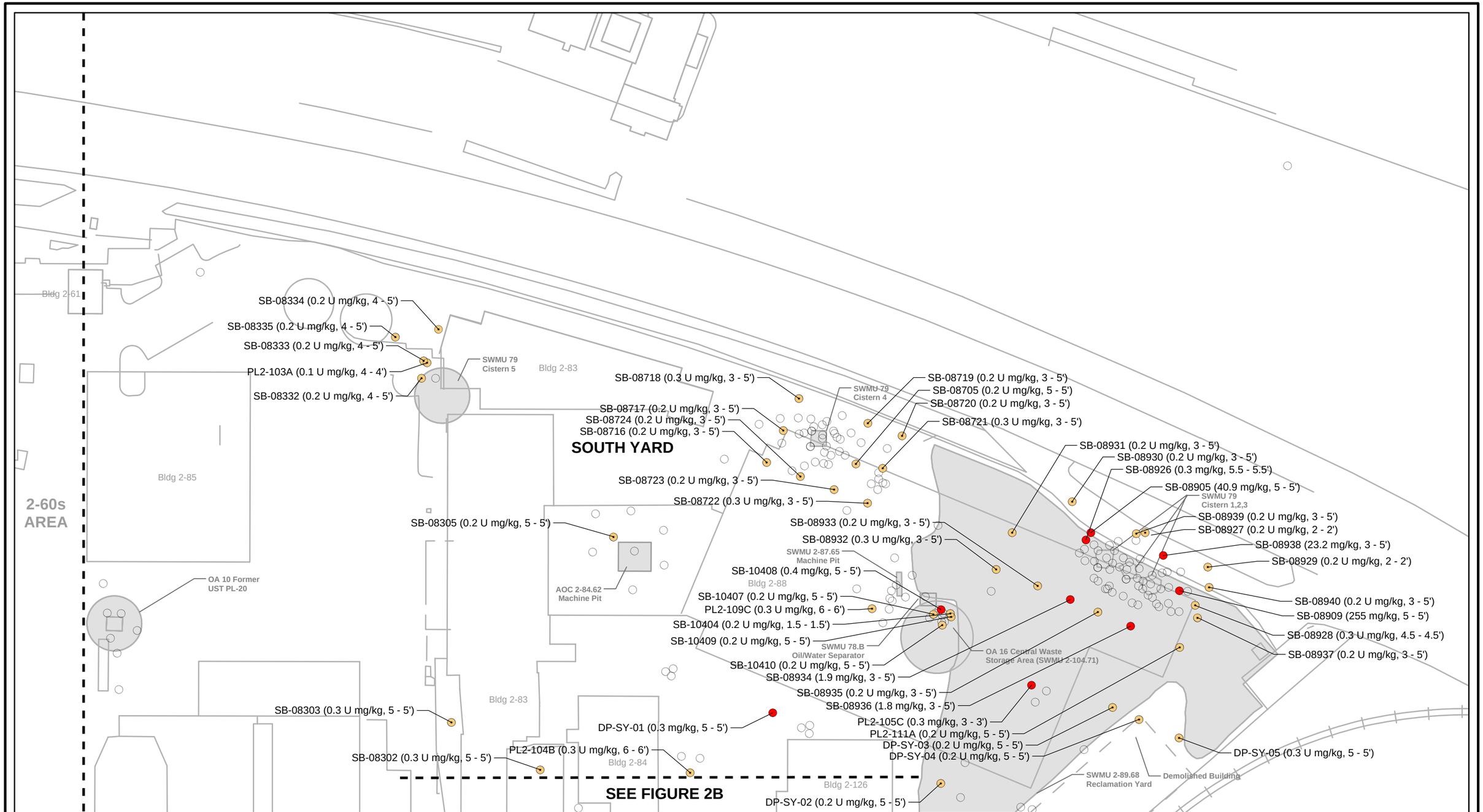
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
CADMIUM IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_CADMIUM_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 1.01 mg/kg
Proposed Media Cleanup Level (PMCL) = 1.28 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

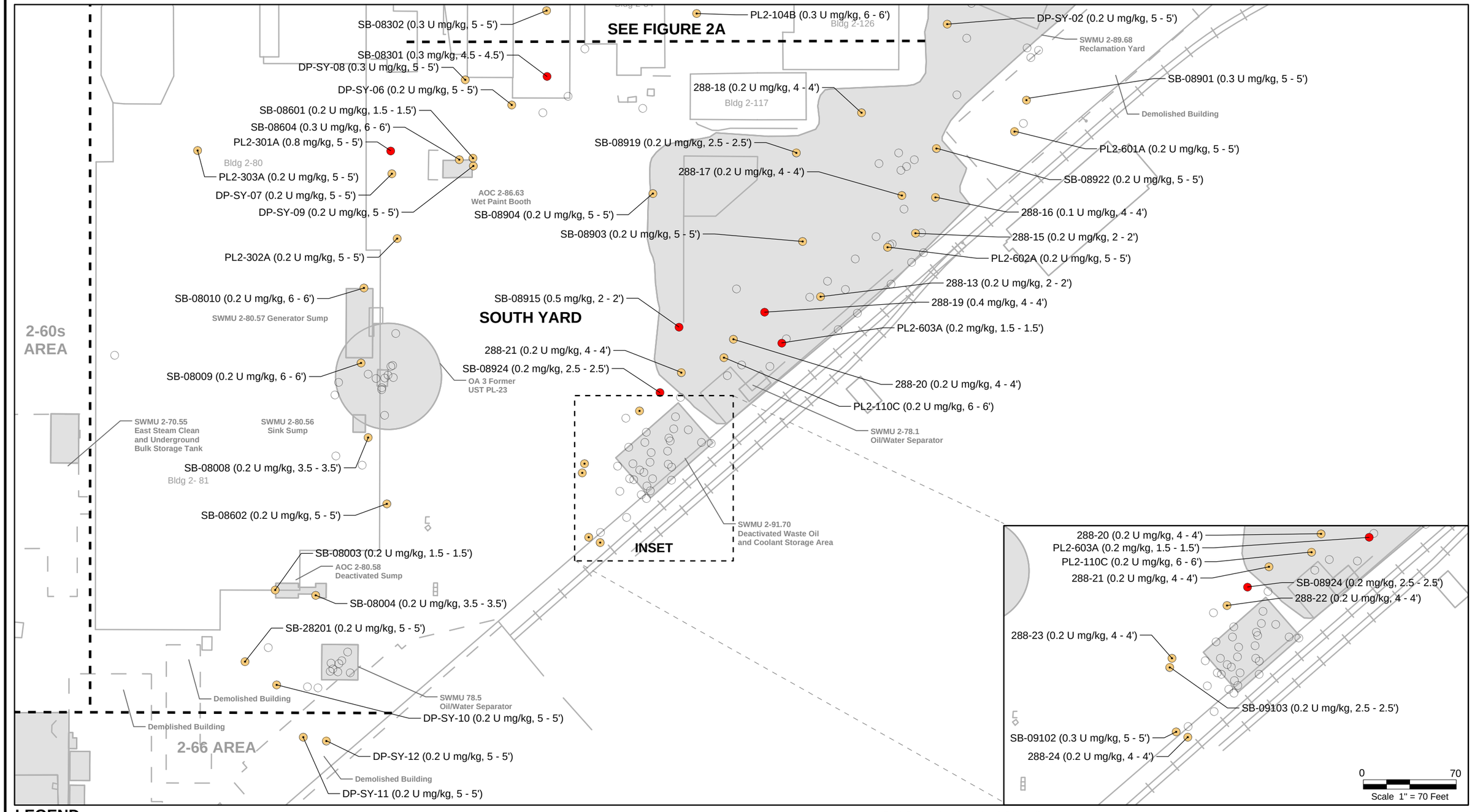
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
CADMIUM IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_CADMIUM_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 1.01 mg/kg
Proposed Media Cleanup Level (PMCL) = 1.28 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

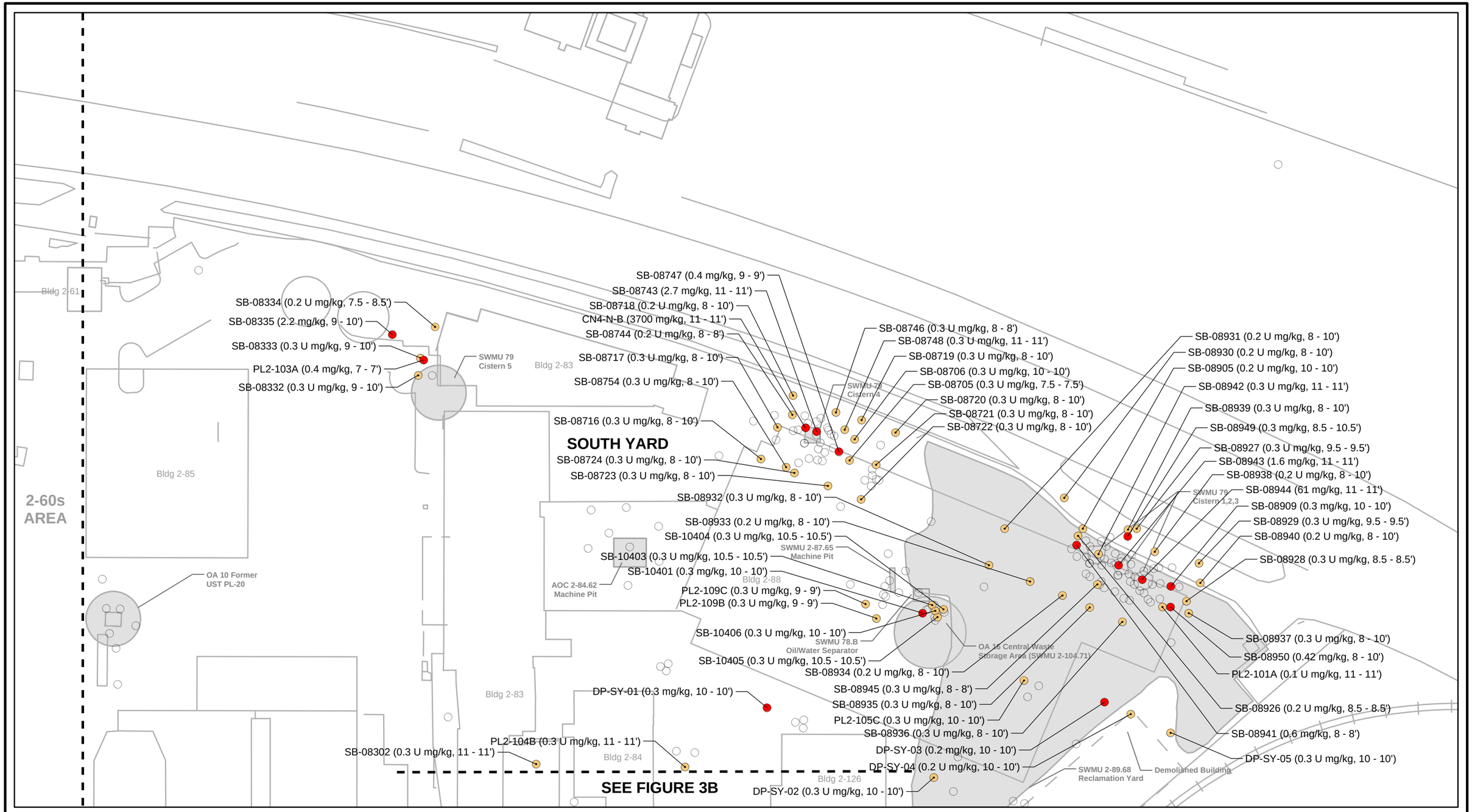
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
CADMIUM IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_CADMIUM_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 1.01 mg/kg
Proposed Media Cleanup Level (PMCL) = 1.28 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

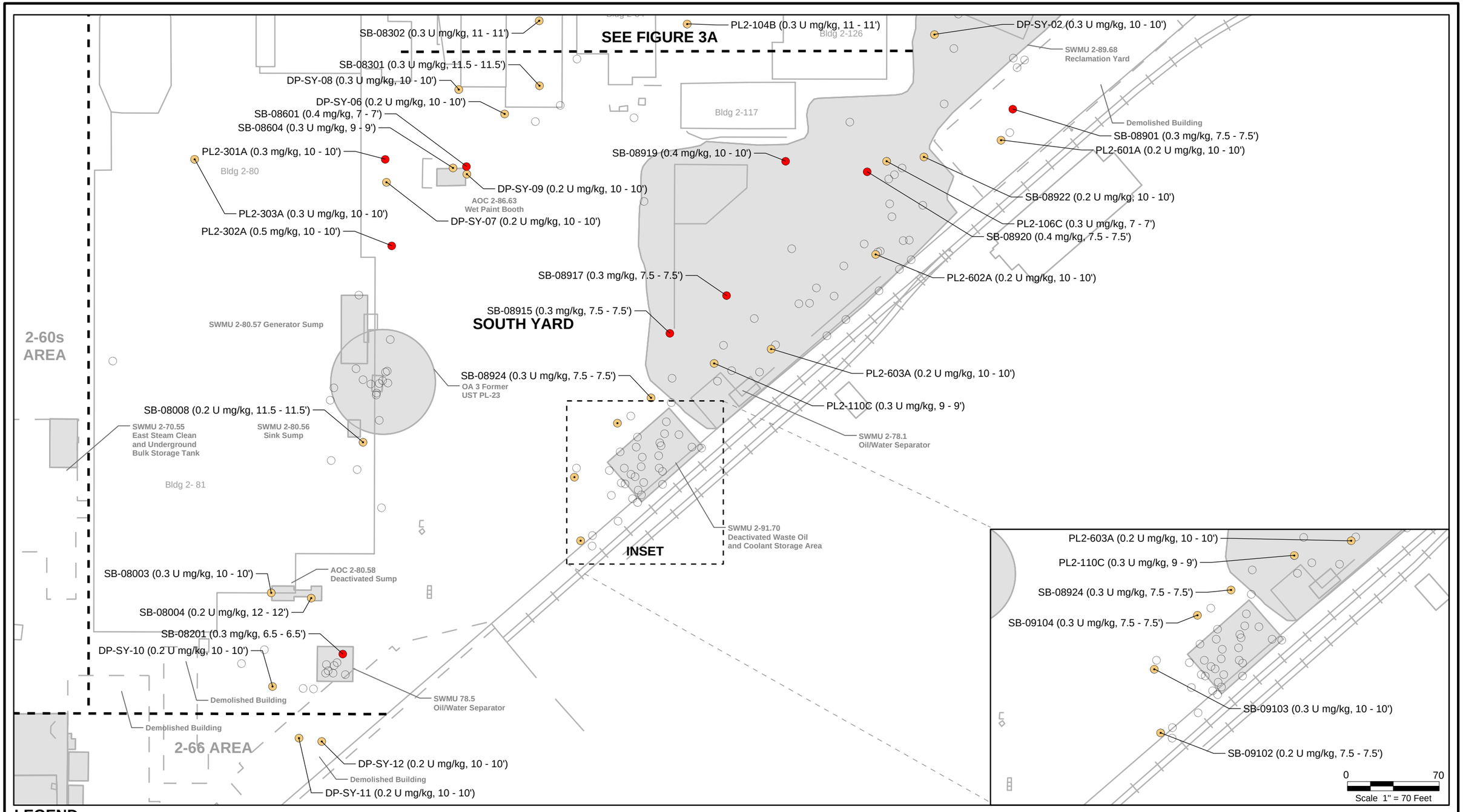
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
CADMIUM IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_CADMIUM_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 1.01 mg/kg
Proposed Media Cleanup Level (PMCL) = 1.28 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

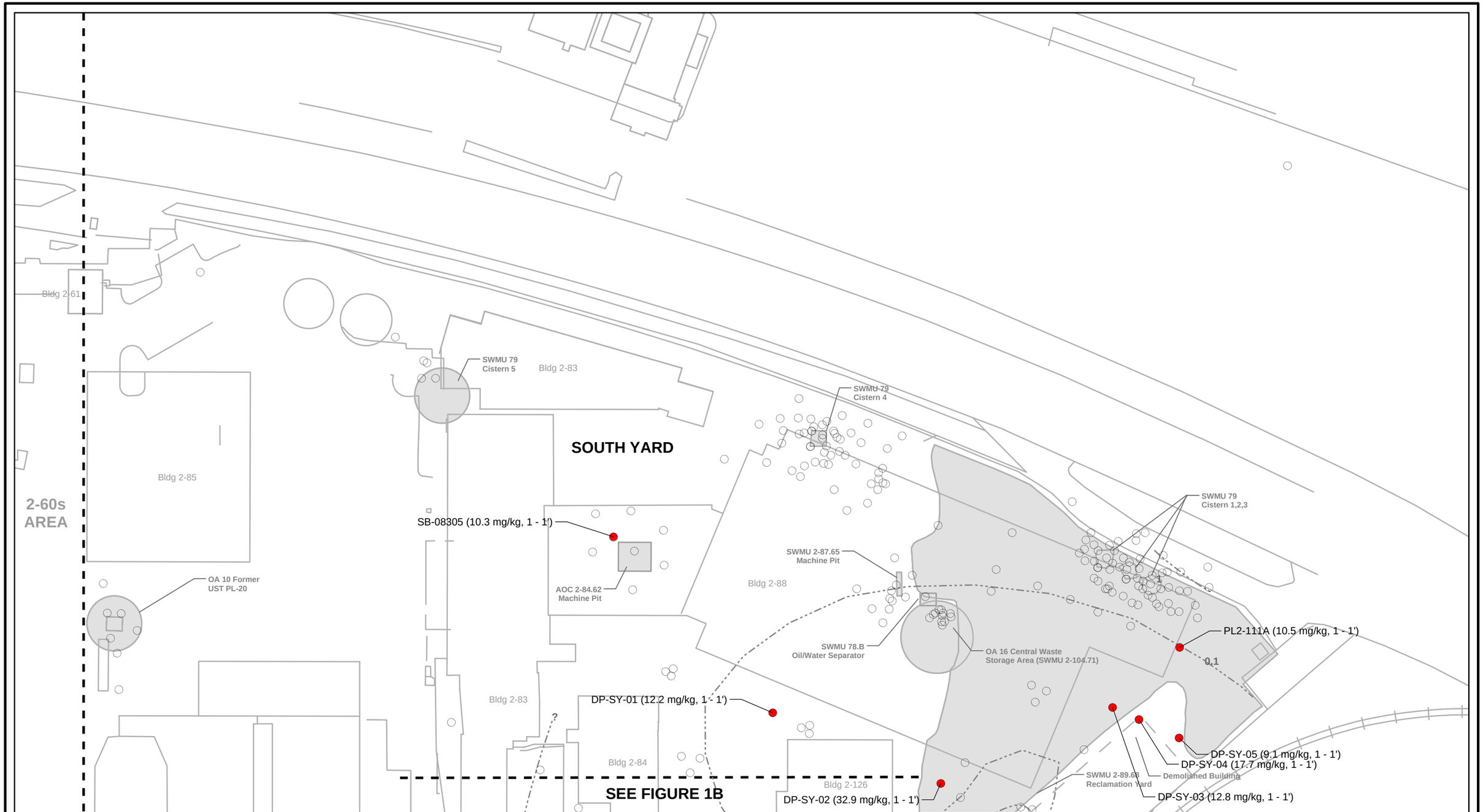
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
CADMIUM IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_CADMIUM_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 1.38 mg/kg
Proposed Media Cleanup Level (PMCL) = 36.4 mg/kg (Weston, 1999)

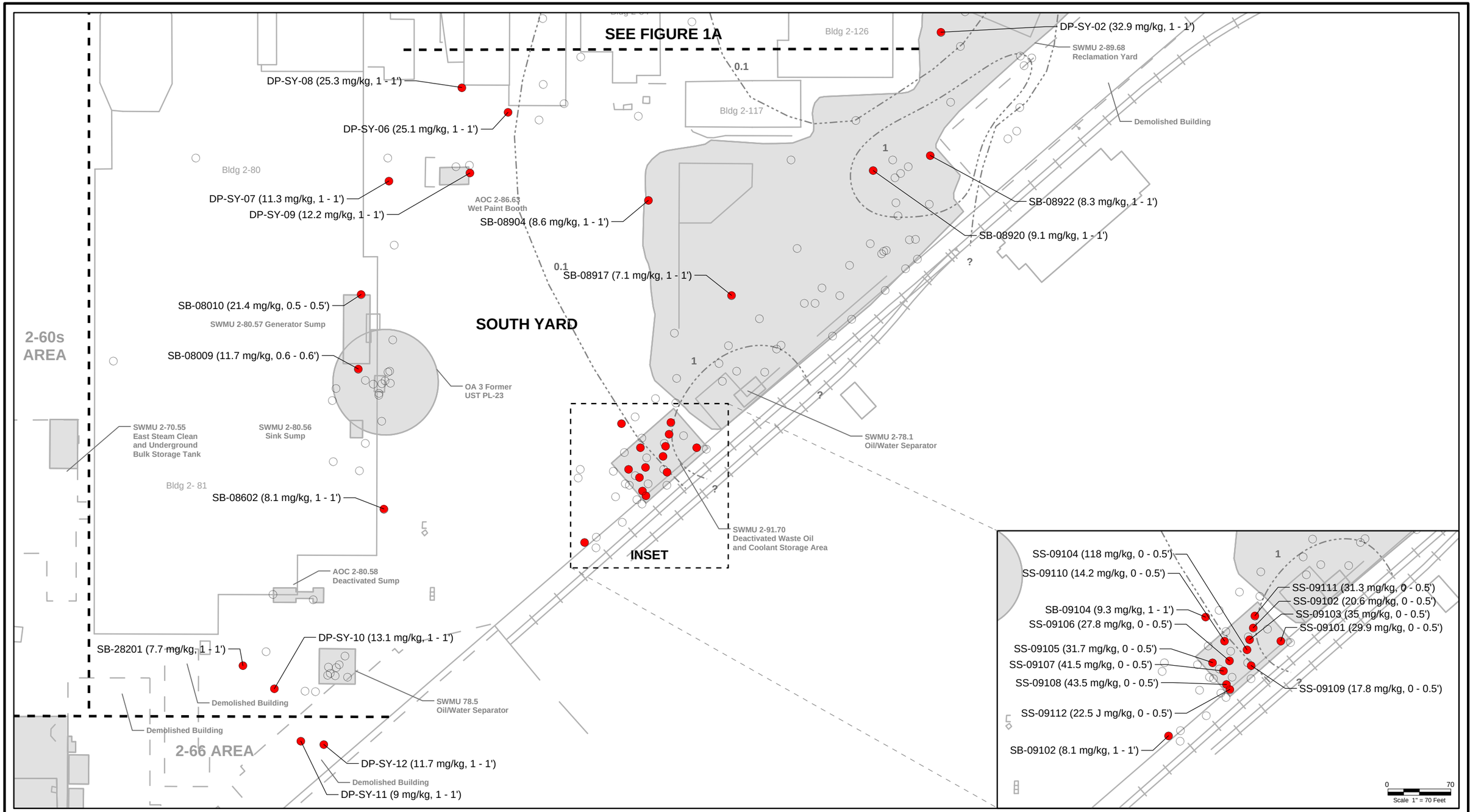
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
COPPER IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_COPPER_1A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 1.38 mg/kg
Proposed Media Cleanup Level (PMCL) = 36.4 mg/kg
(Weston, 1999)

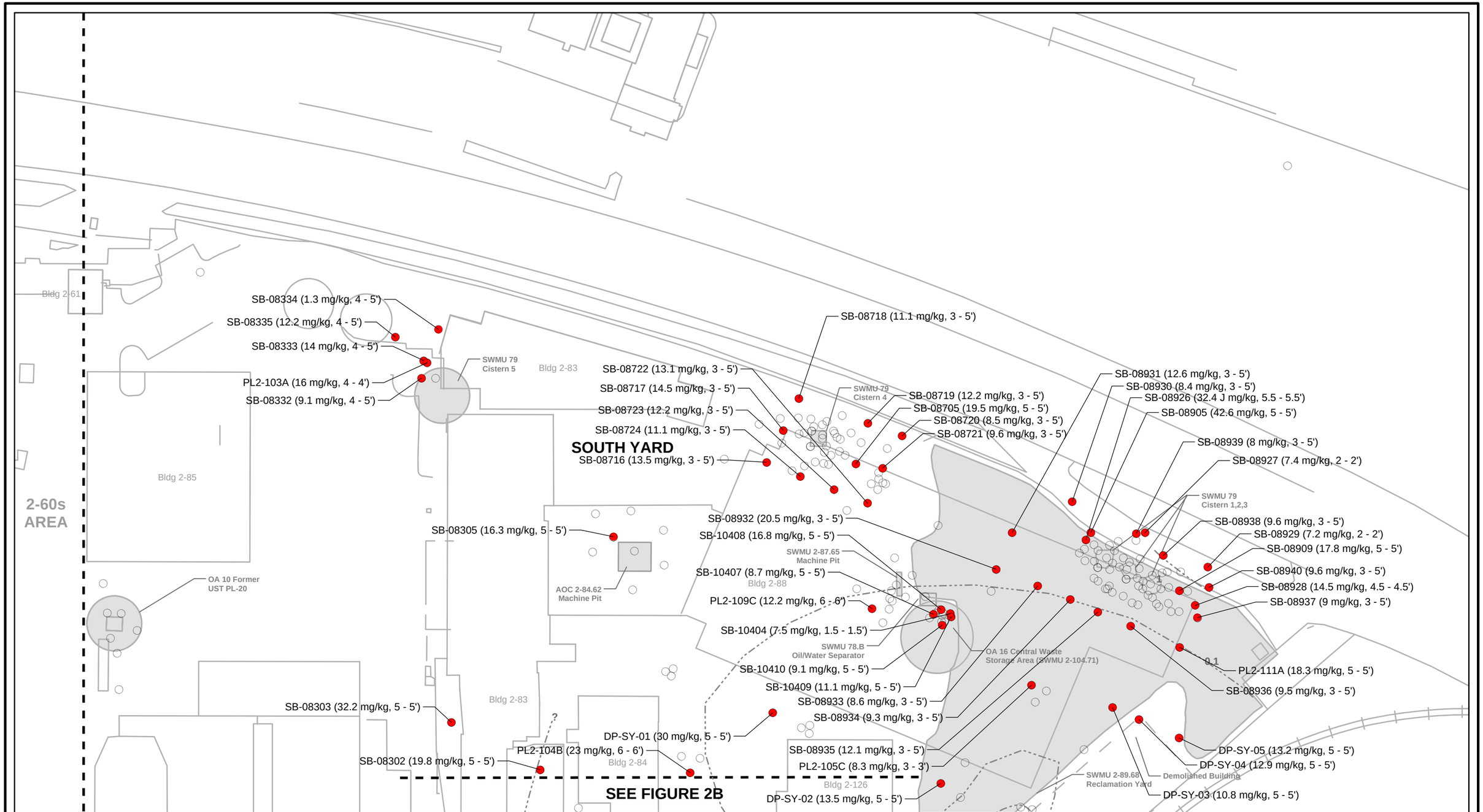
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
COPPER IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_COPPER_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 1.38 mg/kg
Proposed Media Cleanup Level (PMCL) = 36.4 mg/kg
(Weston, 1999)

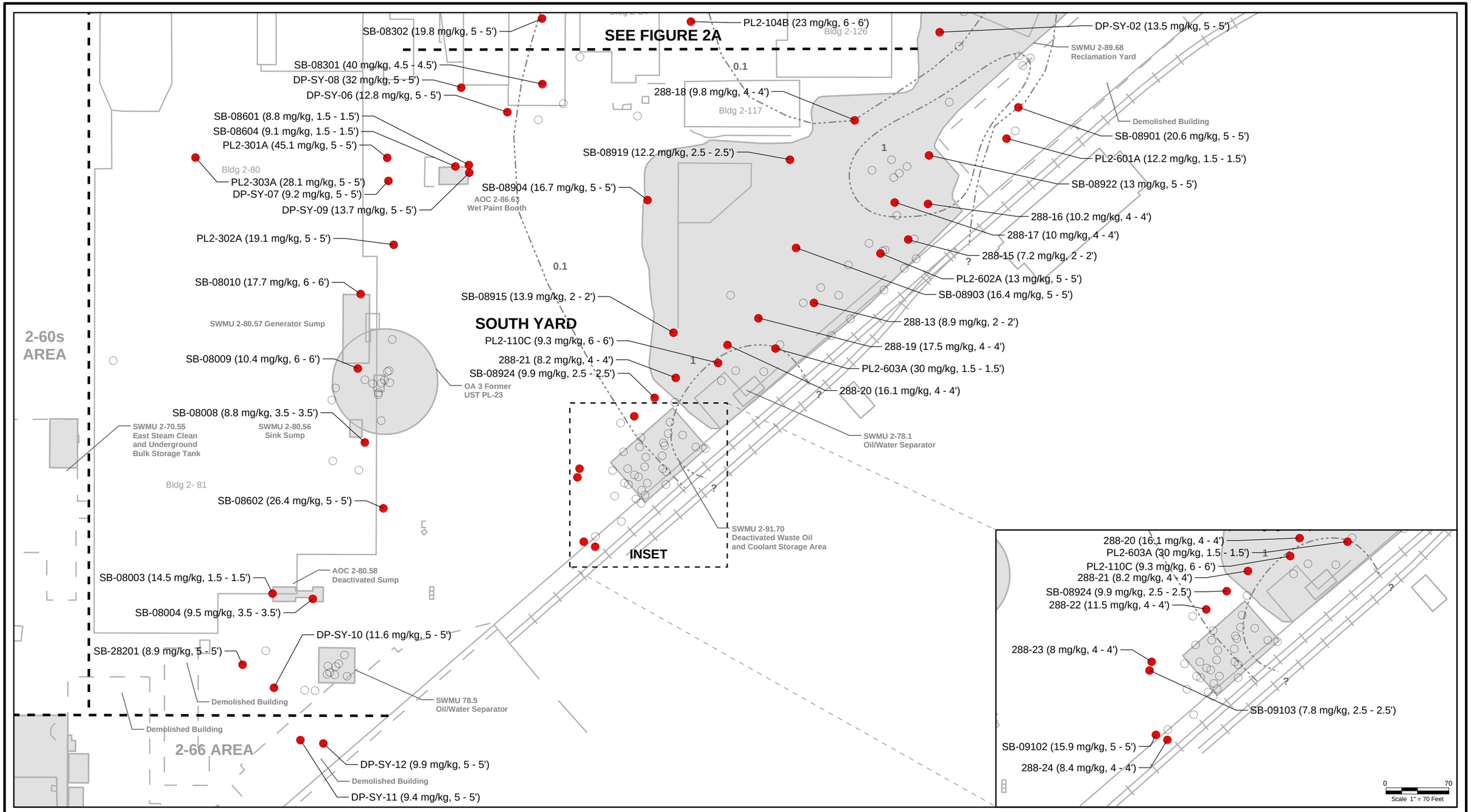
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
COPPER IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_COPPER_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 1.38 mg/kg
Proposed Media Cleanup Level (PMCL) = 36.4 mg/kg (Weston, 1999)

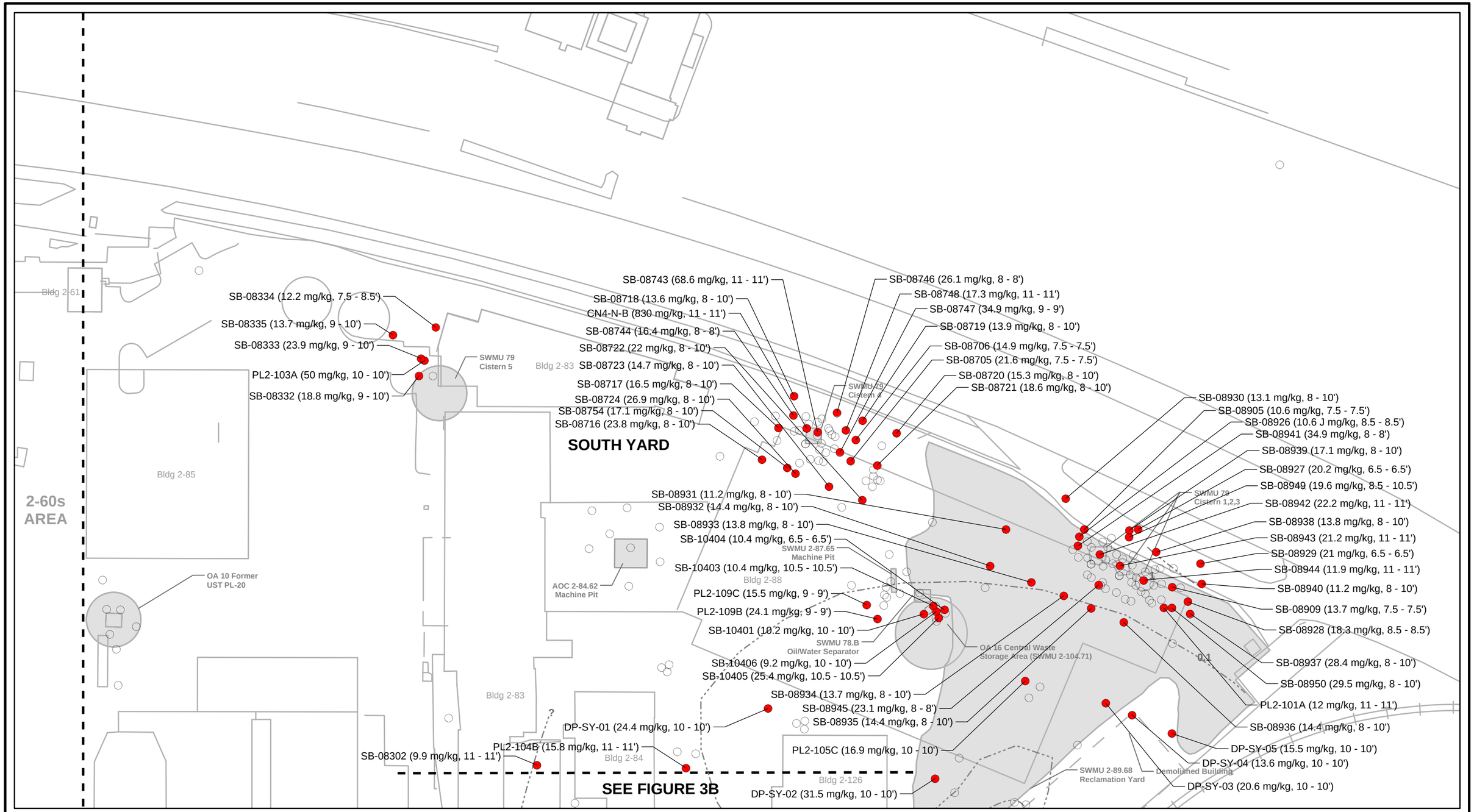
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
COPPER IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_COPPER_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 1.38 mg/kg
Proposed Media Cleanup Level (PMCL) = 36.4 mg/kg
(Weston, 1999)

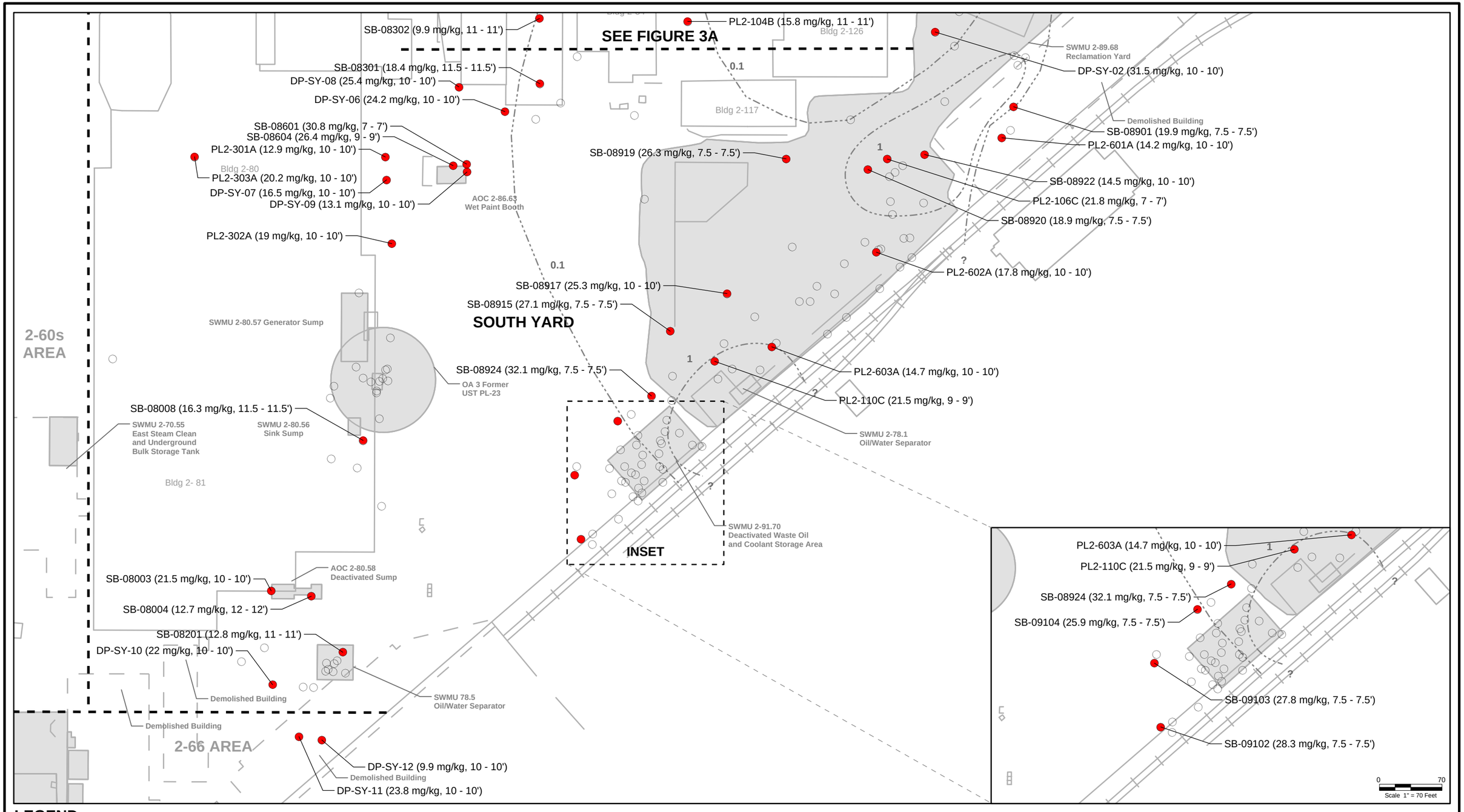
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
COPPER IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_COPPER_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 1.38 mg/kg
Proposed Media Cleanup Level (PMCL) = 36.4 mg/kg (Weston, 1999)

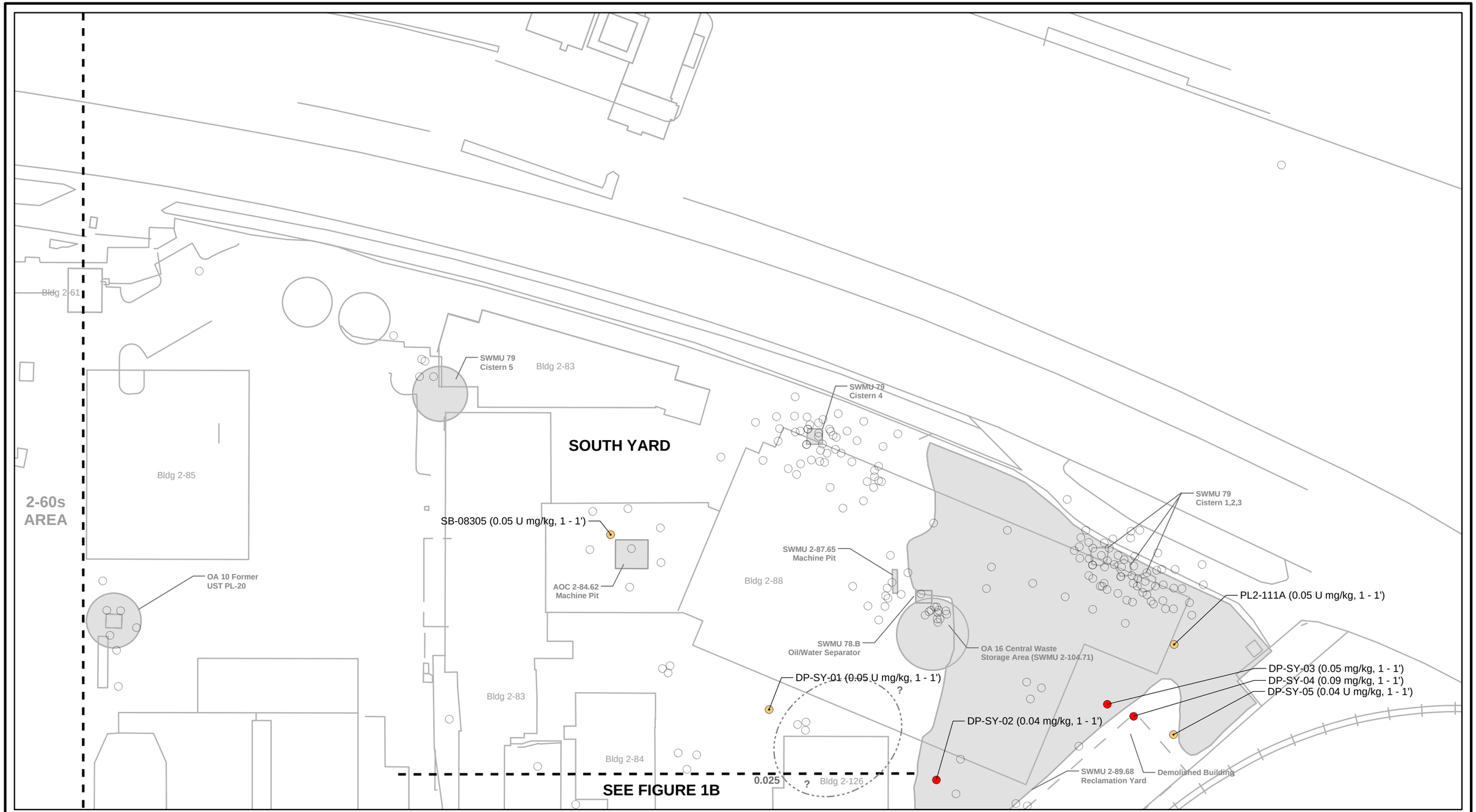
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
COPPER IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_COPPER_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 0.05 mg/kg
Proposed Media Cleanup Level (PMCL) = 0.07 mg/kg
(Weston, 1999)

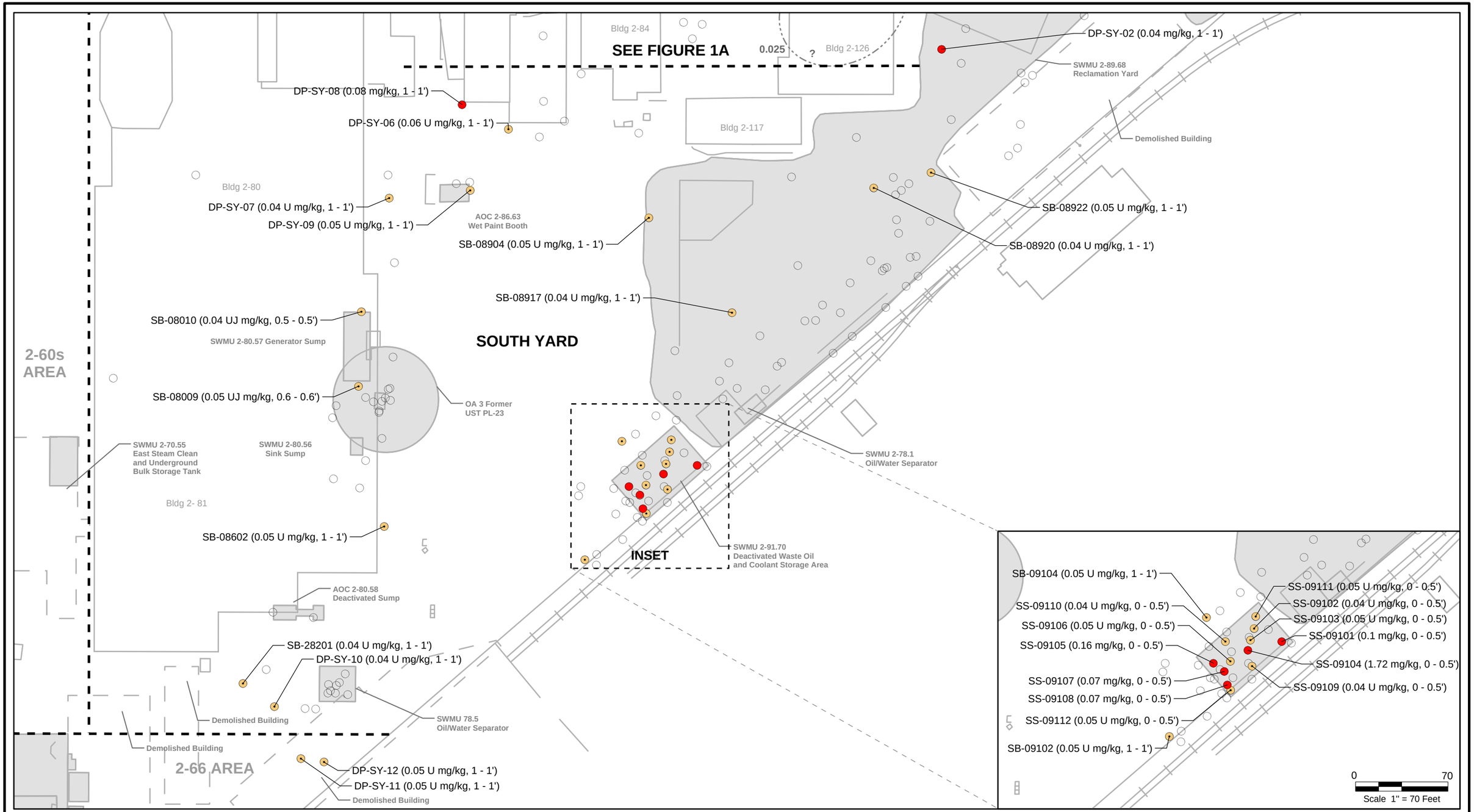
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
MERCURY IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_MERCURY_1A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 0.05 mg/kg
Proposed Media Cleanup Level (PMCL) = 0.07 mg/kg
(Weston, 1999)

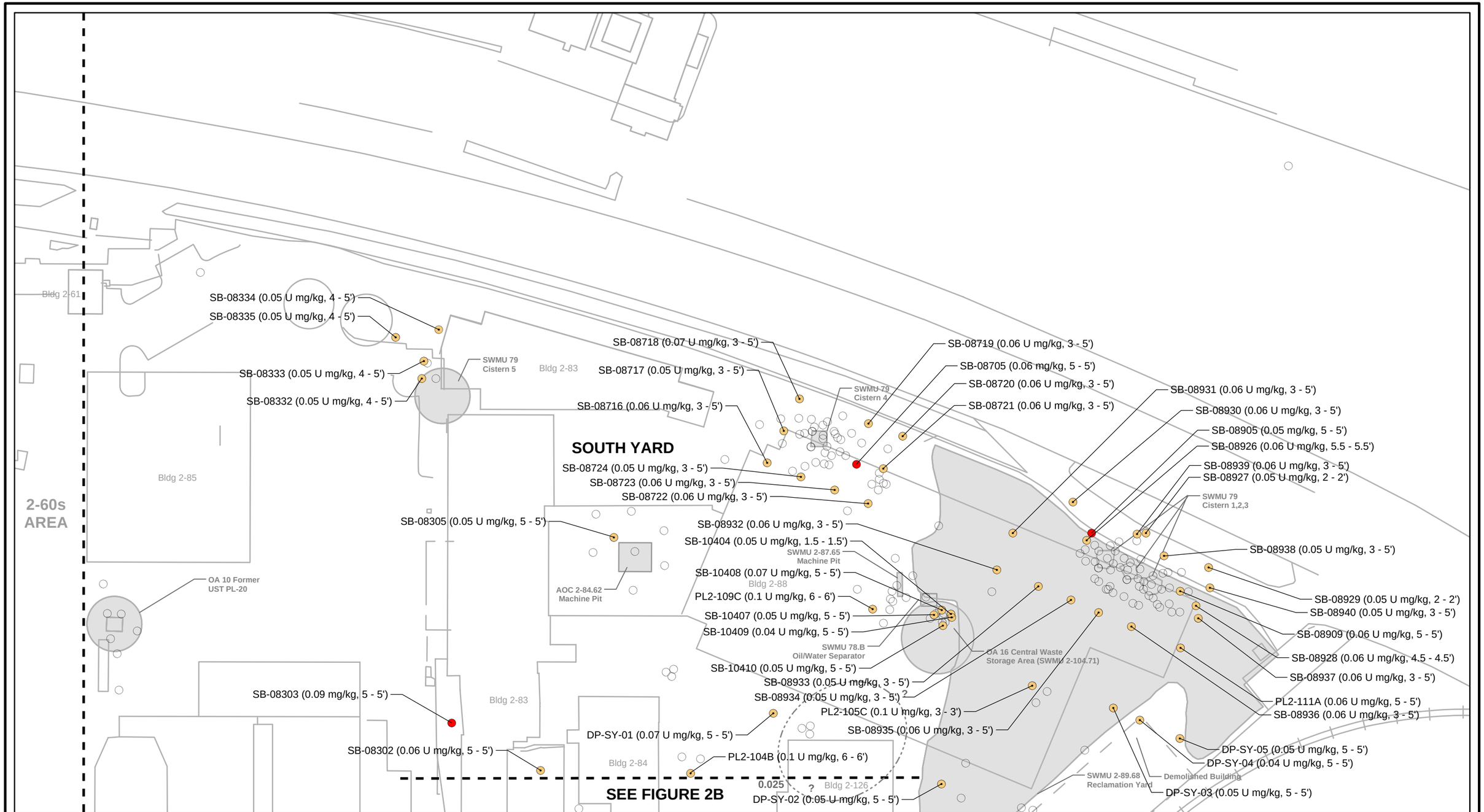
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
MERCURY IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_MERCURY_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 0.05 mg/kg
Proposed Media Cleanup Level (PMCL) = 0.07 mg/kg (Weston, 1999)

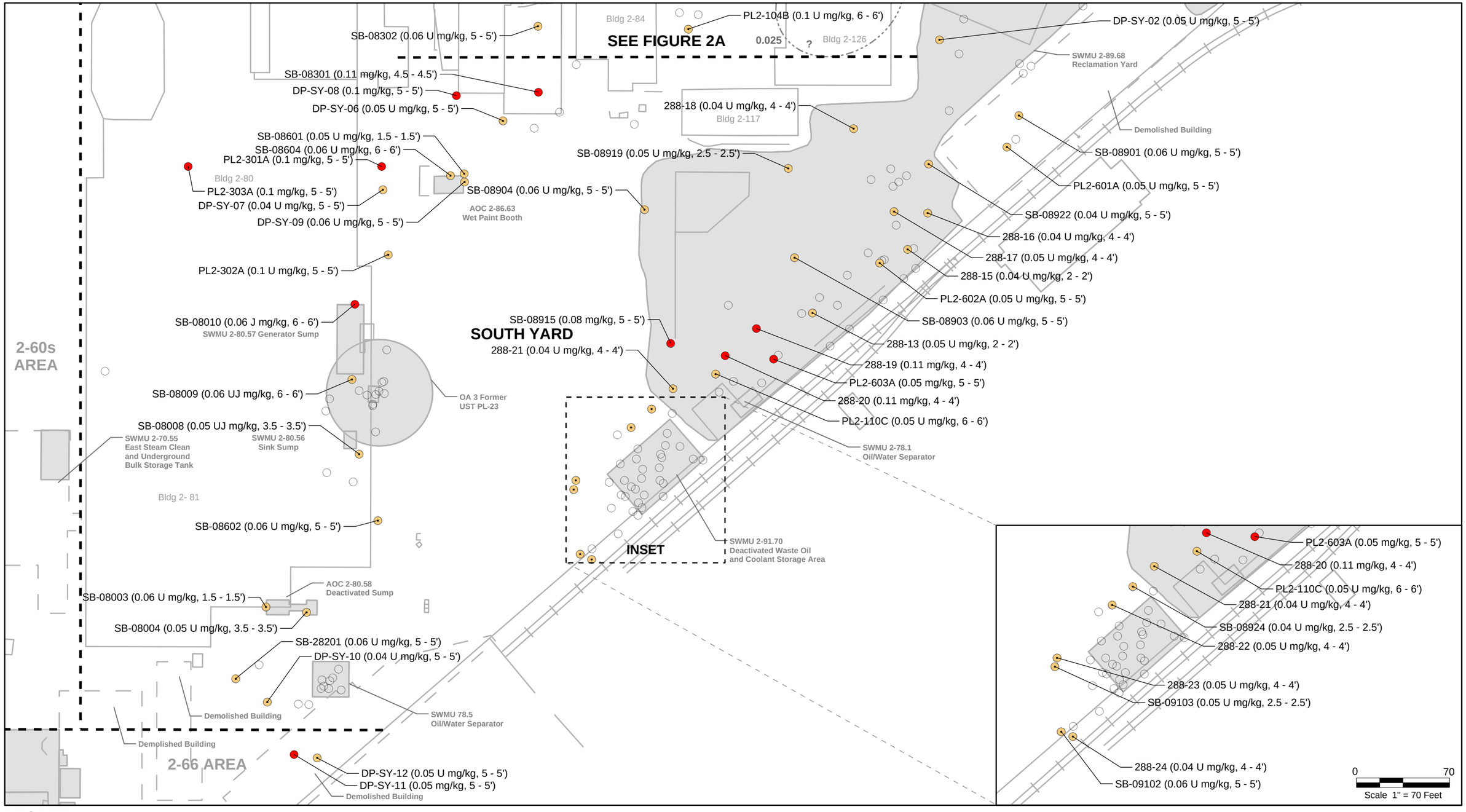
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
MERCURY IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_MERCURY_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 0.05 mg/kg
Proposed Media Cleanup Level (PMCL) = 0.07 mg/kg (Weston, 1999)

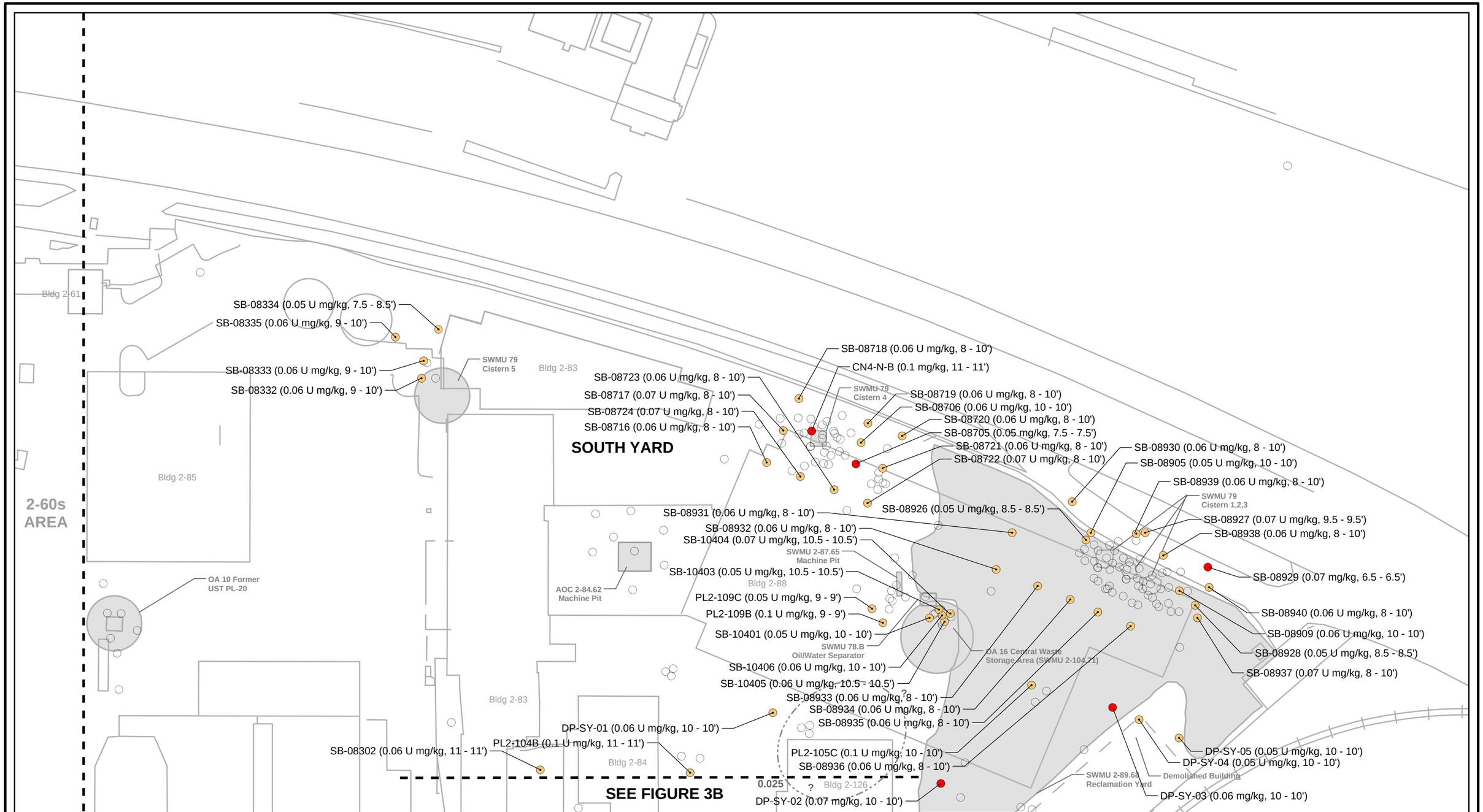
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
MERCURY IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_MERCURY_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 0.05 mg/kg
Proposed Media Cleanup Level (PMCL) = 0.07 mg/kg (Weston, 1999)

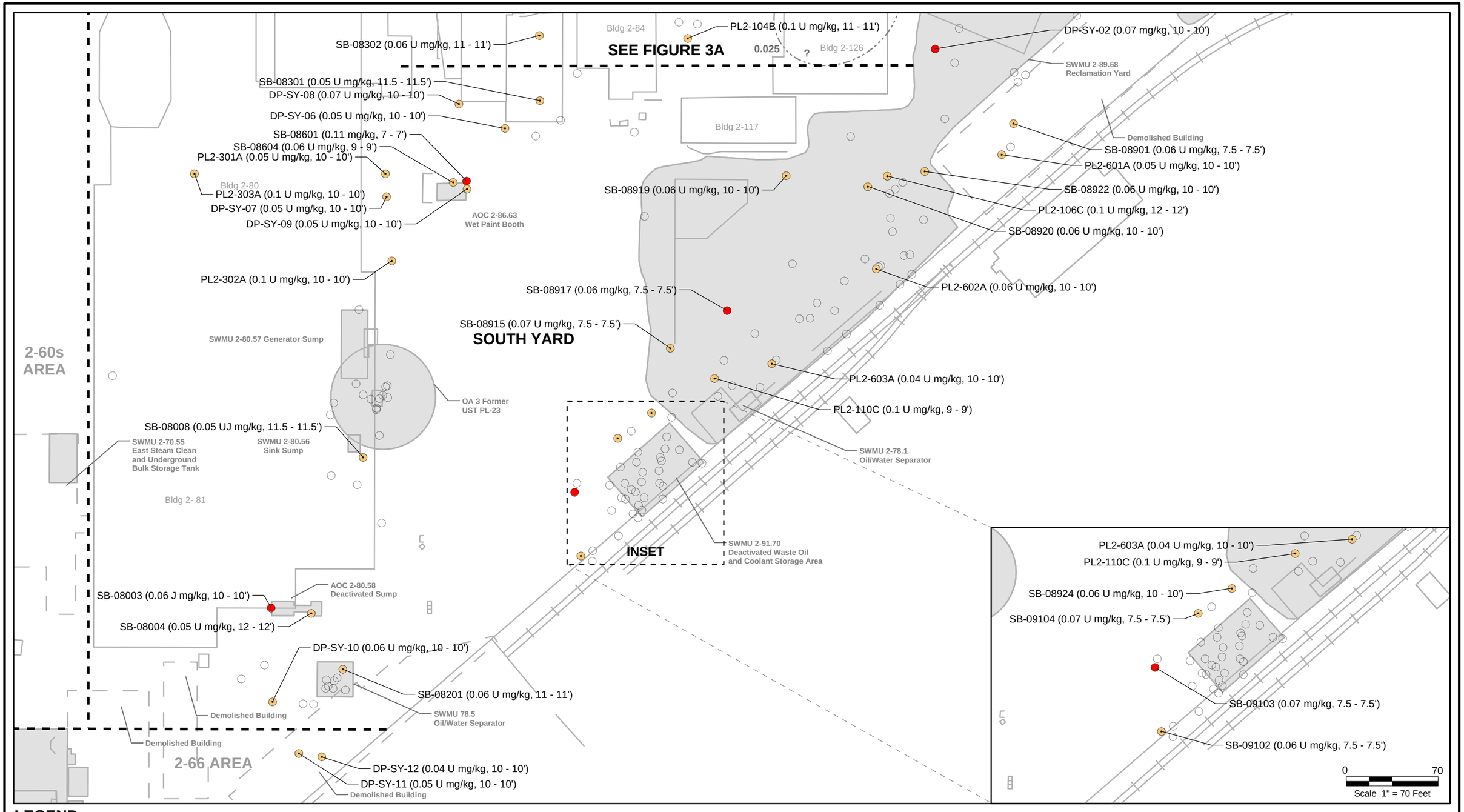
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
MERCURY IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_MERCURY_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 0.05 mg/kg
Proposed Media Cleanup Level (PMCL) = 0.07 mg/kg (Weston, 1999)

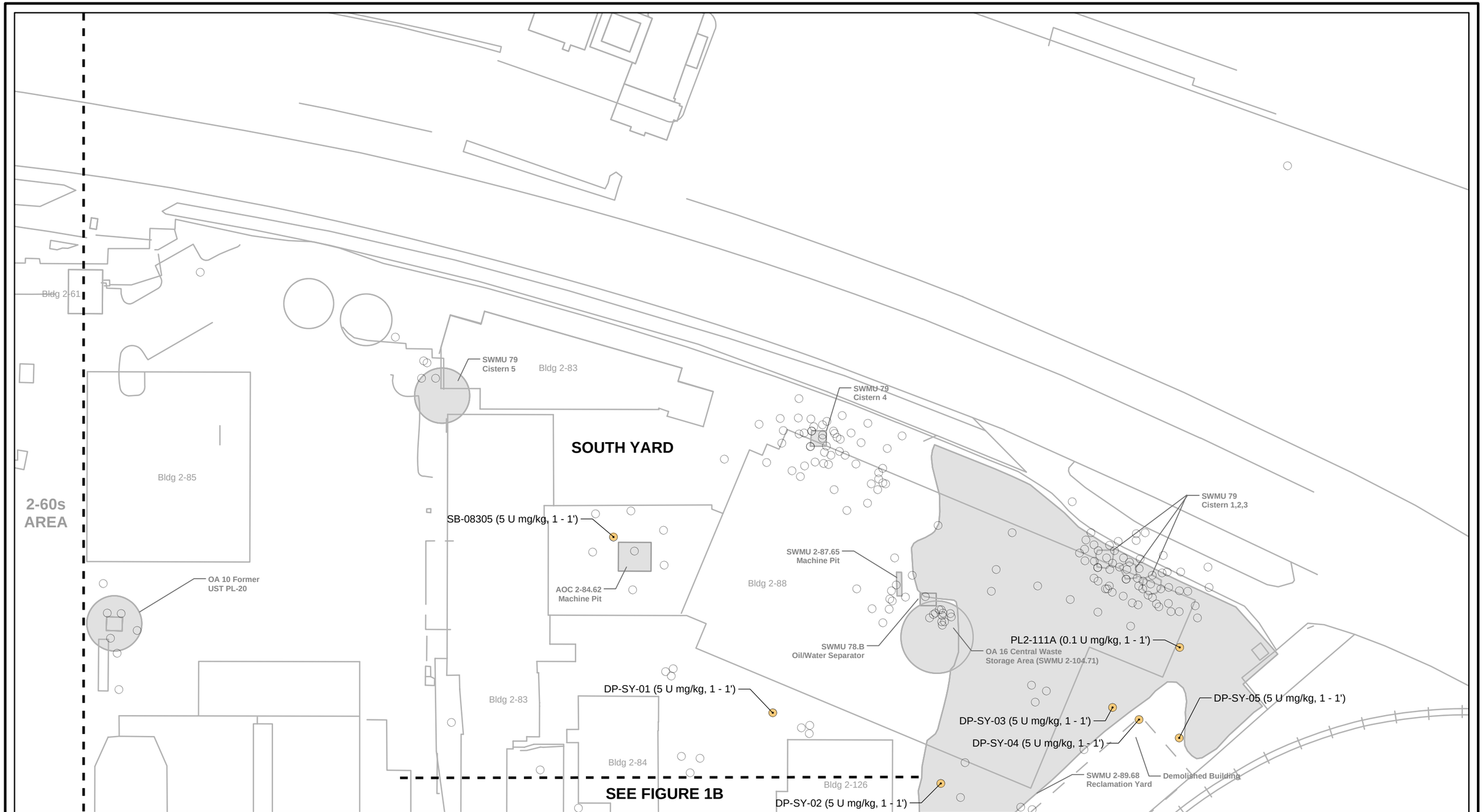
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
MERCURY IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_MERCURY_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 0.67 mg/kg
Proposed Media Cleanup Level (PMCL) = 8.9 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions of SWMU 79 and OA 3.

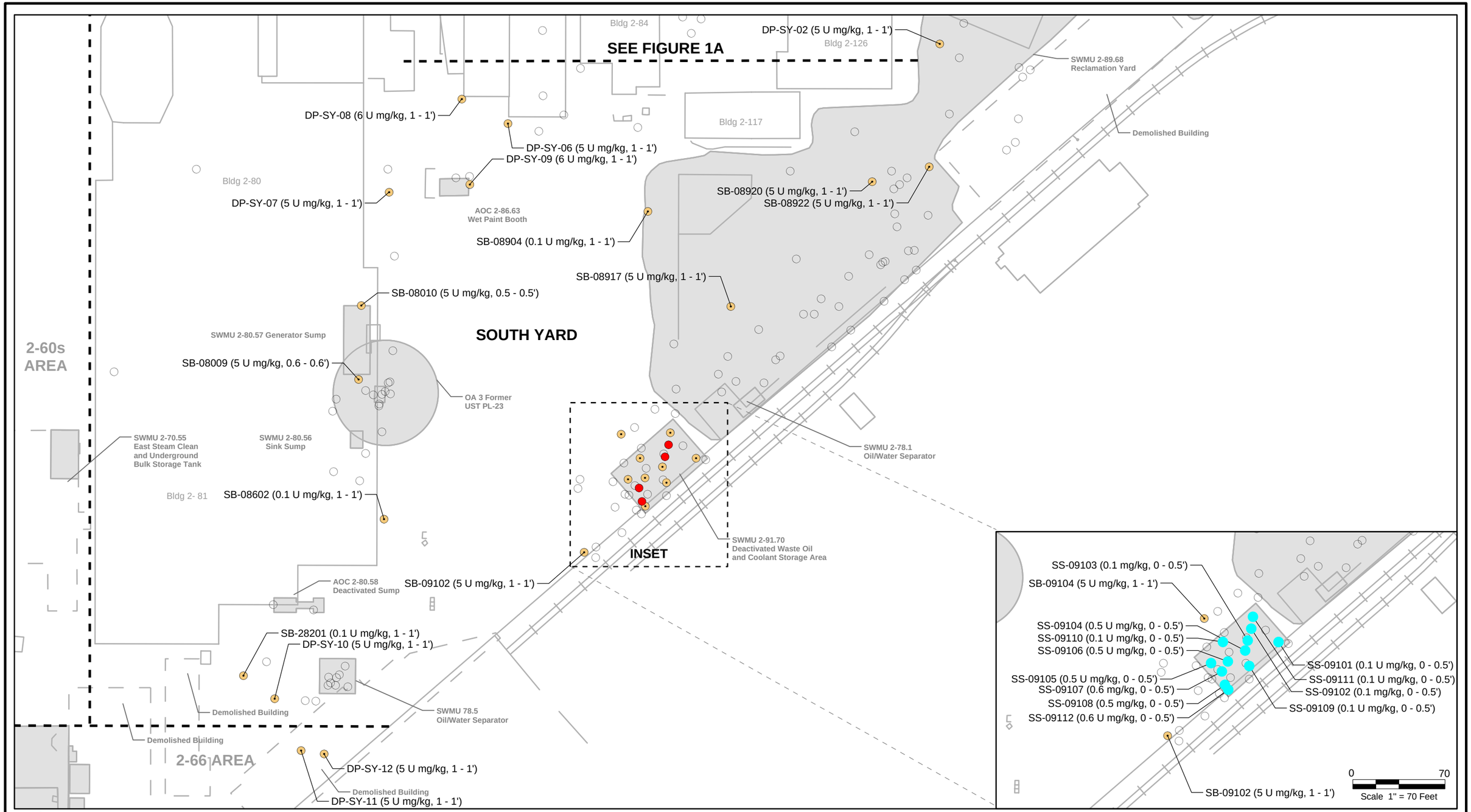
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
THALLIUM IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_THALLIUM_1A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 0.67 mg/kg
Proposed Media Cleanup Level (PMCL) = 8.9 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions of SWMU 79 and OA 3.

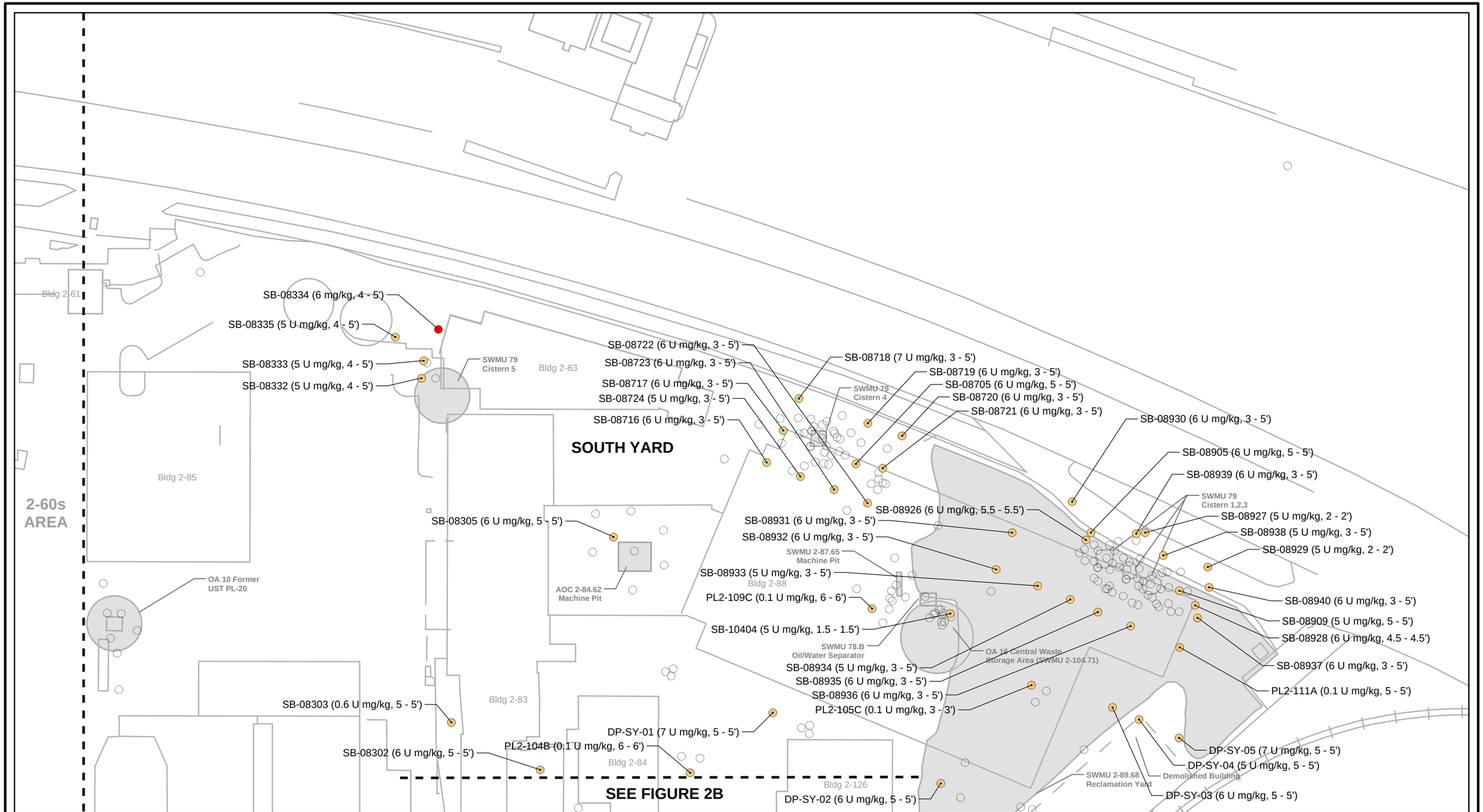
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
THALLIUM IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_THALLIUM_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 0.67 mg/kg
Proposed Media Cleanup Level (PMCL) = 8.9 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions of SWMU 79 and OA 3.

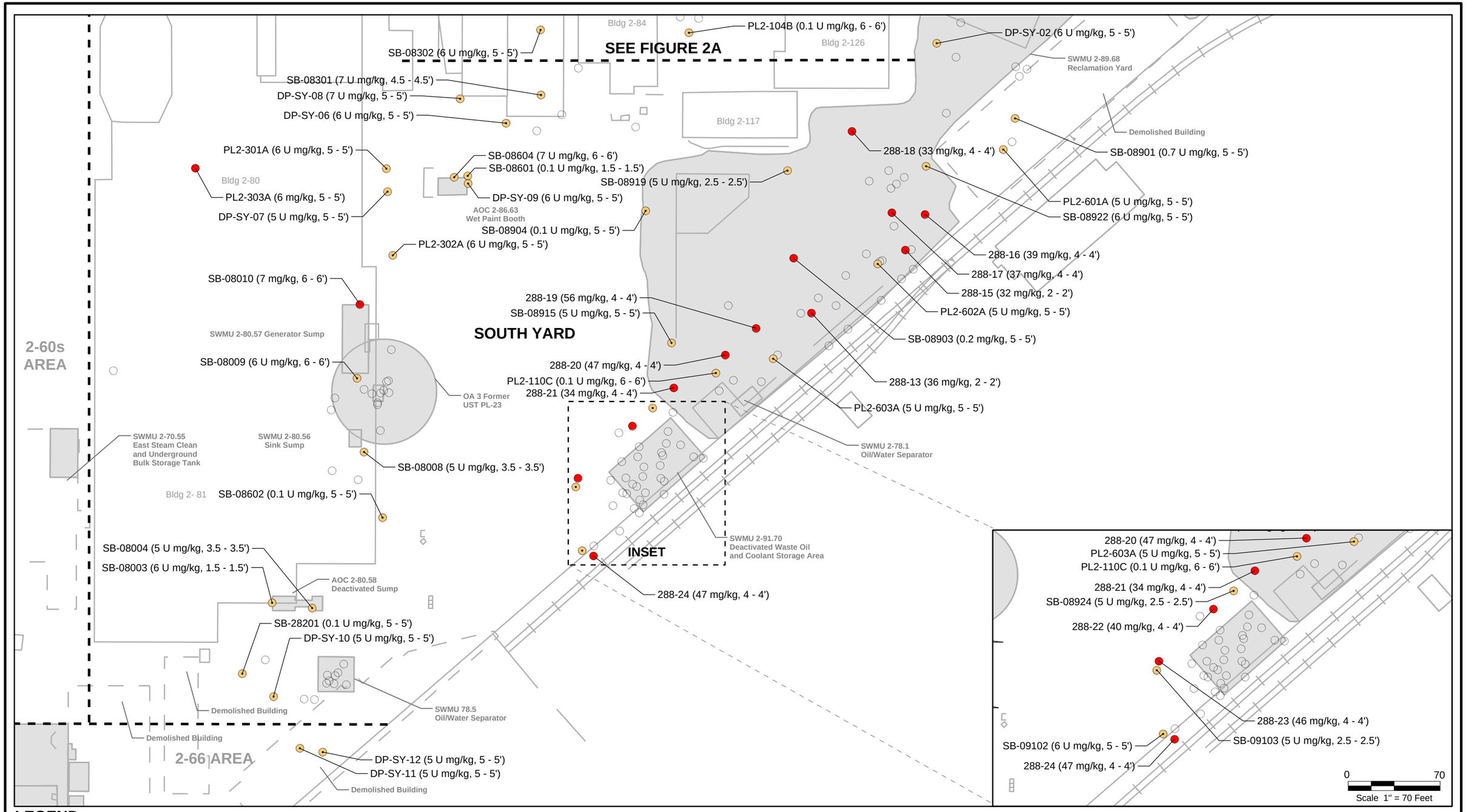
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
THALLIUM IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_THALLIUM_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Golder Associates

Soil Screening Level = 0.67 mg/kg
Proposed Media Cleanup Level (PMCL) = 8.9 mg/kg (Weston, 1999)

Data presented on this figure is post removal actions of SWMU 79 and OA 3.

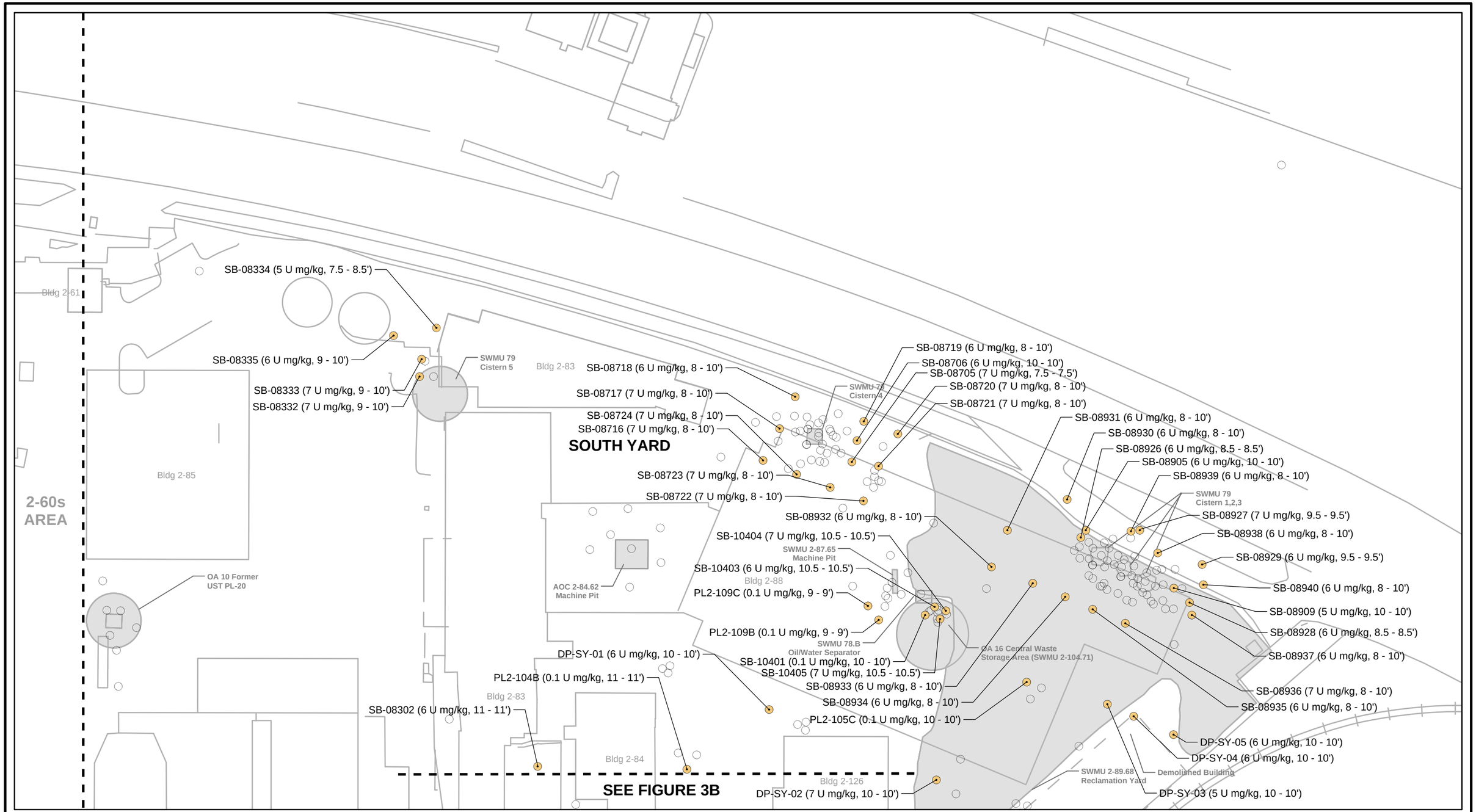
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
THALLIUM IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_THALLIUM_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 0.67 mg/kg
Proposed Media Cleanup Level (PMCL) = 8.9 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions of SWMU 79 and OA 3.

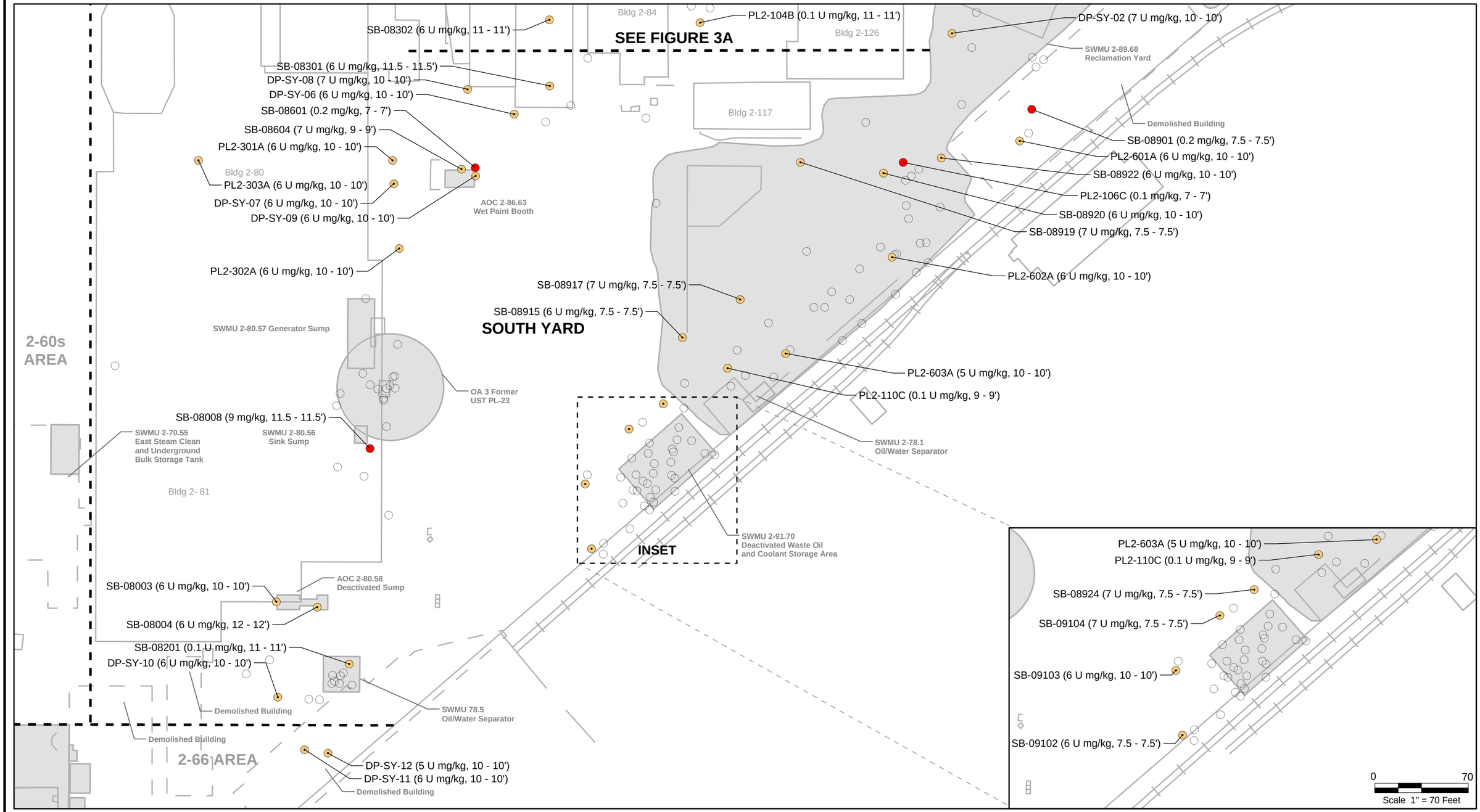
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
THALLIUM IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_THALLIUM_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Golder Associates

Soil Screening Level = 0.67 mg/kg
Proposed Media Cleanup Level (PMCL) = 8.9 mg/kg (Weston, 1999)

Data presented on this figure is post removal actions of SWMU 79 and OA 3.

