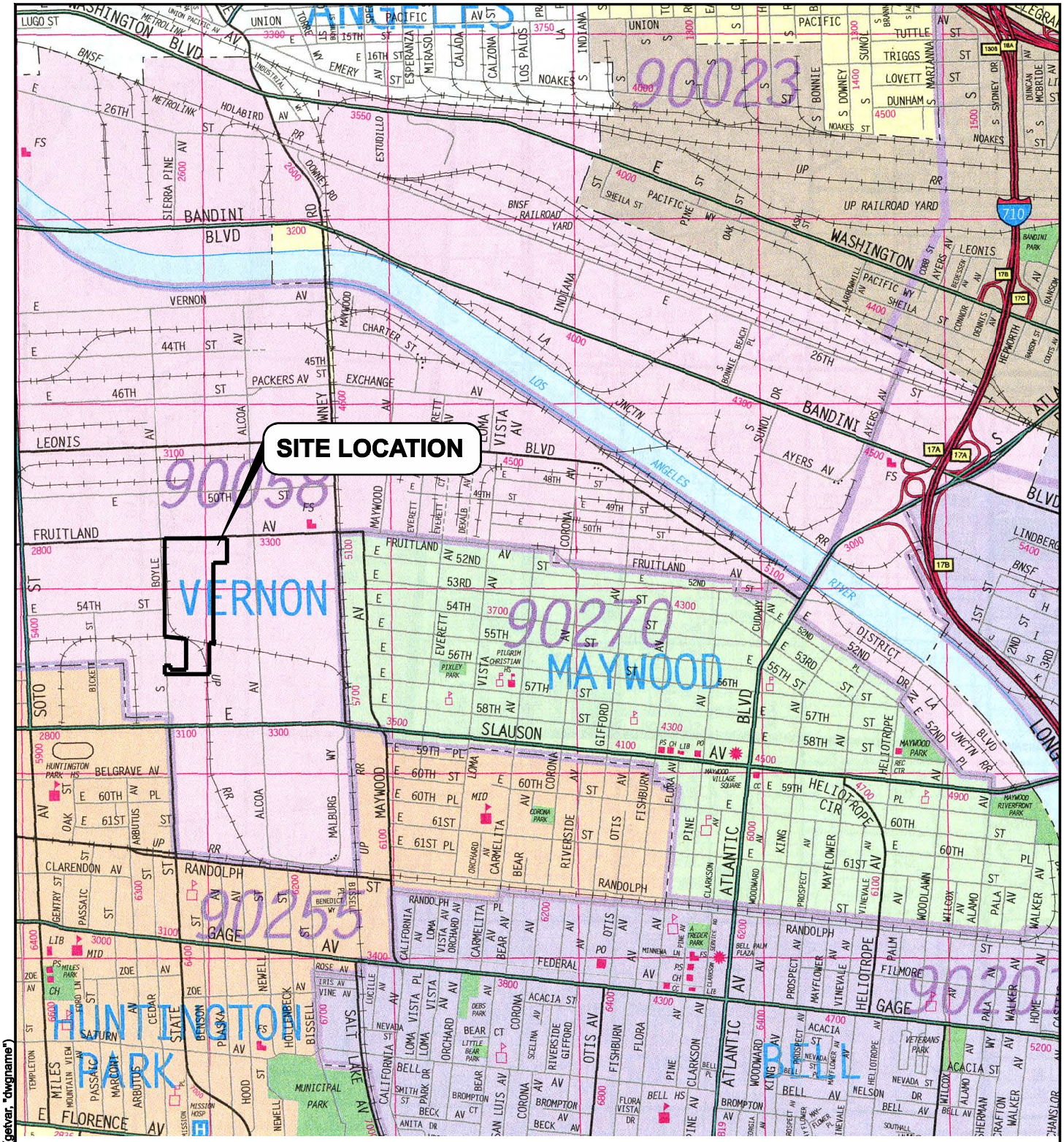
FIGURES



Approximate Scale in Feet

0 1000 2000

0 300 600

Approximate Scale in Meters

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SITE LOCATION MAP
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