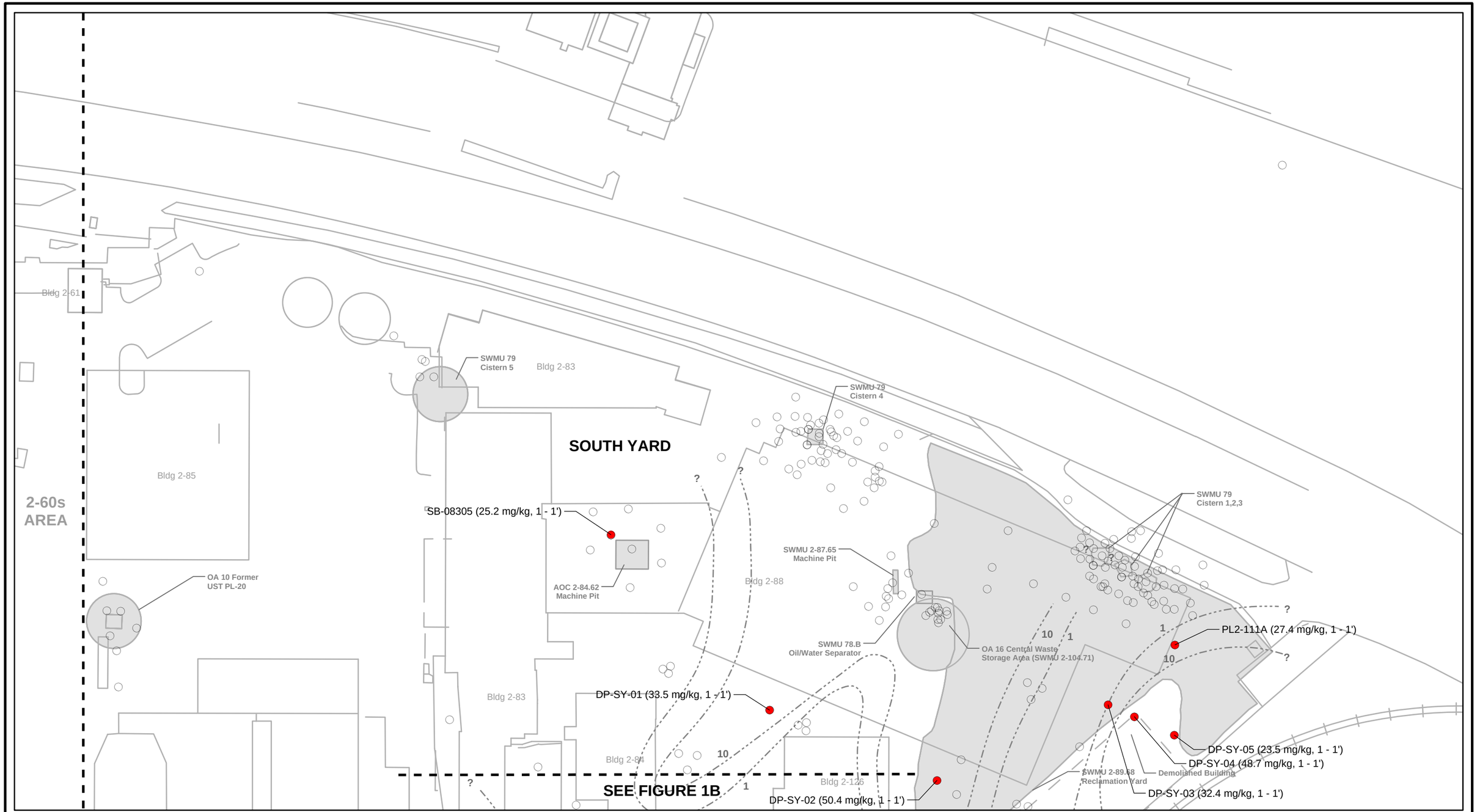
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
THALLIUM IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_THALLIUM_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 101 mg/kg
Proposed Media Cleanup Level (PMCL) = 107 mg/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

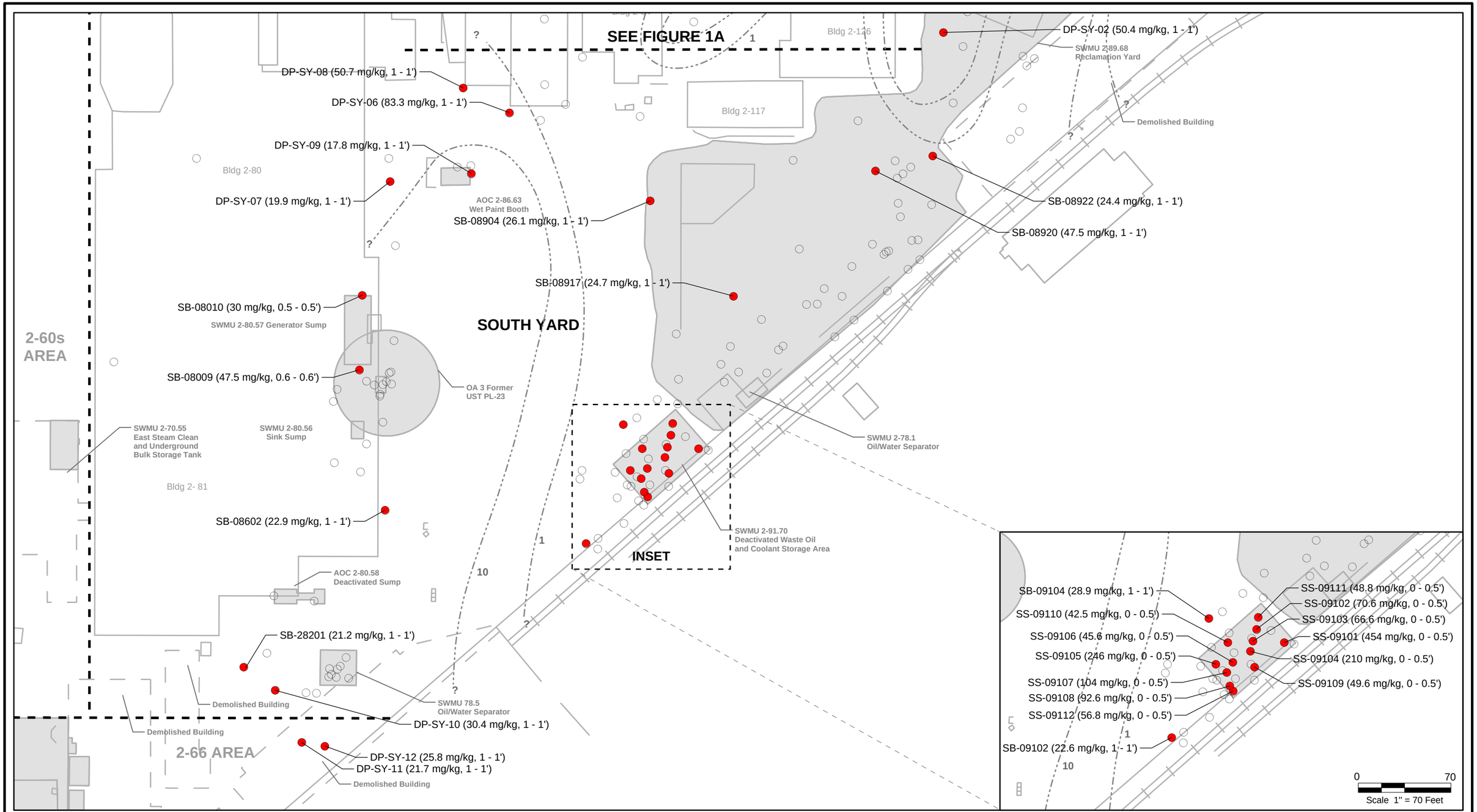
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
ZINC IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_ZINC_1A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 101 mg/kg
Proposed Media Cleanup Level (PMCL) = 107 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

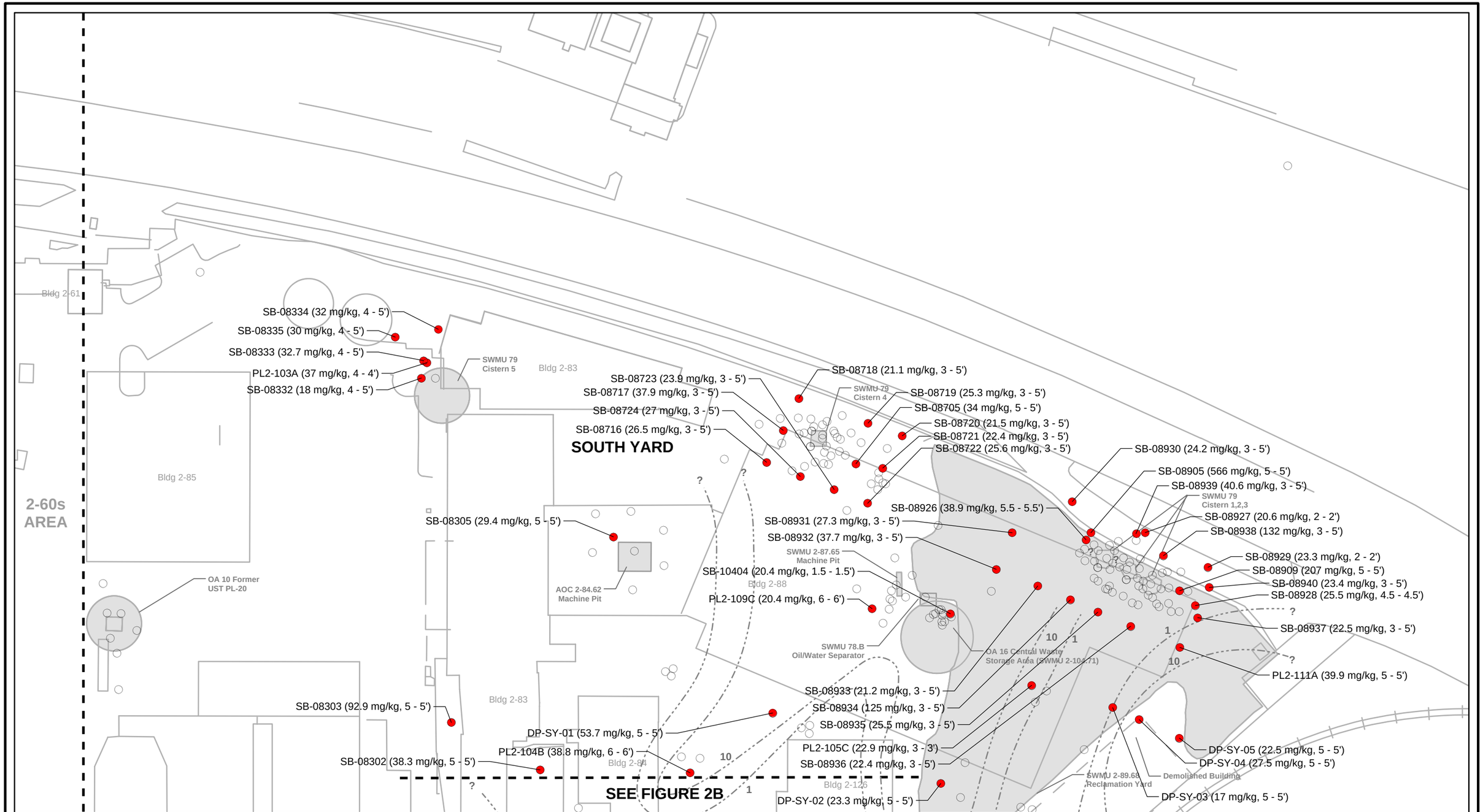
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
ZINC IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_ZINC_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 101 mg/kg
Proposed Media Cleanup Level (PMCL) = 107 mg/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

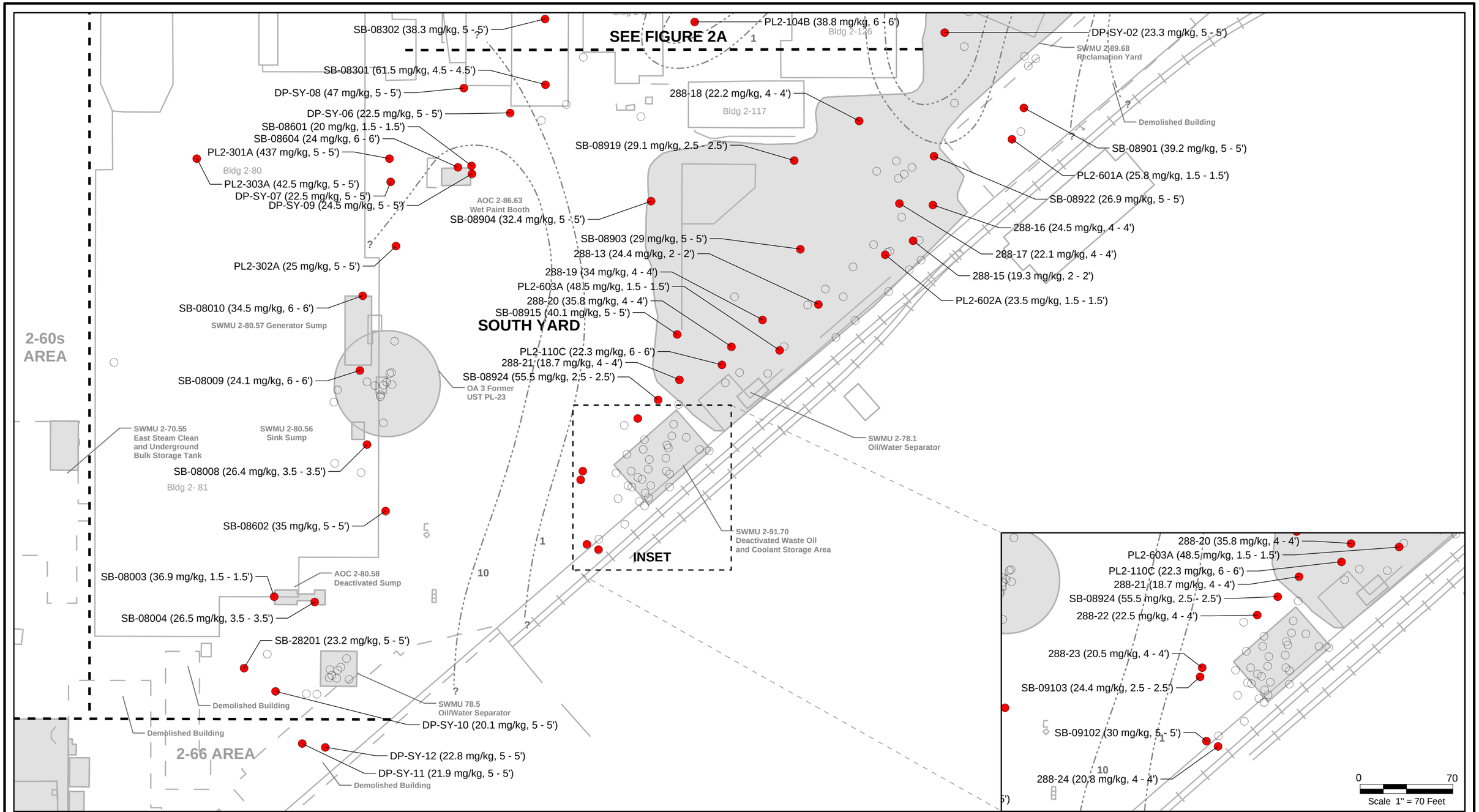
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
ZINC IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_ZINC_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 101 mg/kg
Proposed Media Cleanup Level (PMCL) = 107 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

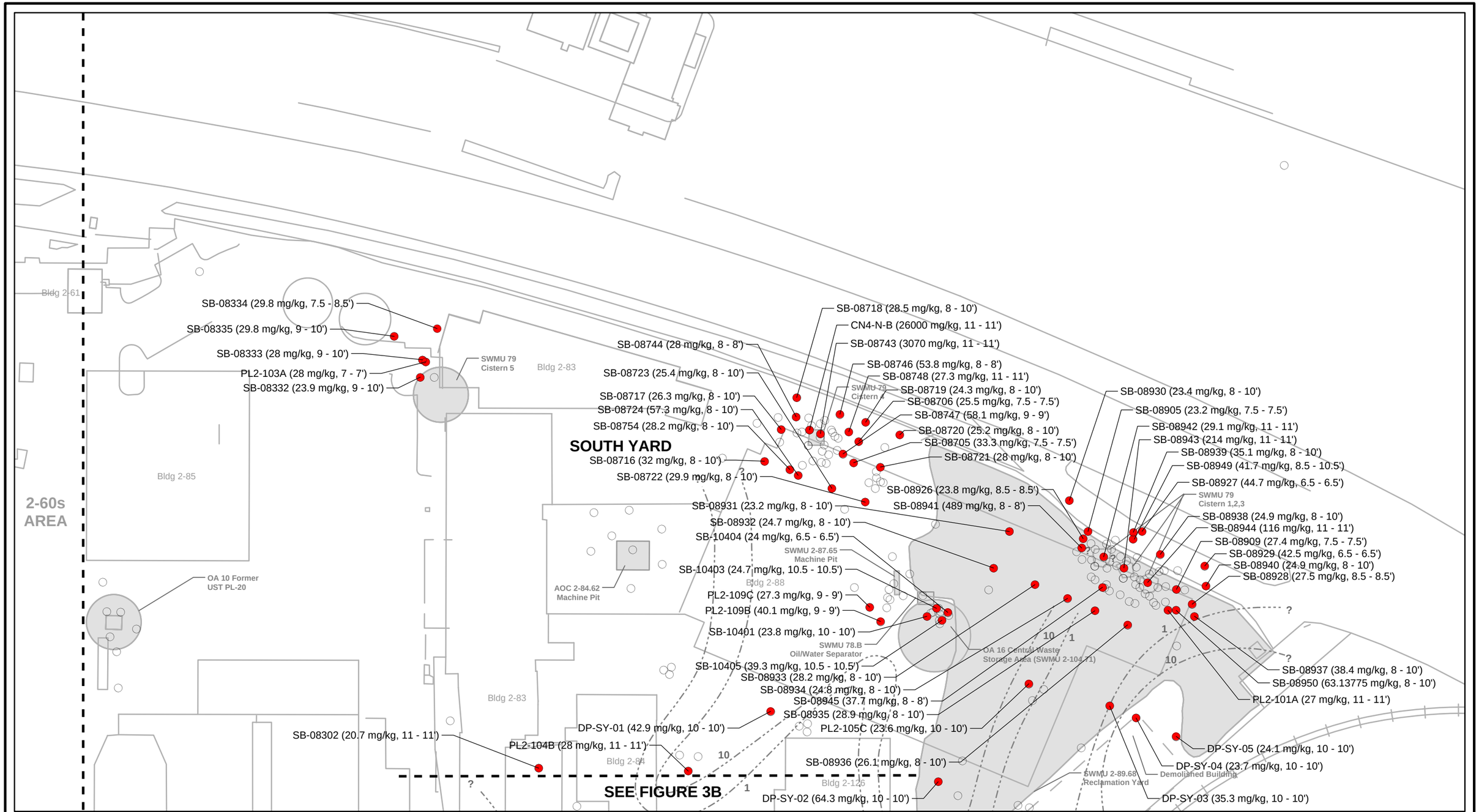
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
ZINC IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_ZINC_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 101 mg/kg
Proposed Media Cleanup Level (PMCL) = 107 mg/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

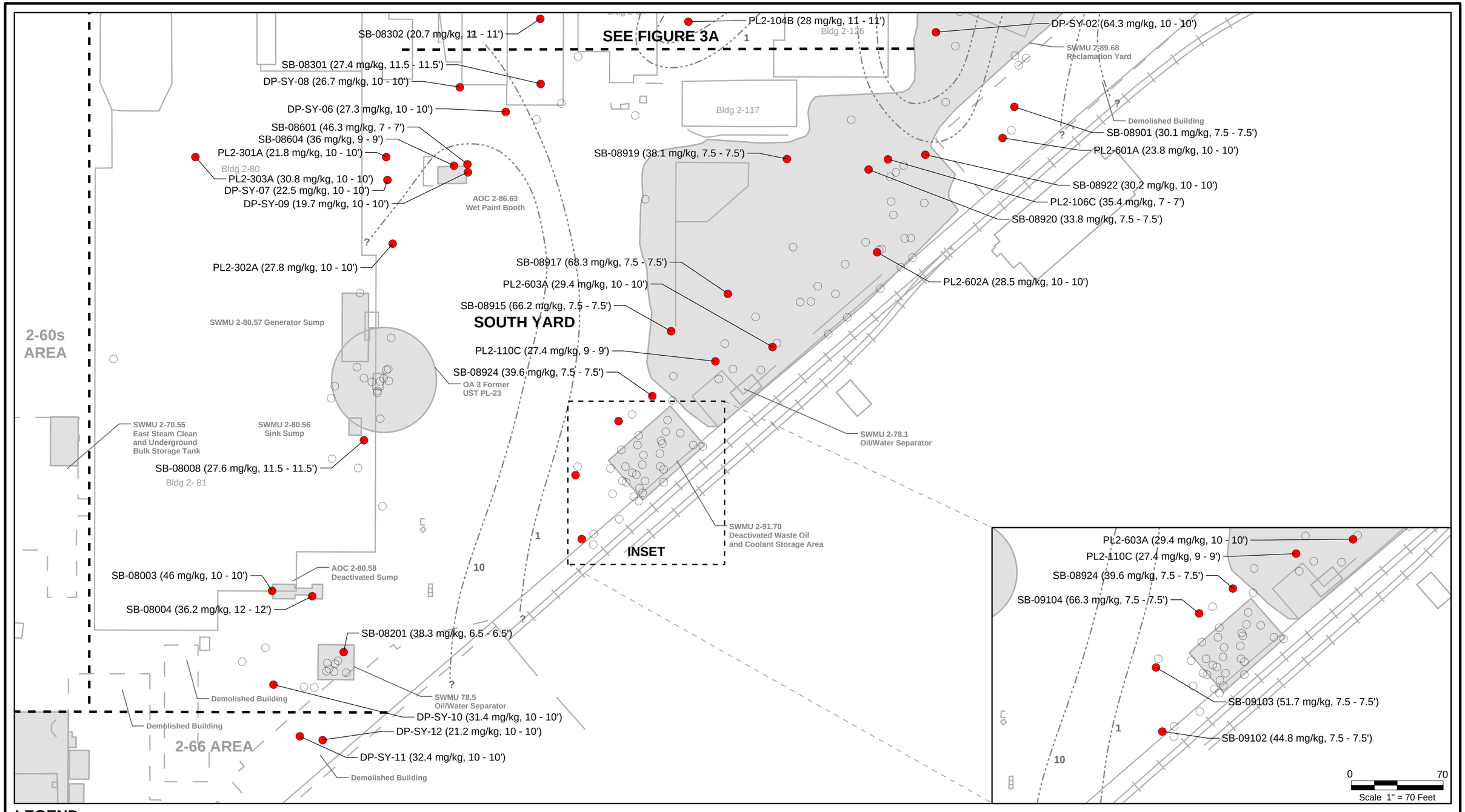
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
ZINC IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_ZINC_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 101 mg/kg
Proposed Media Cleanup Level (PMCL) = 107 mg/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

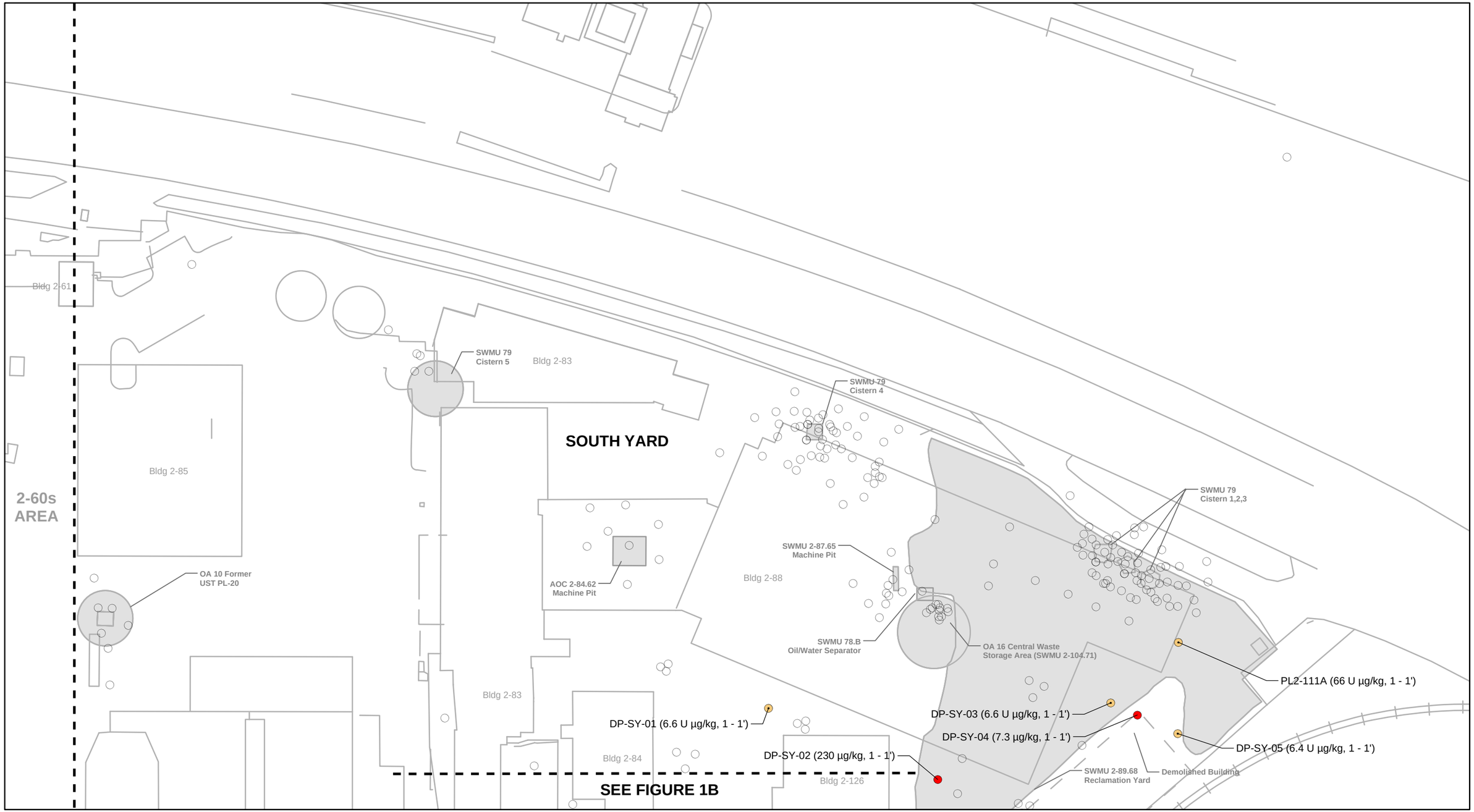
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
ZINC IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_ZINC_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 113 ug/kg
Proposed Media Cleanup Level (PMCL) = 2.9 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

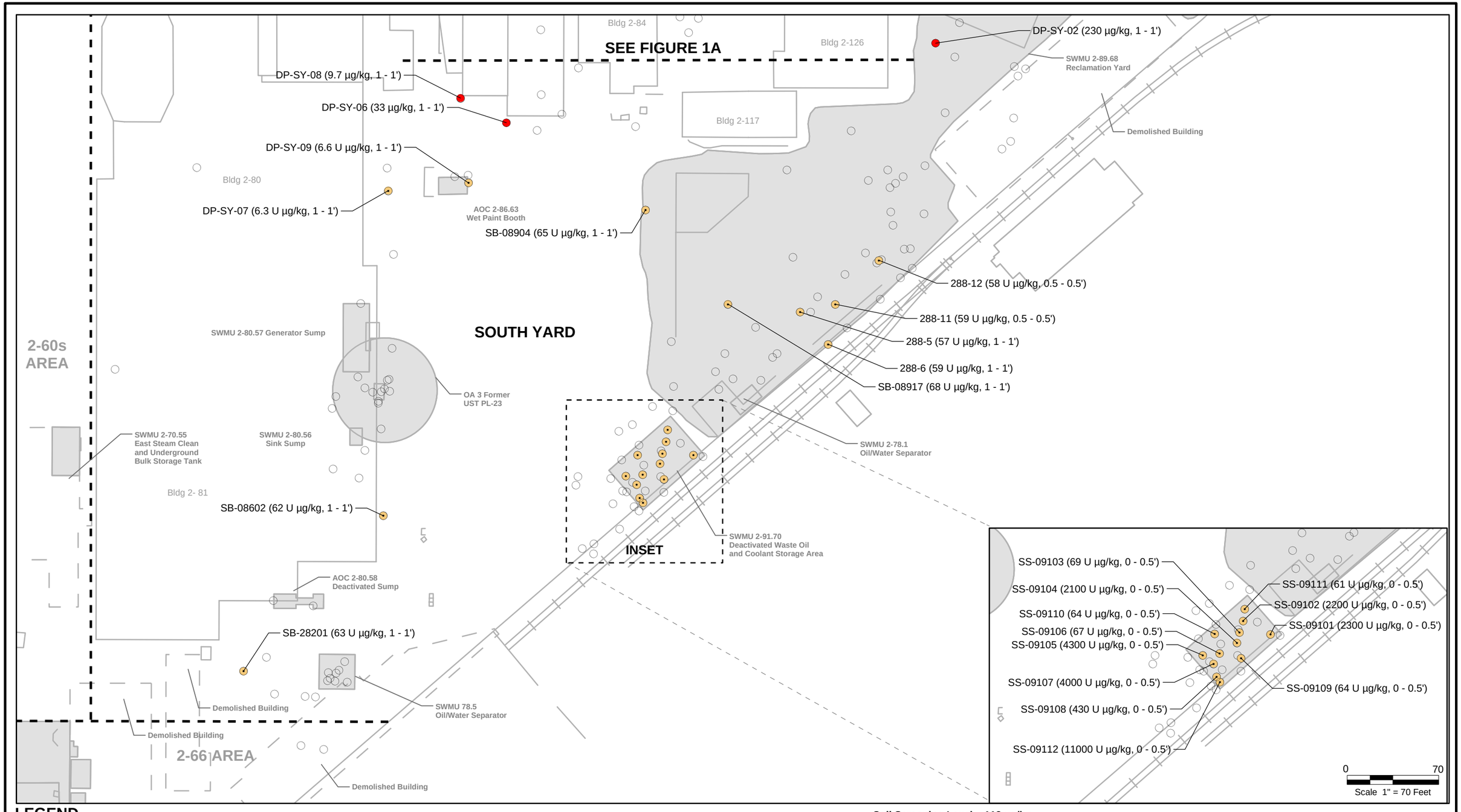
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
BENZO(A)PYRENE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_BENZO_A_PYRENE_1A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 113 ug/kg
Proposed Media Cleanup Level (PMCL) = 2.9 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

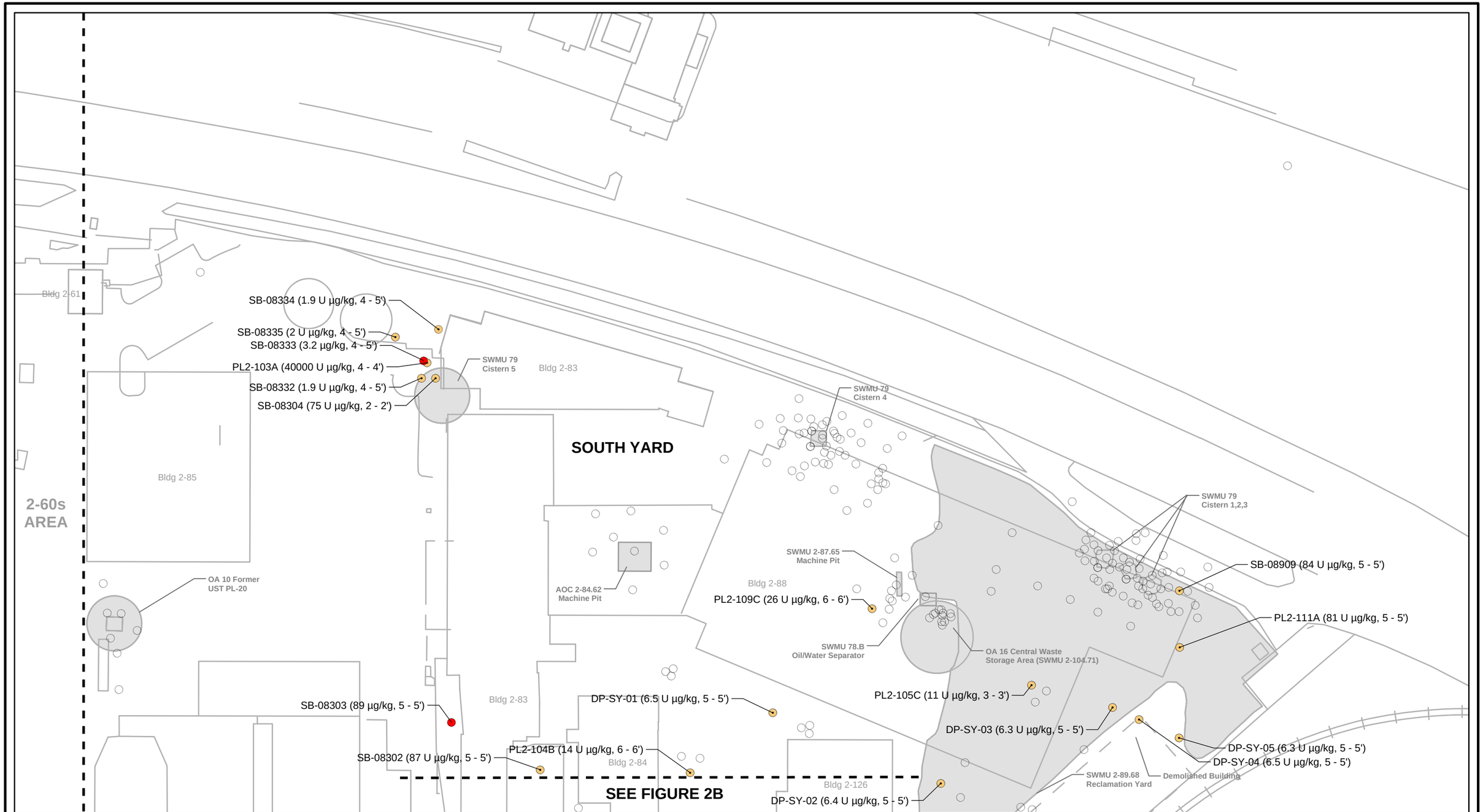
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
BENZO(A)PYRENE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_BENZO_A_PYRENE_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 113 ug/kg
Proposed Media Cleanup Level (PMCL) = 2.9 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

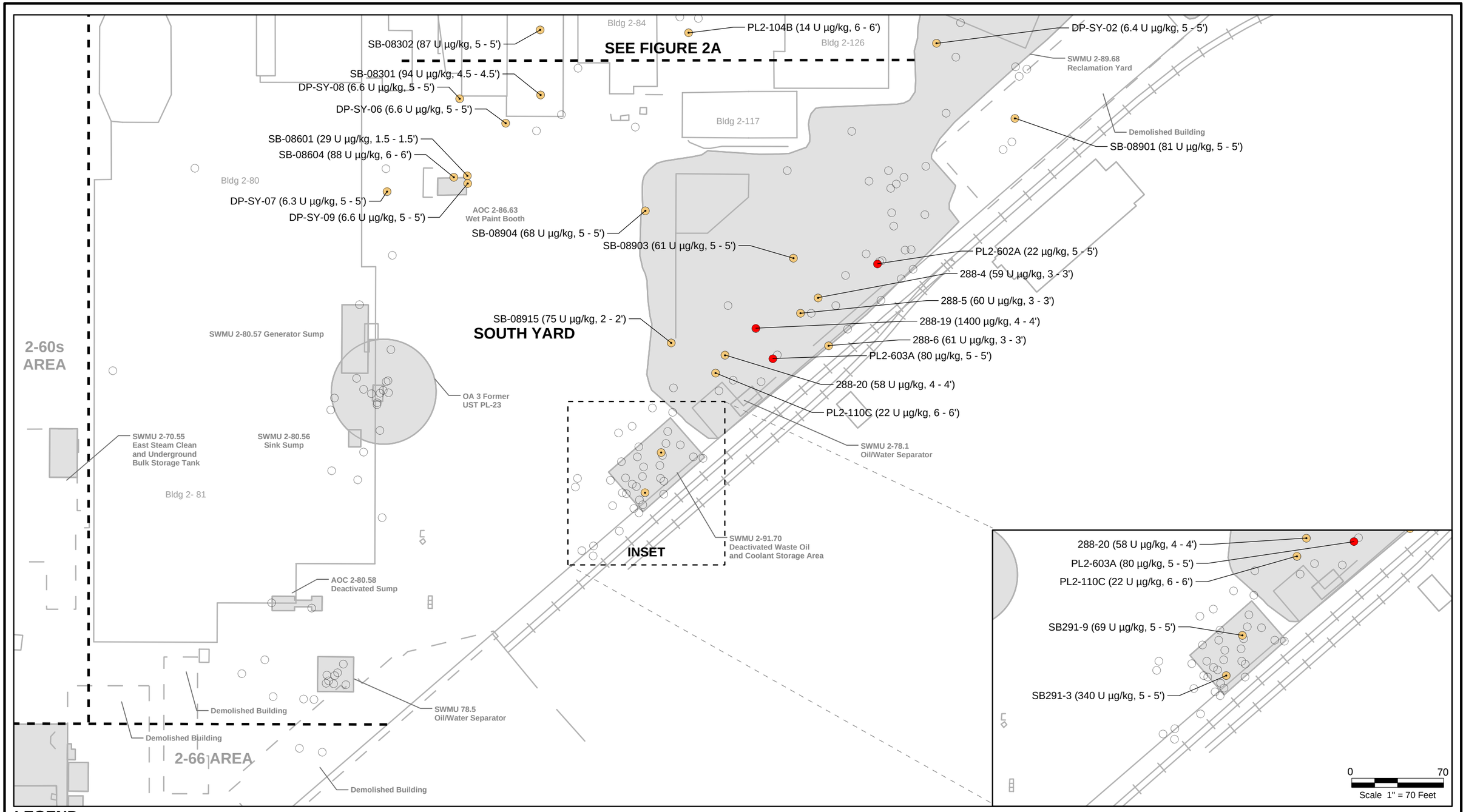
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
BENZO(A)PYRENE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_BENZO_A_PYRENE_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Golder Associates

Soil Screening Level = 113 ug/kg
Proposed Media Cleanup Level (PMCL) = 2.9 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

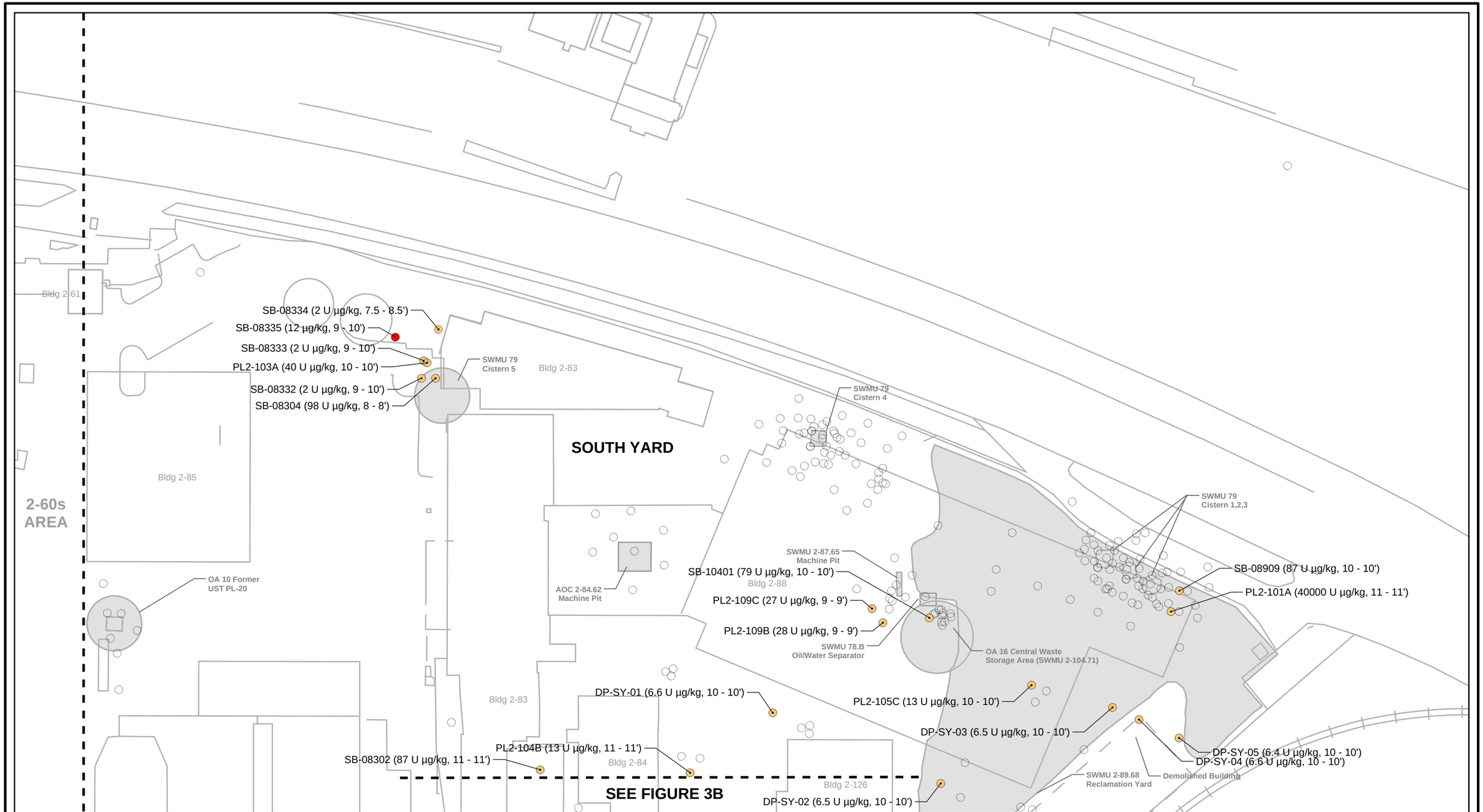
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
BENZO(A)PYRENE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_BENZO_A_PYRENE_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 113 ug/kg
Proposed Media Cleanup Level (PMCL) = 2.9 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

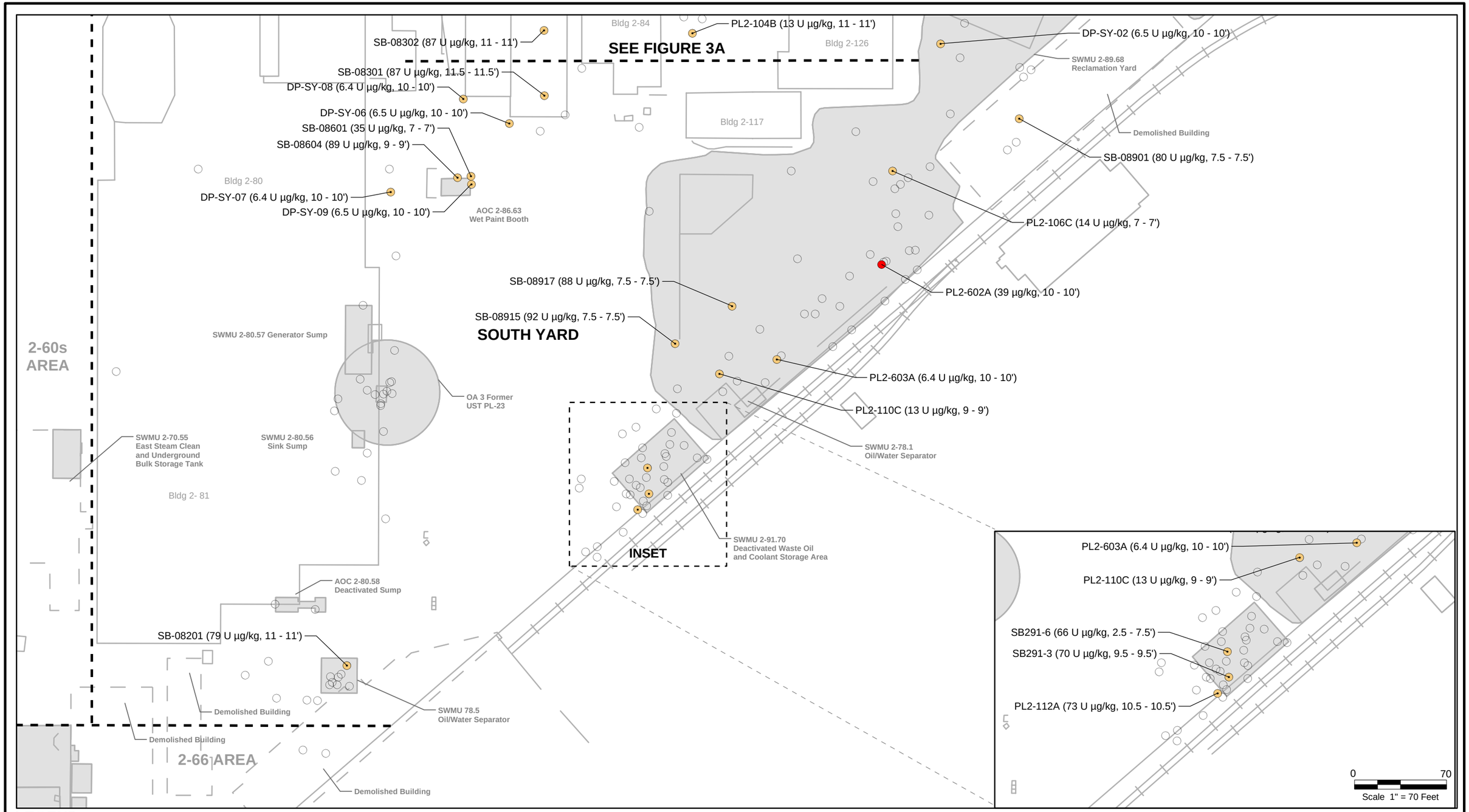
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
BENZO(A)PYRENE IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_BENZO_A_PYRENE_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 113 ug/kg
Proposed Media Cleanup Level (PMCL) = 2.9 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

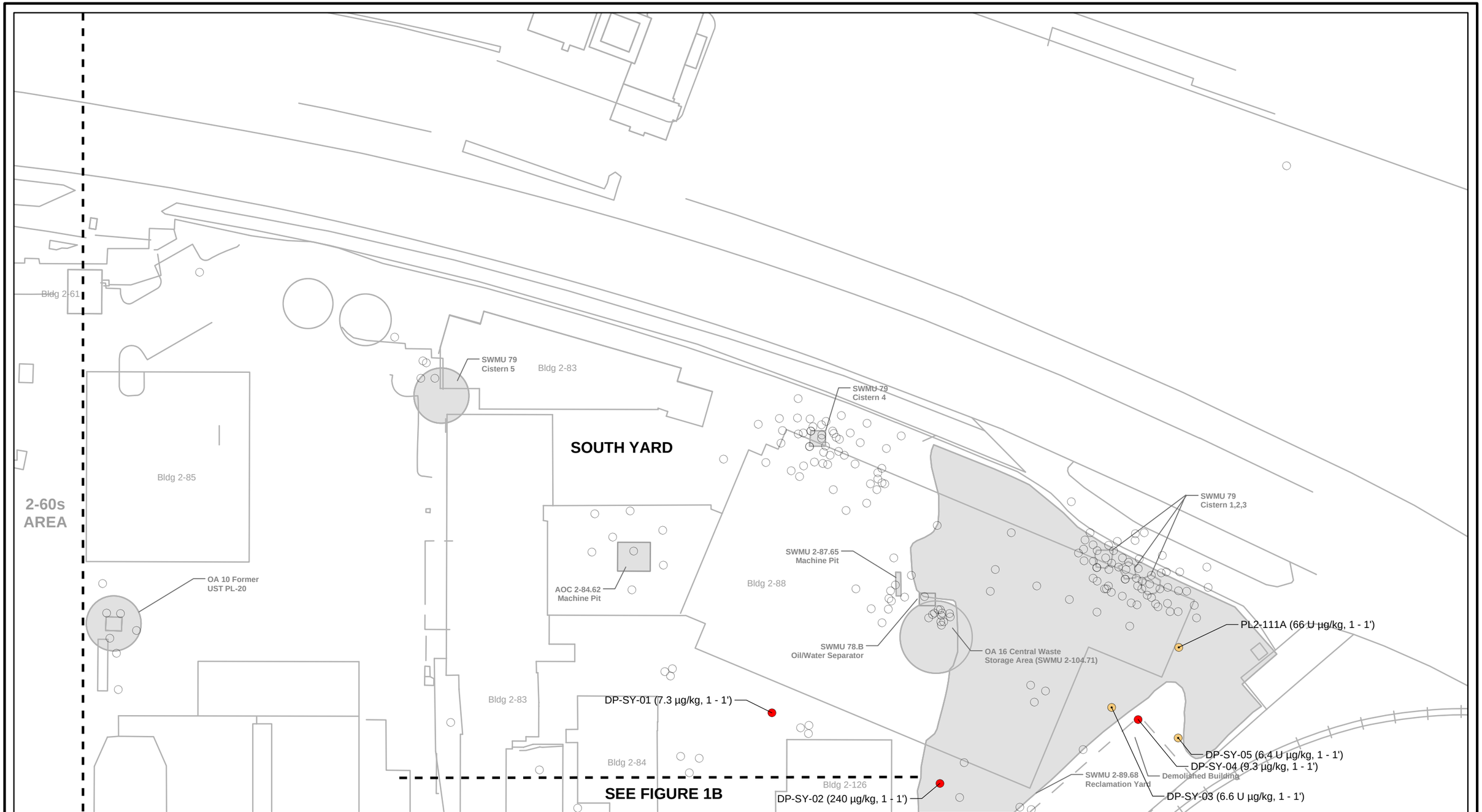
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
BENZO(A)PYRENE IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_BENZO_A_PYRENE_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 46.6 ug/kg
Proposed Media Cleanup Level (PMCL) = 2.9 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

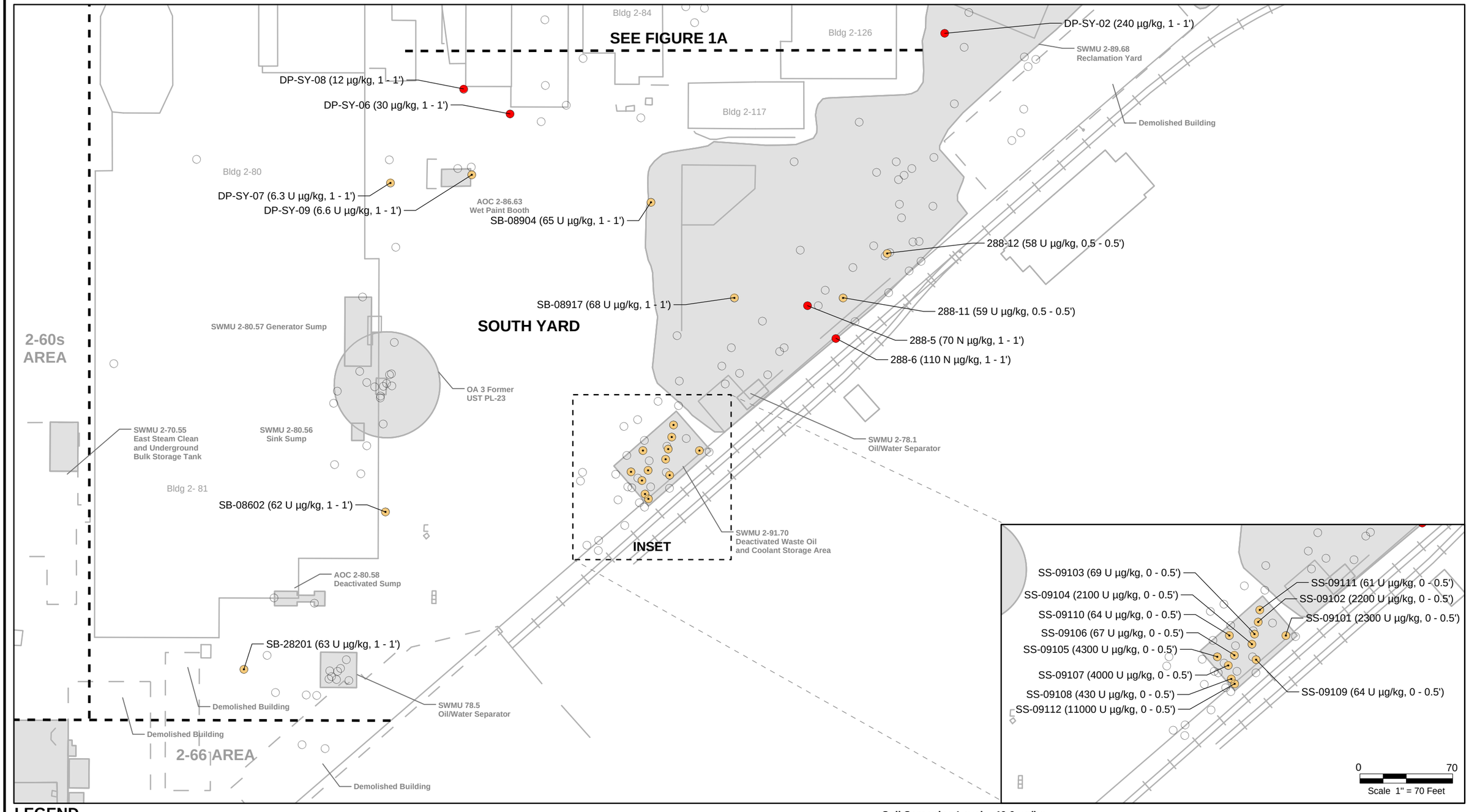
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
CHRYSENE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_CHRYSENE_1A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 46.6 ug/kg
Proposed Media Cleanup Level (PMCL) = 2.9 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

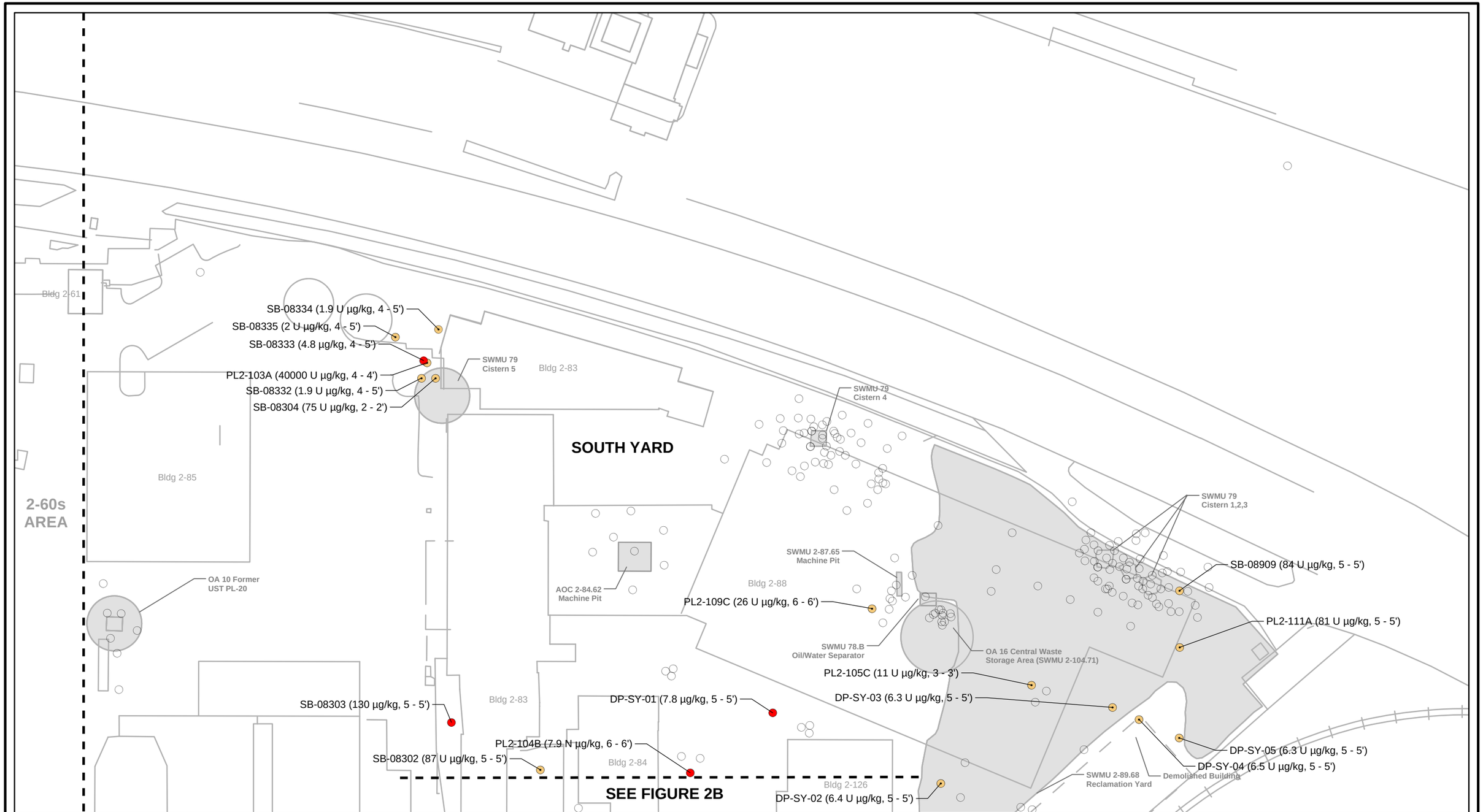
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
CHRYSENE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_CHRYSENE_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 46.6 ug/kg
Proposed Media Cleanup Level (PMCL) = 2.9 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

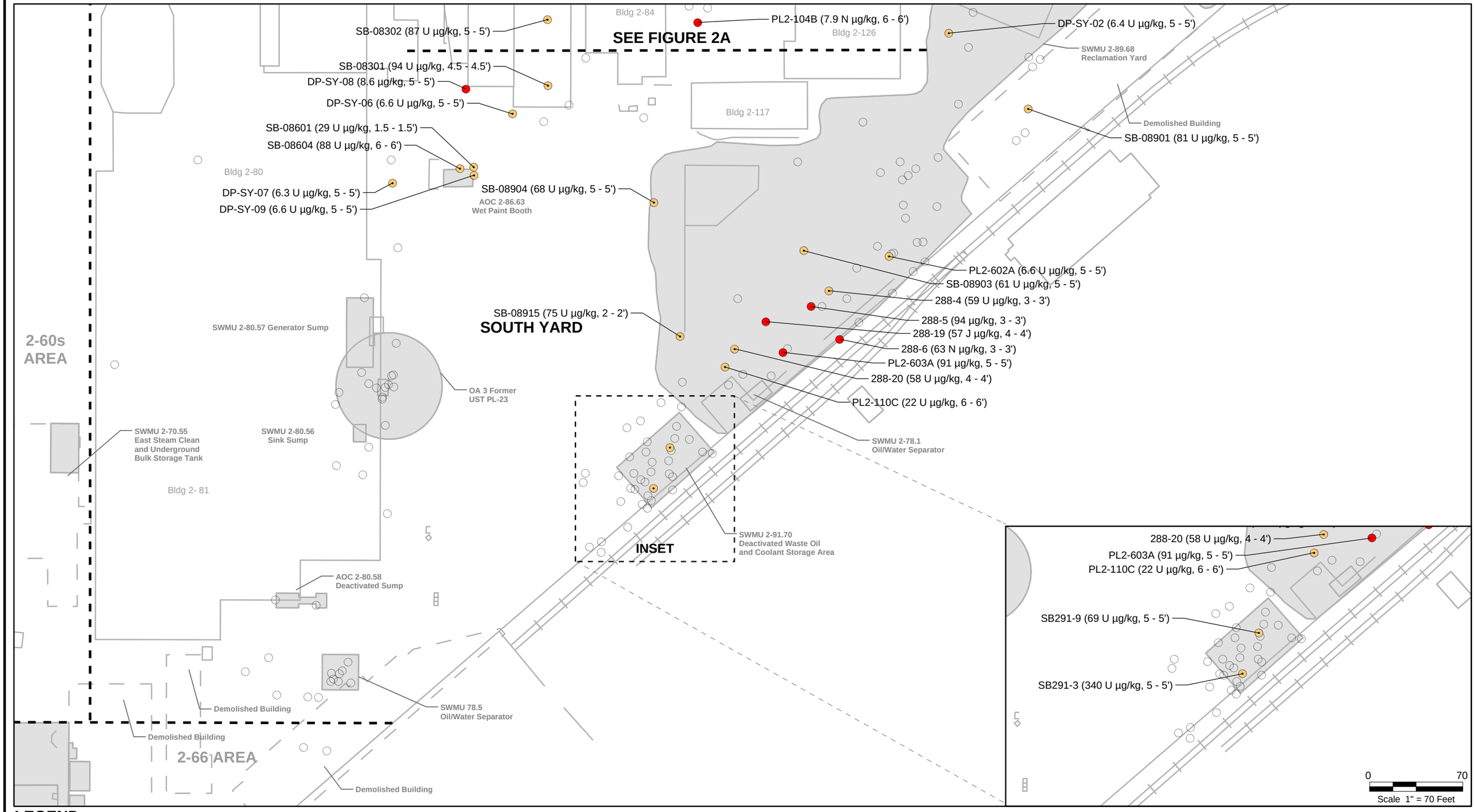
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
CHRYSENE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_CHRYSENE_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 46.6 ug/kg
Proposed Media Cleanup Level (PMCL) = 2.9 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

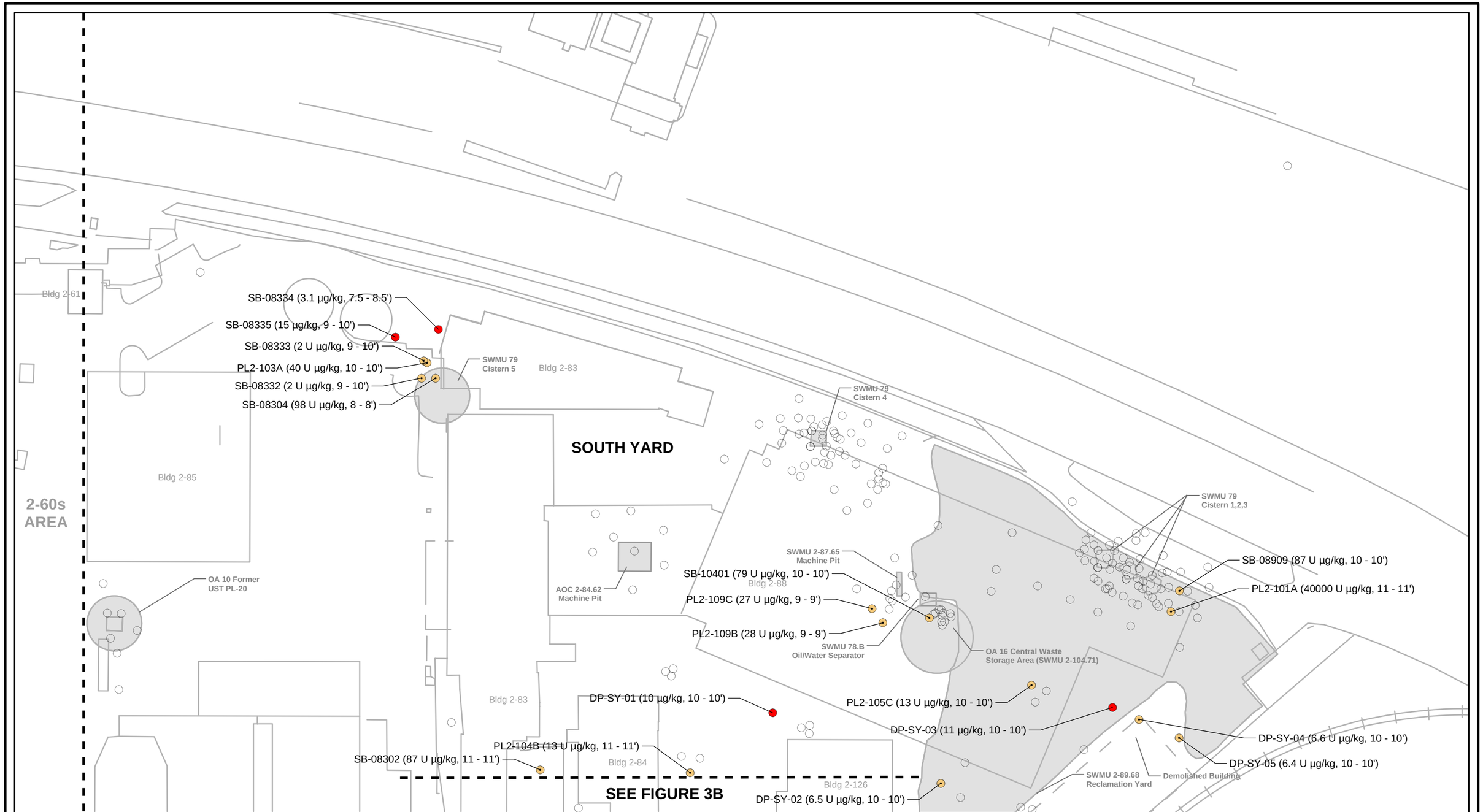
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
CHRYSENE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_CHRYSENE_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 46.6 ug/kg
Proposed Media Cleanup Level (PMCL) = 2.9 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

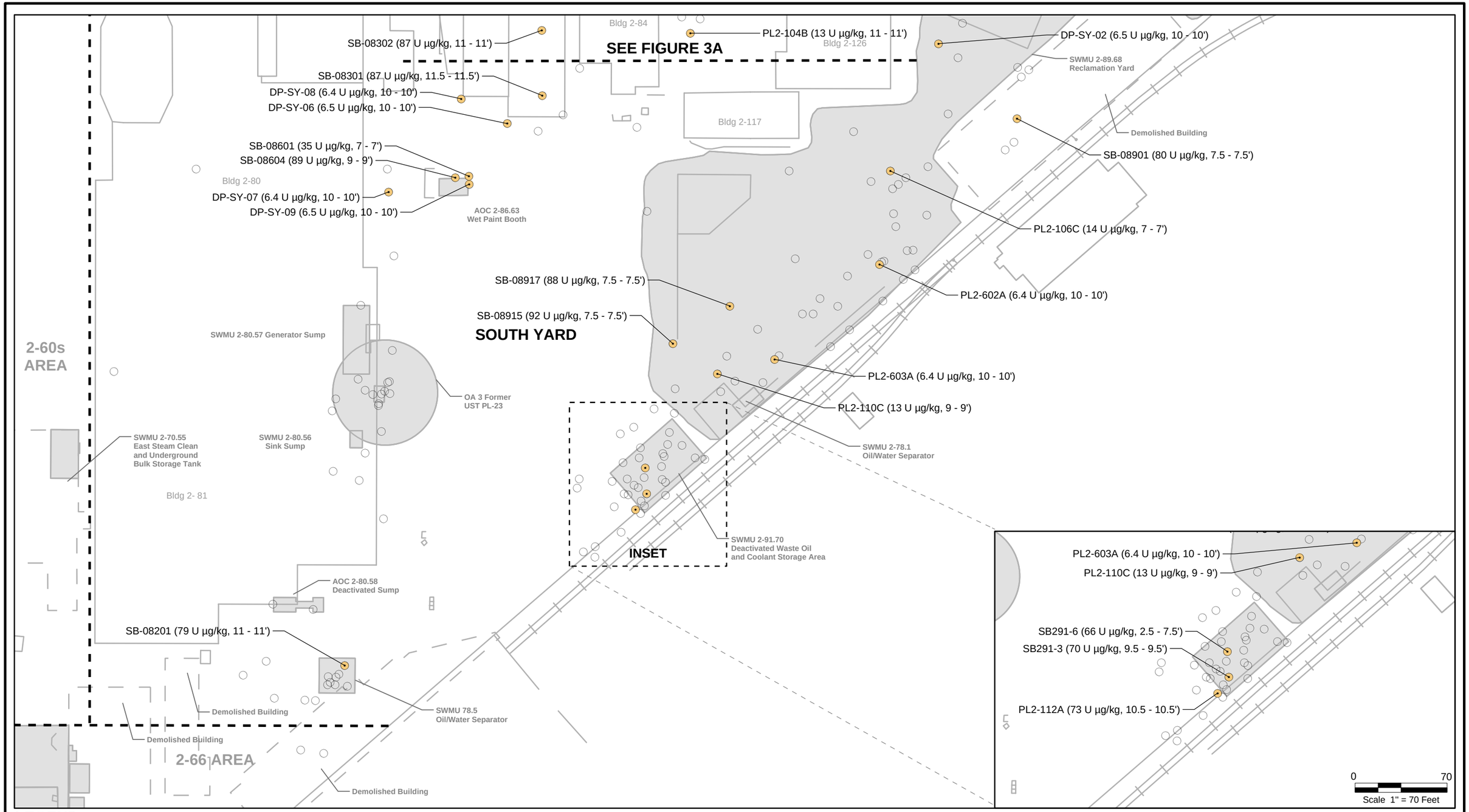
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
CHRYSENE IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_CHRYSENE_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 46.6 ug/kg
Proposed Media Cleanup Level (PMCL) = 2.9 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

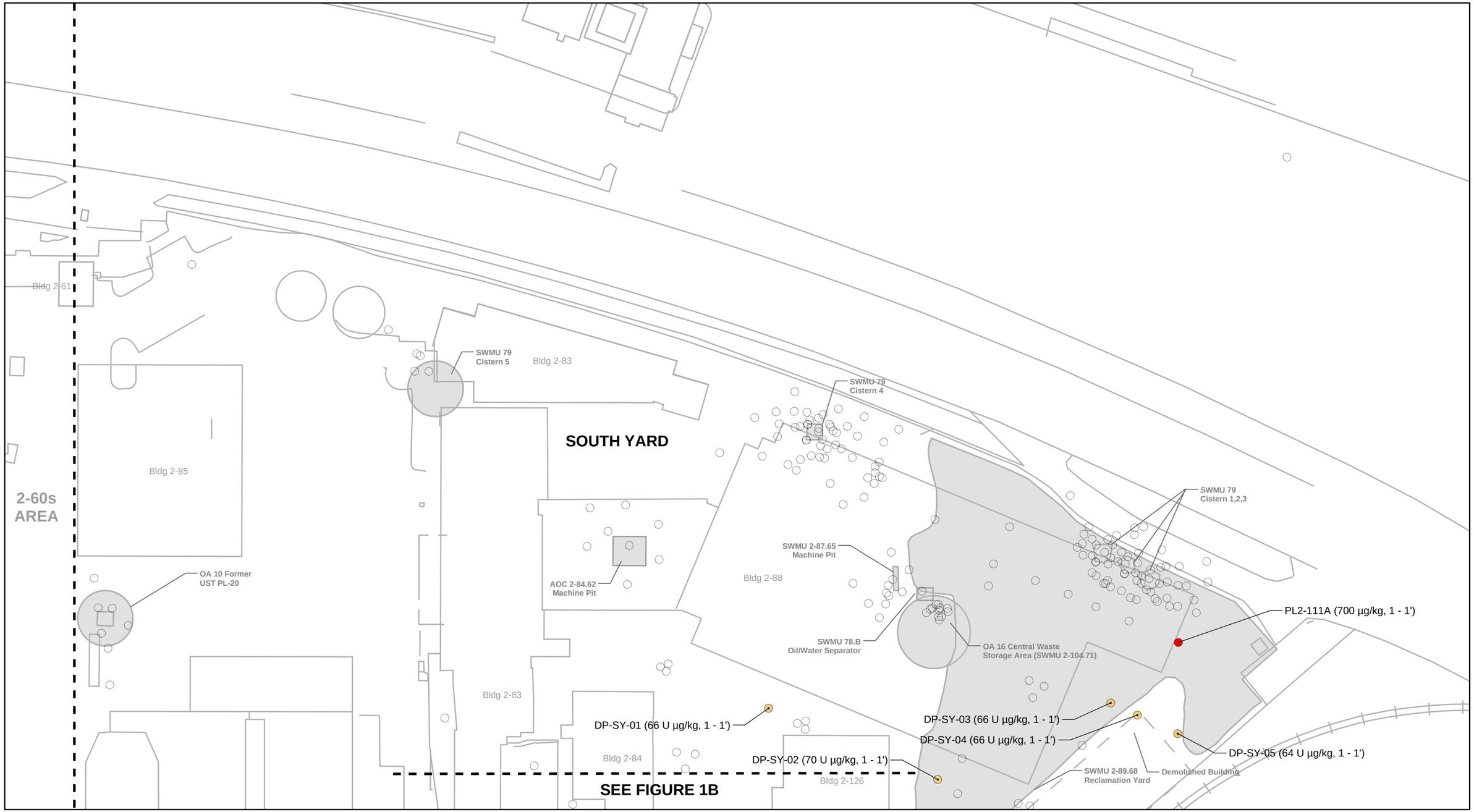
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
CHRYSENE IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_CHRYSENE_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 1,570 ug/kg
Proposed Media Cleanup Level (PMCL) = 350 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

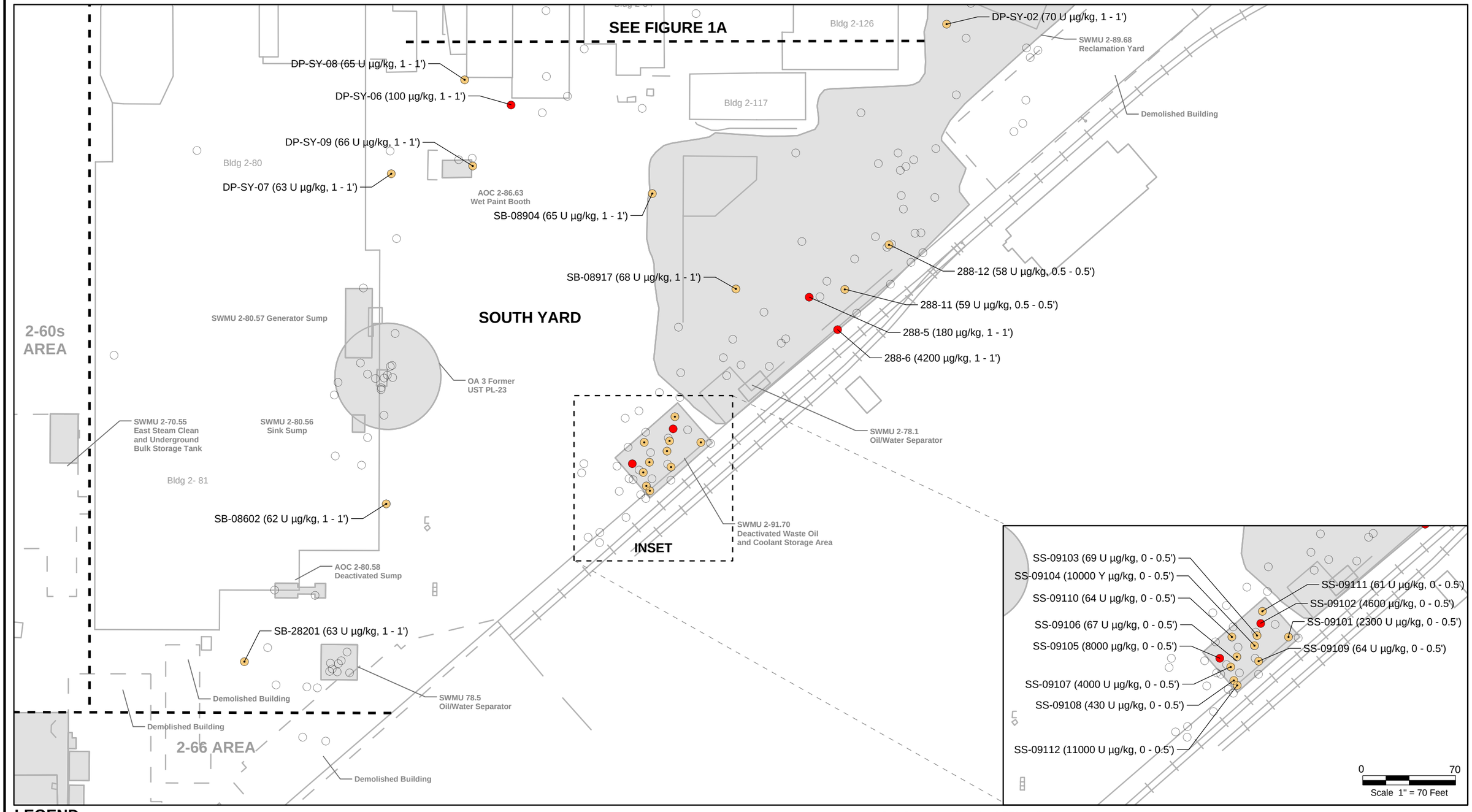
SOUTH YARD AREA (EAST), BIS(2-ETHYLHEXYL) PHTHALATE IN SOIL: DEPTH 0 - 1 FT

BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_BIS_2_ETHYL_1A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 1,570 ug/kg
Proposed Media Cleanup Level (PMCL) = 350 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

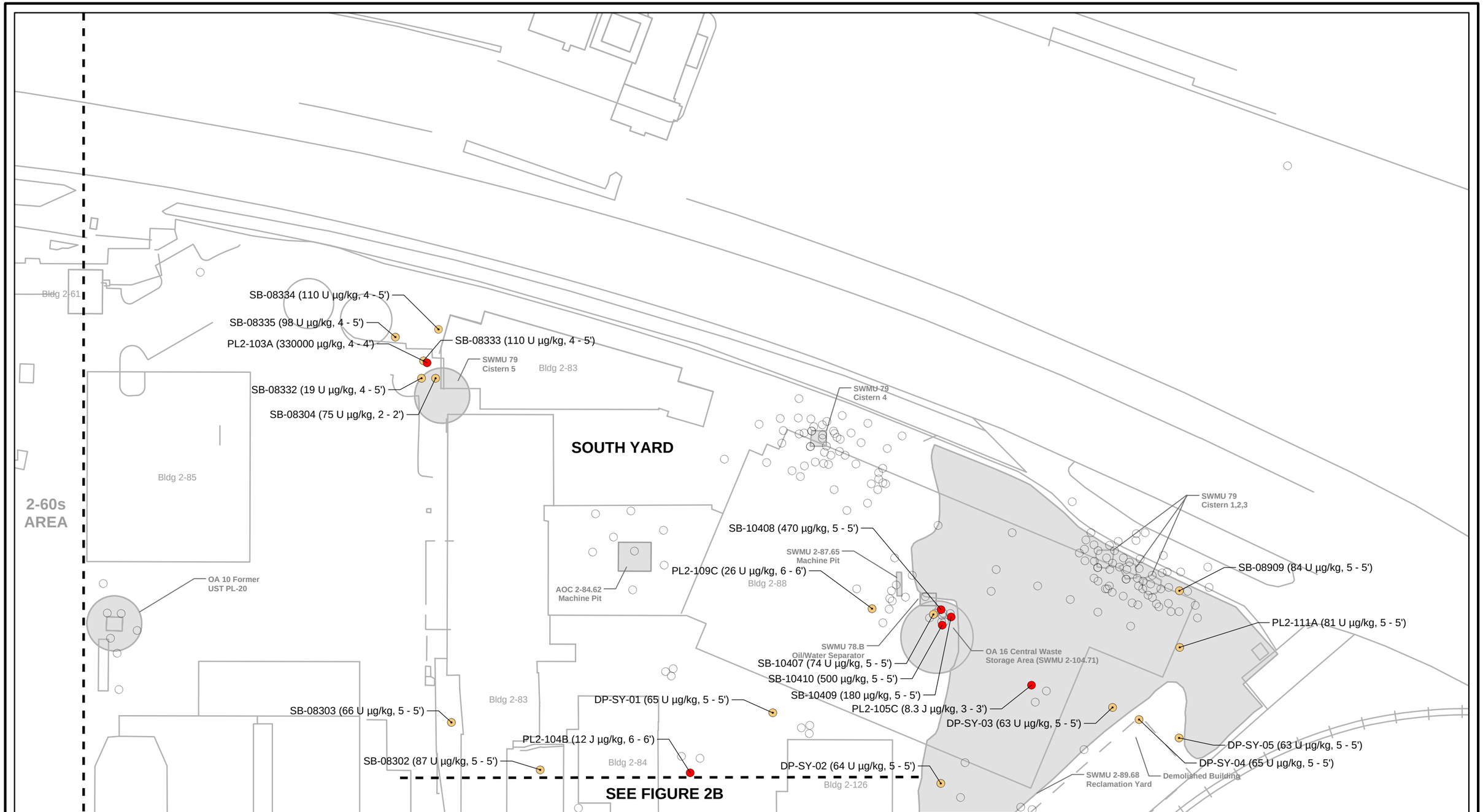
SOUTH YARD AREA (WEST), BIS(2-ETHYLHEXYL) PHTHALATE IN SOIL: DEPTH 0 - 1 FT

BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_BIS_2_ETHYL_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 1,570 ug/kg
Proposed Media Cleanup Level (PMCL) = 350 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

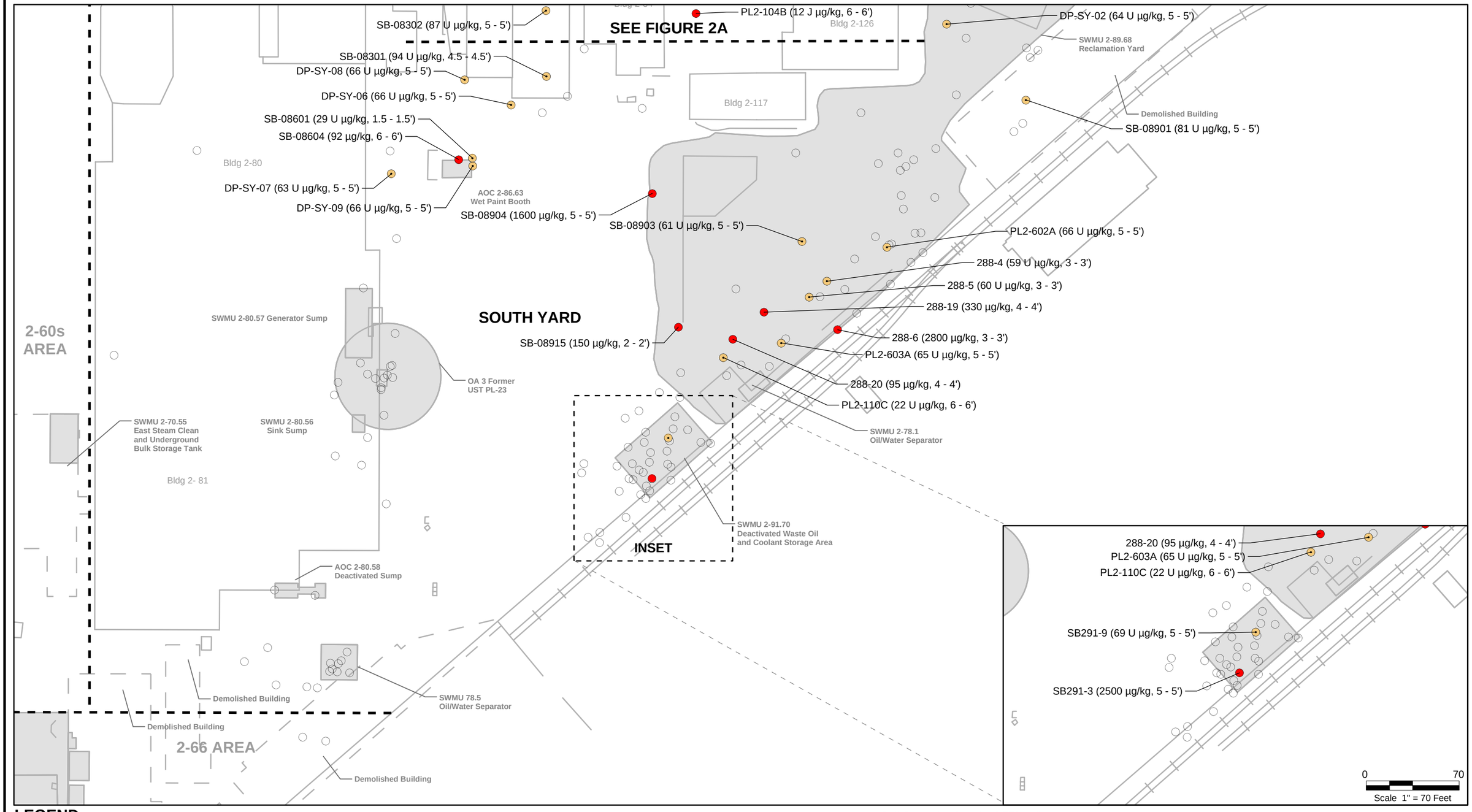
SOUTH YARD AREA (EAST), BIS(2-ETHYLHEXYL) PHTHALATE IN SOIL: DEPTH 1 - 6 FT

BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_BIS_2_ETHYL_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 1,570 ug/kg
Proposed Media Cleanup Level (PMCL) = 350 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

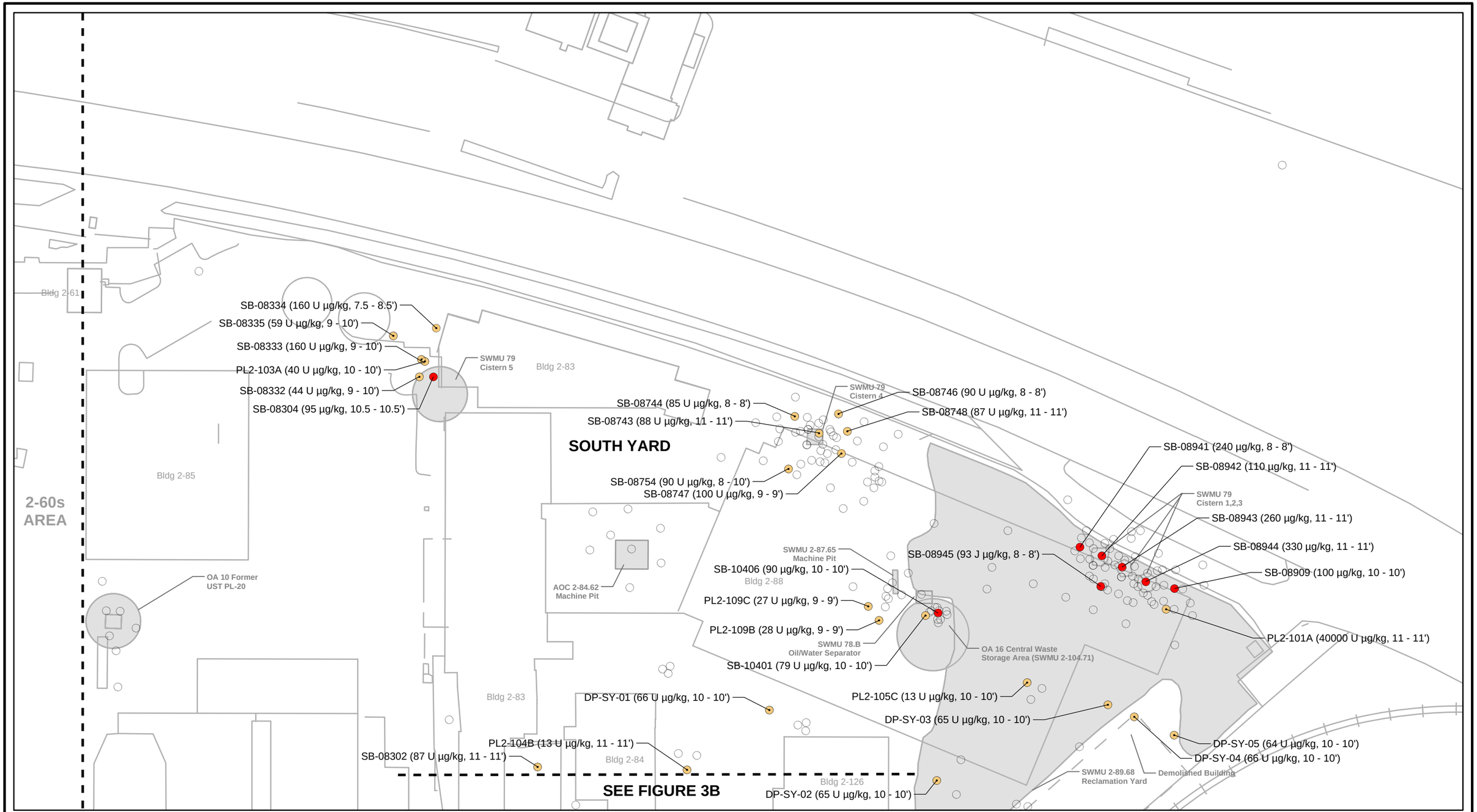
SOUTH YARD AREA (WEST), BIS(2-ETHYLHEXYL) PHTHALATE IN SOIL: DEPTH 1 - 6 FT

BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_BIS_2_ETHYL_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 1,570 ug/kg
Proposed Media Cleanup Level (PMCL) = 350 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST), BIS(2-ETHYLHEXYL) PHTHALATE IN SOIL: DEPTH 6 - 12 FT

BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_BIS_2_ETHYL_3A_051404.mxd

Golder Associates

SB-08302 (87 U µg/kg, 11 - 11')

SB-08301 (87 U µg/kg, 11.5 - 11.5')

DP-SY-08 (64 U µg/kg, 10 - 10')

DP-SY-06 (65 U µg/kg, 10 - 10')

SB-08601 (35 U µg/kg, 7 - 7')

SB-08604 (89 U µg/kg, 9 - 9')

DP-SY-07 (64 U µg/kg, 10 - 10')

DP-SY-09 (65 U µg/kg, 10 - 10')

SEE FIGURE 3A

PL2-104B (13 U µg/kg, 11 - 11')

DP-SY-02 (65 U µg/kg, 10 - 10')

SWMU 2-89.68
Reclamation Yard

Demolished Building

SB-08901 (80 U µg/kg, 7.5 - 7.5')

PL2-106C (14 U µg/kg, 7 - 7')

PL2-602A (64 U µg/kg, 10 - 10')

SB-08917 (170 µg/kg, 7.5 - 7.5')

SB-08915 (92 U µg/kg, 7.5 - 7.5')

PL2-603A (64 U µg/kg, 10 - 10')

PL2-110C (8.1 J µg/kg, 9 - 9')

SWMU 2-78.1
Oil/Water Separator

SWMU 2-91.70
Deactivated Waste Oil
and Coolant Storage Area

Bldg 2-126

Bldg 2-117

Bldg 2-80

AOC 2-86.63
Wet Paint Booth

SOUTH YARD

SWMU 2-80.57 Generator Sump

OA 3 Former
UST PL-23

2-60s AREA

SWMU 2-70.55
East Steam Clean
and Underground
Bulk Storage Tank

SWMU 2-80.56
Sink Sump

Bldg 2- 81

AOC 2-80.58
Deactivated Sump

SB-08201 (100 B µg/kg, 11 - 11')

Demolished Building

SWMU 78.5
Oil/Water Separator

Demolished Building

2-66 AREA

Demolished Building

INSET

PL2-603A (64 U µg/kg, 10 - 10')

PL2-110C (8.1 J µg/kg, 9 - 9')

SB291-6 (170 µg/kg, 2.5 - 7.5')

SB291-3 (110 µg/kg, 9.5 - 9.5')

PL2-112A (73 U µg/kg, 10.5 - 10.5')

0 70

Scale 1" = 70 Feet

LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 1,570 ug/kg
Proposed Media Cleanup Level (PMCL) = 350 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

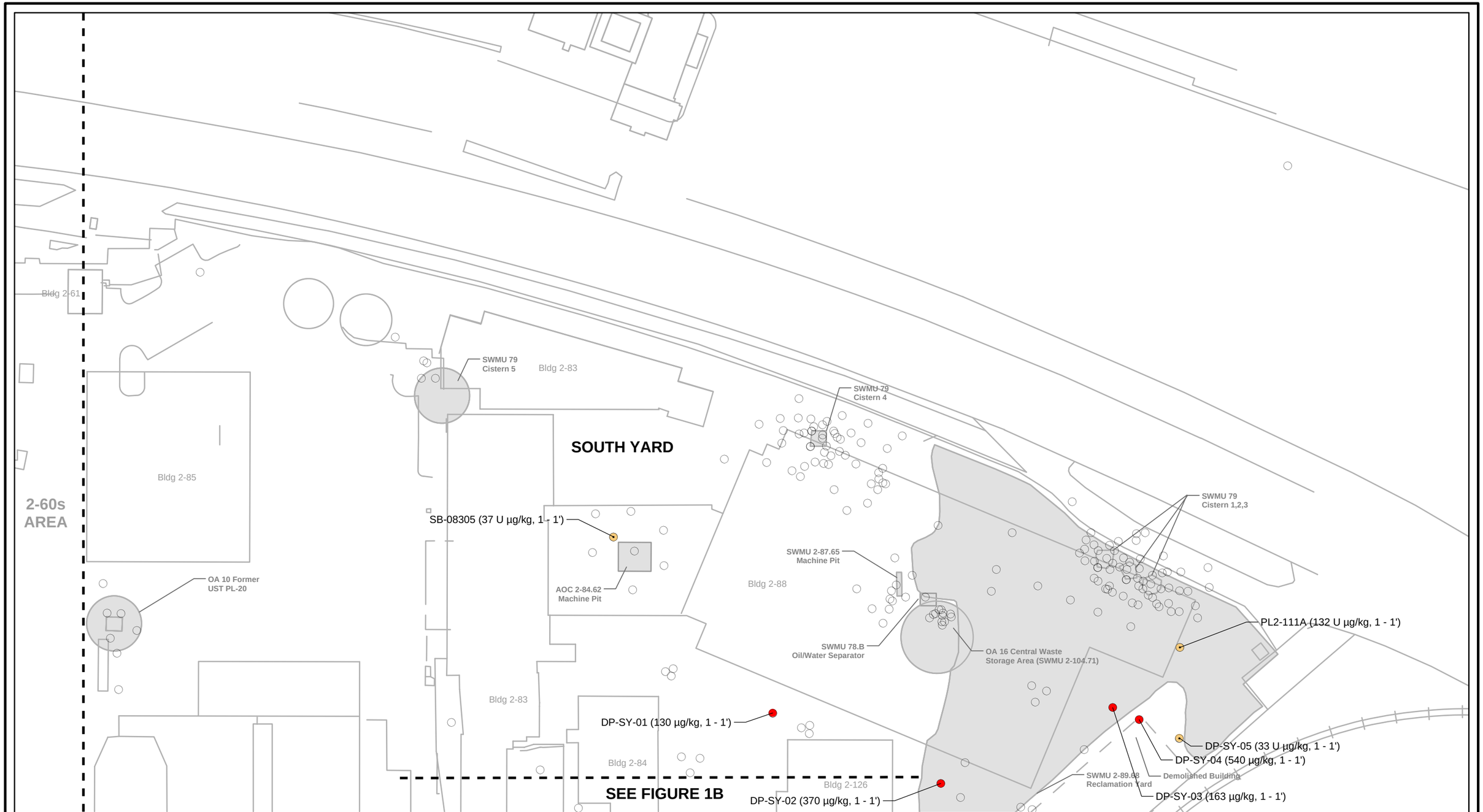
SOUTH YARD AREA (WEST), BIS(2-ETHYLHEXYL) PHTHALATE IN SOIL: DEPTH 6 - 12 FT

BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: **3B**

0131646600_BIS_2_ETHYL_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

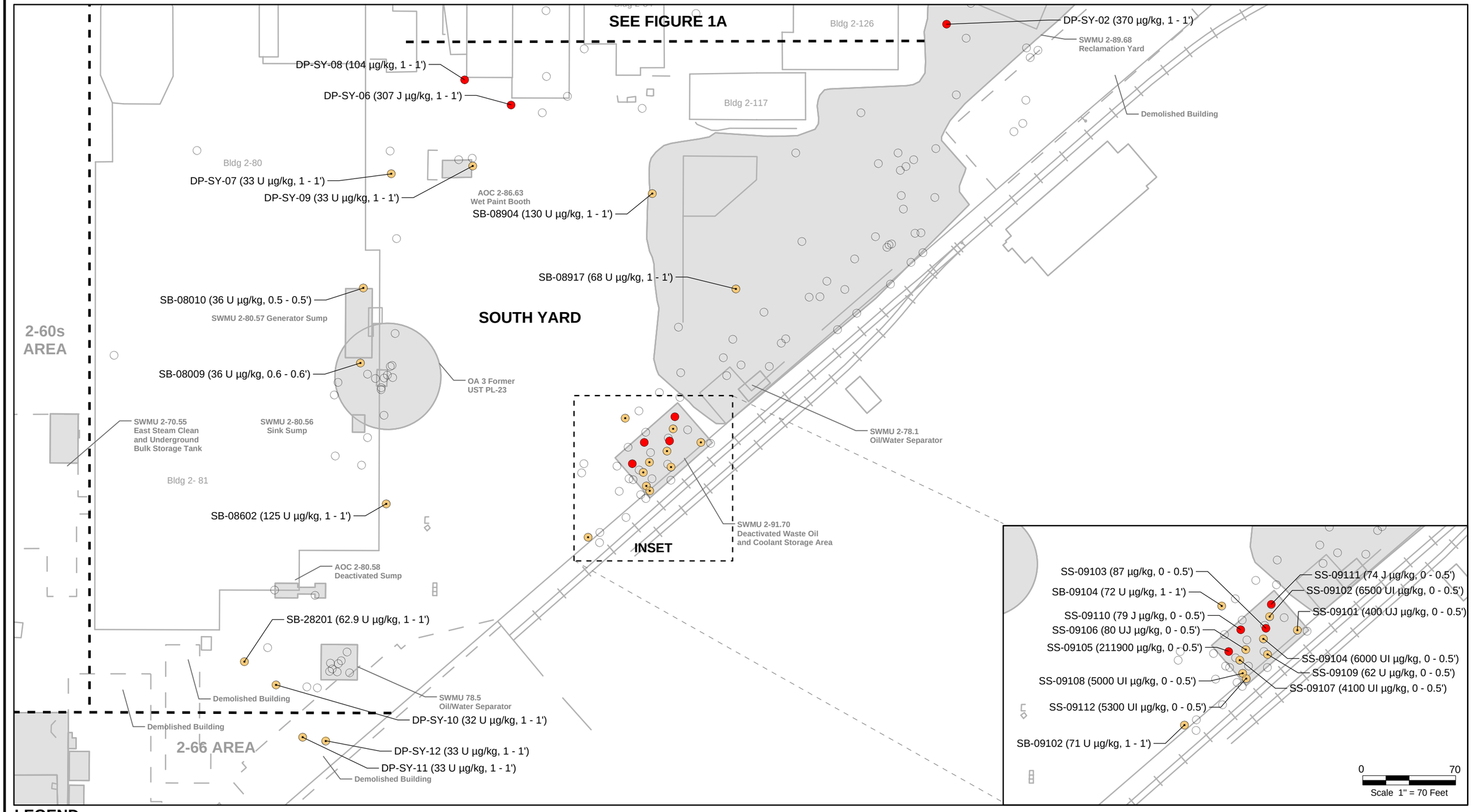
Soil Screening Level = 33 ug/kg
Proposed Media Cleanup Level (PMCL) = 33 ug/kg
(Weston, 1999)

SOUTH YARD AREA (EAST)
TOTAL PCBS IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_PCBS_1A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

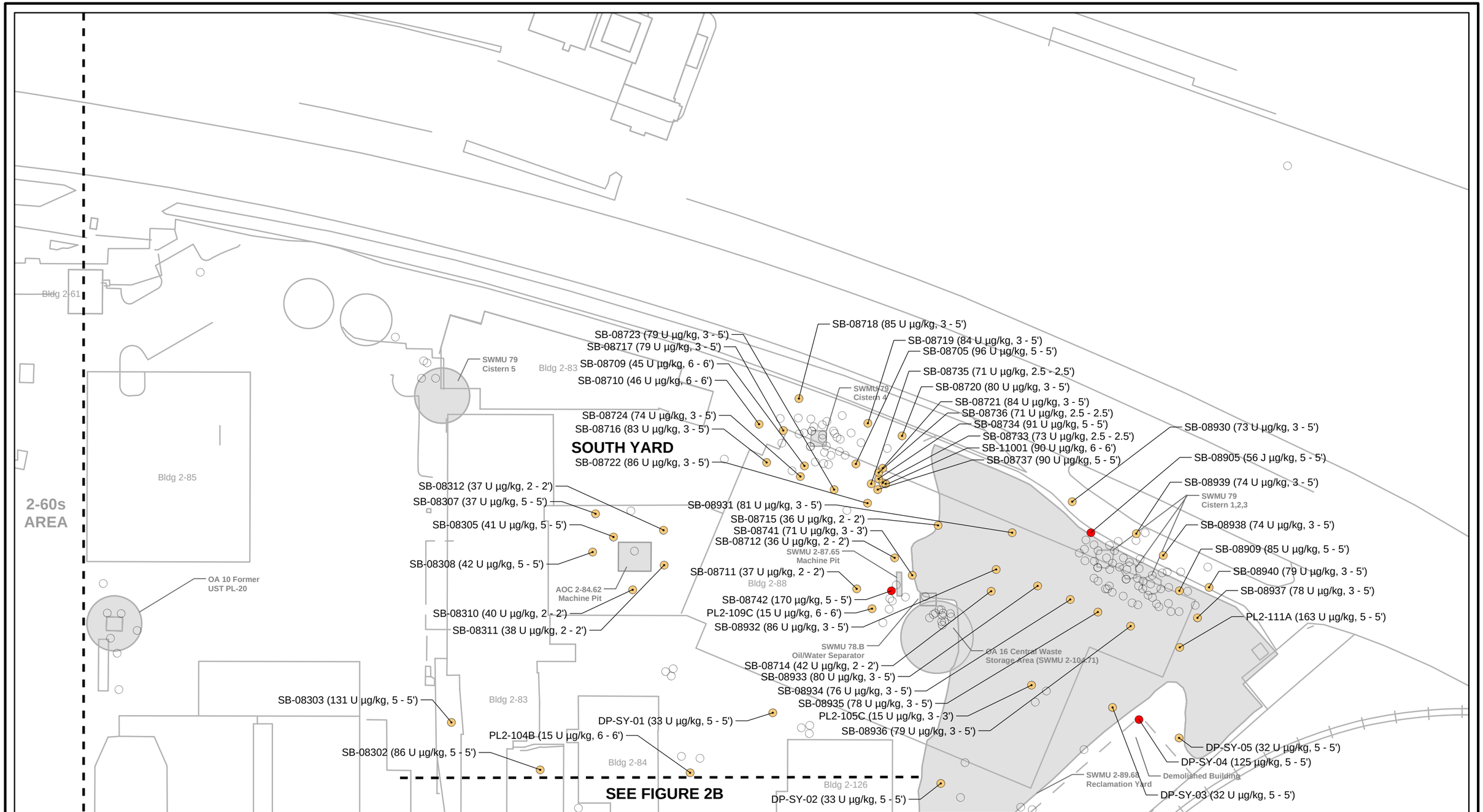
Soil Screening Level = 33 ug/kg
Proposed Media Cleanup Level (PMCL) = 33 ug/kg
(Weston, 1999)

SOUTH YARD AREA (WEST)
TOTAL PCBS IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_PCBS_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

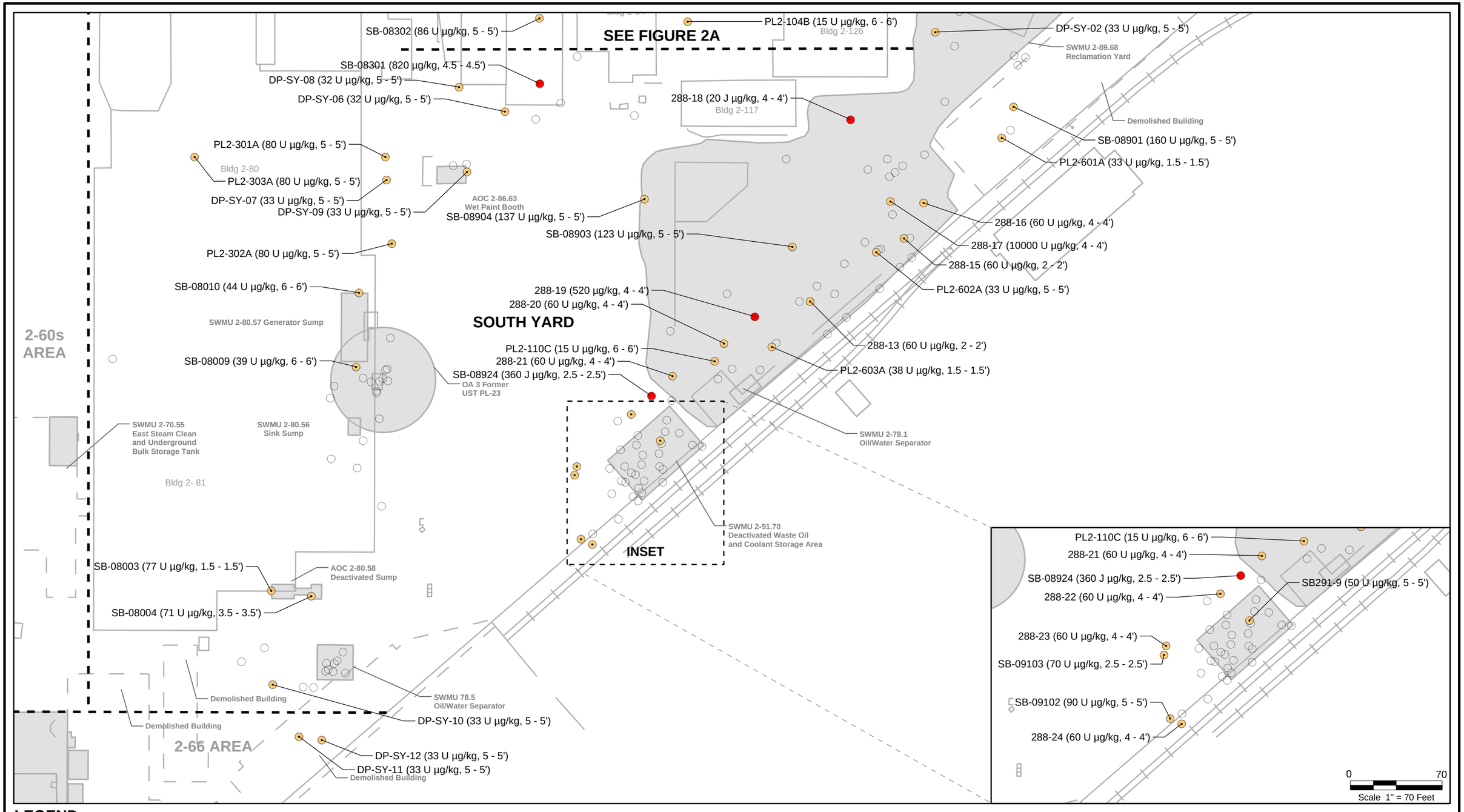
Soil Screening Level = 33 ug/kg
Proposed Media Cleanup Level (PMCL) = 33 ug/kg
(Weston, 1999)

SOUTH YARD AREA (EAST)
TOTAL PCBS IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_PCBS_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

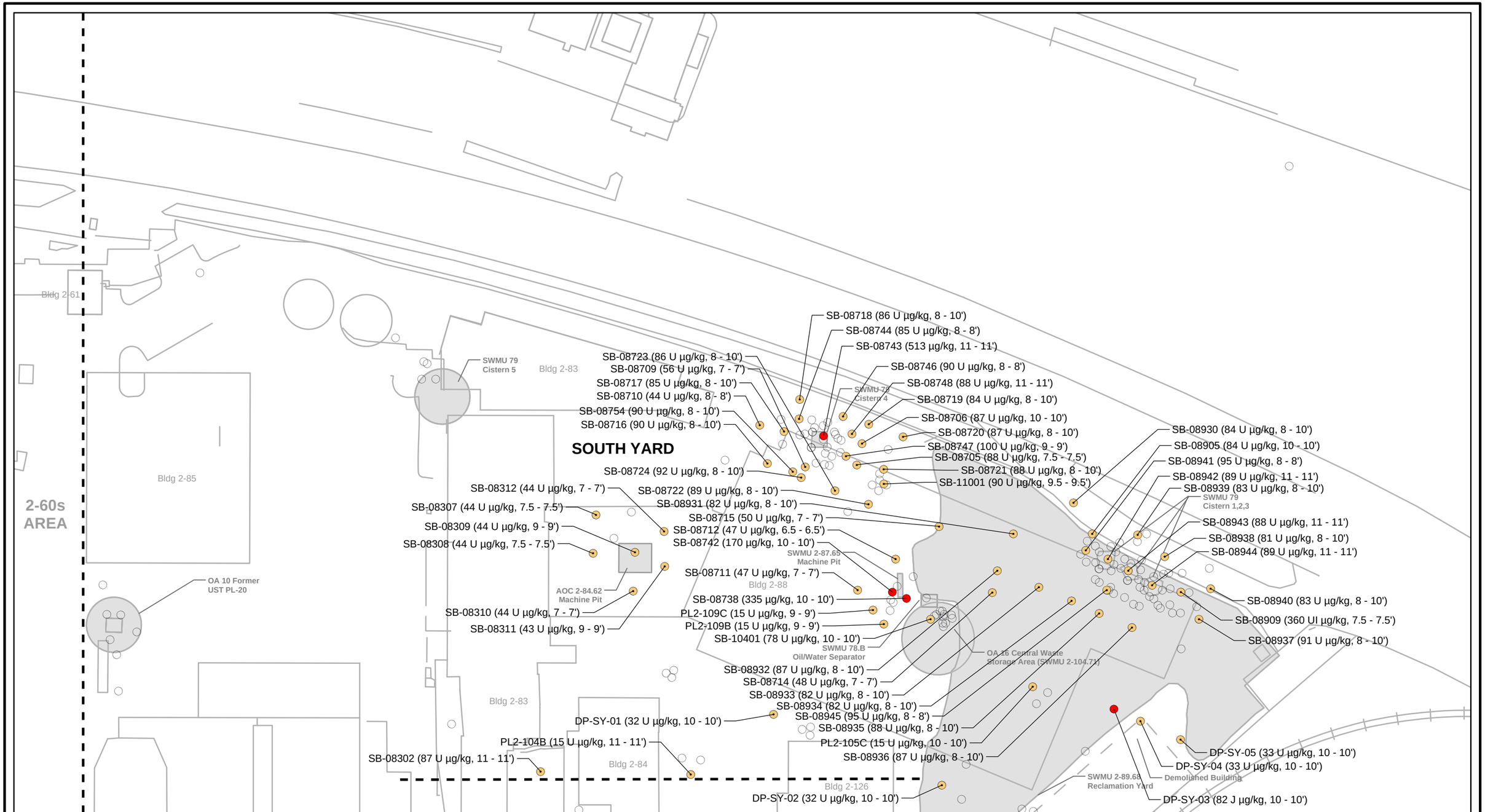
Soil Screening Level = 33 ug/kg
Proposed Media Cleanup Level (PMCL) = 33 ug/kg
(Weston, 1999)

SOUTH YARD AREA (WEST)
TOTAL PCBS IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_PCBS_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

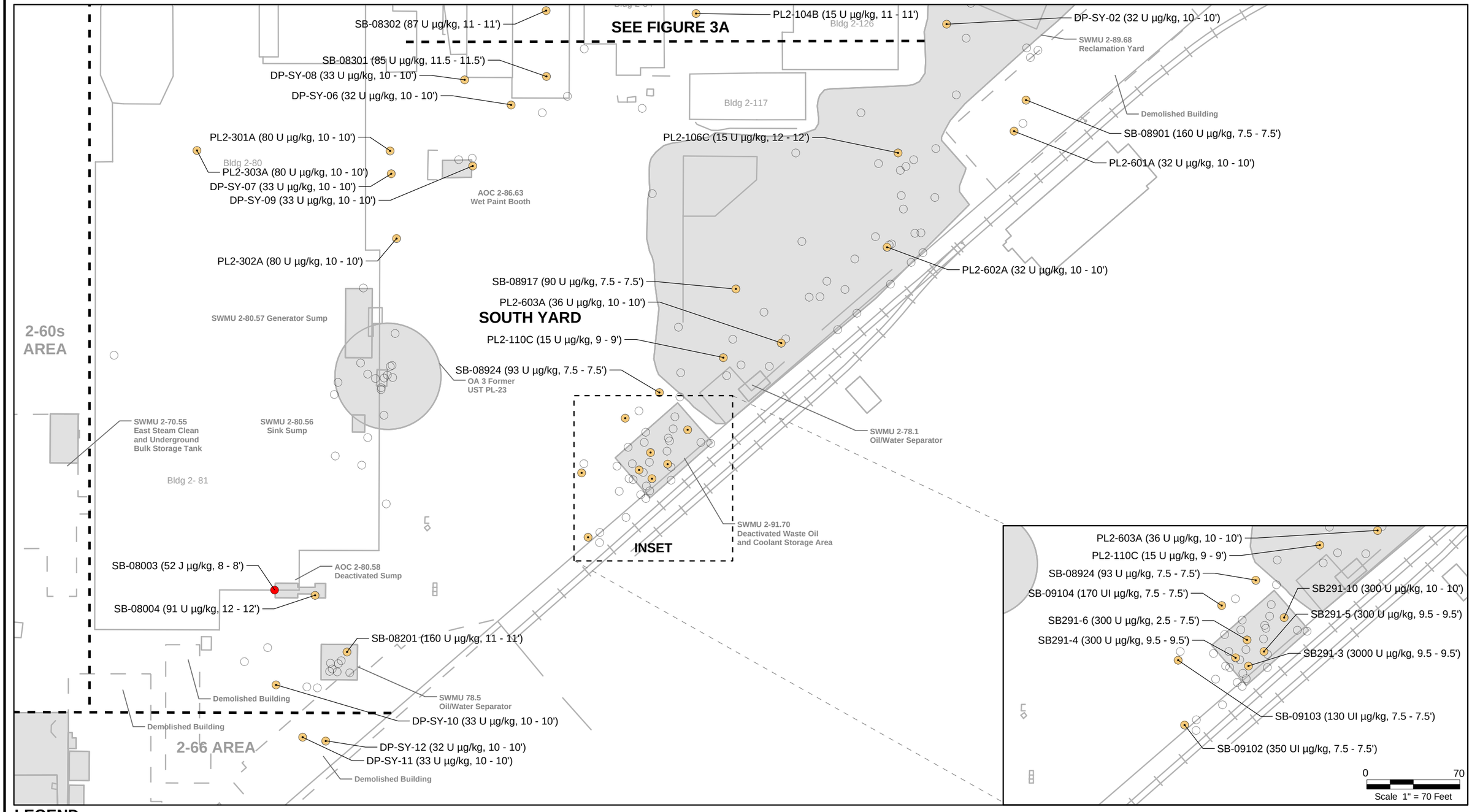
Soil Screening Level = 33 ug/kg
Proposed Media Cleanup Level (PMCL) = 33 ug/kg
(Weston, 1999)

SOUTH YARD AREA (EAST)
TOTAL PCBS IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_PCBS_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

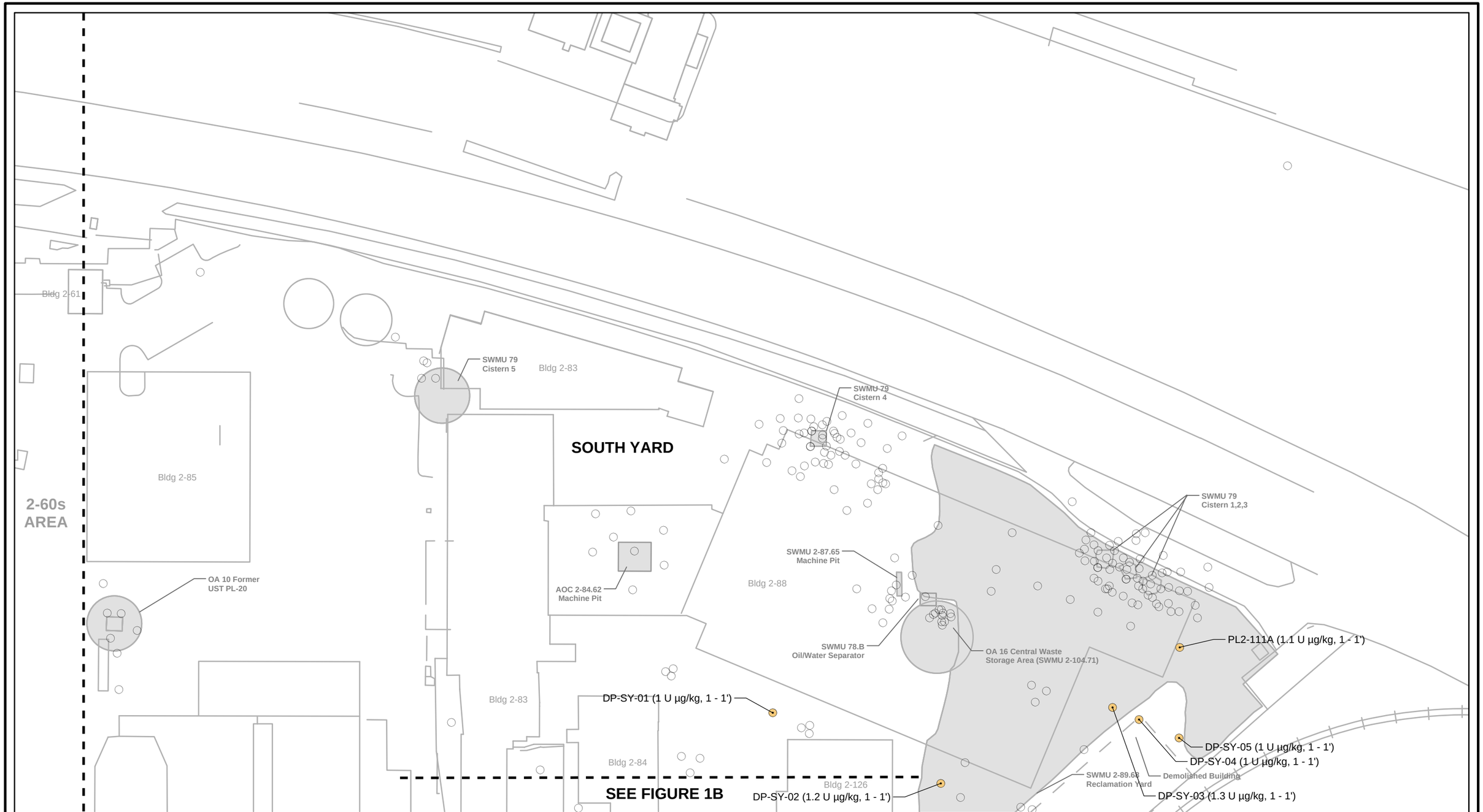
Soil Screening Level = 33 ug/kg
Proposed Media Cleanup Level (PMCL) = 33 ug/kg
(Weston, 1999)

SOUTH YARD AREA (WEST)
TOTAL PCBS IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_PCBS_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 25.3 ug/kg
Proposed Media Cleanup Level (PMCL) = 4,300 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

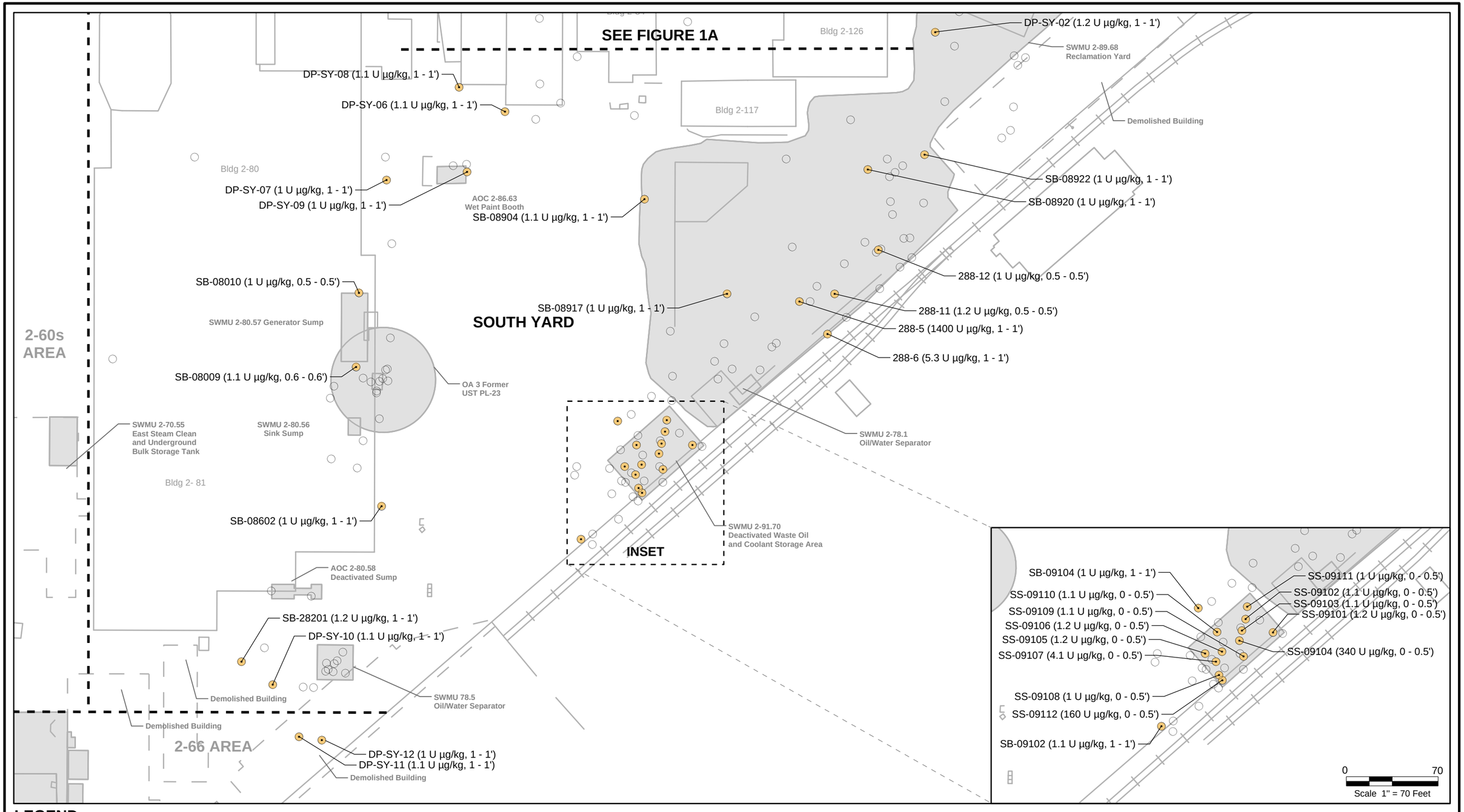
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
BENZENE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_BENZENE_1A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 25.3 ug/kg
Proposed Media Cleanup Level (PMCL) = 4,300 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

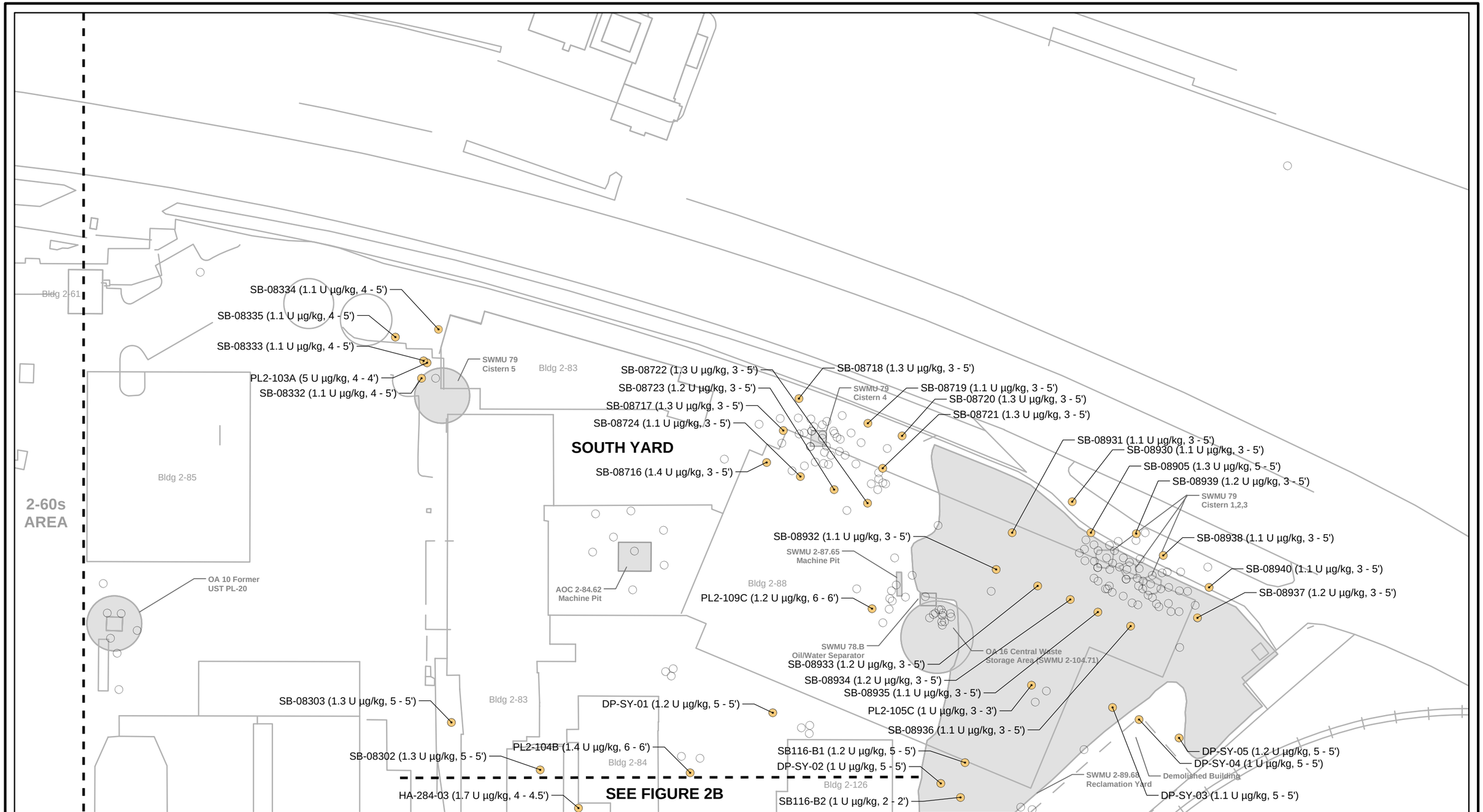
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
BENZENE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_BENZENE_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 25.3 ug/kg
Proposed Media Cleanup Level (PMCL) = 4,300 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

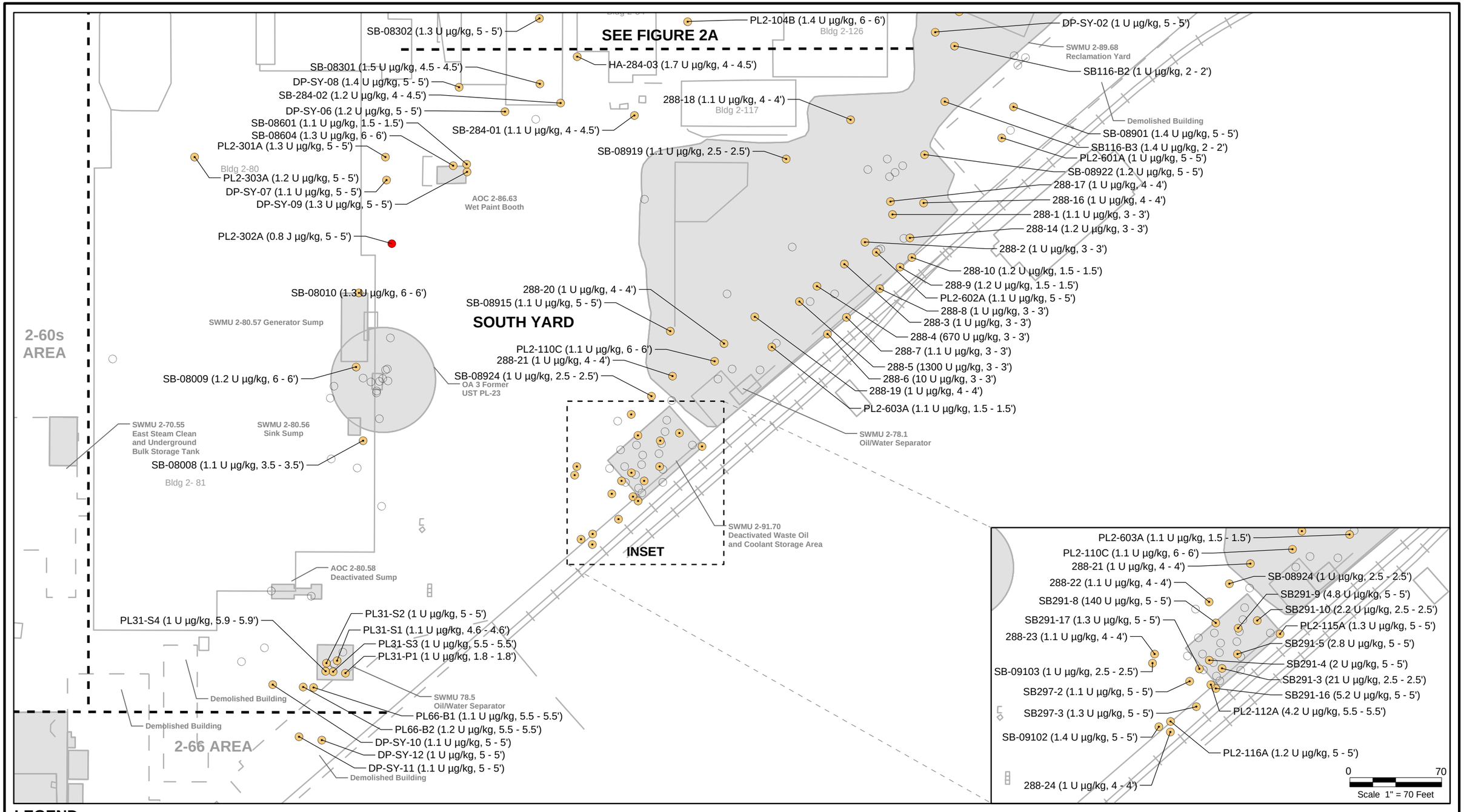
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
BENZENE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_BENZENE_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 25.3 ug/kg
Proposed Media Cleanup Level (PMCL) = 4,300 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

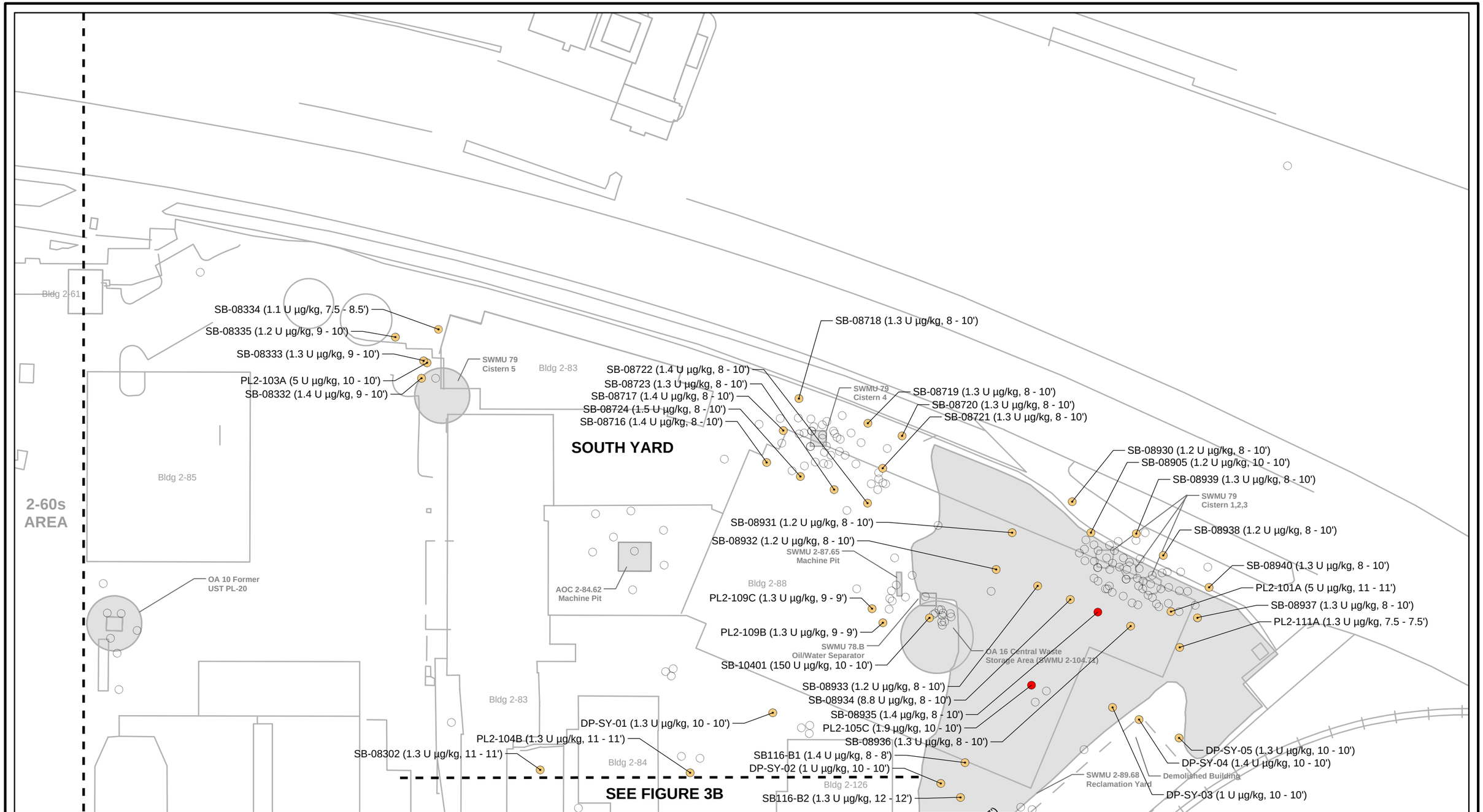
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
BENZENE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_BENZENE_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 25.3 ug/kg
Proposed Media Cleanup Level (PMCL) = 4,300 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

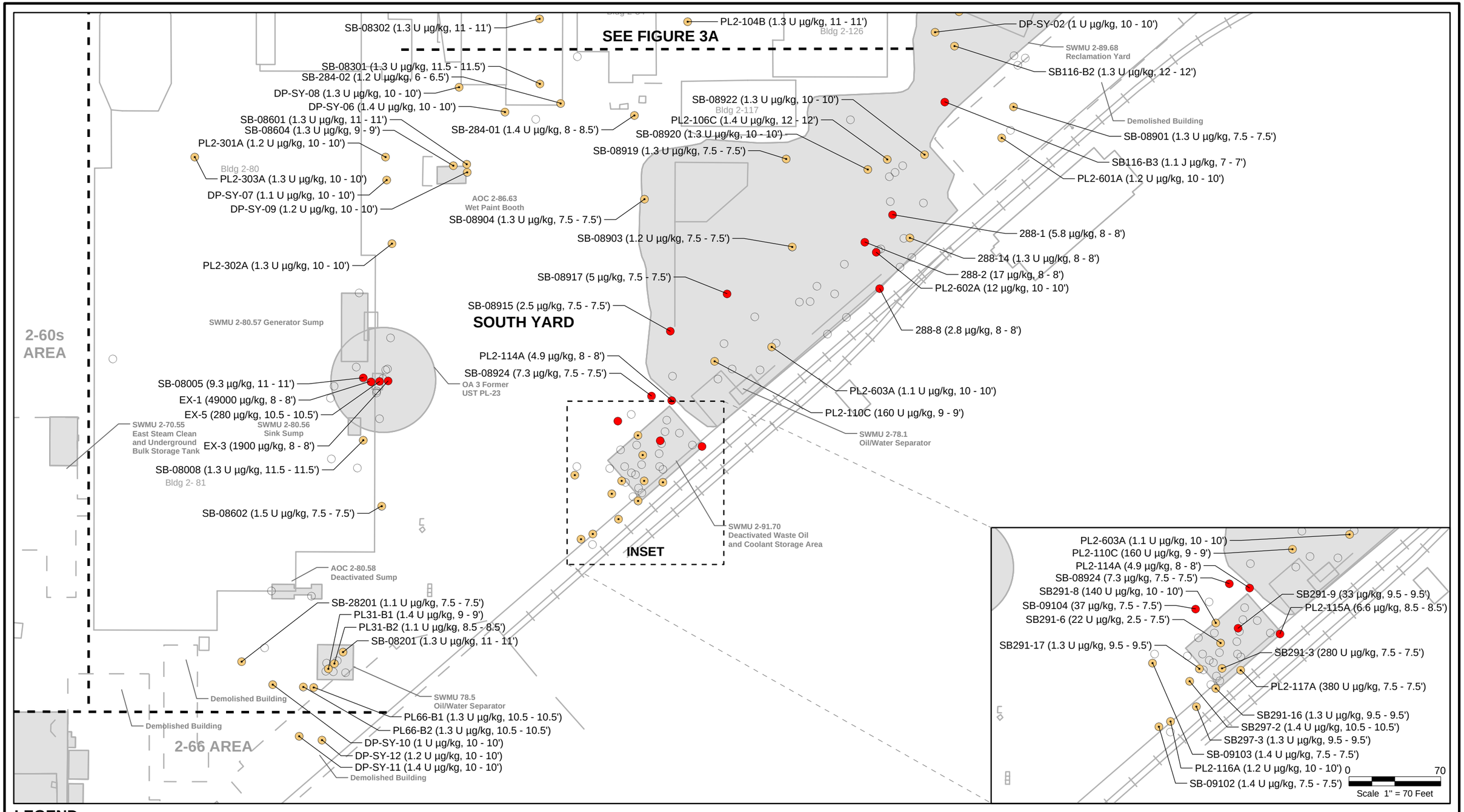
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
BENZENE IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_BENZENE_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 25.3 ug/kg
Proposed Media Cleanup Level (PMCL) = 4,300 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

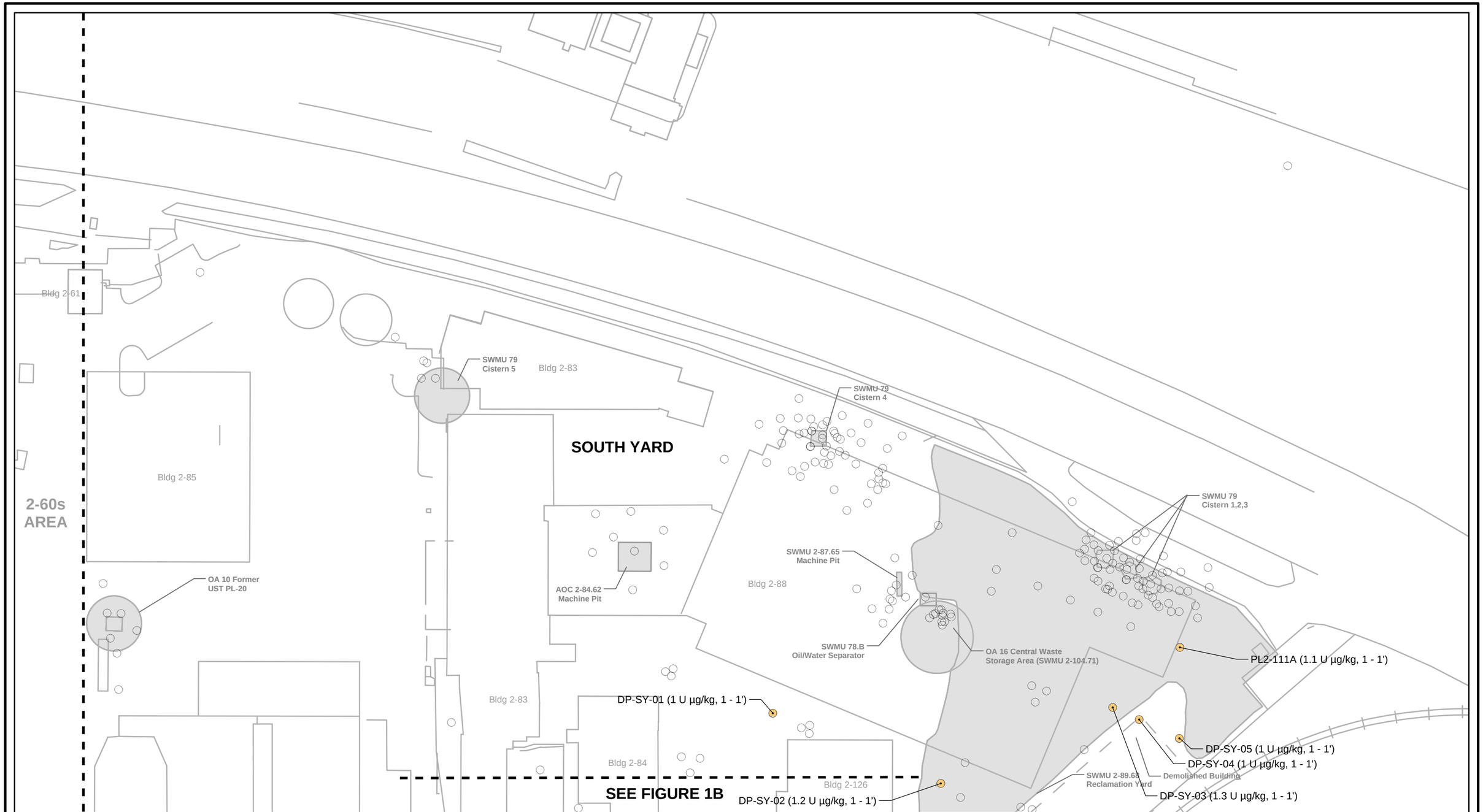
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
BENZENE IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_BENZENE_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 2.73 ug/kg
Proposed Media Cleanup Level (PMCL) = 190 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

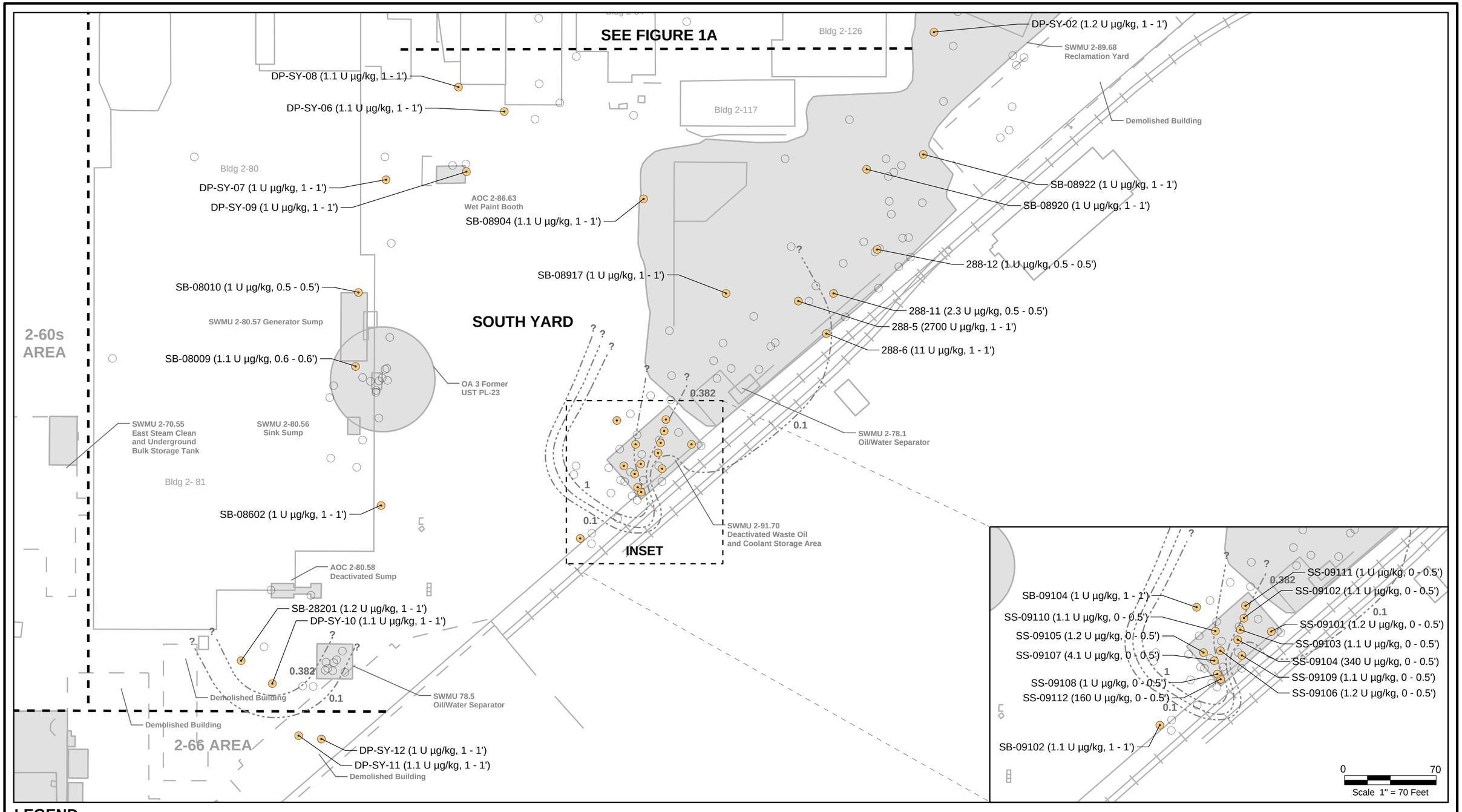
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
1,1-DICHLOROETHENE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_1_1_DICHLOROETHENE_1A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 2.73 ug/kg
Proposed Media Cleanup Level (PMCL) = 190 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

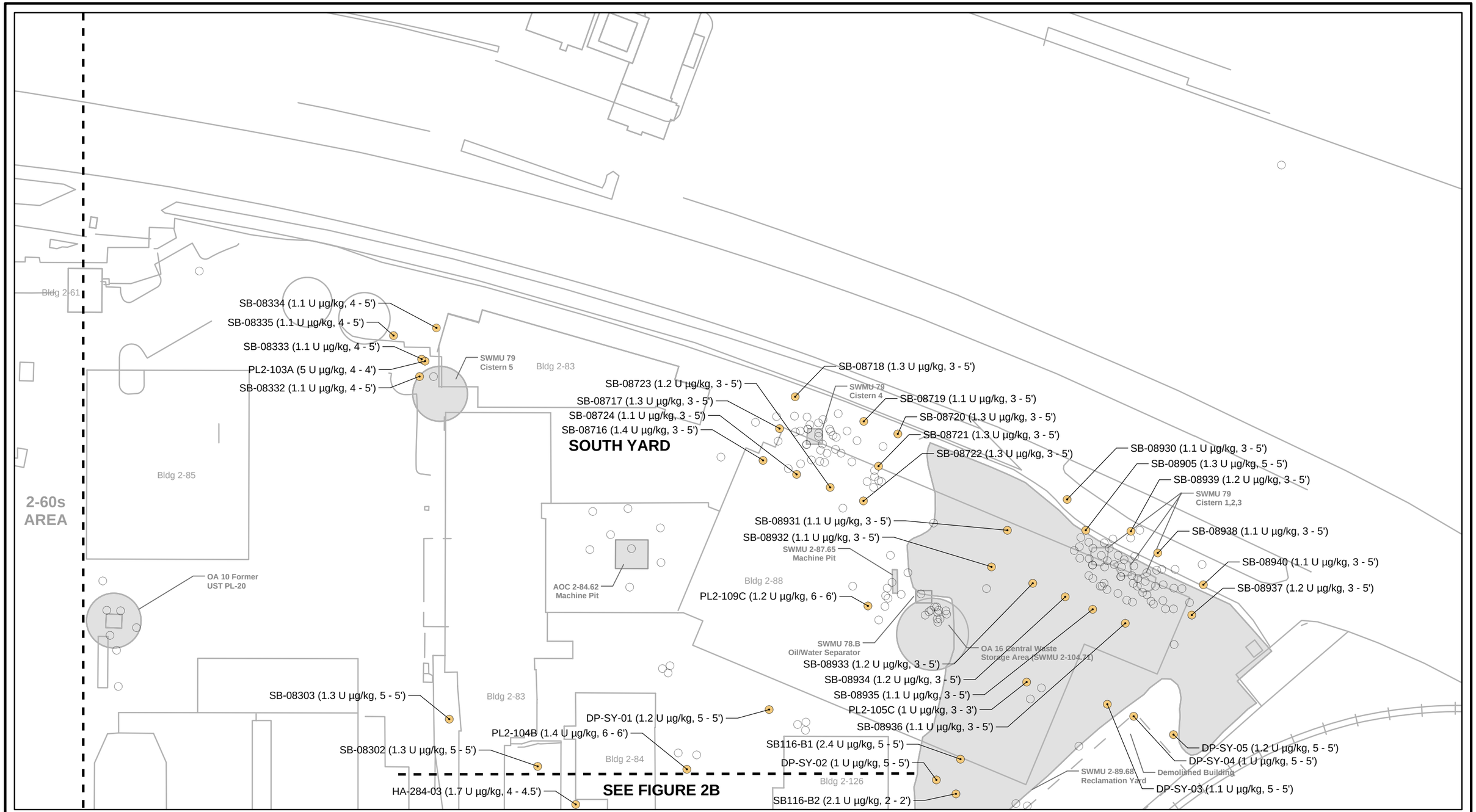
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
1,1-DICHLOROETHENE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_1_1_DICHLOROETHENE_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 2.73 ug/kg
Proposed Media Cleanup Level (PMCL) = 190 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

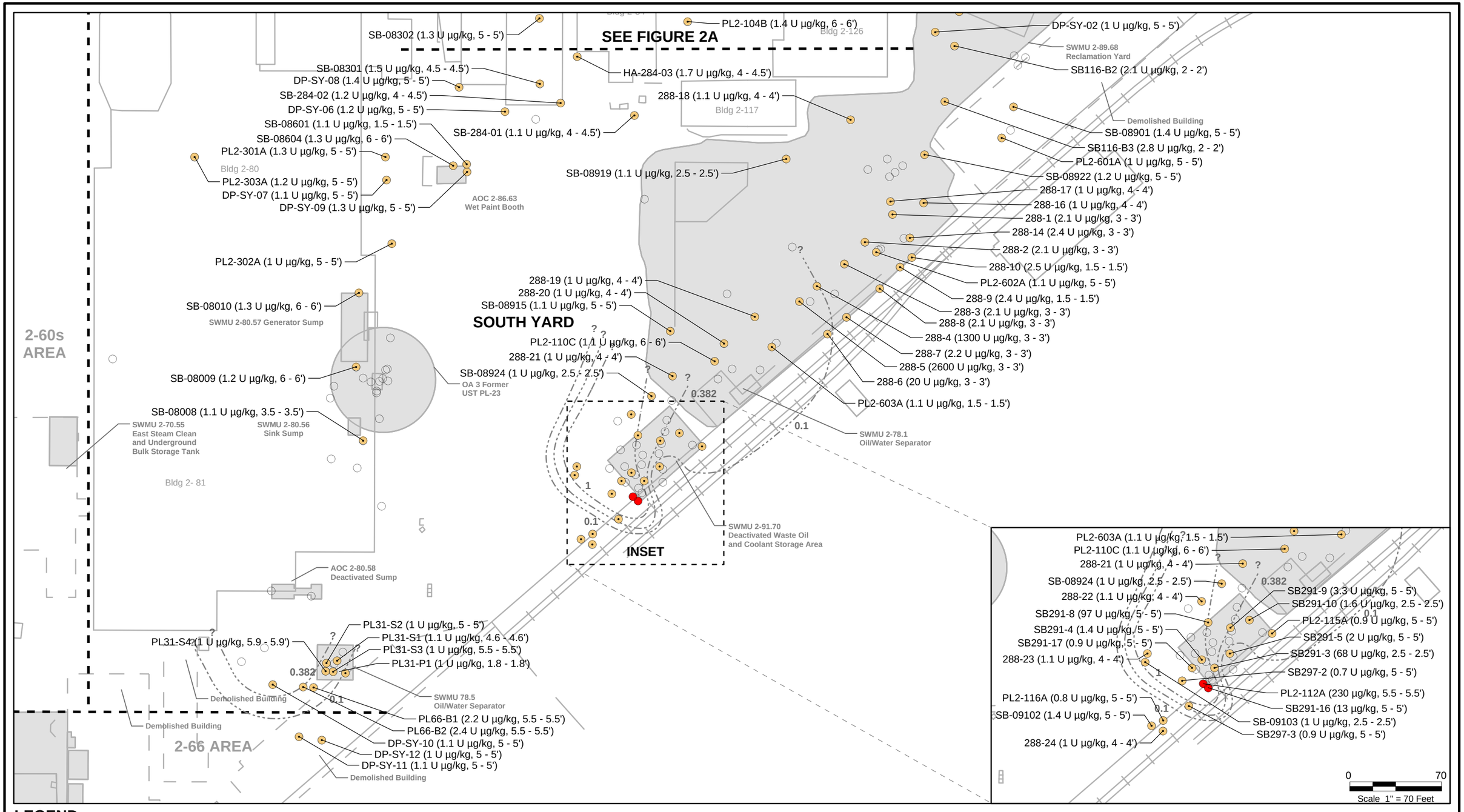
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
1,1-DICHLOROETHENE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_1_1_DICHLOROETHENE_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 2.73 ug/kg
Proposed Media Cleanup Level (PMCL) = 190 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

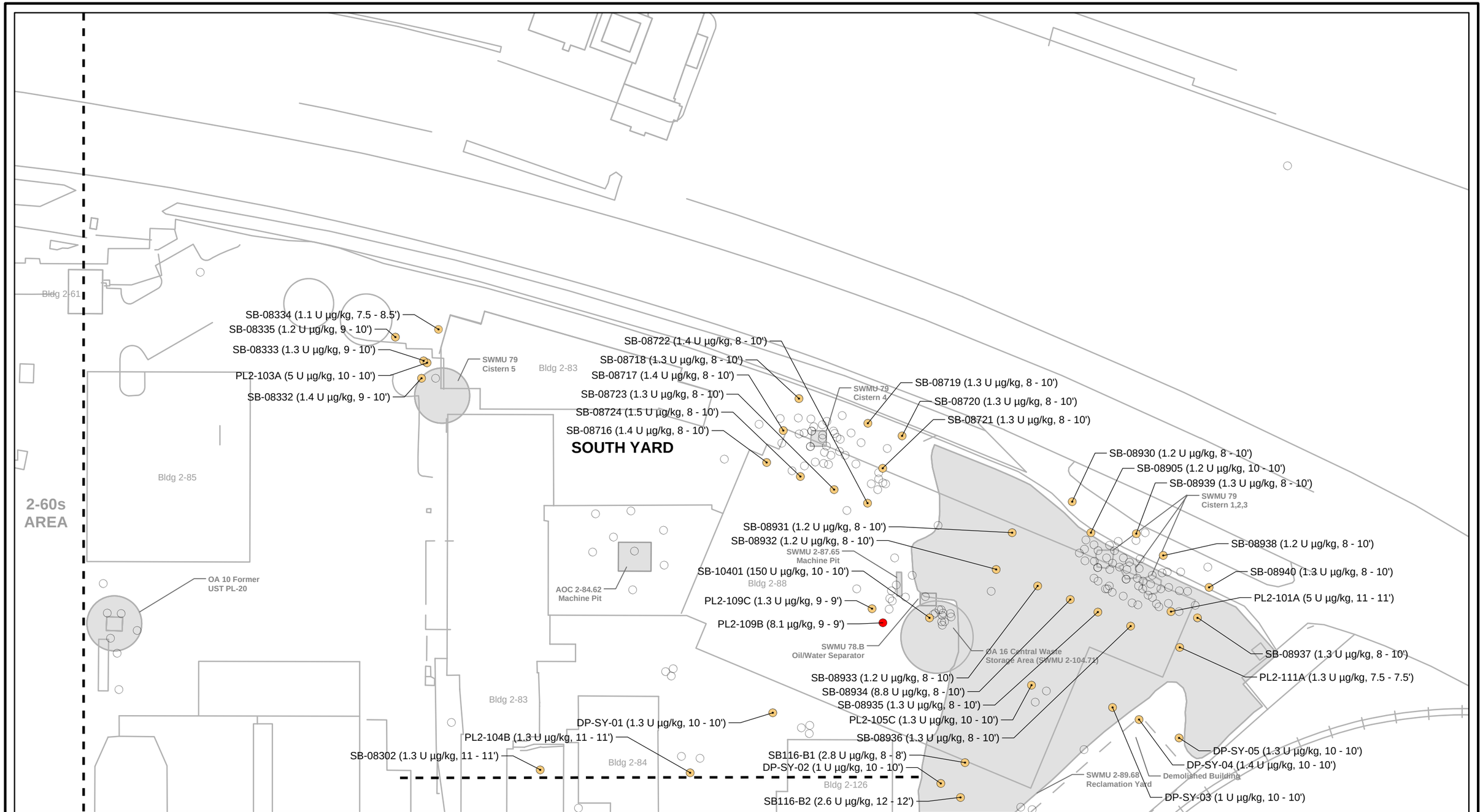
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
1,1-DICHLOROETHENE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_1_1_DICHLOROETHENE_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 2.73 ug/kg
Proposed Media Cleanup Level (PMCL) = 190 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

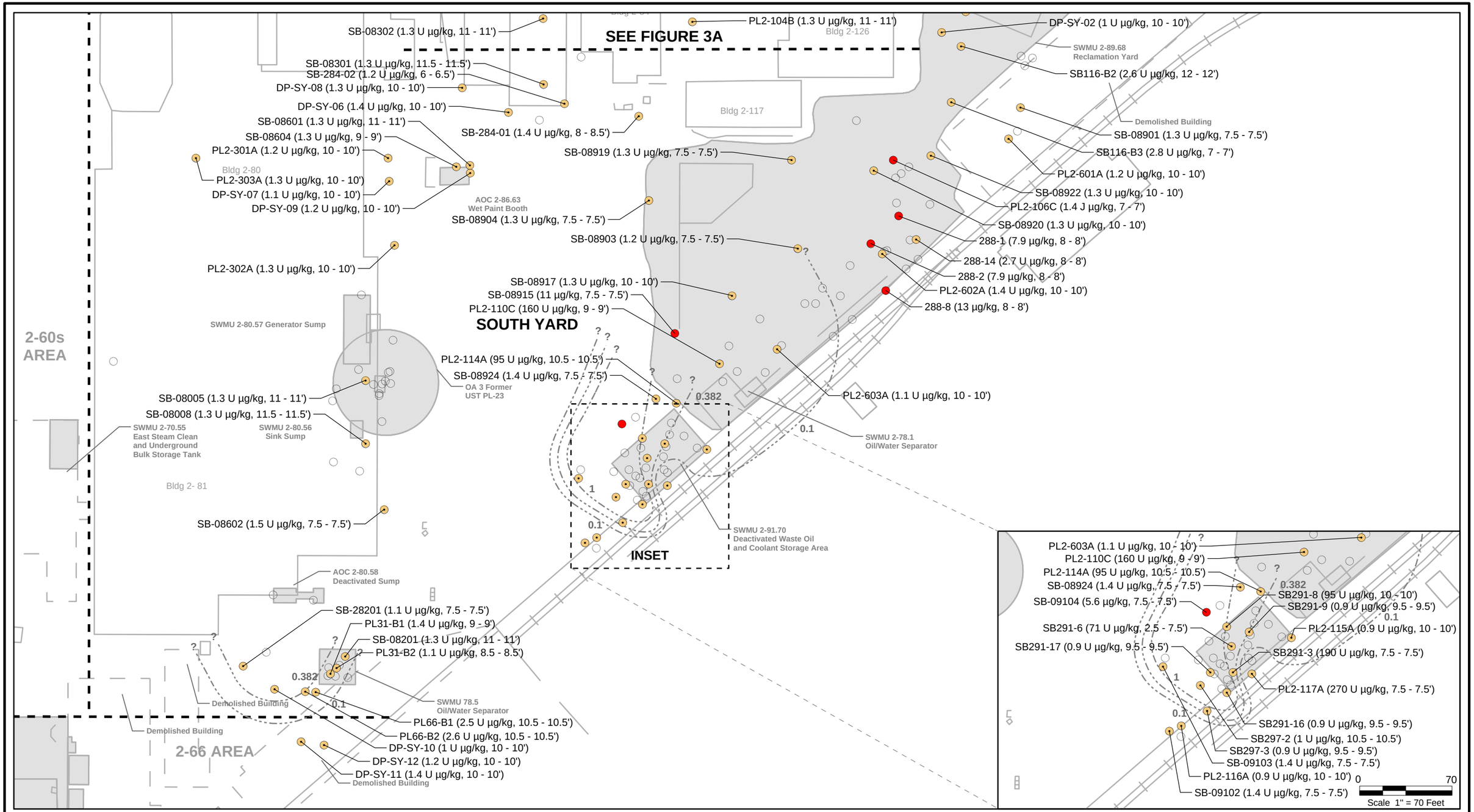
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
1,1-DICHLOROETHENE IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_1_1_DICHLOROETHENE_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 2.73 ug/kg
Proposed Media Cleanup Level (PMCL) = 190 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

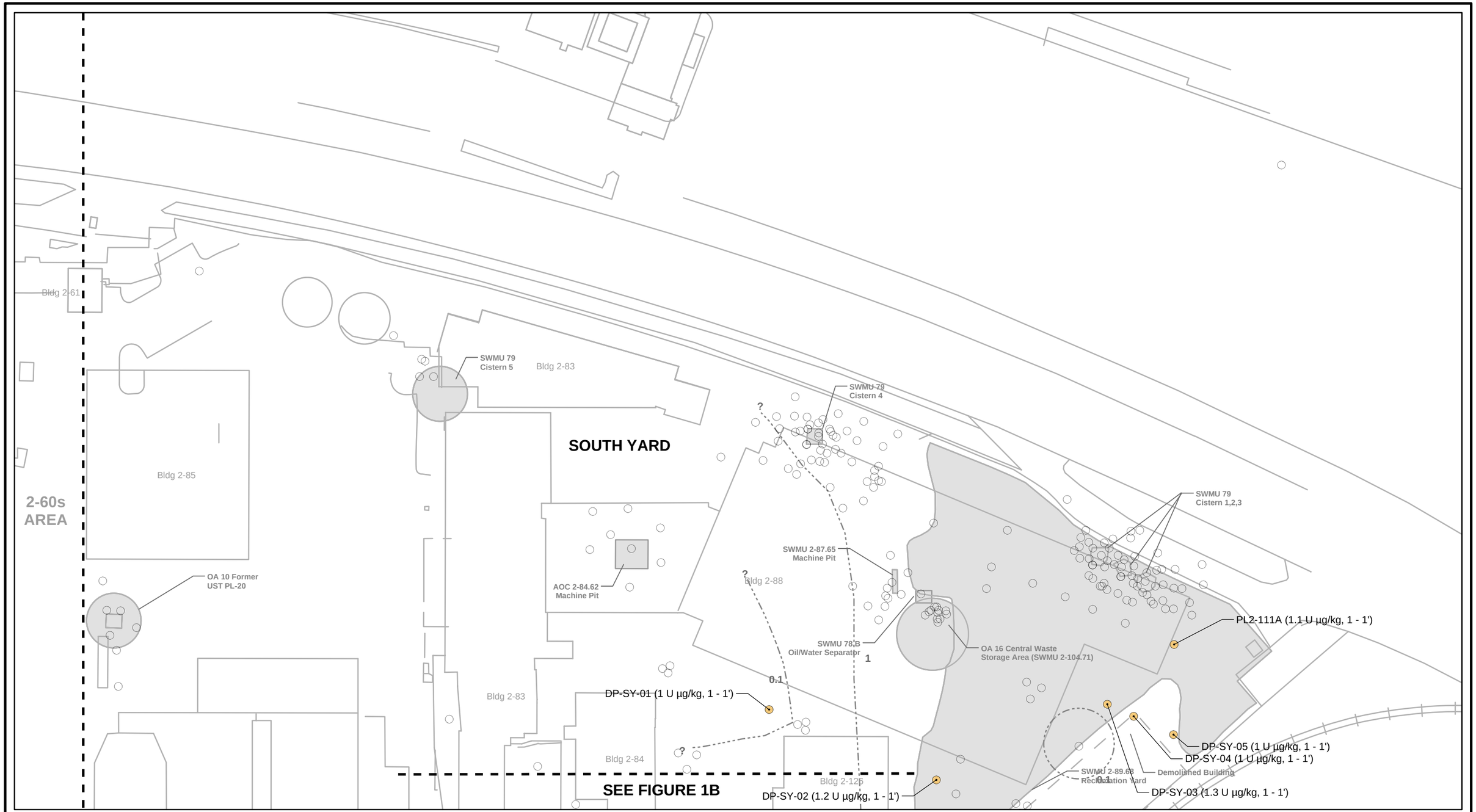
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
1,1-DICHLOROETHENE IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_1_1_DICHLOROETHENE_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 794 ug/kg
Proposed Media Cleanup Level (PMCL) = 1,620,400 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

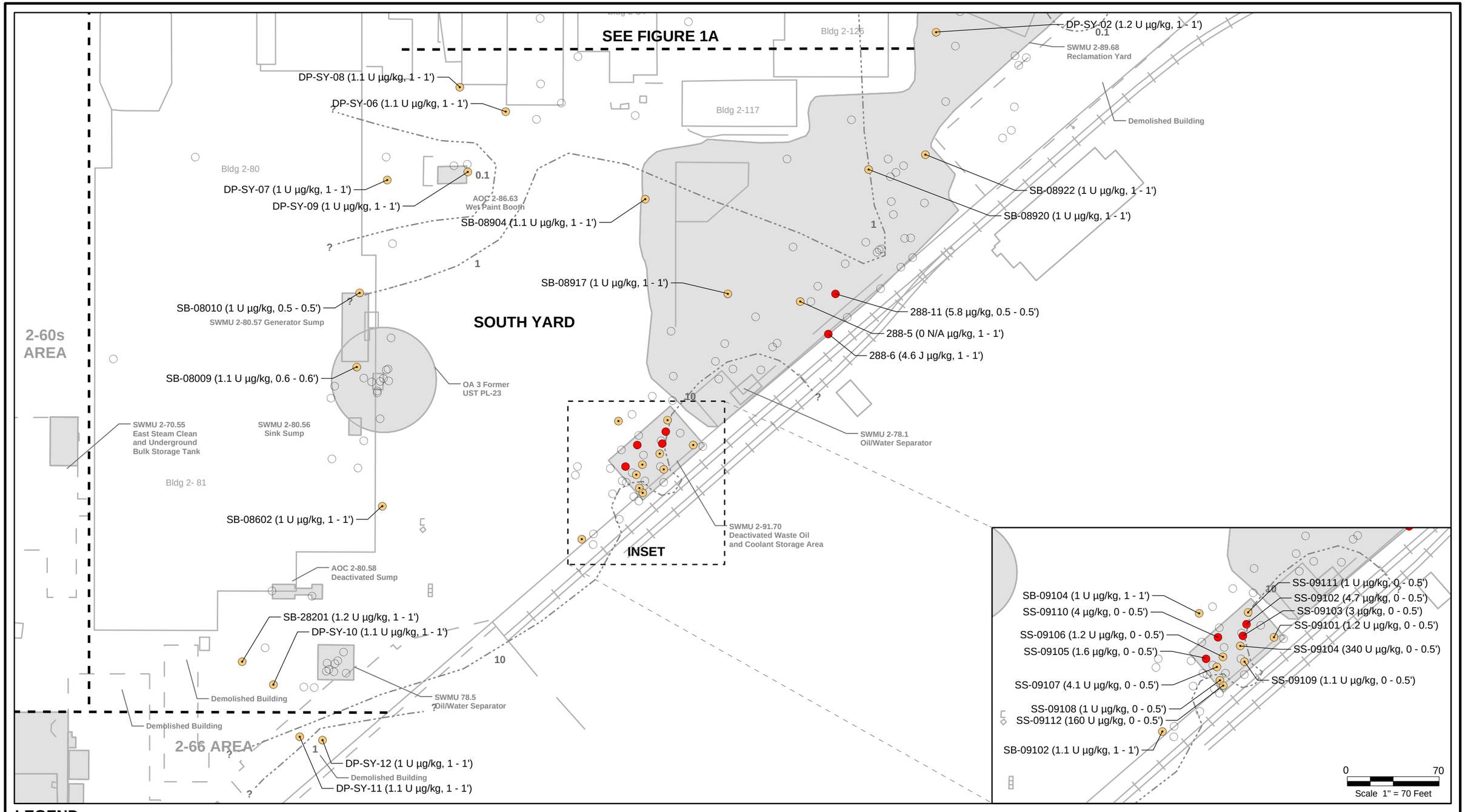
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
CIS 1,2-DICHLOROETHENE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_CIS_DICHLOROETHENE_1A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 794 ug/kg
Proposed Media Cleanup Level (PMCL) = 1,620,400 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

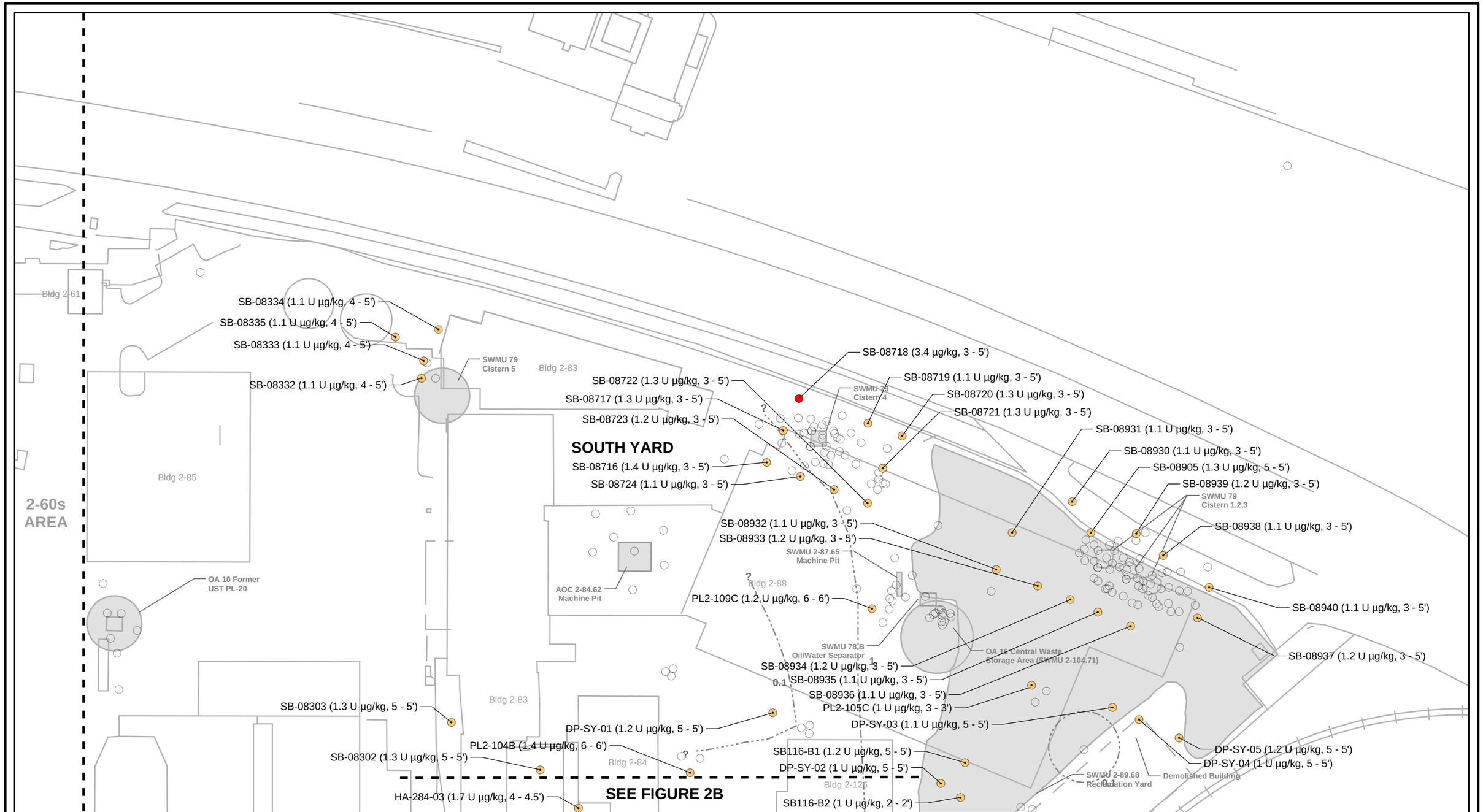
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
CIS 1,2-DICHLOROETHENE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_CIS_DICHLOROETHENE_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 794 ug/kg
Proposed Media Cleanup Level (PMCL) = 1,620,400 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
CIS 1,2-DICHLOROETHENE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_CIS_DICHLOROETHENE_2A_051404.mxd

Golder Associates

SB-08302 (1.3 U µg/kg, 5 - 5')

SEE FIGURE 1A

PL2-104B (1.4 U µg/kg, 6 - 6')

Bldg 2-126

DP-SY-02 (1 U µg/kg, 5 - 5')

0.1

SWMU 2-89.68
Reclamation Yard

SB116-B2 (1 U µg/kg, 2 - 2')

SB-08301 (1.5 U µg/kg, 4.5 - 4.5')

DP-SY-08 (1.4 U µg/kg, 5 - 5')

SB-284-02 (1.2 U µg/kg, 4 - 4.5')

DP-SY-06 (1.2 U µg/kg, 5 - 5')

HA-284-03 (1.7 U µg/kg, 4 - 4.5')

SB-284-01 (1.1 U µg/kg, 4 - 4.5')

Bldg 2-117

Demolished Building

SB-08901 (1.4 U µg/kg, 5 - 5')

SB116-B3 (1.4 U µg/kg, 2 - 2')

PL2-601A (1 U µg/kg, 5 - 5')

SB-08922 (6.3 µg/kg, 5 - 5')

SB-08601 (1.1 U µg/kg, 1.5 - 1.5')

SB-08604 (1.3 U µg/kg, 6 - 6')

PL2-301A (1.3 U µg/kg, 5 - 5')

Bldg 2-80

PL2-303A (1.2 U µg/kg, 5 - 5')

DP-SY-07 (1.1 U µg/kg, 5 - 5')

DP-SY-09 (1.3 U µg/kg, 5 - 5')

0.1

AOC 2-86.63
Wet Paint Booth

SB-08919 (1.1 U µg/kg, 2.5 - 2.5')

288-1 (1.4 µg/kg, 3 - 3')

288-2 (1 U µg/kg, 3 - 3')

288-14 (2.2 µg/kg, 3 - 3')

PL2-602A (3.3 µg/kg, 5 - 5')

288-10 (4.2 µg/kg, 1.5 - 1.5')

288-9 (1.2 U µg/kg, 1.5 - 1.5')

PL2-302A (1 U µg/kg, 5 - 5')

1

SB-08010 (1.3 U µg/kg, 6 - 6')

SWMU 2-80.57 Generator Sump

SB-08915 (1.1 U µg/kg, 5 - 5')

SOUTH YARD

288-3 (1 U µg/kg, 3 - 3')

288-8 (1 U µg/kg, 3 - 3')

288-4 (670 U µg/kg, 3 - 3')

288-7 (1.1 U µg/kg, 3 - 3')

2-60s
AREA

SB-08009 (1.2 U µg/kg, 6 - 6')

PL2-110C (1.1 U µg/kg, 6 - 6')

SB-08924 (1 U µg/kg, 2.5 - 2.5')

OA 3 Former
UST PL-23

288-6 (37 µg/kg, 3 - 3')

288-5 (1400 µg/kg, 3 - 3')

10

PL2-603A (1.1 U µg/kg, 1.5 - 1.5')

SB-08008 (1.1 U µg/kg, 3.5 - 3.5')

SWMU 2-70.55
East Steam Clean
and Underground
Bulk Storage Tank

SWMU 2-80.56
Sink Sump

SWMU 2-78.1
Oil/Water Separator

Bldg 2- 81

INSET

SWMU 2-91.70
Deactivated Waste Oil
and Coolant Storage Area

AOC 2-80.58
Deactivated Sump

PL31-S2 (1 U µg/kg, 5 - 5')

PL31-S1 (1.1 U µg/kg, 4.6 - 4.6')

PL31-S3 (1 U µg/kg, 5.5 - 5.5')

PL31-P1 (1 U µg/kg, 1.8 - 1.8')

10

Demolished Building

SWMU 78.5
Oil/Water Separator

Demolished Building

PL31-S4 (1 U µg/kg, 5.9 - 5.9')

PL66-B1 (1.1 U µg/kg, 5.5 - 5.5')

2-66 AREA

PL66-B2 (1.2 U µg/kg, 5.5 - 5.5')

DP-SY-10 (1.1 U µg/kg, 5 - 5')

DP-SY-12 (1.1 U µg/kg, 5 - 5')

Demolished Building

DP-SY-11 (1.1 U µg/kg, 5 - 5')

PL2-603A (1.1 U µg/kg, 1.5 - 1.5')

PL2-110C (1.1 U µg/kg, 6 - 6')

SB-08924 (1 U µg/kg, 2.5 - 2.5')

10

SB-09103 (1 U µg/kg, 2.5 - 2.5')

SB-09102 (70 µg/kg, 5 - 5')

0 70

Scale 1" = 70 Feet

LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 794 ug/kg
Proposed Media Cleanup Level (PMCL) = 1,620,400 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

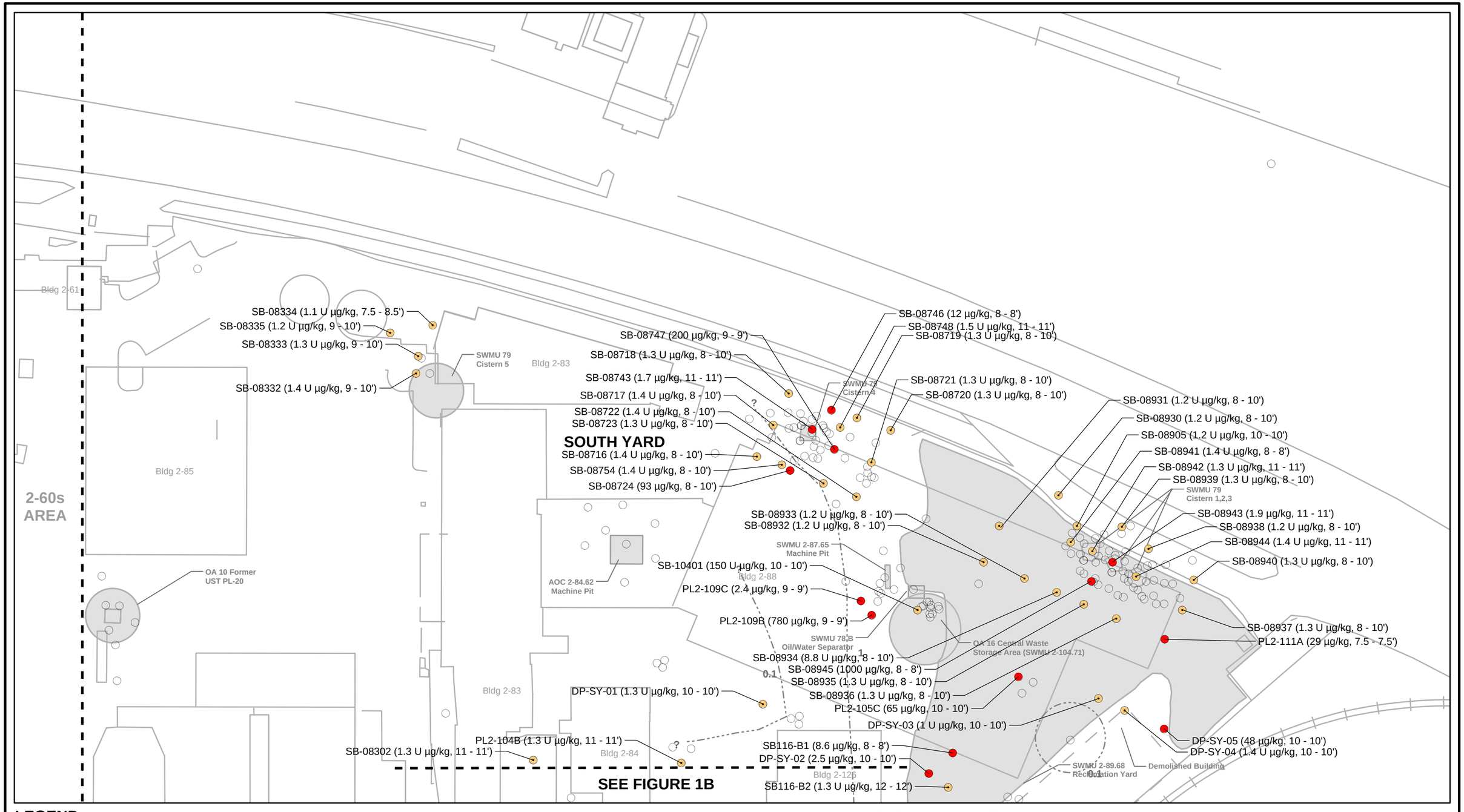
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
CIS 1,2-DICHLOROETHENE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_CIS_DICHLOROETHENE_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 794 ug/kg
Proposed Media Cleanup Level (PMCL) = 1,620,400 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)

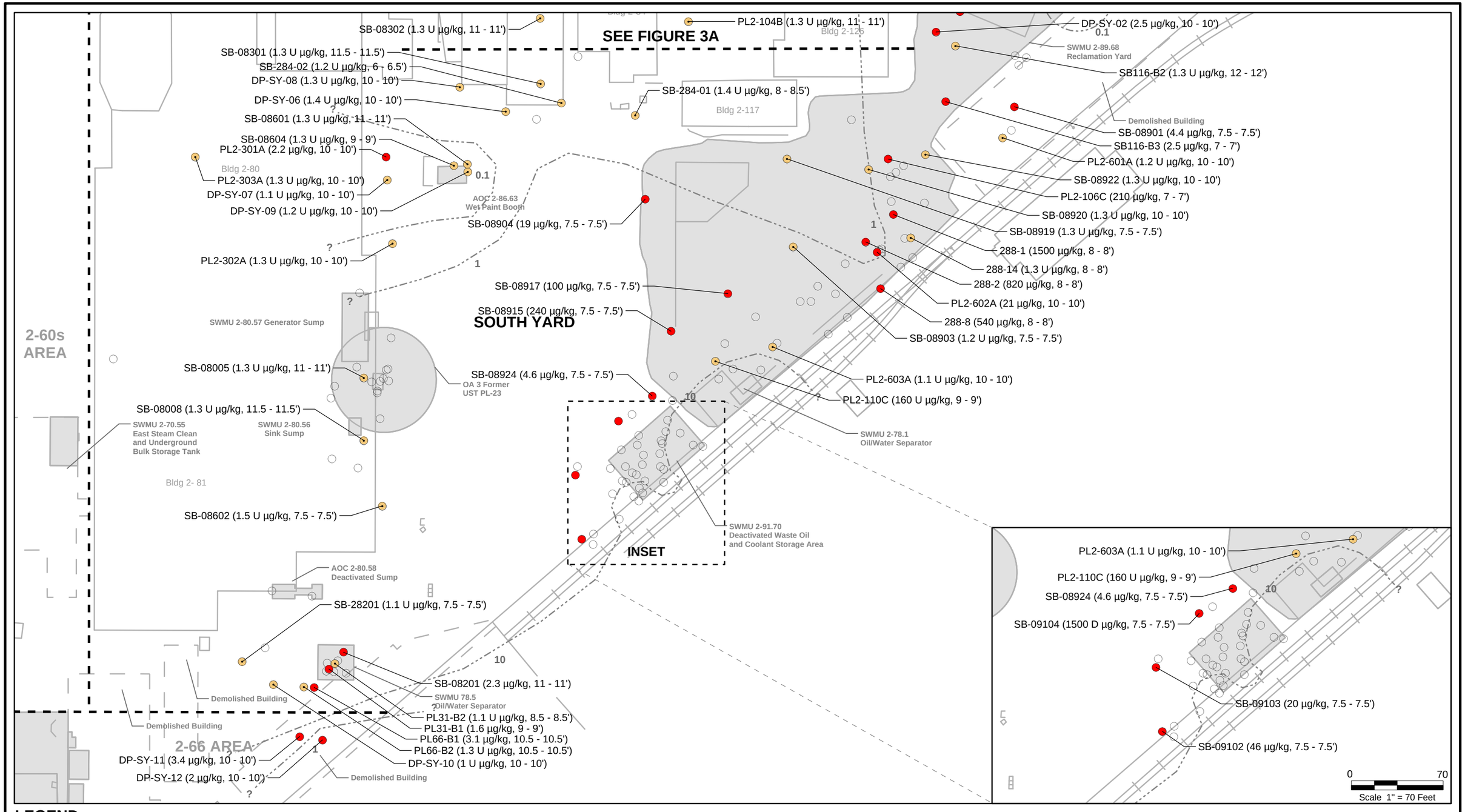
CIS 1,2-DICHLOROETHENE IN SOIL: DEPTH 6 - 12 FT

BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_CIS_DICHLOROETHENE_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 794 ug/kg
Proposed Media Cleanup Level (PMCL) = 1,620,400 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

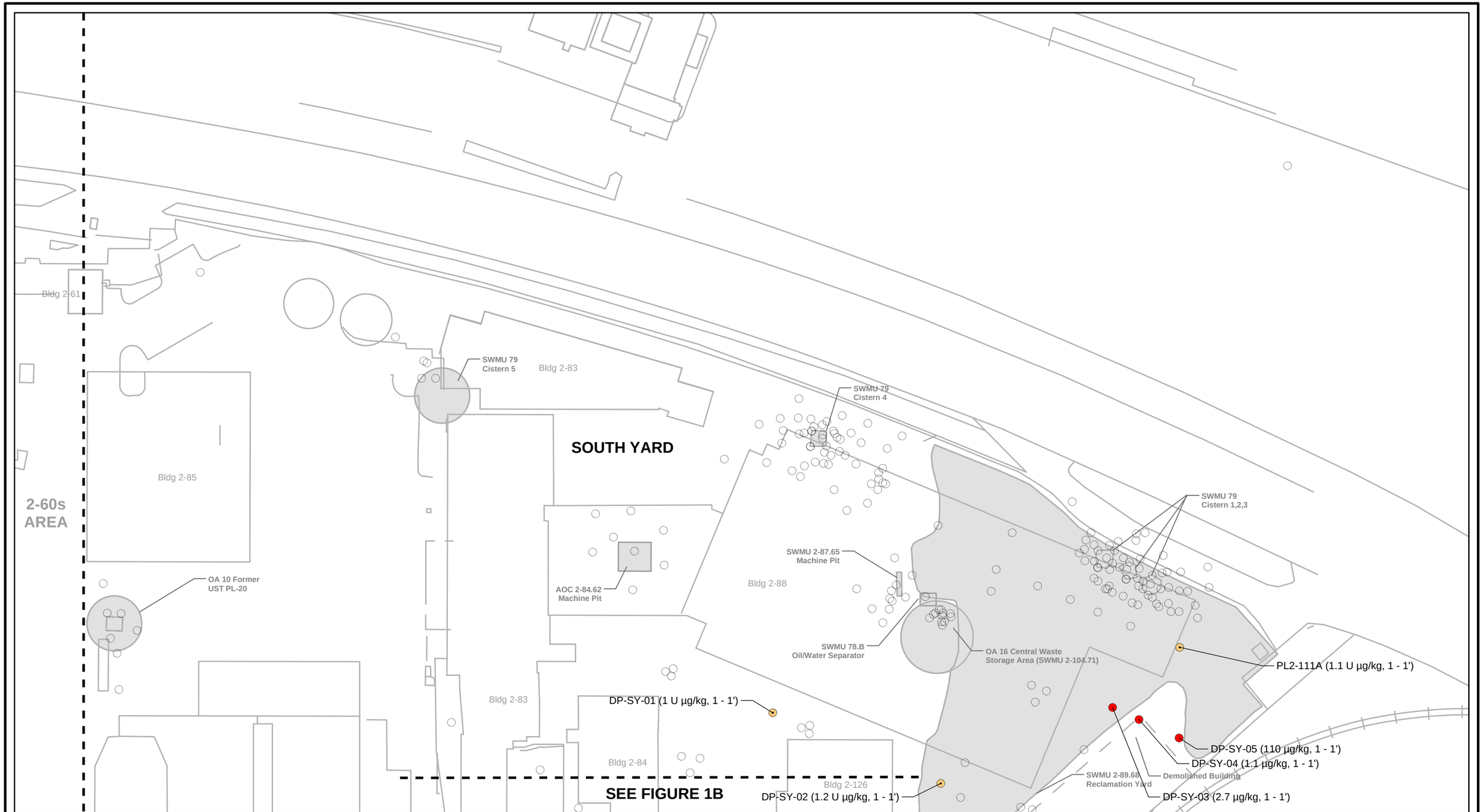
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
CIS 1,2-DICHLOROETHENE IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_CIS_DICHLOROETHENE_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 8.72 ug/kg
Proposed Media Cleanup Level (PMCL) = 890 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

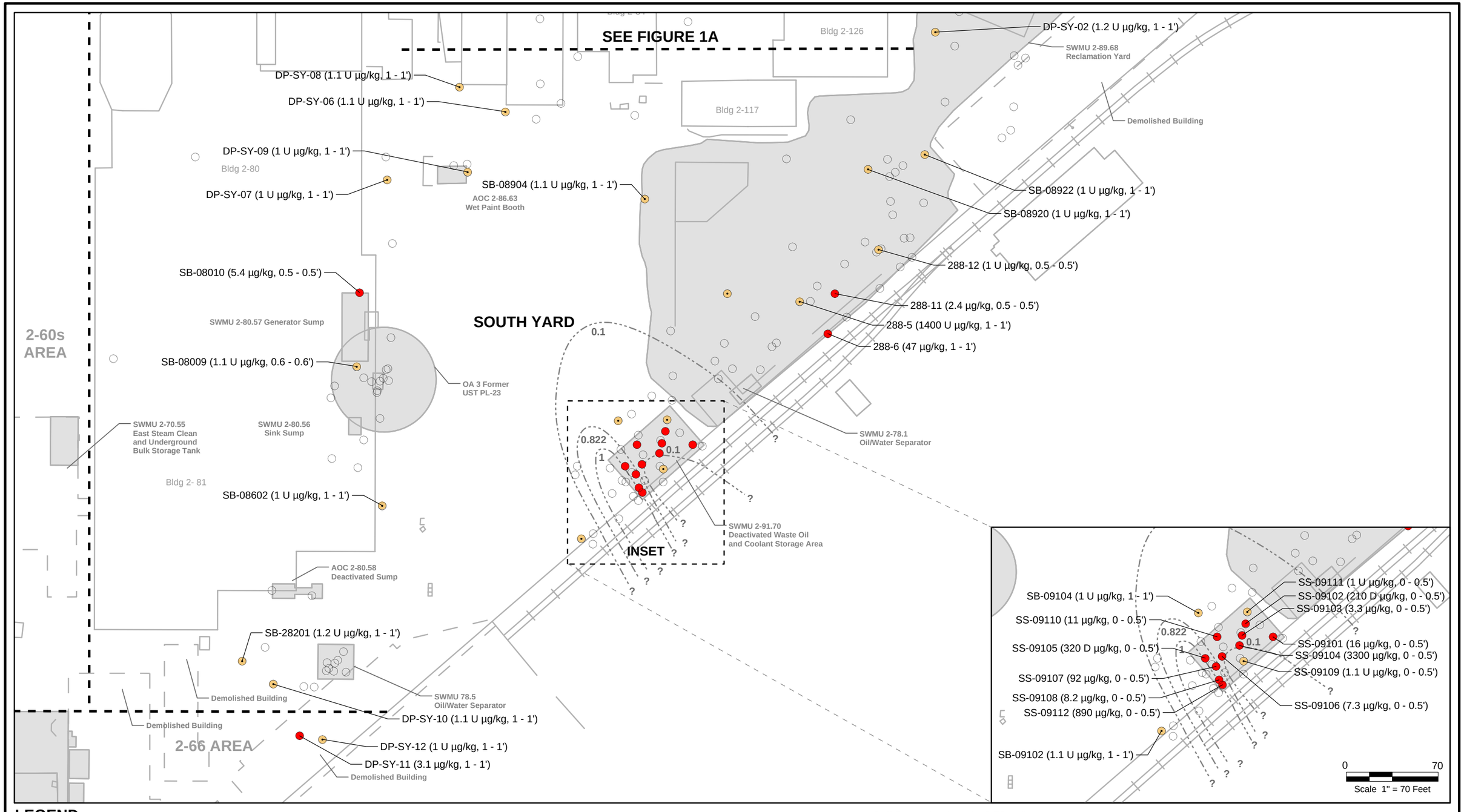
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
TETRACHLOROETHENE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_TETRACHLOROETHENE_1A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 8.72 ug/kg
Proposed Media Cleanup Level (PMCL) = 890 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

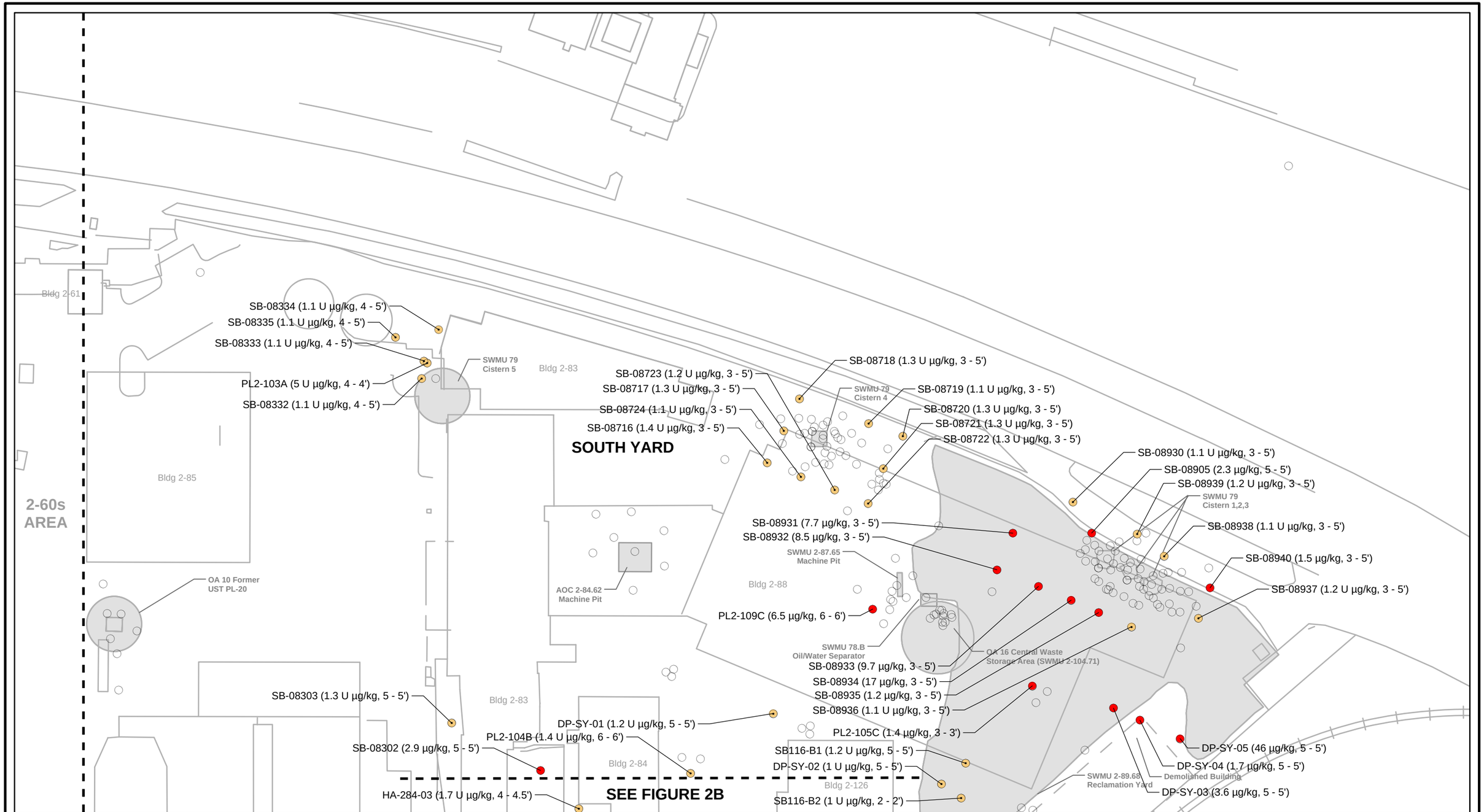
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
TETRACHLOROETHENE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_TETRACHLOROETHENE_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 8.72 ug/kg
Proposed Media Cleanup Level (PMCL) = 890 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

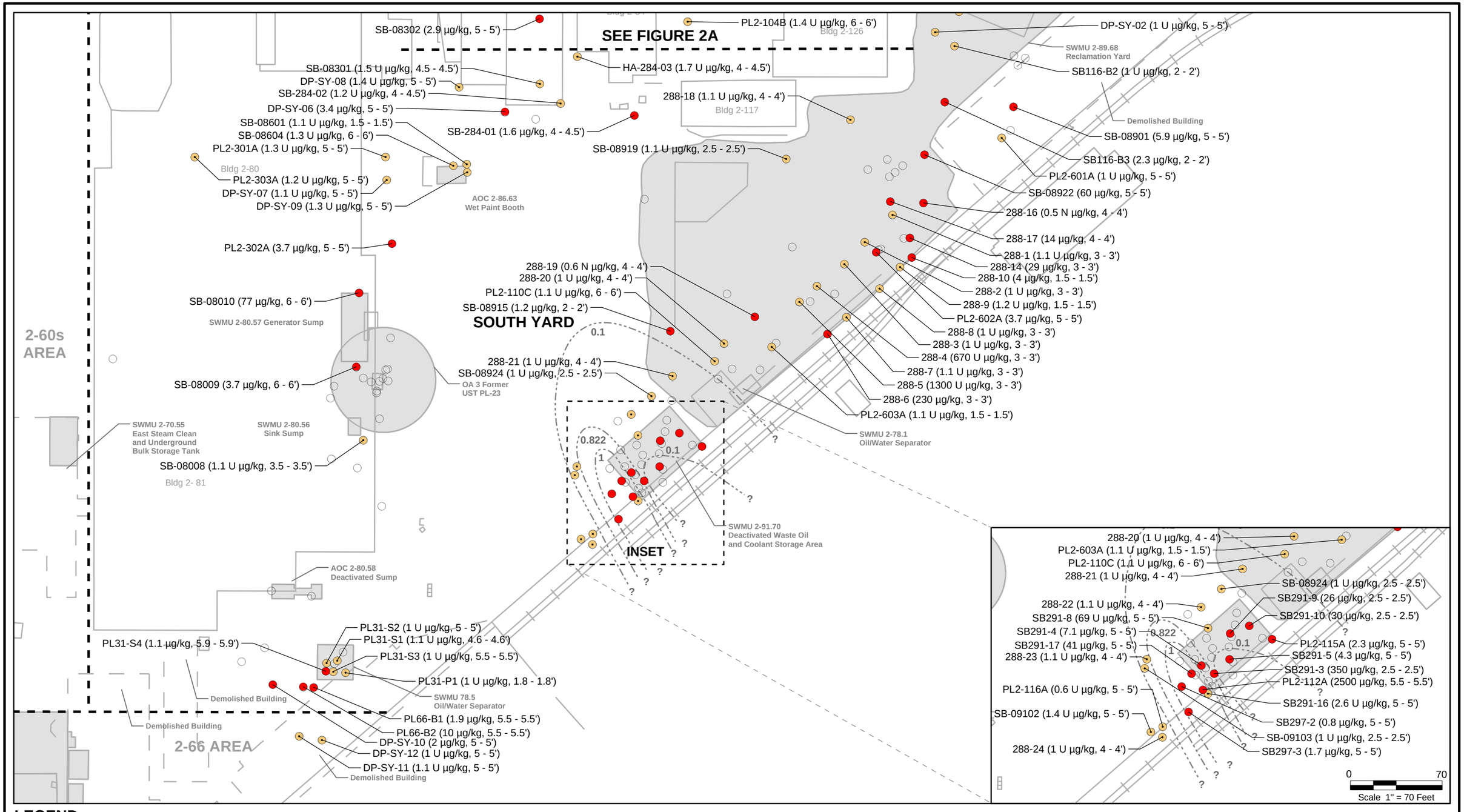
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
TETRACHLOROETHENE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_TETRACHLOROETHENE_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 8.72 ug/kg
Proposed Media Cleanup Level (PMCL) = 890 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

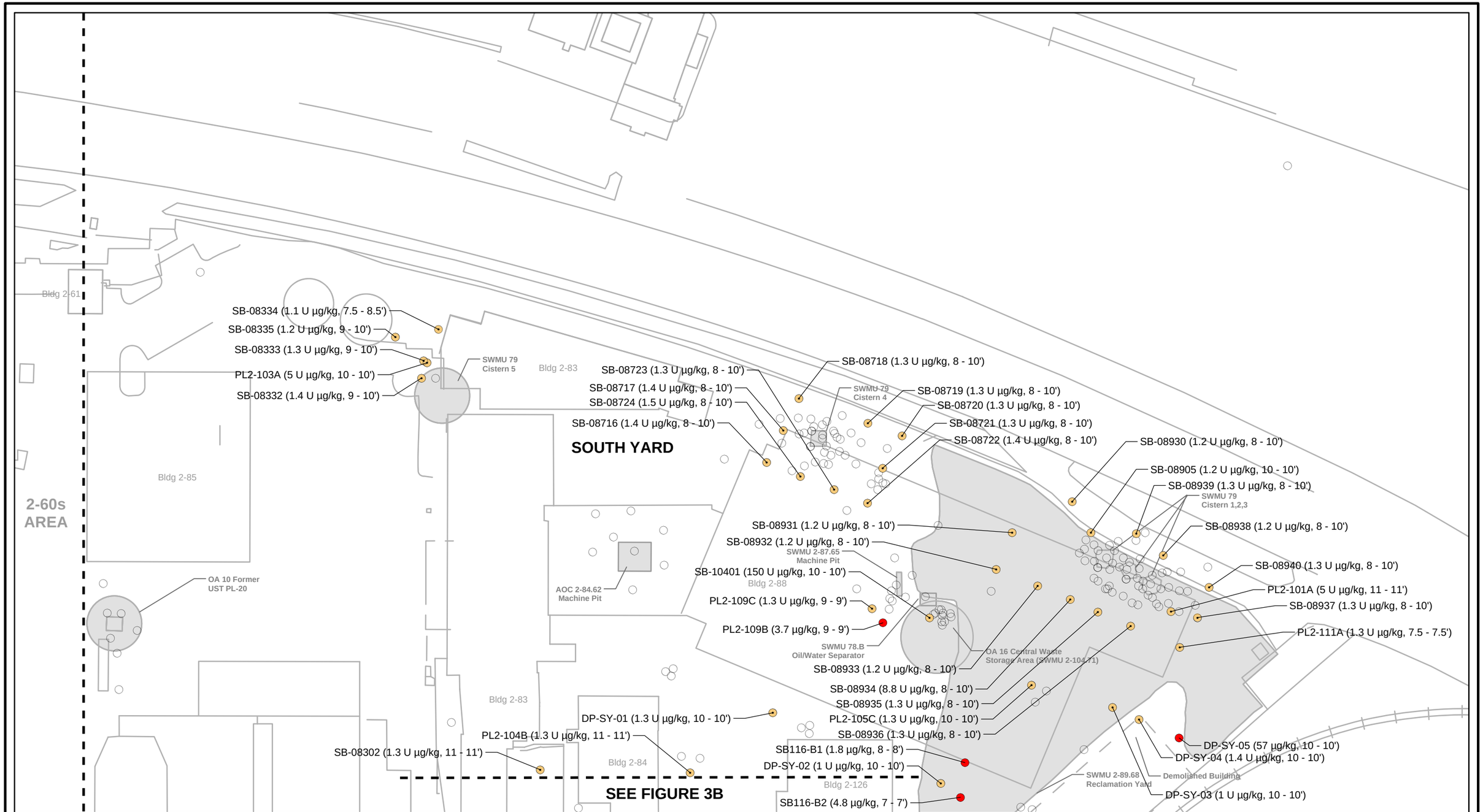
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
TETRACHLOROETHENE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_TETRACHLOROETHENE_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 8.72 ug/kg
Proposed Media Cleanup Level (PMCL) = 890 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

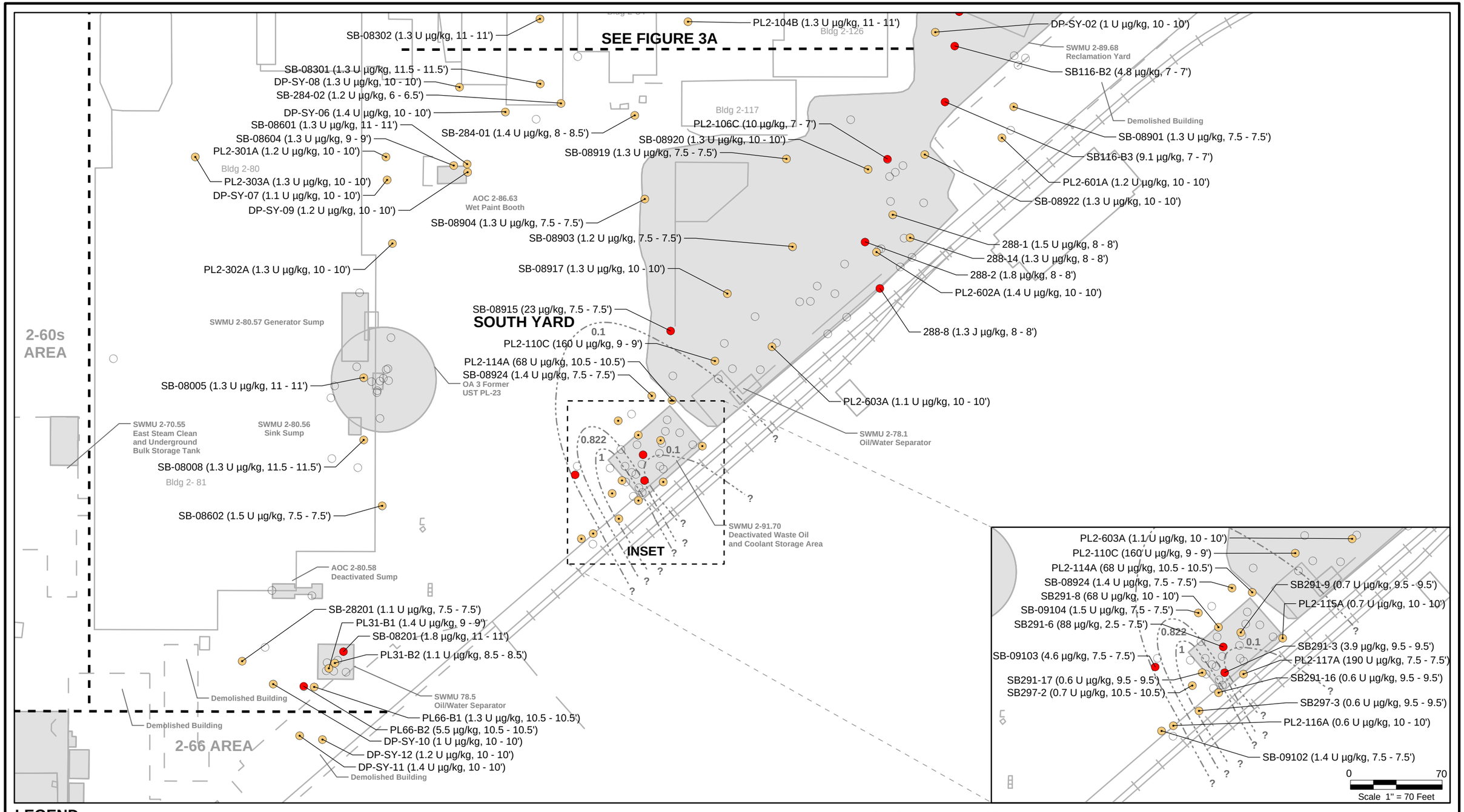
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
TETRACHLOROETHENE IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_TETRACHLOROETHENE_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 8.72 ug/kg
Proposed Media Cleanup Level (PMCL) = 890 ug/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

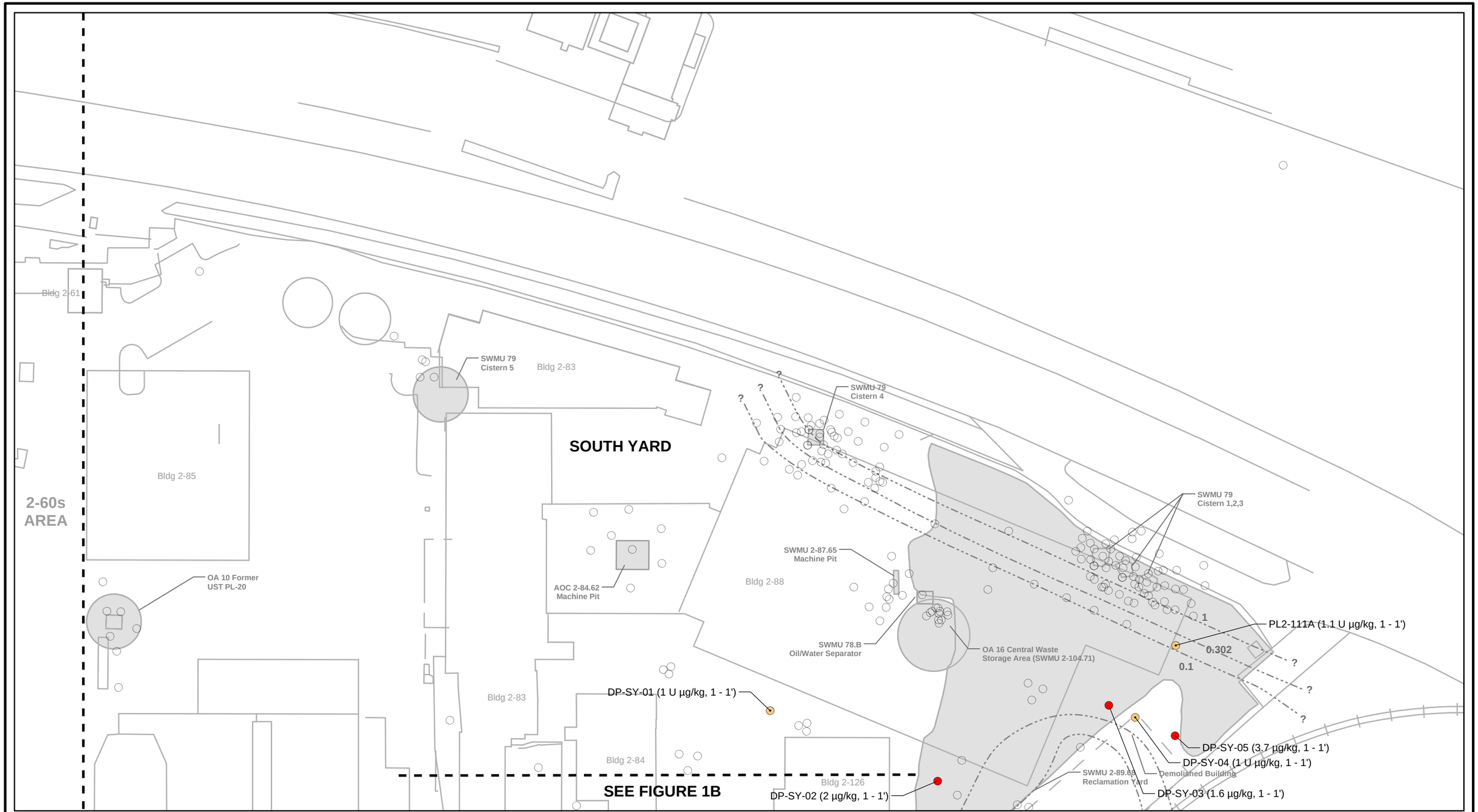
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
TETRACHLOROETHENE IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_TETRACHLOROETHENE_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 2.00 ug/kg
Proposed Media Cleanup Level (PMCL) = 5,500 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
TRICHLOROETHENE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_TRICHLOROETHENE_1A_051404.mxd

Golder Associates

SEE FIGURE 1A

Bldg 2-126

DP-SY-02 (2 µg/kg, 1 - 1')

SWMU 2-89.68
Reclamation Yard

Demolished Building

DP-SY-08 (1.1 U µg/kg, 1 - 1')

DP-SY-06 (1.1 U µg/kg, 1 - 1')