By: pah	Date: 08/05/09	Project No. 10627.003.0
AMEC Geomatrix		Figure 1

Plot Date: $(edtime, 0, MO"/"DD"/"YY - H:MMam/pm), Plotted by: $(getvar, "loginname")
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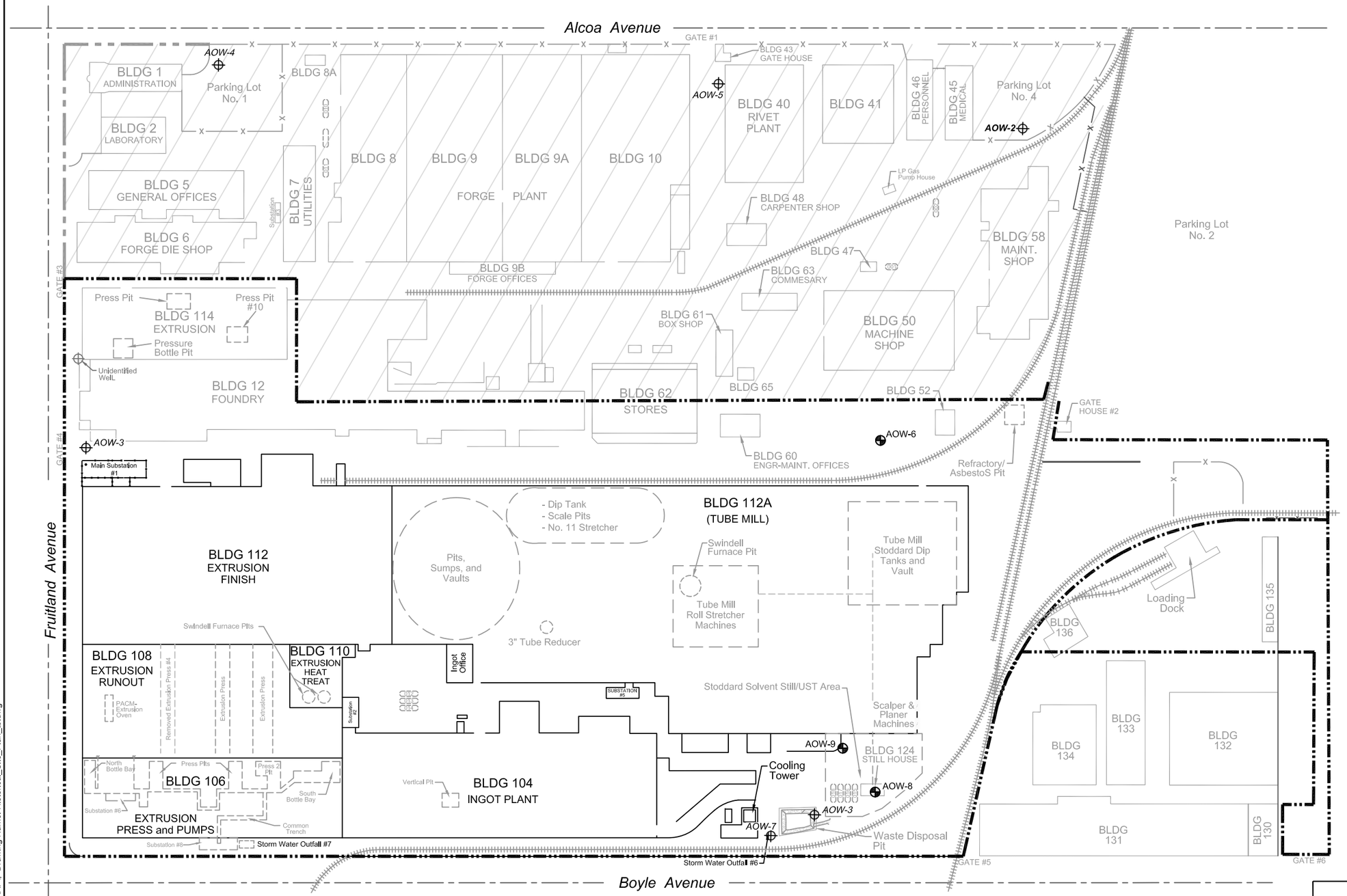

Explanation

- AOW-6 — Groundwater monitoring well
- AOW-2 — Groundwater monitoring well destroyed
- Site boundary
- Railroad tracks
- Chain link fence
- Concrete slab (above-grade structure demolished)
- Historical building
- Former underground storage tank location with tank designation
- Approximate location of historical operations
- Razed and redeveloped

Note:

Site boundary and groundwater monitoring well locations are approximate.

0 80 160
Approximate Scale in Feet

HISTORICAL SITE LAYOUT
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

By: pah	Date: 08/05/09	Project No. 10627.003.0
AMEC Geomatrix	Figure	2

Plot Date: 08/06/09 - 11:22am, Plotted by: pat.herring
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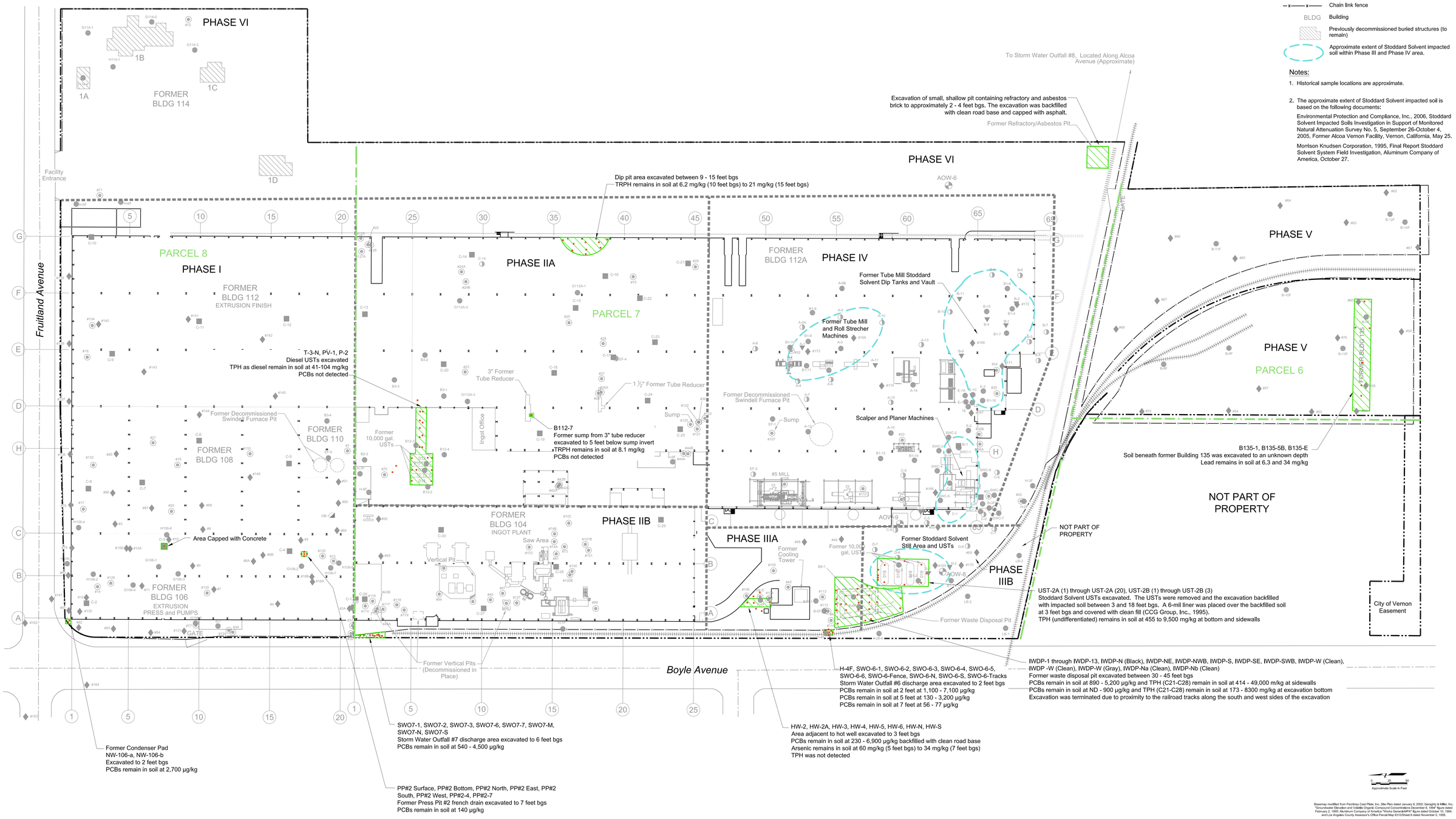

Explanation

- Previous excavation (all previous limits of excavation are approximate)
- Sample taken during excavation activities
- AOW-9 Groundwater monitoring well
- #90 Geomatrix soil vapor sampling point
- #109 Geomatrix soil boring
- B-1 Approximate location of historical boring
- D-1 Approximate location of historical CPT
- C-1 Approximate location of historical vapor extraction well (destroyed 2006)
- C-30 Approximate location of historical concrete core sample
- 20 B Column and row numbering system for footings
- Site boundary
- Phasing area boundary
- Parcel boundary
- Railroad track (at grade)
- Railroad track (buried)
- Chain link fence
- BLDG Building
- Previously decommissioned buried structures (to remain)
- Approximate extent of Stoddard Solvent impacted soil within Phase III and Phase IV area.