Bldg 2-117

Bldg 2-80

DP-SY-07 (1 U µg/kg, 1 - 1')

DP-SY-09 (1 U µg/kg, 1 - 1')

AOC 2-86.63
Wet Paint Booth

SB-08904 (1.1 U µg/kg, 1 - 1')

SB-08922 (3.9 µg/kg, 1 - 1')

SB-08920 (1 U µg/kg, 1 - 1')

288-12 (1 U µg/kg, 0.5 - 0.5')

SB-08917 (1 U µg/kg, 1 - 1')

288-11 (29 µg/kg, 0.5 - 0.5')

288-5 (1400 U µg/kg, 1 - 1')

288-6 (22 µg/kg, 1 - 1')

SB-08010 (1 U µg/kg, 0.5 - 0.5')

SWMU 2-80.57 Generator Sump

SOUTH YARD

2-60s
AREA

SB-08009 (1.1 U µg/kg, 0.6 - 0.6')

OA 3 Former
UST PL-23

SWMU 2-78.1
Oil/Water Separator

SWMU 2-70.55
East Steam Clean
and Underground
Bulk Storage Tank

SWMU 2-80.56
Sink Sump

Bldg 2- 81

SB-08602 (1 U µg/kg, 1 - 1')

SWMU 2-91.70
Deactivated Waste Oil
and Coolant Storage Area

INSET

AOC 2-80.58
Deactivated Sump

SB-28201 (1.2 U µg/kg, 1 - 1')

SWMU 78.5
Oil/Water Separator

DP-SY-10 (1.2 µg/kg, 1 - 1')

Demolished Building

Demolished Building

2-66 AREA

DP-SY-12 (1 U µg/kg, 1 - 1')

DP-SY-11 (4 µg/kg, 1 - 1')

Demolished Building

SS-09111 (3 µg/kg, 0 - 0.5')

SB-09104 (1.9 µg/kg, 1 - 1')

SS-09102 (140 D µg/kg, 0 - 0.5')

SS-09110 (77 µg/kg, 0 - 0.5')

SS-09103 (37 µg/kg, 0 - 0.5')

SS-09101 (5.2 µg/kg, 0 - 0.5')

SS-09105 (450 D µg/kg, 0 - 0.5')

SS-09104 (7600 J µg/kg, 0 - 0.5')

SS-09109 (1.1 U µg/kg, 0 - 0.5')

SS-09107 (52 µg/kg, 0 - 0.5')

SS-09106 (21 µg/kg, 0 - 0.5')

SS-09108 (2.5 µg/kg, 0 - 0.5')

SS-09112 (220 N µg/kg, 0 - 0.5')

SB-09102 (1.1 U µg/kg, 1 - 1')

0 70
Scale 1" = 70 Feet

LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 2.00 ug/kg
Proposed Media Cleanup Level (PMCL) = 5,500 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

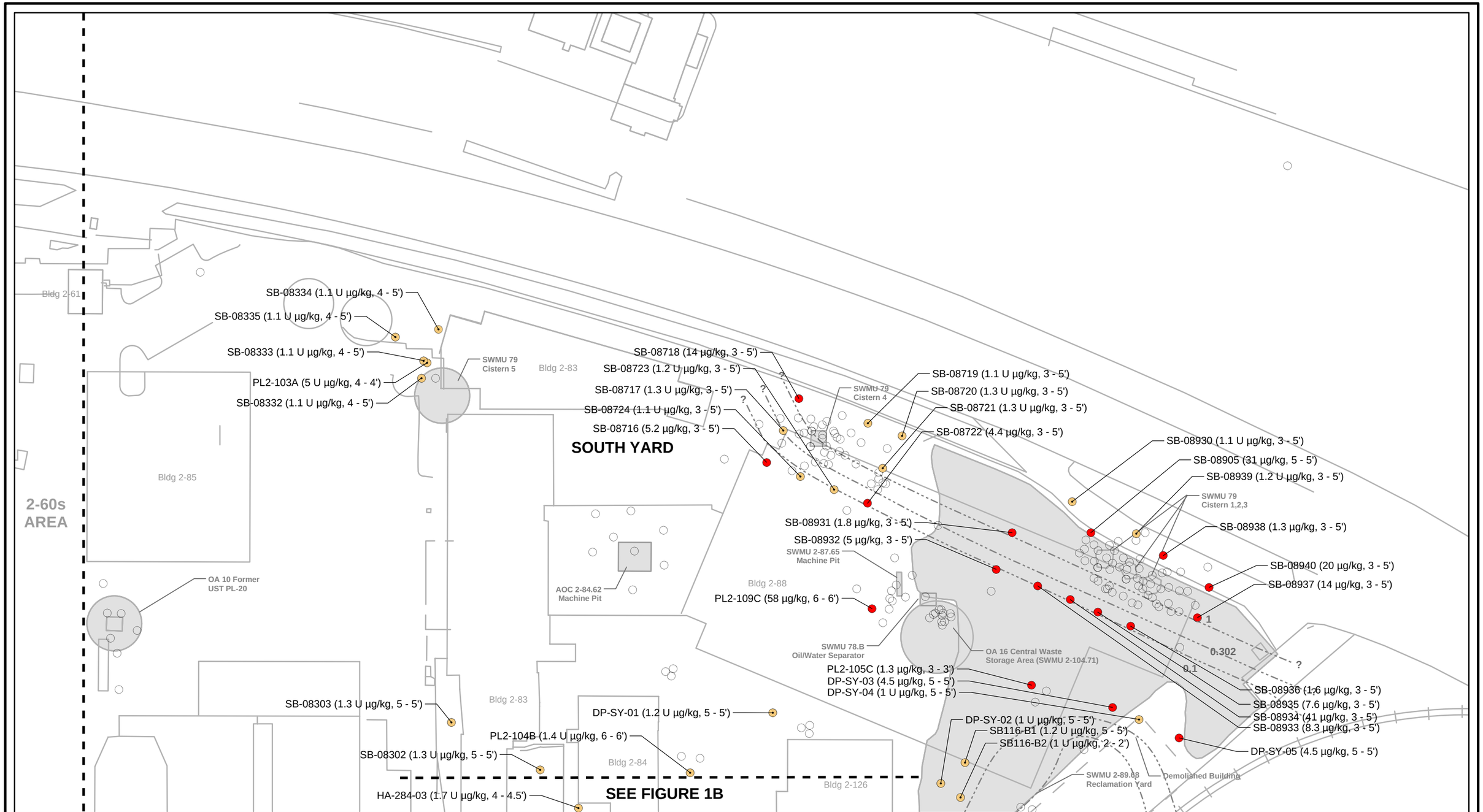
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
TRICHLOROETHENE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_TRICHLOROETHENE_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 2.00 ug/kg
Proposed Media Cleanup Level (PMCL) = 5,500 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

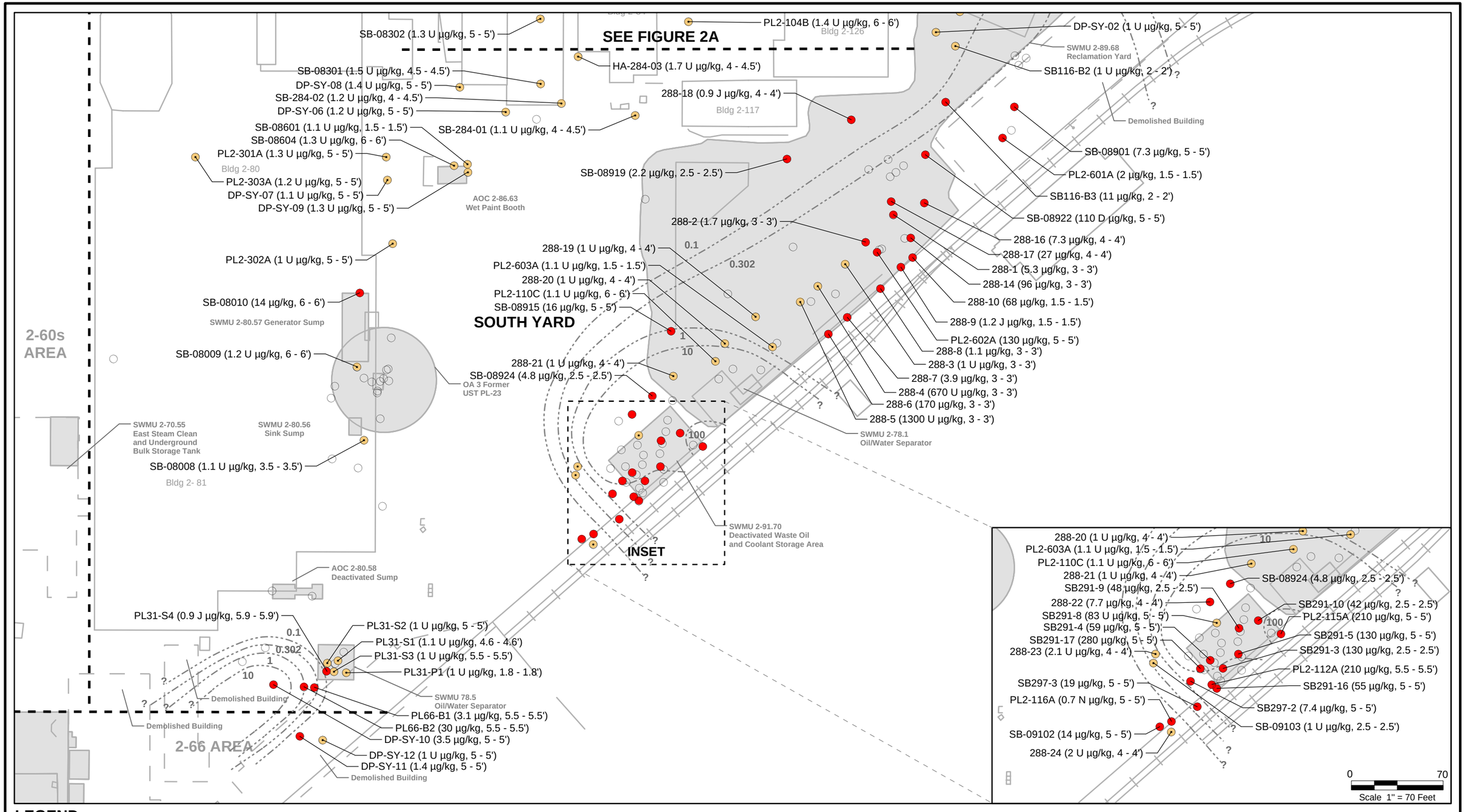
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
TRICHLOROETHENE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_TRICHLOROETHENE_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 2.00 ug/kg
Proposed Media Cleanup Level (PMCL) = 5,500 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

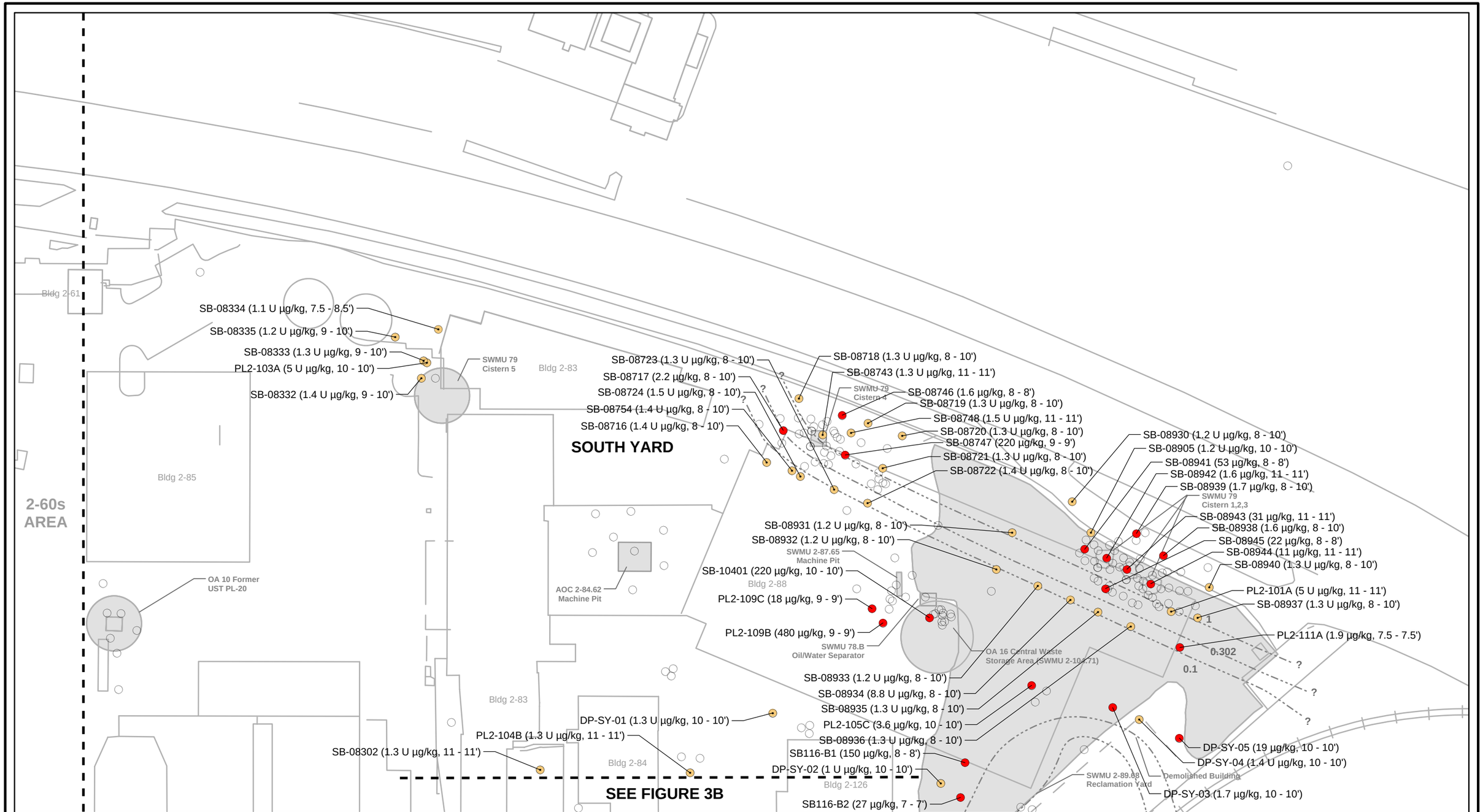
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
TRICHLOROETHENE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_TRICHLOROETHENE_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 2.00 ug/kg
Proposed Media Cleanup Level (PMCL) = 5,500 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

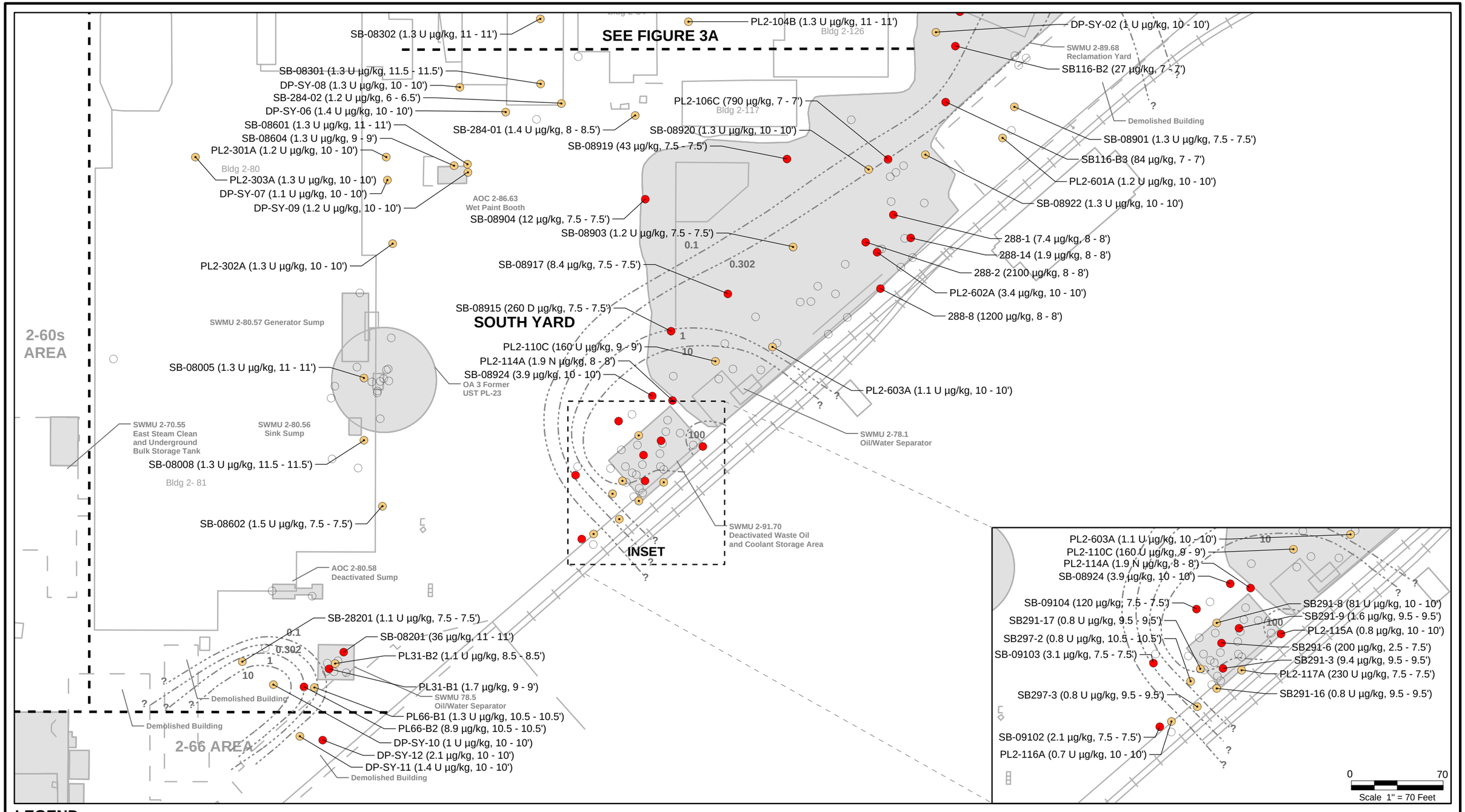
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
TRICHLOROETHENE IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_TRICHLOROETHENE_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 2.00 ug/kg
Proposed Media Cleanup Level (PMCL) = 5,500 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

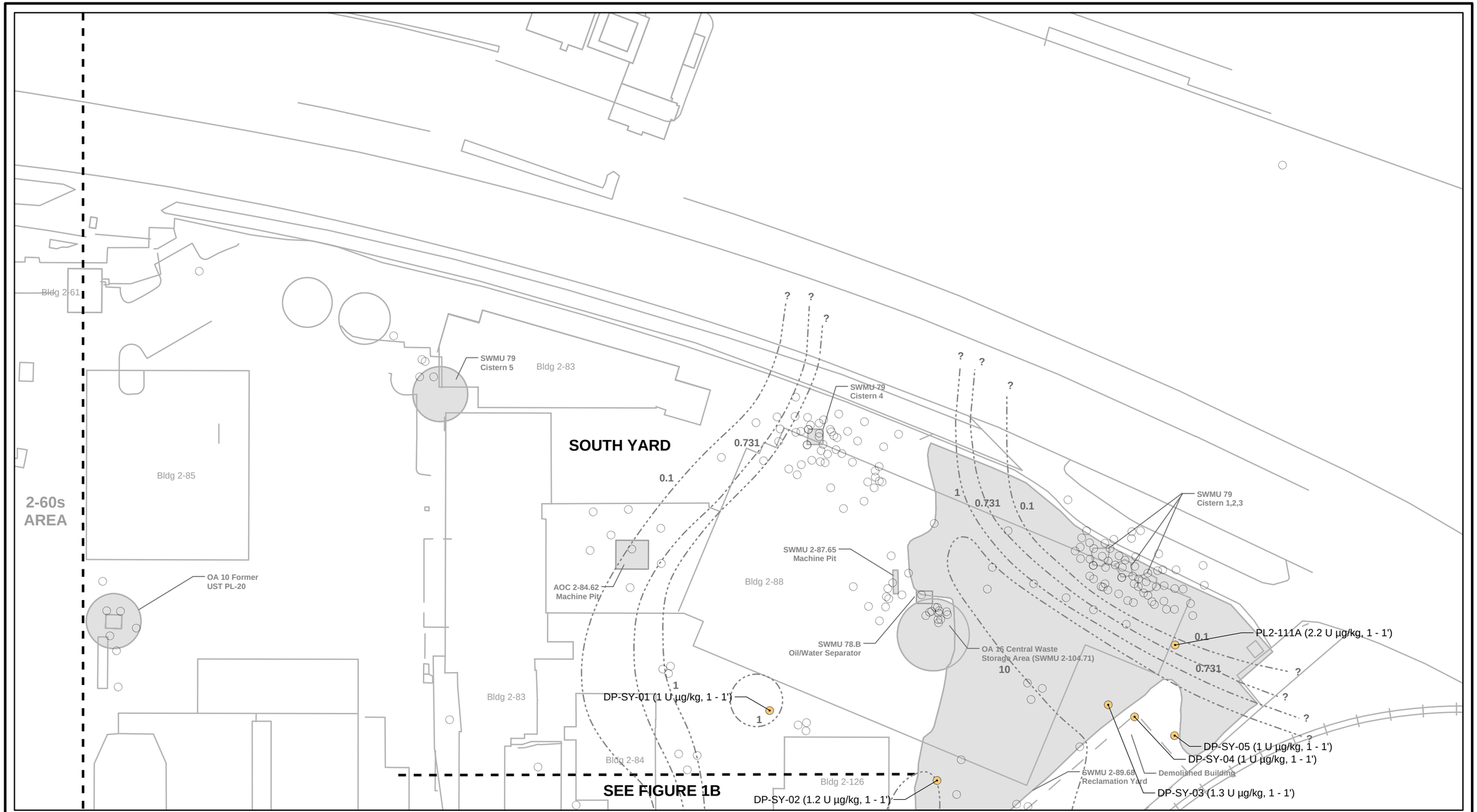
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
TRICHLOROETHENE IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_TRICHLOROETHENE_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 4.59 ug/kg
Proposed Media Cleanup Level (PMCL) = 290 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
VINYL CHLORIDE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_VINYL_1A_051404.mxd

Golder Associates

SEE FIGURE 1A

Bldg 2-126

DP-SY-02 (1.2 U µg/kg, 1 - 1')

SWMU 2-89.68
Reclamation Yard

DP-SY-08 (1.1 U µg/kg, 1 - 1')

DP-SY-06 (1.1 U µg/kg, 1 - 1')

10

Bldg 2-117

Demolished Building

Bldg 2-80

DP-SY-07 (1 U µg/kg, 1 - 1')

DP-SY-09 (1 U µg/kg, 1 - 1')

AOC 2-86.63
Wet Paint Booth

SB-08904 (2.1 U µg/kg, 1 - 1')

SB-08922 (2 U µg/kg, 1 - 1')

SB-08920 (2.1 U µg/kg, 1 - 1')

?

?

288-12 (3 U µg/kg, 0.5 - 0.5')

SB-08010 (2.1 U µg/kg, 0.5 - 0.5')

SB-08917 (2 U µg/kg, 1 - 1')

10

SWMU 2-80.57 Generator Sump

SOUTH YARD

?

?

288-11 (3.5 U µg/kg, 0.5 - 0.5')

2-60s
AREA

SB-08009 (2.2 U µg/kg, 0.6 - 0.6')

288-5 (4100 U µg/kg, 1 - 1')

288-6 (16 U µg/kg, 1 - 1')

OA 3 Former
UST PL-23

SWMU 2-78.1
Oil/Water Separator

SWMU 2-70.55
East Steam Clean
and Underground
Bulk Storage Tank

SWMU 2-80.56
Sink Sump

Bldg 2- 81

?

0.1

SB-08602 (2.1 U µg/kg, 1 - 1')

SWMU 2-91.70
Deactivated Waste Oil
and Coolant Storage Area

INSET

1

AOC 2-80.58
Deactivated Sump

0.731

SB-28201 (2.3 U µg/kg, 1 - 1')

?

Demolished Building

SWMU 78.5
Oil/Water Separator

DP-SY-10 (1.1 U µg/kg, 1 - 1')

Demolished Building

2-66 AREA

DP-SY-12 (1 U µg/kg, 1 - 1')

DP-SY-11 (1.1 U µg/kg, 1 - 1')

Demolished Building

SS-09111 (2 U µg/kg, 0 - 0.5')

SB-09104 (2.1 U µg/kg, 1 - 1')

SS-09102 (2.2 U µg/kg, 0 - 0.5')

SS-09103 (2.3 U µg/kg, 0 - 0.5')

SS-09110 (2.2 U µg/kg, 0 - 0.5')

SS-09101 (2.3 U µg/kg, 0 - 0.5')

SS-09105 (2.3 U µg/kg, 0 - 0.5')

SS-09104 (680 U µg/kg, 0 - 0.5')

SS-09107 (8.1 U µg/kg, 0 - 0.5')

?

SS-09108 (2.1 U µg/kg, 0 - 0.5')

SS-09109 (2.2 U µg/kg, 0 - 0.5')

SS-09112 (310 U µg/kg, 0 - 0.5')

SS-09106 (2.3 U µg/kg, 0 - 0.5')

1

SB-09102 (2.1 U µg/kg, 1 - 1')

0 70

Scale 1" = 70 Feet

LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 4.59 ug/kg
Proposed Media Cleanup Level (PMCL) = 290 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

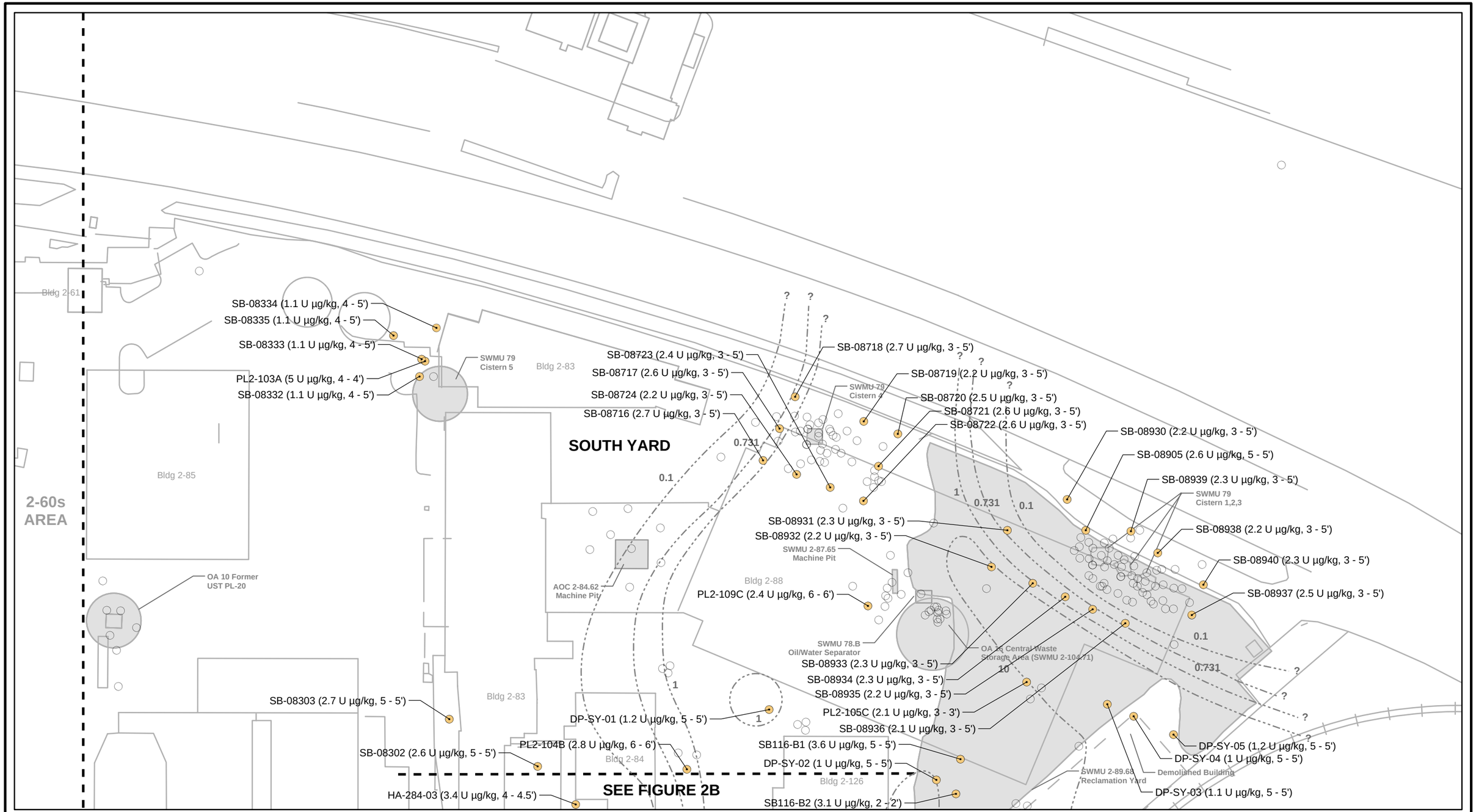
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
VINYL CHLORIDE IN SOIL: DEPTH 0 - 1 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_VINYL_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 4.59 ug/kg
Proposed Media Cleanup Level (PMCL) = 290 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

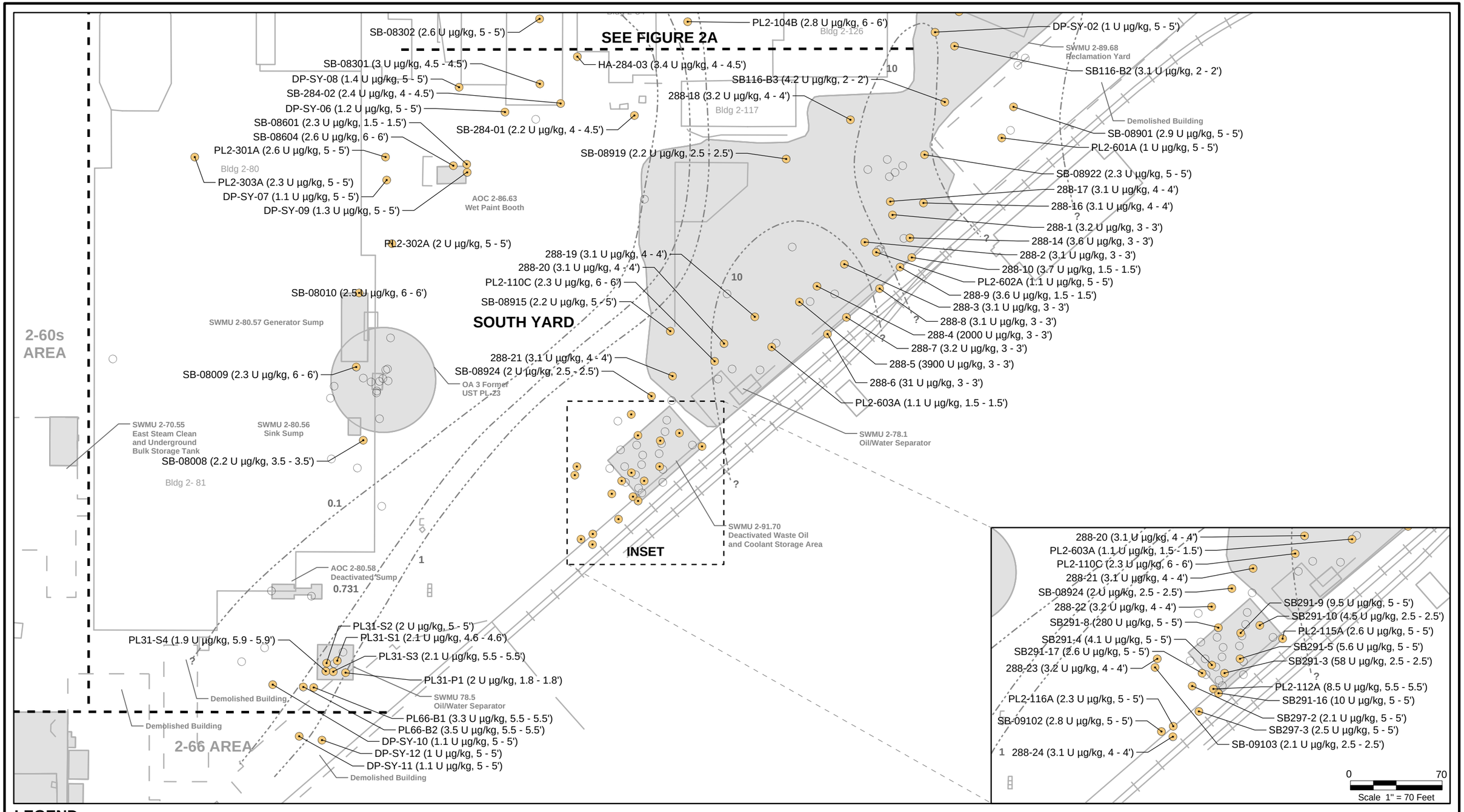
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
VINYL CHLORIDE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_VINYL_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 4.59 ug/kg
Proposed Media Cleanup Level (PMCL) = 290 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

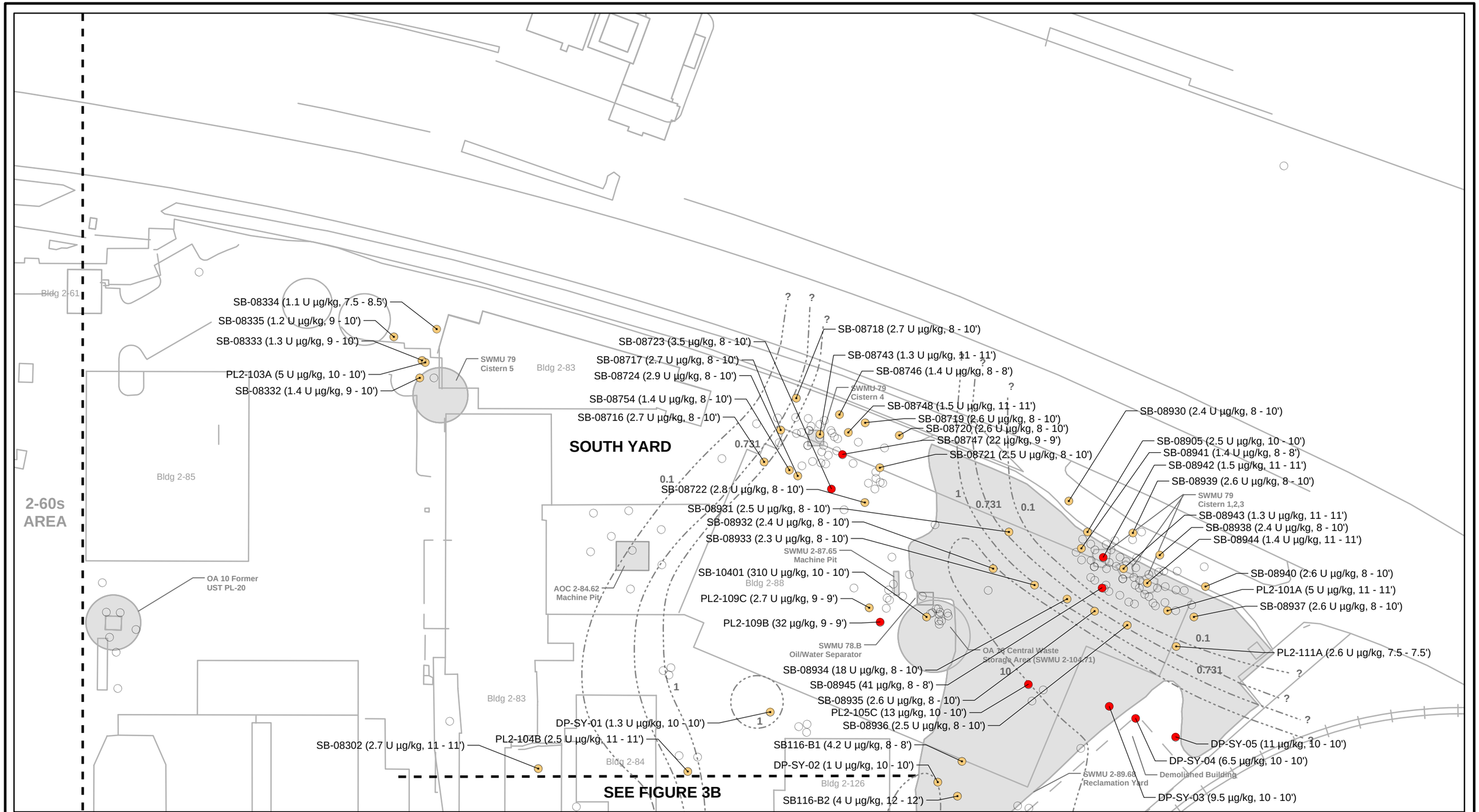
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
VINYL CHLORIDE IN SOIL: DEPTH 1 - 6 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_VINYL_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 4.59 ug/kg
Proposed Media Cleanup Level (PMCL) = 290 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

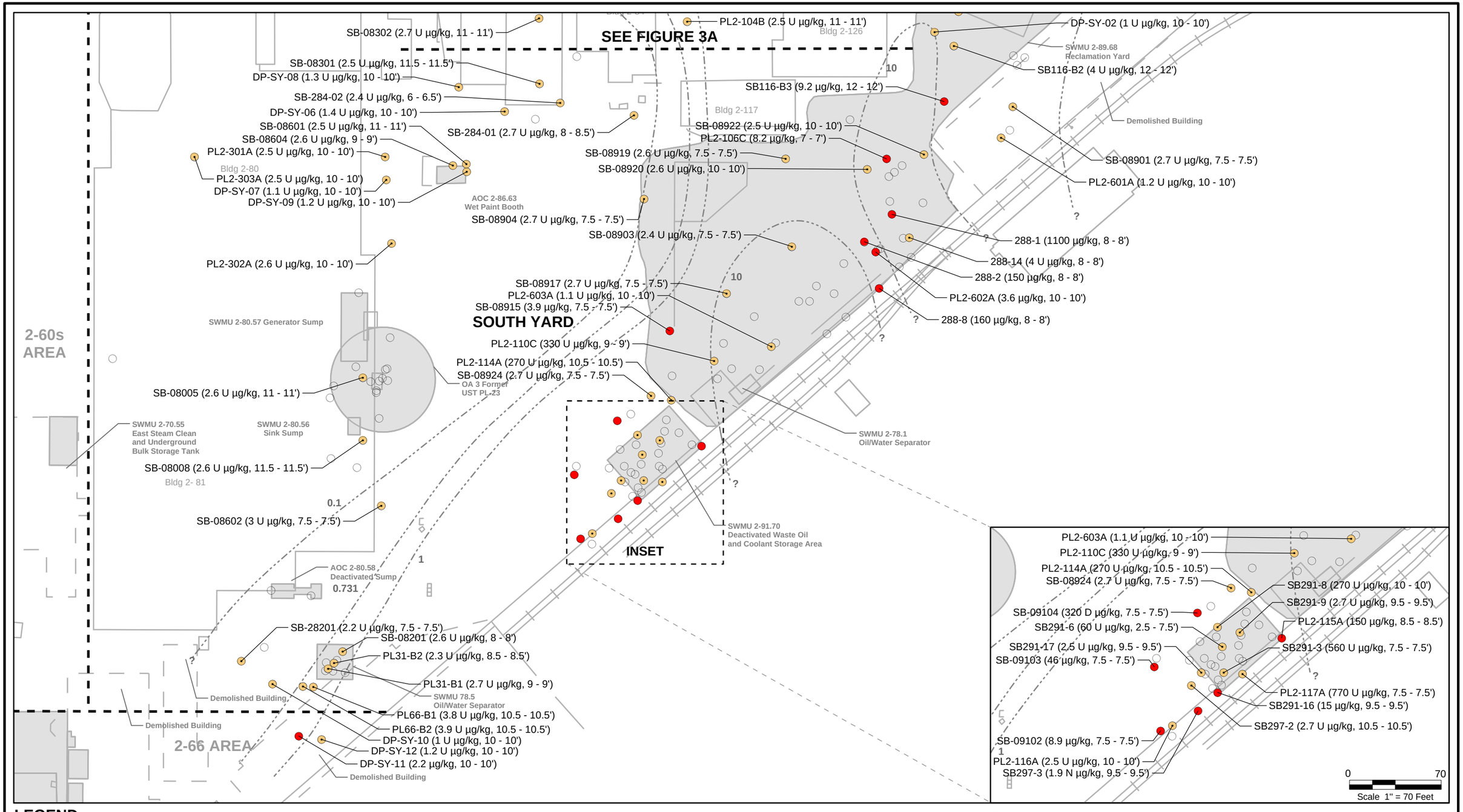
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST)
VINYL CHLORIDE IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_VINYL_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; ug/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Groundwater isoconcentration line within the A-zone Aquifer (ug/L).
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Environmental Partners, Golder Associates

Soil Screening Level = 4.59 ug/kg
Proposed Media Cleanup Level (PMCL) = 290 ug/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

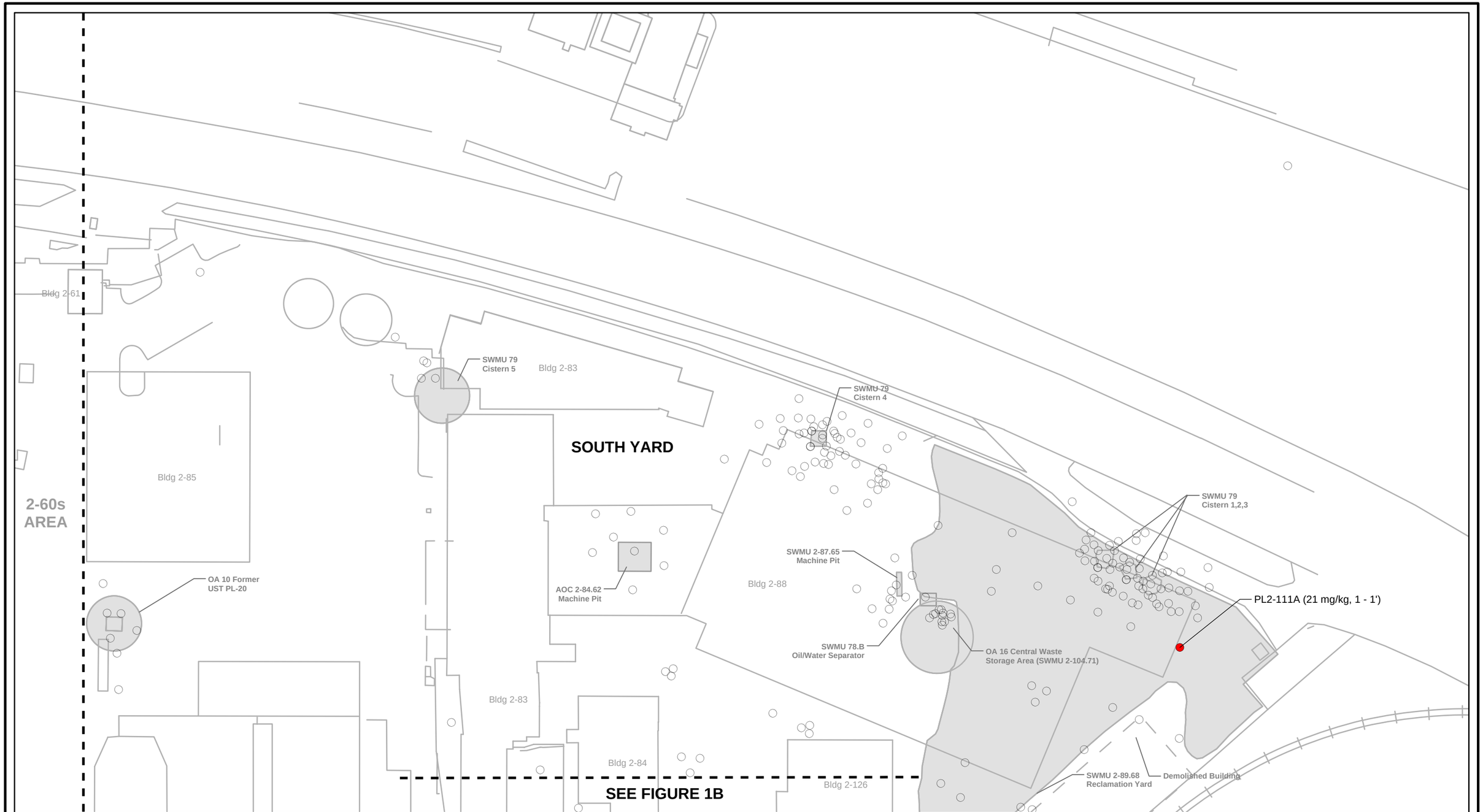
Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST)
VINYL CHLORIDE IN SOIL: DEPTH 6 - 12 FT
BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_VINYL_3B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 2000 mg/kg
Proposed Media Cleanup Level (PMCL) = 200 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (EAST), TOTAL PETROLEUM HYDROCARBONS IN SOIL: DEPTH 0 - 1 FT

BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1A

0131646600_PETROLEUM_1A_051404.mxd

Golder Associates

SEE FIGURE 1A

Bldg 2-126

Bldg 2-117

SWMU 2-89.68
Reclamation Yard

Demolished Building

Bldg 2-80

AOC 2-86.63
Wet Paint Booth

SB-08904 (11 U mg/kg, 1 - 1')

288-12 (10 U mg/kg, 0.5 - 0.5')

288-11 (29 mg/kg, 0.5 - 0.5')

288-5 (5600 mg/kg, 1 - 1')

288-6 (17000 mg/kg, 1 - 1')

SOUTH YARD

SWMU 2-80.57 Generator Sump

2-60s
AREA

OA 3 Former
UST PL-23

SWMU 2-78.1
Oil/Water Separator

SWMU 2-70.55
East Steam Clean
and Underground
Bulk Storage Tank

SWMU 2-80.56
Sink Sump

Bldg 2- 81

SB-08602 (15 mg/kg, 1 - 1')

SWMU 2-91.70
Deactivated Waste Oil
and Coolant Storage Area

INSET

AOC 2-80.58
Deactivated Sump

SB-28201 (12 mg/kg, 1 - 1')

Demolished Building

SWMU 78.5
Oil/Water Separator

Demolished Building

2-66 AREA

Demolished Building

SS-09104 (54000 mg/kg, 0 - 0.5')
SS-09110 (99 mg/kg, 0 - 0.5')
SS-09106 (49 mg/kg, 0 - 0.5')
SS-09105 (14000 mg/kg, 0 - 0.5')
SS-09107 (4100 mg/kg, 0 - 0.5')
SS-09108 (4300 mg/kg, 0 - 0.5')
SS-09112 (34000 mg/kg, 0 - 0.5')
SS-09111 (320 J mg/kg, 0 - 0.5')
SS-09102 (21000 mg/kg, 0 - 0.5')
SS-09103 (220 mg/kg, 0 - 0.5')
SS-09101 (9500 mg/kg, 0 - 0.5')
SS-09109 (29 mg/kg, 0 - 0.5')

0 70
Scale 1" = 70 Feet

LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 2000 mg/kg
Proposed Media Cleanup Level (PMCL) = 200 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

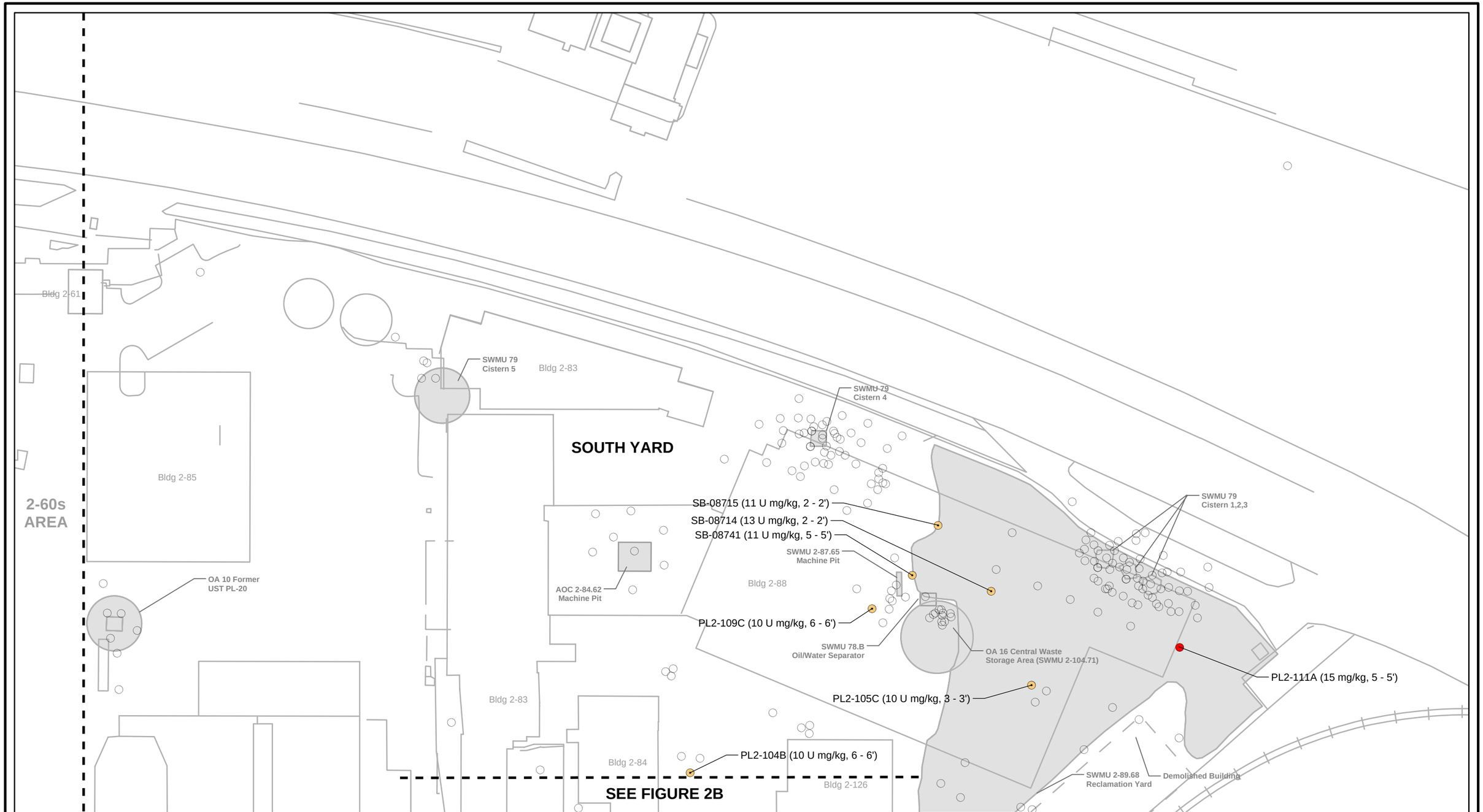
SOUTH YARD AREA (WEST), TOTAL PETROLEUM HYDROCARBONS IN SOIL: DEPTH 0 - 1 FT

BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 1B

0131646600_PETROLEUM_1B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Golder Associates

Soil Screening Level = 2000 mg/kg
Proposed Media Cleanup Level (PMCL) = 200 mg/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

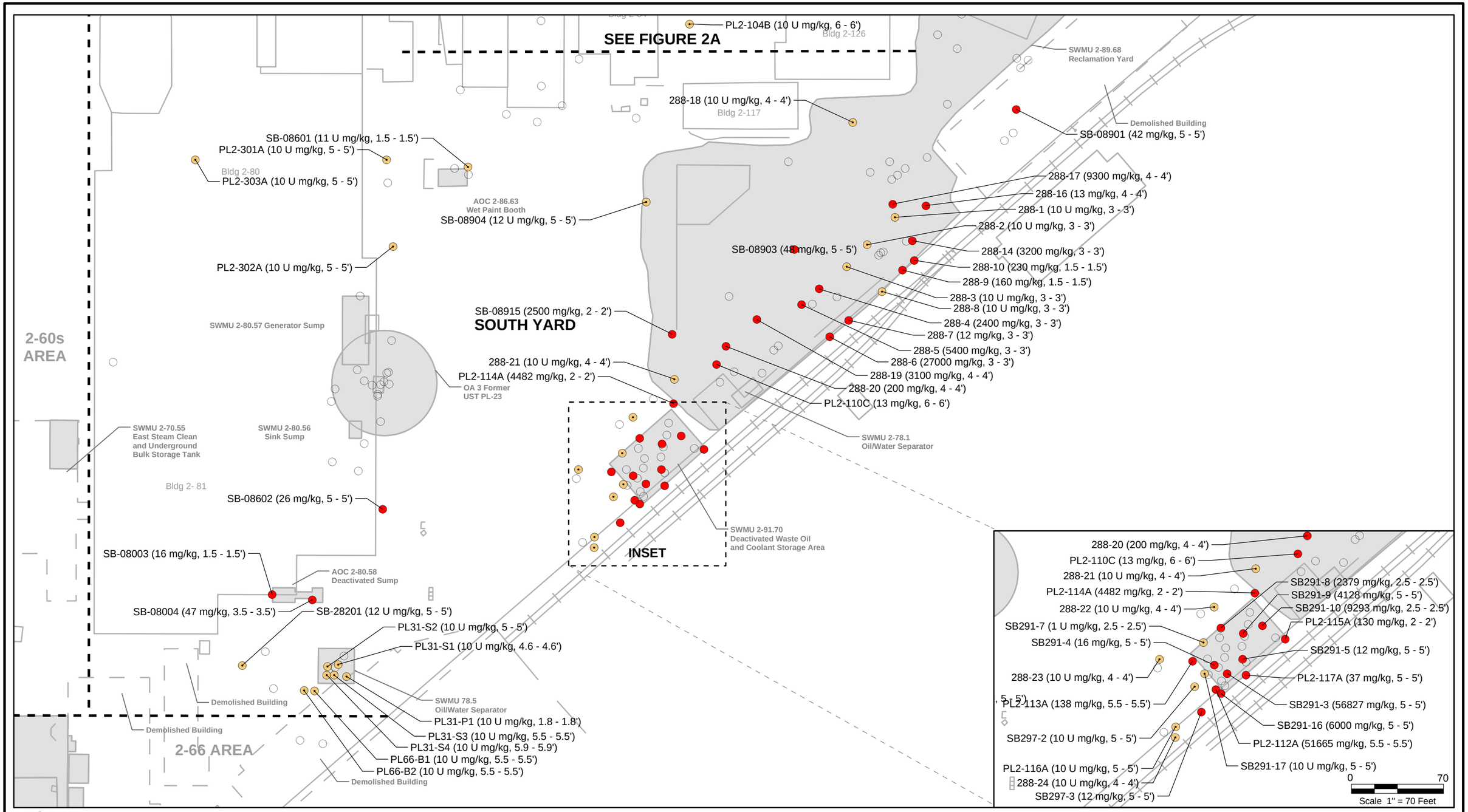
SOUTH YARD AREA (EAST), TOTAL PETROLEUM HYDROCARBONS IN SOIL: DEPTH 1 - 6 FT

BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2A

0131646600_PETROLEUM_2A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 2000 mg/kg
Proposed Media Cleanup Level (PMCL) = 200 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

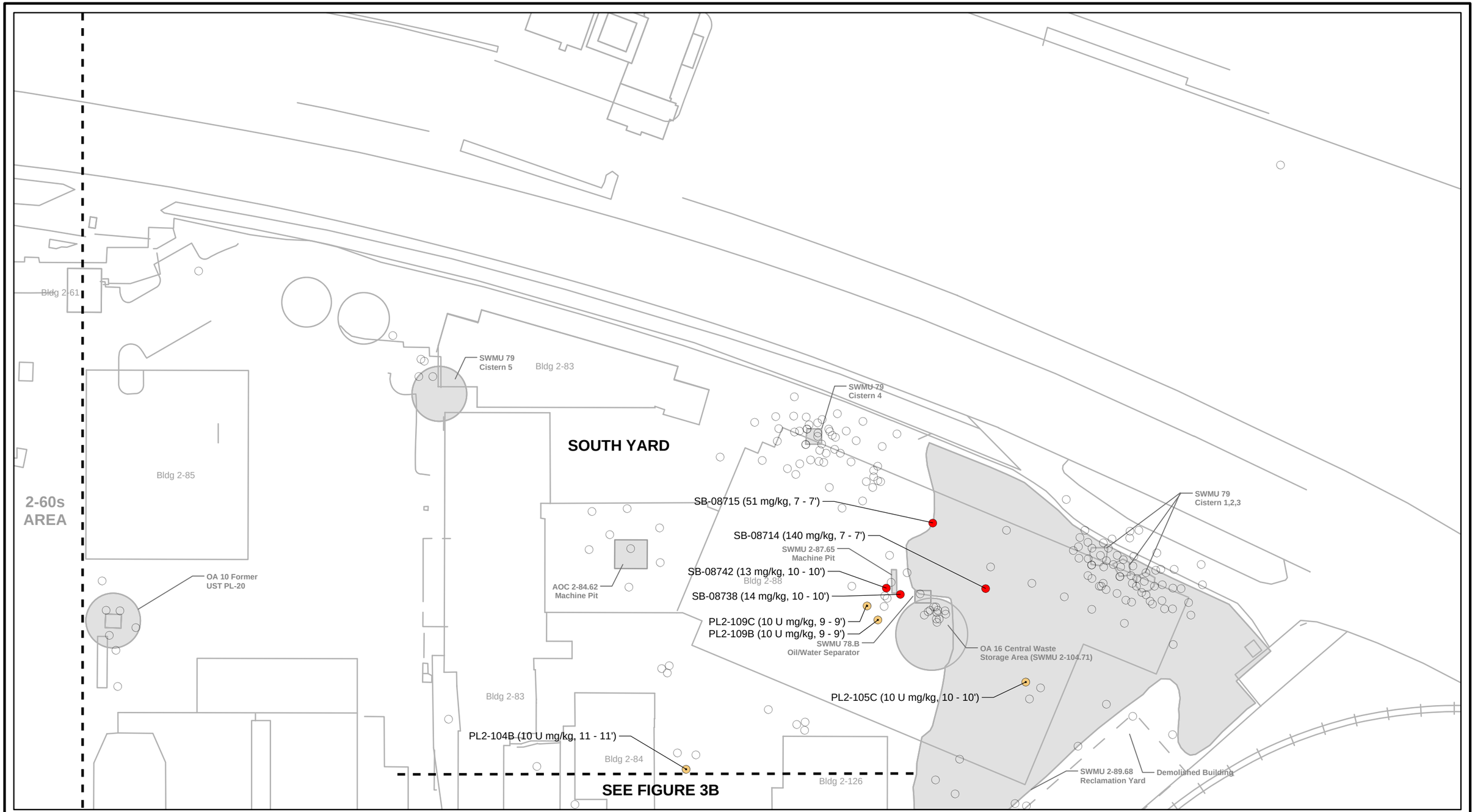
SOUTH YARD AREA (WEST), TOTAL PETROLEUM HYDROCARBONS IN SOIL: DEPTH 1 - 6 FT

BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 2B

0131646600_PETROLEUM_2B_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70

Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston, Golder Associates

Soil Screening Level = 2000 mg/kg
Proposed Media Cleanup Level (PMCL) = 200 mg/kg (Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

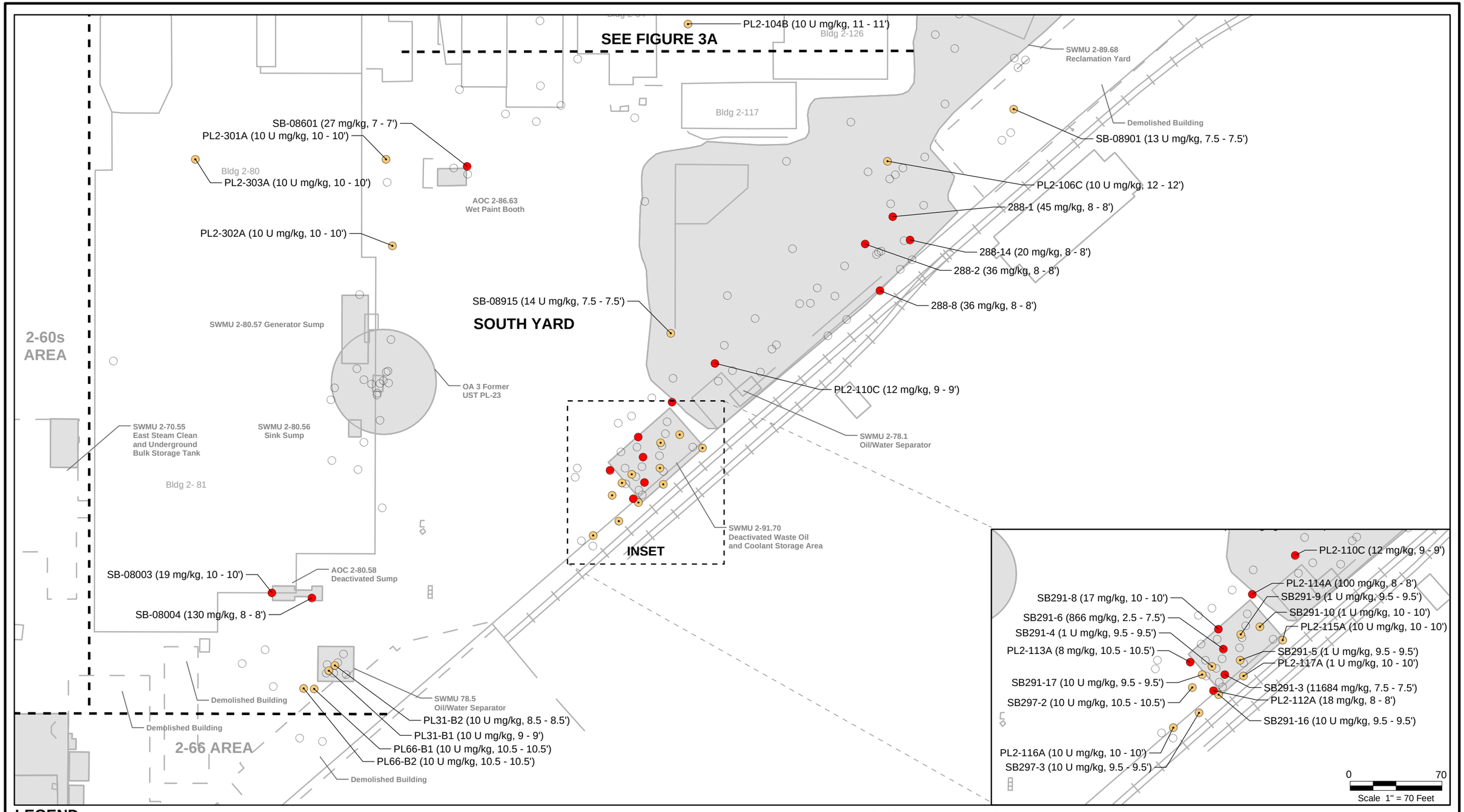
SOUTH YARD AREA (EAST), TOTAL PETROLEUM HYDROCARBONS IN SOIL: DEPTH 6 - 12 FT

BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3A

0131646600_PETROLEUM_3A_051404.mxd

Golder Associates



LEGEND

- Sample location where constituent was detected. (Concentration; mg/kg, Depth; feet bgs).
- Sample location where constituent was not detected.
- Sample location where constituent was not analyzed.
- Plant 2 Sub-Area Boundary.

0 70
Scale 1" = 70 Feet

Map Projection:
Washington State Plane
North Zone, NAD 83, Feet

Source: Weston,
Golder Associates

Soil Screening Level = 2000 mg/kg
Proposed Media Cleanup Level (PMCL) = 200 mg/kg
(Weston, 1999)

Data presented on this figure is post removal actions at SWMU 79 and OA 3.

Explanation for data qualifiers (U, J, Y...) are provided in Attachment B.

SOUTH YARD AREA (WEST), TOTAL PETROLEUM HYDROCARBONS IN SOIL: DEPTH 6 - 12 FT

BOEING PLANT 2

Drawn: BBA	Revision: 3	Date: Dec. 21, 2005	Figure: 3B

0131646600_PETROLEUM_3B_051404.mxd

Golder Associates

Boeing Plant 2
Seattle/Tukwila, Washington

Uplands Corrective Measures
Volume III: South Yard Area

Data Gap Investigation Work Plan

Attachment B
Data Tables

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Arsenic (mg/kg) - 2004 Soil Screening Level = 5.0 mg/kg; PMCL = 7.3 mg/kg[3]				
288-13	2 - 2	8/13/1991	4	U
288-15	2 - 2	8/13/1991	5	U
288-16	4 - 4	8/14/1991	4	U
288-17	4 - 4	8/14/1991	4	U
288-18	4 - 4	8/14/1991	5	U
288-19	4 - 4	8/14/1991	5	U
288-20	4 - 4	8/14/1991	4	U
288-21	4 - 4	8/14/1991	4	U
288-22	4 - 4	8/14/1991	5	U
288-23	4 - 4	8/14/1991	5	U
288-24	4 - 4	8/14/1991	4	U
CN4-N-B	11 - 11	9/16/1986	1.7	
PL2-104B	6 - 6	6/24/1992	5.3	
PL2-104B	11 - 11	6/24/1992	1.1	
PL2-105C	3 - 3	6/25/1992	1.3	
PL2-105C	10 - 10	6/25/1992	2.1	
PL2-106C	7 - 7	6/18/1992	4	
PL2-106C	12 - 12	6/18/1992	2.1	
PL2-109B	9 - 9	7/7/1992	4	
PL2-109C	6 - 6	7/6/1992	3.2	
PL2-109C	9 - 9	7/6/1992	2	
PL2-110C	6 - 6	6/22/1992	1.9	
PL2-110C	9 - 9	6/22/1992	3.3	
PL2-111A	1 - 1	12/9/1993	2.6	
PL2-111A	5 - 5	12/9/1993	4.6	
PL2-301A	5 - 5	7/8/1992	6	U
PL2-301A	10 - 10	7/8/1992	6	U
PL2-302A	5 - 5	7/8/1992	6	U
PL2-302A	10 - 10	7/8/1992	6	U
PL2-303A	5 - 5	7/8/1992	6	U
PL2-303A	10 - 10	7/8/1992	6	U
PL2-303A	10 - 10	7/8/1992	6	U
SB-08003	1.5 - 1.5	8/18/1994	6	U
SB-08003	8 - 8	8/18/1994	6	U
SB-08003	10 - 10	8/18/1994	6	U
SB-08004	3.5 - 3.5	8/18/1994	5	U
SB-08004	8 - 8	8/18/1994	5	U
SB-08004	12 - 12	8/18/1994	6	U
SB-08008	3.5 - 3.5	2/15/1995	5	U
SB-08008	6.5 - 6.5	2/15/1995	5	U
SB-08008	11.5 - 11.5	2/15/1995	6	U
SB-08009	0.6 - 0.6	2/16/1995	5	U
SB-08009	6 - 6	2/16/1995	6	U
SB-08010	0.5 - 0.5	2/16/1995	5	U
SB-08010	6 - 6	2/16/1995	6	U
SB-08201	6.5 - 6.5	12/21/1993	1.3	
SB-08201	8 - 8	12/21/1993	1.4	
SB-08201	11 - 11	12/21/1993	1.7	
SB-08301	1.5 - 1.5	9/3/1994	6	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Arsenic (mg/kg) - 2004 Soil Screening Level = 5.0 mg/kg; PMCL = 7.3 mg/kg[3]				
SB-08301	4.5 - 4.5	9/3/1994	12	
SB-08301	11.5 - 11.5	9/3/1994	6	U
SB-08302	2 - 2	9/3/1994	6	
SB-08302	5 - 5	9/3/1994	7	
SB-08302	11 - 11	9/3/1994	6	U
SB-08303	5 - 5	12/13/1993	8.3	
SB-08305	1 - 1	2/22/1995	5	U
SB-08305	5 - 5	2/22/1995	6	U
SB-08332	4 - 5	4/15/2002	5	U
SB-08332	4 - 5	4/15/2002	5	U
SB-08332	9 - 10	4/15/2002	7	U
SB-08333	4 - 5	4/15/2002	5	U
SB-08333	9 - 10	4/15/2002	7	U
SB-08334	4 - 5	4/23/2002	5	U
SB-08334	7.5 - 8.5	4/23/2002	5	U
SB-08335	4 - 5	4/23/2002	5	U
SB-08335	9 - 10	4/23/2002	6	U
SB-08601	1.5 - 1.5	12/20/1993	1.8	
SB-08601	7 - 7	12/20/1993	7.3	
SB-08601	11 - 11	12/20/1993	2.2	
SB-08602	1 - 1	12/9/1993	2.5	
SB-08602	5 - 5	12/9/1993	4	
SB-08604	1.5 - 1.5	9/19/1994	6	U
SB-08604	6 - 6	9/19/1994	7	U
SB-08604	9 - 9	9/19/1994	7	
SB-08705	2.5 - 2.5	8/18/1994	5	U
SB-08705	5 - 5	8/18/1994	6	U
SB-08705	7.5 - 7.5	8/18/1994	7	U
SB-08706	7.5 - 7.5	8/25/1994	6	U
SB-08706	10 - 10	8/25/1994	6	U
SB-08716	3 - 5	11/25/1998	6	U
SB-08716	8 - 10	11/25/1998	7	U
SB-08717	3 - 5	11/25/1998	6	U
SB-08717	8 - 10	11/25/1998	7	U
SB-08718	3 - 5	11/25/1998	7	U
SB-08718	8 - 10	11/25/1998	6	U
SB-08719	3 - 5	11/25/1998	6	U
SB-08719	8 - 10	11/25/1998	6	U
SB-08720	3 - 5	11/25/1998	6	U
SB-08720	8 - 10	11/25/1998	7	U
SB-08721	3 - 5	11/25/1998	6	U
SB-08721	8 - 10	11/25/1998	7	U
SB-08722	3 - 5	11/25/1998	6	U
SB-08722	8 - 10	11/25/1998	7	U
SB-08723	3 - 5	11/25/1998	6	U
SB-08723	8 - 10	11/25/1998	7	U
SB-08724	3 - 5	11/25/1998	5	U
SB-08724	8 - 10	11/25/1998	7	U
SB-08901	5 - 5	12/11/1993	3.4	

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Arsenic (mg/kg) - 2004 Soil Screening Level = 5.0 mg/kg; PMCL = 7.3 mg/kg[3]				
SB-08901	7.5 - 7.5	12/11/1993	2.1	
SB-08903	5 - 5	12/13/1993	2.5	
SB-08903	5 - 5	12/13/1993	2.5	
SB-08904	1 - 1	12/9/1993	2.3	
SB-08904	5 - 5	12/9/1993	4.5	
SB-08905	5 - 5	8/24/1994	6	U
SB-08905	7.5 - 7.5	8/24/1994	6	U
SB-08905	10 - 10	8/24/1994	6	U
SB-08909	5 - 5	8/19/1994	6	
SB-08909	7.5 - 7.5	8/19/1994	5	U
SB-08909	10 - 10	8/19/1994	5	U
SB-08915	2 - 2	8/17/1994	5	U
SB-08915	5 - 5	8/17/1994	5	U
SB-08915	7.5 - 7.5	8/17/1994	10	
SB-08916	2 - 2	9/13/1994	5	U
SB-08916	5 - 5	9/13/1994	6	U
SB-08917	1 - 1	8/23/1994	5	U
SB-08917	7.5 - 7.5	8/23/1994	7	U
SB-08917	10 - 10	8/23/1994	6	U
SB-08918	2 - 2	9/13/1994	5	U
SB-08918	5 - 5	9/13/1994	8	
SB-08919	2.5 - 2.5	8/18/1994	5	U
SB-08919	7.5 - 7.5	8/18/1994	7	U
SB-08919	10 - 10	8/18/1994	6	U
SB-08920	1 - 1	8/23/1994	5	U
SB-08920	7.5 - 7.5	8/23/1994	6	U
SB-08920	10 - 10	8/23/1994	6	U
SB-08921	2 - 2	9/13/1994	8	
SB-08921	5 - 5	9/13/1994	5	U
SB-08922	1 - 1	8/19/1994	5	U
SB-08922	5 - 5	8/19/1994	6	
SB-08922	10 - 10	8/19/1994	6	U
SB-08923	2 - 2	9/13/1994	7	
SB-08923	5 - 5	9/13/1994	6	U
SB-08924	2.5 - 2.5	8/18/1994	5	U
SB-08924	2.5 - 2.5	8/18/1994	5	U
SB-08924	7.5 - 7.5	8/18/1994	7	U
SB-08924	10 - 10	8/18/1994	6	U
SB-08926	2.5 - 2.5	3/2/1995	6	U
SB-08926	5.5 - 5.5	3/2/1995	6	U
SB-08926	8.5 - 8.5	3/2/1995	6	U
SB-08927	2 - 2	3/6/1995	5	U
SB-08927	6.5 - 6.5	3/6/1995	6	U
SB-08927	9.5 - 9.5	3/6/1995	7	U
SB-08928	2.5 - 2.5	3/3/1995	5	U
SB-08928	4.5 - 4.5	3/3/1995	6	U
SB-08928	8.5 - 8.5	3/3/1995	6	U
SB-08929	2 - 2	3/6/1995	5	U
SB-08929	6.5 - 6.5	3/6/1995	6	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Arsenic (mg/kg) - 2004 Soil Screening Level = 5.0 mg/kg; PMCL = 7.3 mg/kg[3]				
SB-08929	9.5 - 9.5	3/6/1995	6	U
SB-08930	3 - 5	11/24/1998	1.8	
SB-08930	8 - 10	11/24/1998	1.7	
SB-08931	3 - 5	11/24/1998	2.1	
SB-08931	8 - 10	11/24/1998	1.3	
SB-08932	3 - 5	11/24/1998	4.1	
SB-08932	8 - 10	11/24/1998	1.4	
SB-08933	3 - 5	11/24/1998	1.3	
SB-08933	8 - 10	11/24/1998	2.9	
SB-08934	3 - 5	11/24/1998	1.5	
SB-08934	8 - 10	11/24/1998	3	
SB-08935	3 - 5	11/24/1998	2.8	
SB-08935	8 - 10	11/24/1998	3.2	
SB-08936	3 - 5	11/24/1998	1.7	
SB-08936	8 - 10	11/24/1998	2.7	
SB-08937	3 - 5	11/24/1998	1.7	
SB-08937	8 - 10	11/24/1998	4.6	
SB-08938	3 - 5	11/24/1998	2.2	
SB-08938	8 - 10	11/24/1998	2.6	
SB-08939	3 - 5	11/24/1998	1.4	
SB-08939	8 - 10	11/24/1998	3.8	
SB-08940	3 - 5	11/24/1998	1.7	
SB-08940	8 - 10	11/24/1998	1.6	
SB-09101	2 - 2	9/12/1994	5	U
SB-09101	5 - 5	9/12/1994	5	U
SB-09102	1 - 1	8/16/1994	5	U
SB-09102	1 - 1	8/16/1994	5	U
SB-09102	5 - 5	8/16/1994	6	U
SB-09102	7.5 - 7.5	8/16/1994	8	
SB-09103	2.5 - 2.5	8/16/1994	5	U
SB-09103	7.5 - 7.5	8/16/1994	10	
SB-09103	10 - 10	8/16/1994	6	U
SB-09104	1 - 1	8/16/1994	5	U
SB-09104	7.5 - 7.5	8/16/1994	7	U
SB-09104	10 - 10	8/16/1994	7	
SB-09105	2 - 2	9/12/1994	6	
SB-09105	5 - 5	9/12/1994	8	
SB-09106	2 - 2	9/12/1994	13	
SB-09106	5 - 5	9/12/1994	7	U
SB-10401	10 - 10	3/15/1994	6	U
SB-10403	10.5 - 10.5	9/7/1994	6	U
SB-10404	1.5 - 1.5	9/7/1994	5	U
SB-10404	6.5 - 6.5	9/7/1994	7	U
SB-10404	10.5 - 10.5	9/7/1994	7	U
SB-10405	10.5 - 10.5	9/7/1994	7	U
SB-28201	1 - 1	12/9/1993	2	
SB-28201	5 - 5	12/9/1993	4	
SS-09101	0 - 0.5	11/29/1993	6	U
SS-09102	0 - 0.5	11/19/1993	4	U

South Yard Area COC Results
Arsenic Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Arsenic (mg/kg) - 2004 Soil Screening Level = 5.0 mg/kg; PMCL = 7.3 mg/kg[3]				
SS-09103	0 - 0.5	11/24/1993	5	U
SS-09104	0 - 0.5	11/22/1993	5	U
SS-09105	0 - 0.5	11/16/1993	5	U
SS-09106	0 - 0.5	11/18/1993	5	U
SS-09107	0 - 0.5	11/16/1993	5	U
SS-09108	0 - 0.5	11/17/1993	5	U
SS-09109	0 - 0.5	11/19/1993	4	U
SS-09110	0 - 0.5	11/17/1993	6	U
SS-09111	0 - 0.5	11/23/1993	5	U
SS-09111	0 - 0.5	11/23/1993	5	U
SS-09112	0 - 0.5	11/29/1993	6	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999)

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Cadmium (mg/kg) - 2004 Soil Screening Level = 1.01 mg/kg; PMCL = 1.28 mg/kg[3]				
288-13	2 - 2	8/13/1991	0.2	U
288-15	2 - 2	8/13/1991	0.2	U
288-16	4 - 4	8/14/1991	0.1	U
288-17	4 - 4	8/14/1991	0.2	U
288-18	4 - 4	8/14/1991	0.2	U
288-19	4 - 4	8/14/1991	0.4	
288-20	4 - 4	8/14/1991	0.2	U
288-21	4 - 4	8/14/1991	0.2	U
288-22	4 - 4	8/14/1991	0.2	U
288-23	4 - 4	8/14/1991	0.2	U
288-24	4 - 4	8/14/1991	0.2	U
PL2-101A	11 - 11	10/28/1985	0.1	U
PL2-103A	4 - 4	10/28/1985	0.1	U
PL2-103A	7 - 7	10/28/1985	0.4	
PL2-103A	10 - 10	10/28/1985	0.5	U
PL2-104B	6 - 6	6/24/1992	0.3	U
PL2-104B	11 - 11	6/24/1992	0.3	U
PL2-105C	3 - 3	6/25/1992	0.3	
PL2-105C	10 - 10	6/25/1992	0.3	U
PL2-106C	7 - 7	6/18/1992	0.3	U
PL2-106C	12 - 12	6/18/1992	0.2	U
PL2-109B	9 - 9	7/7/1992	0.3	U
PL2-109C	6 - 6	7/6/1992	0.3	U
PL2-109C	9 - 9	7/6/1992	0.3	U
PL2-110C	6 - 6	6/22/1992	0.2	U
PL2-110C	9 - 9	6/22/1992	0.3	U
PL2-111A	1 - 1	12/9/1993	0.2	U
PL2-111A	5 - 5	12/9/1993	0.2	U
PL2-301A	5 - 5	7/8/1992	0.8	
PL2-301A	10 - 10	7/8/1992	0.3	
PL2-302A	5 - 5	7/8/1992	0.2	U
PL2-302A	10 - 10	7/8/1992	0.5	
PL2-303A	5 - 5	7/8/1992	0.2	U
PL2-303A	10 - 10	7/8/1992	0.3	U
PL2-303A	10 - 10	7/8/1992	0.3	U
SB-08003	1.5 - 1.5	8/18/1994	0.2	U
SB-08003	8 - 8	8/18/1994	0.2	U
SB-08003	10 - 10	8/18/1994	0.3	U
SB-08004	3.5 - 3.5	8/18/1994	0.2	U
SB-08004	8 - 8	8/18/1994	0.2	U
SB-08004	12 - 12	8/18/1994	0.2	U
SB-08008	3.5 - 3.5	2/15/1995	0.2	U
SB-08008	6.5 - 6.5	2/15/1995	0.2	U
SB-08008	11.5 - 11.5	2/15/1995	0.2	U
SB-08009	0.6 - 0.6	2/16/1995	0.6	
SB-08009	6 - 6	2/16/1995	0.2	U
SB-08010	0.5 - 0.5	2/16/1995	0.2	U
SB-08010	6 - 6	2/16/1995	0.2	U
SB-08201	6.5 - 6.5	12/21/1993	0.3	

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Cadmium (mg/kg) - 2004 Soil Screening Level = 1.01 mg/kg; PMCL = 1.28 mg/kg[3]				
SB-08201	8 - 8	12/21/1993	0.2	U
SB-08201	11 - 11	12/21/1993	0.3	U
SB-08301	1.5 - 1.5	9/3/1994	0.2	U
SB-08301	4.5 - 4.5	9/3/1994	0.3	
SB-08301	11.5 - 11.5	9/3/1994	0.3	U
SB-08302	2 - 2	9/3/1994	0.2	U
SB-08302	5 - 5	9/3/1994	0.3	U
SB-08302	11 - 11	9/3/1994	0.3	U
SB-08303	5 - 5	12/13/1993	0.3	U
SB-08305	1 - 1	2/22/1995	0.2	U
SB-08305	5 - 5	2/22/1995	0.2	U
SB-08332	4 - 5	4/15/2002	0.2	U
SB-08332	4 - 5	4/15/2002	0.2	U
SB-08332	9 - 10	4/15/2002	0.3	U
SB-08333	4 - 5	4/15/2002	0.2	U
SB-08333	9 - 10	4/15/2002	0.3	U
SB-08334	4 - 5	4/23/2002	0.2	U
SB-08334	7.5 - 8.5	4/23/2002	0.2	U
SB-08335	4 - 5	4/23/2002	0.2	U
SB-08335	9 - 10	4/23/2002	2.2	
SB-08601	1.5 - 1.5	12/20/1993	0.2	U
SB-08601	7 - 7	12/20/1993	0.4	
SB-08601	11 - 11	12/20/1993	0.2	U
SB-08602	1 - 1	12/9/1993	0.2	U
SB-08602	5 - 5	12/9/1993	0.2	U
SB-08604	1.5 - 1.5	9/19/1994	0.2	U
SB-08604	6 - 6	9/19/1994	0.3	U
SB-08604	9 - 9	9/19/1994	0.3	U
SB-08705	2.5 - 2.5	8/18/1994	0.2	U
SB-08705	5 - 5	8/18/1994	0.2	U
SB-08705	7.5 - 7.5	8/18/1994	0.3	U
SB-08706	7.5 - 7.5	8/25/1994	0.2	U
SB-08706	10 - 10	8/25/1994	0.3	U
SB-08716	3 - 5	11/25/1998	0.2	U
SB-08716	8 - 10	11/25/1998	0.3	U
SB-08717	3 - 5	11/25/1998	0.2	U
SB-08717	8 - 10	11/25/1998	0.3	U
SB-08718	3 - 5	11/25/1998	0.3	U
SB-08718	8 - 10	11/25/1998	0.2	U
SB-08719	3 - 5	11/25/1998	0.2	U
SB-08719	8 - 10	11/25/1998	0.3	U
SB-08720	3 - 5	11/25/1998	0.2	U
SB-08720	8 - 10	11/25/1998	0.3	U
SB-08721	3 - 5	11/25/1998	0.3	U
SB-08721	8 - 10	11/25/1998	0.3	U
SB-08722	3 - 5	11/25/1998	0.3	U
SB-08722	8 - 10	11/25/1998	0.3	U
SB-08723	3 - 5	11/25/1998	0.2	U
SB-08723	8 - 10	11/25/1998	0.3	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Cadmium (mg/kg) - 2004 Soil Screening Level = 1.01 mg/kg; PMCL = 1.28 mg/kg[3]				
SB-08724	3 - 5	11/25/1998	0.2	U
SB-08724	8 - 10	11/25/1998	0.3	U
SB-08743	11 - 11	6/3/1999	2.7	
SB-08744	8 - 8	6/4/1999	0.2	U
SB-08746	8 - 8	6/4/1999	0.3	U
SB-08747	9 - 9	6/4/1999	0.4	
SB-08748	11 - 11	6/4/1999	0.3	U
SB-08754	8 - 10	7/20/1999	0.3	U
SB-08901	5 - 5	12/11/1993	0.3	U
SB-08901	7.5 - 7.5	12/11/1993	0.3	
SB-08903	5 - 5	12/13/1993	0.2	U
SB-08903	5 - 5	12/13/1993	0.2	U
SB-08904	1 - 1	12/9/1993	0.2	U
SB-08904	5 - 5	12/9/1993	0.2	U
SB-08905	5 - 5	8/24/1994	40.9	
SB-08905	7.5 - 7.5	8/24/1994	0.2	U
SB-08905	10 - 10	8/24/1994	0.2	U
SB-08909	5 - 5	8/19/1994	255	
SB-08909	7.5 - 7.5	8/19/1994	0.2	U
SB-08909	10 - 10	8/19/1994	0.3	
SB-08915	2 - 2	8/17/1994	0.5	
SB-08915	5 - 5	8/17/1994	0.2	U
SB-08915	7.5 - 7.5	8/17/1994	0.3	
SB-08916	2 - 2	9/13/1994	0.2	U
SB-08916	5 - 5	9/13/1994	0.2	U
SB-08917	1 - 1	8/23/1994	0.2	U
SB-08917	7.5 - 7.5	8/23/1994	0.3	
SB-08917	10 - 10	8/23/1994	0.3	U
SB-08918	2 - 2	9/13/1994	0.3	
SB-08918	5 - 5	9/13/1994	0.2	U
SB-08919	2.5 - 2.5	8/18/1994	0.2	U
SB-08919	7.5 - 7.5	8/18/1994	0.3	U
SB-08919	10 - 10	8/18/1994	0.4	
SB-08920	1 - 1	8/23/1994	0.4	
SB-08920	7.5 - 7.5	8/23/1994	0.4	
SB-08920	10 - 10	8/23/1994	0.3	U
SB-08921	2 - 2	9/13/1994	0.2	U
SB-08921	5 - 5	9/13/1994	0.2	U
SB-08922	1 - 1	8/19/1994	0.2	U
SB-08922	5 - 5	8/19/1994	0.2	U
SB-08922	10 - 10	8/19/1994	0.2	U
SB-08923	2 - 2	9/13/1994	0.2	U
SB-08923	5 - 5	9/13/1994	0.2	U
SB-08924	2.5 - 2.5	8/18/1994	0.2	U
SB-08924	2.5 - 2.5	8/18/1994	0.2	
SB-08924	7.5 - 7.5	8/18/1994	0.3	U
SB-08924	10 - 10	8/18/1994	0.2	U
SB-08926	2.5 - 2.5	3/2/1995	0.2	U
SB-08926	5.5 - 5.5	3/2/1995	0.3	

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Cadmium (mg/kg) - 2004 Soil Screening Level = 1.01 mg/kg; PMCL = 1.28 mg/kg[3]				
SB-08926	8.5 - 8.5	3/2/1995	0.2	U
SB-08927	2 - 2	3/6/1995	0.2	U
SB-08927	6.5 - 6.5	3/6/1995	0.3	U
SB-08927	9.5 - 9.5	3/6/1995	0.3	U
SB-08928	2.5 - 2.5	3/3/1995	0.2	U
SB-08928	4.5 - 4.5	3/3/1995	0.3	U
SB-08928	8.5 - 8.5	3/3/1995	0.3	U
SB-08929	2 - 2	3/6/1995	0.2	U
SB-08929	6.5 - 6.5	3/6/1995	0.2	U
SB-08929	9.5 - 9.5	3/6/1995	0.3	U
SB-08930	3 - 5	11/24/1998	0.2	U
SB-08930	8 - 10	11/24/1998	0.2	U
SB-08931	3 - 5	11/24/1998	0.2	U
SB-08931	8 - 10	11/24/1998	0.2	U
SB-08932	3 - 5	11/24/1998	0.3	U
SB-08932	8 - 10	11/24/1998	0.3	U
SB-08933	3 - 5	11/24/1998	0.2	U
SB-08933	8 - 10	11/24/1998	0.2	U
SB-08934	3 - 5	11/24/1998	1.9	
SB-08934	8 - 10	11/24/1998	0.2	U
SB-08935	3 - 5	11/24/1998	0.2	U
SB-08935	8 - 10	11/24/1998	0.3	U
SB-08936	3 - 5	11/24/1998	1.8	
SB-08936	8 - 10	11/24/1998	0.3	U
SB-08937	3 - 5	11/24/1998	0.2	U
SB-08937	8 - 10	11/24/1998	0.3	U
SB-08938	3 - 5	11/24/1998	23.2	
SB-08938	8 - 10	11/24/1998	0.2	U
SB-08939	3 - 5	11/24/1998	0.2	U
SB-08939	8 - 10	11/24/1998	0.3	U
SB-08940	3 - 5	11/24/1998	0.2	U
SB-08940	8 - 10	11/24/1998	0.2	U
SB-08941	8 - 8	5/25/1999	0.6	
SB-08942	11 - 11	5/25/1999	0.3	U
SB-08943	11 - 11	5/25/1999	1.6	
SB-08944	11 - 11	5/25/1999	61	
SB-08945	8 - 8	5/25/1999	0.3	U
SB-08949	8.5 - 10.5	6/22/1999	0.3	
SB-08950	8 - 10	6/20/1999	0.40	
SB-09101	2 - 2	9/12/1994	0.2	U
SB-09101	5 - 5	9/12/1994	0.2	U
SB-09102	1 - 1	8/16/1994	0.2	U
SB-09102	1 - 1	8/16/1994	0.2	U
SB-09102	5 - 5	8/16/1994	0.3	U
SB-09102	7.5 - 7.5	8/16/1994	0.2	U
SB-09103	2.5 - 2.5	8/16/1994	0.2	U
SB-09103	7.5 - 7.5	8/16/1994	0.3	U
SB-09103	10 - 10	8/16/1994	0.3	U
SB-09104	1 - 1	8/16/1994	0.2	U

South Yard Area COC Results
Cadmium Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Cadmium (mg/kg) - 2004 Soil Screening Level = 1.01 mg/kg; PMCL = 1.28 mg/kg[3]				
SB-09104	7.5 - 7.5	8/16/1994	0.3	U
SB-09104	10 - 10	8/16/1994	0.2	U
SB-09105	2 - 2	9/12/1994	0.2	U
SB-09105	5 - 5	9/12/1994	0.3	U
SB-09106	2 - 2	9/12/1994	0.6	
SB-09106	5 - 5	9/12/1994	0.3	U
SB-10401	10 - 10	3/15/1994	0.3	
SB-10403	10.5 - 10.5	9/7/1994	0.3	U
SB-10404	1.5 - 1.5	9/7/1994	0.2	U
SB-10404	6.5 - 6.5	9/7/1994	0.3	U
SB-10404	10.5 - 10.5	9/7/1994	0.3	U
SB-10405	10.5 - 10.5	9/7/1994	0.3	U
SB-10406	10 - 10	5/25/1999	0.3	U
SB-10407	5 - 5	5/25/1999	0.2	U
SB-10408	5 - 5	5/25/1999	0.4	
SB-10409	5 - 5	5/25/1999	0.2	U
SB-10410	5 - 5	5/26/1999	0.2	U
SB-28201	1 - 1	12/9/1993	0.2	U
SB-28201	5 - 5	12/9/1993	0.2	U
SS-09101	0 - 0.5	11/29/1993	4.5	
SS-09102	0 - 0.5	11/19/1993	0.3	
SS-09103	0 - 0.5	11/24/1993	0.3	
SS-09104	0 - 0.5	11/22/1993	2.3	
SS-09105	0 - 0.5	11/16/1993	4.3	
SS-09106	0 - 0.5	11/18/1993	0.2	U
SS-09107	0 - 0.5	11/16/1993	0.8	
SS-09108	0 - 0.5	11/17/1993	0.7	
SS-09109	0 - 0.5	11/19/1993	0.7	
SS-09110	0 - 0.5	11/17/1993	0.2	U
SS-09111	0 - 0.5	11/23/1993	0.3	
SS-09111	0 - 0.5	11/23/1993	0.2	U
SS-09112	0 - 0.5	11/29/1993	0.2	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Hexavalent Chromium Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Hexavalent Chromium (mg/kg) - 2004 Soil Screening Level = 0.2 mg/kg; PMCL = NA mg/kg[3]				
CN4-N-B	11 - 11	9/16/1986	1300	
PL2-101A	11 - 11	10/28/1985	0.5	U
PL2-103A	4 - 4	10/28/1985	0.5	U
PL2-103A	7 - 7	10/28/1985	1.5	
PL2-103A	10 - 10	10/28/1985	0.5	U
SB-08008	3.5 - 3.5	2/15/1995	0.22	U
SB-08008	6.5 - 6.5	2/15/1995	0.22	
SB-08008	11.5 - 11.5	2/15/1995	0.53	
SB-08201	6.5 - 6.5	12/21/1993	0.22	UJH
SB-08201	8 - 8	12/21/1993	0.23	UJH
SB-08201	11 - 11	12/21/1993	0.27	UJH
SB-08705	2.5 - 2.5	8/18/1994	0.22	UJH
SB-08705	5 - 5	8/18/1994	0.28	UJH
SB-08705	7.5 - 7.5	8/18/1994	0.28	UJH
SB-08706	7.5 - 7.5	8/25/1994	0.25	U
SB-08706	10 - 10	8/25/1994	0.26	U
SB-08905	5 - 5	8/24/1994	0.26	U
SB-08905	7.5 - 7.5	8/24/1994	0.23	
SB-08905	10 - 10	8/24/1994	0.25	U
SB-08909	5 - 5	8/19/1994	0.26	UJH
SB-08909	7.5 - 7.5	8/19/1994	0.26	UJH
SB-08909	10 - 10	8/19/1994	0.27	UJH

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Copper Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Copper (mg/kg) - 2004 Soil Screening Level = 1.38 mg/kg; PMCL = 36.4 mg/kg[3]				
288-13	2 - 2	8/13/1991	8.9	
288-15	2 - 2	8/13/1991	7.2	
288-16	4 - 4	8/14/1991	10.2	
288-17	4 - 4	8/14/1991	10	
288-18	4 - 4	8/14/1991	9.8	
288-19	4 - 4	8/14/1991	17.5	
288-20	4 - 4	8/14/1991	16.1	
288-21	4 - 4	8/14/1991	8.2	
288-22	4 - 4	8/14/1991	11.5	
288-23	4 - 4	8/14/1991	8	
288-24	4 - 4	8/14/1991	8.4	
CN4-N-B	11 - 11	9/16/1986	830	
PL2-101A	11 - 11	10/28/1985	12	
PL2-103A	4 - 4	10/28/1985	16	
PL2-103A	7 - 7	10/28/1985	17	
PL2-103A	10 - 10	10/28/1985	50	
PL2-104B	6 - 6	6/24/1992	23	
PL2-104B	11 - 11	6/24/1992	15.8	
PL2-105C	3 - 3	6/25/1992	8.3	
PL2-105C	10 - 10	6/25/1992	16.9	
PL2-106C	7 - 7	6/18/1992	21.8	
PL2-106C	12 - 12	6/18/1992	13.4	
PL2-109B	9 - 9	7/7/1992	24.1	
PL2-109C	6 - 6	7/6/1992	12.2	
PL2-109C	9 - 9	7/6/1992	15.5	
PL2-110C	6 - 6	6/22/1992	9.3	
PL2-110C	9 - 9	6/22/1992	21.5	
PL2-111A	1 - 1	12/9/1993	10.5	
PL2-111A	5 - 5	12/9/1993	18.3	
PL2-301A	5 - 5	7/8/1992	45.1	
PL2-301A	10 - 10	7/8/1992	12.9	
PL2-302A	5 - 5	7/8/1992	19.1	
PL2-302A	10 - 10	7/8/1992	19	
PL2-303A	5 - 5	7/8/1992	28.1	
PL2-303A	10 - 10	7/8/1992	20.2	
PL2-303A	10 - 10	7/8/1992	15.8	
SB-08003	1.5 - 1.5	8/18/1994	14.5	
SB-08003	8 - 8	8/18/1994	18.6	
SB-08003	10 - 10	8/18/1994	21.5	
SB-08004	3.5 - 3.5	8/18/1994	9.5	
SB-08004	8 - 8	8/18/1994	12.7	
SB-08004	12 - 12	8/18/1994	12.7	
SB-08008	3.5 - 3.5	2/15/1995	8.8	
SB-08008	6.5 - 6.5	2/15/1995	9	
SB-08008	11.5 - 11.5	2/15/1995	16.3	
SB-08009	0.6 - 0.6	2/16/1995	11.7	
SB-08009	6 - 6	2/16/1995	10.4	
SB-08010	0.5 - 0.5	2/16/1995	21.4	
SB-08010	6 - 6	2/16/1995	17.7	

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Copper (mg/kg) - 2004 Soil Screening Level = 1.38 mg/kg; PMCL = 36.4 mg/kg[3]				
SB-08201	6.5 - 6.5	12/21/1993	10.4	
SB-08201	8 - 8	12/21/1993	9.9	
SB-08201	11 - 11	12/21/1993	12.8	
SB-08301	1.5 - 1.5	9/3/1994	10.1	
SB-08301	4.5 - 4.5	9/3/1994	40	
SB-08301	11.5 - 11.5	9/3/1994	18.4	
SB-08302	2 - 2	9/3/1994	11.8	
SB-08302	5 - 5	9/3/1994	19.8	
SB-08302	11 - 11	9/3/1994	9.9	
SB-08303	5 - 5	12/13/1993	32.2	
SB-08305	1 - 1	2/22/1995	10.3	
SB-08305	5 - 5	2/22/1995	16.3	
SB-08332	4 - 5	4/15/2002	9.1	
SB-08332	4 - 5	4/15/2002	8.3	
SB-08332	9 - 10	4/15/2002	18.8	
SB-08333	4 - 5	4/15/2002	14	
SB-08333	9 - 10	4/15/2002	23.9	
SB-08334	4 - 5	4/23/2002	1.3	
SB-08334	7.5 - 8.5	4/23/2002	12.2	
SB-08335	4 - 5	4/23/2002	12.2	
SB-08335	9 - 10	4/23/2002	13.7	
SB-08601	1.5 - 1.5	12/20/1993	8.8	
SB-08601	7 - 7	12/20/1993	30.8	
SB-08601	11 - 11	12/20/1993	12.6	
SB-08602	1 - 1	12/9/1993	8.1	
SB-08602	5 - 5	12/9/1993	26.4	
SB-08604	1.5 - 1.5	9/19/1994	9.1	
SB-08604	6 - 6	9/19/1994	8.8	
SB-08604	9 - 9	9/19/1994	26.4	
SB-08705	2.5 - 2.5	8/18/1994	8.3	
SB-08705	5 - 5	8/18/1994	19.5	
SB-08705	7.5 - 7.5	8/18/1994	21.6	
SB-08706	7.5 - 7.5	8/25/1994	14.9	
SB-08706	10 - 10	8/25/1994	11.5	
SB-08716	3 - 5	11/25/1998	13.5	
SB-08716	8 - 10	11/25/1998	23.8	
SB-08717	3 - 5	11/25/1998	14.5	
SB-08717	8 - 10	11/25/1998	16.5	
SB-08718	3 - 5	11/25/1998	11.1	
SB-08718	8 - 10	11/25/1998	13.6	
SB-08719	3 - 5	11/25/1998	12.2	
SB-08719	8 - 10	11/25/1998	13.9	
SB-08720	3 - 5	11/25/1998	8.5	
SB-08720	8 - 10	11/25/1998	15.3	
SB-08721	3 - 5	11/25/1998	9.6	
SB-08721	8 - 10	11/25/1998	18.6	
SB-08722	3 - 5	11/25/1998	13.1	
SB-08722	8 - 10	11/25/1998	22	
SB-08723	3 - 5	11/25/1998	12.2	