Notes:

1. Historical sample locations are approximate.
2. The approximate extent of Stoddard Solvent impacted soil is based on the following documents:

   Environmental Protection and Compliance, Inc., 2006, Stoddard Solvent Impacted Soils Investigation in Support of Monitored Natural Attenuation Survey No. 5, September 26-October 4, 2005, Former Alcoa Vernon Facility, Vernon, California, May 25.

   Morrison Knudsen Corporation, 1995, Final Report Stoddard Solvent System Field Investigation, Aluminum Company of America, October 27.

Basemap modified from Pechiney Cast Plate, Inc. Site Plan dated January 9, 2002; Geraghty & Miller, Inc. "Groundwater Elevation and Volatile Organic Compound Concentrations December 8, 1994" figure dated February 2, 1995; Aluminum Company of America "Works General-MPV" figure dated October 10, 1984; and Los Angeles County Assessor's Office Parcel Map 6312/Sheet 8 dated November 9, 1956.

SAMPLE LOCATIONS AND
AREAS PREVIOUSLY EXCAVATED
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

By: pah	Date: 08/05/09	Project No. 10627.003.0
AMEC Geomatrix	Figure	3

Note: Figure shall be produced in color to maintain information.

Plot Date: 08/05/09; 1:30pm, Plotted by: pah/wng
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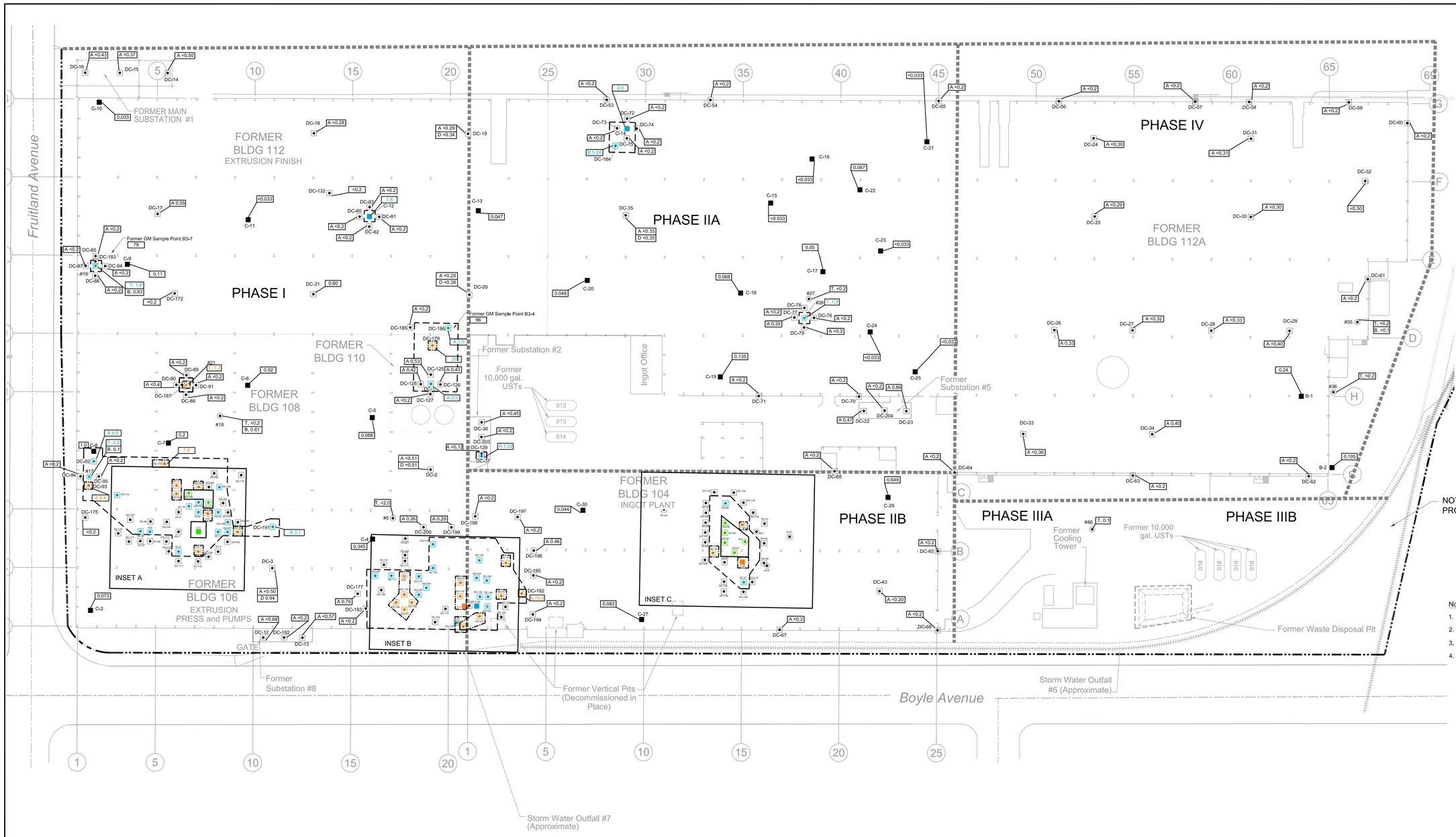
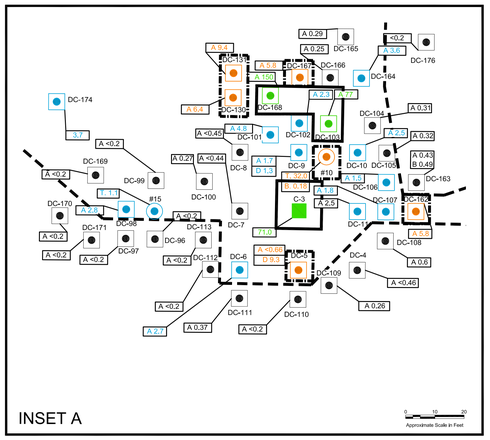