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Copper (mg/kg) - 2004 Soil Screening Level = 1.38 mg/kg; PMCL = 36.4 mg/kg[3]				
SB-08723	8 - 10	11/25/1998	14.7	
SB-08724	3 - 5	11/25/1998	11.1	
SB-08724	8 - 10	11/25/1998	26.9	
SB-08743	11 - 11	6/3/1999	68.6	
SB-08744	8 - 8	6/4/1999	16.4	
SB-08746	8 - 8	6/4/1999	26.1	
SB-08747	9 - 9	6/4/1999	34.9	
SB-08748	11 - 11	6/4/1999	17.3	
SB-08754	8 - 10	7/20/1999	17.1	
SB-08901	5 - 5	12/11/1993	20.6	
SB-08901	7.5 - 7.5	12/11/1993	19.9	
SB-08903	5 - 5	12/13/1993	16.4	
SB-08903	5 - 5	12/13/1993	12.6	
SB-08904	1 - 1	12/9/1993	8.6	
SB-08904	5 - 5	12/9/1993	16.7	
SB-08905	5 - 5	8/24/1994	42.6	
SB-08905	7.5 - 7.5	8/24/1994	10.6	
SB-08905	10 - 10	8/24/1994	8.7	
SB-08909	5 - 5	8/19/1994	17.8	
SB-08909	7.5 - 7.5	8/19/1994	13.7	
SB-08909	10 - 10	8/19/1994	13.2	
SB-08915	2 - 2	8/17/1994	13.9	
SB-08915	5 - 5	8/17/1994	11.9	
SB-08915	7.5 - 7.5	8/17/1994	27.1	
SB-08916	2 - 2	9/13/1994	12.1	
SB-08916	5 - 5	9/13/1994	11.1	
SB-08917	1 - 1	8/23/1994	7.1	
SB-08917	7.5 - 7.5	8/23/1994	24.4	
SB-08917	10 - 10	8/23/1994	25.3	
SB-08918	2 - 2	9/13/1994	20	
SB-08918	5 - 5	9/13/1994	14.8	
SB-08919	2.5 - 2.5	8/18/1994	12.2	
SB-08919	7.5 - 7.5	8/18/1994	26.3	
SB-08919	10 - 10	8/18/1994	11.7	
SB-08920	1 - 1	8/23/1994	9.1	
SB-08920	7.5 - 7.5	8/23/1994	18.9	
SB-08920	10 - 10	8/23/1994	12.5	
SB-08921	2 - 2	9/13/1994	11.2	
SB-08921	5 - 5	9/13/1994	9	
SB-08922	1 - 1	8/19/1994	8.3	
SB-08922	5 - 5	8/19/1994	13	
SB-08922	10 - 10	8/19/1994	14.5	
SB-08923	2 - 2	9/13/1994	17.4	
SB-08923	5 - 5	9/13/1994	14	
SB-08924	2.5 - 2.5	8/18/1994	9.9	
SB-08924	2.5 - 2.5	8/18/1994	9.3	
SB-08924	7.5 - 7.5	8/18/1994	32.1	
SB-08924	10 - 10	8/18/1994	18.3	
SB-08926	2.5 - 2.5	3/2/1995	7.7	J

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Copper (mg/kg) - 2004 Soil Screening Level = 1.38 mg/kg; PMCL = 36.4 mg/kg[3]				
SB-08926	5.5 - 5.5	3/2/1995	32.4	J
SB-08926	8.5 - 8.5	3/2/1995	10.6	J
SB-08927	2 - 2	3/6/1995	7.4	
SB-08927	6.5 - 6.5	3/6/1995	20.2	
SB-08927	9.5 - 9.5	3/6/1995	11.5	
SB-08928	2.5 - 2.5	3/3/1995	7.1	
SB-08928	4.5 - 4.5	3/3/1995	14.5	
SB-08928	8.5 - 8.5	3/3/1995	18.3	
SB-08929	2 - 2	3/6/1995	7.2	
SB-08929	6.5 - 6.5	3/6/1995	21	
SB-08929	9.5 - 9.5	3/6/1995	12.9	
SB-08930	3 - 5	11/24/1998	8.4	
SB-08930	8 - 10	11/24/1998	13.1	
SB-08931	3 - 5	11/24/1998	12.6	
SB-08931	8 - 10	11/24/1998	11.2	
SB-08932	3 - 5	11/24/1998	20.5	
SB-08932	8 - 10	11/24/1998	14.4	
SB-08933	3 - 5	11/24/1998	8.6	
SB-08933	8 - 10	11/24/1998	13.8	
SB-08934	3 - 5	11/24/1998	9.3	
SB-08934	8 - 10	11/24/1998	13.7	
SB-08935	3 - 5	11/24/1998	12.1	
SB-08935	8 - 10	11/24/1998	14.4	
SB-08936	3 - 5	11/24/1998	9.5	
SB-08936	8 - 10	11/24/1998	14.4	
SB-08937	3 - 5	11/24/1998	9	
SB-08937	8 - 10	11/24/1998	28.4	
SB-08938	3 - 5	11/24/1998	9.6	
SB-08938	8 - 10	11/24/1998	13.8	
SB-08939	3 - 5	11/24/1998	8	
SB-08939	8 - 10	11/24/1998	17.1	
SB-08940	3 - 5	11/24/1998	9.6	
SB-08940	8 - 10	11/24/1998	11.2	
SB-08941	8 - 8	5/25/1999	34.9	
SB-08942	11 - 11	5/25/1999	22.2	
SB-08943	11 - 11	5/25/1999	21.2	
SB-08944	11 - 11	5/25/1999	11.9	
SB-08945	8 - 8	5/25/1999	23.1	
SB-08949	8.5 - 10.5	6/22/1999	19.6	
SB-08950	8 - 10	6/20/1999	29.52402	
SB-09101	2 - 2	9/12/1994	15.5	
SB-09101	5 - 5	9/12/1994	11.9	
SB-09102	1 - 1	8/16/1994	8.1	
SB-09102	1 - 1	8/16/1994	7.8	
SB-09102	5 - 5	8/16/1994	15.9	
SB-09102	7.5 - 7.5	8/16/1994	28.3	
SB-09103	2.5 - 2.5	8/16/1994	7.8	
SB-09103	7.5 - 7.5	8/16/1994	27.8	
SB-09103	10 - 10	8/16/1994	18	

South Yard Area COC Results
Copper Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Copper (mg/kg) - 2004 Soil Screening Level = 1.38 mg/kg; PMCL = 36.4 mg/kg[3]				
SB-09104	1 - 1	8/16/1994	9.3	
SB-09104	7.5 - 7.5	8/16/1994	25.9	
SB-09104	10 - 10	8/16/1994	22	
SB-09105	2 - 2	9/12/1994	9.6	
SB-09105	5 - 5	9/12/1994	21.6	
SB-09106	2 - 2	9/12/1994	91.8	
SB-09106	5 - 5	9/12/1994	21.6	
SB-10401	10 - 10	3/15/1994	10.2	
SB-10403	10.5 - 10.5	9/7/1994	10.4	
SB-10404	1.5 - 1.5	9/7/1994	7.5	
SB-10404	6.5 - 6.5	9/7/1994	10.4	
SB-10404	10.5 - 10.5	9/7/1994	9.2	
SB-10405	10.5 - 10.5	9/7/1994	25.4	
SB-10406	10 - 10	5/25/1999	9.2	
SB-10407	5 - 5	5/25/1999	8.7	
SB-10408	5 - 5	5/25/1999	16.8	
SB-10409	5 - 5	5/25/1999	11.1	
SB-10410	5 - 5	5/26/1999	9.1	
SB-28201	1 - 1	12/9/1993	7.7	
SB-28201	5 - 5	12/9/1993	8.9	
SS-09101	0 - 0.5	11/29/1993	29.9	
SS-09102	0 - 0.5	11/19/1993	20.6	
SS-09103	0 - 0.5	11/24/1993	35	
SS-09104	0 - 0.5	11/22/1993	118	
SS-09105	0 - 0.5	11/16/1993	31.7	
SS-09106	0 - 0.5	11/18/1993	27.8	
SS-09107	0 - 0.5	11/16/1993	41.5	
SS-09108	0 - 0.5	11/17/1993	43.5	
SS-09109	0 - 0.5	11/19/1993	17.8	
SS-09110	0 - 0.5	11/17/1993	14.2	
SS-09111	0 - 0.5	11/23/1993	31.3	
SS-09111	0 - 0.5	11/23/1993	22.2	
SS-09112	0 - 0.5	11/29/1993	22.5	J

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Manganese (mg/kg) - 2004 Soil Screening Level = 130 mg/kg; PMCL = 1,146 mg/kg[3]				
PL2-101A	11 - 11	10/28/1985	97	
PL2-103A	4 - 4	10/28/1985	130	
PL2-103A	7 - 7	10/28/1985	86	
PL2-103A	10 - 10	10/28/1985	80	
SB-08003	1.5 - 1.5	8/18/1994	167	
SB-08003	8 - 8	8/18/1994	258	
SB-08003	10 - 10	8/18/1994	334	
SB-08004	3.5 - 3.5	8/18/1994	140	
SB-08004	8 - 8	8/18/1994	154	
SB-08004	12 - 12	8/18/1994	175	
SB-08008	3.5 - 3.5	2/15/1995	126	
SB-08008	6.5 - 6.5	2/15/1995	109	
SB-08008	11.5 - 11.5	2/15/1995	242	
SB-08009	0.6 - 0.6	2/16/1995	105	
SB-08009	6 - 6	2/16/1995	100	
SB-08010	0.5 - 0.5	2/16/1995	130	
SB-08010	6 - 6	2/16/1995	125	
SB-08301	1.5 - 1.5	9/3/1994	103	
SB-08301	4.5 - 4.5	9/3/1994	262	
SB-08301	11.5 - 11.5	9/3/1994	169	
SB-08302	2 - 2	9/3/1994	120	
SB-08302	5 - 5	9/3/1994	125	
SB-08302	11 - 11	9/3/1994	98.5	
SB-08305	1 - 1	2/22/1995	107	
SB-08305	5 - 5	2/22/1995	190	
SB-08604	1.5 - 1.5	9/19/1994	85.7	
SB-08604	6 - 6	9/19/1994	98.7	
SB-08604	9 - 9	9/19/1994	298	
SB-08705	2.5 - 2.5	8/18/1994	94.4	
SB-08705	5 - 5	8/18/1994	143	
SB-08705	7.5 - 7.5	8/18/1994	238	
SB-08706	7.5 - 7.5	8/25/1994	143	
SB-08706	10 - 10	8/25/1994	161	
SB-08905	5 - 5	8/24/1994	133	
SB-08905	7.5 - 7.5	8/24/1994	94.6	
SB-08905	10 - 10	8/24/1994	89.3	
SB-08909	5 - 5	8/19/1994	136	
SB-08909	7.5 - 7.5	8/19/1994	148	
SB-08909	10 - 10	8/19/1994	155	
SB-08915	2 - 2	8/17/1994	143	
SB-08915	5 - 5	8/17/1994	142	
SB-08915	7.5 - 7.5	8/17/1994	186	
SB-08916	2 - 2	9/13/1994	115	
SB-08916	5 - 5	9/13/1994	108	
SB-08917	1 - 1	8/23/1994	115	
SB-08917	7.5 - 7.5	8/23/1994	178	

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Manganese (mg/kg) - 2004 Soil Screening Level = 130 mg/kg; PMCL = 1,146 mg/kg[3]				
SB-08917	10 - 10	8/23/1994	196	
SB-08918	2 - 2	9/13/1994	103	
SB-08918	5 - 5	9/13/1994	135	
SB-08919	2.5 - 2.5	8/18/1994	116	
SB-08919	7.5 - 7.5	8/18/1994	353	
SB-08919	10 - 10	8/18/1994	116	
SB-08920	1 - 1	8/23/1994	112	
SB-08920	7.5 - 7.5	8/23/1994	140	
SB-08920	10 - 10	8/23/1994	123	
SB-08921	2 - 2	9/13/1994	132	
SB-08921	5 - 5	9/13/1994	133	
SB-08922	1 - 1	8/19/1994	124	
SB-08922	5 - 5	8/19/1994	108	
SB-08922	10 - 10	8/19/1994	154	
SB-08923	2 - 2	9/13/1994	127	
SB-08923	5 - 5	9/13/1994	156	
SB-08924	2.5 - 2.5	8/18/1994	179	
SB-08924	2.5 - 2.5	8/18/1994	160	
SB-08924	7.5 - 7.5	8/18/1994	395	
SB-08924	10 - 10	8/18/1994	139	
SB-08926	2.5 - 2.5	3/2/1995	102	
SB-08926	5.5 - 5.5	3/2/1995	162	
SB-08926	8.5 - 8.5	3/2/1995	134	
SB-08927	2 - 2	3/6/1995	90.4	
SB-08927	6.5 - 6.5	3/6/1995	304	
SB-08927	9.5 - 9.5	3/6/1995	230	
SB-08928	2.5 - 2.5	3/3/1995	93.9	
SB-08928	4.5 - 4.5	3/3/1995	109	
SB-08928	8.5 - 8.5	3/3/1995	148	
SB-08929	2 - 2	3/6/1995	105	
SB-08929	6.5 - 6.5	3/6/1995	321	
SB-08929	9.5 - 9.5	3/6/1995	152	
SB-09101	2 - 2	9/12/1994	164	
SB-09101	5 - 5	9/12/1994	125	
SB-09102	1 - 1	8/16/1994	125	
SB-09102	1 - 1	8/16/1994	121	
SB-09102	5 - 5	8/16/1994	113	
SB-09102	7.5 - 7.5	8/16/1994	224	
SB-09103	2.5 - 2.5	8/16/1994	127	
SB-09103	7.5 - 7.5	8/16/1994	517	
SB-09103	10 - 10	8/16/1994	191	
SB-09104	1 - 1	8/16/1994	133	
SB-09104	7.5 - 7.5	8/16/1994	285	
SB-09104	10 - 10	8/16/1994	441	
SB-09105	2 - 2	9/12/1994	121	
SB-09105	5 - 5	9/12/1994	144	
SB-09106	2 - 2	9/12/1994	294	
SB-09106	5 - 5	9/12/1994	173	

South Yard Area COC Results
Manganese Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Manganese (mg/kg) - 2004 Soil Screening Level = 130 mg/kg; PMCL = 1,146 mg/kg[3]				
SB-10403	10.5 - 10.5	9/7/1994	122	
SB-10404	1.5 - 1.5	9/7/1994	86.9	
SB-10404	6.5 - 6.5	9/7/1994	96.6	
SB-10404	10.5 - 10.5	9/7/1994	121	
SB-10405	10.5 - 10.5	9/7/1994	417	

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Mercury (mg/kg) - 2004 Soil Screening Level = 0.05 mg/kg; PMCL = 0.07 mg/kg[3]				
288-13	2 - 2	8/13/1991	0.05	U
288-15	2 - 2	8/13/1991	0.04	U
288-16	4 - 4	8/14/1991	0.04	U
288-17	4 - 4	8/14/1991	0.05	U
288-18	4 - 4	8/14/1991	0.04	U
288-19	4 - 4	8/14/1991	0.11	
288-20	4 - 4	8/14/1991	0.11	
288-21	4 - 4	8/14/1991	0.04	U
288-22	4 - 4	8/14/1991	0.05	U
288-23	4 - 4	8/14/1991	0.05	U
288-24	4 - 4	8/14/1991	0.04	U
CN4-N-B	11 - 11	9/16/1986	0.1	
PL2-104B	6 - 6	6/24/1992	0.1	U
PL2-104B	11 - 11	6/24/1992	0.1	U
PL2-105C	3 - 3	6/25/1992	0.1	U
PL2-105C	10 - 10	6/25/1992	0.1	U
PL2-106C	7 - 7	6/18/1992	0.1	U
PL2-106C	12 - 12	6/18/1992	0.1	U
PL2-109B	9 - 9	7/7/1992	0.1	U
PL2-109C	6 - 6	7/6/1992	0.1	U
PL2-109C	9 - 9	7/6/1992	0.05	U
PL2-110C	6 - 6	6/22/1992	0.05	U
PL2-110C	9 - 9	6/22/1992	0.1	U
PL2-111A	1 - 1	12/9/1993	0.05	U
PL2-111A	5 - 5	12/9/1993	0.06	U
PL2-301A	5 - 5	7/8/1992	0.1	
PL2-301A	10 - 10	7/8/1992	0.05	U
PL2-302A	5 - 5	7/8/1992	0.1	U
PL2-302A	10 - 10	7/8/1992	0.1	U
PL2-303A	5 - 5	7/8/1992	0.1	
PL2-303A	10 - 10	7/8/1992	0.1	U
PL2-303A	10 - 10	7/8/1992	0.1	U
SB-08003	1.5 - 1.5	8/18/1994	0.06	U
SB-08003	8 - 8	8/18/1994	0.06	U
SB-08003	10 - 10	8/18/1994	0.06	J
SB-08004	3.5 - 3.5	8/18/1994	0.05	U
SB-08004	8 - 8	8/18/1994	0.05	U
SB-08004	12 - 12	8/18/1994	0.05	U
SB-08008	3.5 - 3.5	2/15/1995	0.05	UJ
SB-08008	6.5 - 6.5	2/15/1995	0.05	UJ
SB-08008	11.5 - 11.5	2/15/1995	0.05	UJ
SB-08009	0.6 - 0.6	2/16/1995	0.05	UJ
SB-08009	6 - 6	2/16/1995	0.06	UJ
SB-08010	0.5 - 0.5	2/16/1995	0.04	UJ
SB-08010	6 - 6	2/16/1995	0.06	J
SB-08201	6.5 - 6.5	12/21/1993	0.05	U
SB-08201	8 - 8	12/21/1993	0.05	U
SB-08201	11 - 11	12/21/1993	0.06	U
SB-08301	1.5 - 1.5	9/3/1994	0.05	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Mercury (mg/kg) - 2004 Soil Screening Level = 0.05 mg/kg; PMCL = 0.07 mg/kg[3]				
SB-08301	4.5 - 4.5	9/3/1994	0.11	
SB-08301	11.5 - 11.5	9/3/1994	0.05	U
SB-08302	2 - 2	9/3/1994	0.05	U
SB-08302	5 - 5	9/3/1994	0.06	U
SB-08302	11 - 11	9/3/1994	0.06	U
SB-08303	5 - 5	12/13/1993	0.09	
SB-08305	1 - 1	2/22/1995	0.05	U
SB-08305	5 - 5	2/22/1995	0.05	U
SB-08332	4 - 5	4/15/2002	0.05	U
SB-08332	4 - 5	4/15/2002	0.05	U
SB-08332	9 - 10	4/15/2002	0.06	U
SB-08333	4 - 5	4/15/2002	0.05	U
SB-08333	9 - 10	4/15/2002	0.06	U
SB-08334	4 - 5	4/23/2002	0.05	U
SB-08334	7.5 - 8.5	4/23/2002	0.05	U
SB-08335	4 - 5	4/23/2002	0.05	U
SB-08335	9 - 10	4/23/2002	0.06	U
SB-08601	1.5 - 1.5	12/20/1993	0.05	U
SB-08601	7 - 7	12/20/1993	0.11	
SB-08601	11 - 11	12/20/1993	0.06	U
SB-08602	1 - 1	12/9/1993	0.05	U
SB-08602	5 - 5	12/9/1993	0.06	U
SB-08604	1.5 - 1.5	9/19/1994	0.05	U
SB-08604	6 - 6	9/19/1994	0.06	U
SB-08604	9 - 9	9/19/1994	0.06	U
SB-08705	2.5 - 2.5	8/18/1994	0.05	U
SB-08705	5 - 5	8/18/1994	0.06	
SB-08705	7.5 - 7.5	8/18/1994	0.05	
SB-08706	7.5 - 7.5	8/25/1994	0.05	U
SB-08706	10 - 10	8/25/1994	0.06	U
SB-08716	3 - 5	11/25/1998	0.06	U
SB-08716	8 - 10	11/25/1998	0.06	U
SB-08717	3 - 5	11/25/1998	0.05	U
SB-08717	8 - 10	11/25/1998	0.07	U
SB-08718	3 - 5	11/25/1998	0.07	U
SB-08718	8 - 10	11/25/1998	0.06	U
SB-08719	3 - 5	11/25/1998	0.06	U
SB-08719	8 - 10	11/25/1998	0.06	U
SB-08720	3 - 5	11/25/1998	0.06	U
SB-08720	8 - 10	11/25/1998	0.06	U
SB-08721	3 - 5	11/25/1998	0.06	U
SB-08721	8 - 10	11/25/1998	0.06	U
SB-08722	3 - 5	11/25/1998	0.06	U
SB-08722	8 - 10	11/25/1998	0.07	U
SB-08723	3 - 5	11/25/1998	0.06	U
SB-08723	8 - 10	11/25/1998	0.06	U
SB-08724	3 - 5	11/25/1998	0.05	U
SB-08724	8 - 10	11/25/1998	0.07	U
SB-08901	5 - 5	12/11/1993	0.06	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Mercury (mg/kg) - 2004 Soil Screening Level = 0.05 mg/kg; PMCL = 0.07 mg/kg[3]				
SB-08901	7.5 - 7.5	12/11/1993	0.06	U
SB-08903	5 - 5	12/13/1993	0.06	U
SB-08903	5 - 5	12/13/1993	0.06	U
SB-08904	1 - 1	12/9/1993	0.05	U
SB-08904	5 - 5	12/9/1993	0.06	U
SB-08905	5 - 5	8/24/1994	0.05	
SB-08905	7.5 - 7.5	8/24/1994	0.05	U
SB-08905	10 - 10	8/24/1994	0.05	U
SB-08909	5 - 5	8/19/1994	0.06	U
SB-08909	7.5 - 7.5	8/19/1994	0.06	U
SB-08909	10 - 10	8/19/1994	0.06	U
SB-08915	2 - 2	8/17/1994	0.05	U
SB-08915	5 - 5	8/17/1994	0.08	
SB-08915	7.5 - 7.5	8/17/1994	0.07	U
SB-08916	2 - 2	9/13/1994	0.05	U
SB-08916	5 - 5	9/13/1994	0.06	U
SB-08917	1 - 1	8/23/1994	0.04	U
SB-08917	7.5 - 7.5	8/23/1994	0.06	
SB-08917	10 - 10	8/23/1994	0.06	U
SB-08918	2 - 2	9/13/1994	0.05	U
SB-08918	5 - 5	9/13/1994	0.05	U
SB-08919	2.5 - 2.5	8/18/1994	0.05	U
SB-08919	7.5 - 7.5	8/18/1994	0.06	U
SB-08919	10 - 10	8/18/1994	0.06	U
SB-08920	1 - 1	8/23/1994	0.04	U
SB-08920	7.5 - 7.5	8/23/1994	0.06	U
SB-08920	10 - 10	8/23/1994	0.06	U
SB-08921	2 - 2	9/13/1994	0.05	U
SB-08921	5 - 5	9/13/1994	0.05	U
SB-08922	1 - 1	8/19/1994	0.05	U
SB-08922	5 - 5	8/19/1994	0.04	U
SB-08922	10 - 10	8/19/1994	0.06	U
SB-08923	2 - 2	9/13/1994	0.06	U
SB-08923	5 - 5	9/13/1994	0.05	U
SB-08924	2.5 - 2.5	8/18/1994	0.05	U
SB-08924	2.5 - 2.5	8/18/1994	0.04	U
SB-08924	7.5 - 7.5	8/18/1994	0.06	U
SB-08924	10 - 10	8/18/1994	0.06	U
SB-08926	2.5 - 2.5	3/2/1995	0.05	U
SB-08926	5.5 - 5.5	3/2/1995	0.06	U
SB-08926	8.5 - 8.5	3/2/1995	0.05	U
SB-08927	2 - 2	3/6/1995	0.05	U
SB-08927	6.5 - 6.5	3/6/1995	0.06	U
SB-08927	9.5 - 9.5	3/6/1995	0.07	U
SB-08928	2.5 - 2.5	3/3/1995	0.05	U
SB-08928	4.5 - 4.5	3/3/1995	0.06	U
SB-08928	8.5 - 8.5	3/3/1995	0.05	U
SB-08929	2 - 2	3/6/1995	0.05	U
SB-08929	6.5 - 6.5	3/6/1995	0.07	

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Mercury (mg/kg) - 2004 Soil Screening Level = 0.05 mg/kg; PMCL = 0.07 mg/kg[3]				
SB-08929	9.5 - 9.5	3/6/1995	0.06	U
SB-08930	3 - 5	11/24/1998	0.06	U
SB-08930	8 - 10	11/24/1998	0.06	U
SB-08931	3 - 5	11/24/1998	0.06	U
SB-08931	8 - 10	11/24/1998	0.06	U
SB-08932	3 - 5	11/24/1998	0.06	U
SB-08932	8 - 10	11/24/1998	0.06	U
SB-08933	3 - 5	11/24/1998	0.05	U
SB-08933	8 - 10	11/24/1998	0.06	U
SB-08934	3 - 5	11/24/1998	0.05	U
SB-08934	8 - 10	11/24/1998	0.06	U
SB-08935	3 - 5	11/24/1998	0.06	U
SB-08935	8 - 10	11/24/1998	0.06	U
SB-08936	3 - 5	11/24/1998	0.06	U
SB-08936	8 - 10	11/24/1998	0.06	U
SB-08937	3 - 5	11/24/1998	0.06	U
SB-08937	8 - 10	11/24/1998	0.07	U
SB-08938	3 - 5	11/24/1998	0.05	U
SB-08938	8 - 10	11/24/1998	0.06	U
SB-08939	3 - 5	11/24/1998	0.06	U
SB-08939	8 - 10	11/24/1998	0.06	U
SB-08940	3 - 5	11/24/1998	0.05	U
SB-08940	8 - 10	11/24/1998	0.06	U
SB-09101	2 - 2	9/12/1994	0.16	
SB-09101	5 - 5	9/12/1994	0.05	U
SB-09102	1 - 1	8/16/1994	0.05	U
SB-09102	1 - 1	8/16/1994	0.05	U
SB-09102	5 - 5	8/16/1994	0.06	U
SB-09102	7.5 - 7.5	8/16/1994	0.06	U
SB-09103	2.5 - 2.5	8/16/1994	0.05	U
SB-09103	7.5 - 7.5	8/16/1994	0.07	
SB-09103	10 - 10	8/16/1994	0.06	U
SB-09104	1 - 1	8/16/1994	0.05	U
SB-09104	7.5 - 7.5	8/16/1994	0.07	U
SB-09104	10 - 10	8/16/1994	0.06	U
SB-09105	2 - 2	9/12/1994	0.05	U
SB-09105	5 - 5	9/12/1994	0.09	
SB-09106	2 - 2	9/12/1994	0.05	U
SB-09106	5 - 5	9/12/1994	0.05	U
SB-10401	10 - 10	3/15/1994	0.05	U
SB-10403	10.5 - 10.5	9/7/1994	0.05	U
SB-10404	1.5 - 1.5	9/7/1994	0.05	U
SB-10404	6.5 - 6.5	9/7/1994	0.06	U
SB-10404	10.5 - 10.5	9/7/1994	0.07	U
SB-10405	10.5 - 10.5	9/7/1994	0.06	U
SB-10406	10 - 10	5/25/1999	0.06	U
SB-10407	5 - 5	5/25/1999	0.05	U
SB-10408	5 - 5	5/25/1999	0.07	U
SB-10409	5 - 5	5/25/1999	0.04	U

South Yard Area COC Results
Mercury Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Mercury (mg/kg) - 2004 Soil Screening Level = 0.05 mg/kg; PMCL = 0.07 mg/kg[3]				
SB-10410	5 - 5	5/26/1999	0.05	U
SB-28201	1 - 1	12/9/1993	0.04	U
SB-28201	5 - 5	12/9/1993	0.06	U
SS-09101	0 - 0.5	11/29/1993	0.1	
SS-09102	0 - 0.5	11/19/1993	0.04	U
SS-09103	0 - 0.5	11/24/1993	0.05	U
SS-09104	0 - 0.5	11/22/1993	1.72	
SS-09105	0 - 0.5	11/16/1993	0.16	
SS-09106	0 - 0.5	11/18/1993	0.05	U
SS-09107	0 - 0.5	11/16/1993	0.07	
SS-09108	0 - 0.5	11/17/1993	0.07	
SS-09109	0 - 0.5	11/19/1993	0.04	U
SS-09110	0 - 0.5	11/17/1993	0.04	U
SS-09111	0 - 0.5	11/23/1993	0.05	U
SS-09111	0 - 0.5	11/23/1993	0.05	U
SS-09112	0 - 0.5	11/29/1993	0.05	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Nickel (mg/kg) - 2004 Soil Screening Level = 10.7 mg/kg; PMCL = 38.2 mg/kg[3]				
288-13	2 - 2	8/13/1991	10	
288-15	2 - 2	8/13/1991	8	
288-16	4 - 4	8/14/1991	7	
288-17	4 - 4	8/14/1991	11	
288-18	4 - 4	8/14/1991	8	
288-19	4 - 4	8/14/1991	29	
288-20	4 - 4	8/14/1991	33	
288-21	4 - 4	8/14/1991	7	
288-22	4 - 4	8/14/1991	8	
288-23	4 - 4	8/14/1991	9	
288-24	4 - 4	8/14/1991	8	
CN4-N-B	11 - 11	9/16/1986	610	
PL2-101A	11 - 11	10/28/1985	7	
PL2-103A	4 - 4	10/28/1985	11	
PL2-103A	7 - 7	10/28/1985	10	
PL2-103A	10 - 10	10/28/1985	6	
PL2-111A	1 - 1	12/9/1993	9	
PL2-111A	5 - 5	12/9/1993	14	
PL2-301A	5 - 5	7/8/1992	18	
PL2-301A	10 - 10	7/8/1992	8	
PL2-302A	5 - 5	7/8/1992	10	
PL2-302A	10 - 10	7/8/1992	11	
PL2-303A	5 - 5	7/8/1992	13	
PL2-303A	10 - 10	7/8/1992	10	
PL2-303A	10 - 10	7/8/1992	9	
SB-08003	1.5 - 1.5	8/18/1994	12	
SB-08003	8 - 8	8/18/1994	18	
SB-08003	10 - 10	8/18/1994	19	
SB-08004	3.5 - 3.5	8/18/1994	11	
SB-08004	8 - 8	8/18/1994	13	
SB-08004	12 - 12	8/18/1994	15	
SB-08008	3.5 - 3.5	2/15/1995	12	J+
SB-08008	6.5 - 6.5	2/15/1995	9	J+
SB-08008	11.5 - 11.5	2/15/1995	12	J+
SB-08009	0.6 - 0.6	2/16/1995	8	J+
SB-08009	6 - 6	2/16/1995	10	J+
SB-08010	0.5 - 0.5	2/16/1995	10	J+
SB-08010	6 - 6	2/16/1995	16	J+
SB-08201	6.5 - 6.5	12/21/1993	14	
SB-08201	8 - 8	12/21/1993	20	
SB-08201	11 - 11	12/21/1993	15	
SB-08301	1.5 - 1.5	9/3/1994	9	
SB-08301	4.5 - 4.5	9/3/1994	21	
SB-08301	11.5 - 11.5	9/3/1994	11	
SB-08302	2 - 2	9/3/1994	10	
SB-08302	5 - 5	9/3/1994	14	
SB-08302	11 - 11	9/3/1994	7	
SB-08303	5 - 5	12/13/1993	17	
SB-08305	1 - 1	2/22/1995	10	

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Nickel (mg/kg) - 2004 Soil Screening Level = 10.7 mg/kg; PMCL = 38.2 mg/kg[3]				
SB-08305	5 - 5	2/22/1995	12	
SB-08332	4 - 5	4/15/2002	7	
SB-08332	4 - 5	4/15/2002	6	
SB-08332	9 - 10	4/15/2002	11	
SB-08333	4 - 5	4/15/2002	35	
SB-08333	9 - 10	4/15/2002	13	
SB-08334	4 - 5	4/23/2002	40	
SB-08334	7.5 - 8.5	4/23/2002	34	
SB-08335	4 - 5	4/23/2002	31	
SB-08335	9 - 10	4/23/2002	12	
SB-08601	1.5 - 1.5	12/20/1993	7	
SB-08601	7 - 7	12/20/1993	18	
SB-08601	11 - 11	12/20/1993	10	
SB-08602	1 - 1	12/9/1993	10	
SB-08602	5 - 5	12/9/1993	13	
SB-08604	1.5 - 1.5	9/19/1994	7	
SB-08604	6 - 6	9/19/1994	9	
SB-08604	9 - 9	9/19/1994	17	
SB-08705	2.5 - 2.5	8/18/1994	8	
SB-08705	5 - 5	8/18/1994	15	
SB-08705	7.5 - 7.5	8/18/1994	15	
SB-08706	7.5 - 7.5	8/25/1994	10	
SB-08706	10 - 10	8/25/1994	9	
SB-08716	3 - 5	11/25/1998	10	
SB-08716	8 - 10	11/25/1998	14	
SB-08717	3 - 5	11/25/1998	12	
SB-08717	8 - 10	11/25/1998	11	
SB-08718	3 - 5	11/25/1998	8	
SB-08718	8 - 10	11/25/1998	10	
SB-08719	3 - 5	11/25/1998	8	
SB-08719	8 - 10	11/25/1998	9	
SB-08720	3 - 5	11/25/1998	8	
SB-08720	8 - 10	11/25/1998	9	
SB-08721	3 - 5	11/25/1998	8	
SB-08721	8 - 10	11/25/1998	11	
SB-08722	3 - 5	11/25/1998	10	
SB-08722	8 - 10	11/25/1998	12	
SB-08723	3 - 5	11/25/1998	9	
SB-08723	8 - 10	11/25/1998	10	
SB-08724	3 - 5	11/25/1998	18	
SB-08724	8 - 10	11/25/1998	18	
SB-08901	5 - 5	12/11/1993	16	
SB-08901	7.5 - 7.5	12/11/1993	13	
SB-08903	5 - 5	12/13/1993	11	
SB-08903	5 - 5	12/13/1993	10	
SB-08904	1 - 1	12/9/1993	7	
SB-08904	5 - 5	12/9/1993	11	
SB-08905	5 - 5	8/24/1994	18	
SB-08905	7.5 - 7.5	8/24/1994	8	

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Nickel (mg/kg) - 2004 Soil Screening Level = 10.7 mg/kg; PMCL = 38.2 mg/kg[3]				
SB-08905	10 - 10	8/24/1994	9	
SB-08909	5 - 5	8/19/1994	21	
SB-08909	7.5 - 7.5	8/19/1994	11	
SB-08909	10 - 10	8/19/1994	10	
SB-08915	2 - 2	8/17/1994	18	
SB-08915	5 - 5	8/17/1994	13	
SB-08915	7.5 - 7.5	8/17/1994	19	
SB-08916	2 - 2	9/13/1994	11	
SB-08916	5 - 5	9/13/1994	9	
SB-08917	1 - 1	8/23/1994	11	
SB-08917	7.5 - 7.5	8/23/1994	16	
SB-08917	10 - 10	8/23/1994	17	
SB-08918	2 - 2	9/13/1994	13	
SB-08918	5 - 5	9/13/1994	12	
SB-08919	2.5 - 2.5	8/18/1994	10	
SB-08919	7.5 - 7.5	8/18/1994	18	
SB-08919	10 - 10	8/18/1994	9	
SB-08920	1 - 1	8/23/1994	10	
SB-08920	7.5 - 7.5	8/23/1994	13	
SB-08920	10 - 10	8/23/1994	9	
SB-08921	2 - 2	9/13/1994	10	
SB-08921	5 - 5	9/13/1994	12	
SB-08922	1 - 1	8/19/1994	9	
SB-08922	5 - 5	8/19/1994	12	
SB-08922	10 - 10	8/19/1994	10	
SB-08923	2 - 2	9/13/1994	11	
SB-08923	5 - 5	9/13/1994	12	
SB-08924	2.5 - 2.5	8/18/1994	14	
SB-08924	2.5 - 2.5	8/18/1994	13	
SB-08924	7.5 - 7.5	8/18/1994	19	
SB-08924	10 - 10	8/18/1994	12	
SB-08926	2.5 - 2.5	3/2/1995	8	
SB-08926	5.5 - 5.5	3/2/1995	14	
SB-08926	8.5 - 8.5	3/2/1995	9	
SB-08927	2 - 2	3/6/1995	7	
SB-08927	6.5 - 6.5	3/6/1995	14	
SB-08927	9.5 - 9.5	3/6/1995	10	
SB-08928	2.5 - 2.5	3/3/1995	7	
SB-08928	4.5 - 4.5	3/3/1995	10	
SB-08928	8.5 - 8.5	3/3/1995	12	
SB-08929	2 - 2	3/6/1995	8	
SB-08929	6.5 - 6.5	3/6/1995	16	
SB-08929	9.5 - 9.5	3/6/1995	11	
SB-08930	3 - 5	11/24/1998	8	
SB-08930	8 - 10	11/24/1998	8	
SB-08931	3 - 5	11/24/1998	9	
SB-08931	8 - 10	11/24/1998	8	
SB-08932	3 - 5	11/24/1998	13	
SB-08932	8 - 10	11/24/1998	9	

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Nickel (mg/kg) - 2004 Soil Screening Level = 10.7 mg/kg; PMCL = 38.2 mg/kg[3]				
SB-08933	3 - 5	11/24/1998	8	
SB-08933	8 - 10	11/24/1998	10	
SB-08934	3 - 5	11/24/1998	10	
SB-08934	8 - 10	11/24/1998	9	
SB-08935	3 - 5	11/24/1998	8	
SB-08935	8 - 10	11/24/1998	10	
SB-08936	3 - 5	11/24/1998	9	
SB-08936	8 - 10	11/24/1998	10	
SB-08937	3 - 5	11/24/1998	8	
SB-08937	8 - 10	11/24/1998	18	
SB-08938	3 - 5	11/24/1998	11	
SB-08938	8 - 10	11/24/1998	9	
SB-08939	3 - 5	11/24/1998	9	
SB-08939	8 - 10	11/24/1998	13	
SB-08940	3 - 5	11/24/1998	8	
SB-08940	8 - 10	11/24/1998	9	
SB-09101	2 - 2	9/12/1994	35	
SB-09101	5 - 5	9/12/1994	14	
SB-09102	1 - 1	8/16/1994	9	
SB-09102	1 - 1	8/16/1994	9	
SB-09102	5 - 5	8/16/1994	11	
SB-09102	7.5 - 7.5	8/16/1994	19	
SB-09103	2.5 - 2.5	8/16/1994	8	
SB-09103	7.5 - 7.5	8/16/1994	20	
SB-09103	10 - 10	8/16/1994	11	
SB-09104	1 - 1	8/16/1994	17	
SB-09104	7.5 - 7.5	8/16/1994	20	
SB-09104	10 - 10	8/16/1994	16	
SB-09105	2 - 2	9/12/1994	10	
SB-09105	5 - 5	9/12/1994	15	
SB-09106	2 - 2	9/12/1994	501	
SB-09106	5 - 5	9/12/1994	15	
SB-10401	10 - 10	3/15/1994	9	
SB-10403	10.5 - 10.5	9/7/1994	9	
SB-10404	1.5 - 1.5	9/7/1994	7	
SB-10404	6.5 - 6.5	9/7/1994	9	
SB-10404	10.5 - 10.5	9/7/1994	8	
SB-10405	10.5 - 10.5	9/7/1994	15	
SB-28201	1 - 1	12/9/1993	9	
SB-28201	5 - 5	12/9/1993	11	
SS-09101	0 - 0.5	11/29/1993	37	
SS-09102	0 - 0.5	11/19/1993	27	
SS-09103	0 - 0.5	11/24/1993	15	
SS-09104	0 - 0.5	11/22/1993	28	
SS-09105	0 - 0.5	11/16/1993	14	
SS-09106	0 - 0.5	11/18/1993	13	
SS-09107	0 - 0.5	11/16/1993	29	
SS-09108	0 - 0.5	11/17/1993	32	
SS-09109	0 - 0.5	11/19/1993	15	

South Yard Area COC Results
Nickel Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Nickel (mg/kg) - 2004 Soil Screening Level = 10.7 mg/kg; PMCL = 38.2 mg/kg[3]				
SS-09110	0 - 0.5	11/17/1993	20	
SS-09111	0 - 0.5	11/23/1993	31	J
SS-09111	0 - 0.5	11/23/1993	31	J
SS-09112	0 - 0.5	11/29/1993	12	

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Selenium Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Selenium (mg/kg) - 2004 Soil Screening Level = 7.38 mg/kg; PMCL = 7.3 mg/kg[3]				
288-13	2 - 2	8/13/1991	4	U
288-15	2 - 2	8/13/1991	5	U
288-16	4 - 4	8/14/1991	7	
288-17	4 - 4	8/14/1991	5	
288-18	4 - 4	8/14/1991	5	U
288-19	4 - 4	8/14/1991	9	
288-20	4 - 4	8/14/1991	6	
288-21	4 - 4	8/14/1991	4	U
288-22	4 - 4	8/14/1991	6	
288-23	4 - 4	8/14/1991	5	U
288-24	4 - 4	8/14/1991	5	
PL2-104B	6 - 6	6/24/1992	0.2	
PL2-104B	11 - 11	6/24/1992	0.1	U
PL2-105C	3 - 3	6/25/1992	0.1	U
PL2-105C	10 - 10	6/25/1992	0.2	
PL2-106C	7 - 7	6/18/1992	0.1	U
PL2-106C	12 - 12	6/18/1992	0.1	U
PL2-109B	9 - 9	7/7/1992	0.1	U
PL2-109C	6 - 6	7/6/1992	0.3	
PL2-109C	9 - 9	7/6/1992	0.3	
PL2-110C	6 - 6	6/22/1992	0.1	
PL2-110C	9 - 9	6/22/1992	0.3	
PL2-111A	1 - 1	12/9/1993	5	U
PL2-111A	5 - 5	12/9/1993	6	U
PL2-301A	5 - 5	7/8/1992	6	U
PL2-301A	10 - 10	7/8/1992	6	U
PL2-302A	5 - 5	7/8/1992	6	U
PL2-302A	10 - 10	7/8/1992	6	U
PL2-303A	5 - 5	7/8/1992	6	U
PL2-303A	10 - 10	7/8/1992	6	U
PL2-303A	10 - 10	7/8/1992	6	U
SB-08003	1.5 - 1.5	8/18/1994	6	U
SB-08003	8 - 8	8/18/1994	6	U
SB-08003	10 - 10	8/18/1994	8	
SB-08004	3.5 - 3.5	8/18/1994	5	U
SB-08004	8 - 8	8/18/1994	5	U
SB-08004	12 - 12	8/18/1994	6	U
SB-08008	3.5 - 3.5	2/15/1995	5	U
SB-08008	6.5 - 6.5	2/15/1995	5	U
SB-08008	11.5 - 11.5	2/15/1995	8	
SB-08009	0.6 - 0.6	2/16/1995	5	U
SB-08009	6 - 6	2/16/1995	6	U
SB-08010	0.5 - 0.5	2/16/1995	5	U
SB-08010	6 - 6	2/16/1995	6	U
SB-08201	6.5 - 6.5	12/21/1993	5	U
SB-08201	8 - 8	12/21/1993	6	U
SB-08201	11 - 11	12/21/1993	7	U
SB-08301	1.5 - 1.5	9/3/1994	6	U
SB-08301	4.5 - 4.5	9/3/1994	7	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Selenium (mg/kg) - 2004 Soil Screening Level = 7.38 mg/kg; PMCL = 7.3 mg/kg[3]				
SB-08301	11.5 - 11.5	9/3/1994	6	U
SB-08302	2 - 2	9/3/1994	5	U
SB-08302	5 - 5	9/3/1994	6	U
SB-08302	11 - 11	9/3/1994	6	U
SB-08303	5 - 5	12/13/1993	7	U
SB-08305	1 - 1	2/22/1995	5	U
SB-08305	5 - 5	2/22/1995	6	U
SB-08332	4 - 5	4/15/2002	5	U
SB-08332	4 - 5	4/15/2002	5	U
SB-08332	9 - 10	4/15/2002	7	U
SB-08333	4 - 5	4/15/2002	8	
SB-08333	9 - 10	4/15/2002	7	U
SB-08334	4 - 5	4/23/2002	5	U
SB-08334	7.5 - 8.5	4/23/2002	5	U
SB-08335	4 - 5	4/23/2002	5	U
SB-08335	9 - 10	4/23/2002	6	U
SB-08601	1.5 - 1.5	12/20/1993	5	U
SB-08601	7 - 7	12/20/1993	7	U
SB-08601	11 - 11	12/20/1993	6	U
SB-08602	1 - 1	12/9/1993	5	U
SB-08602	5 - 5	12/9/1993	6	U
SB-08604	1.5 - 1.5	9/19/1994	6	U
SB-08604	6 - 6	9/19/1994	7	U
SB-08604	9 - 9	9/19/1994	7	U
SB-08705	2.5 - 2.5	8/18/1994	5	U
SB-08705	5 - 5	8/18/1994	6	U
SB-08705	7.5 - 7.5	8/18/1994	7	U
SB-08706	7.5 - 7.5	8/25/1994	6	U
SB-08706	10 - 10	8/25/1994	6	U
SB-08716	3 - 5	11/25/1998	6	U
SB-08716	8 - 10	11/25/1998	7	U
SB-08717	3 - 5	11/25/1998	6	U
SB-08717	8 - 10	11/25/1998	7	U
SB-08718	3 - 5	11/25/1998	7	U
SB-08718	8 - 10	11/25/1998	6	U
SB-08719	3 - 5	11/25/1998	6	U
SB-08719	8 - 10	11/25/1998	6	U
SB-08720	3 - 5	11/25/1998	6	U
SB-08720	8 - 10	11/25/1998	7	U
SB-08721	3 - 5	11/25/1998	6	U
SB-08721	8 - 10	11/25/1998	7	U
SB-08722	3 - 5	11/25/1998	6	U
SB-08722	8 - 10	11/25/1998	7	U
SB-08723	3 - 5	11/25/1998	6	U
SB-08723	8 - 10	11/25/1998	7	U
SB-08724	3 - 5	11/25/1998	5	U
SB-08724	8 - 10	11/25/1998	7	U
SB-08901	5 - 5	12/11/1993	7	U
SB-08901	7.5 - 7.5	12/11/1993	6	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Selenium (mg/kg) - 2004 Soil Screening Level = 7.38 mg/kg; PMCL = 7.3 mg/kg[3]				
SB-08903	5 - 5	12/13/1993	6	U
SB-08903	5 - 5	12/13/1993	5	U
SB-08904	1 - 1	12/9/1993	5	U
SB-08904	5 - 5	12/9/1993	6	U
SB-08905	5 - 5	8/24/1994	6	U
SB-08905	7.5 - 7.5	8/24/1994	6	U
SB-08905	10 - 10	8/24/1994	6	U
SB-08909	5 - 5	8/19/1994	5	U
SB-08909	7.5 - 7.5	8/19/1994	5	U
SB-08909	10 - 10	8/19/1994	5	U
SB-08915	2 - 2	8/17/1994	5	U
SB-08915	5 - 5	8/17/1994	5	U
SB-08915	7.5 - 7.5	8/17/1994	7	
SB-08916	2 - 2	9/13/1994	5	U
SB-08916	5 - 5	9/13/1994	6	U
SB-08917	1 - 1	8/23/1994	5	U
SB-08917	7.5 - 7.5	8/23/1994	7	U
SB-08917	10 - 10	8/23/1994	6	U
SB-08918	2 - 2	9/13/1994	5	U
SB-08918	5 - 5	9/13/1994	6	U
SB-08919	2.5 - 2.5	8/18/1994	5	U
SB-08919	7.5 - 7.5	8/18/1994	7	U
SB-08919	10 - 10	8/18/1994	6	U
SB-08920	1 - 1	8/23/1994	5	U
SB-08920	7.5 - 7.5	8/23/1994	6	U
SB-08920	10 - 10	8/23/1994	6	U
SB-08921	2 - 2	9/13/1994	5	U
SB-08921	5 - 5	9/13/1994	6	
SB-08922	1 - 1	8/19/1994	5	U
SB-08922	5 - 5	8/19/1994	6	U
SB-08922	10 - 10	8/19/1994	6	U
SB-08923	2 - 2	9/13/1994	6	U
SB-08923	5 - 5	9/13/1994	6	U
SB-08924	2.5 - 2.5	8/18/1994	5	U
SB-08924	2.5 - 2.5	8/18/1994	5	U
SB-08924	7.5 - 7.5	8/18/1994	7	U
SB-08924	10 - 10	8/18/1994	6	U
SB-08926	2.5 - 2.5	3/2/1995	6	U
SB-08926	5.5 - 5.5	3/2/1995	6	U
SB-08926	8.5 - 8.5	3/2/1995	6	U
SB-08927	2 - 2	3/6/1995	5	U
SB-08927	6.5 - 6.5	3/6/1995	6	U
SB-08927	9.5 - 9.5	3/6/1995	7	U
SB-08928	2.5 - 2.5	3/3/1995	5	U
SB-08928	4.5 - 4.5	3/3/1995	6	U
SB-08928	8.5 - 8.5	3/3/1995	6	U
SB-08929	2 - 2	3/6/1995	5	U
SB-08929	6.5 - 6.5	3/6/1995	6	U
SB-08929	9.5 - 9.5	3/6/1995	6	U

South Yard Area COC Results
Selenium Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Selenium (mg/kg) - 2004 Soil Screening Level = 7.38 mg/kg; PMCL = 7.3 mg/kg[3]				
SB-08930	3 - 5	11/24/1998	0.1	U
SB-08930	8 - 10	11/24/1998	0.1	U
SB-08931	3 - 5	11/24/1998	0.1	U
SB-08931	8 - 10	11/24/1998	0.1	U
SB-08932	3 - 5	11/24/1998	0.1	U
SB-08932	8 - 10	11/24/1998	0.1	U
SB-08933	3 - 5	11/24/1998	0.1	U
SB-08933	8 - 10	11/24/1998	0.1	U
SB-08934	3 - 5	11/24/1998	0.1	U
SB-08934	8 - 10	11/24/1998	0.1	U
SB-08935	3 - 5	11/24/1998	0.1	U
SB-08935	8 - 10	11/24/1998	0.1	U
SB-08936	3 - 5	11/24/1998	0.1	U
SB-08936	8 - 10	11/24/1998	0.1	U
SB-08937	3 - 5	11/24/1998	0.1	U
SB-08937	8 - 10	11/24/1998	0.1	U
SB-08938	3 - 5	11/24/1998	0.1	U
SB-08938	8 - 10	11/24/1998	0.1	U
SB-08939	3 - 5	11/24/1998	0.1	U
SB-08939	8 - 10	11/24/1998	0.1	U
SB-08940	3 - 5	11/24/1998	0.1	U
SB-08940	8 - 10	11/24/1998	0.1	U
SB-09101	2 - 2	9/12/1994	5	U
SB-09101	5 - 5	9/12/1994	5	U
SB-09102	1 - 1	8/16/1994	5	U
SB-09102	1 - 1	8/16/1994	5	U
SB-09102	5 - 5	8/16/1994	6	U
SB-09102	7.5 - 7.5	8/16/1994	6	U
SB-09103	2.5 - 2.5	8/16/1994	5	U
SB-09103	7.5 - 7.5	8/16/1994	7	
SB-09103	10 - 10	8/16/1994	6	U
SB-09104	1 - 1	8/16/1994	5	U
SB-09104	7.5 - 7.5	8/16/1994	7	U
SB-09104	10 - 10	8/16/1994	6	U
SB-09105	2 - 2	9/12/1994	5	U
SB-09105	5 - 5	9/12/1994	7	U
SB-09106	2 - 2	9/12/1994	5	U
SB-09106	5 - 5	9/12/1994	7	U
SB-10401	10 - 10	3/15/1994	6	U
SB-10403	10.5 - 10.5	9/7/1994	6	U
SB-10404	1.5 - 1.5	9/7/1994	5	U
SB-10404	6.5 - 6.5	9/7/1994	7	U
SB-10404	10.5 - 10.5	9/7/1994	7	U
SB-10405	10.5 - 10.5	9/7/1994	7	U
SB-28201	1 - 1	12/9/1993	5	U
SB-28201	5 - 5	12/9/1993	6	U
SS-09101	0 - 0.5	11/29/1993	6	U
SS-09102	0 - 0.5	11/19/1993	4	U
SS-09103	0 - 0.5	11/24/1993	5	U

South Yard Area COC Results
Selenium Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Selenium (mg/kg) - 2004 Soil Screening Level = 7.38 mg/kg; PMCL = 7.3 mg/kg[3]				
SS-09104	0 - 0.5	11/22/1993	5	U
SS-09105	0 - 0.5	11/16/1993	5	U
SS-09106	0 - 0.5	11/18/1993	5	U
SS-09107	0 - 0.5	11/16/1993	5	U
SS-09108	0 - 0.5	11/17/1993	5	U
SS-09109	0 - 0.5	11/19/1993	4	U
SS-09110	0 - 0.5	11/17/1993	6	U
SS-09111	0 - 0.5	11/23/1993	5	U
SS-09111	0 - 0.5	11/23/1993	5	U
SS-09112	0 - 0.5	11/29/1993	6	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Silver Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Silver (mg/kg) - 2004 Soil Screening Level = 0.32 mg/kg; PMCL = 0.3 mg/kg[3]				
288-13	2 - 2	8/13/1991	0.3	U
288-15	2 - 2	8/13/1991	0.3	U
288-16	4 - 4	8/14/1991	0.2	U
288-17	4 - 4	8/14/1991	0.3	U
288-18	4 - 4	8/14/1991	0.3	U
288-19	4 - 4	8/14/1991	0.3	U
288-20	4 - 4	8/14/1991	0.3	U
288-21	4 - 4	8/14/1991	0.2	U
288-22	4 - 4	8/14/1991	0.3	U
288-23	4 - 4	8/14/1991	0.3	U
288-24	4 - 4	8/14/1991	0.2	U
CN4-N-B	11 - 11	9/16/1986	22	
PL2-101A	11 - 11	10/28/1985	0.2	
PL2-103A	4 - 4	10/28/1985	0.2	
PL2-103A	7 - 7	10/28/1985	0.2	
PL2-103A	10 - 10	10/28/1985	0.2	
PL2-111A	1 - 1	12/9/1993	0.3	U
PL2-111A	5 - 5	12/9/1993	0.4	U
PL2-301A	5 - 5	7/8/1992	0.4	U
PL2-301A	10 - 10	7/8/1992	0.4	U
PL2-302A	5 - 5	7/8/1992	0.4	U
PL2-302A	10 - 10	7/8/1992	0.4	U
PL2-303A	5 - 5	7/8/1992	0.3	U
PL2-303A	10 - 10	7/8/1992	0.4	U
PL2-303A	10 - 10	7/8/1992	0.4	U
SB-08003	1.5 - 1.5	8/18/1994	0.3	U
SB-08003	8 - 8	8/18/1994	0.4	U
SB-08003	10 - 10	8/18/1994	0.4	U
SB-08004	3.5 - 3.5	8/18/1994	0.3	U
SB-08004	8 - 8	8/18/1994	0.3	U
SB-08004	12 - 12	8/18/1994	0.4	U
SB-08008	3.5 - 3.5	2/15/1995	0.3	U
SB-08008	6.5 - 6.5	2/15/1995	0.3	U
SB-08008	11.5 - 11.5	2/15/1995	0.4	U
SB-08009	0.6 - 0.6	2/16/1995	0.9	
SB-08009	6 - 6	2/16/1995	0.3	U
SB-08010	0.5 - 0.5	2/16/1995	0.3	U
SB-08010	6 - 6	2/16/1995	0.3	U
SB-08201	6.5 - 6.5	12/21/1993	0.3	U
SB-08201	8 - 8	12/21/1993	0.3	U
SB-08201	11 - 11	12/21/1993	0.4	U
SB-08301	1.5 - 1.5	9/3/1994	0.3	U
SB-08301	4.5 - 4.5	9/3/1994	0.4	U
SB-08301	11.5 - 11.5	9/3/1994	0.4	U
SB-08302	2 - 2	9/3/1994	0.3	U
SB-08302	5 - 5	9/3/1994	0.4	U
SB-08302	11 - 11	9/3/1994	0.4	U
SB-08303	5 - 5	12/13/1993	0.4	U
SB-08305	1 - 1	2/22/1995	0.3	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Silver (mg/kg) - 2004 Soil Screening Level = 0.32 mg/kg; PMCL = 0.3 mg/kg[3]				
SB-08305	5 - 5	2/22/1995	0.3	U
SB-08332	4 - 5	4/15/2002	0.3	U
SB-08332	4 - 5	4/15/2002	0.3	U
SB-08332	9 - 10	4/15/2002	0.4	U
SB-08333	4 - 5	4/15/2002	0.4	
SB-08333	9 - 10	4/15/2002	0.4	U
SB-08334	4 - 5	4/23/2002	0.3	U
SB-08334	7.5 - 8.5	4/23/2002	0.3	U
SB-08335	4 - 5	4/23/2002	0.3	U
SB-08335	9 - 10	4/23/2002	0.3	U
SB-08601	1.5 - 1.5	12/20/1993	0.3	U
SB-08601	7 - 7	12/20/1993	0.4	U
SB-08601	11 - 11	12/20/1993	0.4	U
SB-08602	1 - 1	12/9/1993	0.3	U
SB-08602	5 - 5	12/9/1993	0.4	U
SB-08604	1.5 - 1.5	9/19/1994	0.3	U
SB-08604	6 - 6	9/19/1994	0.4	U
SB-08604	9 - 9	9/19/1994	0.4	U
SB-08705	2.5 - 2.5	8/18/1994	0.3	U
SB-08705	5 - 5	8/18/1994	0.4	U
SB-08705	7.5 - 7.5	8/18/1994	0.4	U
SB-08706	7.5 - 7.5	8/25/1994	0.4	U
SB-08706	10 - 10	8/25/1994	0.4	U
SB-08716	3 - 5	11/25/1998	0.4	U
SB-08716	8 - 10	11/25/1998	0.4	U
SB-08717	3 - 5	11/25/1998	0.3	U
SB-08717	8 - 10	11/25/1998	0.4	U
SB-08718	3 - 5	11/25/1998	0.4	U
SB-08718	8 - 10	11/25/1998	0.4	U
SB-08719	3 - 5	11/25/1998	0.4	U
SB-08719	8 - 10	11/25/1998	0.4	U
SB-08720	3 - 5	11/25/1998	0.4	U
SB-08720	8 - 10	11/25/1998	0.4	U
SB-08721	3 - 5	11/25/1998	0.4	U
SB-08721	8 - 10	11/25/1998	0.4	U
SB-08722	3 - 5	11/25/1998	0.4	U
SB-08722	8 - 10	11/25/1998	0.4	U
SB-08723	3 - 5	11/25/1998	0.4	U
SB-08723	8 - 10	11/25/1998	0.4	U
SB-08724	3 - 5	11/25/1998	0.3	U
SB-08724	8 - 10	11/25/1998	0.4	U
SB-08901	5 - 5	12/11/1993	0.4	U
SB-08901	7.5 - 7.5	12/11/1993	0.4	U
SB-08903	5 - 5	12/13/1993	0.3	U
SB-08903	5 - 5	12/13/1993	0.3	U
SB-08904	1 - 1	12/9/1993	0.3	U
SB-08904	5 - 5	12/9/1993	0.4	U
SB-08905	5 - 5	8/24/1994	0.4	U
SB-08905	7.5 - 7.5	8/24/1994	0.3	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Silver (mg/kg) - 2004 Soil Screening Level = 0.32 mg/kg; PMCL = 0.3 mg/kg[3]				
SB-08905	10 - 10	8/24/1994	0.4	U
SB-08909	5 - 5	8/19/1994	0.3	U
SB-08909	7.5 - 7.5	8/19/1994	0.3	U
SB-08909	10 - 10	8/19/1994	0.3	U
SB-08915	2 - 2	8/17/1994	0.3	U
SB-08915	5 - 5	8/17/1994	0.3	U
SB-08915	7.5 - 7.5	8/17/1994	0.4	U
SB-08916	2 - 2	9/13/1994	0.3	U
SB-08916	5 - 5	9/13/1994	0.3	U
SB-08917	1 - 1	8/23/1994	0.3	U
SB-08917	7.5 - 7.5	8/23/1994	0.4	U
SB-08917	10 - 10	8/23/1994	0.4	U
SB-08918	2 - 2	9/13/1994	0.3	U
SB-08918	5 - 5	9/13/1994	0.3	U
SB-08919	2.5 - 2.5	8/18/1994	0.3	U
SB-08919	7.5 - 7.5	8/18/1994	0.4	U
SB-08919	10 - 10	8/18/1994	0.4	U
SB-08920	1 - 1	8/23/1994	0.3	U
SB-08920	7.5 - 7.5	8/23/1994	0.4	U
SB-08920	10 - 10	8/23/1994	0.4	U
SB-08921	2 - 2	9/13/1994	0.3	U
SB-08921	5 - 5	9/13/1994	0.3	U
SB-08922	1 - 1	8/19/1994	0.3	U
SB-08922	5 - 5	8/19/1994	0.4	
SB-08922	10 - 10	8/19/1994	0.4	U
SB-08923	2 - 2	9/13/1994	0.3	U
SB-08923	5 - 5	9/13/1994	0.3	U
SB-08924	2.5 - 2.5	8/18/1994	0.3	U
SB-08924	2.5 - 2.5	8/18/1994	0.3	U
SB-08924	7.5 - 7.5	8/18/1994	0.4	U
SB-08924	10 - 10	8/18/1994	0.4	U
SB-08926	2.5 - 2.5	3/2/1995	0.3	U
SB-08926	5.5 - 5.5	3/2/1995	0.4	U
SB-08926	8.5 - 8.5	3/2/1995	0.4	U
SB-08927	2 - 2	3/6/1995	0.3	U
SB-08927	6.5 - 6.5	3/6/1995	0.4	U
SB-08927	9.5 - 9.5	3/6/1995	0.4	U
SB-08928	2.5 - 2.5	3/3/1995	0.3	U
SB-08928	4.5 - 4.5	3/3/1995	0.4	U
SB-08928	8.5 - 8.5	3/3/1995	0.4	U
SB-08929	2 - 2	3/6/1995	0.3	U
SB-08929	6.5 - 6.5	3/6/1995	0.4	U
SB-08929	9.5 - 9.5	3/6/1995	0.4	U
SB-08930	3 - 5	11/24/1998	0.3	U
SB-08930	8 - 10	11/24/1998	0.4	U
SB-08931	3 - 5	11/24/1998	0.4	U
SB-08931	8 - 10	11/24/1998	0.4	U
SB-08932	3 - 5	11/24/1998	0.4	U
SB-08932	8 - 10	11/24/1998	0.4	U

South Yard Area COC Results
Silver Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Silver (mg/kg) - 2004 Soil Screening Level = 0.32 mg/kg; PMCL = 0.3 mg/kg[3]				
SB-08933	3 - 5	11/24/1998	0.3	U
SB-08933	8 - 10	11/24/1998	0.4	U
SB-08934	3 - 5	11/24/1998	0.3	U
SB-08934	8 - 10	11/24/1998	0.4	U
SB-08935	3 - 5	11/24/1998	0.4	U
SB-08935	8 - 10	11/24/1998	0.4	U
SB-08936	3 - 5	11/24/1998	0.4	U
SB-08936	8 - 10	11/24/1998	0.4	U
SB-08937	3 - 5	11/24/1998	0.3	U
SB-08937	8 - 10	11/24/1998	0.4	U
SB-08938	3 - 5	11/24/1998	0.3	U
SB-08938	8 - 10	11/24/1998	0.3	U
SB-08939	3 - 5	11/24/1998	0.3	U
SB-08939	8 - 10	11/24/1998	0.4	U
SB-08940	3 - 5	11/24/1998	0.3	U
SB-08940	8 - 10	11/24/1998	0.4	U
SB-09101	2 - 2	9/12/1994	0.3	U
SB-09101	5 - 5	9/12/1994	0.3	U
SB-09102	1 - 1	8/16/1994	0.3	U
SB-09102	1 - 1	8/16/1994	0.3	U
SB-09102	5 - 5	8/16/1994	0.4	U
SB-09102	7.5 - 7.5	8/16/1994	0.4	U
SB-09103	2.5 - 2.5	8/16/1994	0.3	U
SB-09103	7.5 - 7.5	8/16/1994	0.4	U
SB-09103	10 - 10	8/16/1994	0.4	U
SB-09104	1 - 1	8/16/1994	0.3	U
SB-09104	7.5 - 7.5	8/16/1994	0.4	U
SB-09104	10 - 10	8/16/1994	0.3	U
SB-09105	2 - 2	9/12/1994	0.3	U
SB-09105	5 - 5	9/12/1994	0.4	U
SB-09106	2 - 2	9/12/1994	0.3	U
SB-09106	5 - 5	9/12/1994	0.4	U
SB-10401	10 - 10	3/15/1994	0.4	U
SB-10403	10.5 - 10.5	9/7/1994	0.4	U
SB-10404	1.5 - 1.5	9/7/1994	0.3	U
SB-10404	6.5 - 6.5	9/7/1994	0.4	U
SB-10404	10.5 - 10.5	9/7/1994	0.4	U
SB-10405	10.5 - 10.5	9/7/1994	0.4	U
SB-28201	1 - 1	12/9/1993	0.3	U
SB-28201	5 - 5	12/9/1993	0.3	U
SS-09101	0 - 0.5	11/29/1993	1.4	
SS-09102	0 - 0.5	11/19/1993	3	
SS-09103	0 - 0.5	11/24/1993	0.6	
SS-09104	0 - 0.5	11/22/1993	0.3	U
SS-09105	0 - 0.5	11/16/1993	0.3	U
SS-09106	0 - 0.5	11/18/1993	0.3	U
SS-09107	0 - 0.5	11/16/1993	0.4	
SS-09108	0 - 0.5	11/17/1993	0.3	U
SS-09109	0 - 0.5	11/19/1993	0.2	U

South Yard Area COC Results
Silver Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Silver (mg/kg) - 2004 Soil Screening Level = 0.32 mg/kg; PMCL = 0.3 mg/kg[3]				
SS-09110	0 - 0.5	11/17/1993	0.3	U
SS-09111	0 - 0.5	11/23/1993	0.3	U
SS-09111	0 - 0.5	11/23/1993	0.3	U
SS-09112	0 - 0.5	11/29/1993	0.3	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Thallium Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Thallium (mg/kg) - 2004 Soil Screening Level = 0.67 mg/kg; PMCL = 8.9 mg/kg[3]				
288-13	2 - 2	8/13/1991	36	
288-15	2 - 2	8/13/1991	32	
288-16	4 - 4	8/14/1991	39	
288-17	4 - 4	8/14/1991	37	
288-18	4 - 4	8/14/1991	33	
288-19	4 - 4	8/14/1991	56	
288-20	4 - 4	8/14/1991	47	
288-21	4 - 4	8/14/1991	34	
288-22	4 - 4	8/14/1991	40	
288-23	4 - 4	8/14/1991	46	
288-24	4 - 4	8/14/1991	47	
PL2-104B	6 - 6	6/24/1992	0.1	U
PL2-104B	11 - 11	6/24/1992	0.1	U
PL2-105C	3 - 3	6/25/1992	0.1	U
PL2-105C	10 - 10	6/25/1992	0.1	U
PL2-106C	7 - 7	6/18/1992	0.1	
PL2-106C	12 - 12	6/18/1992	0.1	U
PL2-109B	9 - 9	7/7/1992	0.1	U
PL2-109C	6 - 6	7/6/1992	0.1	U
PL2-109C	9 - 9	7/6/1992	0.1	U
PL2-110C	6 - 6	6/22/1992	0.1	U
PL2-110C	9 - 9	6/22/1992	0.1	U
PL2-111A	1 - 1	12/9/1993	0.1	U
PL2-111A	5 - 5	12/9/1993	0.1	U
PL2-301A	5 - 5	7/8/1992	6	U
PL2-301A	10 - 10	7/8/1992	6	U
PL2-302A	5 - 5	7/8/1992	6	U
PL2-302A	10 - 10	7/8/1992	6	U
PL2-303A	5 - 5	7/8/1992	6	
PL2-303A	10 - 10	7/8/1992	6	U
PL2-303A	10 - 10	7/8/1992	6	U
SB-08003	1.5 - 1.5	8/18/1994	6	U
SB-08003	8 - 8	8/18/1994	6	U
SB-08003	10 - 10	8/18/1994	6	U
SB-08004	3.5 - 3.5	8/18/1994	5	U
SB-08004	8 - 8	8/18/1994	5	U
SB-08004	12 - 12	8/18/1994	6	U
SB-08008	3.5 - 3.5	2/15/1995	5	U
SB-08008	6.5 - 6.5	2/15/1995	6	
SB-08008	11.5 - 11.5	2/15/1995	9	
SB-08009	0.6 - 0.6	2/16/1995	5	U
SB-08009	6 - 6	2/16/1995	6	U
SB-08010	0.5 - 0.5	2/16/1995	5	U
SB-08010	6 - 6	2/16/1995	7	
SB-08201	6.5 - 6.5	12/21/1993	0.1	U
SB-08201	8 - 8	12/21/1993	0.1	U
SB-08201	11 - 11	12/21/1993	0.1	U
SB-08301	1.5 - 1.5	9/3/1994	6	U
SB-08301	4.5 - 4.5	9/3/1994	7	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Thallium (mg/kg) - 2004 Soil Screening Level = 0.67 mg/kg; PMCL = 8.9 mg/kg[3]				
SB-08301	11.5 - 11.5	9/3/1994	6	U
SB-08302	2 - 2	9/3/1994	5	U
SB-08302	5 - 5	9/3/1994	6	U
SB-08302	11 - 11	9/3/1994	6	U
SB-08303	5 - 5	12/13/1993	0.6	U
SB-08305	1 - 1	2/22/1995	5	U
SB-08305	5 - 5	2/22/1995	6	U
SB-08332	4 - 5	4/15/2002	5	U
SB-08332	4 - 5	4/15/2002	5	U
SB-08332	9 - 10	4/15/2002	7	U
SB-08333	4 - 5	4/15/2002	5	U
SB-08333	9 - 10	4/15/2002	7	U
SB-08334	4 - 5	4/23/2002	6	
SB-08334	7.5 - 8.5	4/23/2002	5	U
SB-08335	4 - 5	4/23/2002	5	U
SB-08335	9 - 10	4/23/2002	6	U
SB-08601	1.5 - 1.5	12/20/1993	0.1	U
SB-08601	7 - 7	12/20/1993	0.2	
SB-08601	11 - 11	12/20/1993	0.1	U
SB-08602	1 - 1	12/9/1993	0.1	U
SB-08602	5 - 5	12/9/1993	0.1	U
SB-08604	1.5 - 1.5	9/19/1994	6	U
SB-08604	6 - 6	9/19/1994	7	U
SB-08604	9 - 9	9/19/1994	7	U
SB-08705	2.5 - 2.5	8/18/1994	5	U
SB-08705	5 - 5	8/18/1994	6	U
SB-08705	7.5 - 7.5	8/18/1994	7	U
SB-08706	7.5 - 7.5	8/25/1994	6	U
SB-08706	10 - 10	8/25/1994	6	U
SB-08716	3 - 5	11/25/1998	6	U
SB-08716	8 - 10	11/25/1998	7	U
SB-08717	3 - 5	11/25/1998	6	U
SB-08717	8 - 10	11/25/1998	7	U
SB-08718	3 - 5	11/25/1998	7	U
SB-08718	8 - 10	11/25/1998	6	U
SB-08719	3 - 5	11/25/1998	6	U
SB-08719	8 - 10	11/25/1998	6	U
SB-08720	3 - 5	11/25/1998	6	U
SB-08720	8 - 10	11/25/1998	7	U
SB-08721	3 - 5	11/25/1998	6	U
SB-08721	8 - 10	11/25/1998	7	U
SB-08722	3 - 5	11/25/1998	6	U
SB-08722	8 - 10	11/25/1998	7	U
SB-08723	3 - 5	11/25/1998	6	U
SB-08723	8 - 10	11/25/1998	7	U
SB-08724	3 - 5	11/25/1998	5	U
SB-08724	8 - 10	11/25/1998	7	U
SB-08901	5 - 5	12/11/1993	0.7	U
SB-08901	7.5 - 7.5	12/11/1993	0.2	

South Yard Area COC Results
Thallium Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Thallium (mg/kg) - 2004 Soil Screening Level = 0.67 mg/kg; PMCL = 8.9 mg/kg[3]				
SB-08903	5 - 5	12/13/1993	0.2	
SB-08903	5 - 5	12/13/1993	0.1	
SB-08904	1 - 1	12/9/1993	0.1	U
SB-08904	5 - 5	12/9/1993	0.1	U
SB-08905	5 - 5	8/24/1994	6	U
SB-08905	7.5 - 7.5	8/24/1994	6	U
SB-08905	10 - 10	8/24/1994	6	U
SB-08909	5 - 5	8/19/1994	5	U
SB-08909	7.5 - 7.5	8/19/1994	5	U
SB-08909	10 - 10	8/19/1994	5	U
SB-08915	2 - 2	8/17/1994	5	U
SB-08915	5 - 5	8/17/1994	5	U
SB-08915	7.5 - 7.5	8/17/1994	6	U
SB-08916	2 - 2	9/13/1994	5	U
SB-08916	5 - 5	9/13/1994	6	U
SB-08917	1 - 1	8/23/1994	5	U
SB-08917	7.5 - 7.5	8/23/1994	7	U
SB-08917	10 - 10	8/23/1994	6	U
SB-08918	2 - 2	9/13/1994	5	U
SB-08918	5 - 5	9/13/1994	6	U
SB-08919	2.5 - 2.5	8/18/1994	5	U
SB-08919	7.5 - 7.5	8/18/1994	7	U
SB-08919	10 - 10	8/18/1994	6	U
SB-08920	1 - 1	8/23/1994	5	U
SB-08920	7.5 - 7.5	8/23/1994	6	U
SB-08920	10 - 10	8/23/1994	6	U
SB-08921	2 - 2	9/13/1994	5	U
SB-08921	5 - 5	9/13/1994	5	U
SB-08922	1 - 1	8/19/1994	5	U
SB-08922	5 - 5	8/19/1994	6	U
SB-08922	10 - 10	8/19/1994	6	U
SB-08923	2 - 2	9/13/1994	6	U
SB-08923	5 - 5	9/13/1994	6	U
SB-08924	2.5 - 2.5	8/18/1994	5	U
SB-08924	2.5 - 2.5	8/18/1994	5	U
SB-08924	7.5 - 7.5	8/18/1994	7	U
SB-08924	10 - 10	8/18/1994	6	U
SB-08926	2.5 - 2.5	3/2/1995	6	U
SB-08926	5.5 - 5.5	3/2/1995	6	U
SB-08926	8.5 - 8.5	3/2/1995	6	U
SB-08927	2 - 2	3/6/1995	5	U
SB-08927	6.5 - 6.5	3/6/1995	6	U
SB-08927	9.5 - 9.5	3/6/1995	7	U
SB-08928	2.5 - 2.5	3/3/1995	5	U
SB-08928	4.5 - 4.5	3/3/1995	6	U
SB-08928	8.5 - 8.5	3/3/1995	6	U
SB-08929	2 - 2	3/6/1995	5	U
SB-08929	6.5 - 6.5	3/6/1995	6	U
SB-08929	9.5 - 9.5	3/6/1995	6	U

South Yard Area COC Results
Thallium Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Thallium (mg/kg) - 2004 Soil Screening Level = 0.67 mg/kg; PMCL = 8.9 mg/kg[3]				
SB-08930	3 - 5	11/24/1998	6	U
SB-08930	8 - 10	11/24/1998	6	U
SB-08931	3 - 5	11/24/1998	6	U
SB-08931	8 - 10	11/24/1998	6	U
SB-08932	3 - 5	11/24/1998	6	U
SB-08932	8 - 10	11/24/1998	6	U
SB-08933	3 - 5	11/24/1998	5	U
SB-08933	8 - 10	11/24/1998	6	U
SB-08934	3 - 5	11/24/1998	5	U
SB-08934	8 - 10	11/24/1998	6	U
SB-08935	3 - 5	11/24/1998	6	U
SB-08935	8 - 10	11/24/1998	6	U
SB-08936	3 - 5	11/24/1998	6	U
SB-08936	8 - 10	11/24/1998	7	U
SB-08937	3 - 5	11/24/1998	6	U
SB-08937	8 - 10	11/24/1998	6	U
SB-08938	3 - 5	11/24/1998	5	U
SB-08938	8 - 10	11/24/1998	6	U
SB-08939	3 - 5	11/24/1998	6	U
SB-08939	8 - 10	11/24/1998	6	U
SB-08940	3 - 5	11/24/1998	6	U
SB-08940	8 - 10	11/24/1998	6	U
SB-09101	2 - 2	9/12/1994	5	U
SB-09101	5 - 5	9/12/1994	5	U
SB-09102	1 - 1	8/16/1994	5	U
SB-09102	1 - 1	8/16/1994	5	U
SB-09102	5 - 5	8/16/1994	6	U
SB-09102	7.5 - 7.5	8/16/1994	6	U
SB-09103	2.5 - 2.5	8/16/1994	5	U
SB-09103	7.5 - 7.5	8/16/1994	6	U
SB-09103	10 - 10	8/16/1994	6	U
SB-09104	1 - 1	8/16/1994	5	U
SB-09104	7.5 - 7.5	8/16/1994	7	U
SB-09104	10 - 10	8/16/1994	6	U
SB-09105	2 - 2	9/12/1994	5	U
SB-09105	5 - 5	9/12/1994	7	U
SB-09106	2 - 2	9/12/1994	5	U
SB-09106	5 - 5	9/12/1994	7	U
SB-10401	10 - 10	3/15/1994	0.1	U
SB-10403	10.5 - 10.5	9/7/1994	6	U
SB-10404	1.5 - 1.5	9/7/1994	5	U
SB-10404	6.5 - 6.5	9/7/1994	7	U
SB-10404	10.5 - 10.5	9/7/1994	7	U
SB-10405	10.5 - 10.5	9/7/1994	7	U
SB-28201	1 - 1	12/9/1993	0.1	U
SB-28201	5 - 5	12/9/1993	0.1	U
SS-09101	0 - 0.5	11/29/1993	0.1	U
SS-09102	0 - 0.5	11/19/1993	0.1	
SS-09103	0 - 0.5	11/24/1993	0.1	

South Yard Area COC Results
Thallium Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Thallium (mg/kg) - 2004 Soil Screening Level = 0.67 mg/kg; PMCL = 8.9 mg/kg[3]				
SS-09104	0 - 0.5	11/22/1993	0.5	U
SS-09105	0 - 0.5	11/16/1993	0.5	U
SS-09106	0 - 0.5	11/18/1993	0.5	U
SS-09107	0 - 0.5	11/16/1993	0.6	
SS-09108	0 - 0.5	11/17/1993	0.5	
SS-09109	0 - 0.5	11/19/1993	0.1	U
SS-09110	0 - 0.5	11/17/1993	0.1	U
SS-09111	0 - 0.5	11/23/1993	0.1	U
SS-09111	0 - 0.5	11/23/1993	0.1	U
SS-09112	0 - 0.5	11/29/1993	0.6	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Zinc Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Zinc (mg/kg) - 2004 Soil Screening Level = 101 mg/kg; PMCL = 107 mg/kg[3]				
288-13	2 - 2	8/13/1991	24.4	
288-15	2 - 2	8/13/1991	19.3	
288-16	4 - 4	8/14/1991	24.5	
288-17	4 - 4	8/14/1991	22.1	
288-18	4 - 4	8/14/1991	22.2	
288-19	4 - 4	8/14/1991	34	
288-20	4 - 4	8/14/1991	35.8	
288-21	4 - 4	8/14/1991	18.7	
288-22	4 - 4	8/14/1991	22.5	
288-23	4 - 4	8/14/1991	20.5	
288-24	4 - 4	8/14/1991	20.8	
CN4-N-B	11 - 11	9/16/1986	26000	
PL2-101A	11 - 11	10/28/1985	27	
PL2-103A	4 - 4	10/28/1985	37	
PL2-103A	7 - 7	10/28/1985	28	
PL2-103A	10 - 10	10/28/1985	24	
PL2-104B	6 - 6	6/24/1992	38.8	
PL2-104B	11 - 11	6/24/1992	28	
PL2-105C	3 - 3	6/25/1992	22.9	
PL2-105C	10 - 10	6/25/1992	23.6	
PL2-106C	7 - 7	6/18/1992	35.4	
PL2-106C	12 - 12	6/18/1992	25.7	
PL2-109B	9 - 9	7/7/1992	40.1	
PL2-109C	6 - 6	7/6/1992	20.4	
PL2-109C	9 - 9	7/6/1992	27.3	
PL2-110C	6 - 6	6/22/1992	22.3	
PL2-110C	9 - 9	6/22/1992	27.4	
PL2-111A	1 - 1	12/9/1993	27.4	
PL2-111A	5 - 5	12/9/1993	39.9	
PL2-301A	5 - 5	7/8/1992	437	
PL2-301A	10 - 10	7/8/1992	21.8	
PL2-302A	5 - 5	7/8/1992	25	
PL2-302A	10 - 10	7/8/1992	27.8	
PL2-303A	5 - 5	7/8/1992	42.5	
PL2-303A	10 - 10	7/8/1992	30.8	
PL2-303A	10 - 10	7/8/1992	24.6	
SB-08003	1.5 - 1.5	8/18/1994	36.9	
SB-08003	8 - 8	8/18/1994	42.7	
SB-08003	10 - 10	8/18/1994	46	
SB-08004	3.5 - 3.5	8/18/1994	26.5	
SB-08004	8 - 8	8/18/1994	30.1	
SB-08004	12 - 12	8/18/1994	36.2	
SB-08008	3.5 - 3.5	2/15/1995	26.4	
SB-08008	6.5 - 6.5	2/15/1995	24.9	
SB-08008	11.5 - 11.5	2/15/1995	27.6	
SB-08009	0.6 - 0.6	2/16/1995	47.5	
SB-08009	6 - 6	2/16/1995	24.1	
SB-08010	0.5 - 0.5	2/16/1995	30	
SB-08010	6 - 6	2/16/1995	34.5	

South Yard Area COC Results
Zinc Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Zinc (mg/kg) - 2004 Soil Screening Level = 101 mg/kg; PMCL = 107 mg/kg[3]				
SB-08201	6.5 - 6.5	12/21/1993	38.3	
SB-08201	8 - 8	12/21/1993	30.8	
SB-08201	11 - 11	12/21/1993	31.1	
SB-08301	1.5 - 1.5	9/3/1994	25.8	
SB-08301	4.5 - 4.5	9/3/1994	61.5	
SB-08301	11.5 - 11.5	9/3/1994	27.4	
SB-08302	2 - 2	9/3/1994	30.7	
SB-08302	5 - 5	9/3/1994	38.3	
SB-08302	11 - 11	9/3/1994	20.7	
SB-08303	5 - 5	12/13/1993	92.9	
SB-08305	1 - 1	2/22/1995	25.2	
SB-08305	5 - 5	2/22/1995	29.4	
SB-08332	4 - 5	4/15/2002	18	
SB-08332	4 - 5	4/15/2002	18	
SB-08332	9 - 10	4/15/2002	23.9	
SB-08333	4 - 5	4/15/2002	32.7	
SB-08333	9 - 10	4/15/2002	28	
SB-08334	4 - 5	4/23/2002	32	
SB-08334	7.5 - 8.5	4/23/2002	29.8	
SB-08335	4 - 5	4/23/2002	30	
SB-08335	9 - 10	4/23/2002	29.8	
SB-08601	1.5 - 1.5	12/20/1993	20	
SB-08601	7 - 7	12/20/1993	46.3	
SB-08601	11 - 11	12/20/1993	24	
SB-08602	1 - 1	12/9/1993	22.9	
SB-08602	5 - 5	12/9/1993	35	
SB-08604	1.5 - 1.5	9/19/1994	21.2	
SB-08604	6 - 6	9/19/1994	24	
SB-08604	9 - 9	9/19/1994	36	
SB-08705	2.5 - 2.5	8/18/1994	20.5	
SB-08705	5 - 5	8/18/1994	34	
SB-08705	7.5 - 7.5	8/18/1994	33.3	
SB-08706	7.5 - 7.5	8/25/1994	25.5	
SB-08706	10 - 10	8/25/1994	23.5	
SB-08716	3 - 5	11/25/1998	26.5	
SB-08716	8 - 10	11/25/1998	32	
SB-08717	3 - 5	11/25/1998	37.9	
SB-08717	8 - 10	11/25/1998	26.3	
SB-08718	3 - 5	11/25/1998	21.1	
SB-08718	8 - 10	11/25/1998	28.5	
SB-08719	3 - 5	11/25/1998	25.3	
SB-08719	8 - 10	11/25/1998	24.3	
SB-08720	3 - 5	11/25/1998	21.5	
SB-08720	8 - 10	11/25/1998	25.2	
SB-08721	3 - 5	11/25/1998	22.4	
SB-08721	8 - 10	11/25/1998	28	
SB-08722	3 - 5	11/25/1998	25.6	
SB-08722	8 - 10	11/25/1998	29.9	
SB-08723	3 - 5	11/25/1998	23.9	

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Zinc (mg/kg) - 2004 Soil Screening Level = 101 mg/kg; PMCL = 107 mg/kg[3]				
SB-08723	8 - 10	11/25/1998	25.4	
SB-08724	3 - 5	11/25/1998	27	
SB-08724	8 - 10	11/25/1998	57.3	
SB-08743	11 - 11	6/3/1999	3070	
SB-08744	8 - 8	6/4/1999	28	
SB-08746	8 - 8	6/4/1999	53.8	
SB-08747	9 - 9	6/4/1999	58.1	
SB-08748	11 - 11	6/4/1999	27.3	
SB-08754	8 - 10	7/20/1999	28.2	
SB-08901	5 - 5	12/11/1993	39.2	
SB-08901	7.5 - 7.5	12/11/1993	30.1	
SB-08903	5 - 5	12/13/1993	29	
SB-08903	5 - 5	12/13/1993	27.6	
SB-08904	1 - 1	12/9/1993	26.1	
SB-08904	5 - 5	12/9/1993	32.4	
SB-08905	5 - 5	8/24/1994	566	
SB-08905	7.5 - 7.5	8/24/1994	23.2	
SB-08905	10 - 10	8/24/1994	21.2	
SB-08909	5 - 5	8/19/1994	207	
SB-08909	7.5 - 7.5	8/19/1994	27.4	
SB-08909	10 - 10	8/19/1994	26.8	
SB-08915	2 - 2	8/17/1994	39.6	
SB-08915	5 - 5	8/17/1994	40.1	
SB-08915	7.5 - 7.5	8/17/1994	66.2	
SB-08916	2 - 2	9/13/1994	64.1	
SB-08916	5 - 5	9/13/1994	27.2	
SB-08917	1 - 1	8/23/1994	24.7	
SB-08917	7.5 - 7.5	8/23/1994	68.3	
SB-08917	10 - 10	8/23/1994	31.5	
SB-08918	2 - 2	9/13/1994	124	
SB-08918	5 - 5	9/13/1994	32.1	
SB-08919	2.5 - 2.5	8/18/1994	29.1	
SB-08919	7.5 - 7.5	8/18/1994	38.1	
SB-08919	10 - 10	8/18/1994	23.2	
SB-08920	1 - 1	8/23/1994	47.5	
SB-08920	7.5 - 7.5	8/23/1994	33.8	
SB-08920	10 - 10	8/23/1994	25.4	
SB-08921	2 - 2	9/13/1994	41.8	
SB-08921	5 - 5	9/13/1994	28.1	
SB-08922	1 - 1	8/19/1994	24.4	
SB-08922	5 - 5	8/19/1994	26.9	
SB-08922	10 - 10	8/19/1994	30.2	
SB-08923	2 - 2	9/13/1994	33.1	
SB-08923	5 - 5	9/13/1994	30.4	
SB-08924	2.5 - 2.5	8/18/1994	55.5	
SB-08924	2.5 - 2.5	8/18/1994	49.2	
SB-08924	7.5 - 7.5	8/18/1994	39.6	
SB-08924	10 - 10	8/18/1994	27.7	
SB-08926	2.5 - 2.5	3/2/1995	22.9	

South Yard Area COC Results
Zinc Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Zinc (mg/kg) - 2004 Soil Screening Level = 101 mg/kg; PMCL = 107 mg/kg[3]				
SB-08926	5.5 - 5.5	3/2/1995	38.9	
SB-08926	8.5 - 8.5	3/2/1995	23.8	
SB-08927	2 - 2	3/6/1995	20.6	
SB-08927	6.5 - 6.5	3/6/1995	44.7	
SB-08927	9.5 - 9.5	3/6/1995	23.1	
SB-08928	2.5 - 2.5	3/3/1995	20.4	
SB-08928	4.5 - 4.5	3/3/1995	25.5	
SB-08928	8.5 - 8.5	3/3/1995	27.5	
SB-08929	2 - 2	3/6/1995	23.3	
SB-08929	6.5 - 6.5	3/6/1995	42.5	
SB-08929	9.5 - 9.5	3/6/1995	25.8	
SB-08930	3 - 5	11/24/1998	24.2	
SB-08930	8 - 10	11/24/1998	23.4	
SB-08931	3 - 5	11/24/1998	27.3	
SB-08931	8 - 10	11/24/1998	23.2	
SB-08932	3 - 5	11/24/1998	37.7	
SB-08932	8 - 10	11/24/1998	24.7	
SB-08933	3 - 5	11/24/1998	21.2	
SB-08933	8 - 10	11/24/1998	28.2	
SB-08934	3 - 5	11/24/1998	125	
SB-08934	8 - 10	11/24/1998	24.8	
SB-08935	3 - 5	11/24/1998	25.5	
SB-08935	8 - 10	11/24/1998	28.9	
SB-08936	3 - 5	11/24/1998	22.4	
SB-08936	8 - 10	11/24/1998	26.1	
SB-08937	3 - 5	11/24/1998	22.5	
SB-08937	8 - 10	11/24/1998	38.4	
SB-08938	3 - 5	11/24/1998	132	
SB-08938	8 - 10	11/24/1998	24.9	
SB-08939	3 - 5	11/24/1998	40.6	
SB-08939	8 - 10	11/24/1998	35.1	
SB-08940	3 - 5	11/24/1998	23.4	
SB-08940	8 - 10	11/24/1998	24.9	
SB-08941	8 - 8	5/25/1999	489	
SB-08942	11 - 11	5/25/1999	29.1	
SB-08943	11 - 11	5/25/1999	214	
SB-08944	11 - 11	5/25/1999	116	
SB-08945	8 - 8	5/25/1999	37.7	
SB-08949	8.5 - 10.5	6/22/1999	41.7	
SB-08950	8 - 10	6/20/1999	63.13775	
SB-09101	2 - 2	9/12/1994	54.9	
SB-09101	5 - 5	9/12/1994	31.5	
SB-09102	1 - 1	8/16/1994	23.4	
SB-09102	1 - 1	8/16/1994	22.6	
SB-09102	5 - 5	8/16/1994	30	
SB-09102	7.5 - 7.5	8/16/1994	44.8	
SB-09103	2.5 - 2.5	8/16/1994	24.4	
SB-09103	7.5 - 7.5	8/16/1994	51.7	
SB-09103	10 - 10	8/16/1994	28.4	

South Yard Area COC Results
Zinc Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Zinc (mg/kg) - 2004 Soil Screening Level = 101 mg/kg; PMCL = 107 mg/kg[3]				
SB-09104	1 - 1	8/16/1994	28.9	
SB-09104	7.5 - 7.5	8/16/1994	66.3	
SB-09104	10 - 10	8/16/1994	29.4	
SB-09105	2 - 2	9/12/1994	31.7	
SB-09105	5 - 5	9/12/1994	36.9	
SB-09106	2 - 2	9/12/1994	169	
SB-09106	5 - 5	9/12/1994	36.5	
SB-10401	10 - 10	3/15/1994	23.8	
SB-10403	10.5 - 10.5	9/7/1994	24.7	
SB-10404	1.5 - 1.5	9/7/1994	20.4	
SB-10404	6.5 - 6.5	9/7/1994	24	
SB-10404	10.5 - 10.5	9/7/1994	22.6	
SB-10405	10.5 - 10.5	9/7/1994	39.3	
SB-28201	1 - 1	12/9/1993	21.2	
SB-28201	5 - 5	12/9/1993	23.2	
SS-09101	0 - 0.5	11/29/1993	454	
SS-09102	0 - 0.5	11/19/1993	70.6	
SS-09103	0 - 0.5	11/24/1993	66.6	
SS-09104	0 - 0.5	11/22/1993	210	
SS-09105	0 - 0.5	11/16/1993	246	
SS-09106	0 - 0.5	11/18/1993	45.6	
SS-09107	0 - 0.5	11/16/1993	104	
SS-09108	0 - 0.5	11/17/1993	92.6	
SS-09109	0 - 0.5	11/19/1993	49.6	
SS-09110	0 - 0.5	11/17/1993	42.5	
SS-09111	0 - 0.5	11/23/1993	48.8	
SS-09111	0 - 0.5	11/23/1993	43.1	
SS-09112	0 - 0.5	11/29/1993	56.8	

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Benzo(a)anthracene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzo(a)anthracene (µg/kg) - 2004 Soil Screening Level = 41.9 µg/kg; PMCL = 2.9 µg/kg[3]				
288-11	0.5 - 0.5	8/13/1991	59	U
288-12	0.5 - 0.5	8/13/1991	58	U
288-19	4 - 4	8/14/1991	72	
288-20	4 - 4	8/14/1991	58	U
288-4	3 - 3	8/13/1991	59	U
288-5	1 - 1	8/13/1991	57	U
288-5	3 - 3	8/13/1991	60	U
288-6	1 - 1	8/13/1991	59	U
288-6	3 - 3	8/13/1991	61	U
PL2-101A	11 - 11	10/28/1985	40000	U
PL2-103A	4 - 4	10/28/1985	40000	U
PL2-103A	7 - 7	10/28/1985	40	U
PL2-103A	10 - 10	10/28/1985	40	U
PL2-104B	6 - 6	6/24/1992	14	U
PL2-104B	11 - 11	6/24/1992	13	U
PL2-105C	3 - 3	6/25/1992	11	U
PL2-105C	10 - 10	6/25/1992	13	U
PL2-106C	7 - 7	6/18/1992	14	U
PL2-106C	12 - 12	6/18/1992	13	U
PL2-109B	9 - 9	7/7/1992	28	U
PL2-109C	6 - 6	7/6/1992	26	U
PL2-109C	9 - 9	7/6/1992	27	U
PL2-110C	6 - 6	6/22/1992	22	U
PL2-110C	9 - 9	6/22/1992	13	U
PL2-111A	1 - 1	12/9/1993	66	U
PL2-111A	5 - 5	12/9/1993	81	U
PL2-112A	10.5 - 10.5	1/10/1989	73	U
SB-08201	6.5 - 6.5	12/21/1993	74	U
SB-08201	8 - 8	12/21/1993	63	U
SB-08201	11 - 11	12/21/1993	79	U
SB-08301	1.5 - 1.5	9/3/1994	76	U
SB-08301	4.5 - 4.5	9/3/1994	94	U
SB-08301	11.5 - 11.5	9/3/1994	87	U
SB-08302	2 - 2	9/3/1994	75	U
SB-08302	5 - 5	9/3/1994	87	U
SB-08302	11 - 11	9/3/1994	87	U
SB-08303	5 - 5	12/13/1993	100	
SB-08304	2 - 2	9/13/1994	75	U
SB-08304	8 - 8	9/13/1994	98	U
SB-08304	10.5 - 10.5	9/13/1994	86	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	9 - 10	4/15/2002	20	U
SB-08332	9 - 10	4/15/2002	2	U
SB-08333	4 - 5	4/15/2002	20	U
SB-08333	4 - 5	4/15/2002	2.2	
SB-08333	9 - 10	4/15/2002	20	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzo(a)anthracene (µg/kg) - 2004 Soil Screening Level = 41.9 µg/kg; PMCL = 2.9 µg/kg[3]				
SB-08333	9 - 10	4/15/2002	2	U
SB-08334	4 - 5	4/23/2002	19	U
SB-08334	4 - 5	4/23/2002	1.9	U
SB-08334	7.5 - 8.5	4/23/2002	20	U
SB-08334	7.5 - 8.5	4/23/2002	2	
SB-08335	4 - 5	4/23/2002	20	U
SB-08335	4 - 5	4/23/2002	2	U
SB-08335	9 - 10	4/23/2002	20	U
SB-08335	9 - 10	4/23/2002	11	
SB-08601	1.5 - 1.5	12/20/1993	29	U
SB-08601	7 - 7	12/20/1993	35	U
SB-08601	11 - 11	12/20/1993	34	U
SB-08602	1 - 1	12/9/1993	62	U
SB-08604	1.5 - 1.5	9/19/1994	72	U
SB-08604	6 - 6	9/19/1994	89	U
SB-08604	6 - 6	9/19/1994	88	U
SB-08604	9 - 9	9/19/1994	89	U
SB-08901	5 - 5	12/11/1993	81	U
SB-08901	7.5 - 7.5	12/11/1993	80	U
SB-08903	5 - 5	12/13/1993	64	U
SB-08903	5 - 5	12/13/1993	61	U
SB-08904	1 - 1	12/9/1993	65	U
SB-08904	5 - 5	12/9/1993	68	U
SB-08909	5 - 5	8/19/1994	84	U
SB-08909	7.5 - 7.5	8/19/1994	86	U
SB-08909	10 - 10	8/19/1994	87	U
SB-08915	2 - 2	8/17/1994	75	U
SB-08915	5 - 5	8/17/1994	74	U
SB-08915	7.5 - 7.5	8/17/1994	92	U
SB-08917	1 - 1	8/23/1994	68	U
SB-08917	7.5 - 7.5	8/23/1994	88	U
SB-08917	10 - 10	8/23/1994	87	U
SB-08918	2 - 2	9/13/1994	72	U
SB-08918	5 - 5	9/13/1994	80	U
SB-10401	10 - 10	3/15/1994	79	U
SB-28201	1 - 1	12/9/1993	63	U
SB291-3	5 - 5	1/12/1989	340	U
SB291-3	9.5 - 9.5	1/12/1989	70	U
SB291-6	7.5 - 7.5	1/12/1989	66	U
SB291-9	5 - 5	1/12/1989	69	U
SS-09101	0 - 0.5	11/29/1993	2300	U
SS-09102	0 - 0.5	11/19/1993	2200	U
SS-09103	0 - 0.5	11/24/1993	69	U
SS-09104	0 - 0.5	11/22/1993	2100	U
SS-09105	0 - 0.5	11/16/1993	4300	U
SS-09106	0 - 0.5	11/18/1993	67	U
SS-09107	0 - 0.5	11/16/1993	4000	U
SS-09108	0 - 0.5	11/17/1993	430	U
SS-09109	0 - 0.5	11/19/1993	64	U

South Yard Area COC Results
Benzo(a)anthracene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzo(a)anthracene (µg/kg) - 2004 Soil Screening Level = 41.9 µg/kg; PMCL = 2.9 µg/kg[3]				
SS-09110	0 - 0.5	11/17/1993	64	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09112	0 - 0.5	11/29/1993	11000	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Benzo(b)fluoranthene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzo(b)fluoranthene (µg/kg) - 2004 Soil Screening Level = 144 µg/kg; PMCL = 2.9 µg/kg[3]				
288-11	0.5 - 0.5	8/13/1991	59	U
288-11	0.5 - 0.5	8/13/1991	59	U
288-12	0.5 - 0.5	8/13/1991	58	U
288-12	0.5 - 0.5	8/13/1991	58	U
288-19	4 - 4	8/14/1991	840	
288-19	4 - 4	8/14/1991	840	
288-20	4 - 4	8/14/1991	58	U
288-20	4 - 4	8/14/1991	58	U
288-4	3 - 3	8/13/1991	59	U
288-4	3 - 3	8/13/1991	59	U
288-5	1 - 1	8/13/1991	57	U
288-5	1 - 1	8/13/1991	57	U
288-5	3 - 3	8/13/1991	60	U
288-5	3 - 3	8/13/1991	60	U
288-6	1 - 1	8/13/1991	59	U
288-6	1 - 1	8/13/1991	59	U
288-6	3 - 3	8/13/1991	61	U
288-6	3 - 3	8/13/1991	61	U
PL2-101A	11 - 11	10/28/1985	40000	U
PL2-101A	11 - 11	10/28/1985	40000	U
PL2-103A	4 - 4	10/28/1985	40000	U
PL2-103A	4 - 4	10/28/1985	40000	U
PL2-103A	7 - 7	10/28/1985	40	U
PL2-103A	7 - 7	10/28/1985	40	U
PL2-103A	10 - 10	10/28/1985	40	U
PL2-103A	10 - 10	10/28/1985	40	U
PL2-104B	6 - 6	6/24/1992	14	U
PL2-104B	6 - 6	6/24/1992	14	U
PL2-104B	11 - 11	6/24/1992	13	U
PL2-104B	11 - 11	6/24/1992	13	U
PL2-105C	3 - 3	6/25/1992	11	U
PL2-105C	3 - 3	6/25/1992	11	U
PL2-105C	10 - 10	6/25/1992	13	U
PL2-105C	10 - 10	6/25/1992	13	U
PL2-106C	7 - 7	6/18/1992	14	U
PL2-106C	7 - 7	6/18/1992	14	U
PL2-106C	12 - 12	6/18/1992	13	U
PL2-106C	12 - 12	6/18/1992	13	U
PL2-109B	9 - 9	7/7/1992	28	U
PL2-109B	9 - 9	7/7/1992	28	U
PL2-109C	6 - 6	7/6/1992	26	U
PL2-109C	6 - 6	7/6/1992	26	U
PL2-109C	9 - 9	7/6/1992	27	U
PL2-109C	9 - 9	7/6/1992	27	U
PL2-110C	6 - 6	6/22/1992	22	U
PL2-110C	6 - 6	6/22/1992	22	U
PL2-110C	9 - 9	6/22/1992	13	U
PL2-110C	9 - 9	6/22/1992	13	U
PL2-111A	1 - 1	12/9/1993	66	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzo(b)fluoranthene (µg/kg) - 2004 Soil Screening Level = 144 µg/kg; PMCL = 2.9 µg/kg[3]				
PL2-111A	1 - 1	12/9/1993	66	U
PL2-111A	5 - 5	12/9/1993	81	U
PL2-111A	5 - 5	12/9/1993	81	U
PL2-112A	10.5 - 10.5	1/10/1989	73	U
PL2-112A	10.5 - 10.5	1/10/1989	73	U
SB-08201	6.5 - 6.5	12/21/1993	74	U
SB-08201	6.5 - 6.5	12/21/1993	74	U
SB-08201	8 - 8	12/21/1993	63	U
SB-08201	8 - 8	12/21/1993	63	U
SB-08201	11 - 11	12/21/1993	79	U
SB-08201	11 - 11	12/21/1993	79	U
SB-08301	1.5 - 1.5	9/3/1994	76	U
SB-08301	1.5 - 1.5	9/3/1994	76	U
SB-08301	4.5 - 4.5	9/3/1994	94	U
SB-08301	4.5 - 4.5	9/3/1994	94	U
SB-08301	11.5 - 11.5	9/3/1994	87	U
SB-08301	11.5 - 11.5	9/3/1994	87	U
SB-08302	2 - 2	9/3/1994	75	U
SB-08302	2 - 2	9/3/1994	75	U
SB-08302	5 - 5	9/3/1994	87	U
SB-08302	5 - 5	9/3/1994	87	U
SB-08302	11 - 11	9/3/1994	87	U
SB-08302	11 - 11	9/3/1994	87	U
SB-08303	5 - 5	12/13/1993	88	
SB-08303	5 - 5	12/13/1993	66	U
SB-08304	2 - 2	9/13/1994	75	U
SB-08304	2 - 2	9/13/1994	75	U
SB-08304	8 - 8	9/13/1994	98	U
SB-08304	8 - 8	9/13/1994	98	U
SB-08304	10.5 - 10.5	9/13/1994	86	U
SB-08304	10.5 - 10.5	9/13/1994	86	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	9 - 10	4/15/2002	20	U
SB-08332	9 - 10	4/15/2002	20	U
SB-08332	9 - 10	4/15/2002	2	U
SB-08332	9 - 10	4/15/2002	2	U
SB-08333	4 - 5	4/15/2002	20	U
SB-08333	4 - 5	4/15/2002	20	U
SB-08333	4 - 5	4/15/2002	4	
SB-08333	4 - 5	4/15/2002	3.4	
SB-08333	9 - 10	4/15/2002	20	U
SB-08333	9 - 10	4/15/2002	20	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzo(b)fluoranthene (µg/kg) - 2004 Soil Screening Level = 144 µg/kg; PMCL = 2.9 µg/kg[3]				
SB-08333	9 - 10	4/15/2002	2	U
SB-08333	9 - 10	4/15/2002	2	U
SB-08334	4 - 5	4/23/2002	19	U
SB-08334	4 - 5	4/23/2002	19	U
SB-08334	4 - 5	4/23/2002	1.9	U
SB-08334	4 - 5	4/23/2002	1.9	U
SB-08334	7.5 - 8.5	4/23/2002	20	U
SB-08334	7.5 - 8.5	4/23/2002	20	U
SB-08334	7.5 - 8.5	4/23/2002	2.5	
SB-08334	7.5 - 8.5	4/23/2002	2	U
SB-08335	4 - 5	4/23/2002	20	U
SB-08335	4 - 5	4/23/2002	20	U
SB-08335	4 - 5	4/23/2002	2	U
SB-08335	4 - 5	4/23/2002	2	U
SB-08335	9 - 10	4/23/2002	20	U
SB-08335	9 - 10	4/23/2002	20	U
SB-08335	9 - 10	4/23/2002	12	
SB-08335	9 - 10	4/23/2002	11	
SB-08601	1.5 - 1.5	12/20/1993	29	U
SB-08601	1.5 - 1.5	12/20/1993	29	U
SB-08601	7 - 7	12/20/1993	35	U
SB-08601	7 - 7	12/20/1993	35	U
SB-08601	11 - 11	12/20/1993	34	U
SB-08601	11 - 11	12/20/1993	34	U
SB-08602	1 - 1	12/9/1993	62	U
SB-08602	1 - 1	12/9/1993	62	U
SB-08604	1.5 - 1.5	9/19/1994	72	U
SB-08604	1.5 - 1.5	9/19/1994	72	U
SB-08604	6 - 6	9/19/1994	89	U
SB-08604	6 - 6	9/19/1994	89	U
SB-08604	6 - 6	9/19/1994	88	U
SB-08604	6 - 6	9/19/1994	88	U
SB-08604	9 - 9	9/19/1994	89	U
SB-08604	9 - 9	9/19/1994	89	U
SB-08901	5 - 5	12/11/1993	81	U
SB-08901	5 - 5	12/11/1993	81	U
SB-08901	7.5 - 7.5	12/11/1993	80	U
SB-08901	7.5 - 7.5	12/11/1993	80	U
SB-08903	5 - 5	12/13/1993	64	U
SB-08903	5 - 5	12/13/1993	64	U
SB-08903	5 - 5	12/13/1993	61	U
SB-08903	5 - 5	12/13/1993	61	U
SB-08904	1 - 1	12/9/1993	65	U
SB-08904	1 - 1	12/9/1993	65	U
SB-08904	5 - 5	12/9/1993	68	U
SB-08904	5 - 5	12/9/1993	68	U
SB-08909	5 - 5	8/19/1994	84	U
SB-08909	5 - 5	8/19/1994	84	U
SB-08909	7.5 - 7.5	8/19/1994	86	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzo(b)fluoranthene (µg/kg) - 2004 Soil Screening Level = 144 µg/kg; PMCL = 2.9 µg/kg[3]				
SB-08909	7.5 - 7.5	8/19/1994	86	U
SB-08909	10 - 10	8/19/1994	87	U
SB-08909	10 - 10	8/19/1994	87	U
SB-08915	2 - 2	8/17/1994	75	U
SB-08915	2 - 2	8/17/1994	75	U
SB-08915	5 - 5	8/17/1994	74	U
SB-08915	5 - 5	8/17/1994	74	U
SB-08915	7.5 - 7.5	8/17/1994	92	U
SB-08915	7.5 - 7.5	8/17/1994	92	U
SB-08917	1 - 1	8/23/1994	68	U
SB-08917	1 - 1	8/23/1994	68	U
SB-08917	7.5 - 7.5	8/23/1994	88	U
SB-08917	7.5 - 7.5	8/23/1994	88	U
SB-08917	10 - 10	8/23/1994	87	U
SB-08917	10 - 10	8/23/1994	87	U
SB-08918	2 - 2	9/13/1994	72	U
SB-08918	2 - 2	9/13/1994	72	U
SB-08918	5 - 5	9/13/1994	80	U
SB-08918	5 - 5	9/13/1994	80	U
SB-10401	10 - 10	3/15/1994	79	U
SB-10401	10 - 10	3/15/1994	79	U
SB-28201	1 - 1	12/9/1993	63	U
SB-28201	1 - 1	12/9/1993	63	U
SB291-3	5 - 5	1/12/1989	340	U
SB291-3	5 - 5	1/12/1989	340	U
SB291-3	9.5 - 9.5	1/12/1989	70	U
SB291-3	9.5 - 9.5	1/12/1989	70	U
SB291-6	7.5 - 7.5	1/12/1989	66	U
SB291-6	7.5 - 7.5	1/12/1989	66	U
SB291-9	5 - 5	1/12/1989	69	U
SB291-9	5 - 5	1/12/1989	69	U
SS-09101	0 - 0.5	11/29/1993	2300	U
SS-09101	0 - 0.5	11/29/1993	2300	U
SS-09102	0 - 0.5	11/19/1993	2200	U
SS-09102	0 - 0.5	11/19/1993	2200	U
SS-09103	0 - 0.5	11/24/1993	69	U
SS-09103	0 - 0.5	11/24/1993	69	U
SS-09104	0 - 0.5	11/22/1993	13000	Y
SS-09104	0 - 0.5	11/22/1993	10000	Y
SS-09105	0 - 0.5	11/16/1993	4300	U
SS-09105	0 - 0.5	11/16/1993	4300	U
SS-09106	0 - 0.5	11/18/1993	67	U
SS-09106	0 - 0.5	11/18/1993	67	U
SS-09107	0 - 0.5	11/16/1993	4000	U
SS-09107	0 - 0.5	11/16/1993	4000	U
SS-09108	0 - 0.5	11/17/1993	430	U
SS-09108	0 - 0.5	11/17/1993	430	U
SS-09109	0 - 0.5	11/19/1993	64	U
SS-09109	0 - 0.5	11/19/1993	64	U

South Yard Area COC Results
Benzo(b)fluoranthene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzo(b)fluoranthene (µg/kg) - 2004 Soil Screening Level = 144 µg/kg; PMCL = 2.9 µg/kg[3]				
SS-09110	0 - 0.5	11/17/1993	64	U
SS-09110	0 - 0.5	11/17/1993	64	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09112	0 - 0.5	11/29/1993	11000	U
SS-09112	0 - 0.5	11/29/1993	11000	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzo(k)fluoranthene (µg/kg) - 2004 Soil Screening Level = 144 µg/kg; PMCL = 2.9 µg/kg[3]				
288-11	0.5 - 0.5	8/13/1991	59	U
288-12	0.5 - 0.5	8/13/1991	58	U
288-19	4 - 4	8/14/1991	840	
288-20	4 - 4	8/14/1991	58	U
288-4	3 - 3	8/13/1991	59	U
288-5	1 - 1	8/13/1991	57	U
288-5	3 - 3	8/13/1991	60	U
288-6	1 - 1	8/13/1991	59	U
288-6	3 - 3	8/13/1991	61	U
PL2-101A	11 - 11	10/28/1985	40000	U
PL2-103A	4 - 4	10/28/1985	40000	U
PL2-103A	7 - 7	10/28/1985	40	U
PL2-103A	10 - 10	10/28/1985	40	U
PL2-104B	6 - 6	6/24/1992	14	U
PL2-104B	11 - 11	6/24/1992	13	U
PL2-105C	3 - 3	6/25/1992	11	U
PL2-105C	10 - 10	6/25/1992	13	U
PL2-106C	7 - 7	6/18/1992	14	U
PL2-106C	12 - 12	6/18/1992	13	U
PL2-109B	9 - 9	7/7/1992	28	U
PL2-109C	6 - 6	7/6/1992	26	U
PL2-109C	9 - 9	7/6/1992	27	U
PL2-110C	6 - 6	6/22/1992	22	U
PL2-110C	9 - 9	6/22/1992	13	U
PL2-111A	1 - 1	12/9/1993	66	U
PL2-111A	5 - 5	12/9/1993	81	U
PL2-112A	10.5 - 10.5	1/10/1989	73	U
SB-08201	6.5 - 6.5	12/21/1993	74	U
SB-08201	8 - 8	12/21/1993	63	U
SB-08201	11 - 11	12/21/1993	79	U
SB-08301	1.5 - 1.5	9/3/1994	76	U
SB-08301	4.5 - 4.5	9/3/1994	94	U
SB-08301	11.5 - 11.5	9/3/1994	87	U
SB-08302	2 - 2	9/3/1994	75	U
SB-08302	5 - 5	9/3/1994	87	U
SB-08302	11 - 11	9/3/1994	87	U
SB-08303	5 - 5	12/13/1993	88	
SB-08304	2 - 2	9/13/1994	75	U
SB-08304	8 - 8	9/13/1994	98	U
SB-08304	10.5 - 10.5	9/13/1994	86	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	9 - 10	4/15/2002	20	U
SB-08332	9 - 10	4/15/2002	2	U
SB-08333	4 - 5	4/15/2002	20	U
SB-08333	4 - 5	4/15/2002	3.4	
SB-08333	9 - 10	4/15/2002	20	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzo(k)fluoranthene (µg/kg) - 2004 Soil Screening Level = 144 µg/kg; PMCL = 2.9 µg/kg[3]				
SB-08333	9 - 10	4/15/2002	2	U
SB-08334	4 - 5	4/23/2002	19	U
SB-08334	4 - 5	4/23/2002	1.9	U
SB-08334	7.5 - 8.5	4/23/2002	20	U
SB-08334	7.5 - 8.5	4/23/2002	2	U
SB-08335	4 - 5	4/23/2002	20	U
SB-08335	4 - 5	4/23/2002	2	U
SB-08335	9 - 10	4/23/2002	20	U
SB-08335	9 - 10	4/23/2002	11	
SB-08601	1.5 - 1.5	12/20/1993	29	U
SB-08601	7 - 7	12/20/1993	35	U
SB-08601	11 - 11	12/20/1993	34	U
SB-08602	1 - 1	12/9/1993	62	U
SB-08604	1.5 - 1.5	9/19/1994	72	U
SB-08604	6 - 6	9/19/1994	89	U
SB-08604	6 - 6	9/19/1994	88	U
SB-08604	9 - 9	9/19/1994	89	U
SB-08901	5 - 5	12/11/1993	81	U
SB-08901	7.5 - 7.5	12/11/1993	80	U
SB-08903	5 - 5	12/13/1993	64	U
SB-08903	5 - 5	12/13/1993	61	U
SB-08904	1 - 1	12/9/1993	65	U
SB-08904	5 - 5	12/9/1993	68	U
SB-08909	5 - 5	8/19/1994	84	U
SB-08909	7.5 - 7.5	8/19/1994	86	U
SB-08909	10 - 10	8/19/1994	87	U
SB-08915	2 - 2	8/17/1994	75	U
SB-08915	5 - 5	8/17/1994	74	U
SB-08915	7.5 - 7.5	8/17/1994	92	U
SB-08917	1 - 1	8/23/1994	68	U
SB-08917	7.5 - 7.5	8/23/1994	88	U
SB-08917	10 - 10	8/23/1994	87	U
SB-08918	2 - 2	9/13/1994	72	U
SB-08918	5 - 5	9/13/1994	80	U
SB-10401	10 - 10	3/15/1994	79	U
SB-28201	1 - 1	12/9/1993	63	U
SB291-3	5 - 5	1/12/1989	340	U
SB291-3	9.5 - 9.5	1/12/1989	70	U
SB291-6	7.5 - 7.5	1/12/1989	66	U
SB291-9	5 - 5	1/12/1989	69	U
SS-09101	0 - 0.5	11/29/1993	2300	U
SS-09102	0 - 0.5	11/19/1993	2200	U
SS-09103	0 - 0.5	11/24/1993	69	U
SS-09104	0 - 0.5	11/22/1993	13000	Y
SS-09105	0 - 0.5	11/16/1993	4300	U
SS-09106	0 - 0.5	11/18/1993	67	U
SS-09107	0 - 0.5	11/16/1993	4000	U
SS-09108	0 - 0.5	11/17/1993	430	U
SS-09109	0 - 0.5	11/19/1993	64	U

South Yard Area COC Results
Benzo(k)fluoranthene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzo(k)fluoranthene (µg/kg) - 2004 Soil Screening Level = 144 µg/kg; PMCL = 2.9 µg/kg[3]				
SS-09110	0 - 0.5	11/17/1993	64	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09112	0 - 0.5	11/29/1993	11000	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Benzo(a)pyrene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzo(a)pyrene (µg/kg) - 2004 Soil Screening Level = 113 µg/kg; PMCL = 2.9 µg/kg[3]				
288-11	0.5 - 0.5	8/13/1991	59	U
288-12	0.5 - 0.5	8/13/1991	58	U
288-19	4 - 4	8/14/1991	1400	
288-20	4 - 4	8/14/1991	58	U
288-4	3 - 3	8/13/1991	59	U
288-5	1 - 1	8/13/1991	57	U
288-5	3 - 3	8/13/1991	60	U
288-6	1 - 1	8/13/1991	59	U
288-6	3 - 3	8/13/1991	61	U
PL2-101A	11 - 11	10/28/1985	40000	U
PL2-103A	4 - 4	10/28/1985	40000	U
PL2-103A	7 - 7	10/28/1985	40	U
PL2-103A	10 - 10	10/28/1985	40	U
PL2-104B	6 - 6	6/24/1992	14	U
PL2-104B	11 - 11	6/24/1992	13	U
PL2-105C	3 - 3	6/25/1992	11	U
PL2-105C	10 - 10	6/25/1992	13	U
PL2-106C	7 - 7	6/18/1992	14	U
PL2-106C	12 - 12	6/18/1992	13	U
PL2-109B	9 - 9	7/7/1992	28	U
PL2-109C	6 - 6	7/6/1992	26	U
PL2-109C	9 - 9	7/6/1992	27	U
PL2-110C	6 - 6	6/22/1992	22	U
PL2-110C	9 - 9	6/22/1992	13	U
PL2-111A	1 - 1	12/9/1993	66	U
PL2-111A	5 - 5	12/9/1993	81	U
PL2-112A	10.5 - 10.5	1/10/1989	73	U
SB-08201	6.5 - 6.5	12/21/1993	74	U
SB-08201	8 - 8	12/21/1993	63	U
SB-08201	11 - 11	12/21/1993	79	U
SB-08301	1.5 - 1.5	9/3/1994	76	U
SB-08301	4.5 - 4.5	9/3/1994	94	U
SB-08301	11.5 - 11.5	9/3/1994	87	U
SB-08302	2 - 2	9/3/1994	75	U
SB-08302	5 - 5	9/3/1994	87	U
SB-08302	11 - 11	9/3/1994	87	U
SB-08303	5 - 5	12/13/1993	89	
SB-08304	2 - 2	9/13/1994	75	U
SB-08304	8 - 8	9/13/1994	98	U
SB-08304	10.5 - 10.5	9/13/1994	86	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	9 - 10	4/15/2002	20	U
SB-08332	9 - 10	4/15/2002	2	U
SB-08333	4 - 5	4/15/2002	20	U
SB-08333	4 - 5	4/15/2002	3.2	
SB-08333	9 - 10	4/15/2002	20	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzo(a)pyrene (µg/kg) - 2004 Soil Screening Level = 113 µg/kg; PMCL = 2.9 µg/kg[3]				
SB-08333	9 - 10	4/15/2002	2	U
SB-08334	4 - 5	4/23/2002	19	U
SB-08334	4 - 5	4/23/2002	1.9	U
SB-08334	7.5 - 8.5	4/23/2002	20	U
SB-08334	7.5 - 8.5	4/23/2002	2	U
SB-08335	4 - 5	4/23/2002	20	U
SB-08335	4 - 5	4/23/2002	2	U
SB-08335	9 - 10	4/23/2002	20	U
SB-08335	9 - 10	4/23/2002	12	
SB-08601	1.5 - 1.5	12/20/1993	29	U
SB-08601	7 - 7	12/20/1993	35	U
SB-08601	11 - 11	12/20/1993	34	U
SB-08602	1 - 1	12/9/1993	62	U
SB-08604	1.5 - 1.5	9/19/1994	72	U
SB-08604	6 - 6	9/19/1994	89	U
SB-08604	6 - 6	9/19/1994	88	U
SB-08604	9 - 9	9/19/1994	89	U
SB-08901	5 - 5	12/11/1993	81	U
SB-08901	7.5 - 7.5	12/11/1993	80	U
SB-08903	5 - 5	12/13/1993	64	U
SB-08903	5 - 5	12/13/1993	61	U
SB-08904	1 - 1	12/9/1993	65	U
SB-08904	5 - 5	12/9/1993	68	U
SB-08909	5 - 5	8/19/1994	84	U
SB-08909	7.5 - 7.5	8/19/1994	86	U
SB-08909	10 - 10	8/19/1994	87	U
SB-08915	2 - 2	8/17/1994	75	U
SB-08915	5 - 5	8/17/1994	74	U
SB-08915	7.5 - 7.5	8/17/1994	92	U
SB-08917	1 - 1	8/23/1994	68	U
SB-08917	7.5 - 7.5	8/23/1994	88	U
SB-08917	10 - 10	8/23/1994	87	U
SB-08918	2 - 2	9/13/1994	72	U
SB-08918	5 - 5	9/13/1994	80	U
SB-10401	10 - 10	3/15/1994	79	U
SB-28201	1 - 1	12/9/1993	63	U
SB291-3	5 - 5	1/12/1989	340	U
SB291-3	9.5 - 9.5	1/12/1989	70	U
SB291-6	7.5 - 7.5	1/12/1989	66	U
SB291-9	5 - 5	1/12/1989	69	U
SS-09101	0 - 0.5	11/29/1993	2300	U
SS-09102	0 - 0.5	11/19/1993	2200	U
SS-09103	0 - 0.5	11/24/1993	69	U
SS-09104	0 - 0.5	11/22/1993	2100	U
SS-09105	0 - 0.5	11/16/1993	4300	U
SS-09106	0 - 0.5	11/18/1993	67	U
SS-09107	0 - 0.5	11/16/1993	4000	U
SS-09108	0 - 0.5	11/17/1993	430	U
SS-09109	0 - 0.5	11/19/1993	64	U

South Yard Area COC Results
Benzo(a)pyrene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzo(a)pyrene (µg/kg) - 2004 Soil Screening Level = 113 µg/kg; PMCL = 2.9 µg/kg[3]				
SS-09110	0 - 0.5	11/17/1993	64	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09112	0 - 0.5	11/29/1993	11000	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Chrysene (µg/kg) - 2004 Soil Screening Level = 46.6 µg/kg; PMCL = 2.9 µg/kg[3]				
288-11	0.5 - 0.5	8/13/1991	59	U
288-12	0.5 - 0.5	8/13/1991	58	U
288-19	4 - 4	8/14/1991	57	J
288-20	4 - 4	8/14/1991	58	U
288-4	3 - 3	8/13/1991	59	U
288-5	1 - 1	8/13/1991	70	N
288-5	3 - 3	8/13/1991	94	
288-6	1 - 1	8/13/1991	110	N
288-6	3 - 3	8/13/1991	63	N
PL2-101A	11 - 11	10/28/1985	40000	U
PL2-103A	4 - 4	10/28/1985	40000	U
PL2-103A	7 - 7	10/28/1985	40	U
PL2-103A	10 - 10	10/28/1985	40	U
PL2-104B	6 - 6	6/24/1992	7.9	N
PL2-104B	11 - 11	6/24/1992	13	U
PL2-105C	3 - 3	6/25/1992	11	U
PL2-105C	10 - 10	6/25/1992	13	U
PL2-106C	7 - 7	6/18/1992	14	U
PL2-106C	12 - 12	6/18/1992	13	U
PL2-109B	9 - 9	7/7/1992	28	U
PL2-109C	6 - 6	7/6/1992	26	U
PL2-109C	9 - 9	7/6/1992	27	U
PL2-110C	6 - 6	6/22/1992	22	U
PL2-110C	9 - 9	6/22/1992	13	U
PL2-111A	1 - 1	12/9/1993	66	U
PL2-111A	5 - 5	12/9/1993	81	U
PL2-112A	10.5 - 10.5	1/10/1989	73	U
SB-08201	6.5 - 6.5	12/21/1993	74	U
SB-08201	8 - 8	12/21/1993	63	U
SB-08201	11 - 11	12/21/1993	79	U
SB-08301	1.5 - 1.5	9/3/1994	76	U
SB-08301	4.5 - 4.5	9/3/1994	94	U
SB-08301	11.5 - 11.5	9/3/1994	87	U
SB-08302	2 - 2	9/3/1994	75	U
SB-08302	5 - 5	9/3/1994	87	U
SB-08302	11 - 11	9/3/1994	87	U
SB-08303	5 - 5	12/13/1993	130	
SB-08304	2 - 2	9/13/1994	75	U
SB-08304	8 - 8	9/13/1994	98	U
SB-08304	10.5 - 10.5	9/13/1994	86	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	9 - 10	4/15/2002	20	U
SB-08332	9 - 10	4/15/2002	2	U
SB-08333	4 - 5	4/15/2002	20	U
SB-08333	4 - 5	4/15/2002	4.8	
SB-08333	9 - 10	4/15/2002	20	U

South Yard Area COC Results
Chrysene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Chrysene (µg/kg) - 2004 Soil Screening Level = 46.6 µg/kg; PMCL = 2.9 µg/kg[3]				
SB-08333	9 - 10	4/15/2002	2	U
SB-08334	4 - 5	4/23/2002	19	U
SB-08334	4 - 5	4/23/2002	1.9	U
SB-08334	7.5 - 8.5	4/23/2002	20	U
SB-08334	7.5 - 8.5	4/23/2002	3.1	
SB-08335	4 - 5	4/23/2002	20	U
SB-08335	4 - 5	4/23/2002	2	U
SB-08335	9 - 10	4/23/2002	20	U
SB-08335	9 - 10	4/23/2002	15	
SB-08601	1.5 - 1.5	12/20/1993	29	U
SB-08601	7 - 7	12/20/1993	35	U
SB-08601	11 - 11	12/20/1993	34	U
SB-08602	1 - 1	12/9/1993	62	U
SB-08604	1.5 - 1.5	9/19/1994	72	U
SB-08604	6 - 6	9/19/1994	89	U
SB-08604	6 - 6	9/19/1994	88	U
SB-08604	9 - 9	9/19/1994	89	U
SB-08901	5 - 5	12/11/1993	81	U
SB-08901	7.5 - 7.5	12/11/1993	80	U
SB-08903	5 - 5	12/13/1993	64	U
SB-08903	5 - 5	12/13/1993	61	U
SB-08904	1 - 1	12/9/1993	65	U
SB-08904	5 - 5	12/9/1993	68	U
SB-08909	5 - 5	8/19/1994	84	U
SB-08909	7.5 - 7.5	8/19/1994	86	U
SB-08909	10 - 10	8/19/1994	87	U
SB-08915	2 - 2	8/17/1994	75	U
SB-08915	5 - 5	8/17/1994	74	U
SB-08915	7.5 - 7.5	8/17/1994	92	U
SB-08917	1 - 1	8/23/1994	68	U
SB-08917	7.5 - 7.5	8/23/1994	88	U
SB-08917	10 - 10	8/23/1994	87	U
SB-08918	2 - 2	9/13/1994	72	U
SB-08918	5 - 5	9/13/1994	80	U
SB-10401	10 - 10	3/15/1994	79	U
SB-28201	1 - 1	12/9/1993	63	U
SB291-3	5 - 5	1/12/1989	340	U
SB291-3	9.5 - 9.5	1/12/1989	70	U
SB291-6	7.5 - 7.5	1/12/1989	66	U
SB291-9	5 - 5	1/12/1989	69	U
SS-09101	0 - 0.5	11/29/1993	2300	U
SS-09102	0 - 0.5	11/19/1993	2200	U
SS-09103	0 - 0.5	11/24/1993	69	U
SS-09104	0 - 0.5	11/22/1993	2100	U
SS-09105	0 - 0.5	11/16/1993	4300	U
SS-09106	0 - 0.5	11/18/1993	67	U
SS-09107	0 - 0.5	11/16/1993	4000	U
SS-09108	0 - 0.5	11/17/1993	430	U
SS-09109	0 - 0.5	11/19/1993	64	U

South Yard Area COC Results
Chrysene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Chrysene (µg/kg) - 2004 Soil Screening Level = 46.6 µg/kg; PMCL = 2.9 µg/kg[3]				
SS-09110	0 - 0.5	11/17/1993	64	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09112	0 - 0.5	11/29/1993	11000	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Dibenz(a,h)anthracene (µg/kg) - 2004 Soil Screening Level = 210 ug/kg; PMCL = 2.9 ug/kg[3]				
288-11	0.5 - 0.5	8/13/1991	59	U
288-12	0.5 - 0.5	8/13/1991	58	U
288-19	4 - 4	8/14/1991	1900	
288-20	4 - 4	8/14/1991	87	
288-4	3 - 3	8/13/1991	59	U
288-5	1 - 1	8/13/1991	57	U
288-5	3 - 3	8/13/1991	60	U
288-6	1 - 1	8/13/1991	59	U
288-6	3 - 3	8/13/1991	61	U
PL2-101A	11 - 11	10/28/1985	40000	U
PL2-103A	4 - 4	10/28/1985	40000	U
PL2-103A	7 - 7	10/28/1985	40	U
PL2-103A	10 - 10	10/28/1985	40	U
PL2-104B	6 - 6	6/24/1992	14	U
PL2-104B	11 - 11	6/24/1992	13	U
PL2-105C	3 - 3	6/25/1992	11	U
PL2-105C	10 - 10	6/25/1992	13	U
PL2-106C	7 - 7	6/18/1992	14	U
PL2-106C	12 - 12	6/18/1992	13	U
PL2-109B	9 - 9	7/7/1992	28	U
PL2-109C	6 - 6	7/6/1992	26	U
PL2-109C	9 - 9	7/6/1992	27	U
PL2-110C	6 - 6	6/22/1992	22	U
PL2-110C	9 - 9	6/22/1992	13	U
PL2-111A	1 - 1	12/9/1993	66	U
PL2-111A	5 - 5	12/9/1993	81	U
PL2-112A	10.5 - 10.5	1/10/1989	73	U
SB-08201	6.5 - 6.5	12/21/1993	74	U
SB-08201	8 - 8	12/21/1993	63	U
SB-08201	11 - 11	12/21/1993	79	U
SB-08301	1.5 - 1.5	9/3/1994	76	U
SB-08301	4.5 - 4.5	9/3/1994	94	U
SB-08301	11.5 - 11.5	9/3/1994	87	U
SB-08302	2 - 2	9/3/1994	75	U
SB-08302	5 - 5	9/3/1994	87	U
SB-08302	11 - 11	9/3/1994	87	U
SB-08303	5 - 5	12/13/1993	66	U
SB-08304	2 - 2	9/13/1994	75	U
SB-08304	8 - 8	9/13/1994	98	U
SB-08304	10.5 - 10.5	9/13/1994	86	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	9 - 10	4/15/2002	20	U
SB-08332	9 - 10	4/15/2002	2	U
SB-08333	4 - 5	4/15/2002	20	U
SB-08333	4 - 5	4/15/2002	2	U
SB-08333	9 - 10	4/15/2002	20	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Dibenz(a,h)anthracene (µg/kg) - 2004 Soil Screening Level = 210 ug/kg; PMCL = 2.9 ug/kg[3]				
SB-08333	9 - 10	4/15/2002	2	U
SB-08334	4 - 5	4/23/2002	19	U
SB-08334	4 - 5	4/23/2002	1.9	U
SB-08334	7.5 - 8.5	4/23/2002	20	U
SB-08334	7.5 - 8.5	4/23/2002	2	U
SB-08335	4 - 5	4/23/2002	20	U
SB-08335	4 - 5	4/23/2002	2	U
SB-08335	9 - 10	4/23/2002	20	U
SB-08335	9 - 10	4/23/2002	2	U
SB-08601	1.5 - 1.5	12/20/1993	29	U
SB-08601	7 - 7	12/20/1993	35	U
SB-08601	11 - 11	12/20/1993	34	U
SB-08602	1 - 1	12/9/1993	62	U
SB-08604	1.5 - 1.5	9/19/1994	72	U
SB-08604	6 - 6	9/19/1994	89	U
SB-08604	6 - 6	9/19/1994	88	U
SB-08604	9 - 9	9/19/1994	89	U
SB-08901	5 - 5	12/11/1993	81	U
SB-08901	7.5 - 7.5	12/11/1993	80	U
SB-08903	5 - 5	12/13/1993	64	U
SB-08903	5 - 5	12/13/1993	61	U
SB-08904	1 - 1	12/9/1993	65	U
SB-08904	5 - 5	12/9/1993	68	U
SB-08909	5 - 5	8/19/1994	84	U
SB-08909	7.5 - 7.5	8/19/1994	86	U
SB-08909	10 - 10	8/19/1994	87	U
SB-08915	2 - 2	8/17/1994	75	U
SB-08915	5 - 5	8/17/1994	74	U
SB-08915	7.5 - 7.5	8/17/1994	92	U
SB-08917	1 - 1	8/23/1994	68	U
SB-08917	7.5 - 7.5	8/23/1994	88	U
SB-08917	10 - 10	8/23/1994	87	U
SB-08918	2 - 2	9/13/1994	72	U
SB-08918	5 - 5	9/13/1994	80	U
SB-10401	10 - 10	3/15/1994	79	U
SB-28201	1 - 1	12/9/1993	63	U
SB291-3	5 - 5	1/12/1989	340	U
SB291-3	9.5 - 9.5	1/12/1989	70	U
SB291-6	7.5 - 7.5	1/12/1989	66	U
SB291-9	5 - 5	1/12/1989	69	U
SS-09101	0 - 0.5	11/29/1993	2300	U
SS-09102	0 - 0.5	11/19/1993	2200	U
SS-09103	0 - 0.5	11/24/1993	69	U
SS-09104	0 - 0.5	11/22/1993	2100	U
SS-09105	0 - 0.5	11/16/1993	4300	U
SS-09106	0 - 0.5	11/18/1993	67	U
SS-09107	0 - 0.5	11/16/1993	4000	U
SS-09108	0 - 0.5	11/17/1993	430	U
SS-09109	0 - 0.5	11/19/1993	64	U

South Yard Area COC Results
Dibenz(a,h)anthracene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Dibenz(a,h)anthracene (µg/kg) - 2004 Soil Screening Level = 210 ug/kg; PMCL = 2.9 ug/kg[3]				
SS-09110	0 - 0.5	11/17/1993	64	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09112	0 - 0.5	11/29/1993	11000	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
bis(2-Ethylhexyl)phthalate Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
bis(2-Ethylhexyl)phthalate (µg/kg) - 2004 Soil Screening Level = 1,570 µg/kg; PMCL = 350 µg/kg[3]				
288-11	0.5 - 0.5	8/13/1991	59	U
288-11	0.5 - 0.5	8/13/1991	59	U
288-12	0.5 - 0.5	8/13/1991	58	U
288-12	0.5 - 0.5	8/13/1991	58	U
288-19	4 - 4	8/14/1991	330	
288-19	4 - 4	8/14/1991	58	U
288-20	4 - 4	8/14/1991	95	
288-20	4 - 4	8/14/1991	58	U
288-4	3 - 3	8/13/1991	59	U
288-4	3 - 3	8/13/1991	59	U
288-5	1 - 1	8/13/1991	180	
288-5	1 - 1	8/13/1991	57	U
288-5	3 - 3	8/13/1991	60	U
288-5	3 - 3	8/13/1991	60	U
288-6	1 - 1	8/13/1991	4200	
288-6	1 - 1	8/13/1991	59	U
288-6	3 - 3	8/13/1991	2800	
288-6	3 - 3	8/13/1991	61	U
PL2-101A	11 - 11	10/28/1985	40000	U
PL2-101A	11 - 11	10/28/1985	40000	U
PL2-103A	4 - 4	10/28/1985	330000	
PL2-103A	4 - 4	10/28/1985	40000	U
PL2-103A	7 - 7	10/28/1985	40	U
PL2-103A	7 - 7	10/28/1985	40	U
PL2-103A	10 - 10	10/28/1985	40	U
PL2-103A	10 - 10	10/28/1985	40	U
PL2-104B	6 - 6	6/24/1992	14	U
PL2-104B	6 - 6	6/24/1992	12	J
PL2-104B	11 - 11	6/24/1992	13	U
PL2-104B	11 - 11	6/24/1992	13	U
PL2-105C	3 - 3	6/25/1992	11	U
PL2-105C	3 - 3	6/25/1992	8.3	J
PL2-105C	10 - 10	6/25/1992	13	U
PL2-105C	10 - 10	6/25/1992	13	U
PL2-106C	7 - 7	6/18/1992	14	U
PL2-106C	7 - 7	6/18/1992	14	U
PL2-106C	12 - 12	6/18/1992	13	U
PL2-106C	12 - 12	6/18/1992	13	U
PL2-109B	9 - 9	7/7/1992	28	U
PL2-109B	9 - 9	7/7/1992	28	U
PL2-109C	6 - 6	7/6/1992	26	U
PL2-109C	6 - 6	7/6/1992	26	U
PL2-109C	9 - 9	7/6/1992	27	U
PL2-109C	9 - 9	7/6/1992	27	U
PL2-110C	6 - 6	6/22/1992	22	U
PL2-110C	6 - 6	6/22/1992	22	U
PL2-110C	9 - 9	6/22/1992	13	U
PL2-110C	9 - 9	6/22/1992	8.1	J
PL2-111A	1 - 1	12/9/1993	700	

South Yard Area COC Results
bis(2-Ethylhexyl)phthalate Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
bis(2-Ethylhexyl)phthalate (µg/kg) - 2004 Soil Screening Level = 1,570 µg/kg; PMCL = 350 µg/kg[3]				
PL2-111A	1 - 1	12/9/1993	66	U
PL2-111A	5 - 5	12/9/1993	81	U
PL2-111A	5 - 5	12/9/1993	81	U
PL2-112A	10.5 - 10.5	1/10/1989	73	U
PL2-112A	10.5 - 10.5	1/10/1989	73	U
SB-08201	6.5 - 6.5	12/21/1993	74	U
SB-08201	6.5 - 6.5	12/21/1993	74	U
SB-08201	8 - 8	12/21/1993	63	U
SB-08201	8 - 8	12/21/1993	63	U
SB-08201	11 - 11	12/21/1993	100	B
SB-08201	11 - 11	12/21/1993	79	U
SB-08301	1.5 - 1.5	9/3/1994	76	U
SB-08301	1.5 - 1.5	9/3/1994	76	U
SB-08301	4.5 - 4.5	9/3/1994	94	U
SB-08301	4.5 - 4.5	9/3/1994	94	U
SB-08301	11.5 - 11.5	9/3/1994	87	U
SB-08301	11.5 - 11.5	9/3/1994	87	U
SB-08302	2 - 2	9/3/1994	75	U
SB-08302	2 - 2	9/3/1994	75	U
SB-08302	5 - 5	9/3/1994	87	U
SB-08302	5 - 5	9/3/1994	87	U
SB-08302	11 - 11	9/3/1994	87	U
SB-08302	11 - 11	9/3/1994	87	U
SB-08303	5 - 5	12/13/1993	66	U
SB-08303	5 - 5	12/13/1993	66	U
SB-08304	2 - 2	9/13/1994	75	U
SB-08304	2 - 2	9/13/1994	75	U
SB-08304	8 - 8	9/13/1994	98	U
SB-08304	8 - 8	9/13/1994	98	U
SB-08304	10.5 - 10.5	9/13/1994	95	
SB-08304	10.5 - 10.5	9/13/1994	86	U
SB-08332	4 - 5	4/15/2002	140	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	9 - 10	4/15/2002	44	U
SB-08332	9 - 10	4/15/2002	20	U
SB-08333	4 - 5	4/15/2002	110	U
SB-08333	4 - 5	4/15/2002	20	U
SB-08333	9 - 10	4/15/2002	160	U
SB-08333	9 - 10	4/15/2002	20	U
SB-08334	4 - 5	4/23/2002	110	U
SB-08334	4 - 5	4/23/2002	19	U
SB-08334	7.5 - 8.5	4/23/2002	160	U
SB-08334	7.5 - 8.5	4/23/2002	20	U
SB-08335	4 - 5	4/23/2002	98	U
SB-08335	4 - 5	4/23/2002	20	U
SB-08335	9 - 10	4/23/2002	59	U
SB-08335	9 - 10	4/23/2002	20	U

South Yard Area COC Results
bis(2-Ethylhexyl)phthalate Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
bis(2-Ethylhexyl)phthalate (µg/kg) - 2004 Soil Screening Level = 1,570 µg/kg; PMCL = 350 µg/kg[3]				
SB-08601	1.5 - 1.5	12/20/1993	29	U
SB-08601	1.5 - 1.5	12/20/1993	29	U
SB-08601	7 - 7	12/20/1993	35	U
SB-08601	7 - 7	12/20/1993	35	U
SB-08601	11 - 11	12/20/1993	34	U
SB-08601	11 - 11	12/20/1993	34	U
SB-08602	1 - 1	12/9/1993	62	U
SB-08602	1 - 1	12/9/1993	62	U
SB-08604	1.5 - 1.5	9/19/1994	77	
SB-08604	1.5 - 1.5	9/19/1994	72	U
SB-08604	6 - 6	9/19/1994	92	
SB-08604	6 - 6	9/19/1994	89	U
SB-08604	6 - 6	9/19/1994	89	U
SB-08604	6 - 6	9/19/1994	88	U
SB-08604	9 - 9	9/19/1994	89	U
SB-08604	9 - 9	9/19/1994	89	U
SB-08743	11 - 11	6/3/1999	88	U
SB-08744	8 - 8	6/4/1999	85	U
SB-08746	8 - 8	6/4/1999	90	U
SB-08747	9 - 9	6/4/1999	100	U
SB-08748	11 - 11	6/4/1999	87	U
SB-08754	8 - 10	7/20/1999	90	U
SB-08901	5 - 5	12/11/1993	81	U
SB-08901	5 - 5	12/11/1993	81	U
SB-08901	7.5 - 7.5	12/11/1993	80	U
SB-08901	7.5 - 7.5	12/11/1993	80	U
SB-08903	5 - 5	12/13/1993	64	U
SB-08903	5 - 5	12/13/1993	64	U
SB-08903	5 - 5	12/13/1993	61	U
SB-08903	5 - 5	12/13/1993	61	U
SB-08904	1 - 1	12/9/1993	65	U
SB-08904	1 - 1	12/9/1993	65	U
SB-08904	5 - 5	12/9/1993	1600	
SB-08904	5 - 5	12/9/1993	68	U
SB-08909	5 - 5	8/19/1994	84	U
SB-08909	5 - 5	8/19/1994	84	U
SB-08909	7.5 - 7.5	8/19/1994	86	U
SB-08909	7.5 - 7.5	8/19/1994	86	U
SB-08909	10 - 10	8/19/1994	100	
SB-08909	10 - 10	8/19/1994	87	U
SB-08915	2 - 2	8/17/1994	150	
SB-08915	2 - 2	8/17/1994	75	U
SB-08915	5 - 5	8/17/1994	87	
SB-08915	5 - 5	8/17/1994	74	U
SB-08915	7.5 - 7.5	8/17/1994	92	U
SB-08915	7.5 - 7.5	8/17/1994	92	U
SB-08917	1 - 1	8/23/1994	68	U
SB-08917	1 - 1	8/23/1994	68	U
SB-08917	7.5 - 7.5	8/23/1994	170	

South Yard Area COC Results
bis(2-Ethylhexyl)phthalate Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
bis(2-Ethylhexyl)phthalate (µg/kg) - 2004 Soil Screening Level = 1,570 µg/kg; PMCL = 350 µg/kg[3]				
SB-08917	7.5 - 7.5	8/23/1994	88	U
SB-08917	10 - 10	8/23/1994	87	U
SB-08917	10 - 10	8/23/1994	87	U
SB-08918	2 - 2	9/13/1994	120	
SB-08918	2 - 2	9/13/1994	72	U
SB-08918	5 - 5	9/13/1994	80	U
SB-08918	5 - 5	9/13/1994	80	U
SB-08941	8 - 8	5/25/1999	240	
SB-08942	11 - 11	5/25/1999	110	
SB-08943	11 - 11	5/25/1999	260	
SB-08944	11 - 11	5/25/1999	330	
SB-08945	8 - 8	5/25/1999	93	J
SB-10401	10 - 10	3/15/1994	79	U
SB-10401	10 - 10	3/15/1994	79	U
SB-10406	10 - 10	5/25/1999	90	
SB-10407	5 - 5	5/25/1999	74	U
SB-10408	5 - 5	5/25/1999	470	
SB-10409	5 - 5	5/25/1999	180	
SB-10410	5 - 5	5/26/1999	500	
SB-28201	1 - 1	12/9/1993	63	U
SB-28201	1 - 1	12/9/1993	63	U
SB291-3	5 - 5	1/12/1989	2500	
SB291-3	5 - 5	1/12/1989	340	U
SB291-3	9.5 - 9.5	1/12/1989	110	
SB291-3	9.5 - 9.5	1/12/1989	70	U
SB291-6	7.5 - 7.5	1/12/1989	170	
SB291-6	7.5 - 7.5	1/12/1989	66	U
SB291-9	5 - 5	1/12/1989	69	U
SB291-9	5 - 5	1/12/1989	69	U
SS-09101	0 - 0.5	11/29/1993	2300	U
SS-09101	0 - 0.5	11/29/1993	2300	U
SS-09102	0 - 0.5	11/19/1993	4600	
SS-09102	0 - 0.5	11/19/1993	2200	U
SS-09103	0 - 0.5	11/24/1993	69	U
SS-09103	0 - 0.5	11/24/1993	69	U
SS-09104	0 - 0.5	11/22/1993	10000	Y
SS-09104	0 - 0.5	11/22/1993	2100	U
SS-09105	0 - 0.5	11/16/1993	8000	
SS-09105	0 - 0.5	11/16/1993	4300	U
SS-09106	0 - 0.5	11/18/1993	67	U
SS-09106	0 - 0.5	11/18/1993	67	U
SS-09107	0 - 0.5	11/16/1993	4000	U
SS-09107	0 - 0.5	11/16/1993	4000	U
SS-09108	0 - 0.5	11/17/1993	430	U
SS-09108	0 - 0.5	11/17/1993	430	U
SS-09109	0 - 0.5	11/19/1993	64	U
SS-09109	0 - 0.5	11/19/1993	64	U
SS-09110	0 - 0.5	11/17/1993	64	U
SS-09110	0 - 0.5	11/17/1993	64	U

South Yard Area COC Results
bis(2-Ethylhexyl)phthalate Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
bis(2-Ethylhexyl)phthalate (µg/kg) - 2004 Soil Screening Level = 1,570 µg/kg; PMCL = 350 µg/kg[3]				
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09112	0 - 0.5	11/29/1993	11000	U
SS-09112	0 - 0.5	11/29/1993	11000	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Indeno(1,2,3-cd)pyrene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Indeno(1,2,3-cd)pyrene (µg/kg) - 2004 Soil Screening Level = 406 µg/kg; PMCL = 2.9 µg/kg[3]				
288-11	0.5 - 0.5	8/13/1991	59	U
288-12	0.5 - 0.5	8/13/1991	58	U
288-19	4 - 4	8/14/1991	2000	
288-20	4 - 4	8/14/1991	97	
288-4	3 - 3	8/13/1991	59	U
288-5	1 - 1	8/13/1991	57	U
288-5	3 - 3	8/13/1991	60	U
288-6	1 - 1	8/13/1991	59	U
288-6	3 - 3	8/13/1991	61	U
PL2-101A	11 - 11	10/28/1985	40000	U
PL2-103A	4 - 4	10/28/1985	40000	U
PL2-103A	7 - 7	10/28/1985	40	U
PL2-103A	10 - 10	10/28/1985	40	U
PL2-104B	6 - 6	6/24/1992	14	U
PL2-104B	11 - 11	6/24/1992	13	U
PL2-105C	3 - 3	6/25/1992	11	U
PL2-105C	10 - 10	6/25/1992	13	U
PL2-106C	7 - 7	6/18/1992	14	U
PL2-106C	12 - 12	6/18/1992	13	U
PL2-109B	9 - 9	7/7/1992	28	U
PL2-109C	6 - 6	7/6/1992	26	U
PL2-109C	9 - 9	7/6/1992	27	U
PL2-110C	6 - 6	6/22/1992	22	U
PL2-110C	9 - 9	6/22/1992	13	U
PL2-111A	1 - 1	12/9/1993	66	U
PL2-111A	5 - 5	12/9/1993	81	U
PL2-112A	10.5 - 10.5	1/10/1989	73	U
SB-08201	6.5 - 6.5	12/21/1993	74	U
SB-08201	8 - 8	12/21/1993	63	U
SB-08201	11 - 11	12/21/1993	79	U
SB-08301	1.5 - 1.5	9/3/1994	76	U
SB-08301	4.5 - 4.5	9/3/1994	94	U
SB-08301	11.5 - 11.5	9/3/1994	87	U
SB-08302	2 - 2	9/3/1994	75	U
SB-08302	5 - 5	9/3/1994	87	U
SB-08302	11 - 11	9/3/1994	87	U
SB-08303	5 - 5	12/13/1993	66	U
SB-08304	2 - 2	9/13/1994	75	U
SB-08304	8 - 8	9/13/1994	98	U
SB-08304	10.5 - 10.5	9/13/1994	86	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	19	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	4 - 5	4/15/2002	1.9	U
SB-08332	9 - 10	4/15/2002	20	U
SB-08332	9 - 10	4/15/2002	2	U
SB-08333	4 - 5	4/15/2002	20	U
SB-08333	4 - 5	4/15/2002	2.4	
SB-08333	9 - 10	4/15/2002	20	U

South Yard Area COC Results
Indeno(1,2,3-cd)pyrene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Indeno(1,2,3-cd)pyrene (µg/kg) - 2004 Soil Screening Level = 406 µg/kg; PMCL = 2.9 µg/kg[3]				
SB-08333	9 - 10	4/15/2002	2	U
SB-08334	4 - 5	4/23/2002	19	U
SB-08334	4 - 5	4/23/2002	1.9	U
SB-08334	7.5 - 8.5	4/23/2002	20	U
SB-08334	7.5 - 8.5	4/23/2002	2	U
SB-08335	4 - 5	4/23/2002	20	U
SB-08335	4 - 5	4/23/2002	2	U
SB-08335	9 - 10	4/23/2002	20	U
SB-08335	9 - 10	4/23/2002	6.1	
SB-08601	1.5 - 1.5	12/20/1993	29	U
SB-08601	7 - 7	12/20/1993	35	U
SB-08601	11 - 11	12/20/1993	34	U
SB-08602	1 - 1	12/9/1993	62	U
SB-08604	1.5 - 1.5	9/19/1994	72	U
SB-08604	6 - 6	9/19/1994	89	U
SB-08604	6 - 6	9/19/1994	88	U
SB-08604	9 - 9	9/19/1994	89	U
SB-08901	5 - 5	12/11/1993	81	U
SB-08901	7.5 - 7.5	12/11/1993	80	U
SB-08903	5 - 5	12/13/1993	64	U
SB-08903	5 - 5	12/13/1993	61	U
SB-08904	1 - 1	12/9/1993	65	U
SB-08904	5 - 5	12/9/1993	68	U
SB-08909	5 - 5	8/19/1994	84	U
SB-08909	7.5 - 7.5	8/19/1994	86	U
SB-08909	10 - 10	8/19/1994	87	U
SB-08915	2 - 2	8/17/1994	75	U
SB-08915	5 - 5	8/17/1994	74	U
SB-08915	7.5 - 7.5	8/17/1994	92	U
SB-08917	1 - 1	8/23/1994	68	U
SB-08917	7.5 - 7.5	8/23/1994	88	U
SB-08917	10 - 10	8/23/1994	87	U
SB-08918	2 - 2	9/13/1994	72	U
SB-08918	5 - 5	9/13/1994	80	U
SB-10401	10 - 10	3/15/1994	79	U
SB-28201	1 - 1	12/9/1993	63	U
SB291-3	5 - 5	1/12/1989	340	U
SB291-3	9.5 - 9.5	1/12/1989	70	U
SB291-6	7.5 - 7.5	1/12/1989	66	U
SB291-9	5 - 5	1/12/1989	69	U
SS-09101	0 - 0.5	11/29/1993	2300	U
SS-09102	0 - 0.5	11/19/1993	2200	U
SS-09103	0 - 0.5	11/24/1993	69	U
SS-09104	0 - 0.5	11/22/1993	2100	U
SS-09105	0 - 0.5	11/16/1993	4300	U
SS-09106	0 - 0.5	11/18/1993	67	U
SS-09107	0 - 0.5	11/16/1993	4000	U
SS-09108	0 - 0.5	11/17/1993	430	U
SS-09109	0 - 0.5	11/19/1993	64	U

South Yard Area COC Results
Indeno(1,2,3-cd)pyrene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Indeno(1,2,3-cd)pyrene (µg/kg) - 2004 Soil Screening Level = 406 µg/kg; PMCL = 2.9 µg/kg[3]				
SS-09110	0 - 0.5	11/17/1993	64	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09112	0 - 0.5	11/29/1993	11000	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Aroclor 1016, 1242 (µg/kg) - 2004 Screening Level = 33 µg/kg; PMCL = 33 µg/kg[3]				
288-13	2 - 2	8/13/1991	60	U
288-15	2 - 2	8/13/1991	60	U
288-16	4 - 4	8/14/1991	60	U
288-17	4 - 4	8/14/1991	10000	U
288-18	4 - 4	8/14/1991	60	U
288-19	4 - 4	8/14/1991	60	U
288-20	4 - 4	8/14/1991	60	U
288-21	4 - 4	8/14/1991	60	U
288-22	4 - 4	8/14/1991	60	U
288-23	4 - 4	8/14/1991	60	U
288-24	4 - 4	8/14/1991	60	U
PL2-104B	6 - 6	6/24/1992	15	U
PL2-104B	11 - 11	6/24/1992	15	U
PL2-105C	3 - 3	6/25/1992	15	U
PL2-105C	10 - 10	6/25/1992	15	U
PL2-106C	7 - 7	6/18/1992	15	U
PL2-106C	12 - 12	6/18/1992	15	U
PL2-109B	9 - 9	7/7/1992	15	U
PL2-109C	6 - 6	7/6/1992	15	U
PL2-109C	9 - 9	7/6/1992	15	U
PL2-110C	6 - 6	6/22/1992	15	U
PL2-110C	9 - 9	6/22/1992	15	U
PL2-111A	1 - 1	12/9/1993	66.2	U
PL2-111A	5 - 5	12/9/1993	81.3	U
PL2-301A	5 - 5	7/8/1992	80	U
PL2-301A	10 - 10	7/8/1992	80	U
PL2-302A	5 - 5	7/8/1992	80	U
PL2-302A	10 - 10	7/8/1992	80	U
PL2-303A	5 - 5	7/8/1992	80	U
PL2-303A	10 - 10	7/8/1992	80	U
PL2-303A	10 - 10	7/8/1992	80	U
SB-08003	1.5 - 1.5	8/18/1994	77	U
SB-08003	8 - 8	8/18/1994	90	U
SB-08003	10 - 10	8/18/1994	86	U
SB-08004	3.5 - 3.5	8/18/1994	71	U
SB-08004	8 - 8	8/18/1994	73	U
SB-08004	12 - 12	8/18/1994	91	U
SB-08201	6.5 - 6.5	12/21/1993	74	U
SB-08201	8 - 8	12/21/1993	63	U
SB-08201	11 - 11	12/21/1993	78	U
SB-08301	1.5 - 1.5	9/3/1994	74	U
SB-08301	4.5 - 4.5	9/3/1994	820	
SB-08301	11.5 - 11.5	9/3/1994	85	U
SB-08302	2 - 2	9/3/1994	74	U
SB-08302	5 - 5	9/3/1994	86	U
SB-08302	11 - 11	9/3/1994	87	U
SB-08303	5 - 5	12/13/1993	78.7	U
SB-08602	1 - 1	12/9/1993	62.3	U
SB-08705	2.5 - 2.5	8/18/1994	73	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Aroclor 1016, 1242 (µg/kg) - 2004 Screening Level = 33 µg/kg; PMCL = 33 µg/kg[3]				
SB-08705	5 - 5	8/18/1994	96	U
SB-08705	7.5 - 7.5	8/18/1994	88	U
SB-08706	7.5 - 7.5	8/25/1994	84	UJH
SB-08706	10 - 10	8/25/1994	87	U
SB-08901	5 - 5	12/11/1993	82	U
SB-08901	7.5 - 7.5	12/11/1993	80	U
SB-08903	5 - 5	12/13/1993	61.5	U
SB-08903	5 - 5	12/13/1993	64.1	U
SB-08904	1 - 1	12/9/1993	65.1	U
SB-08904	5 - 5	12/9/1993	68.5	U
SB-08905	5 - 5	8/24/1994	89	U
SB-08905	7.5 - 7.5	8/24/1994	75	U
SB-08905	10 - 10	8/24/1994	84	U
SB-08909	5 - 5	8/19/1994	85	U
SB-08909	7.5 - 7.5	8/19/1994	360	UI
SB-08909	10 - 10	8/19/1994	88	U
SB-08916	2 - 2	9/13/1994	72	U
SB-08916	5 - 5	9/13/1994	83	U
SB-08917	1 - 1	8/23/1994	68	U
SB-08917	7.5 - 7.5	8/23/1994	90	U
SB-08917	10 - 10	8/23/1994	87	U
SB-08924	2.5 - 2.5	8/18/1994	70	U
SB-08924	2.5 - 2.5	8/18/1994	70	U
SB-08924	7.5 - 7.5	8/18/1994	93	U
SB-08924	10 - 10	8/18/1994	86	U
SB-09101	2 - 2	9/12/1994	35	U
SB-09101	5 - 5	9/12/1994	36	U
SB-09102	1 - 1	8/16/1994	71	U
SB-09102	1 - 1	8/16/1994	72	U
SB-09102	5 - 5	8/16/1994	90	U
SB-09102	7.5 - 7.5	8/16/1994	110	UI
SB-09103	2.5 - 2.5	8/16/1994	70	U
SB-09103	7.5 - 7.5	8/16/1994	130	UI
SB-09103	10 - 10	8/16/1994	86	U
SB-09104	1 - 1	8/16/1994	72	U
SB-09104	7.5 - 7.5	8/16/1994	110	UI
SB-09104	10 - 10	8/16/1994	87	U
SB-09105	2 - 2	9/12/1994	35	U
SB-09105	5 - 5	9/12/1994	36	U
SB-09106	2 - 2	9/12/1994	35	U
SB-09106	5 - 5	9/12/1994	83	UI
SB-10401	10 - 10	3/15/1994	78	U
SB-11001	6 - 6	9/12/1994	90	U
SB-11001	9.5 - 9.5	9/12/1994	90	U
SB-28201	1 - 1	12/9/1993	62.9	U
SB291-10	10 - 10	1/11/1989	300	U
SB291-3	9.5 - 9.5	1/12/1989	3000	U
SB291-4	9.5 - 9.5	1/12/1989	300	U
SB291-5	9.5 - 9.5	1/12/1989	300	U

South Yard Area COC Results
Aroclor 1016-1242 Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Aroclor 1016, 1242 (µg/kg) - 2004 Screening Level = 33 µg/kg; PMCL = 33 µg/kg[3]				
SB291-6	2.5 - 2.5	1/12/1989	300	U
SB291-9	5 - 5	1/12/1989	50	U
SS-09101	0 - 0.5	11/29/1993	160	UIJ
SS-09102	0 - 0.5	11/19/1993	3900	UI
SS-09103	0 - 0.5	11/24/1993	80	U
SS-09104	0 - 0.5	11/22/1993	2200	UI
SS-09105	0 - 0.5	11/16/1993	900	
SS-09106	0 - 0.5	11/18/1993	80	UJ
SS-09107	0 - 0.5	11/16/1993	870	U
SS-09108	0 - 0.5	11/17/1993	850	U
SS-09109	0 - 0.5	11/19/1993	62	U
SS-09110	0 - 0.5	11/17/1993	62	UJ
SS-09111	0 - 0.5	11/23/1993	80	U
SS-09111	0 - 0.5	11/23/1993	80	U
SS-09112	0 - 0.5	11/29/1993	1100	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Aroclor 1254 Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Aroclor 1254 (µg/kg) - 2004 Screening Level = 33 µg/kg; PMCL = 33 µg/kg[3]				
288-13	2 - 2	8/13/1991	60	U
288-15	2 - 2	8/13/1991	60	U
288-16	4 - 4	8/14/1991	60	U
288-17	4 - 4	8/14/1991	10000	U
288-18	4 - 4	8/14/1991	20	J
288-19	4 - 4	8/14/1991	260	
288-20	4 - 4	8/14/1991	60	U
288-21	4 - 4	8/14/1991	60	U
288-22	4 - 4	8/14/1991	60	U
288-23	4 - 4	8/14/1991	60	U
288-24	4 - 4	8/14/1991	60	U
PL2-104B	6 - 6	6/24/1992	15	U
PL2-104B	11 - 11	6/24/1992	15	U
PL2-105C	3 - 3	6/25/1992	15	U
PL2-105C	10 - 10	6/25/1992	15	U
PL2-106C	7 - 7	6/18/1992	15	U
PL2-106C	12 - 12	6/18/1992	15	U
PL2-109B	9 - 9	7/7/1992	15	U
PL2-109C	6 - 6	7/6/1992	15	U
PL2-109C	9 - 9	7/6/1992	15	U
PL2-110C	6 - 6	6/22/1992	15	U
PL2-110C	9 - 9	6/22/1992	15	U
PL2-111A	1 - 1	12/9/1993	66.2	U
PL2-111A	5 - 5	12/9/1993	81.3	U
PL2-301A	5 - 5	7/8/1992	80	U
PL2-301A	10 - 10	7/8/1992	80	U
PL2-302A	5 - 5	7/8/1992	80	U
PL2-302A	10 - 10	7/8/1992	80	U
PL2-303A	5 - 5	7/8/1992	80	U
PL2-303A	10 - 10	7/8/1992	80	U
PL2-303A	10 - 10	7/8/1992	80	U
SB-08003	1.5 - 1.5	8/18/1994	77	U
SB-08003	8 - 8	8/18/1994	90	U
SB-08003	10 - 10	8/18/1994	86	U
SB-08004	3.5 - 3.5	8/18/1994	71	U
SB-08004	8 - 8	8/18/1994	73	U
SB-08004	12 - 12	8/18/1994	91	U
SB-08009	0.6 - 0.6	2/16/1995	36	U
SB-08009	6 - 6	2/16/1995	39	U
SB-08010	0.5 - 0.5	2/16/1995	36	U
SB-08010	6 - 6	2/16/1995	44	U
SB-08201	6.5 - 6.5	12/21/1993	74	U
SB-08201	8 - 8	12/21/1993	63	U
SB-08201	11 - 11	12/21/1993	78	U
SB-08301	1.5 - 1.5	9/3/1994	74	U
SB-08301	4.5 - 4.5	9/3/1994	92	U
SB-08301	11.5 - 11.5	9/3/1994	85	U
SB-08302	2 - 2	9/3/1994	74	U
SB-08302	5 - 5	9/3/1994	86	U

South Yard Area COC Results
Aroclor 1254 Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Aroclor 1254 (µg/kg) - 2004 Screening Level = 33 µg/kg; PMCL = 33 µg/kg[3]				
SB-08302	11 - 11	9/3/1994	87	U
SB-08303	5 - 5	12/13/1993	65.6	U
SB-08305	1 - 1	2/22/1995	37	U
SB-08305	5 - 5	2/22/1995	41	U
SB-08307	1.5 - 1.5	7/31/1995	37	U
SB-08307	5 - 5	7/31/1995	37	U
SB-08307	7.5 - 7.5	7/31/1995	44	U
SB-08308	1.5 - 1.5	7/28/1995	37	U
SB-08308	5 - 5	7/28/1995	42	U
SB-08308	7.5 - 7.5	7/28/1995	44	U
SB-08309	9 - 9	7/28/1995	44	U
SB-08310	2 - 2	8/25/1995	40	U
SB-08310	7 - 7	8/25/1995	44	U
SB-08310	9 - 9	8/25/1995	42	U
SB-08311	2 - 2	8/25/1995	38	U
SB-08311	7 - 7	8/25/1995	43	U
SB-08311	9 - 9	8/25/1995	43	U
SB-08312	2 - 2	8/25/1995	37	U
SB-08312	7 - 7	8/25/1995	44	U
SB-08312	9 - 9	8/25/1995	42	U
SB-08602	1 - 1	12/9/1993	62.3	U
SB-08705	2.5 - 2.5	8/18/1994	73	U
SB-08705	5 - 5	8/18/1994	96	U
SB-08705	7.5 - 7.5	8/18/1994	88	U
SB-08706	7.5 - 7.5	8/25/1994	84	UJH
SB-08706	10 - 10	8/25/1994	87	U
SB-08709	6 - 6	2/24/1995	45	U
SB-08709	7 - 7	2/24/1995	56	U
SB-08709	10.5 - 10.5	2/24/1995	43	U
SB-08710	6 - 6	2/24/1995	46	U
SB-08710	8 - 8	2/24/1995	44	U
SB-08710	11 - 11	2/24/1995	43	U
SB-08711	2 - 2	7/24/1995	37	U
SB-08711	7 - 7	7/24/1995	47	U
SB-08711	10 - 10	7/24/1995	43	U
SB-08712	2 - 2	7/24/1995	36	U
SB-08712	6.5 - 6.5	7/24/1995	47	U
SB-08712	8.5 - 8.5	7/24/1995	46	U
SB-08714	2 - 2	9/22/1995	42	U
SB-08714	7 - 7	9/22/1995	48	U
SB-08714	10 - 10	9/22/1995	43	U
SB-08715	2 - 2	9/22/1995	39	U
SB-08715	2 - 2	9/22/1995	36	U
SB-08715	7 - 7	9/22/1995	50	U
SB-08715	9.5 - 9.5	9/22/1995	44	U
SB-08716	3 - 5	11/25/1998	42	U
SB-08716	8 - 10	11/25/1998	45	U
SB-08717	3 - 5	11/25/1998	39	U
SB-08717	8 - 10	11/25/1998	43	U

South Yard Area COC Results
Aroclor 1254 Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Aroclor 1254 (µg/kg) - 2004 Screening Level = 33 µg/kg; PMCL = 33 µg/kg[3]				
SB-08718	3 - 5	11/25/1998	42	U
SB-08718	8 - 10	11/25/1998	43	U
SB-08719	3 - 5	11/25/1998	42	U
SB-08719	8 - 10	11/25/1998	42	U
SB-08720	3 - 5	11/25/1998	40	U
SB-08720	8 - 10	11/25/1998	44	U
SB-08721	3 - 5	11/25/1998	42	U
SB-08721	8 - 10	11/25/1998	44	U
SB-08722	3 - 5	11/25/1998	43	U
SB-08722	8 - 10	11/25/1998	45	U
SB-08723	3 - 5	11/25/1998	39	U
SB-08723	8 - 10	11/25/1998	43	U
SB-08724	3 - 5	11/25/1998	37	U
SB-08724	8 - 10	11/25/1998	46	U
SB-08733	2.5 - 2.5	5/25/1999	36	U
SB-08734	5 - 5	5/25/1999	45	U
SB-08735	2.5 - 2.5	5/25/1999	36	U
SB-08736	2.5 - 2.5	5/25/1999	36	U
SB-08737	5 - 5	5/25/1999	45	U
SB-08738	10 - 10	5/28/1999	290	
SB-08741	3 - 3	5/28/1999	35	U
SB-08742	5 - 5	5/28/1999	170	
SB-08743	11 - 11	6/3/1999	450	
SB-08744	8 - 8	6/4/1999	42	U
SB-08746	8 - 8	6/4/1999	45	U
SB-08747	9 - 9	6/4/1999	52	U
SB-08748	11 - 11	6/4/1999	44	U
SB-08754	8 - 10	7/20/1999	45	U
SB-08901	5 - 5	12/11/1993	82	U
SB-08901	7.5 - 7.5	12/11/1993	80	U
SB-08903	5 - 5	12/13/1993	64.1	U
SB-08903	5 - 5	12/13/1993	61.5	U
SB-08904	1 - 1	12/9/1993	65.1	U
SB-08904	5 - 5	12/9/1993	68.5	U
SB-08905	5 - 5	8/24/1994	56	J
SB-08905	7.5 - 7.5	8/24/1994	75	U
SB-08905	10 - 10	8/24/1994	84	U
SB-08909	5 - 5	8/19/1994	85	U
SB-08909	7.5 - 7.5	8/19/1994	87	U
SB-08909	10 - 10	8/19/1994	88	U
SB-08916	2 - 2	9/13/1994	72	U
SB-08916	5 - 5	9/13/1994	83	U
SB-08917	1 - 1	8/23/1994	68	U
SB-08917	7.5 - 7.5	8/23/1994	90	U
SB-08917	10 - 10	8/23/1994	87	U
SB-08924	2.5 - 2.5	8/18/1994	360	J
SB-08924	2.5 - 2.5	8/18/1994	140	J
SB-08924	7.5 - 7.5	8/18/1994	93	U
SB-08924	10 - 10	8/18/1994	86	U

South Yard Area COC Results
Aroclor 1254 Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Aroclor 1254 (µg/kg) - 2004 Screening Level = 33 µg/kg; PMCL = 33 µg/kg[3]				
SB-08930	3 - 5	11/24/1998	36	U
SB-08930	8 - 10	11/24/1998	42	U
SB-08931	3 - 5	11/24/1998	41	U
SB-08931	8 - 10	11/24/1998	41	U
SB-08932	3 - 5	11/24/1998	43	U
SB-08932	8 - 10	11/24/1998	43	U
SB-08933	3 - 5	11/24/1998	40	U
SB-08933	8 - 10	11/24/1998	41	U
SB-08934	3 - 5	11/24/1998	38	U
SB-08934	8 - 10	11/24/1998	41	U
SB-08935	3 - 5	11/24/1998	39	U
SB-08935	8 - 10	11/24/1998	44	U
SB-08936	3 - 5	11/24/1998	39	U
SB-08936	8 - 10	11/24/1998	43	U
SB-08937	3 - 5	11/24/1998	39	U
SB-08937	8 - 10	11/24/1998	46	U
SB-08938	3 - 5	11/24/1998	37	U
SB-08938	8 - 10	11/24/1998	40	U
SB-08939	3 - 5	11/24/1998	37	U
SB-08939	8 - 10	11/24/1998	41	U
SB-08940	3 - 5	11/24/1998	39	U
SB-08940	8 - 10	11/24/1998	41	U
SB-08941	8 - 8	5/25/1999	47	U
SB-08942	11 - 11	5/25/1999	45	U
SB-08943	11 - 11	5/25/1999	44	U
SB-08944	11 - 11	5/25/1999	44	U
SB-08945	8 - 8	5/25/1999	47	U
SB-09101	2 - 2	9/12/1994	35	U
SB-09101	5 - 5	9/12/1994	36	U
SB-09102	1 - 1	8/16/1994	72	U
SB-09102	1 - 1	8/16/1994	71	U
SB-09102	5 - 5	8/16/1994	90	U
SB-09102	7.5 - 7.5	8/16/1994	93	U
SB-09103	2.5 - 2.5	8/16/1994	70	U
SB-09103	7.5 - 7.5	8/16/1994	96	U
SB-09103	10 - 10	8/16/1994	86	U
SB-09104	1 - 1	8/16/1994	72	U
SB-09104	7.5 - 7.5	8/16/1994	92	U
SB-09104	10 - 10	8/16/1994	87	U
SB-09105	2 - 2	9/12/1994	35	U
SB-09105	5 - 5	9/12/1994	36	U
SB-09106	2 - 2	9/12/1994	35	U
SB-09106	5 - 5	9/12/1994	42	U
SB-10401	10 - 10	3/15/1994	78	U
SB-11001	6 - 6	9/12/1994	90	U
SB-11001	9.5 - 9.5	9/12/1994	90	U
SB-28201	1 - 1	12/9/1993	62.9	U
SB291-10	10 - 10	1/11/1989	300	U
SB291-3	9.5 - 9.5	1/12/1989	3000	U

South Yard Area COC Results
Aroclor 1254 Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Aroclor 1254 (µg/kg) - 2004 Screening Level = 33 µg/kg; PMCL = 33 µg/kg[3]				
SB291-4	9.5 - 9.5	1/12/1989	300	U
SB291-5	9.5 - 9.5	1/12/1989	300	U
SB291-6	2.5 - 2.5	1/12/1989	300	U
SB291-9	5 - 5	1/12/1989	50	U
SS-09101	0 - 0.5	11/29/1993	400	UIJ
SS-09102	0 - 0.5	11/19/1993	6500	UI
SS-09103	0 - 0.5	11/24/1993	80	U
SS-09104	0 - 0.5	11/22/1993	5600	UI
SS-09105	0 - 0.5	11/16/1993	81000	
SS-09106	0 - 0.5	11/18/1993	80	U
SS-09107	0 - 0.5	11/16/1993	3400	UI
SS-09108	0 - 0.5	11/17/1993	2100	UI
SS-09109	0 - 0.5	11/19/1993	62	U
SS-09110	0 - 0.5	11/17/1993	62	UJ
SS-09111	0 - 0.5	11/23/1993	80	U
SS-09111	0 - 0.5	11/23/1993	61	U
SS-09112	0 - 0.5	11/29/1993	5300	UI

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Aroclor 1260 Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Aroclor 1260 (µg/kg) - 2004 Screening Level = 33 µg/kg; PMCL = 33 µg/kg[3]				
288-13	2 - 2	8/13/1991	60	U
288-15	2 - 2	8/13/1991	60	U
288-16	4 - 4	8/14/1991	60	U
288-17	4 - 4	8/14/1991	10000	U
288-18	4 - 4	8/14/1991	60	U
288-19	4 - 4	8/14/1991	260	
288-20	4 - 4	8/14/1991	60	U
288-21	4 - 4	8/14/1991	60	U
288-22	4 - 4	8/14/1991	60	U
288-23	4 - 4	8/14/1991	60	U
288-24	4 - 4	8/14/1991	60	U
PL2-104B	6 - 6	6/24/1992	15	U
PL2-104B	11 - 11	6/24/1992	15	U
PL2-105C	3 - 3	6/25/1992	15	U
PL2-105C	10 - 10	6/25/1992	15	U
PL2-106C	7 - 7	6/18/1992	15	U
PL2-106C	12 - 12	6/18/1992	15	U
PL2-109B	9 - 9	7/7/1992	15	U
PL2-109C	6 - 6	7/6/1992	15	U
PL2-109C	9 - 9	7/6/1992	15	U
PL2-110C	6 - 6	6/22/1992	15	U
PL2-110C	9 - 9	6/22/1992	15	U
PL2-111A	1 - 1	12/9/1993	66.2	U
PL2-111A	5 - 5	12/9/1993	81.3	U
PL2-301A	5 - 5	7/8/1992	80	U
PL2-301A	10 - 10	7/8/1992	80	U
PL2-302A	5 - 5	7/8/1992	80	U
PL2-302A	10 - 10	7/8/1992	80	U
PL2-303A	5 - 5	7/8/1992	80	U
PL2-303A	10 - 10	7/8/1992	80	U
PL2-303A	10 - 10	7/8/1992	80	U
SB-08003	1.5 - 1.5	8/18/1994	77	U
SB-08003	8 - 8	8/18/1994	52	J
SB-08003	10 - 10	8/18/1994	86	U
SB-08004	3.5 - 3.5	8/18/1994	71	U
SB-08004	8 - 8	8/18/1994	73	U
SB-08004	12 - 12	8/18/1994	91	U
SB-08009	0.6 - 0.6	2/16/1995	36	U
SB-08009	6 - 6	2/16/1995	39	U
SB-08010	0.5 - 0.5	2/16/1995	36	U
SB-08010	6 - 6	2/16/1995	44	U
SB-08201	6.5 - 6.5	12/21/1993	74	U
SB-08201	8 - 8	12/21/1993	63	U
SB-08201	11 - 11	12/21/1993	78	U
SB-08301	1.5 - 1.5	9/3/1994	74	U
SB-08301	4.5 - 4.5	9/3/1994	92	U
SB-08301	11.5 - 11.5	9/3/1994	85	U
SB-08302	2 - 2	9/3/1994	74	U
SB-08302	5 - 5	9/3/1994	86	U

South Yard Area COC Results
Aroclor 1260 Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Aroclor 1260 (µg/kg) - 2004 Screening Level = 33 µg/kg; PMCL = 33 µg/kg[3]				
SB-08302	11 - 11	9/3/1994	87	U
SB-08303	5 - 5	12/13/1993	65.6	U
SB-08305	1 - 1	2/22/1995	37	U
SB-08305	5 - 5	2/22/1995	41	U
SB-08307	1.5 - 1.5	7/31/1995	37	U
SB-08307	5 - 5	7/31/1995	37	U
SB-08307	7.5 - 7.5	7/31/1995	44	U
SB-08308	1.5 - 1.5	7/28/1995	37	U
SB-08308	5 - 5	7/28/1995	42	U
SB-08308	7.5 - 7.5	7/28/1995	44	U
SB-08309	9 - 9	7/28/1995	44	U
SB-08310	2 - 2	8/25/1995	40	U
SB-08310	7 - 7	8/25/1995	44	U
SB-08310	9 - 9	8/25/1995	42	U
SB-08311	2 - 2	8/25/1995	38	U
SB-08311	7 - 7	8/25/1995	43	U
SB-08311	9 - 9	8/25/1995	43	U
SB-08312	2 - 2	8/25/1995	37	U
SB-08312	7 - 7	8/25/1995	44	U
SB-08312	9 - 9	8/25/1995	42	U
SB-08602	1 - 1	12/9/1993	62.3	U
SB-08705	2.5 - 2.5	8/18/1994	73	U
SB-08705	5 - 5	8/18/1994	96	U
SB-08705	7.5 - 7.5	8/18/1994	88	U
SB-08706	7.5 - 7.5	8/25/1994	84	UJH
SB-08706	10 - 10	8/25/1994	87	U
SB-08709	6 - 6	2/24/1995	45	U
SB-08709	7 - 7	2/24/1995	56	U
SB-08709	10.5 - 10.5	2/24/1995	43	U
SB-08710	6 - 6	2/24/1995	46	U
SB-08710	8 - 8	2/24/1995	44	U
SB-08710	11 - 11	2/24/1995	43	U
SB-08711	2 - 2	7/24/1995	37	U
SB-08711	7 - 7	7/24/1995	47	U
SB-08711	10 - 10	7/24/1995	43	U
SB-08712	2 - 2	7/24/1995	36	U
SB-08712	6.5 - 6.5	7/24/1995	47	U
SB-08712	8.5 - 8.5	7/24/1995	46	U
SB-08714	2 - 2	9/22/1995	42	U
SB-08714	7 - 7	9/22/1995	48	U
SB-08714	10 - 10	9/22/1995	43	U
SB-08715	2 - 2	9/22/1995	39	U
SB-08715	2 - 2	9/22/1995	36	U
SB-08715	7 - 7	9/22/1995	50	U
SB-08715	9.5 - 9.5	9/22/1995	44	U
SB-08716	3 - 5	11/25/1998	42	U
SB-08716	8 - 10	11/25/1998	45	U
SB-08717	3 - 5	11/25/1998	39	U
SB-08717	8 - 10	11/25/1998	43	U

South Yard Area COC Results
Aroclor 1260 Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Aroclor 1260 (µg/kg) - 2004 Screening Level = 33 µg/kg; PMCL = 33 µg/kg[3]				
SB-08718	3 - 5	11/25/1998	42	U
SB-08718	8 - 10	11/25/1998	43	U
SB-08719	3 - 5	11/25/1998	42	U
SB-08719	8 - 10	11/25/1998	42	U
SB-08720	3 - 5	11/25/1998	40	U
SB-08720	8 - 10	11/25/1998	44	U
SB-08721	3 - 5	11/25/1998	42	U
SB-08721	8 - 10	11/25/1998	44	U
SB-08722	3 - 5	11/25/1998	43	U
SB-08722	8 - 10	11/25/1998	45	U
SB-08723	3 - 5	11/25/1998	39	U
SB-08723	8 - 10	11/25/1998	43	U
SB-08724	3 - 5	11/25/1998	37	U
SB-08724	8 - 10	11/25/1998	46	U
SB-08733	2.5 - 2.5	5/25/1999	36	U
SB-08734	5 - 5	5/25/1999	45	U
SB-08735	2.5 - 2.5	5/25/1999	36	U
SB-08736	2.5 - 2.5	5/25/1999	36	U
SB-08737	5 - 5	5/25/1999	45	U
SB-08738	10 - 10	5/28/1999	45	
SB-08741	3 - 3	5/28/1999	35	U
SB-08742	5 - 5	5/28/1999	44	Y
SB-08743	11 - 11	6/3/1999	63	
SB-08744	8 - 8	6/4/1999	42	U
SB-08746	8 - 8	6/4/1999	45	U
SB-08747	9 - 9	6/4/1999	52	U
SB-08748	11 - 11	6/4/1999	44	U
SB-08754	8 - 10	7/20/1999	45	U
SB-08901	5 - 5	12/11/1993	82	U
SB-08901	7.5 - 7.5	12/11/1993	80	U
SB-08903	5 - 5	12/13/1993	64.1	U
SB-08903	5 - 5	12/13/1993	61.5	U
SB-08904	1 - 1	12/9/1993	65.1	U
SB-08904	5 - 5	12/9/1993	68.5	U
SB-08905	5 - 5	8/24/1994	89	U
SB-08905	7.5 - 7.5	8/24/1994	75	U
SB-08905	10 - 10	8/24/1994	84	U
SB-08909	5 - 5	8/19/1994	85	U
SB-08909	7.5 - 7.5	8/19/1994	87	U
SB-08909	10 - 10	8/19/1994	88	U
SB-08916	2 - 2	9/13/1994	72	U
SB-08916	5 - 5	9/13/1994	83	U
SB-08917	1 - 1	8/23/1994	68	U
SB-08917	7.5 - 7.5	8/23/1994	90	U
SB-08917	10 - 10	8/23/1994	87	U
SB-08924	2.5 - 2.5	8/18/1994	70	U
SB-08924	2.5 - 2.5	8/18/1994	70	U
SB-08924	7.5 - 7.5	8/18/1994	93	U
SB-08924	10 - 10	8/18/1994	86	U

South Yard Area COC Results
Aroclor 1260 Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Aroclor 1260 (µg/kg) - 2004 Screening Level = 33 µg/kg; PMCL = 33 µg/kg[3]				
SB-08930	3 - 5	11/24/1998	36	U
SB-08930	8 - 10	11/24/1998	42	U
SB-08931	3 - 5	11/24/1998	41	U
SB-08931	8 - 10	11/24/1998	41	U
SB-08932	3 - 5	11/24/1998	43	U
SB-08932	8 - 10	11/24/1998	43	U
SB-08933	3 - 5	11/24/1998	40	U
SB-08933	8 - 10	11/24/1998	41	U
SB-08934	3 - 5	11/24/1998	38	U
SB-08934	8 - 10	11/24/1998	41	U
SB-08935	3 - 5	11/24/1998	39	U
SB-08935	8 - 10	11/24/1998	44	U
SB-08936	3 - 5	11/24/1998	39	U
SB-08936	8 - 10	11/24/1998	43	U
SB-08937	3 - 5	11/24/1998	39	U
SB-08937	8 - 10	11/24/1998	46	U
SB-08938	3 - 5	11/24/1998	37	U
SB-08938	8 - 10	11/24/1998	40	U
SB-08939	3 - 5	11/24/1998	37	U
SB-08939	8 - 10	11/24/1998	41	U
SB-08940	3 - 5	11/24/1998	39	U
SB-08940	8 - 10	11/24/1998	41	U
SB-08941	8 - 8	5/25/1999	47	U
SB-08942	11 - 11	5/25/1999	45	U
SB-08943	11 - 11	5/25/1999	44	U
SB-08944	11 - 11	5/25/1999	44	U
SB-08945	8 - 8	5/25/1999	47	U
SB-09101	2 - 2	9/12/1994	35	U
SB-09101	5 - 5	9/12/1994	36	U
SB-09102	1 - 1	8/16/1994	72	U
SB-09102	1 - 1	8/16/1994	71	U
SB-09102	5 - 5	8/16/1994	90	U
SB-09102	7.5 - 7.5	8/16/1994	93	U
SB-09103	2.5 - 2.5	8/16/1994	70	U
SB-09103	7.5 - 7.5	8/16/1994	96	U
SB-09103	10 - 10	8/16/1994	86	U
SB-09104	1 - 1	8/16/1994	72	U
SB-09104	7.5 - 7.5	8/16/1994	92	U
SB-09104	10 - 10	8/16/1994	87	U
SB-09105	2 - 2	9/12/1994	70	UI
SB-09105	5 - 5	9/12/1994	36	U
SB-09106	2 - 2	9/12/1994	69	J
SB-09106	5 - 5	9/12/1994	42	U
SB-10401	10 - 10	3/15/1994	78	U
SB-11001	6 - 6	9/12/1994	90	U
SB-11001	9.5 - 9.5	9/12/1994	90	U
SB-28201	1 - 1	12/9/1993	62.9	U
SB291-10	10 - 10	1/11/1989	300	U
SB291-3	9.5 - 9.5	1/12/1989	3000	U

South Yard Area COC Results
Aroclor 1260 Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Aroclor 1260 (µg/kg) - 2004 Screening Level = 33 µg/kg; PMCL = 33 µg/kg[3]				
SB291-4	9.5 - 9.5	1/12/1989	300	U
SB291-5	9.5 - 9.5	1/12/1989	300	U
SB291-6	2.5 - 2.5	1/12/1989	300	U
SB291-9	5 - 5	1/12/1989	50	U
SS-09101	0 - 0.5	11/29/1993	80	UJ
SS-09102	0 - 0.5	11/19/1993	2700	UI
SS-09103	0 - 0.5	11/24/1993	87	
SS-09104	0 - 0.5	11/22/1993	6000	UI
SS-09105	0 - 0.5	11/16/1993	24000	UI
SS-09106	0 - 0.5	11/18/1993	80	U
SS-09107	0 - 0.5	11/16/1993	4100	UI
SS-09108	0 - 0.5	11/17/1993	5000	UI
SS-09109	0 - 0.5	11/19/1993	62	U
SS-09110	0 - 0.5	11/17/1993	79	J
SS-09111	0 - 0.5	11/23/1993	74	J
SS-09111	0 - 0.5	11/23/1993	63	J
SS-09112	0 - 0.5	11/29/1993	5300	UI

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Benzene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzene (µg/kg) - 2004 Soil Screening Level = 25.3 µg/kg; PMCL = 4,300 µg/kg[3]				
288-1	3 - 3	8/13/1991	1.1	U
288-1	8 - 8	8/13/1991	5.8	
288-10	1.5 - 1.5	8/13/1991	1.2	U
288-11	0.5 - 0.5	8/13/1991	1.2	U
288-12	0.5 - 0.5	8/13/1991	1	U
288-14	3 - 3	8/13/1991	1.2	U
288-14	8 - 8	8/13/1991	1.3	U
288-16	4 - 4	8/14/1991	1	U
288-17	4 - 4	8/14/1991	1	U
288-18	4 - 4	8/14/1991	1.1	U
288-19	4 - 4	8/14/1991	1	U
288-2	3 - 3	8/13/1991	1	U
288-2	8 - 8	8/13/1991	17	
288-20	4 - 4	8/14/1991	1	U
288-21	4 - 4	8/14/1991	1	U
288-22	4 - 4	8/14/1991	1.1	U
288-23	4 - 4	8/14/1991	1.1	U
288-24	4 - 4	8/14/1991	1	U
288-3	3 - 3	8/13/1991	1	U
288-4	3 - 3	8/13/1991	670	U
288-5	1 - 1	8/13/1991	1400	U
288-5	3 - 3	8/13/1991	1300	U
288-6	1 - 1	8/13/1991	5.3	U
288-6	3 - 3	8/13/1991	10	U
288-7	3 - 3	8/13/1991	1.1	U
288-8	3 - 3	8/13/1991	1	U
288-8	8 - 8	8/13/1991	2.8	
288-9	1.5 - 1.5	8/13/1991	1.2	U
EX-1	8 - 8	10/23/1992	49000	
EX-3	8 - 8	10/23/1992	1900	
EX-5	10.5 - 10.5	10/23/1992	280	
HA-284-03	2 - 2.5	4/27/1992	1	U
HA-284-03	4 - 4.5	4/27/1992	1.7	U
PL2-101A	11 - 11	10/28/1985	5	U
PL2-103A	4 - 4	10/28/1985	5	U
PL2-103A	7 - 7	10/28/1985	5	U
PL2-103A	10 - 10	10/28/1985	5	U
PL2-104B	6 - 6	6/24/1992	1.4	U
PL2-104B	11 - 11	6/24/1992	1.3	U
PL2-105C	3 - 3	6/25/1992	1	U
PL2-105C	10 - 10	6/25/1992	1.9	
PL2-106C	7 - 7	6/18/1992	1.4	U
PL2-106C	12 - 12	6/18/1992	1.4	U
PL2-109B	9 - 9	7/7/1992	1.3	U
PL2-109C	6 - 6	7/6/1992	1.2	U
PL2-109C	9 - 9	7/6/1992	1.3	U
PL2-110C	6 - 6	6/22/1992	1.1	U
PL2-110C	9 - 9	6/22/1992	160	U
PL2-111A	1 - 1	12/9/1993	1.1	U

South Yard Area COC Results
Benzene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzene (µg/kg) - 2004 Soil Screening Level = 25.3 µg/kg; PMCL = 4,300 µg/kg[3]				
PL2-111A	7.5 - 7.5	12/9/1993	1.3	U
PL2-112A	5.5 - 5.5	1/10/1989	4.2	U
PL2-114A	8 - 8	1/10/1989	4.9	
PL2-114A	10.5 - 10.5	1/10/1989	140	U
PL2-115A	2 - 2	7/27/1989	1.1	U
PL2-115A	5 - 5	7/27/1989	1.3	U
PL2-115A	8.5 - 8.5	7/27/1989	6.6	
PL2-115A	10 - 10	7/27/1989	5.1	
PL2-116A	2 - 2	7/26/1989	1	U
PL2-116A	5 - 5	7/26/1989	1.2	U
PL2-116A	8.5 - 8.5	7/26/1989	1.2	U
PL2-116A	10 - 10	7/26/1989	1.2	U
PL2-117A	7.5 - 7.5	1/11/1989	380	U
PL2-301A	5 - 5	7/8/1992	1.3	U
PL2-301A	10 - 10	7/8/1992	1.2	U
PL2-302A	5 - 5	7/8/1992	0.8	J
PL2-302A	10 - 10	7/8/1992	1.3	U
PL2-303A	5 - 5	7/8/1992	1.2	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL31-B1	9 - 9	3/24/1992	1.4	U
PL31-B2	8.5 - 8.5	3/24/1992	1.1	U
PL31-P1	1.8 - 1.8	3/24/1992	1	U
PL31-S1	4.6 - 4.6	3/24/1992	1.1	U
PL31-S2	5 - 5	3/24/1992	1	U
PL31-S3	5.5 - 5.5	3/24/1992	1	U
PL31-S4	5.9 - 5.9	3/24/1992	1	U
PL66-B1	5.5 - 5.5	10/28/1991	1.1	U
PL66-B1	10.5 - 10.5	10/28/1991	1.3	U
PL66-B2	5.5 - 5.5	10/28/1991	1.2	U
PL66-B2	10.5 - 10.5	10/28/1991	1.3	U
SB-08005	11 - 11	9/22/1994	9.3	
SB-08008	3.5 - 3.5	2/15/1995	1.1	U
SB-08008	6.5 - 6.5	2/15/1995	1.1	U
SB-08008	11.5 - 11.5	2/15/1995	1.3	U
SB-08009	0.6 - 0.6	2/16/1995	1.1	U
SB-08009	6 - 6	2/16/1995	1.2	U
SB-08010	0.5 - 0.5	2/16/1995	1	U
SB-08010	6 - 6	2/16/1995	1.3	U
SB-08201	6.5 - 6.5	12/21/1993	1.1	U
SB-08201	8 - 8	12/21/1993	1.3	U
SB-08201	11 - 11	12/21/1993	1.3	U
SB-08301	1.5 - 1.5	9/3/1994	1.2	U
SB-08301	4.5 - 4.5	9/3/1994	1.5	U
SB-08301	11.5 - 11.5	9/3/1994	1.3	U
SB-08302	2 - 2	9/3/1994	1.1	U
SB-08302	5 - 5	9/3/1994	1.3	U
SB-08302	11 - 11	9/3/1994	1.3	U
SB-08303	5 - 5	12/13/1993	1.3	U

South Yard Area COC Results
Benzene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzene (µg/kg) - 2004 Soil Screening Level = 25.3 µg/kg; PMCL = 4,300 µg/kg[3]				
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	9 - 10	4/15/2002	1.4	U
SB-08333	4 - 5	4/15/2002	1.1	U
SB-08333	9 - 10	4/15/2002	1.3	U
SB-08334	4 - 5	4/23/2002	1.1	U
SB-08334	7.5 - 8.5	4/23/2002	1.1	U
SB-08335	4 - 5	4/23/2002	1.1	U
SB-08335	9 - 10	4/23/2002	1.2	U
SB-08601	1.5 - 1.5	12/20/1993	1.1	U
SB-08601	7 - 7	12/20/1993	1.1	U
SB-08601	11 - 11	12/20/1993	1.3	U
SB-08602	1 - 1	12/9/1993	1	U
SB-08602	7.5 - 7.5	12/9/1993	1.5	U
SB-08604	1.5 - 1.5	9/19/1994	1.1	U
SB-08604	6 - 6	9/19/1994	1.3	U
SB-08604	9 - 9	9/19/1994	1.3	U
SB-08716	3 - 5	11/25/1998	1.4	U
SB-08716	8 - 10	11/25/1998	1.4	U
SB-08717	3 - 5	11/25/1998	1.3	U
SB-08717	8 - 10	11/25/1998	1.4	U
SB-08718	3 - 5	11/25/1998	1.3	U
SB-08718	8 - 10	11/25/1998	1.3	U
SB-08719	3 - 5	11/25/1998	1.1	U
SB-08719	8 - 10	11/25/1998	1.3	U
SB-08720	3 - 5	11/25/1998	1.3	U
SB-08720	8 - 10	11/25/1998	1.3	U
SB-08721	3 - 5	11/25/1998	1.3	U
SB-08721	8 - 10	11/25/1998	1.3	U
SB-08722	3 - 5	11/25/1998	1.3	U
SB-08722	8 - 10	11/25/1998	1.4	U
SB-08723	3 - 5	11/25/1998	1.2	U
SB-08723	8 - 10	11/25/1998	1.3	U
SB-08724	3 - 5	11/25/1998	1.1	U
SB-08724	8 - 10	11/25/1998	1.5	U
SB-08901	5 - 5	12/11/1993	1.4	U
SB-08901	7.5 - 7.5	12/11/1993	1.3	U
SB-08903	7.5 - 7.5	12/13/1993	1.2	U
SB-08904	1 - 1	12/9/1993	1.1	U
SB-08904	7.5 - 7.5	12/9/1993	1.3	U
SB-08905	5 - 5	8/24/1994	1.3	U
SB-08905	7.5 - 7.5	8/24/1994	1.1	U
SB-08905	10 - 10	8/24/1994	1.2	U
SB-08915	2 - 2	8/17/1994	1.1	U
SB-08915	5 - 5	8/17/1994	1.1	U
SB-08915	7.5 - 7.5	8/17/1994	2.5	
SB-08916	2 - 2	9/13/1994	1.1	U
SB-08916	5 - 5	9/13/1994	1.3	U
SB-08917	1 - 1	8/23/1994	1	U

South Yard Area COC Results
Benzene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzene (µg/kg) - 2004 Soil Screening Level = 25.3 µg/kg; PMCL = 4,300 µg/kg[3]				
SB-08917	7.5 - 7.5	8/23/1994	5	
SB-08917	10 - 10	8/23/1994	4	
SB-08918	2 - 2	9/13/1994	1.1	U
SB-08918	5 - 5	9/13/1994	1.2	U
SB-08919	2.5 - 2.5	8/18/1994	1.1	U
SB-08919	7.5 - 7.5	8/18/1994	1.3	U
SB-08919	10 - 10	8/18/1994	1.2	U
SB-08920	1 - 1	8/23/1994	1	U
SB-08920	7.5 - 7.5	8/23/1994	1.2	U
SB-08920	10 - 10	8/23/1994	1.3	U
SB-08921	2 - 2	9/13/1994	1	U
SB-08921	5 - 5	9/13/1994	1	U
SB-08922	1 - 1	8/19/1994	1	U
SB-08922	1 - 1	8/19/1994	1	U
SB-08922	5 - 5	8/19/1994	1.2	U
SB-08922	10 - 10	8/19/1994	1.3	U
SB-08923	2 - 2	9/13/1994	1.1	U
SB-08923	5 - 5	9/13/1994	1.2	U
SB-08924	2.5 - 2.5	8/18/1994	1	U
SB-08924	2.5 - 2.5	8/18/1994	1	U
SB-08924	7.5 - 7.5	8/18/1994	7.3	
SB-08924	10 - 10	8/18/1994	5	
SB-08930	3 - 5	11/24/1998	1.1	U
SB-08930	8 - 10	11/24/1998	1.2	U
SB-08931	3 - 5	11/24/1998	1.1	U
SB-08931	8 - 10	11/24/1998	1.2	U
SB-08932	3 - 5	11/24/1998	1.1	U
SB-08932	8 - 10	11/24/1998	1.2	U
SB-08933	3 - 5	11/24/1998	1.2	U
SB-08933	8 - 10	11/24/1998	1.2	U
SB-08934	3 - 5	11/24/1998	1.2	U
SB-08934	8 - 10	11/24/1998	8.8	U
SB-08935	3 - 5	11/24/1998	1.1	U
SB-08935	8 - 10	11/24/1998	1.4	
SB-08936	3 - 5	11/24/1998	1.1	U
SB-08936	8 - 10	11/24/1998	1.3	U
SB-08937	3 - 5	11/24/1998	1.2	U
SB-08937	8 - 10	11/24/1998	1.3	U
SB-08938	3 - 5	11/24/1998	1.1	U
SB-08938	8 - 10	11/24/1998	1.2	U
SB-08939	3 - 5	11/24/1998	1.2	U
SB-08939	8 - 10	11/24/1998	1.3	U
SB-08940	3 - 5	11/24/1998	1.1	U
SB-08940	8 - 10	11/24/1998	1.3	U
SB-09101	2 - 2	9/12/1994	1	U
SB-09101	5 - 5	9/12/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	5 - 5	8/16/1994	1.4	U

South Yard Area COC Results
Benzene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzene (µg/kg) - 2004 Soil Screening Level = 25.3 µg/kg; PMCL = 4,300 µg/kg[3]				
SB-09102	7.5 - 7.5	8/16/1994	1.4	U
SB-09103	2.5 - 2.5	8/16/1994	1	U
SB-09103	7.5 - 7.5	8/16/1994	1.4	U
SB-09103	10 - 10	8/16/1994	1.3	U
SB-09104	1 - 1	8/16/1994	1	U
SB-09104	7.5 - 7.5	8/16/1994	37	
SB-09104	10 - 10	8/16/1994	7.6	
SB-09105	2 - 2	9/12/1994	1.1	U
SB-09105	5 - 5	9/12/1994	1.4	U
SB-09106	2 - 2	9/12/1994	1.1	U
SB-09106	5 - 5	9/12/1994	1.2	U
SB-10401	10 - 10	3/15/1994	150	U
SB116-B1	5 - 5	9/13/1991	1.2	U
SB116-B1	8 - 8	9/13/1991	1.4	U
SB116-B1	9.5 - 9.5	9/13/1991	1.3	U
SB116-B2	2 - 2	9/13/1991	1	U
SB116-B2	7 - 7	9/13/1991	1.1	U
SB116-B2	12 - 12	9/13/1991	1.3	U
SB116-B3	2 - 2	9/13/1991	1.4	U
SB116-B3	7 - 7	9/13/1991	1.1	J
SB116-B3	12 - 12	9/13/1991	1.3	U
SB-28201	1 - 1	12/9/1993	1.2	U
SB-28201	7.5 - 7.5	12/9/1993	1.1	U
SB-284-01	4 - 4.5	4/27/1992	1.1	U
SB-284-01	8 - 8.5	4/27/1992	1.4	U
SB-284-02	4 - 4.5	4/27/1992	1.2	U
SB-284-02	6 - 6.5	4/27/1992	1.2	U
SB291-10	2.5 - 2.5	1/11/1989	2.2	U
SB291-16	2 - 2	7/26/1989	1	U
SB291-16	5 - 5	7/26/1989	5.2	U
SB291-16	9.5 - 9.5	7/26/1989	1.3	U
SB291-17	2 - 2	7/26/1989	1	U
SB291-17	5 - 5	7/26/1989	1.3	U
SB291-17	9.5 - 9.5	7/26/1989	1.3	U
SB291-3	2.5 - 2.5	1/12/1989	21	U
SB291-3	7.5 - 7.5	1/12/1989	280	U
SB291-3	9.5 - 9.5	1/12/1989	6.3	U
SB291-4	5 - 5	1/12/1989	2	U
SB291-5	5 - 5	1/12/1989	2.8	U
SB291-6	2.5 - 2.5	1/12/1989	22	U
SB291-8	5 - 5	1/11/1989	140	U
SB291-8	10 - 10	1/11/1989	140	U
SB291-9	2.5 - 2.5	1/12/1989	2.3	U
SB291-9	5 - 5	1/12/1989	4.8	U
SB291-9	9.5 - 9.5	1/12/1989	33	
SB297-2	2 - 2	7/25/1989	1	U
SB297-2	5 - 5	7/25/1989	1.1	U
SB297-2	10.5 - 10.5	7/25/1989	1.4	U
SB297-3	2 - 2	7/25/1989	1	U

South Yard Area COC Results
Benzene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Benzene (µg/kg) - 2004 Soil Screening Level = 25.3 µg/kg; PMCL = 4,300 µg/kg[3]				
SB297-3	5 - 5	7/25/1989	1.3	U
SB297-3	9.5 - 9.5	7/25/1989	1.3	U
SS-09101	0 - 0.5	11/29/1993	1.2	U
SS-09102	0 - 0.5	11/19/1993	1.1	U
SS-09103	0 - 0.5	11/24/1993	1.1	U
SS-09104	0 - 0.5	11/22/1993	340	U
SS-09105	0 - 0.5	11/16/1993	1.2	U
SS-09106	0 - 0.5	11/18/1993	1.2	U
SS-09107	0 - 0.5	11/16/1993	4.1	U
SS-09108	0 - 0.5	11/17/1993	1	U
SS-09109	0 - 0.5	11/19/1993	1.1	U
SS-09110	0 - 0.5	11/17/1993	1.1	U
SS-09111	0 - 0.5	11/23/1993	1	U
SS-09111	0 - 0.5	11/23/1993	1	U
SS-09112	0 - 0.5	11/29/1993	160	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999)

South Yard Area COC Results
1,1-Dichloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
1,1-Dichloroethene (µg/kg) - 2004 Screening Level = 2.73 µg/kg; PMCL = 190 µg/kg[3]				
288-1	3 - 3	8/13/1991	2.1	U
288-1	8 - 8	8/13/1991	7.9	
288-10	1.5 - 1.5	8/13/1991	2.5	U
288-11	0.5 - 0.5	8/13/1991	2.3	U
288-12	0.5 - 0.5	8/13/1991	1	U
288-14	3 - 3	8/13/1991	2.4	U
288-14	8 - 8	8/13/1991	2.7	U
288-16	4 - 4	8/14/1991	1	U
288-17	4 - 4	8/14/1991	1	U
288-18	4 - 4	8/14/1991	1.1	U
288-19	4 - 4	8/14/1991	1	U
288-2	3 - 3	8/13/1991	2.1	U
288-2	8 - 8	8/13/1991	7.9	
288-20	4 - 4	8/14/1991	1	U
288-21	4 - 4	8/14/1991	1	U
288-22	4 - 4	8/14/1991	1.1	U
288-23	4 - 4	8/14/1991	1.1	U
288-24	4 - 4	8/14/1991	1	U
288-3	3 - 3	8/13/1991	2.1	U
288-4	3 - 3	8/13/1991	1300	U
288-5	1 - 1	8/13/1991	2700	U
288-5	3 - 3	8/13/1991	2600	U
288-6	1 - 1	8/13/1991	11	U
288-6	3 - 3	8/13/1991	20	U
288-7	3 - 3	8/13/1991	2.2	U
288-8	3 - 3	8/13/1991	2.1	U
288-8	8 - 8	8/13/1991	13	
288-9	1.5 - 1.5	8/13/1991	2.4	U
HA-284-03	2 - 2.5	4/27/1992	1	U
HA-284-03	4 - 4.5	4/27/1992	1.7	U
PL2-101A	11 - 11	10/28/1985	5	U
PL2-103A	4 - 4	10/28/1985	5	U
PL2-103A	7 - 7	10/28/1985	5	U
PL2-103A	10 - 10	10/28/1985	5	U
PL2-104B	6 - 6	6/24/1992	1.4	U
PL2-104B	11 - 11	6/24/1992	1.3	U
PL2-105C	3 - 3	6/25/1992	1	U
PL2-105C	10 - 10	6/25/1992	1.3	U
PL2-106C	7 - 7	6/18/1992	1.4	J
PL2-106C	12 - 12	6/18/1992	1.4	U
PL2-109B	9 - 9	7/7/1992	8.1	
PL2-109C	6 - 6	7/6/1992	1.2	U
PL2-109C	9 - 9	7/6/1992	1.3	U
PL2-110C	6 - 6	6/22/1992	1.1	U
PL2-110C	9 - 9	6/22/1992	160	U
PL2-111A	1 - 1	12/9/1993	1.1	U
PL2-111A	7.5 - 7.5	12/9/1993	1.3	U
PL2-112A	5.5 - 5.5	1/10/1989	230	
PL2-114A	8 - 8	1/10/1989	1.7	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
1,1-Dichloroethene (µg/kg) - 2004 Screening Level = 2.73 µg/kg; PMCL = 190 µg/kg[3]				
PL2-114A	10.5 - 10.5	1/10/1989	95	U
PL2-115A	2 - 2	7/27/1989	0.7	U
PL2-115A	5 - 5	7/27/1989	0.9	U
PL2-115A	8.5 - 8.5	7/27/1989	0.9	U
PL2-115A	10 - 10	7/27/1989	0.9	U
PL2-116A	2 - 2	7/26/1989	0.7	U
PL2-116A	5 - 5	7/26/1989	0.8	U
PL2-116A	8.5 - 8.5	7/26/1989	0.9	U
PL2-116A	10 - 10	7/26/1989	0.9	U
PL2-117A	7.5 - 7.5	1/11/1989	270	U
PL2-301A	5 - 5	7/8/1992	1.3	U
PL2-301A	10 - 10	7/8/1992	1.2	U
PL2-302A	5 - 5	7/8/1992	1	U
PL2-302A	10 - 10	7/8/1992	1.3	U
PL2-303A	5 - 5	7/8/1992	1.2	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL31-B1	9 - 9	3/24/1992	1.4	U
PL31-B2	8.5 - 8.5	3/24/1992	1.1	U
PL31-P1	1.8 - 1.8	3/24/1992	1	U
PL31-S1	4.6 - 4.6	3/24/1992	1.1	U
PL31-S2	5 - 5	3/24/1992	1	U
PL31-S3	5.5 - 5.5	3/24/1992	1	U
PL31-S4	5.9 - 5.9	3/24/1992	1	U
PL66-B1	5.5 - 5.5	10/28/1991	2.2	U
PL66-B1	10.5 - 10.5	10/28/1991	2.5	U
PL66-B2	5.5 - 5.5	10/28/1991	2.4	U
PL66-B2	10.5 - 10.5	10/28/1991	2.6	U
SB-08005	11 - 11	9/22/1994	1.3	U
SB-08008	3.5 - 3.5	2/15/1995	1.1	U
SB-08008	6.5 - 6.5	2/15/1995	1.1	U
SB-08008	11.5 - 11.5	2/15/1995	1.3	U
SB-08009	0.6 - 0.6	2/16/1995	1.1	U
SB-08009	6 - 6	2/16/1995	1.2	U
SB-08010	0.5 - 0.5	2/16/1995	1	U
SB-08010	6 - 6	2/16/1995	1.3	U
SB-08201	6.5 - 6.5	12/21/1993	1.1	U
SB-08201	8 - 8	12/21/1993	1.3	U
SB-08201	11 - 11	12/21/1993	1.3	U
SB-08301	1.5 - 1.5	9/3/1994	1.2	U
SB-08301	4.5 - 4.5	9/3/1994	1.5	U
SB-08301	11.5 - 11.5	9/3/1994	1.3	U
SB-08302	2 - 2	9/3/1994	1.1	U
SB-08302	5 - 5	9/3/1994	1.3	U
SB-08302	11 - 11	9/3/1994	1.3	U
SB-08303	5 - 5	12/13/1993	1.3	U
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	9 - 10	4/15/2002	1.4	U

South Yard Area COC Results
1,1-Dichloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
1,1-Dichloroethene (µg/kg) - 2004 Screening Level = 2.73 µg/kg; PMCL = 190 µg/kg[3]				
SB-08333	4 - 5	4/15/2002	1.1	U
SB-08333	9 - 10	4/15/2002	1.3	U
SB-08334	4 - 5	4/23/2002	1.1	U
SB-08334	7.5 - 8.5	4/23/2002	1.1	U
SB-08335	4 - 5	4/23/2002	1.1	U
SB-08335	9 - 10	4/23/2002	1.2	U
SB-08601	1.5 - 1.5	12/20/1993	1.1	U
SB-08601	7 - 7	12/20/1993	1.1	U
SB-08601	11 - 11	12/20/1993	1.3	U
SB-08602	1 - 1	12/9/1993	1	U
SB-08602	7.5 - 7.5	12/9/1993	1.5	U
SB-08604	1.5 - 1.5	9/19/1994	1.1	U
SB-08604	6 - 6	9/19/1994	1.3	U
SB-08604	9 - 9	9/19/1994	1.3	U
SB-08716	3 - 5	11/25/1998	1.4	U
SB-08716	8 - 10	11/25/1998	1.4	U
SB-08717	3 - 5	11/25/1998	1.3	U
SB-08717	8 - 10	11/25/1998	1.4	U
SB-08718	3 - 5	11/25/1998	1.3	U
SB-08718	8 - 10	11/25/1998	1.3	U
SB-08719	3 - 5	11/25/1998	1.1	U
SB-08719	8 - 10	11/25/1998	1.3	U
SB-08720	3 - 5	11/25/1998	1.3	U
SB-08720	8 - 10	11/25/1998	1.3	U
SB-08721	3 - 5	11/25/1998	1.3	U
SB-08721	8 - 10	11/25/1998	1.3	U
SB-08722	3 - 5	11/25/1998	1.3	U
SB-08722	8 - 10	11/25/1998	1.4	U
SB-08723	3 - 5	11/25/1998	1.2	U
SB-08723	8 - 10	11/25/1998	1.3	U
SB-08724	3 - 5	11/25/1998	1.1	U
SB-08724	8 - 10	11/25/1998	1.5	U
SB-08901	5 - 5	12/11/1993	1.4	U
SB-08901	7.5 - 7.5	12/11/1993	1.3	U
SB-08903	7.5 - 7.5	12/13/1993	1.2	U
SB-08904	1 - 1	12/9/1993	1.1	U
SB-08904	7.5 - 7.5	12/9/1993	1.3	U
SB-08905	5 - 5	8/24/1994	1.3	U
SB-08905	7.5 - 7.5	8/24/1994	1.1	U
SB-08905	10 - 10	8/24/1994	1.2	U
SB-08915	2 - 2	8/17/1994	1.1	U
SB-08915	5 - 5	8/17/1994	1.1	U
SB-08915	7.5 - 7.5	8/17/1994	11	
SB-08916	2 - 2	9/13/1994	1.1	U
SB-08916	5 - 5	9/13/1994	1.3	U
SB-08917	1 - 1	8/23/1994	1	U
SB-08917	7.5 - 7.5	8/23/1994	1.3	U
SB-08917	10 - 10	8/23/1994	1.3	U
SB-08918	2 - 2	9/13/1994	1.1	U

South Yard Area COC Results
1,1-Dichloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
1,1-Dichloroethene (µg/kg) - 2004 Screening Level = 2.73 µg/kg; PMCL = 190 µg/kg[3]				
SB-08918	5 - 5	9/13/1994	1.2	U
SB-08919	2.5 - 2.5	8/18/1994	1.1	U
SB-08919	7.5 - 7.5	8/18/1994	1.3	U
SB-08919	10 - 10	8/18/1994	1.2	U
SB-08920	1 - 1	8/23/1994	1	U
SB-08920	7.5 - 7.5	8/23/1994	1.2	U
SB-08920	10 - 10	8/23/1994	1.3	U
SB-08921	2 - 2	9/13/1994	1	U
SB-08921	5 - 5	9/13/1994	1	U
SB-08922	1 - 1	8/19/1994	1	U
SB-08922	1 - 1	8/19/1994	1	U
SB-08922	5 - 5	8/19/1994	1.2	U
SB-08922	10 - 10	8/19/1994	1.3	U
SB-08923	2 - 2	9/13/1994	1.1	U
SB-08923	5 - 5	9/13/1994	1.2	U
SB-08924	2.5 - 2.5	8/18/1994	1	U
SB-08924	2.5 - 2.5	8/18/1994	1	U
SB-08924	7.5 - 7.5	8/18/1994	1.4	U
SB-08924	10 - 10	8/18/1994	1.3	U
SB-08930	3 - 5	11/24/1998	1.1	U
SB-08930	8 - 10	11/24/1998	1.2	U
SB-08931	3 - 5	11/24/1998	1.1	U
SB-08931	8 - 10	11/24/1998	1.2	U
SB-08932	3 - 5	11/24/1998	1.1	U
SB-08932	8 - 10	11/24/1998	1.2	U
SB-08933	3 - 5	11/24/1998	1.2	U
SB-08933	8 - 10	11/24/1998	1.2	U
SB-08934	3 - 5	11/24/1998	1.2	U
SB-08934	8 - 10	11/24/1998	8.8	U
SB-08935	3 - 5	11/24/1998	1.1	U
SB-08935	8 - 10	11/24/1998	1.3	U
SB-08936	3 - 5	11/24/1998	1.1	U
SB-08936	8 - 10	11/24/1998	1.3	U
SB-08937	3 - 5	11/24/1998	1.2	U
SB-08937	8 - 10	11/24/1998	1.3	U
SB-08938	3 - 5	11/24/1998	1.1	U
SB-08938	8 - 10	11/24/1998	1.2	U
SB-08939	3 - 5	11/24/1998	1.2	U
SB-08939	8 - 10	11/24/1998	1.3	U
SB-08940	3 - 5	11/24/1998	1.1	U
SB-08940	8 - 10	11/24/1998	1.3	U
SB-09101	2 - 2	9/12/1994	1	U
SB-09101	5 - 5	9/12/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	5 - 5	8/16/1994	1.4	U
SB-09102	7.5 - 7.5	8/16/1994	1.4	U
SB-09103	2.5 - 2.5	8/16/1994	1	U
SB-09103	7.5 - 7.5	8/16/1994	1.4	U

South Yard Area COC Results
1,1-Dichloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
1,1-Dichloroethene (µg/kg) - 2004 Screening Level = 2.73 µg/kg; PMCL = 190 µg/kg[3]				
SB-09103	10 - 10	8/16/1994	1.3	U
SB-09104	1 - 1	8/16/1994	1	U
SB-09104	7.5 - 7.5	8/16/1994	5.6	
SB-09104	10 - 10	8/16/1994	1.3	U
SB-09105	2 - 2	9/12/1994	1.1	U
SB-09105	5 - 5	9/12/1994	1.4	U
SB-09106	2 - 2	9/12/1994	1.1	U
SB-09106	5 - 5	9/12/1994	1.2	U
SB-10401	10 - 10	3/15/1994	150	U
SB116-B1	5 - 5	9/13/1991	2.4	U
SB116-B1	8 - 8	9/13/1991	2.8	U
SB116-B1	9.5 - 9.5	9/13/1991	2.6	U
SB116-B2	2 - 2	9/13/1991	2.1	U
SB116-B2	7 - 7	9/13/1991	2.3	U
SB116-B2	12 - 12	9/13/1991	2.6	U
SB116-B3	2 - 2	9/13/1991	2.8	U
SB116-B3	7 - 7	9/13/1991	2.8	U
SB116-B3	12 - 12	9/13/1991	2.6	U
SB-28201	1 - 1	12/9/1993	1.2	U
SB-28201	7.5 - 7.5	12/9/1993	1.1	U
SB-284-01	4 - 4.5	4/27/1992	1.1	U
SB-284-01	8 - 8.5	4/27/1992	1.4	U
SB-284-02	4 - 4.5	4/27/1992	1.2	U
SB-284-02	6 - 6.5	4/27/1992	1.2	U
SB291-10	2.5 - 2.5	1/11/1989	1.6	U
SB291-16	2 - 2	7/26/1989	0.7	U
SB291-16	5 - 5	7/26/1989	13	
SB291-16	9.5 - 9.5	7/26/1989	0.9	U
SB291-17	2 - 2	7/26/1989	0.7	U
SB291-17	5 - 5	7/26/1989	0.9	U
SB291-17	9.5 - 9.5	7/26/1989	0.9	U
SB291-3	2.5 - 2.5	1/12/1989	68	U
SB291-3	7.5 - 7.5	1/12/1989	190	U
SB291-3	9.5 - 9.5	1/12/1989	4.4	U
SB291-4	5 - 5	1/12/1989	1.4	U
SB291-5	5 - 5	1/12/1989	2	U
SB291-6	2.5 - 2.5	1/12/1989	71	U
SB291-8	5 - 5	1/11/1989	97	U
SB291-8	10 - 10	1/11/1989	95	U
SB291-9	2.5 - 2.5	1/12/1989	1.6	U
SB291-9	5 - 5	1/12/1989	3.3	U
SB291-9	9.5 - 9.5	1/12/1989	0.9	U
SB297-2	2 - 2	7/25/1989	0.7	U
SB297-2	5 - 5	7/25/1989	0.7	U
SB297-2	10.5 - 10.5	7/25/1989	1	U
SB297-3	2 - 2	7/25/1989	0.7	U
SB297-3	5 - 5	7/25/1989	0.9	U
SB297-3	9.5 - 9.5	7/25/1989	0.9	U
SS-09101	0 - 0.5	11/29/1993	1.2	U

South Yard Area COC Results
1,1-Dichloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
1,1-Dichloroethene (µg/kg) - 2004 Screening Level = 2.73 µg/kg; PMCL = 190 µg/kg[3]				
SS-09102	0 - 0.5	11/19/1993	1.1	U
SS-09103	0 - 0.5	11/24/1993	1.1	U
SS-09104	0 - 0.5	11/22/1993	340	U
SS-09105	0 - 0.5	11/16/1993	1.2	U
SS-09106	0 - 0.5	11/18/1993	1.2	U
SS-09107	0 - 0.5	11/16/1993	4.1	U
SS-09108	0 - 0.5	11/17/1993	1	U
SS-09109	0 - 0.5	11/19/1993	1.1	U
SS-09110	0 - 0.5	11/17/1993	1.1	U
SS-09111	0 - 0.5	11/23/1993	1	U
SS-09111	0 - 0.5	11/23/1993	1	U
SS-09112	0 - 0.5	11/29/1993	160	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999)

South Yard Area COC Results
cis-1,2-Dichloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
cis-1,2-Dichlorethene (µg/kg) - 2004 Soil Screening Level = 794 µg/kg; PMCL = 1,620,400 µg/kg[3]				
288-1	3 - 3	8/13/1991	1.4	
288-1	8 - 8	8/13/1991	1500	
288-10	1.5 - 1.5	8/13/1991	4.2	
288-11	0.5 - 0.5	8/13/1991	5.8	
288-14	3 - 3	8/13/1991	2.2	
288-14	8 - 8	8/13/1991	1.3	U
288-2	3 - 3	8/13/1991	1	U
288-2	8 - 8	8/13/1991	820	
288-3	3 - 3	8/13/1991	1	U
288-4	3 - 3	8/13/1991	670	U
288-5	1 - 1	8/13/1991	0	N/A
288-5	3 - 3	8/13/1991	1400	
288-6	1 - 1	8/13/1991	4.6	J
288-6	3 - 3	8/13/1991	37	
288-7	3 - 3	8/13/1991	1.1	U
288-8	3 - 3	8/13/1991	1	U
288-8	8 - 8	8/13/1991	540	
288-9	1.5 - 1.5	8/13/1991	1.2	U
HA-284-03	2 - 2.5	4/27/1992	1	U
HA-284-03	4 - 4.5	4/27/1992	1.7	U
PL2-104B	6 - 6	6/24/1992	1.4	U
PL2-104B	11 - 11	6/24/1992	1.3	U
PL2-105C	3 - 3	6/25/1992	1	U
PL2-105C	10 - 10	6/25/1992	65	
PL2-106C	7 - 7	6/18/1992	210	
PL2-106C	12 - 12	6/18/1992	1.4	U
PL2-109B	9 - 9	7/7/1992	780	
PL2-109C	6 - 6	7/6/1992	1.2	U
PL2-109C	9 - 9	7/6/1992	2.4	
PL2-110C	6 - 6	6/22/1992	1.1	U
PL2-110C	9 - 9	6/22/1992	160	U
PL2-111A	1 - 1	12/9/1993	1.1	U
PL2-111A	7.5 - 7.5	12/9/1993	29	
PL2-301A	5 - 5	7/8/1992	1.3	U
PL2-301A	10 - 10	7/8/1992	2.2	
PL2-302A	5 - 5	7/8/1992	1	U
PL2-302A	10 - 10	7/8/1992	1.3	U
PL2-303A	5 - 5	7/8/1992	1.2	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL31-B1	9 - 9	3/24/1992	1.6	
PL31-B2	8.5 - 8.5	3/24/1992	1.1	U
PL31-P1	1.8 - 1.8	3/24/1992	1	U
PL31-S1	4.6 - 4.6	3/24/1992	1.1	U
PL31-S2	5 - 5	3/24/1992	1	U
PL31-S3	5.5 - 5.5	3/24/1992	1	U
PL31-S4	5.9 - 5.9	3/24/1992	1	U
PL66-B1	5.5 - 5.5	10/28/1991	1.1	U
PL66-B1	10.5 - 10.5	10/28/1991	3.1	

South Yard Area COC Results
cis-1,2-Dichloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
cis-1,2-Dichlorethene (µg/kg) - 2004 Soil Screening Level = 794 µg/kg; PMCL = 1,620,400 µg/kg[3]				
PL66-B2	5.5 - 5.5	10/28/1991	1.2	U
PL66-B2	10.5 - 10.5	10/28/1991	1.3	U
SB-08005	11 - 11	9/22/1994	1.3	U
SB-08008	3.5 - 3.5	2/15/1995	1.1	U
SB-08008	6.5 - 6.5	2/15/1995	1.1	U
SB-08008	11.5 - 11.5	2/15/1995	1.3	U
SB-08009	0.6 - 0.6	2/16/1995	1.1	U
SB-08009	6 - 6	2/16/1995	1.2	U
SB-08010	0.5 - 0.5	2/16/1995	1	U
SB-08010	6 - 6	2/16/1995	1.3	U
SB-08201	6.5 - 6.5	12/21/1993	1.1	U
SB-08201	8 - 8	12/21/1993	1.3	U
SB-08201	11 - 11	12/21/1993	2.3	
SB-08301	1.5 - 1.5	9/3/1994	1.2	U
SB-08301	4.5 - 4.5	9/3/1994	1.5	U
SB-08301	11.5 - 11.5	9/3/1994	1.3	U
SB-08302	2 - 2	9/3/1994	1.1	U
SB-08302	5 - 5	9/3/1994	1.3	U
SB-08302	11 - 11	9/3/1994	1.3	U
SB-08303	5 - 5	12/13/1993	1.3	U
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	9 - 10	4/15/2002	1.4	U
SB-08333	4 - 5	4/15/2002	1.1	U
SB-08333	9 - 10	4/15/2002	1.3	U
SB-08334	4 - 5	4/23/2002	1.1	U
SB-08334	7.5 - 8.5	4/23/2002	1.1	U
SB-08335	4 - 5	4/23/2002	1.1	U
SB-08335	9 - 10	4/23/2002	1.2	U
SB-08601	1.5 - 1.5	12/20/1993	1.1	U
SB-08601	7 - 7	12/20/1993	1.1	U
SB-08601	11 - 11	12/20/1993	1.3	U
SB-08602	1 - 1	12/9/1993	1	U
SB-08602	7.5 - 7.5	12/9/1993	1.5	U
SB-08604	1.5 - 1.5	9/19/1994	1.1	U
SB-08604	6 - 6	9/19/1994	1.3	U
SB-08604	9 - 9	9/19/1994	1.3	U
SB-08716	3 - 5	11/25/1998	1.4	U
SB-08716	8 - 10	11/25/1998	1.4	U
SB-08717	3 - 5	11/25/1998	1.3	U
SB-08717	8 - 10	11/25/1998	1.4	U
SB-08718	3 - 5	11/25/1998	3.4	
SB-08718	8 - 10	11/25/1998	1.3	U
SB-08719	3 - 5	11/25/1998	1.1	U
SB-08719	8 - 10	11/25/1998	1.3	U
SB-08720	3 - 5	11/25/1998	1.3	U
SB-08720	8 - 10	11/25/1998	1.3	U
SB-08721	3 - 5	11/25/1998	1.3	U
SB-08721	8 - 10	11/25/1998	1.3	U

South Yard Area COC Results
cis-1,2-Dichloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
cis-1,2-Dichlorethene (µg/kg) - 2004 Soil Screening Level = 794 µg/kg; PMCL = 1,620,400 µg/kg[3]				
SB-08722	3 - 5	11/25/1998	1.3	U
SB-08722	8 - 10	11/25/1998	1.4	U
SB-08723	3 - 5	11/25/1998	1.2	U
SB-08723	8 - 10	11/25/1998	1.3	U
SB-08724	3 - 5	11/25/1998	1.1	U
SB-08724	8 - 10	11/25/1998	93	
SB-08743	11 - 11	6/3/1999	1.7	
SB-08746	8 - 8	6/4/1999	12	
SB-08747	9 - 9	6/4/1999	200	
SB-08748	11 - 11	6/4/1999	1.5	U
SB-08754	8 - 10	7/20/1999	1.4	U
SB-08901	5 - 5	12/11/1993	1.4	U
SB-08901	7.5 - 7.5	12/11/1993	4.4	
SB-08903	7.5 - 7.5	12/13/1993	1.2	U
SB-08904	1 - 1	12/9/1993	1.1	U
SB-08904	7.5 - 7.5	12/9/1993	19	
SB-08905	5 - 5	8/24/1994	1.3	U
SB-08905	7.5 - 7.5	8/24/1994	1.1	U
SB-08905	10 - 10	8/24/1994	1.2	U
SB-08915	2 - 2	8/17/1994	1.1	U
SB-08915	5 - 5	8/17/1994	1.1	U
SB-08915	7.5 - 7.5	8/17/1994	240	
SB-08916	2 - 2	9/13/1994	1.1	U
SB-08916	5 - 5	9/13/1994	1.3	U
SB-08917	1 - 1	8/23/1994	1	U
SB-08917	7.5 - 7.5	8/23/1994	100	
SB-08917	10 - 10	8/23/1994	1.3	U
SB-08918	2 - 2	9/13/1994	1.1	U
SB-08918	5 - 5	9/13/1994	1.2	U
SB-08919	2.5 - 2.5	8/18/1994	1.1	U
SB-08919	7.5 - 7.5	8/18/1994	1.3	U
SB-08919	10 - 10	8/18/1994	1.2	U
SB-08920	1 - 1	8/23/1994	1	U
SB-08920	7.5 - 7.5	8/23/1994	1.2	U
SB-08920	10 - 10	8/23/1994	1.3	U
SB-08921	2 - 2	9/13/1994	1	U
SB-08921	5 - 5	9/13/1994	1	U
SB-08922	1 - 1	8/19/1994	1	U
SB-08922	1 - 1	8/19/1994	1	U
SB-08922	5 - 5	8/19/1994	6.3	
SB-08922	10 - 10	8/19/1994	1.3	U
SB-08923	2 - 2	9/13/1994	1.1	U
SB-08923	5 - 5	9/13/1994	1.2	U
SB-08924	2.5 - 2.5	8/18/1994	1	U
SB-08924	2.5 - 2.5	8/18/1994	1	U
SB-08924	7.5 - 7.5	8/18/1994	4.6	
SB-08924	10 - 10	8/18/1994	1.3	U
SB-08930	3 - 5	11/24/1998	1.1	U
SB-08930	8 - 10	11/24/1998	1.2	U

South Yard Area COC Results
cis-1,2-Dichloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
cis-1,2-Dichlorethene (µg/kg) - 2004 Soil Screening Level = 794 µg/kg; PMCL = 1,620,400 µg/kg[3]				
SB-08931	3 - 5	11/24/1998	1.1	U
SB-08931	8 - 10	11/24/1998	1.2	U
SB-08932	3 - 5	11/24/1998	1.1	U
SB-08932	8 - 10	11/24/1998	1.2	U
SB-08933	3 - 5	11/24/1998	1.2	U
SB-08933	8 - 10	11/24/1998	1.2	U
SB-08934	3 - 5	11/24/1998	1.2	U
SB-08934	8 - 10	11/24/1998	8.8	U
SB-08935	3 - 5	11/24/1998	1.1	U
SB-08935	8 - 10	11/24/1998	1.3	U
SB-08936	3 - 5	11/24/1998	1.1	U
SB-08936	8 - 10	11/24/1998	1.3	U
SB-08937	3 - 5	11/24/1998	1.2	U
SB-08937	8 - 10	11/24/1998	1.3	U
SB-08938	3 - 5	11/24/1998	1.1	U
SB-08938	8 - 10	11/24/1998	1.2	U
SB-08939	3 - 5	11/24/1998	1.2	U
SB-08939	8 - 10	11/24/1998	1.3	U
SB-08940	3 - 5	11/24/1998	1.1	U
SB-08940	8 - 10	11/24/1998	1.3	U
SB-08941	8 - 8	5/25/1999	1.4	U
SB-08942	11 - 11	5/25/1999	1.3	U
SB-08943	11 - 11	5/25/1999	1.9	
SB-08944	11 - 11	5/25/1999	1.4	U
SB-08945	8 - 8	5/25/1999	1000	
SB-09101	2 - 2	9/12/1994	1	U
SB-09101	5 - 5	9/12/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	5 - 5	8/16/1994	70	
SB-09102	7.5 - 7.5	8/16/1994	46	
SB-09103	2.5 - 2.5	8/16/1994	1	U
SB-09103	7.5 - 7.5	8/16/1994	20	
SB-09103	10 - 10	8/16/1994	1.3	U
SB-09104	1 - 1	8/16/1994	1	U
SB-09104	7.5 - 7.5	8/16/1994	1500	D
SB-09104	10 - 10	8/16/1994	1.3	
SB-09105	2 - 2	9/12/1994	1.1	U
SB-09105	5 - 5	9/12/1994	1.4	U
SB-09106	2 - 2	9/12/1994	1.1	U
SB-09106	5 - 5	9/12/1994	1.2	U
SB-10401	10 - 10	3/15/1994	150	U
SB116-B1	5 - 5	9/13/1991	1.2	U
SB116-B1	8 - 8	9/13/1991	8.6	
SB116-B1	9.5 - 9.5	9/13/1991	1.3	U
SB116-B2	2 - 2	9/13/1991	1	U
SB116-B2	7 - 7	9/13/1991	1.1	U
SB116-B2	12 - 12	9/13/1991	1.3	U
SB116-B3	2 - 2	9/13/1991	1.4	U

South Yard Area COC Results
cis-1,2-Dichloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
cis-1,2-Dichlorethene (µg/kg) - 2004 Soil Screening Level = 794 µg/kg; PMCL = 1,620,400 µg/kg[3]				
SB116-B3	7 - 7	9/13/1991	2.5	
SB116-B3	12 - 12	9/13/1991	1.3	U
SB-28201	1 - 1	12/9/1993	1.2	U
SB-28201	7.5 - 7.5	12/9/1993	1.1	U
SB-284-01	4 - 4.5	4/27/1992	1.1	U
SB-284-01	8 - 8.5	4/27/1992	1.4	U
SB-284-02	4 - 4.5	4/27/1992	1.2	U
SB-284-02	6 - 6.5	4/27/1992	1.2	U
SS-09101	0 - 0.5	11/29/1993	1.2	U
SS-09102	0 - 0.5	11/19/1993	4.7	
SS-09103	0 - 0.5	11/24/1993	3	
SS-09104	0 - 0.5	11/22/1993	340	U
SS-09105	0 - 0.5	11/16/1993	1.6	
SS-09106	0 - 0.5	11/18/1993	1.2	U
SS-09107	0 - 0.5	11/16/1993	4.1	U
SS-09108	0 - 0.5	11/17/1993	1	U
SS-09109	0 - 0.5	11/19/1993	1.1	U
SS-09110	0 - 0.5	11/17/1993	4	
SS-09111	0 - 0.5	11/23/1993	1	U
SS-09111	0 - 0.5	11/23/1993	1	U
SS-09112	0 - 0.5	11/29/1993	160	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Ethylbenzene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Ethylbenzene (µg/kg) - 2004 Soil Screening Level = 2,520 µg/kg; PMCL = 43,000 µg/kg[3]				
288-1	3 - 3	8/13/1991	1.1	U
288-1	8 - 8	8/13/1991	1.5	U
288-10	1.5 - 1.5	8/13/1991	1.2	U
288-11	0.5 - 0.5	8/13/1991	1.2	U
288-12	0.5 - 0.5	8/13/1991	1	U
288-14	3 - 3	8/13/1991	1.2	U
288-14	8 - 8	8/13/1991	5.6	
288-16	4 - 4	8/14/1991	1	U
288-17	4 - 4	8/14/1991	1	U
288-18	4 - 4	8/14/1991	1.1	U
288-19	4 - 4	8/14/1991	8.9	
288-2	3 - 3	8/13/1991	1	U
288-2	8 - 8	8/13/1991	1.4	U
288-20	4 - 4	8/14/1991	1	U
288-21	4 - 4	8/14/1991	1	U
288-22	4 - 4	8/14/1991	1.1	U
288-23	4 - 4	8/14/1991	1.1	U
288-24	4 - 4	8/14/1991	1	U
288-3	3 - 3	8/13/1991	1	U
288-4	3 - 3	8/13/1991	670	U
288-5	1 - 1	8/13/1991	1400	U
288-5	3 - 3	8/13/1991	800	N
288-6	1 - 1	8/13/1991	5.3	U
288-6	3 - 3	8/13/1991	130	N
288-7	3 - 3	8/13/1991	1.1	U
288-8	3 - 3	8/13/1991	1	U
288-8	8 - 8	8/13/1991	1.4	U
288-9	1.5 - 1.5	8/13/1991	1.2	U
EX-1	8 - 8	10/23/1992	260000	
EX-3	8 - 8	10/23/1992	11000	
EX-5	10.5 - 10.5	10/23/1992	280	
HA-284-03	2 - 2.5	4/27/1992	1	U
HA-284-03	4 - 4.5	4/27/1992	1.7	U
PL2-101A	11 - 11	10/28/1985	5	U
PL2-103A	4 - 4	10/28/1985	5	U
PL2-103A	7 - 7	10/28/1985	5	U
PL2-103A	10 - 10	10/28/1985	5	U
PL2-104B	6 - 6	6/24/1992	1.4	U
PL2-104B	11 - 11	6/24/1992	1.3	U
PL2-105C	3 - 3	6/25/1992	1	U
PL2-105C	10 - 10	6/25/1992	1.3	U
PL2-106C	7 - 7	6/18/1992	1.4	U
PL2-106C	12 - 12	6/18/1992	1.4	U
PL2-109B	9 - 9	7/7/1992	1.3	U
PL2-109C	6 - 6	7/6/1992	1.2	U
PL2-109C	9 - 9	7/6/1992	1.3	U
PL2-110C	6 - 6	6/22/1992	1.1	U
PL2-110C	9 - 9	6/22/1992	810	
PL2-111A	1 - 1	12/9/1993	1.1	U

South Yard Area COC Results
Ethylbenzene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Ethylbenzene (µg/kg) - 2004 Soil Screening Level = 2,520 µg/kg; PMCL = 43,000 µg/kg[3]				
PL2-111A	7.5 - 7.5	12/9/1993	1.3	U
PL2-112A	5.5 - 5.5	1/10/1989	18	
PL2-114A	8 - 8	1/10/1989	1600	
PL2-114A	10.5 - 10.5	1/10/1989	680	
PL2-115A	2 - 2	7/27/1989	0.9	U
PL2-115A	5 - 5	7/27/1989	1	U
PL2-115A	8.5 - 8.5	7/27/1989	1.9	
PL2-115A	10 - 10	7/27/1989	2.1	
PL2-116A	2 - 2	7/26/1989	0.8	U
PL2-116A	5 - 5	7/26/1989	0.9	U
PL2-116A	8.5 - 8.5	7/26/1989	1	U
PL2-116A	10 - 10	7/26/1989	1	U
PL2-117A	7.5 - 7.5	1/11/1989	310	U
PL2-301A	5 - 5	7/8/1992	1.3	U
PL2-301A	10 - 10	7/8/1992	1.2	U
PL2-302A	5 - 5	7/8/1992	1	U
PL2-302A	10 - 10	7/8/1992	1.3	U
PL2-303A	5 - 5	7/8/1992	1.2	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL31-B1	9 - 9	3/24/1992	1.4	U
PL31-B2	8.5 - 8.5	3/24/1992	1.1	U
PL31-P1	1.8 - 1.8	3/24/1992	1	U
PL31-S1	4.6 - 4.6	3/24/1992	1.1	U
PL31-S2	5 - 5	3/24/1992	1	U
PL31-S3	5.5 - 5.5	3/24/1992	1	U
PL31-S4	5.9 - 5.9	3/24/1992	1	U
PL66-B1	5.5 - 5.5	10/28/1991	1.1	U
PL66-B1	10.5 - 10.5	10/28/1991	1.3	U
PL66-B2	5.5 - 5.5	10/28/1991	1.2	U
PL66-B2	10.5 - 10.5	10/28/1991	1.3	U
SB-08005	11 - 11	9/22/1994	1.3	
SB-08008	3.5 - 3.5	2/15/1995	1.1	U
SB-08008	6.5 - 6.5	2/15/1995	1.1	U
SB-08008	11.5 - 11.5	2/15/1995	1.3	U
SB-08009	0.6 - 0.6	2/16/1995	1.1	U
SB-08009	6 - 6	2/16/1995	1.2	U
SB-08010	0.5 - 0.5	2/16/1995	1	U
SB-08010	6 - 6	2/16/1995	1.3	U
SB-08201	6.5 - 6.5	12/21/1993	1.1	U
SB-08201	8 - 8	12/21/1993	1.3	U
SB-08201	11 - 11	12/21/1993	1.3	U
SB-08301	1.5 - 1.5	9/3/1994	1.2	U
SB-08301	4.5 - 4.5	9/3/1994	1.5	U
SB-08301	11.5 - 11.5	9/3/1994	1.3	U
SB-08302	2 - 2	9/3/1994	1.1	U
SB-08302	5 - 5	9/3/1994	1.3	U
SB-08302	11 - 11	9/3/1994	1.3	U
SB-08303	5 - 5	12/13/1993	1.3	U

South Yard Area COC Results
Ethylbenzene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Ethylbenzene (µg/kg) - 2004 Soil Screening Level = 2,520 µg/kg; PMCL = 43,000 µg/kg[3]				
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	9 - 10	4/15/2002	1.4	U
SB-08333	4 - 5	4/15/2002	1.1	U
SB-08333	9 - 10	4/15/2002	1.3	U
SB-08334	4 - 5	4/23/2002	1.1	U
SB-08334	7.5 - 8.5	4/23/2002	1.1	U
SB-08335	4 - 5	4/23/2002	1.1	U
SB-08335	9 - 10	4/23/2002	1.2	U
SB-08601	1.5 - 1.5	12/20/1993	1.1	U
SB-08601	7 - 7	12/20/1993	1.1	U
SB-08601	11 - 11	12/20/1993	1.3	U
SB-08602	1 - 1	12/9/1993	1	U
SB-08602	7.5 - 7.5	12/9/1993	1.5	U
SB-08604	1.5 - 1.5	9/19/1994	1.1	U
SB-08604	6 - 6	9/19/1994	1.3	U
SB-08604	9 - 9	9/19/1994	1.3	U
SB-08716	3 - 5	11/25/1998	1.4	U
SB-08716	8 - 10	11/25/1998	1.4	U
SB-08717	3 - 5	11/25/1998	1.3	U
SB-08717	8 - 10	11/25/1998	1.4	U
SB-08718	3 - 5	11/25/1998	1.3	U
SB-08718	8 - 10	11/25/1998	1.3	U
SB-08719	3 - 5	11/25/1998	1.1	U
SB-08719	8 - 10	11/25/1998	1.3	U
SB-08720	3 - 5	11/25/1998	1.3	U
SB-08720	8 - 10	11/25/1998	1.3	U
SB-08721	3 - 5	11/25/1998	1.3	U
SB-08721	8 - 10	11/25/1998	1.3	U
SB-08722	3 - 5	11/25/1998	1.3	U
SB-08722	8 - 10	11/25/1998	1.4	U
SB-08723	3 - 5	11/25/1998	1.2	U
SB-08723	8 - 10	11/25/1998	1.3	U
SB-08724	3 - 5	11/25/1998	1.1	U
SB-08724	8 - 10	11/25/1998	1.5	U
SB-08901	5 - 5	12/11/1993	1.4	U
SB-08901	7.5 - 7.5	12/11/1993	1.3	U
SB-08903	7.5 - 7.5	12/13/1993	1.2	U
SB-08904	1 - 1	12/9/1993	1.1	U
SB-08904	7.5 - 7.5	12/9/1993	1.3	U
SB-08905	5 - 5	8/24/1994	12	
SB-08905	7.5 - 7.5	8/24/1994	1.1	U
SB-08905	10 - 10	8/24/1994	1.2	U
SB-08915	2 - 2	8/17/1994	2.4	UI
SB-08915	5 - 5	8/17/1994	1.1	U
SB-08915	7.5 - 7.5	8/17/1994	12	
SB-08916	2 - 2	9/13/1994	1.1	U
SB-08916	5 - 5	9/13/1994	1.3	U
SB-08917	1 - 1	8/23/1994	1	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Ethylbenzene (µg/kg) - 2004 Soil Screening Level = 2,520 µg/kg; PMCL = 43,000 µg/kg[3]				
SB-08917	7.5 - 7.5	8/23/1994	60	
SB-08917	10 - 10	8/23/1994	52	
SB-08918	2 - 2	9/13/1994	1.1	U
SB-08918	5 - 5	9/13/1994	1.2	U
SB-08919	2.5 - 2.5	8/18/1994	1.1	U
SB-08919	7.5 - 7.5	8/18/1994	1.3	U
SB-08919	10 - 10	8/18/1994	1.2	U
SB-08920	1 - 1	8/23/1994	1	U
SB-08920	7.5 - 7.5	8/23/1994	1.2	U
SB-08920	10 - 10	8/23/1994	1.3	U
SB-08921	2 - 2	9/13/1994	1	U
SB-08921	5 - 5	9/13/1994	1	U
SB-08922	1 - 1	8/19/1994	1	U
SB-08922	1 - 1	8/19/1994	1	U
SB-08922	5 - 5	8/19/1994	1.2	U
SB-08922	10 - 10	8/19/1994	1.3	U
SB-08923	2 - 2	9/13/1994	1.1	U
SB-08923	5 - 5	9/13/1994	1.2	U
SB-08924	2.5 - 2.5	8/18/1994	1	U
SB-08924	2.5 - 2.5	8/18/1994	1	U
SB-08924	7.5 - 7.5	8/18/1994	530	D
SB-08924	10 - 10	8/18/1994	190	D
SB-08930	3 - 5	11/24/1998	1.1	U
SB-08930	8 - 10	11/24/1998	1.2	U
SB-08931	3 - 5	11/24/1998	1.1	U
SB-08931	8 - 10	11/24/1998	1.2	U
SB-08932	3 - 5	11/24/1998	1.1	U
SB-08932	8 - 10	11/24/1998	1.2	U
SB-08933	3 - 5	11/24/1998	1.2	U
SB-08933	8 - 10	11/24/1998	1.2	U
SB-08934	3 - 5	11/24/1998	1.2	U
SB-08934	8 - 10	11/24/1998	8.8	U
SB-08935	3 - 5	11/24/1998	1.1	U
SB-08935	8 - 10	11/24/1998	1.3	U
SB-08936	3 - 5	11/24/1998	1.1	U
SB-08936	8 - 10	11/24/1998	1.3	U
SB-08937	3 - 5	11/24/1998	1.2	U
SB-08937	8 - 10	11/24/1998	1.3	U
SB-08938	3 - 5	11/24/1998	1.1	U
SB-08938	8 - 10	11/24/1998	1.2	U
SB-08939	3 - 5	11/24/1998	1.2	U
SB-08939	8 - 10	11/24/1998	1.3	U
SB-08940	3 - 5	11/24/1998	1.1	U
SB-08940	8 - 10	11/24/1998	1.3	U
SB-09101	2 - 2	9/12/1994	1	U
SB-09101	5 - 5	9/12/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	5 - 5	8/16/1994	1.4	U

South Yard Area COC Results
Ethylbenzene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Ethylbenzene (µg/kg) - 2004 Soil Screening Level = 2,520 µg/kg; PMCL = 43,000 µg/kg[3]				
SB-09102	7.5 - 7.5	8/16/1994	1.4	U
SB-09103	2.5 - 2.5	8/16/1994	1	U
SB-09103	7.5 - 7.5	8/16/1994	1.4	U
SB-09103	10 - 10	8/16/1994	1.3	U
SB-09104	1 - 1	8/16/1994	1	U
SB-09104	7.5 - 7.5	8/16/1994	64	
SB-09104	10 - 10	8/16/1994	11	
SB-09105	2 - 2	9/12/1994	1.1	U
SB-09105	5 - 5	9/12/1994	1.4	U
SB-09106	2 - 2	9/12/1994	1.1	U
SB-09106	5 - 5	9/12/1994	1.2	U
SB-10401	10 - 10	3/15/1994	150	U
SB116-B1	5 - 5	9/13/1991	1.2	U
SB116-B1	8 - 8	9/13/1991	1.4	U
SB116-B1	9.5 - 9.5	9/13/1991	1.3	U
SB116-B2	2 - 2	9/13/1991	1	U
SB116-B2	7 - 7	9/13/1991	1.1	U
SB116-B2	12 - 12	9/13/1991	1.3	U
SB116-B3	2 - 2	9/13/1991	1.4	U
SB116-B3	7 - 7	9/13/1991	1.4	U
SB116-B3	12 - 12	9/13/1991	1.3	U
SB-28201	1 - 1	12/9/1993	1.2	U
SB-28201	7.5 - 7.5	12/9/1993	1.1	U
SB-284-01	4 - 4.5	4/27/1992	1.1	U
SB-284-01	8 - 8.5	4/27/1992	1.4	U
SB-284-02	4 - 4.5	4/27/1992	1.2	U
SB-284-02	6 - 6.5	4/27/1992	1.2	U
SB291-10	2.5 - 2.5	1/11/1989	1.8	U
SB291-16	2 - 2	7/26/1989	0.8	U
SB291-16	5 - 5	7/26/1989	4.1	U
SB291-16	9.5 - 9.5	7/26/1989	1	U
SB291-17	2 - 2	7/26/1989	0.8	U
SB291-17	5 - 5	7/26/1989	1	U
SB291-17	9.5 - 9.5	7/26/1989	1	U
SB291-3	2.5 - 2.5	1/12/1989	53	U
SB291-3	7.5 - 7.5	1/12/1989	220	U
SB291-3	9.5 - 9.5	1/12/1989	5	U
SB291-4	5 - 5	1/12/1989	1.6	U
SB291-5	5 - 5	1/12/1989	2.3	U
SB291-6	2.5 - 2.5	1/12/1989	55	U
SB291-8	5 - 5	1/11/1989	150	
SB291-8	10 - 10	1/11/1989	140	
SB291-9	2.5 - 2.5	1/12/1989	1.9	U
SB291-9	5 - 5	1/12/1989	3.8	U
SB291-9	9.5 - 9.5	1/12/1989	150	
SB297-2	2 - 2	7/25/1989	0.5	N
SB297-2	5 - 5	7/25/1989	0.9	U
SB297-2	10.5 - 10.5	7/25/1989	1.1	U
SB297-3	2 - 2	7/25/1989	0.8	U

South Yard Area COC Results
Ethylbenzene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Ethylbenzene (µg/kg) - 2004 Soil Screening Level = 2,520 µg/kg; PMCL = 43,000 µg/kg[3]				
SB297-3	5 - 5	7/25/1989	1	U
SB297-3	9.5 - 9.5	7/25/1989	1	U
SS-09101	0 - 0.5	11/29/1993	1.2	U
SS-09102	0 - 0.5	11/19/1993	1.1	U
SS-09103	0 - 0.5	11/24/1993	1.1	U
SS-09104	0 - 0.5	11/22/1993	340	U
SS-09105	0 - 0.5	11/16/1993	1.2	U
SS-09106	0 - 0.5	11/18/1993	1.2	U
SS-09107	0 - 0.5	11/16/1993	4.1	U
SS-09108	0 - 0.5	11/17/1993	1	U
SS-09109	0 - 0.5	11/19/1993	1.1	U
SS-09110	0 - 0.5	11/17/1993	1.1	U
SS-09111	0 - 0.5	11/23/1993	1	U
SS-09111	0 - 0.5	11/23/1993	1	U
SS-09112	0 - 0.5	11/29/1993	160	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Methylene Chloride (µg/kg) - 2004 Soil Screening Level = 828 µg/kg; PMCL = 96,000 µg/kg[3]				
288-1	3 - 3	8/13/1991	1.5	JB
288-1	8 - 8	8/13/1991	1.9	JB
288-10	1.5 - 1.5	8/13/1991	2.2	JB
288-11	0.5 - 0.5	8/13/1991	1.6	JB
288-12	0.5 - 0.5	8/13/1991	0.9	J
288-14	3 - 3	8/13/1991	1.7	JB
288-14	8 - 8	8/13/1991	1.3	JB
288-16	4 - 4	8/14/1991	1.2	B
288-17	4 - 4	8/14/1991	0.7	NB
288-18	4 - 4	8/14/1991	1.1	U
288-19	4 - 4	8/14/1991	1	J
288-2	3 - 3	8/13/1991	1.2	JB
288-2	8 - 8	8/13/1991	2	JB
288-20	4 - 4	8/14/1991	1	J
288-21	4 - 4	8/14/1991	0.9	J
288-22	4 - 4	8/14/1991	1.2	
288-23	4 - 4	8/14/1991	0.9	J
288-24	4 - 4	8/14/1991	1	U
288-3	3 - 3	8/13/1991	1	JB
288-4	3 - 3	8/13/1991	470	JB
288-5	1 - 1	8/13/1991	1900	JB
288-5	3 - 3	8/13/1991	1100	JB
288-6	1 - 1	8/13/1991	4.8	JB
288-6	3 - 3	8/13/1991	11	JB
288-7	3 - 3	8/13/1991	0.9	JB
288-8	3 - 3	8/13/1991	0.7	JB
288-8	8 - 8	8/13/1991	1.6	JB
288-9	1.5 - 1.5	8/13/1991	0.9	JB
HA-284-03	2 - 2.5	4/27/1992	6	
HA-284-03	4 - 4.5	4/27/1992	7.3	
PL2-101A	11 - 11	10/28/1985	30	
PL2-103A	4 - 4	10/28/1985	27	
PL2-103A	7 - 7	10/28/1985	5	U
PL2-103A	10 - 10	10/28/1985	120	
PL2-104B	6 - 6	6/24/1992	2.8	U
PL2-104B	11 - 11	6/24/1992	2.5	U
PL2-105C	3 - 3	6/25/1992	2.1	U
PL2-105C	10 - 10	6/25/1992	2.6	U
PL2-106C	7 - 7	6/18/1992	2.9	U
PL2-106C	12 - 12	6/18/1992	2.8	J
PL2-109B	9 - 9	7/7/1992	2.5	U
PL2-109C	6 - 6	7/6/1992	1.2	U
PL2-109C	9 - 9	7/6/1992	1.3	U
PL2-110C	6 - 6	6/22/1992	2.3	U
PL2-110C	9 - 9	6/22/1992	330	U
PL2-111A	1 - 1	12/9/1993	2.2	U
PL2-111A	7.5 - 7.5	12/9/1993	2.6	U
PL2-112A	5.5 - 5.5	1/10/1989	14	J
PL2-114A	8 - 8	1/10/1989	5	

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Methylene Chloride (µg/kg) - 2004 Soil Screening Level = 828 µg/kg; PMCL = 96,000 µg/kg[3]				
PL2-114A	10.5 - 10.5	1/10/1989	530	U
PL2-115A	2 - 2	7/27/1989	1.3	JB
PL2-115A	5 - 5	7/27/1989	1.2	J
PL2-115A	8.5 - 8.5	7/27/1989	3	J
PL2-115A	10 - 10	7/27/1989	7.6	
PL2-116A	2 - 2	7/26/1989	1.5	JB
PL2-116A	5 - 5	7/26/1989	1.8	JB
PL2-116A	8.5 - 8.5	7/26/1989	1.1	JB
PL2-116A	10 - 10	7/26/1989	1.7	JB
PL2-117A	7.5 - 7.5	1/11/1989	1300	U
PL2-301A	5 - 5	7/8/1992	5.8	B
PL2-301A	10 - 10	7/8/1992	2.5	U
PL2-302A	5 - 5	7/8/1992	2	U
PL2-302A	10 - 10	7/8/1992	2.6	U
PL2-303A	5 - 5	7/8/1992	2.3	U
PL2-303A	10 - 10	7/8/1992	2.5	U
PL2-303A	10 - 10	7/8/1992	2.5	U
PL31-B1	9 - 9	3/24/1992	2.7	U
PL31-B2	8.5 - 8.5	3/24/1992	2.3	U
PL31-P1	1.8 - 1.8	3/24/1992	2	U
PL31-S1	4.6 - 4.6	3/24/1992	2.1	U
PL31-S2	5 - 5	3/24/1992	2	U
PL31-S3	5.5 - 5.5	3/24/1992	2.1	U
PL31-S4	5.9 - 5.9	3/24/1992	1.9	U
PL66-B1	5.5 - 5.5	10/28/1991	2.2	U
PL66-B1	10.5 - 10.5	10/28/1991	2.5	U
PL66-B2	5.5 - 5.5	10/28/1991	2.4	U
PL66-B2	10.5 - 10.5	10/28/1991	2.6	U
SB-08005	11 - 11	9/22/1994	2.6	U
SB-08008	3.5 - 3.5	2/15/1995	2.2	U
SB-08008	6.5 - 6.5	2/15/1995	2.2	U
SB-08008	11.5 - 11.5	2/15/1995	2.6	U
SB-08009	0.6 - 0.6	2/16/1995	2.2	U
SB-08009	6 - 6	2/16/1995	2.3	U
SB-08010	0.5 - 0.5	2/16/1995	2.1	U
SB-08010	6 - 6	2/16/1995	2.5	U
SB-08201	6.5 - 6.5	12/21/1993	2.2	U
SB-08201	8 - 8	12/21/1993	2.6	U
SB-08201	11 - 11	12/21/1993	2.5	U
SB-08301	1.5 - 1.5	9/3/1994	2.7	UB
SB-08301	4.5 - 4.5	9/3/1994	3	U
SB-08301	11.5 - 11.5	9/3/1994	2.5	U
SB-08302	2 - 2	9/3/1994	3.3	UB
SB-08302	5 - 5	9/3/1994	3.7	UB
SB-08302	11 - 11	9/3/1994	2.7	UB
SB-08303	5 - 5	12/13/1993	2.7	U
SB-08332	4 - 5	4/15/2002	3.4	U
SB-08332	4 - 5	4/15/2002	3.3	U
SB-08332	9 - 10	4/15/2002	4.1	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Methylene Chloride (µg/kg) - 2004 Soil Screening Level = 828 µg/kg; PMCL = 96,000 µg/kg[3]				
SB-08333	4 - 5	4/15/2002	3.4	U
SB-08333	9 - 10	4/15/2002	3.9	U
SB-08334	4 - 5	4/23/2002	3.3	U
SB-08334	7.5 - 8.5	4/23/2002	3.3	U
SB-08335	4 - 5	4/23/2002	3.4	U
SB-08335	9 - 10	4/23/2002	3.5	U
SB-08601	1.5 - 1.5	12/20/1993	2.3	U
SB-08601	7 - 7	12/20/1993	2.2	U
SB-08601	11 - 11	12/20/1993	2.5	U
SB-08602	1 - 1	12/9/1993	2.1	U
SB-08602	7.5 - 7.5	12/9/1993	4.5	
SB-08604	1.5 - 1.5	9/19/1994	2.2	U
SB-08604	6 - 6	9/19/1994	2.6	U
SB-08604	9 - 9	9/19/1994	2.6	U
SB-08716	3 - 5	11/25/1998	3.9	
SB-08716	8 - 10	11/25/1998	2.7	U
SB-08717	3 - 5	11/25/1998	3.2	
SB-08717	8 - 10	11/25/1998	2.7	U
SB-08718	3 - 5	11/25/1998	3.3	
SB-08718	8 - 10	11/25/1998	2.7	U
SB-08719	3 - 5	11/25/1998	2.2	U
SB-08719	8 - 10	11/25/1998	3.2	
SB-08720	3 - 5	11/25/1998	2.8	
SB-08720	8 - 10	11/25/1998	3.1	
SB-08721	3 - 5	11/25/1998	3.2	
SB-08721	8 - 10	11/25/1998	2.5	U
SB-08722	3 - 5	11/25/1998	4.2	
SB-08722	8 - 10	11/25/1998	3	
SB-08723	3 - 5	11/25/1998	3.1	
SB-08723	8 - 10	11/25/1998	3.5	
SB-08724	3 - 5	11/25/1998	2.2	U
SB-08724	8 - 10	11/25/1998	4	
SB-08901	5 - 5	12/11/1993	2.9	U
SB-08901	7.5 - 7.5	12/11/1993	2.7	U
SB-08903	7.5 - 7.5	12/13/1993	2.4	U
SB-08904	1 - 1	12/9/1993	2.1	U
SB-08904	7.5 - 7.5	12/9/1993	2.9	
SB-08905	5 - 5	8/24/1994	4.3	J
SB-08905	7.5 - 7.5	8/24/1994	2.4	J
SB-08905	10 - 10	8/24/1994	2.5	U
SB-08915	2 - 2	8/17/1994	2.2	U
SB-08915	5 - 5	8/17/1994	2.2	U
SB-08915	7.5 - 7.5	8/17/1994	2.7	
SB-08916	2 - 2	9/13/1994	2.2	U
SB-08916	5 - 5	9/13/1994	2.5	
SB-08917	1 - 1	8/23/1994	2	U
SB-08917	7.5 - 7.5	8/23/1994	3.2	
SB-08917	10 - 10	8/23/1994	2.6	U
SB-08918	2 - 2	9/13/1994	2.2	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Methylene Chloride (µg/kg) - 2004 Soil Screening Level = 828 µg/kg; PMCL = 96,000 µg/kg[3]				
SB-08918	5 - 5	9/13/1994	3.1	
SB-08919	2.5 - 2.5	8/18/1994	2.2	U
SB-08919	7.5 - 7.5	8/18/1994	2.6	U
SB-08919	10 - 10	8/18/1994	2.5	U
SB-08920	1 - 1	8/23/1994	2.1	U
SB-08920	7.5 - 7.5	8/23/1994	2.4	
SB-08920	10 - 10	8/23/1994	2.6	U
SB-08921	2 - 2	9/13/1994	2.1	U
SB-08921	5 - 5	9/13/1994	2.1	U
SB-08922	1 - 1	8/19/1994	2	U
SB-08922	1 - 1	8/19/1994	2	U
SB-08922	5 - 5	8/19/1994	2.3	U
SB-08922	10 - 10	8/19/1994	2.5	U
SB-08923	2 - 2	9/13/1994	2.2	U
SB-08923	5 - 5	9/13/1994	2.5	U
SB-08924	2.5 - 2.5	8/18/1994	2.1	U
SB-08924	2.5 - 2.5	8/18/1994	2	U
SB-08924	7.5 - 7.5	8/18/1994	2.7	U
SB-08924	10 - 10	8/18/1994	2.6	U
SB-08930	3 - 5	11/24/1998	2.4	UJ
SB-08930	8 - 10	11/24/1998	5.1	UJ
SB-08931	3 - 5	11/24/1998	3.4	UJ
SB-08931	8 - 10	11/24/1998	3.9	UJ
SB-08932	3 - 5	11/24/1998	2.2	U
SB-08932	8 - 10	11/24/1998	3.9	UJ
SB-08933	3 - 5	11/24/1998	2.4	UJ
SB-08933	8 - 10	11/24/1998	2.4	UJ
SB-08934	3 - 5	11/24/1998	3.2	UJ
SB-08934	8 - 10	11/24/1998	38	UJ
SB-08935	3 - 5	11/24/1998	2.8	UJ
SB-08935	8 - 10	11/24/1998	3	UJ
SB-08936	3 - 5	11/24/1998	4	UJ
SB-08936	8 - 10	11/24/1998	5.2	UJ
SB-08937	3 - 5	11/24/1998	2.9	UJ
SB-08937	8 - 10	11/24/1998	2.9	UJ
SB-08938	3 - 5	11/24/1998	2.2	U
SB-08938	8 - 10	11/24/1998	2.7	UJ
SB-08939	3 - 5	11/24/1998	2.3	U
SB-08939	8 - 10	11/24/1998	2.6	U
SB-08940	3 - 5	11/24/1998	2.7	UJ
SB-08940	8 - 10	11/24/1998	3.3	UJ
SB-09101	2 - 2	9/12/1994	2.1	U
SB-09101	5 - 5	9/12/1994	2.3	U
SB-09102	1 - 1	8/16/1994	2.1	U
SB-09102	1 - 1	8/16/1994	2.1	U
SB-09102	5 - 5	8/16/1994	4.4	
SB-09102	7.5 - 7.5	8/16/1994	2.8	U
SB-09103	2.5 - 2.5	8/16/1994	2.1	U
SB-09103	7.5 - 7.5	8/16/1994	2.8	U

South Yard Area COC Results
Methylene Chloride Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Methylene Chloride (µg/kg) - 2004 Soil Screening Level = 828 µg/kg; PMCL = 96,000 µg/kg[3]				
SB-09103	10 - 10	8/16/1994	2.6	U
SB-09104	1 - 1	8/16/1994	2.1	U
SB-09104	7.5 - 7.5	8/16/1994	3	U
SB-09104	10 - 10	8/16/1994	2.6	U
SB-09105	2 - 2	9/12/1994	2.1	U
SB-09105	5 - 5	9/12/1994	2.8	U
SB-09106	2 - 2	9/12/1994	2.1	U
SB-09106	5 - 5	9/12/1994	2.4	U
SB-10401	10 - 10	3/15/1994	310	U
SB116-B1	5 - 5	9/13/1991	2.4	U
SB116-B1	8 - 8	9/13/1991	2.8	U
SB116-B1	9.5 - 9.5	9/13/1991	2.6	U
SB116-B2	2 - 2	9/13/1991	2.1	U
SB116-B2	7 - 7	9/13/1991	2.3	U
SB116-B2	12 - 12	9/13/1991	2.6	U
SB116-B3	2 - 2	9/13/1991	2.8	U
SB116-B3	7 - 7	9/13/1991	2.8	U
SB116-B3	12 - 12	9/13/1991	2.6	U
SB-28201	1 - 1	12/9/1993	25	J
SB-28201	7.5 - 7.5	12/9/1993	19	J
SB-284-01	4 - 4.5	4/27/1992	2.2	
SB-284-01	8 - 8.5	4/27/1992	3.1	
SB-284-02	4 - 4.5	4/27/1992	15	
SB-284-02	6 - 6.5	4/27/1992	6.1	
SB291-10	2.5 - 2.5	1/11/1989	7.8	U
SB291-16	2 - 2	7/26/1989	1.9	JB
SB291-16	5 - 5	7/26/1989	6.9	JB
SB291-16	9.5 - 9.5	7/26/1989	2.2	JB
SB291-17	2 - 2	7/26/1989	1.9	JB
SB291-17	5 - 5	7/26/1989	13	B
SB291-17	9.5 - 9.5	7/26/1989	3.7	JB
SB291-3	2.5 - 2.5	1/12/1989	100	B
SB291-3	7.5 - 7.5	1/12/1989	920	U
SB291-3	9.5 - 9.5	1/12/1989	59	B
SB291-4	5 - 5	1/12/1989	6.7	U
SB291-5	5 - 5	1/12/1989	9.3	U
SB291-6	2.5 - 2.5	1/12/1989	470	B
SB291-8	5 - 5	1/11/1989	490	U
SB291-8	10 - 10	1/11/1989	470	U
SB291-9	2.5 - 2.5	1/12/1989	6.6	J
SB291-9	5 - 5	1/12/1989	16	U
SB291-9	9.5 - 9.5	1/12/1989	3.7	J
SB297-2	2 - 2	7/25/1989	1.7	JB
SB297-2	5 - 5	7/25/1989	1.6	JB
SB297-2	10.5 - 10.5	7/25/1989	2.4	JB
SB297-3	2 - 2	7/25/1989	2.3	JB
SB297-3	5 - 5	7/25/1989	3.6	JB
SB297-3	9.5 - 9.5	7/25/1989	0.4	JB
SS-09101	0 - 0.5	11/29/1993	2.3	U

South Yard Area COC Results
Methylene Chloride Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Methylene Chloride (µg/kg) - 2004 Soil Screening Level = 828 µg/kg; PMCL = 96,000 µg/kg[3]				
SS-09102	0 - 0.5	11/19/1993	17	
SS-09103	0 - 0.5	11/24/1993	2.3	U
SS-09104	0 - 0.5	11/22/1993	680	U
SS-09105	0 - 0.5	11/16/1993	3.5	UB
SS-09106	0 - 0.5	11/18/1993	2.3	U
SS-09107	0 - 0.5	11/16/1993	8.1	U
SS-09108	0 - 0.5	11/17/1993	2.1	U
SS-09109	0 - 0.5	11/19/1993	2.2	U
SS-09110	0 - 0.5	11/17/1993	2.2	U
SS-09111	0 - 0.5	11/23/1993	2.1	U
SS-09111	0 - 0.5	11/23/1993	2	U
SS-09112	0 - 0.5	11/29/1993	310	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Tetrachloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Tetrachloroethene (µg/kg) - 2004 Soil Screening Level = 8.72 µg/kg; PMCL = 890 µg/kg[3]				
288-1	3 - 3	8/13/1991	1.1	U
288-1	8 - 8	8/13/1991	1.5	U
288-10	1.5 - 1.5	8/13/1991	4	
288-11	0.5 - 0.5	8/13/1991	2.4	
288-12	0.5 - 0.5	8/13/1991	1	U
288-14	3 - 3	8/13/1991	29	
288-14	8 - 8	8/13/1991	1.3	U
288-16	4 - 4	8/14/1991	0.5	N
288-17	4 - 4	8/14/1991	14	
288-18	4 - 4	8/14/1991	1.1	U
288-19	4 - 4	8/14/1991	0.6	N
288-2	3 - 3	8/13/1991	1	U
288-2	8 - 8	8/13/1991	1.8	
288-20	4 - 4	8/14/1991	1	U
288-21	4 - 4	8/14/1991	1	U
288-22	4 - 4	8/14/1991	1.1	U
288-23	4 - 4	8/14/1991	1.1	U
288-24	4 - 4	8/14/1991	1	U
288-3	3 - 3	8/13/1991	1	U
288-4	3 - 3	8/13/1991	670	U
288-5	1 - 1	8/13/1991	1400	U
288-5	3 - 3	8/13/1991	1300	U
288-6	1 - 1	8/13/1991	47	
288-6	3 - 3	8/13/1991	230	
288-7	3 - 3	8/13/1991	1.1	U
288-8	3 - 3	8/13/1991	1	U
288-8	8 - 8	8/13/1991	1.3	J
288-9	1.5 - 1.5	8/13/1991	1.2	U
HA-284-03	2 - 2.5	4/27/1992	1	U
HA-284-03	4 - 4.5	4/27/1992	1.7	U
PL2-101A	11 - 11	10/28/1985	5	U
PL2-103A	4 - 4	10/28/1985	5	U
PL2-103A	7 - 7	10/28/1985	5	U
PL2-103A	10 - 10	10/28/1985	5	U
PL2-104B	6 - 6	6/24/1992	1.4	U
PL2-104B	11 - 11	6/24/1992	1.3	U
PL2-105C	3 - 3	6/25/1992	1.4	
PL2-105C	10 - 10	6/25/1992	1.3	U
PL2-106C	7 - 7	6/18/1992	10	
PL2-106C	12 - 12	6/18/1992	1.4	U
PL2-109B	9 - 9	7/7/1992	3.7	
PL2-109C	6 - 6	7/6/1992	6.5	
PL2-109C	9 - 9	7/6/1992	1.3	U
PL2-110C	6 - 6	6/22/1992	1.1	U
PL2-110C	9 - 9	6/22/1992	160	U
PL2-111A	1 - 1	12/9/1993	1.1	U
PL2-111A	7.5 - 7.5	12/9/1993	1.3	U
PL2-112A	5.5 - 5.5	1/10/1989	2500	
PL2-114A	8 - 8	1/10/1989	1.2	U

South Yard Area COC Results
Tetrachloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Tetrachloroethene (µg/kg) - 2004 Soil Screening Level = 8.72 µg/kg; PMCL = 890 µg/kg[3]				
PL2-114A	10.5 - 10.5	1/10/1989	68	U
PL2-115A	2 - 2	7/27/1989	0.4	J
PL2-115A	5 - 5	7/27/1989	2.3	
PL2-115A	8.5 - 8.5	7/27/1989	0.7	U
PL2-115A	10 - 10	7/27/1989	0.7	U
PL2-116A	2 - 2	7/26/1989	0.5	U
PL2-116A	5 - 5	7/26/1989	0.6	U
PL2-116A	8.5 - 8.5	7/26/1989	0.6	U
PL2-116A	10 - 10	7/26/1989	0.6	U
PL2-117A	7.5 - 7.5	1/11/1989	190	U
PL2-301A	5 - 5	7/8/1992	1.3	U
PL2-301A	10 - 10	7/8/1992	1.2	U
PL2-302A	5 - 5	7/8/1992	3.7	
PL2-302A	10 - 10	7/8/1992	1.3	U
PL2-303A	5 - 5	7/8/1992	1.2	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL31-B1	9 - 9	3/24/1992	1.4	U
PL31-B2	8.5 - 8.5	3/24/1992	1.1	U
PL31-P1	1.8 - 1.8	3/24/1992	1	U
PL31-S1	4.6 - 4.6	3/24/1992	1.1	U
PL31-S2	5 - 5	3/24/1992	1	U
PL31-S3	5.5 - 5.5	3/24/1992	1	U
PL31-S4	5.9 - 5.9	3/24/1992	1.1	
PL66-B1	5.5 - 5.5	10/28/1991	1.9	
PL66-B1	10.5 - 10.5	10/28/1991	1.3	U
PL66-B2	5.5 - 5.5	10/28/1991	10	
PL66-B2	10.5 - 10.5	10/28/1991	5.5	
SB-08005	11 - 11	9/22/1994	1.3	U
SB-08008	3.5 - 3.5	2/15/1995	1.1	U
SB-08008	6.5 - 6.5	2/15/1995	1.1	U
SB-08008	11.5 - 11.5	2/15/1995	1.3	U
SB-08009	0.6 - 0.6	2/16/1995	1.1	U
SB-08009	6 - 6	2/16/1995	3.7	
SB-08010	0.5 - 0.5	2/16/1995	5.4	
SB-08010	6 - 6	2/16/1995	77	
SB-08201	6.5 - 6.5	12/21/1993	1.1	U
SB-08201	8 - 8	12/21/1993	1.3	U
SB-08201	11 - 11	12/21/1993	1.8	
SB-08301	1.5 - 1.5	9/3/1994	1.2	U
SB-08301	4.5 - 4.5	9/3/1994	1.5	U
SB-08301	11.5 - 11.5	9/3/1994	1.3	U
SB-08302	2 - 2	9/3/1994	1.1	U
SB-08302	5 - 5	9/3/1994	2.9	
SB-08302	11 - 11	9/3/1994	1.3	U
SB-08303	5 - 5	12/13/1993	1.3	U
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	9 - 10	4/15/2002	1.4	U

South Yard Area COC Results
Tetrachloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Tetrachloroethene (µg/kg) - 2004 Soil Screening Level = 8.72 µg/kg; PMCL = 890 µg/kg[3]				
SB-08333	4 - 5	4/15/2002	1.1	U
SB-08333	9 - 10	4/15/2002	1.3	U
SB-08334	4 - 5	4/23/2002	1.1	U
SB-08334	7.5 - 8.5	4/23/2002	1.1	U
SB-08335	4 - 5	4/23/2002	1.1	U
SB-08335	9 - 10	4/23/2002	1.2	U
SB-08601	1.5 - 1.5	12/20/1993	1.1	U
SB-08601	7 - 7	12/20/1993	1.1	U
SB-08601	11 - 11	12/20/1993	1.3	U
SB-08602	1 - 1	12/9/1993	1	U
SB-08602	7.5 - 7.5	12/9/1993	1.5	U
SB-08604	1.5 - 1.5	9/19/1994	1.1	U
SB-08604	6 - 6	9/19/1994	1.3	U
SB-08604	9 - 9	9/19/1994	1.3	U
SB-08716	3 - 5	11/25/1998	1.4	U
SB-08716	8 - 10	11/25/1998	1.4	U
SB-08717	3 - 5	11/25/1998	1.3	U
SB-08717	8 - 10	11/25/1998	1.4	U
SB-08718	3 - 5	11/25/1998	1.3	U
SB-08718	8 - 10	11/25/1998	1.3	U
SB-08719	3 - 5	11/25/1998	1.1	U
SB-08719	8 - 10	11/25/1998	1.3	U
SB-08720	3 - 5	11/25/1998	1.3	U
SB-08720	8 - 10	11/25/1998	1.3	U
SB-08721	3 - 5	11/25/1998	1.3	U
SB-08721	8 - 10	11/25/1998	1.3	U
SB-08722	3 - 5	11/25/1998	1.3	U
SB-08722	8 - 10	11/25/1998	1.4	U
SB-08723	3 - 5	11/25/1998	1.2	U
SB-08723	8 - 10	11/25/1998	1.3	U
SB-08724	3 - 5	11/25/1998	1.1	U
SB-08724	8 - 10	11/25/1998	1.5	U
SB-08901	5 - 5	12/11/1993	5.9	
SB-08901	7.5 - 7.5	12/11/1993	1.3	U
SB-08903	7.5 - 7.5	12/13/1993	1.2	U
SB-08904	1 - 1	12/9/1993	1.1	U
SB-08904	7.5 - 7.5	12/9/1993	1.3	U
SB-08905	5 - 5	8/24/1994	2.3	
SB-08905	7.5 - 7.5	8/24/1994	1.1	U
SB-08905	10 - 10	8/24/1994	1.2	U
SB-08915	2 - 2	8/17/1994	1.2	
SB-08915	5 - 5	8/17/1994	1.1	U
SB-08915	7.5 - 7.5	8/17/1994	23	
SB-08916	2 - 2	9/13/1994	1.1	U
SB-08916	5 - 5	9/13/1994	1.3	U
SB-08917	1 - 1	8/23/1994	1	U
SB-08917	7.5 - 7.5	8/23/1994	1.3	U
SB-08917	10 - 10	8/23/1994	1.3	U
SB-08918	2 - 2	9/13/1994	1.1	U

South Yard Area COC Results
Tetrachloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Tetrachloroethene (µg/kg) - 2004 Soil Screening Level = 8.72 µg/kg; PMCL = 890 µg/kg[3]				
SB-08918	5 - 5	9/13/1994	1.2	U
SB-08919	2.5 - 2.5	8/18/1994	1.1	U
SB-08919	7.5 - 7.5	8/18/1994	1.3	U
SB-08919	10 - 10	8/18/1994	1.2	U
SB-08920	1 - 1	8/23/1994	1	U
SB-08920	7.5 - 7.5	8/23/1994	1.2	U
SB-08920	10 - 10	8/23/1994	1.3	U
SB-08921	2 - 2	9/13/1994	1	U
SB-08921	5 - 5	9/13/1994	1	U
SB-08922	1 - 1	8/19/1994	1	U
SB-08922	1 - 1	8/19/1994	1	U
SB-08922	5 - 5	8/19/1994	60	
SB-08922	10 - 10	8/19/1994	1.3	U
SB-08923	2 - 2	9/13/1994	1.1	U
SB-08923	5 - 5	9/13/1994	1.3	
SB-08924	2.5 - 2.5	8/18/1994	1	U
SB-08924	2.5 - 2.5	8/18/1994	1	U
SB-08924	7.5 - 7.5	8/18/1994	1.4	U
SB-08924	10 - 10	8/18/1994	1.3	U
SB-08930	3 - 5	11/24/1998	1.1	U
SB-08930	8 - 10	11/24/1998	1.2	U
SB-08931	3 - 5	11/24/1998	7.7	
SB-08931	8 - 10	11/24/1998	1.2	U
SB-08932	3 - 5	11/24/1998	8.5	
SB-08932	8 - 10	11/24/1998	1.2	U
SB-08933	3 - 5	11/24/1998	9.7	
SB-08933	8 - 10	11/24/1998	1.2	U
SB-08934	3 - 5	11/24/1998	17	
SB-08934	8 - 10	11/24/1998	8.8	U
SB-08935	3 - 5	11/24/1998	1.2	
SB-08935	8 - 10	11/24/1998	1.3	U
SB-08936	3 - 5	11/24/1998	1.1	U
SB-08936	8 - 10	11/24/1998	1.3	U
SB-08937	3 - 5	11/24/1998	1.2	U
SB-08937	8 - 10	11/24/1998	1.3	U
SB-08938	3 - 5	11/24/1998	1.1	U
SB-08938	8 - 10	11/24/1998	1.2	U
SB-08939	3 - 5	11/24/1998	1.2	U
SB-08939	8 - 10	11/24/1998	1.3	U
SB-08940	3 - 5	11/24/1998	1.5	
SB-08940	8 - 10	11/24/1998	1.3	U
SB-09101	2 - 2	9/12/1994	1	U
SB-09101	5 - 5	9/12/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	5 - 5	8/16/1994	1.4	U
SB-09102	7.5 - 7.5	8/16/1994	1.4	U
SB-09103	2.5 - 2.5	8/16/1994	1	U
SB-09103	7.5 - 7.5	8/16/1994	4.6	

South Yard Area COC Results
Tetrachloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Tetrachloroethene (µg/kg) - 2004 Soil Screening Level = 8.72 µg/kg; PMCL = 890 µg/kg[3]				
SB-09103	10 - 10	8/16/1994	1.3	U
SB-09104	1 - 1	8/16/1994	1	U
SB-09104	7.5 - 7.5	8/16/1994	1.5	U
SB-09104	10 - 10	8/16/1994	1.3	U
SB-09105	2 - 2	9/12/1994	1.1	U
SB-09105	5 - 5	9/12/1994	1.4	U
SB-09106	2 - 2	9/12/1994	1.1	U
SB-09106	5 - 5	9/12/1994	1.2	U
SB-10401	10 - 10	3/15/1994	150	U
SB116-B1	5 - 5	9/13/1991	1.2	U
SB116-B1	8 - 8	9/13/1991	1.8	
SB116-B1	9.5 - 9.5	9/13/1991	1.3	U
SB116-B2	2 - 2	9/13/1991	1	U
SB116-B2	7 - 7	9/13/1991	4.8	
SB116-B2	12 - 12	9/13/1991	1.3	U
SB116-B3	2 - 2	9/13/1991	2.3	
SB116-B3	7 - 7	9/13/1991	9.1	
SB116-B3	12 - 12	9/13/1991	1.3	U
SB-28201	1 - 1	12/9/1993	1.2	U
SB-28201	7.5 - 7.5	12/9/1993	1.1	U
SB-284-01	4 - 4.5	4/27/1992	1.6	
SB-284-01	8 - 8.5	4/27/1992	1.4	U
SB-284-02	4 - 4.5	4/27/1992	1.2	U
SB-284-02	6 - 6.5	4/27/1992	1.2	U
SB291-10	2.5 - 2.5	1/11/1989	30	
SB291-16	2 - 2	7/26/1989	0.5	U
SB291-16	5 - 5	7/26/1989	2.6	U
SB291-16	9.5 - 9.5	7/26/1989	0.6	U
SB291-17	2 - 2	7/26/1989	0.5	U
SB291-17	5 - 5	7/26/1989	41	
SB291-17	9.5 - 9.5	7/26/1989	0.6	U
SB291-3	2.5 - 2.5	1/12/1989	350	
SB291-3	7.5 - 7.5	1/12/1989	140	U
SB291-3	9.5 - 9.5	1/12/1989	3.9	
SB291-4	5 - 5	1/12/1989	7.1	
SB291-5	5 - 5	1/12/1989	4.3	
SB291-6	2.5 - 2.5	1/12/1989	88	
SB291-8	5 - 5	1/11/1989	69	U
SB291-8	10 - 10	1/11/1989	68	U
SB291-9	2.5 - 2.5	1/12/1989	26	
SB291-9	5 - 5	1/12/1989	4.3	
SB291-9	9.5 - 9.5	1/12/1989	0.7	U
SB297-2	2 - 2	7/25/1989	0.5	U
SB297-2	5 - 5	7/25/1989	0.8	
SB297-2	10.5 - 10.5	7/25/1989	0.7	U
SB297-3	2 - 2	7/25/1989	0.5	U
SB297-3	5 - 5	7/25/1989	1.7	
SB297-3	9.5 - 9.5	7/25/1989	0.6	U
SS-09101	0 - 0.5	11/29/1993	16	

South Yard Area COC Results
Tetrachloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Tetrachloroethene (µg/kg) - 2004 Soil Screening Level = 8.72 µg/kg; PMCL = 890 µg/kg[3]				
SS-09102	0 - 0.5	11/19/1993	210	D
SS-09103	0 - 0.5	11/24/1993	3.3	
SS-09104	0 - 0.5	11/22/1993	3300	
SS-09105	0 - 0.5	11/16/1993	320	D
SS-09106	0 - 0.5	11/18/1993	7.3	
SS-09107	0 - 0.5	11/16/1993	92	
SS-09108	0 - 0.5	11/17/1993	8.2	
SS-09109	0 - 0.5	11/19/1993	1.1	U
SS-09110	0 - 0.5	11/17/1993	11	
SS-09111	0 - 0.5	11/23/1993	1	U
SS-09111	0 - 0.5	11/23/1993	1	U
SS-09112	0 - 0.5	11/29/1993	890	

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Toluene (µg/kg) - 2004 Soil Screening Level = 19,000 µg/kg; PMCL = 500,000 µg/kg[3]				
288-1	3 - 3	8/13/1991	1.4	
288-1	8 - 8	8/13/1991	13	
288-10	1.5 - 1.5	8/13/1991	1.2	U
288-11	0.5 - 0.5	8/13/1991	3.2	
288-12	0.5 - 0.5	8/13/1991	1	U
288-14	3 - 3	8/13/1991	4.6	
288-14	8 - 8	8/13/1991	14	
288-16	4 - 4	8/14/1991	1	U
288-17	4 - 4	8/14/1991	1.7	
288-18	4 - 4	8/14/1991	1.1	U
288-19	4 - 4	8/14/1991	33	
288-2	3 - 3	8/13/1991	1	U
288-2	8 - 8	8/13/1991	2	
288-20	4 - 4	8/14/1991	1	U
288-21	4 - 4	8/14/1991	1	U
288-22	4 - 4	8/14/1991	1.1	
288-23	4 - 4	8/14/1991	1.1	U
288-24	4 - 4	8/14/1991	1	U
288-3	3 - 3	8/13/1991	1	U
288-4	3 - 3	8/13/1991	670	U
288-5	1 - 1	8/13/1991	1400	
288-5	3 - 3	8/13/1991	3100	
288-6	1 - 1	8/13/1991	5.3	U
288-6	3 - 3	8/13/1991	10	U
288-7	3 - 3	8/13/1991	1.7	
288-8	3 - 3	8/13/1991	1	U
288-8	8 - 8	8/13/1991	15	
288-9	1.5 - 1.5	8/13/1991	1.2	U
EX-1	8 - 8	10/23/1992	650000	
EX-3	8 - 8	10/23/1992	9900	
EX-5	10.5 - 10.5	10/23/1992	71	U
HA-284-03	2 - 2.5	4/27/1992	1	U
HA-284-03	4 - 4.5	4/27/1992	1.7	U
PL2-101A	11 - 11	10/28/1985	5	U
PL2-103A	4 - 4	10/28/1985	5	U
PL2-103A	7 - 7	10/28/1985	5	U
PL2-103A	10 - 10	10/28/1985	5	U
PL2-104B	6 - 6	6/24/1992	1.4	U
PL2-104B	11 - 11	6/24/1992	1.3	U
PL2-105C	3 - 3	6/25/1992	1	U
PL2-105C	10 - 10	6/25/1992	1.3	U
PL2-106C	7 - 7	6/18/1992	1.4	U
PL2-106C	12 - 12	6/18/1992	1.4	U
PL2-109B	9 - 9	7/7/1992	5.1	
PL2-109C	6 - 6	7/6/1992	2.1	
PL2-109C	9 - 9	7/6/1992	1.3	U
PL2-110C	6 - 6	6/22/1992	1.1	U
PL2-110C	9 - 9	6/22/1992	11000	
PL2-111A	1 - 1	12/9/1993	1.1	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Toluene (µg/kg) - 2004 Soil Screening Level = 19,000 µg/kg; PMCL = 500,000 µg/kg[3]				
PL2-111A	7.5 - 7.5	12/9/1993	1.3	U
PL2-112A	5.5 - 5.5	1/10/1989	71	
PL2-114A	8 - 8	1/10/1989	4000	
PL2-114A	10.5 - 10.5	1/10/1989	5600	
PL2-115A	2 - 2	7/27/1989	0.9	U
PL2-115A	5 - 5	7/27/1989	2.5	
PL2-115A	8.5 - 8.5	7/27/1989	11	
PL2-115A	10 - 10	7/27/1989	11	
PL2-116A	2 - 2	7/26/1989	0.8	U
PL2-116A	5 - 5	7/26/1989	0.9	U
PL2-116A	8.5 - 8.5	7/26/1989	1	U
PL2-116A	10 - 10	7/26/1989	1	U
PL2-117A	7.5 - 7.5	1/11/1989	530	
PL2-301A	5 - 5	7/8/1992	1.3	U
PL2-301A	10 - 10	7/8/1992	1.2	U
PL2-302A	5 - 5	7/8/1992	1	U
PL2-302A	10 - 10	7/8/1992	1.3	U
PL2-303A	5 - 5	7/8/1992	1.2	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL31-B1	9 - 9	3/24/1992	1.4	U
PL31-B2	8.5 - 8.5	3/24/1992	1.1	U
PL31-P1	1.8 - 1.8	3/24/1992	1	U
PL31-S1	4.6 - 4.6	3/24/1992	1.1	U
PL31-S2	5 - 5	3/24/1992	1	U
PL31-S3	5.5 - 5.5	3/24/1992	1	U
PL31-S4	5.9 - 5.9	3/24/1992	1	U
PL66-B1	5.5 - 5.5	10/28/1991	1.1	U
PL66-B1	10.5 - 10.5	10/28/1991	1.3	U
PL66-B2	5.5 - 5.5	10/28/1991	1	M
PL66-B2	10.5 - 10.5	10/28/1991	1.3	U
SB-08005	11 - 11	9/22/1994	1.3	U
SB-08008	3.5 - 3.5	2/15/1995	1.1	U
SB-08008	6.5 - 6.5	2/15/1995	1.1	U
SB-08008	11.5 - 11.5	2/15/1995	1.3	U
SB-08009	0.6 - 0.6	2/16/1995	1.1	U
SB-08009	6 - 6	2/16/1995	1.2	U
SB-08010	0.5 - 0.5	2/16/1995	1	U
SB-08010	6 - 6	2/16/1995	1.3	U
SB-08201	6.5 - 6.5	12/21/1993	1.1	U
SB-08201	8 - 8	12/21/1993	1.3	U
SB-08201	11 - 11	12/21/1993	1.3	U
SB-08301	1.5 - 1.5	9/3/1994	1.2	U
SB-08301	4.5 - 4.5	9/3/1994	1.5	U
SB-08301	11.5 - 11.5	9/3/1994	1.3	U
SB-08302	2 - 2	9/3/1994	1.1	U
SB-08302	5 - 5	9/3/1994	1.3	U
SB-08302	11 - 11	9/3/1994	1.3	U
SB-08303	5 - 5	12/13/1993	1.3	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Toluene (µg/kg) - 2004 Soil Screening Level = 19,000 µg/kg; PMCL = 500,000 µg/kg[3]				
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	9 - 10	4/15/2002	1.4	U
SB-08333	4 - 5	4/15/2002	1.1	U
SB-08333	9 - 10	4/15/2002	1.3	U
SB-08334	4 - 5	4/23/2002	1.1	U
SB-08334	7.5 - 8.5	4/23/2002	1.1	U
SB-08335	4 - 5	4/23/2002	1.1	U
SB-08335	9 - 10	4/23/2002	1.2	U
SB-08601	1.5 - 1.5	12/20/1993	1.2	
SB-08601	7 - 7	12/20/1993	1.1	U
SB-08601	11 - 11	12/20/1993	1.3	U
SB-08602	1 - 1	12/9/1993	1	U
SB-08602	7.5 - 7.5	12/9/1993	1.5	U
SB-08604	1.5 - 1.5	9/19/1994	1.1	U
SB-08604	6 - 6	9/19/1994	1.3	U
SB-08604	9 - 9	9/19/1994	1.3	U
SB-08716	3 - 5	11/25/1998	4.2	
SB-08716	8 - 10	11/25/1998	1.4	U
SB-08717	3 - 5	11/25/1998	4.2	
SB-08717	8 - 10	11/25/1998	1.4	U
SB-08718	3 - 5	11/25/1998	6.3	
SB-08718	8 - 10	11/25/1998	4.1	
SB-08719	3 - 5	11/25/1998	2.1	
SB-08719	8 - 10	11/25/1998	2.1	
SB-08720	3 - 5	11/25/1998	6.2	
SB-08720	8 - 10	11/25/1998	2.5	
SB-08721	3 - 5	11/25/1998	2	
SB-08721	8 - 10	11/25/1998	1.3	U
SB-08722	3 - 5	11/25/1998	3	
SB-08722	8 - 10	11/25/1998	1.4	U
SB-08723	3 - 5	11/25/1998	1.4	
SB-08723	8 - 10	11/25/1998	1.3	U
SB-08724	3 - 5	11/25/1998	1.4	
SB-08724	8 - 10	11/25/1998	1.5	U
SB-08901	5 - 5	12/11/1993	1.4	U
SB-08901	7.5 - 7.5	12/11/1993	1.3	U
SB-08903	7.5 - 7.5	12/13/1993	1.2	U
SB-08904	1 - 1	12/9/1993	1.1	U
SB-08904	7.5 - 7.5	12/9/1993	1.3	U
SB-08905	5 - 5	8/24/1994	12	
SB-08905	7.5 - 7.5	8/24/1994	1.2	
SB-08905	10 - 10	8/24/1994	3.2	
SB-08915	2 - 2	8/17/1994	2.6	
SB-08915	5 - 5	8/17/1994	1.3	
SB-08915	7.5 - 7.5	8/17/1994	9.7	
SB-08916	2 - 2	9/13/1994	1.1	U
SB-08916	5 - 5	9/13/1994	1.5	
SB-08917	1 - 1	8/23/1994	1	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Toluene (µg/kg) - 2004 Soil Screening Level = 19,000 µg/kg; PMCL = 500,000 µg/kg[3]				
SB-08917	7.5 - 7.5	8/23/1994	190	
SB-08917	10 - 10	8/23/1994	20	
SB-08918	2 - 2	9/13/1994	1.1	U
SB-08918	5 - 5	9/13/1994	2	
SB-08919	2.5 - 2.5	8/18/1994	1.1	U
SB-08919	7.5 - 7.5	8/18/1994	1.3	U
SB-08919	10 - 10	8/18/1994	1.2	U
SB-08920	1 - 1	8/23/1994	1	U
SB-08920	7.5 - 7.5	8/23/1994	1.2	U
SB-08920	10 - 10	8/23/1994	1.3	U
SB-08921	2 - 2	9/13/1994	1	U
SB-08921	5 - 5	9/13/1994	1	U
SB-08922	1 - 1	8/19/1994	1	U
SB-08922	1 - 1	8/19/1994	1	U
SB-08922	5 - 5	8/19/1994	1.6	
SB-08922	10 - 10	8/19/1994	1.3	U
SB-08923	2 - 2	9/13/1994	1.1	U
SB-08923	5 - 5	9/13/1994	1.2	U
SB-08924	2.5 - 2.5	8/18/1994	1	U
SB-08924	2.5 - 2.5	8/18/1994	1	U
SB-08924	7.5 - 7.5	8/18/1994	650	D
SB-08924	10 - 10	8/18/1994	60	
SB-08930	3 - 5	11/24/1998	1.1	U
SB-08930	8 - 10	11/24/1998	1.2	U
SB-08931	3 - 5	11/24/1998	1.4	
SB-08931	8 - 10	11/24/1998	1.2	U
SB-08932	3 - 5	11/24/1998	1.8	
SB-08932	8 - 10	11/24/1998	1.2	U
SB-08933	3 - 5	11/24/1998	1.8	
SB-08933	8 - 10	11/24/1998	1.2	U
SB-08934	3 - 5	11/24/1998	3.9	
SB-08934	8 - 10	11/24/1998	8.8	U
SB-08935	3 - 5	11/24/1998	1.1	
SB-08935	8 - 10	11/24/1998	1.3	U
SB-08936	3 - 5	11/24/1998	1.1	U
SB-08936	8 - 10	11/24/1998	2	
SB-08937	3 - 5	11/24/1998	2.2	
SB-08937	8 - 10	11/24/1998	1.7	
SB-08938	3 - 5	11/24/1998	1.1	U
SB-08938	8 - 10	11/24/1998	2	
SB-08939	3 - 5	11/24/1998	1.2	U
SB-08939	8 - 10	11/24/1998	2.5	
SB-08940	3 - 5	11/24/1998	1.1	U
SB-08940	8 - 10	11/24/1998	1.6	
SB-09101	2 - 2	9/12/1994	1	U
SB-09101	5 - 5	9/12/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	5 - 5	8/16/1994	1.7	

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Toluene (µg/kg) - 2004 Soil Screening Level = 19,000 µg/kg; PMCL = 500,000 µg/kg[3]				
SB-09102	7.5 - 7.5	8/16/1994	1.4	U
SB-09103	2.5 - 2.5	8/16/1994	1	U
SB-09103	7.5 - 7.5	8/16/1994	1.4	
SB-09103	10 - 10	8/16/1994	1.3	U
SB-09104	1 - 1	8/16/1994	1	U
SB-09104	7.5 - 7.5	8/16/1994	620	D
SB-09104	10 - 10	8/16/1994	3.6	
SB-09105	2 - 2	9/12/1994	1.1	U
SB-09105	5 - 5	9/12/1994	1.4	U
SB-09106	2 - 2	9/12/1994	2.1	
SB-09106	5 - 5	9/12/1994	1.2	U
SB-10401	10 - 10	3/15/1994	150	U
SB116-B1	5 - 5	9/13/1991	1.2	U
SB116-B1	8 - 8	9/13/1991	1.4	U
SB116-B1	9.5 - 9.5	9/13/1991	1.3	U
SB116-B2	2 - 2	9/13/1991	1	U
SB116-B2	7 - 7	9/13/1991	1.1	U
SB116-B2	12 - 12	9/13/1991	1.3	U
SB116-B3	2 - 2	9/13/1991	1.4	U
SB116-B3	7 - 7	9/13/1991	1.3	N
SB116-B3	12 - 12	9/13/1991	1.3	U
SB-28201	1 - 1	12/9/1993	1.2	U
SB-28201	7.5 - 7.5	12/9/1993	1.1	U
SB-284-01	4 - 4.5	4/27/1992	2.9	
SB-284-01	8 - 8.5	4/27/1992	2.1	
SB-284-02	4 - 4.5	4/27/1992	1.4	
SB-284-02	6 - 6.5	4/27/1992	1.2	U
SB291-10	2.5 - 2.5	1/11/1989	3	
SB291-16	2 - 2	7/26/1989	0.6	N
SB291-16	5 - 5	7/26/1989	140	
SB291-16	9.5 - 9.5	7/26/1989	1.1	
SB291-17	2 - 2	7/26/1989	0.8	U
SB291-17	5 - 5	7/26/1989	3	
SB291-17	9.5 - 9.5	7/26/1989	0.7	N
SB291-3	2.5 - 2.5	1/12/1989	53	
SB291-3	7.5 - 7.5	1/12/1989	330	
SB291-3	9.5 - 9.5	1/12/1989	8.8	
SB291-4	5 - 5	1/12/1989	1.7	
SB291-5	5 - 5	1/12/1989	19	
SB291-6	2.5 - 2.5	1/12/1989	57	
SB291-8	5 - 5	1/11/1989	320	
SB291-8	10 - 10	1/11/1989	140	
SB291-9	2.5 - 2.5	1/12/1989	1.9	U
SB291-9	5 - 5	1/12/1989	4.3	
SB291-9	9.5 - 9.5	1/12/1989	8.6	
SB297-2	2 - 2	7/25/1989	1.2	
SB297-2	5 - 5	7/25/1989	0.9	U
SB297-2	10.5 - 10.5	7/25/1989	0.8	N
SB297-3	2 - 2	7/25/1989	0.8	U

South Yard Area COC Results
Toluene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Toluene (µg/kg) - 2004 Soil Screening Level = 19,000 µg/kg; PMCL = 500,000 µg/kg[3]				
SB297-3	5 - 5	7/25/1989	4.3	
SB297-3	9.5 - 9.5	7/25/1989	1	U
SS-09101	0 - 0.5	11/29/1993	1.2	U
SS-09102	0 - 0.5	11/19/1993	1.9	
SS-09103	0 - 0.5	11/24/1993	1.1	U
SS-09104	0 - 0.5	11/22/1993	340	U
SS-09105	0 - 0.5	11/16/1993	6.6	
SS-09106	0 - 0.5	11/18/1993	1.2	U
SS-09107	0 - 0.5	11/16/1993	4.1	U
SS-09108	0 - 0.5	11/17/1993	1.2	
SS-09109	0 - 0.5	11/19/1993	1.1	U
SS-09110	0 - 0.5	11/17/1993	1.1	U
SS-09111	0 - 0.5	11/23/1993	1	U
SS-09111	0 - 0.5	11/23/1993	1	U
SS-09112	0 - 0.5	11/29/1993	210	N

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
1,1,1-Trichloroethane Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
1,1,1-Trichloroethane (µg/kg) - 2004 Screening Level = 27,800 µg/kg; PMCL = 3,120,000 µg/kg[3]				
288-1	3 - 3	8/13/1991	1.1	U
288-1	8 - 8	8/13/1991	1.5	U
288-10	1.5 - 1.5	8/13/1991	1.2	U
288-11	0.5 - 0.5	8/13/1991	1.2	U
288-12	0.5 - 0.5	8/13/1991	1	U
288-14	3 - 3	8/13/1991	1.2	U
288-14	8 - 8	8/13/1991	1.3	U
288-16	4 - 4	8/14/1991	1	U
288-17	4 - 4	8/14/1991	1	U
288-18	4 - 4	8/14/1991	1.1	U
288-19	4 - 4	8/14/1991	1	U
288-2	3 - 3	8/13/1991	1	U
288-2	8 - 8	8/13/1991	1.4	U
288-20	4 - 4	8/14/1991	1	U
288-21	4 - 4	8/14/1991	1	U
288-22	4 - 4	8/14/1991	1.1	U
288-23	4 - 4	8/14/1991	1.1	U
288-24	4 - 4	8/14/1991	1	U
288-3	3 - 3	8/13/1991	1	U
288-4	3 - 3	8/13/1991	670	U
288-5	1 - 1	8/13/1991	1400	U
288-5	3 - 3	8/13/1991	1300	U
288-6	1 - 1	8/13/1991	5.3	U
288-6	3 - 3	8/13/1991	7.5	J
288-7	3 - 3	8/13/1991	1.1	U
288-8	3 - 3	8/13/1991	1	U
288-8	8 - 8	8/13/1991	1.4	U
288-9	1.5 - 1.5	8/13/1991	1.2	U
HA-284-03	2 - 2.5	4/27/1992	1	U
HA-284-03	4 - 4.5	4/27/1992	1.7	U
PL2-101A	11 - 11	10/28/1985	5	U
PL2-103A	4 - 4	10/28/1985	5	U
PL2-103A	7 - 7	10/28/1985	5	U
PL2-103A	10 - 10	10/28/1985	5	U
PL2-104B	6 - 6	6/24/1992	1.4	U
PL2-104B	11 - 11	6/24/1992	1.3	U
PL2-105C	3 - 3	6/25/1992	1	U
PL2-105C	10 - 10	6/25/1992	1.3	U
PL2-106C	7 - 7	6/18/1992	1.4	U
PL2-106C	12 - 12	6/18/1992	1.4	U
PL2-109B	9 - 9	7/7/1992	13	
PL2-109C	6 - 6	7/6/1992	2.3	
PL2-109C	9 - 9	7/6/1992	1.3	U
PL2-110C	6 - 6	6/22/1992	1.1	U
PL2-110C	9 - 9	6/22/1992	160	U
PL2-111A	1 - 1	12/9/1993	1.1	U
PL2-111A	7.5 - 7.5	12/9/1993	1.3	U
PL2-112A	5.5 - 5.5	1/10/1989	110000	
PL2-114A	8 - 8	1/10/1989	1.4	U

South Yard Area COC Results
1,1,1-Trichloroethane Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
1,1,1-Trichloroethane (µg/kg) - 2004 Screening Level = 27,800 µg/kg; PMCL = 3,120,000 µg/kg[3]				
PL2-114A	10.5 - 10.5	1/10/1989	81	U
PL2-115A	2 - 2	7/27/1989	0.7	
PL2-115A	5 - 5	7/27/1989	5.5	
PL2-115A	8.5 - 8.5	7/27/1989	0.8	U
PL2-115A	10 - 10	7/27/1989	0.8	U
PL2-116A	2 - 2	7/26/1989	0.6	U
PL2-116A	5 - 5	7/26/1989	0.7	U
PL2-116A	8.5 - 8.5	7/26/1989	0.7	U
PL2-116A	10 - 10	7/26/1989	0.7	U
PL2-117A	7.5 - 7.5	1/11/1989	230	U
PL2-301A	5 - 5	7/8/1992	1.3	U
PL2-301A	10 - 10	7/8/1992	1.2	U
PL2-302A	5 - 5	7/8/1992	1	
PL2-302A	10 - 10	7/8/1992	1.3	U
PL2-303A	5 - 5	7/8/1992	1.2	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL31-B1	9 - 9	3/24/1992	1.4	U
PL31-B2	8.5 - 8.5	3/24/1992	1.1	U
PL31-P1	1.8 - 1.8	3/24/1992	1	U
PL31-S1	4.6 - 4.6	3/24/1992	1.1	U
PL31-S2	5 - 5	3/24/1992	1	U
PL31-S3	5.5 - 5.5	3/24/1992	1	U
PL31-S4	5.9 - 5.9	3/24/1992	1	U
PL66-B1	5.5 - 5.5	10/28/1991	1.1	U
PL66-B1	10.5 - 10.5	10/28/1991	1.3	U
PL66-B2	5.5 - 5.5	10/28/1991	2.4	
PL66-B2	10.5 - 10.5	10/28/1991	9.2	
SB-08005	11 - 11	9/22/1994	1.3	U
SB-08008	3.5 - 3.5	2/15/1995	1.1	U
SB-08008	6.5 - 6.5	2/15/1995	1.1	U
SB-08008	11.5 - 11.5	2/15/1995	1.3	U
SB-08009	0.6 - 0.6	2/16/1995	1.1	U
SB-08009	6 - 6	2/16/1995	1.2	U
SB-08010	0.5 - 0.5	2/16/1995	1	U
SB-08010	6 - 6	2/16/1995	1.3	U
SB-08201	6.5 - 6.5	12/21/1993	1.1	U
SB-08201	8 - 8	12/21/1993	1.3	U
SB-08201	11 - 11	12/21/1993	1.3	U
SB-08301	1.5 - 1.5	9/3/1994	1.2	U
SB-08301	4.5 - 4.5	9/3/1994	1.5	U
SB-08301	11.5 - 11.5	9/3/1994	1.3	U
SB-08302	2 - 2	9/3/1994	1.1	U
SB-08302	5 - 5	9/3/1994	4.8	
SB-08302	11 - 11	9/3/1994	1.3	U
SB-08303	5 - 5	12/13/1993	1.3	U
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	9 - 10	4/15/2002	1.4	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
1,1,1-Trichloroethane (µg/kg) - 2004 Screening Level = 27,800 µg/kg; PMCL = 3,120,000 µg/kg[3]				
SB-08333	4 - 5	4/15/2002	1.1	U
SB-08333	9 - 10	4/15/2002	1.3	U
SB-08334	4 - 5	4/23/2002	1.1	U
SB-08334	7.5 - 8.5	4/23/2002	1.1	U
SB-08335	4 - 5	4/23/2002	1.1	U
SB-08335	9 - 10	4/23/2002	1.2	U
SB-08601	1.5 - 1.5	12/20/1993	1.1	U
SB-08601	7 - 7	12/20/1993	1.1	U
SB-08601	11 - 11	12/20/1993	1.3	U
SB-08602	1 - 1	12/9/1993	1	U
SB-08602	7.5 - 7.5	12/9/1993	1.5	U
SB-08604	1.5 - 1.5	9/19/1994	1.1	U
SB-08604	6 - 6	9/19/1994	1.3	U
SB-08604	9 - 9	9/19/1994	1.3	U
SB-08716	3 - 5	11/25/1998	1.4	U
SB-08716	8 - 10	11/25/1998	1.4	U
SB-08717	3 - 5	11/25/1998	1.3	U
SB-08717	8 - 10	11/25/1998	1.4	U
SB-08718	3 - 5	11/25/1998	1.3	U
SB-08718	8 - 10	11/25/1998	1.3	U
SB-08719	3 - 5	11/25/1998	1.1	U
SB-08719	8 - 10	11/25/1998	1.3	U
SB-08720	3 - 5	11/25/1998	1.3	U
SB-08720	8 - 10	11/25/1998	1.3	U
SB-08721	3 - 5	11/25/1998	1.3	U
SB-08721	8 - 10	11/25/1998	1.3	U
SB-08722	3 - 5	11/25/1998	1.3	U
SB-08722	8 - 10	11/25/1998	1.4	U
SB-08723	3 - 5	11/25/1998	1.2	U
SB-08723	8 - 10	11/25/1998	1.3	U
SB-08724	3 - 5	11/25/1998	1.1	U
SB-08724	8 - 10	11/25/1998	1.5	U
SB-08901	5 - 5	12/11/1993	1.4	U
SB-08901	7.5 - 7.5	12/11/1993	1.3	U
SB-08903	7.5 - 7.5	12/13/1993	1.2	U
SB-08904	1 - 1	12/9/1993	1.1	U
SB-08904	7.5 - 7.5	12/9/1993	1.3	U
SB-08905	5 - 5	8/24/1994	1.3	U
SB-08905	7.5 - 7.5	8/24/1994	1.1	U
SB-08905	10 - 10	8/24/1994	1.2	U
SB-08915	2 - 2	8/17/1994	1.1	U
SB-08915	5 - 5	8/17/1994	1.1	U
SB-08915	7.5 - 7.5	8/17/1994	1.3	U
SB-08916	2 - 2	9/13/1994	1.1	U
SB-08916	5 - 5	9/13/1994	1.3	U
SB-08917	1 - 1	8/23/1994	1	U
SB-08917	7.5 - 7.5	8/23/1994	1.3	U
SB-08917	10 - 10	8/23/1994	1.3	U
SB-08918	2 - 2	9/13/1994	1.1	U

South Yard Area COC Results
1,1,1-Trichloroethane Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
1,1,1-Trichloroethane (µg/kg) - 2004 Screening Level = 27,800 µg/kg; PMCL = 3,120,000 µg/kg[3]				
SB-08918	5 - 5	9/13/1994	1.2	U
SB-08919	2.5 - 2.5	8/18/1994	1.1	U
SB-08919	7.5 - 7.5	8/18/1994	1.3	U
SB-08919	10 - 10	8/18/1994	1.2	U
SB-08920	1 - 1	8/23/1994	1	U
SB-08920	7.5 - 7.5	8/23/1994	1.2	U
SB-08920	10 - 10	8/23/1994	1.3	U
SB-08921	2 - 2	9/13/1994	1	U
SB-08921	5 - 5	9/13/1994	1	U
SB-08922	1 - 1	8/19/1994	1	U
SB-08922	1 - 1	8/19/1994	1	U
SB-08922	5 - 5	8/19/1994	1.2	U
SB-08922	10 - 10	8/19/1994	1.3	U
SB-08923	2 - 2	9/13/1994	1.1	U
SB-08923	5 - 5	9/13/1994	1.2	U
SB-08924	2.5 - 2.5	8/18/1994	1	U
SB-08924	2.5 - 2.5	8/18/1994	1	U
SB-08924	7.5 - 7.5	8/18/1994	1.4	U
SB-08924	10 - 10	8/18/1994	1.3	U
SB-08930	3 - 5	11/24/1998	1.1	U
SB-08930	8 - 10	11/24/1998	1.2	U
SB-08931	3 - 5	11/24/1998	1.1	U
SB-08931	8 - 10	11/24/1998	1.2	U
SB-08932	3 - 5	11/24/1998	1.1	U
SB-08932	8 - 10	11/24/1998	1.2	U
SB-08933	3 - 5	11/24/1998	1.2	U
SB-08933	8 - 10	11/24/1998	1.2	U
SB-08934	3 - 5	11/24/1998	1.2	U
SB-08934	8 - 10	11/24/1998	8.8	U
SB-08935	3 - 5	11/24/1998	1.1	U
SB-08935	8 - 10	11/24/1998	1.3	U
SB-08936	3 - 5	11/24/1998	1.1	U
SB-08936	8 - 10	11/24/1998	1.3	U
SB-08937	3 - 5	11/24/1998	1.2	U
SB-08937	8 - 10	11/24/1998	1.3	U
SB-08938	3 - 5	11/24/1998	1.1	U
SB-08938	8 - 10	11/24/1998	1.2	U
SB-08939	3 - 5	11/24/1998	1.2	U
SB-08939	8 - 10	11/24/1998	1.3	U
SB-08940	3 - 5	11/24/1998	1.1	U
SB-08940	8 - 10	11/24/1998	1.3	U
SB-09101	2 - 2	9/12/1994	1	U
SB-09101	5 - 5	9/12/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	5 - 5	8/16/1994	1.4	U
SB-09102	7.5 - 7.5	8/16/1994	1.4	U
SB-09103	2.5 - 2.5	8/16/1994	1	U
SB-09103	7.5 - 7.5	8/16/1994	1.4	U

South Yard Area COC Results
1,1,1-Trichloroethane Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
1,1,1-Trichloroethane (µg/kg) - 2004 Screening Level = 27,800 µg/kg; PMCL = 3,120,000 µg/kg[3]				
SB-09103	10 - 10	8/16/1994	1.3	U
SB-09104	1 - 1	8/16/1994	1	U
SB-09104	7.5 - 7.5	8/16/1994	1.5	U
SB-09104	10 - 10	8/16/1994	1.3	U
SB-09105	2 - 2	9/12/1994	1.1	U
SB-09105	5 - 5	9/12/1994	8.4	
SB-09106	2 - 2	9/12/1994	1.1	U
SB-09106	5 - 5	9/12/1994	1.8	
SB-10401	10 - 10	3/15/1994	150	U
SB116-B1	5 - 5	9/13/1991	1.2	U
SB116-B1	8 - 8	9/13/1991	1.4	U
SB116-B1	9.5 - 9.5	9/13/1991	1.3	U
SB116-B2	2 - 2	9/13/1991	1	U
SB116-B2	7 - 7	9/13/1991	1.1	U
SB116-B2	12 - 12	9/13/1991	1.3	U
SB116-B3	2 - 2	9/13/1991	1.4	U
SB116-B3	7 - 7	9/13/1991	1.3	N
SB116-B3	12 - 12	9/13/1991	1.3	U
SB-28201	1 - 1	12/9/1993	1.2	U
SB-28201	7.5 - 7.5	12/9/1993	1.1	U
SB-284-01	4 - 4.5	4/27/1992	1.1	U
SB-284-01	8 - 8.5	4/27/1992	1.4	U
SB-284-02	4 - 4.5	4/27/1992	1.2	U
SB-284-02	6 - 6.5	4/27/1992	1.2	U
SB291-10	2.5 - 2.5	1/11/1989	48	
SB291-16	2 - 2	7/26/1989	2.4	
SB291-16	5 - 5	7/26/1989	1500	
SB291-16	9.5 - 9.5	7/26/1989	4.9	
SB291-17	2 - 2	7/26/1989	2	N
SB291-17	5 - 5	7/26/1989	280	
SB291-17	9.5 - 9.5	7/26/1989	0.8	U
SB291-3	2.5 - 2.5	1/12/1989	2100	
SB291-3	7.5 - 7.5	1/12/1989	6600	
SB291-3	9.5 - 9.5	1/12/1989	640	
SB291-4	5 - 5	1/12/1989	73	
SB291-5	5 - 5	1/12/1989	20	
SB291-6	2.5 - 2.5	1/12/1989	150	
SB291-8	5 - 5	1/11/1989	83	U
SB291-8	10 - 10	1/11/1989	81	U
SB291-9	2.5 - 2.5	1/12/1989	46	
SB291-9	5 - 5	1/12/1989	8.2	
SB291-9	9.5 - 9.5	1/12/1989	1.8	
SB297-2	2 - 2	7/25/1989	0.6	U
SB297-2	5 - 5	7/25/1989	9.7	
SB297-2	10.5 - 10.5	7/25/1989	0.8	U
SB297-3	2 - 2	7/25/1989	0.6	U
SB297-3	5 - 5	7/25/1989	36	
SB297-3	9.5 - 9.5	7/25/1989	0.8	U
SS-09101	0 - 0.5	11/29/1993	17	

South Yard Area COC Results
1,1,1-Trichloroethane Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
1,1,1-Trichloroethane (µg/kg) - 2004 Screening Level = 27,800 µg/kg; PMCL = 3,120,000 µg/kg[3]				
SS-09102	0 - 0.5	11/19/1993	140	D
SS-09103	0 - 0.5	11/24/1993	7.3	
SS-09104	0 - 0.5	11/22/1993	20000	
SS-09105	0 - 0.5	11/16/1993	630	D
SS-09106	0 - 0.5	11/18/1993	5.4	
SS-09107	0 - 0.5	11/16/1993	270	
SS-09108	0 - 0.5	11/17/1993	9.7	
SS-09109	0 - 0.5	11/19/1993	1.1	U
SS-09110	0 - 0.5	11/17/1993	36	
SS-09111	0 - 0.5	11/23/1993	1	U
SS-09111	0 - 0.5	11/23/1993	1	U
SS-09112	0 - 0.5	11/29/1993	19000	

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Trichloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Trichloroethene (µg/kg) - 2004 Soil Screening Level = 2.0 µg/kg; PMCL = 5,500 µg/kg[3]				
288-1	3 - 3	8/13/1991	5.3	
288-1	8 - 8	8/13/1991	7.4	
288-10	1.5 - 1.5	8/13/1991	68	
288-11	0.5 - 0.5	8/13/1991	29	
288-12	0.5 - 0.5	8/13/1991	1	U
288-14	3 - 3	8/13/1991	96	
288-14	8 - 8	8/13/1991	1.9	
288-16	4 - 4	8/14/1991	7.3	
288-17	4 - 4	8/14/1991	27	
288-18	4 - 4	8/14/1991	0.9	J
288-19	4 - 4	8/14/1991	1	U
288-2	3 - 3	8/13/1991	1.7	
288-2	8 - 8	8/13/1991	2100	
288-20	4 - 4	8/14/1991	1	U
288-21	4 - 4	8/14/1991	1	U
288-22	4 - 4	8/14/1991	7.7	
288-23	4 - 4	8/14/1991	2.1	U
288-24	4 - 4	8/14/1991	2	U
288-3	3 - 3	8/13/1991	1	U
288-4	3 - 3	8/13/1991	670	U
288-5	1 - 1	8/13/1991	1400	U
288-5	3 - 3	8/13/1991	1300	U
288-6	1 - 1	8/13/1991	22	
288-6	3 - 3	8/13/1991	170	
288-7	3 - 3	8/13/1991	3.9	
288-8	3 - 3	8/13/1991	1.1	
288-8	8 - 8	8/13/1991	1200	
288-9	1.5 - 1.5	8/13/1991	1.2	J
HA-284-03	2 - 2.5	4/27/1992	1	U
HA-284-03	4 - 4.5	4/27/1992	1.7	U
PL2-101A	11 - 11	10/28/1985	5	U
PL2-103A	4 - 4	10/28/1985	5	U
PL2-103A	7 - 7	10/28/1985	5	U
PL2-103A	10 - 10	10/28/1985	5	U
PL2-104B	6 - 6	6/24/1992	1.4	U
PL2-104B	11 - 11	6/24/1992	1.3	U
PL2-105C	3 - 3	6/25/1992	1.3	
PL2-105C	10 - 10	6/25/1992	3.6	
PL2-106C	7 - 7	6/18/1992	790	
PL2-106C	12 - 12	6/18/1992	1.8	
PL2-109B	9 - 9	7/7/1992	480	
PL2-109C	6 - 6	7/6/1992	58	
PL2-109C	9 - 9	7/6/1992	18	
PL2-110C	6 - 6	6/22/1992	1.1	U
PL2-110C	9 - 9	6/22/1992	160	U
PL2-111A	1 - 1	12/9/1993	1.1	U
PL2-111A	7.5 - 7.5	12/9/1993	1.9	
PL2-112A	5.5 - 5.5	1/10/1989	210	
PL2-114A	8 - 8	1/10/1989	1.9	N

South Yard Area COC Results
Trichloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Trichloroethene (µg/kg) - 2004 Soil Screening Level = 2.0 µg/kg; PMCL = 5,500 µg/kg[3]				
PL2-114A	10.5 - 10.5	1/10/1989	81	U
PL2-115A	2 - 2	7/27/1989	29	
PL2-115A	5 - 5	7/27/1989	210	
PL2-115A	8.5 - 8.5	7/27/1989	0.8	U
PL2-115A	10 - 10	7/27/1989	0.8	
PL2-116A	2 - 2	7/26/1989	0.6	U
PL2-116A	5 - 5	7/26/1989	0.7	N
PL2-116A	8.5 - 8.5	7/26/1989	0.7	U
PL2-116A	10 - 10	7/26/1989	0.7	U
PL2-117A	7.5 - 7.5	1/11/1989	230	U
PL2-301A	5 - 5	7/8/1992	1.3	U
PL2-301A	10 - 10	7/8/1992	1.2	U
PL2-302A	5 - 5	7/8/1992	1	U
PL2-302A	10 - 10	7/8/1992	1.3	U
PL2-303A	5 - 5	7/8/1992	1.2	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL2-303A	10 - 10	7/8/1992	1.3	U
PL31-B1	9 - 9	3/24/1992	1.7	
PL31-B2	8.5 - 8.5	3/24/1992	1.1	U
PL31-P1	1.8 - 1.8	3/24/1992	1	U
PL31-S1	4.6 - 4.6	3/24/1992	1.1	U
PL31-S2	5 - 5	3/24/1992	1	U
PL31-S3	5.5 - 5.5	3/24/1992	1	U
PL31-S4	5.9 - 5.9	3/24/1992	0.9	J
PL66-B1	5.5 - 5.5	10/28/1991	3.1	
PL66-B1	10.5 - 10.5	10/28/1991	1.3	U
PL66-B2	5.5 - 5.5	10/28/1991	30	
PL66-B2	10.5 - 10.5	10/28/1991	8.9	
SB-08005	11 - 11	9/22/1994	1.3	U
SB-08008	3.5 - 3.5	2/15/1995	1.1	U
SB-08008	6.5 - 6.5	2/15/1995	1.1	U
SB-08008	11.5 - 11.5	2/15/1995	1.3	U
SB-08009	0.6 - 0.6	2/16/1995	1.1	U
SB-08009	6 - 6	2/16/1995	1.2	U
SB-08010	0.5 - 0.5	2/16/1995	1	U
SB-08010	6 - 6	2/16/1995	14	
SB-08201	6.5 - 6.5	12/21/1993	1.1	U
SB-08201	8 - 8	12/21/1993	1.3	U
SB-08201	11 - 11	12/21/1993	36	
SB-08301	1.5 - 1.5	9/3/1994	1.2	U
SB-08301	4.5 - 4.5	9/3/1994	1.5	U
SB-08301	11.5 - 11.5	9/3/1994	1.3	U
SB-08302	2 - 2	9/3/1994	1.1	U
SB-08302	5 - 5	9/3/1994	1.3	U
SB-08302	11 - 11	9/3/1994	1.3	U
SB-08303	5 - 5	12/13/1993	1.3	U
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	9 - 10	4/15/2002	1.4	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Trichloroethene (µg/kg) - 2004 Soil Screening Level = 2.0 µg/kg; PMCL = 5,500 µg/kg[3]				
SB-08333	4 - 5	4/15/2002	1.1	U
SB-08333	9 - 10	4/15/2002	1.3	U
SB-08334	4 - 5	4/23/2002	1.1	U
SB-08334	7.5 - 8.5	4/23/2002	1.1	U
SB-08335	4 - 5	4/23/2002	1.1	U
SB-08335	9 - 10	4/23/2002	1.2	U
SB-08601	1.5 - 1.5	12/20/1993	1.1	U
SB-08601	7 - 7	12/20/1993	1.1	U
SB-08601	11 - 11	12/20/1993	1.3	U
SB-08602	1 - 1	12/9/1993	1	U
SB-08602	7.5 - 7.5	12/9/1993	1.5	U
SB-08604	1.5 - 1.5	9/19/1994	1.1	U
SB-08604	6 - 6	9/19/1994	1.3	U
SB-08604	9 - 9	9/19/1994	1.3	U
SB-08716	3 - 5	11/25/1998	5.2	
SB-08716	8 - 10	11/25/1998	1.4	U
SB-08717	3 - 5	11/25/1998	1.3	U
SB-08717	8 - 10	11/25/1998	2.2	
SB-08718	3 - 5	11/25/1998	14	
SB-08718	8 - 10	11/25/1998	1.3	U
SB-08719	3 - 5	11/25/1998	1.1	U
SB-08719	8 - 10	11/25/1998	1.3	U
SB-08720	3 - 5	11/25/1998	1.3	U
SB-08720	8 - 10	11/25/1998	1.3	U
SB-08721	3 - 5	11/25/1998	1.3	U
SB-08721	8 - 10	11/25/1998	1.3	U
SB-08722	3 - 5	11/25/1998	4.4	
SB-08722	8 - 10	11/25/1998	1.4	U
SB-08723	3 - 5	11/25/1998	1.2	U
SB-08723	8 - 10	11/25/1998	1.3	U
SB-08724	3 - 5	11/25/1998	1.1	U
SB-08724	8 - 10	11/25/1998	1.5	U
SB-08743	11 - 11	6/3/1999	1.3	U
SB-08746	8 - 8	6/4/1999	1.6	
SB-08747	9 - 9	6/4/1999	220	
SB-08748	11 - 11	6/4/1999	1.5	U
SB-08754	8 - 10	7/20/1999	1.4	U
SB-08901	5 - 5	12/11/1993	7.3	
SB-08901	7.5 - 7.5	12/11/1993	1.3	U
SB-08903	7.5 - 7.5	12/13/1993	1.2	U
SB-08904	1 - 1	12/9/1993	1.1	U
SB-08904	7.5 - 7.5	12/9/1993	12	
SB-08905	5 - 5	8/24/1994	31	
SB-08905	7.5 - 7.5	8/24/1994	1.1	U
SB-08905	10 - 10	8/24/1994	1.2	U
SB-08915	2 - 2	8/17/1994	3.7	
SB-08915	5 - 5	8/17/1994	16	
SB-08915	7.5 - 7.5	8/17/1994	260	D
SB-08916	2 - 2	9/13/1994	1.1	U

South Yard Area COC Results
Trichloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Trichloroethene (µg/kg) - 2004 Soil Screening Level = 2.0 µg/kg; PMCL = 5,500 µg/kg[3]				
SB-08916	5 - 5	9/13/1994	58	
SB-08917	1 - 1	8/23/1994	1	U
SB-08917	7.5 - 7.5	8/23/1994	8.4	
SB-08917	10 - 10	8/23/1994	2	
SB-08918	2 - 2	9/13/1994	1.1	U
SB-08918	5 - 5	9/13/1994	4	
SB-08919	2.5 - 2.5	8/18/1994	2.2	
SB-08919	7.5 - 7.5	8/18/1994	43	
SB-08919	10 - 10	8/18/1994	1.2	U
SB-08920	1 - 1	8/23/1994	1	U
SB-08920	7.5 - 7.5	8/23/1994	1.2	U
SB-08920	10 - 10	8/23/1994	1.3	U
SB-08921	2 - 2	9/13/1994	1	U
SB-08921	5 - 5	9/13/1994	1	U
SB-08922	1 - 1	8/19/1994	3.9	
SB-08922	1 - 1	8/19/1994	2.8	
SB-08922	5 - 5	8/19/1994	110	D
SB-08922	10 - 10	8/19/1994	1.3	U
SB-08923	2 - 2	9/13/1994	6.5	
SB-08923	5 - 5	9/13/1994	52	
SB-08924	2.5 - 2.5	8/18/1994	4.8	
SB-08924	2.5 - 2.5	8/18/1994	3.4	
SB-08924	7.5 - 7.5	8/18/1994	1.4	U
SB-08924	10 - 10	8/18/1994	3.9	
SB-08930	3 - 5	11/24/1998	1.1	U
SB-08930	8 - 10	11/24/1998	1.2	U
SB-08931	3 - 5	11/24/1998	1.8	
SB-08931	8 - 10	11/24/1998	1.2	U
SB-08932	3 - 5	11/24/1998	5	
SB-08932	8 - 10	11/24/1998	1.2	U
SB-08933	3 - 5	11/24/1998	8.3	
SB-08933	8 - 10	11/24/1998	1.2	U
SB-08934	3 - 5	11/24/1998	41	
SB-08934	8 - 10	11/24/1998	8.8	U
SB-08935	3 - 5	11/24/1998	7.6	
SB-08935	8 - 10	11/24/1998	1.3	U
SB-08936	3 - 5	11/24/1998	1.6	
SB-08936	8 - 10	11/24/1998	1.3	U
SB-08937	3 - 5	11/24/1998	14	
SB-08937	8 - 10	11/24/1998	1.3	U
SB-08938	3 - 5	11/24/1998	1.3	
SB-08938	8 - 10	11/24/1998	1.6	
SB-08939	3 - 5	11/24/1998	1.2	U
SB-08939	8 - 10	11/24/1998	1.7	
SB-08940	3 - 5	11/24/1998	20	
SB-08940	8 - 10	11/24/1998	1.3	U
SB-08941	8 - 8	5/25/1999	53	
SB-08942	11 - 11	5/25/1999	1.6	
SB-08943	11 - 11	5/25/1999	31	

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Trichloroethene (µg/kg) - 2004 Soil Screening Level = 2.0 µg/kg; PMCL = 5,500 µg/kg[3]				
SB-08944	11 - 11	5/25/1999	11	
SB-08945	8 - 8	5/25/1999	22	
SB-09101	2 - 2	9/12/1994	1	U
SB-09101	5 - 5	9/12/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	1 - 1	8/16/1994	1.1	U
SB-09102	5 - 5	8/16/1994	14	
SB-09102	7.5 - 7.5	8/16/1994	2.1	
SB-09103	2.5 - 2.5	8/16/1994	1	U
SB-09103	7.5 - 7.5	8/16/1994	3.1	
SB-09103	10 - 10	8/16/1994	1.3	U
SB-09104	1 - 1	8/16/1994	1.9	
SB-09104	7.5 - 7.5	8/16/1994	120	
SB-09104	10 - 10	8/16/1994	1.3	U
SB-09105	2 - 2	9/12/1994	1.1	U
SB-09105	5 - 5	9/12/1994	21	
SB-09106	2 - 2	9/12/1994	1.1	U
SB-09106	5 - 5	9/12/1994	14	
SB-10401	10 - 10	3/15/1994	220	
SB116-B1	5 - 5	9/13/1991	1.2	U
SB116-B1	8 - 8	9/13/1991	150	
SB116-B1	9.5 - 9.5	9/13/1991	1.3	U
SB116-B2	2 - 2	9/13/1991	1	U
SB116-B2	7 - 7	9/13/1991	27	
SB116-B2	12 - 12	9/13/1991	1.3	U
SB116-B3	2 - 2	9/13/1991	11	
SB116-B3	7 - 7	9/13/1991	84	
SB116-B3	12 - 12	9/13/1991	1.3	U
SB-28201	1 - 1	12/9/1993	1.2	U
SB-28201	7.5 - 7.5	12/9/1993	1.1	U
SB-284-01	4 - 4.5	4/27/1992	1.1	U
SB-284-01	8 - 8.5	4/27/1992	1.4	U
SB-284-02	4 - 4.5	4/27/1992	1.2	U
SB-284-02	6 - 6.5	4/27/1992	1.2	U
SB291-10	2.5 - 2.5	1/11/1989	42	
SB291-16	2 - 2	7/26/1989	0.6	U
SB291-16	5 - 5	7/26/1989	55	
SB291-16	9.5 - 9.5	7/26/1989	0.8	U
SB291-17	2 - 2	7/26/1989	3.2	
SB291-17	5 - 5	7/26/1989	280	
SB291-17	9.5 - 9.5	7/26/1989	0.8	U
SB291-3	2.5 - 2.5	1/12/1989	130	
SB291-3	7.5 - 7.5	1/12/1989	170	U
SB291-3	9.5 - 9.5	1/12/1989	9.4	
SB291-4	5 - 5	1/12/1989	59	
SB291-5	5 - 5	1/12/1989	130	
SB291-6	2.5 - 2.5	1/12/1989	200	
SB291-8	5 - 5	1/11/1989	83	U
SB291-8	10 - 10	1/11/1989	81	U

South Yard Area COC Results
Trichloroethene Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Trichloroethene (µg/kg) - 2004 Soil Screening Level = 2.0 µg/kg; PMCL = 5,500 µg/kg[3]				
SB291-9	2.5 - 2.5	1/12/1989	48	
SB291-9	5 - 5	1/12/1989	19	
SB291-9	9.5 - 9.5	1/12/1989	1.6	
SB297-2	2 - 2	7/25/1989	0.9	
SB297-2	5 - 5	7/25/1989	7.4	
SB297-2	10.5 - 10.5	7/25/1989	0.8	U
SB297-3	2 - 2	7/25/1989	0.6	U
SB297-3	5 - 5	7/25/1989	19	
SB297-3	9.5 - 9.5	7/25/1989	0.8	U
SS-09101	0 - 0.5	11/29/1993	5.2	
SS-09102	0 - 0.5	11/19/1993	140	D
SS-09103	0 - 0.5	11/24/1993	37	
SS-09104	0 - 0.5	11/22/1993	7600	J
SS-09105	0 - 0.5	11/16/1993	450	D
SS-09106	0 - 0.5	11/18/1993	21	
SS-09107	0 - 0.5	11/16/1993	52	
SS-09108	0 - 0.5	11/17/1993	2.5	
SS-09109	0 - 0.5	11/19/1993	1.1	U
SS-09110	0 - 0.5	11/17/1993	77	
SS-09111	0 - 0.5	11/23/1993	3	
SS-09111	0 - 0.5	11/23/1993	2.8	
SS-09112	0 - 0.5	11/29/1993	220	N

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Vinyl Chloride (µg/kg) - 2004 Soil Screening Level = 4.59 µg/kg; PMCL = 290 µg/kg[3]				
288-1	3 - 3	8/13/1991	3.2	U
288-1	8 - 8	8/13/1991	1100	
288-10	1.5 - 1.5	8/13/1991	3.7	U
288-11	0.5 - 0.5	8/13/1991	3.5	U
288-12	0.5 - 0.5	8/13/1991	3	U
288-14	3 - 3	8/13/1991	3.6	U
288-14	8 - 8	8/13/1991	4	U
288-16	4 - 4	8/14/1991	3.1	U
288-17	4 - 4	8/14/1991	3.1	U
288-18	4 - 4	8/14/1991	3.2	U
288-19	4 - 4	8/14/1991	3.1	U
288-2	3 - 3	8/13/1991	3.1	U
288-2	8 - 8	8/13/1991	150	
288-20	4 - 4	8/14/1991	3.1	U
288-21	4 - 4	8/14/1991	3.1	U
288-22	4 - 4	8/14/1991	3.2	U
288-23	4 - 4	8/14/1991	3.2	U
288-24	4 - 4	8/14/1991	3.1	U
288-3	3 - 3	8/13/1991	3.1	U
288-4	3 - 3	8/13/1991	2000	U
288-5	1 - 1	8/13/1991	4100	U
288-5	3 - 3	8/13/1991	3900	U
288-6	1 - 1	8/13/1991	16	U
288-6	3 - 3	8/13/1991	31	U
288-7	3 - 3	8/13/1991	3.2	U
288-8	3 - 3	8/13/1991	3.1	U
288-8	8 - 8	8/13/1991	160	
288-9	1.5 - 1.5	8/13/1991	3.6	U
HA-284-03	2 - 2.5	4/27/1992	2.1	U
HA-284-03	4 - 4.5	4/27/1992	3.4	U
PL2-101A	11 - 11	10/28/1985	5	U
PL2-103A	4 - 4	10/28/1985	5	U
PL2-103A	7 - 7	10/28/1985	5	U
PL2-103A	10 - 10	10/28/1985	5	U
PL2-104B	6 - 6	6/24/1992	2.8	U
PL2-104B	11 - 11	6/24/1992	2.5	U
PL2-105C	3 - 3	6/25/1992	2.1	U
PL2-105C	10 - 10	6/25/1992	13	
PL2-106C	7 - 7	6/18/1992	8.2	
PL2-106C	12 - 12	6/18/1992	2.8	U
PL2-109B	9 - 9	7/7/1992	32	
PL2-109C	6 - 6	7/6/1992	2.4	U
PL2-109C	9 - 9	7/6/1992	2.7	U
PL2-110C	6 - 6	6/22/1992	2.3	U
PL2-110C	9 - 9	6/22/1992	330	U
PL2-111A	1 - 1	12/9/1993	2.2	U
PL2-111A	7.5 - 7.5	12/9/1993	2.6	U
PL2-112A	5.5 - 5.5	1/10/1989	8.5	U
PL2-114A	8 - 8	1/10/1989	4.7	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Vinyl Chloride (µg/kg) - 2004 Soil Screening Level = 4.59 µg/kg; PMCL = 290 µg/kg[3]				
PL2-114A	10.5 - 10.5	1/10/1989	270	U
PL2-115A	2 - 2	7/27/1989	2.1	U
PL2-115A	5 - 5	7/27/1989	2.6	U
PL2-115A	8.5 - 8.5	7/27/1989	150	
PL2-115A	10 - 10	7/27/1989	130	
PL2-116A	2 - 2	7/26/1989	2.1	U
PL2-116A	5 - 5	7/26/1989	2.3	U
PL2-116A	8.5 - 8.5	7/26/1989	2.5	U
PL2-116A	10 - 10	7/26/1989	2.5	U
PL2-117A	7.5 - 7.5	1/11/1989	770	U
PL2-301A	5 - 5	7/8/1992	2.6	U
PL2-301A	10 - 10	7/8/1992	2.5	U
PL2-302A	5 - 5	7/8/1992	2	U
PL2-302A	10 - 10	7/8/1992	2.6	U
PL2-303A	5 - 5	7/8/1992	2.3	U
PL2-303A	10 - 10	7/8/1992	2.5	U
PL2-303A	10 - 10	7/8/1992	2.5	U
PL31-B1	9 - 9	3/24/1992	2.7	U
PL31-B2	8.5 - 8.5	3/24/1992	2.3	U
PL31-P1	1.8 - 1.8	3/24/1992	2	U
PL31-S1	4.6 - 4.6	3/24/1992	2.1	U
PL31-S2	5 - 5	3/24/1992	2	U
PL31-S3	5.5 - 5.5	3/24/1992	2.1	U
PL31-S4	5.9 - 5.9	3/24/1992	1.9	U
PL66-B1	5.5 - 5.5	10/28/1991	3.3	U
PL66-B1	10.5 - 10.5	10/28/1991	3.8	U
PL66-B2	5.5 - 5.5	10/28/1991	3.5	U
PL66-B2	10.5 - 10.5	10/28/1991	3.9	U
SB-08005	11 - 11	9/22/1994	2.6	U
SB-08008	3.5 - 3.5	2/15/1995	2.2	U
SB-08008	6.5 - 6.5	2/15/1995	2.2	U
SB-08008	11.5 - 11.5	2/15/1995	2.6	U
SB-08009	0.6 - 0.6	2/16/1995	2.2	U
SB-08009	6 - 6	2/16/1995	2.3	U
SB-08010	0.5 - 0.5	2/16/1995	2.1	U
SB-08010	6 - 6	2/16/1995	2.5	U
SB-08201	6.5 - 6.5	12/21/1993	2.2	U
SB-08201	8 - 8	12/21/1993	2.6	U
SB-08201	11 - 11	12/21/1993	2.5	U
SB-08301	1.5 - 1.5	9/3/1994	2.5	U
SB-08301	4.5 - 4.5	9/3/1994	3	U
SB-08301	11.5 - 11.5	9/3/1994	2.5	U
SB-08302	2 - 2	9/3/1994	2.2	U
SB-08302	5 - 5	9/3/1994	2.6	U
SB-08302	11 - 11	9/3/1994	2.7	U
SB-08303	5 - 5	12/13/1993	2.7	U
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	4 - 5	4/15/2002	1.1	U
SB-08332	9 - 10	4/15/2002	1.4	U

South Yard Area COC Results
Vinyl Chloride Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Vinyl Chloride (µg/kg) - 2004 Soil Screening Level = 4.59 µg/kg; PMCL = 290 µg/kg[3]				
SB-08333	4 - 5	4/15/2002	1.1	U
SB-08333	9 - 10	4/15/2002	1.3	U
SB-08334	4 - 5	4/23/2002	1.1	U
SB-08334	7.5 - 8.5	4/23/2002	1.1	U
SB-08335	4 - 5	4/23/2002	1.1	U
SB-08335	9 - 10	4/23/2002	1.2	U
SB-08601	1.5 - 1.5	12/20/1993	2.3	U
SB-08601	7 - 7	12/20/1993	2.2	U
SB-08601	11 - 11	12/20/1993	2.5	U
SB-08602	1 - 1	12/9/1993	2.1	U
SB-08602	7.5 - 7.5	12/9/1993	3	U
SB-08604	1.5 - 1.5	9/19/1994	2.2	U
SB-08604	6 - 6	9/19/1994	2.6	U
SB-08604	9 - 9	9/19/1994	2.6	U
SB-08716	3 - 5	11/25/1998	2.7	U
SB-08716	8 - 10	11/25/1998	2.7	U
SB-08717	3 - 5	11/25/1998	2.6	U
SB-08717	8 - 10	11/25/1998	2.7	U
SB-08718	3 - 5	11/25/1998	2.7	U
SB-08718	8 - 10	11/25/1998	2.7	U
SB-08719	3 - 5	11/25/1998	2.2	U
SB-08719	8 - 10	11/25/1998	2.6	U
SB-08720	3 - 5	11/25/1998	2.5	U
SB-08720	8 - 10	11/25/1998	2.6	U
SB-08721	3 - 5	11/25/1998	2.6	U
SB-08721	8 - 10	11/25/1998	2.5	U
SB-08722	3 - 5	11/25/1998	2.6	U
SB-08722	8 - 10	11/25/1998	2.8	U
SB-08723	3 - 5	11/25/1998	2.4	U
SB-08723	8 - 10	11/25/1998	3.5	
SB-08724	3 - 5	11/25/1998	2.2	U
SB-08724	8 - 10	11/25/1998	2.9	U
SB-08743	11 - 11	6/3/1999	1.3	U
SB-08746	8 - 8	6/4/1999	1.4	U
SB-08747	9 - 9	6/4/1999	22	
SB-08748	11 - 11	6/4/1999	1.5	U
SB-08754	8 - 10	7/20/1999	1.4	U
SB-08901	5 - 5	12/11/1993	2.9	U
SB-08901	7.5 - 7.5	12/11/1993	2.7	U
SB-08903	7.5 - 7.5	12/13/1993	2.4	U
SB-08904	1 - 1	12/9/1993	2.1	U
SB-08904	7.5 - 7.5	12/9/1993	2.7	U
SB-08905	5 - 5	8/24/1994	2.6	U
SB-08905	7.5 - 7.5	8/24/1994	2.2	U
SB-08905	10 - 10	8/24/1994	2.5	U
SB-08915	2 - 2	8/17/1994	2.2	U
SB-08915	5 - 5	8/17/1994	2.2	U
SB-08915	7.5 - 7.5	8/17/1994	3.9	
SB-08916	2 - 2	9/13/1994	2.2	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Vinyl Chloride (µg/kg) - 2004 Soil Screening Level = 4.59 µg/kg; PMCL = 290 µg/kg[3]				
SB-08916	5 - 5	9/13/1994	2.5	U
SB-08917	1 - 1	8/23/1994	2	U
SB-08917	7.5 - 7.5	8/23/1994	2.7	U
SB-08917	10 - 10	8/23/1994	2.6	U
SB-08918	2 - 2	9/13/1994	2.2	U
SB-08918	5 - 5	9/13/1994	2.3	U
SB-08919	2.5 - 2.5	8/18/1994	2.2	U
SB-08919	7.5 - 7.5	8/18/1994	2.6	U
SB-08919	10 - 10	8/18/1994	2.5	U
SB-08920	1 - 1	8/23/1994	2.1	U
SB-08920	7.5 - 7.5	8/23/1994	2.4	U
SB-08920	10 - 10	8/23/1994	2.6	U
SB-08921	2 - 2	9/13/1994	2.1	U
SB-08921	5 - 5	9/13/1994	2.1	U
SB-08922	1 - 1	8/19/1994	2	U
SB-08922	1 - 1	8/19/1994	2	U
SB-08922	5 - 5	8/19/1994	2.3	U
SB-08922	10 - 10	8/19/1994	2.5	U
SB-08923	2 - 2	9/13/1994	2.2	U
SB-08923	5 - 5	9/13/1994	2.5	U
SB-08924	2.5 - 2.5	8/18/1994	2.1	U
SB-08924	2.5 - 2.5	8/18/1994	2	U
SB-08924	7.5 - 7.5	8/18/1994	2.7	U
SB-08924	10 - 10	8/18/1994	2.6	U
SB-08930	3 - 5	11/24/1998	2.2	U
SB-08930	8 - 10	11/24/1998	2.4	U
SB-08931	3 - 5	11/24/1998	2.3	U
SB-08931	8 - 10	11/24/1998	2.5	U
SB-08932	3 - 5	11/24/1998	2.2	U
SB-08932	8 - 10	11/24/1998	2.4	U
SB-08933	3 - 5	11/24/1998	2.3	U
SB-08933	8 - 10	11/24/1998	2.3	U
SB-08934	3 - 5	11/24/1998	2.3	U
SB-08934	8 - 10	11/24/1998	18	U
SB-08935	3 - 5	11/24/1998	2.2	U
SB-08935	8 - 10	11/24/1998	2.6	U
SB-08936	3 - 5	11/24/1998	2.1	U
SB-08936	8 - 10	11/24/1998	2.5	U
SB-08937	3 - 5	11/24/1998	2.5	U
SB-08937	8 - 10	11/24/1998	2.6	U
SB-08938	3 - 5	11/24/1998	2.2	U
SB-08938	8 - 10	11/24/1998	2.4	U
SB-08939	3 - 5	11/24/1998	2.3	U
SB-08939	8 - 10	11/24/1998	2.6	U
SB-08940	3 - 5	11/24/1998	2.3	U
SB-08940	8 - 10	11/24/1998	2.6	U
SB-08941	8 - 8	5/25/1999	1.4	U
SB-08942	11 - 11	5/25/1999	1.5	
SB-08943	11 - 11	5/25/1999	1.3	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Vinyl Chloride (µg/kg) - 2004 Soil Screening Level = 4.59 µg/kg; PMCL = 290 µg/kg[3]				
SB-08944	11 - 11	5/25/1999	1.4	U
SB-08945	8 - 8	5/25/1999	41	
SB-09101	2 - 2	9/12/1994	2.1	U
SB-09101	5 - 5	9/12/1994	2.3	U
SB-09102	1 - 1	8/16/1994	2.1	U
SB-09102	1 - 1	8/16/1994	2.1	U
SB-09102	5 - 5	8/16/1994	2.8	U
SB-09102	7.5 - 7.5	8/16/1994	8.9	
SB-09103	2.5 - 2.5	8/16/1994	2.1	U
SB-09103	7.5 - 7.5	8/16/1994	46	
SB-09103	10 - 10	8/16/1994	2.6	U
SB-09104	1 - 1	8/16/1994	2.1	U
SB-09104	7.5 - 7.5	8/16/1994	320	D
SB-09104	10 - 10	8/16/1994	2.6	U
SB-09105	2 - 2	9/12/1994	2.1	U
SB-09105	5 - 5	9/12/1994	2.8	U
SB-09106	2 - 2	9/12/1994	2.1	U
SB-09106	5 - 5	9/12/1994	2.4	U
SB-10401	10 - 10	3/15/1994	310	U
SB116-B1	5 - 5	9/13/1991	3.6	U
SB116-B1	8 - 8	9/13/1991	4.2	U
SB116-B1	9.5 - 9.5	9/13/1991	3.9	U
SB116-B2	2 - 2	9/13/1991	3.1	U
SB116-B2	7 - 7	9/13/1991	3.4	U
SB116-B2	12 - 12	9/13/1991	4	U
SB116-B3	2 - 2	9/13/1991	4.2	U
SB116-B3	7 - 7	9/13/1991	4.3	U
SB116-B3	12 - 12	9/13/1991	9.2	
SB-28201	1 - 1	12/9/1993	2.3	U
SB-28201	7.5 - 7.5	12/9/1993	2.2	U
SB-284-01	4 - 4.5	4/27/1992	2.2	U
SB-284-01	8 - 8.5	4/27/1992	2.7	U
SB-284-02	4 - 4.5	4/27/1992	2.4	U
SB-284-02	6 - 6.5	4/27/1992	2.4	U
SB291-10	2.5 - 2.5	1/11/1989	4.5	U
SB291-16	2 - 2	7/26/1989	2	U
SB291-16	5 - 5	7/26/1989	10	U
SB291-16	9.5 - 9.5	7/26/1989	15	
SB291-17	2 - 2	7/26/1989	2	U
SB291-17	5 - 5	7/26/1989	2.6	U
SB291-17	9.5 - 9.5	7/26/1989	2.5	U
SB291-3	2.5 - 2.5	1/12/1989	58	U
SB291-3	7.5 - 7.5	1/12/1989	560	U
SB291-3	9.5 - 9.5	1/12/1989	13	U
SB291-4	5 - 5	1/12/1989	4.1	U
SB291-5	5 - 5	1/12/1989	5.6	U
SB291-6	2.5 - 2.5	1/12/1989	60	U
SB291-8	5 - 5	1/11/1989	280	U
SB291-8	10 - 10	1/11/1989	270	U

South Yard Area COC Results
Vinyl Chloride Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (µg/kg)	Data Qualifier[2]
Vinyl Chloride (µg/kg) - 2004 Soil Screening Level = 4.59 µg/kg; PMCL = 290 µg/kg[3]				
SB291-9	2.5 - 2.5	1/12/1989	4.7	U
SB291-9	5 - 5	1/12/1989	9.5	U
SB291-9	9.5 - 9.5	1/12/1989	2.7	U
SB297-2	2 - 2	7/25/1989	2	U
SB297-2	5 - 5	7/25/1989	2.1	U
SB297-2	10.5 - 10.5	7/25/1989	2.7	U
SB297-3	2 - 2	7/25/1989	2.1	U
SB297-3	5 - 5	7/25/1989	2.5	U
SB297-3	9.5 - 9.5	7/25/1989	1.9	N
SS-09101	0 - 0.5	11/29/1993	2.3	U
SS-09102	0 - 0.5	11/19/1993	2.2	U
SS-09103	0 - 0.5	11/24/1993	2.3	U
SS-09104	0 - 0.5	11/22/1993	680	U
SS-09105	0 - 0.5	11/16/1993	2.3	U
SS-09106	0 - 0.5	11/18/1993	2.3	U
SS-09107	0 - 0.5	11/16/1993	8.1	U
SS-09108	0 - 0.5	11/17/1993	2.1	U
SS-09109	0 - 0.5	11/19/1993	2.2	U
SS-09110	0 - 0.5	11/17/1993	2.2	U
SS-09111	0 - 0.5	11/23/1993	2.1	U
SS-09111	0 - 0.5	11/23/1993	2	U
SS-09112	0 - 0.5	11/29/1993	310	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Diesel-Range Hydrocarbons (mg/kg) - 2004 Soil Screening Level = 2,000 mg/kg; PMCL = 200 mg/kg[3]				
PL2-318A	7.5 - 7.5	11/30/1993	25	U
SB-06802	7.5 - 7.5	8/24/1994	5.3	U
SB-06802	10 - 10	8/24/1994	14000	DJ
SB-06802	10 - 10	8/24/1994	7400	DJ
SB-06901	7.5 - 7.5	12/3/1993	25	U
SB-06901	10 - 10	12/3/1993	25	U
SB-08001	7.5 - 7.5	8/25/1994	2400	D
SB-08001	10 - 10	8/25/1994	6800	D
SB-08002	5 - 5	8/17/1994	5.2	U
SB-08002	7.5 - 7.5	8/17/1994	5.3	U
SB-08002	10 - 10	8/17/1994	6.2	U
SB-08009	0.6 - 0.6	2/16/1995	25	U
SB-08009	6 - 6	2/16/1995	25	U
SB-08010	0.5 - 0.5	2/16/1995	25	U
SB-08010	6 - 6	2/16/1995	25	U
SB-08011	5 - 5	3/3/1995	5.2	U
SB-08011	7.5 - 7.5	3/3/1995	6	U
SB-08011	9.5 - 9.5	3/3/1995	6.3	U
SB-08011	9.5 - 9.5	3/3/1995	6.2	U
SB-08012	5 - 5	3/9/1995	5.4	U
SB-08012	7.5 - 7.5	3/9/1995	6.2	U
SB-08012	8.5 - 8.5	3/9/1995	5.8	U
SB-08201	6.5 - 6.5	12/21/1993	25	U
SB-08201	8 - 8	12/21/1993	25	U
SB-08201	11 - 11	12/21/1993	25	U
SB-08301	1.5 - 1.5	9/3/1994	25	U
SB-08301	4.5 - 4.5	9/3/1994	25	UJ
SB-08301	11.5 - 11.5	9/3/1994	25	U
SB-08302	2 - 2	9/3/1994	25	U
SB-08302	5 - 5	9/3/1994	25	U
SB-08302	11 - 11	9/3/1994	25	U
SB-08303	5 - 5	12/13/1993	25	U
SB-08305	1 - 1	2/22/1995	25	U
SB-08305	5 - 5	2/22/1995	25	U
SB-08603	7.5 - 7.5	12/9/1993	25	U
SB-08603	10 - 10	12/9/1993	25	U
SB-08716	3 - 5	11/25/1998	25	U
SB-08716	8 - 10	11/25/1998	25	U
SB-08717	3 - 5	11/25/1998	25	U
SB-08717	8 - 10	11/25/1998	25	U
SB-08718	3 - 5	11/25/1998	25	U
SB-08718	8 - 10	11/25/1998	25	U
SB-08719	3 - 5	11/25/1998	25	U
SB-08719	8 - 10	11/25/1998	25	U
SB-08720	3 - 5	11/25/1998	25	U
SB-08720	8 - 10	11/25/1998	25	U
SB-08721	3 - 5	11/25/1998	25	U
SB-08721	8 - 10	11/25/1998	25	U
SB-08722	3 - 5	11/25/1998	25	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Diesel-Range Hydrocarbons (mg/kg) - 2004 Soil Screening Level = 2,000 mg/kg; PMCL = 200 mg/kg[3]				
SB-08722	8 - 10	11/25/1998	25	U
SB-08723	3 - 5	11/25/1998	25	U
SB-08723	8 - 10	11/25/1998	25	U
SB-08724	3 - 5	11/25/1998	25	U
SB-08724	8 - 10	11/25/1998	25	U
SB-08738	10 - 10	5/28/1999	18	
SB-08741	3 - 3	5/28/1999	5.3	U
SB-08742	5 - 5	5/28/1999	5.6	U
SB-08925	1.5 - 1.5	8/18/1994	25	U
SB-08925	5.5 - 5.5	8/18/1994	25	U
SB-08925	8 - 8	8/18/1994	25	U
SB-08930	3 - 5	11/24/1998	25	U
SB-08930	8 - 10	11/24/1998	25	U
SB-08931	3 - 5	11/24/1998	25	U
SB-08931	8 - 10	11/24/1998	25	U
SB-08932	3 - 5	11/24/1998	25	U
SB-08932	8 - 10	11/24/1998	25	U
SB-08933	3 - 5	11/24/1998	25	U
SB-08933	8 - 10	11/24/1998	25	U
SB-08934	3 - 5	11/24/1998	25	U
SB-08934	8 - 10	11/24/1998	25	U
SB-08935	3 - 5	11/24/1998	25	U
SB-08935	8 - 10	11/24/1998	25	U
SB-08936	3 - 5	11/24/1998	25	U
SB-08936	8 - 10	11/24/1998	25	U
SB-08937	3 - 5	11/24/1998	25	U
SB-08937	8 - 10	11/24/1998	25	U
SB-08938	3 - 5	11/24/1998	25	U
SB-08938	8 - 10	11/24/1998	25	U
SB-08939	3 - 5	11/24/1998	25	U
SB-08939	8 - 10	11/24/1998	25	U
SB-08940	3 - 5	11/24/1998	25	U
SB-08940	8 - 10	11/24/1998	25	U
SB-09101	2 - 2	9/12/1994	25	U
SB-09101	5 - 5	9/12/1994	25	U
SB-09102	1 - 1	8/16/1994	25	U
SB-09102	1 - 1	8/16/1994	25	U
SB-09102	5 - 5	8/16/1994	25	U
SB-09102	7.5 - 7.5	8/16/1994	25	U
SB-09103	2.5 - 2.5	8/16/1994	25	U
SB-09103	7.5 - 7.5	8/16/1994	25	U
SB-09103	10 - 10	8/16/1994	25	U
SB-09104	1 - 1	8/16/1994	25	U
SB-09104	7.5 - 7.5	8/16/1994	25	U
SB-09104	10 - 10	8/16/1994	25	U
SB-09105	2 - 2	9/12/1994	25	U
SB-09105	5 - 5	9/12/1994	25	U
SB-09106	2 - 2	9/12/1994	90	
SB-09106	5 - 5	9/12/1994	25	U

South Yard Area COC Results
TPH-D Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Diesel-Range Hydrocarbons (mg/kg) - 2004 Soil Screening Level = 2,000 mg/kg; PMCL = 200 mg/kg[3]				
SB-11001	6 - 6	9/12/1994	25	U
SB-11001	9.5 - 9.5	9/12/1994	25	U
SB-11001	9.5 - 9.5	9/12/1994	25	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Gasoline-Range Hydrocarbons (mg/kg) - 2004 Soil Screening Level = 30 mg/kg; PMCL = 100 mg/kg[3]				
EX-1	8 - 8	10/23/1992	1200	
EX-3	8 - 8	10/23/1992	14000	
EX-5	10.5 - 10.5	10/23/1992	19	
PL2-318A	7.5 - 7.5	11/30/1993	20	U
SB-06901	7.5 - 7.5	12/3/1993	20	U
SB-06901	10 - 10	12/3/1993	20	U
SB-08005	2 - 2	9/16/1994	2100	
SB-08005	11 - 11	9/22/1994	5	U
SB-08005	11 - 11	9/22/1994	5	U
SB-08006	5 - 5	8/16/1994	5	U
SB-08006	7.5 - 7.5	8/16/1994	5	U
SB-08006	10 - 10	8/16/1994	5	U
SB-08007	5 - 5	8/16/1994	5	U
SB-08007	7.5 - 7.5	8/16/1994	5	U
SB-08007	10 - 10	8/16/1994	5	U
SB-08008	3.5 - 3.5	2/15/1995	5	U
SB-08008	6.5 - 6.5	2/15/1995	5	U
SB-08008	11.5 - 11.5	2/15/1995	5	U
SB-08009	0.6 - 0.6	2/16/1995	20	U
SB-08009	6 - 6	2/16/1995	20	U
SB-08010	0.5 - 0.5	2/16/1995	20	U
SB-08010	6 - 6	2/16/1995	20	U
SB-08013	5 - 5	2/22/1995	5	U
SB-08013	9 - 9	2/22/1995	5	U
SB-08013	12 - 12	2/22/1995	5	U
SB-08014	5 - 5	2/22/1995	5	U
SB-08014	7 - 7	2/22/1995	5	U
SB-08014	7 - 7	2/22/1995	5	U
SB-08014	11 - 11	2/22/1995	5	U
SB-08201	6.5 - 6.5	12/21/1993	20	U
SB-08201	8 - 8	12/21/1993	20	U
SB-08201	11 - 11	12/21/1993	20	U
SB-08301	1.5 - 1.5	9/3/1994	20	U
SB-08301	4.5 - 4.5	9/3/1994	20	UJ
SB-08301	11.5 - 11.5	9/3/1994	20	U
SB-08302	2 - 2	9/3/1994	20	U
SB-08302	5 - 5	9/3/1994	20	U
SB-08302	11 - 11	9/3/1994	20	U
SB-08303	5 - 5	12/13/1993	20	U
SB-08305	1 - 1	2/22/1995	20	U
SB-08305	5 - 5	2/22/1995	20	U
SB-08603	7.5 - 7.5	12/9/1993	20	U
SB-08603	10 - 10	12/9/1993	20	U
SB-08716	3 - 5	11/25/1998	20	U
SB-08716	8 - 10	11/25/1998	20	U
SB-08717	3 - 5	11/25/1998	20	U
SB-08717	8 - 10	11/25/1998	20	U
SB-08718	3 - 5	11/25/1998	20	U
SB-08718	8 - 10	11/25/1998	20	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Gasoline-Range Hydrocarbons (mg/kg) - 2004 Soil Screening Level = 30 mg/kg; PMCL = 100 mg/kg[3]				
SB-08719	3 - 5	11/25/1998	20	U
SB-08719	8 - 10	11/25/1998	20	U
SB-08720	3 - 5	11/25/1998	20	U
SB-08720	8 - 10	11/25/1998	20	U
SB-08721	3 - 5	11/25/1998	20	U
SB-08721	8 - 10	11/25/1998	20	U
SB-08722	3 - 5	11/25/1998	20	U
SB-08722	8 - 10	11/25/1998	20	U
SB-08723	3 - 5	11/25/1998	20	U
SB-08723	8 - 10	11/25/1998	20	U
SB-08724	3 - 5	11/25/1998	20	U
SB-08724	8 - 10	11/25/1998	20	U
SB-08925	1.5 - 1.5	8/18/1994	20	U
SB-08925	5.5 - 5.5	8/18/1994	20	U
SB-08925	8 - 8	8/18/1994	20	U
SB-08930	3 - 5	11/24/1998	20	U
SB-08930	8 - 10	11/24/1998	20	U
SB-08931	3 - 5	11/24/1998	20	U
SB-08931	8 - 10	11/24/1998	20	U
SB-08932	3 - 5	11/24/1998	20	U
SB-08932	8 - 10	11/24/1998	20	U
SB-08933	3 - 5	11/24/1998	20	U
SB-08933	8 - 10	11/24/1998	20	U
SB-08934	3 - 5	11/24/1998	20	U
SB-08934	8 - 10	11/24/1998	20	U
SB-08935	3 - 5	11/24/1998	20	U
SB-08935	8 - 10	11/24/1998	20	U
SB-08936	3 - 5	11/24/1998	20	U
SB-08936	8 - 10	11/24/1998	20	U
SB-08937	3 - 5	11/24/1998	20	U
SB-08937	8 - 10	11/24/1998	20	U
SB-08938	3 - 5	11/24/1998	20	U
SB-08938	8 - 10	11/24/1998	20	U
SB-08939	3 - 5	11/24/1998	20	U
SB-08939	8 - 10	11/24/1998	20	U
SB-08940	3 - 5	11/24/1998	20	U
SB-08940	8 - 10	11/24/1998	20	U
SB-09101	2 - 2	9/12/1994	20	U
SB-09101	5 - 5	9/12/1994	20	U
SB-09102	1 - 1	8/16/1994	20	U
SB-09102	1 - 1	8/16/1994	20	U
SB-09102	5 - 5	8/16/1994	20	U
SB-09102	7.5 - 7.5	8/16/1994	20	U
SB-09103	2.5 - 2.5	8/16/1994	20	U
SB-09103	7.5 - 7.5	8/16/1994	20	U
SB-09103	10 - 10	8/16/1994	20	U
SB-09104	1 - 1	8/16/1994	20	U
SB-09104	7.5 - 7.5	8/16/1994	20	U
SB-09104	10 - 10	8/16/1994	20	U

South Yard Area COC Results
TPH-G Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Gasoline-Range Hydrocarbons (mg/kg) - 2004 Soil Screening Level = 30 mg/kg; PMCL = 100 mg/kg[3]				
SB-09105	2 - 2	9/12/1994	20	U
SB-09105	5 - 5	9/12/1994	20	U
SB-09106	2 - 2	9/12/1994	20	U
SB-09106	5 - 5	9/12/1994	20	U
SB-11001	6 - 6	9/12/1994	20	U
SB-11001	9.5 - 9.5	9/12/1994	20	U
SB-11001	9.5 - 9.5	9/12/1994	20	U

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

South Yard Area COC Results
Total Petroleum Hydrocarbon Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Total Petroleum Hydrocarbons (mg/kg) - 2004 Soil Screening Level = 2,000 mg/kg; PMCL = 200 mg/kg[3]				
288-1	3 - 3	8/13/1991	10	U
288-1	8 - 8	8/13/1991	45	
288-10	1.5 - 1.5	8/13/1991	230	
288-11	0.5 - 0.5	8/13/1991	29	
288-12	0.5 - 0.5	8/13/1991	10	U
288-14	3 - 3	8/13/1991	3200	
288-14	8 - 8	8/13/1991	20	
288-16	4 - 4	8/14/1991	13	
288-17	4 - 4	8/14/1991	9300	
288-18	4 - 4	8/14/1991	10	U
288-19	4 - 4	8/14/1991	3100	
288-2	3 - 3	8/13/1991	10	U
288-2	8 - 8	8/13/1991	36	
288-20	4 - 4	8/14/1991	200	
288-21	4 - 4	8/14/1991	10	U
288-22	4 - 4	8/14/1991	10	U
288-23	4 - 4	8/14/1991	10	U
288-24	4 - 4	8/14/1991	10	U
288-3	3 - 3	8/13/1991	10	U
288-4	3 - 3	8/13/1991	2400	
288-5	1 - 1	8/13/1991	5600	
288-5	3 - 3	8/13/1991	5400	
288-6	1 - 1	8/13/1991	17000	
288-6	3 - 3	8/13/1991	27000	
288-7	3 - 3	8/13/1991	12	
288-8	3 - 3	8/13/1991	10	U
288-8	8 - 8	8/13/1991	36	
288-9	1.5 - 1.5	8/13/1991	160	
PL2-111A	1 - 1	12/9/1993	21	
PL2-111A	5 - 5	12/9/1993	15	
PL2-112A	2 - 2	1/10/1989	13001	
PL2-112A	5.5 - 5.5	1/10/1989	51665	
PL2-112A	8 - 8	1/10/1989	18	
PL2-112A	10.5 - 10.5	1/10/1989	1	U
PL2-113A	2 - 2	1/10/1989	41	
PL2-113A	5.5 - 5.5	1/10/1989	138	
PL2-113A	8 - 8	1/10/1989	1	U
PL2-113A	10.5 - 10.5	1/10/1989	8	
PL2-114A	2 - 2	1/10/1989	4482	
PL2-114A	8 - 8	1/10/1989	100	
PL2-114A	10.5 - 10.5	1/10/1989	2	
PL2-115A	2 - 2	7/27/1989	130	
PL2-115A	5 - 5	7/27/1989	30	
PL2-115A	8.5 - 8.5	7/27/1989	10	U
PL2-115A	10 - 10	7/27/1989	10	U
PL2-116A	2 - 2	7/26/1989	10	U
PL2-116A	5 - 5	7/26/1989	10	U
PL2-116A	8.5 - 8.5	7/26/1989	10	U
PL2-116A	10 - 10	7/26/1989	10	U

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Total Petroleum Hydrocarbons (mg/kg) - 2004 Soil Screening Level = 2,000 mg/kg; PMCL = 200 mg/kg[3]				
PL2-117A	2.5 - 2.5	1/11/1989	2	
PL2-117A	5 - 5	1/11/1989	37	
PL2-117A	7.5 - 7.5	1/11/1989	1	U
PL2-117A	10 - 10	1/11/1989	1	U
SB-08003	1.5 - 1.5	8/18/1994	16	
SB-08003	8 - 8	8/18/1994	19	
SB-08003	10 - 10	8/18/1994	19	
SB-08004	3.5 - 3.5	8/18/1994	47	
SB-08004	8 - 8	8/18/1994	130	
SB-08004	12 - 12	8/18/1994	14	U
SB-08601	1.5 - 1.5	12/20/1993	11	U
SB-08601	7 - 7	12/20/1993	27	
SB-08601	11 - 11	12/20/1993	13	U
SB-08602	1 - 1	12/9/1993	15	
SB-08602	5 - 5	12/9/1993	26	
SB-08714	2 - 2	9/22/1995	13	U
SB-08714	7 - 7	9/22/1995	140	
SB-08714	10 - 10	9/22/1995	13	U
SB-08715	2 - 2	9/22/1995	12	U
SB-08715	2 - 2	9/22/1995	11	U
SB-08715	7 - 7	9/22/1995	51	
SB-08715	9.5 - 9.5	9/22/1995	13	U
SB-08901	5 - 5	12/11/1993	42	
SB-08901	7.5 - 7.5	12/11/1993	13	U
SB-08903	5 - 5	12/13/1993	48	
SB-08903	5 - 5	12/13/1993	12	U
SB-08904	1 - 1	12/9/1993	11	U
SB-08904	5 - 5	12/9/1993	12	U
SB-08915	2 - 2	8/17/1994	2500	
SB-08915	5 - 5	8/17/1994	270	
SB-08915	7.5 - 7.5	8/17/1994	14	U
SB-09106	2 - 2	9/12/1994	430	
SB-09107	3.5 - 3.5	3/10/1995	10	U
SB-09107	5.5 - 5.5	3/10/1995	15	U
SB-09107	5.5 - 5.5	3/10/1995	14	U
SB-09107	8.5 - 8.5	3/10/1995	16	U
SB-28201	1 - 1	12/9/1993	12	
SB-28201	5 - 5	12/9/1993	12	U
SB291-10	2.5 - 2.5	1/11/1989	9293	
SB291-10	5 - 5	1/11/1989	1	U
SB291-10	10 - 10	1/11/1989	1	U
SB291-16	2 - 2	7/26/1989	10	U
SB291-16	5 - 5	7/26/1989	6000	
SB291-16	9.5 - 9.5	7/26/1989	10	U
SB291-17	2 - 2	7/26/1989	10	U
SB291-17	5 - 5	7/26/1989	10	U
SB291-17	9.5 - 9.5	7/26/1989	10	U
SB291-3	2.5 - 2.5	1/12/1989	1	U
SB291-3	5 - 5	1/12/1989	56827	

South Yard Area COC Results
Total Petroleum Hydrocarbon Concentrations in Soil

Sample Location	Sample Interval[1] (ft. bgs)	Sample Date	Concentration (mg/kg)	Data Qualifier[2]
Total Petroleum Hydrocarbons (mg/kg) - 2004 Soil Screening Level = 2,000 mg/kg; PMCL = 200 mg/kg[3]				
SB291-3	7.5 - 7.5	1/12/1989	11684	
SB291-3	9.5 - 9.5	1/12/1989	103	
SB291-4	2.5 - 2.5	1/12/1989	9	
SB291-4	5 - 5	1/12/1989	16	
SB291-4	9.5 - 9.5	1/12/1989	1	U
SB291-5	2.5 - 2.5	1/12/1989	1	U
SB291-5	5 - 5	1/12/1989	12	
SB291-5	9.5 - 9.5	1/12/1989	1	U
SB291-6	2.5 - 2.5	1/12/1989	866	
SB291-7	2.5 - 2.5	1/12/1989	1	U
SB291-8	2.5 - 2.5	1/11/1989	2379	
SB291-8	5 - 5	1/11/1989	2	
SB291-8	10 - 10	1/11/1989	17	
SB291-9	2.5 - 2.5	1/12/1989	2968	
SB291-9	5 - 5	1/12/1989	4128	
SB291-9	9.5 - 9.5	1/12/1989	1	U
SB297-2	2 - 2	7/25/1989	10	U
SB297-2	5 - 5	7/25/1989	10	U
SB297-2	10.5 - 10.5	7/25/1989	10	U
SB297-3	2 - 2	7/25/1989	10	U
SB297-3	5 - 5	7/25/1989	12	
SB297-3	9.5 - 9.5	7/25/1989	10	U
SS-09101	0 - 0.5	11/29/1993	9500	
SS-09102	0 - 0.5	11/19/1993	21000	
SS-09103	0 - 0.5	11/24/1993	220	
SS-09104	0 - 0.5	11/22/1993	54000	
SS-09105	0 - 0.5	11/16/1993	14000	
SS-09106	0 - 0.5	11/18/1993	49	
SS-09107	0 - 0.5	11/16/1993	4100	
SS-09108	0 - 0.5	11/17/1993	4300	
SS-09109	0 - 0.5	11/19/1993	29	
SS-09110	0 - 0.5	11/17/1993	99	
SS-09111	0 - 0.5	11/23/1993	320	J
SS-09111	0 - 0.5	11/23/1993	150	J
SS-09112	0 - 0.5	11/29/1993	34000	

Note: (1) - Data restricted from surface to 12ft bgs.
(2) - Definitions for data qualifiers are provided on Table B-3.
(3) - PMCL - Preliminary Media Cleanup Level (Weston, 1999).

Boeing Plant 2
Seattle/Tukwila, Washington

Uplands Corrective Measures
Volume III: South Yard Area

Data Gap Investigation Work Plan

Attachment C
Health and Safety Plan

ENVIRONMENTAL PARTNERS INC

Attachment C: Health and Safety Plan for South Yard Area Data Gap Investigation

Boeing Plant 2
Seattle/Tukwila, Washington

Prepared For:

The Boeing Company
P.O. Box 3707
M/C 1W-12
Seattle/Tukwila, WA 98124

June 13, 2004

Prepared By:

Environmental Partners, Inc.
295 NE Gilman Blvd. Suite 201
Issaquah, WA 98027
(425) 395-0010

John S. Brasino, PE, Ph.D.
Principal

Douglas C. Kunkel L.H.G.
Senior Hydrogeologist

Project Number: 17504.0

QR JCK TR JCK

BOEING CONTACTS

Jennifer Parsons: ..... **(206) 715-7981 (cell)**
Will Ernst: ..... **(425) 891-7724**
Mike Gleason: ..... **(206) 290-6576**

EPI CONTACTS

Josh Bernthal: ..... **(425) 241-5400 (cell) (425) 395-0024 (office)**
Doug Kunkel: ..... **(425) 241-8170 (cell) (425) 395-0016 (office)**

EMERGENCY CONTACTS AND EMERGENCY INFORMATION

****Boeing Emergency Number:..... 206-655-2222 Call First****
POLICE: **911**
FIRE: **911**
FIRST AID: **911**

In the event of an emergency, be prepared to give the following information:

- Location of Emergency

  Site Location: ..... **The Boeing Company**
  7755 East Marginal Way South
  Seattle, Washington 98108

  Landmarks: ..... **West of Boeing Field and East of the Duwamish Waterway**
  Nearest Cross Street: ..... **South of 16th Ave South**

- Phone Number That You Are Calling From: ..... **LOOK ON PHONE**

- What Happened?
  * Type of Accident
  * Type(s) of Injuries
- How Many People Need Help?

Additional Emergency Information:

- **Boeing Emergency Number:..... 206-655-2222**

- Hospital Name: ..... **Harborview Medical Center**
  Address: ..... **325 9th Avenue**
  City, State, Zip Code: ..... **Seattle, Washington 98104**
  Phone Number: ..... **(206) 731-3000**

- Note: Contact a Principal at Environmental Partners, Inc. after Emergency Services have been called.
  Environmental Partners, Inc..... **(425) 395-0010 (office)**
  John Brasino (Principal)..... **(206) 954-6935 (cell)**
  Thom Morin (Principal)..... **(206) 342-6957 (cell)**

YAHOO! GetLocal Maps

Maps | Yellow Pages | City Guic

I GRADUATED IN: 1993 1983 1973

Welcome, Guest User

Create My Locations - Sign In

Yahoo! Maps

Maps Home

Maps | **Driving Directions**

Starting from: 1 7755 E Marginal Way S, Tukwila, WA 98108-4002 Save Address

Arriving at: 2 325 9th Avenue, Seattle, WA 98104-2420 Save Address

Get Reverse Directions

Distance: 5.9 miles **Approximate Travel Time:** 11 mins

Email Directions | Printable Version | Text Only Driving Directions

Full Route

Destination - Interactive Map

Directions	Miles	
1. Start on **E MARGINAL WAY S**	0.7	↑
2. Turn Right on **CARLETON AVE S**	0.5	↱
3. Take the **I-5 NORTH** ramp	0.6	↗
4. Merge on **I-5 NORTH**	2.5	↗

5.	Take the **JAMES ST** exit	1.3	
6.	Turn Right on **JAMES ST**	0.1	
7.	Turn Right on **9TH AVE**	0.2	
Distance: 5.9 miles **Approximate Travel Time:** 11 mins			
When using any driving directions or map, it's a good idea to do a reality check and make sure the road still exists, watch out for construction, and follow all traffic safety precautions. This is only to be used as an aid in planning.			

Driving Directions

Learn about Mobile Phone Driving Directions

1 Enter starting address or select from My Locations

My Locations Sign In
-- My Locations --

Address
(Address, Intersection or Airport Code)
7755 E Marginal Way S

City, State or Zip
Tukwila, WA 98108-4002

Country
United States

2 Enter destination address or select from My Locations

My Locations Sign In
-- My Locations --

Address
(Address, Intersection or Airport Code)
325 9th Avenue

City, State or Zip
Seattle, WA 98104-2420

Country
United States

Get Directions

Copyright © 2003 Yahoo! Inc. All rights reserved.
Privacy Policy - Terms of Service - Copyright Policy - Yahoo! Maps Terms of Use - Help - Ad Feedback

1.0 PLAN OBJECTIVES AND APPLICABILITY

This Health and Safety Plan has been written to comply with the standards prescribed by the Occupational Safety and Health Act (OSHA) and the Washington Industrial Safety and Health Act (WISHA).

The purpose of this health and safety plan is to establish protection standards and mandatory safe practices and procedures for all personnel involved with field activities at the site. This plan assigns responsibilities, establishes standard operating procedures, and provides for contingencies that may occur during field activities. The plan consists of site and facility descriptions, a summary of work activities, an identification and evaluation of chemical and physical hazards, monitoring procedures, personnel responsibilities, a description of site zones, decontamination and disposal practices, emergency procedures, and administrative requirements.

Mr. Josh Bernthal, of Environmental Partners, Inc. (EPI) is the designated Site Health and Safety Officer. As Site Health and Safety Officer, Mr. Bernthal has total responsibility for ensuring that the provisions outlined herein adequately protect worker health and safety and that the procedures outlined by this Health and Safety Plan are properly implemented. In this capacity, Mr. Bernthal will conduct ongoing oversight and site inspections to ensure that this Health and Safety Plan remains current with potentially changing site conditions. Mr. Bernthal has the authority to make health and safety decisions that may not be specifically outlined in this plan, should site conditions warrant such actions. In the event that Mr. Bernthal leaves the site while work is in progress, an alternate Site Health and Safety Officer will be designated.

The provisions and procedures outlined by this Health and Safety Plan apply to all contractors, subcontractors, owner's representatives, oversight personnel, and any other persons involved with the field activities described herein. All such persons are required to read this Health and Safety Plan and indicate that they understand its contents by signing the Site Health and Safety Officer's copy of the Plan. In addition, all such persons are required to provide documentation of their current certification under Occupational Safety and Health Administration's (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) regulation, 29 CFR 1910.120. Copies of this Health and Safety Plan have been distributed to a designated representative of the following companies and /or organizations:

- The Boeing Company

It should be noted that this Health and Safety Plan is based on information that was available as of the date indicated on the Title Page. It is possible that additional hazards that are not specifically addressed by this Health and Safety Plan may exist at the work-site, or may be created as a result of on-site activities. It is EPI's firm belief that active participation in health and safety procedures and acute awareness of on-site conditions by all site workers is crucial to the health and safety of everyone involved. If you identify a site condition that is not addressed by this Health and Safety Plan, or if you have any questions or concerns about site conditions or this Plan, immediately notify the Site Health and Safety Officer.

This Health and Safety Plan was prepared for use by EPI personnel by Mr. Josh Bernthal.

Josh Bernthal
Project Engineer

Douglas Kunkel LG, LHG.
Senior Hydrogeologist

2.0 BACKGROUND INFORMATION

The work site is located at: The Boeing Company
Plant 2 (near former Building 2-66)
7755 East Marginal Way South
Seattle, Washington 98108

2.1 Site History

This Health and Safety Plan relates specifically to data gap investigation work that will be performed at in the South Yard Area of the Facility. Figure 1-3 shows the boundaries of the South Yard Area and locations and outlines of various RCRA units present within the South Yard Area. The area contained five cisterns formerly used for disposal of liquid wastes, a large reclamation yard, a deactivated waste oil and coolant storage area, several former USTs and various other RCRA units. Many newer buildings, including offices, a cafeteria, and a wind tunnel facility have been built within the South Yard area. Contaminated soil was excavated from the cistern area along East Marginal Way South prior to construction of the wind tunnel and surrounding buildings. The South Yard Area is almost entirely paved or covered by buildings limiting the potential for incidental exposure to contaminated soil and groundwater.

2.2 Scope of Work

Following is a brief summary of the on-site work activities that are covered by this Health and Safety Plan:

Task 1 – Water level measurements in 20 selected monitoring wells using data loggers
Task 2 – Monitoring well installation and soil sampling
Task 3 – Direct-push probe groundwater and soil sampling
Task 4 – Groundwater sampling in existing and new monitoring wells

3.0 HAZARD EVALUATION AND RISK ANALYSIS

In general, there are three broad hazard categories that may be encountered during site work; Chemical Exposure Hazards, Fire/Explosion Hazards, and Physical Hazards. Subsections 3.1 through 3.3 deal with specific hazards falling within each of these broad categories.

3.1 Chemical Exposure Hazards

Table 1 presents chemical-specific data regarding permissible exposure levels (PELs), likely pathways of exposure, target organs that will likely be affected by exposure, and likely symptoms of exposure for hazardous substances that are potentially present at the site. Table 1 data were compiled from the NIOSH Pocket Guide to Chemical Hazards, June 1997 edition. It should be noted that the PELs are the regulated limits; Recommended Exposure Limits (RELs) by NIOSH are guidance but are listed as a reference.

Table 1: Chemical-Specific Exposure Data

Chemical Name	REL*	PEL*	IDLH*	Exposure Route	Target Organs	Symptoms
Acetone	250 ppm	1000 ppm	2,500 ppm	Inhalation; ingestion; skin/eye contact	Eyes; skin; respiratory system	Irritation of eyes, nose, throat; headache; dizziness; dermatitis
Acetic Acid	10 ppm	10 ppm	50 ppm	Inhalation; skin/eye contact	Eyes; skin; respiratory system; teeth	Irritation of eyes, nose, throat; skin burns; hyperkeratosis; chronic bronchitis
Arsenic (elemental)	0.002 mg/m^3	0.010 mg/m^3	5 mg/m^3	Inhalation; ingestion; skin/eye contact	Skin; respiratory system; kidneys; central nervous system; liver; GI tract; respiratory system	Irritation of skin; dermatitis; respiratory distress; diarrhea; kidney damage; muscle tremor; convulsions; GI tract; reproductive effects; lover damage
Benzene	0.1 ppm	10 ppm (Table Z-2 1910.1000)	500 ppm	Inhalation; ingestion; skin/eye contact	Blood, central nervous system; skin; bone marrow; eyes; respiratory system	Irritation of eyes, nose, respiratory; giddiness; headache; nausea; staggered gait; fatigue; anorexia; lassitude; dermatitis; bone marrow; depression
Cis-1,2-Dichloroethene	200 ppm	200 ppm	1000 ppm	Inhalation; ingestion; skin/eye contact	Eyes, respiratory system, central nervous system	Irritation of eyes and respiratory system, central nervous system depression.
Ethyl benzene	100 ppm	100 ppm	800 ppm	Inhalation; ingestion; skin/eye contact	Eyes; upper respiratory system; skin; central nervous system	Irritation of eyes, mucous membrane; headache; dermatitis; narcosis; coma
Ethylene Dichloride (1, 2-dichloroethane)	1 ppm	50 ppm	50 ppm	Inhalation; ingestion; skin/eye contact	Eyes; skin; kidneys, liver, central nervous system; cardiovascular system	Irritation of eyes, corneal opacity; central nervous system depression; nausea, vomiting; dermatitis; liver, kidney, cardiovascular system damage
Heptane	85 ppm	500 ppm	750 ppm	Inhalation; ingestion; skin/eye contact	Skin; respiratory system; central nervous system	Lightheadedness, vertigo; loss of appetite, nausea; unconsciousness

Table 1: Chemical-Specific Exposure Data (continued)

Chemical Name	REL*	PEL*	IDLH*	Exposure Route	Target Organs	Symptoms
Hexane	50 ppm	500 ppm	1,100 ppm	Inhalation; ingestion; skin/eye contact	Eyes; skin; respiratory system; central nervous system; peripheral nervous system	Irritation of eyes, nose; lightheadedness; nausea
Lead (elemental)	0.100 mg/m^3	0.050 $mg/m^{3(}$	100 mg/m^3	Inhalation; ingestion, direct contact	Eyes; GI tract; central nervous system; kidneys; blood; gingival tissue	Weakness; lassitude; insomnia; facial pallor; pale eyes; anorexia; low weight; malnutrition; constipation; abdominal pain; colic; anemia; gingival lead line; tremor; paralysis of wrist, ankles; encephalopathy; kidney disease; irritated eyes; hypotension
Methylene Chloride	Lowest possible exposure	25 ppm (29 CFR 1910.1052)	2,000 ppm	Inhalation; ingestion; skin absorption, skin and/or eye contact	Eyes; skin; central nervous system; cardiovascular system	Irritation of eyes, skin; lightheadedness; somnolence
Methyl Ethyl Ketone Peroxide	0.2 ppm	---	Not determined	Inhalation; ingestion; skin/eye contact	Eyes; skin; respiratory system; liver; kidneys	Irritation of eyes, skin, nose, throat; cough; blisters; vomiting; blurred vision
Phosphoric Acid	1 mg/m^3	1 mg/m^3	1,000 mg/m^3	Inhalation; ingestion; skin/eye contact	Eyes; skin; respiratory system	Irritation of eyes, skin, upper respiratory system; eye and skin burns
Tetrachloroethene		100 ppm	150 ppm	Inhalation; ingestion; absorption; skin/eye contact	Eyes, skin, respiratory system, liver, kidneys, central nervous system	Irritation of eyes, nose, throat, nausea, flush face and neck, vertigo, dizziness, incoordination, somnoluence, skin erythema (redness), liver damage (carcinogen)
Toluene	100 ppm	200 ppm	500 ppm	Inhalation, absorption, ingestion, skin/eye contact	Central nervous system; liver; kidneys; skin	Fatigue; confusion, euphoria, dizziness, headache; dilated pupils; lacrimation; nervousness; insomnia; Paresthesia; dermatitis
Trichloroethene	25 ppm	100 ppm	1000 ppm	Inhalation; ingestion; absorption; skin/eye contact	Eyes, skin, respiratory system, heart, liver, kidneys, central nervous system	Irritation eyes, skin; headache, visual disturbance, lassitude, dizziness, tremor, drowsiness, nausea, vomiting; dermatitis, cardiac arrhythmias, paresthesia, liver injury
Vinyl Chloride	Lowest possible exposure	0.5 ppm (29 CFR 1910.1017)	Not determined	Inhalation; skin/eye contact	Liver, central nervous system, blood, respiratory system, lymphatic system	Lassitude; abdominal pain; GI bleeding; enlarged liver; pallor or cyanosis of extremities; liquid; frostbite
Xylene	100 ppm	100 ppm	900 ppm	Inhalation; ingestion; absorption; skin/eye contact	Central nervous system; GI tract; blood; liver; kidneys; skin	Dizziness, excitement, drowsiness, uncoordination, staggered gait; irritation of eyes, nose, throat; corneal vacuolization; anorexia; nausea; vomiting, abdominal pain; dermatitis

REL – Recommended Exposure Limit (NIOSH) Pocked Guide to Chemical Hazards, June 1997
PEL – Permissible Exposure Limit (OSHA) Table Z-1 in 29 CFR 1910.1000
IDLH – Immediately Dangerous to Life or Health

3.2 Fire and Explosion Hazards

It is highly unlikely that vapors from the contaminated soils will be present at levels sufficient to create an explosion and/or fire hazard. It should be noted, however, that the 1996 Emergency Response Guidebook, published by the United States Department of Transportation, identifies the following explosion and/or fire hazards associated with gasoline vapors.

- Flammable/combustible material
- May be ignited by heat, sparks or flames
- Vapors may travel to a source of ignition and flash back
- Containers may explode in heat or fire
- Vapor explosion hazards indoors, outdoors or in sewers
- Run-off to sewers may cause a fire or explosion hazard

3.3 Physical Hazards

Following is a summary of a variety of physical hazards that may be encountered on the job-site. For convenience, these hazards have been categorized into several general groupings and suggested preventative measures are also included.

Category	Cause	Prevention
Head Hazards	Falling and/or sharp objects, bumping hazards.	Hard hats will be worn by all personnel at all times when overhead hazards are present.
Foot/Ankle Hazards	Sharp objects, dropped objects, uneven and/or slippery surfaces, chemical exposure	Chemical resistant, steel-toed boots must be worn at all times on-site.
Eye Hazards	Sharp objects, poor lighting, bright lights (welding equipment), exposure due to splashes	Safety glasses/face shields will be worn when appropriate. Shaded welding protection will be worn when appropriate.
Electrical Hazards	Underground utilities, overhead utilities	Locator service mark-outs, visual inspection of work area prior to starting work.
Mechanical Hazards	Heavy equipment such as drill rigs, service trucks, excavation equipment, saws, drills, etc.	Competent operators, backup alarms, regular maintenance, daily mechanical checks, proper guards.
Noise Hazards	Machinery creating >85 decibels TWA, >115 decibels continuous noise, or peak at >140 decibels	Wear earplugs or protective ear muffs when appropriate.
Fall Hazards	Elevated and/or slippery or uneven surfaces. Trips caused by poor "house keeping" practices	Care should be used to avoid such accidents and to maintain good “house keeping". Fall protection devices must be used when work proceeds on elevated surfaces.
Lifting Hazards	Injury due to improper lifting techniques, overreaching/overextending, heavy objects	Use proper lifting techniques, mechanical devices where appropriate.
Lighting Accidents	due to improper illumination	Work will proceed during daylight hours only, or under sufficient artificial illumination.

4.0 AIR/SITE MONITORING

The following section describes monitoring techniques and equipment that are to be used during site work. The Site Health and Safety Officer, or a designated alternate, is responsible for performing all monitoring activities. Air and site monitoring will be used to determine the level of protection that is required for work to proceed safely.

4.1 Air Monitoring

Air monitoring will be performed to ensure that personnel are not exposed to harmful vapor concentrations in excess of PELs. This monitoring will also be used to identify any increases in airborne contaminant concentrations during work activities.

4.1.1 Air Monitoring Equipment

All monitoring equipment used during this project will be inspected and calibrated at least daily to ensure that it is in proper working condition. If any piece of required monitoring equipment does not work properly, work in the monitored area will stop and will not continue until the monitoring equipment is repaired.

PID: Because exposure to airborne contaminants is expected to be limited to volatile organic compounds (VOCs), air monitoring will be performed with a Photoionization Detector (PID). The range of contaminants expected to be present require that the PID be equipped with a *10.2 eV* detector lamp. The most likely airborne constituents include TCE and vinyl chloride. Because site action level for VOCs is set and 5 ppm and the PEL for vinyl chloride is 1.0 ppm it will be important to determine if the total VOCs detected in the air contain greater than 1.0 ppm vinyl chloride. This determination will be made using colorimetric tubes specifically designed to detect and quantify vinyl chloride concentrations in the air. If total VOC concentrations are greater than 1.0 ppm over background (sustained for >15 minutes) EPI will use colorimetric tubes to evaluate the vinyl chloride concentration. If vinyl chloride is detected at concentrations greater than 1.0 ppm in the breathing zone engineering controls will be implemented and the breathing zone will be re-tested.

The PID must be "zeroed" and calibrated according to manufacturer instructions at least daily. Initial monitoring will be performed every 5 minutes, unless odors, tastes, or a PID response indicate the presence of airborne contaminants above background levels. If airborne contaminants are detected, air monitoring will be performed continuously.

4.1.2 Action Levels

Photoionization Detector (PID)

Response	Length of Time	Protective Measure
< 5 ppm	15 minute average	Level D PPE
>1 ppm over background	15 minute average	Evaluate vinyl chloride concentrations relative to total VOCs using colorimetric tubes
5-25 ppm	15 minute average	Allow work area to vent. If persistent: Level C
25-50 ppm	Sustained over 15 minutes	Level C PPE, High-efficiency organic vapor cartridges in respirator
> 50 ppm	One (1) minute average	Vacate work area, notify Site Health and Safety Officer immediately

It should be noted that these action levels are based on the presence of benzene and vinyl chloride which have the lowest PELs and STELs of the compounds listed in Table 1.

4.2 Site Monitoring

The Site Health and Safety Officer will visually inspect the work-site at least daily to identify whether any new potential hazards have arisen. If and whenever possible, immediate measures will be taken to eliminate, or reduce the risks associated with these hazards.

4.3 Personal Protective Equipment (PPE)

It is anticipated that all field tasks will be performed in Level D PPE unless additional PPE is required because of task or site-specific upgrades. Level D PPE includes the following items:

- Nitrile inner and outer gloves
- Steel toe, steel shank work boots. Neoprene steel-toe, steel shank boots for ground water sampling and for drilling below the water table
- Hearing protection during drilling activities
- Hard hat during drilling activities and excavation work
- Safety glasses
- Cotton or Tyvek coveralls recommended

Level C PPE includes all Level D items plus the following:

- Full-face respirator equipped with organic vapor/HEPA combination cartridges (full face respirator replaces safety glasses for eye protection),
- Tyvek or Saranex coveralls
- Neoprene steel-toe, steel shank boots

5.0 HAZARD ANALYSIS BY TASK

The following section identifies potential hazards associated with each task listed in section 2.2 of this Health and Safety Plan. Unless otherwise noted, work will begin and proceed in Level D personal protective equipment. The level of protection will be upgraded accordingly by the Site Health and Safety Officer whenever warranted by conditions present in the work area.

Task 1 – Water level measurements in 20 selected monitoring wells using data loggers

Task 2 – Monitoring well installation and soil sampling

Task 3 – Direct-push probe groundwater and soil sampling

Task 4 – Groundwater sampling in existing and new monitoring wells

Task 1 – Water Level Measurements: Exposure to volatile organic compounds; head, foot/ankle, and eye hazards, lifting hazards.

Task 2 – Monitoring Well Installation and Soil Sampling: Exposure to volatile organic compounds; head, foot/ankle, and eye hazards; electrical and mechanical hazards; noise, fall, lifting, and overhead hazards.

Task 3 – Direct-Push Probe Groundwater and Soil Sampling: Exposure to volatile organic compounds through air effluent; head, foot/ankle, and eye hazards; electrical and mechanical hazards; noise, fall, lifting, and overhead hazards.

Task 4 – Groundwater Sampling: Exposure to volatile organic compounds; head, foot/ankle, and eye hazards; electrical and mechanical hazards; noise, fall, and lifting hazards.

.

Personnel: EPI – Josh Bernthal, Doug Kunkel, John Brasino, Sharon Gelinas, Jason Cook, Tatsu Komada, Alex Jones, Jeremy Walliman, Janine, Burkhardt, Daniel Krause

Contractor Names: Cascade Drilling or other drilling company, APS or other utility locating company, and possibly concrete coring companies.

6.0 SITE CONTROL

The following section identifies several activity zones located on the work-site. It should be noted that access to some of these activity zones (i.e. the exclusion zone) will be restricted to designated personnel.

The work site is secured. Pedestrians and other unauthorized personnel will not be allowed within the exclusion zone.

6.1 Contamination Reduction Zone

A specified area will be established for the decontamination of sampling equipment. Because the location of this zone will change during the course of the investigation the site safety office will discuss the contaminant reduction zone location during each daily safety briefing.

6.1.1 Decontamination Procedures - Equipment

Split spoon samplers and other down-hole equipment will be decontaminated with Alconox or equivalent soap and water and rinsed with distilled water prior to collecting soil samples for analysis. An alternative method of decontamination is to steam clean all down-hole sampling and drilling equipment. All decontamination wastes will be containerized and left in a designated on-site location.

6.1.2 Decontamination Procedures - Personnel

All personal protective clothing (i.e. nitrile gloves) and other miscellaneous waste will be bagged in opaque garbage bags and will be discarded in the trash. All on site personnel must, at a minimum, wash their face and hands before eating, before break periods, and prior to leaving the site.

7.0 EMERGENCY RESPONSE AND CONTINGENCY PLAN

The purpose of this section is to define procedures and specific responsibilities that are to be followed in the event that a chemical spill or release, a fire or explosion, or an accident involving injuries occurs. The Site Health and Safety Officer, or a designated alternate, will determine when emergency and/or regulatory agencies should be contacted and which agencies are appropriate to contact. It should be noted that if injuries have occurred, all site workers have the responsibility to secure medical help for the affected worker(s). Medical emergency help can be contacted at the appropriate phone numbers listed on the pink pages of this Plan.

In all emergency situations, the rule is SAFETY FIRST! Do not, under any circumstances, endanger yourself or others to rescue a fallen co-worker. It is far better to rescue one person after proper safety measures for the rescue have been carefully considered, than to have to rescue additional people whose haste to help out got them in trouble.

In case of injury: call 206-655-2222 first, then 911 if necessary.

8.0 ADMINISTRATIVE

8.1 Medical Surveillance

Personnel involved with field activities must be covered under their employer's medical surveillance program that includes annual physical examinations and certification to wear respiratory protective equipment. These medical monitoring programs must be in compliance with all applicable worker health and safety regulations.

8.2 Record Keeping

The Site Health and Safety Officer, or a designated alternate, will be responsible for keeping daily logs of workers and visitors present at the work site, attendance lists of personnel present at site health and safety meetings, accident reports, air monitoring results, and signatures of all personnel who have read this Health and Safety Plan.

SIGNATURE PAGE

I have read this Health and Safety Plan and understand its contents. I agree to abide by its provisions and will immediately notify the Site Health and Safety Officer (Josh Bernthal, (425) 241-5400) if site conditions or hazards not specifically designated herein are encountered.

Name (Print)	Signature	Date	Company/Affiliation
Douglas Kunkel	Douglas Kunkel	12/19/05	EPI