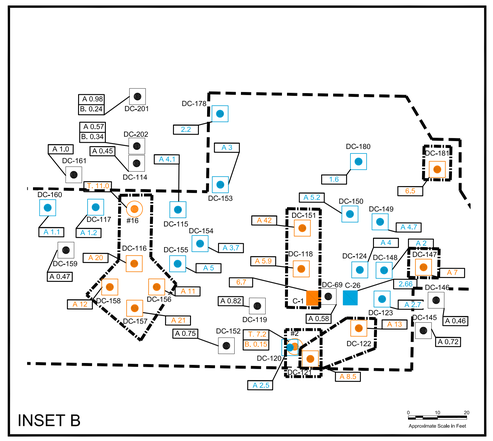
Explanation

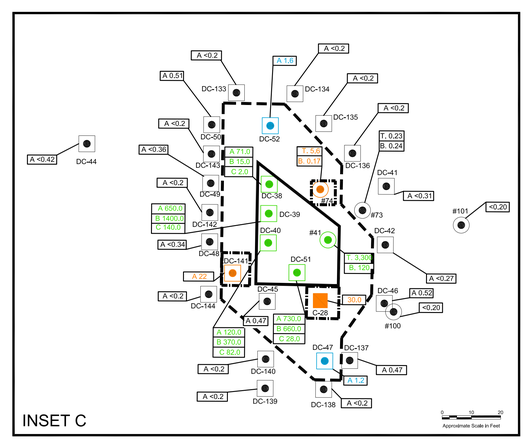
- DC-01 Concrete core sample (Geomatrix, 2006a, b, c, and d)
- #1 Soil boring with concrete core sample
- C-30 Concrete core sample (MFG, 1998)
- WS021 Concrete floor wipe sample (Aurora, 2005)
- Site boundary
- Phasing area boundary
- Railroad track (on grade)
- Railroad track (buried)
- Chain link fence
- Building wall and columns
- BLDG Building
- PCBs Total polychlorinated biphenyls
- <0.2 Sample results less than the reporting limit shown in milligrams per kilogram (mg/kg)
- T. Top of concrete sample
- B. Bottom of concrete sample
- A Surface to depth of 0.25 inch
- B Depth of 0.25 inch to 1.5 inches
- C Depth of 1.5 inches to 3.0 inches
- D Second slab of concrete
- PCB Concentration > 1 mg/kg and ≤ 5.3 mg/kg
- PCB Concentration ≥ 5.3 mg/kg and < 50 mg/kg
- PCB Concentration ≥ 50 mg/kg
- PCB-impacted concrete ≥ 1 mg/kg
- PCB-impacted concrete ≥ 5.3 mg/kg
- PCB-impacted concrete ≥ 50 mg/kg

Notes:

1. All locations are approximate.
2. All samples are bulk samples unless noted otherwise.
3. Samples analyzed using EPA method 8080 and 8082.
4. Bulk sample results reported in milligrams per kilogram (mg/kg).







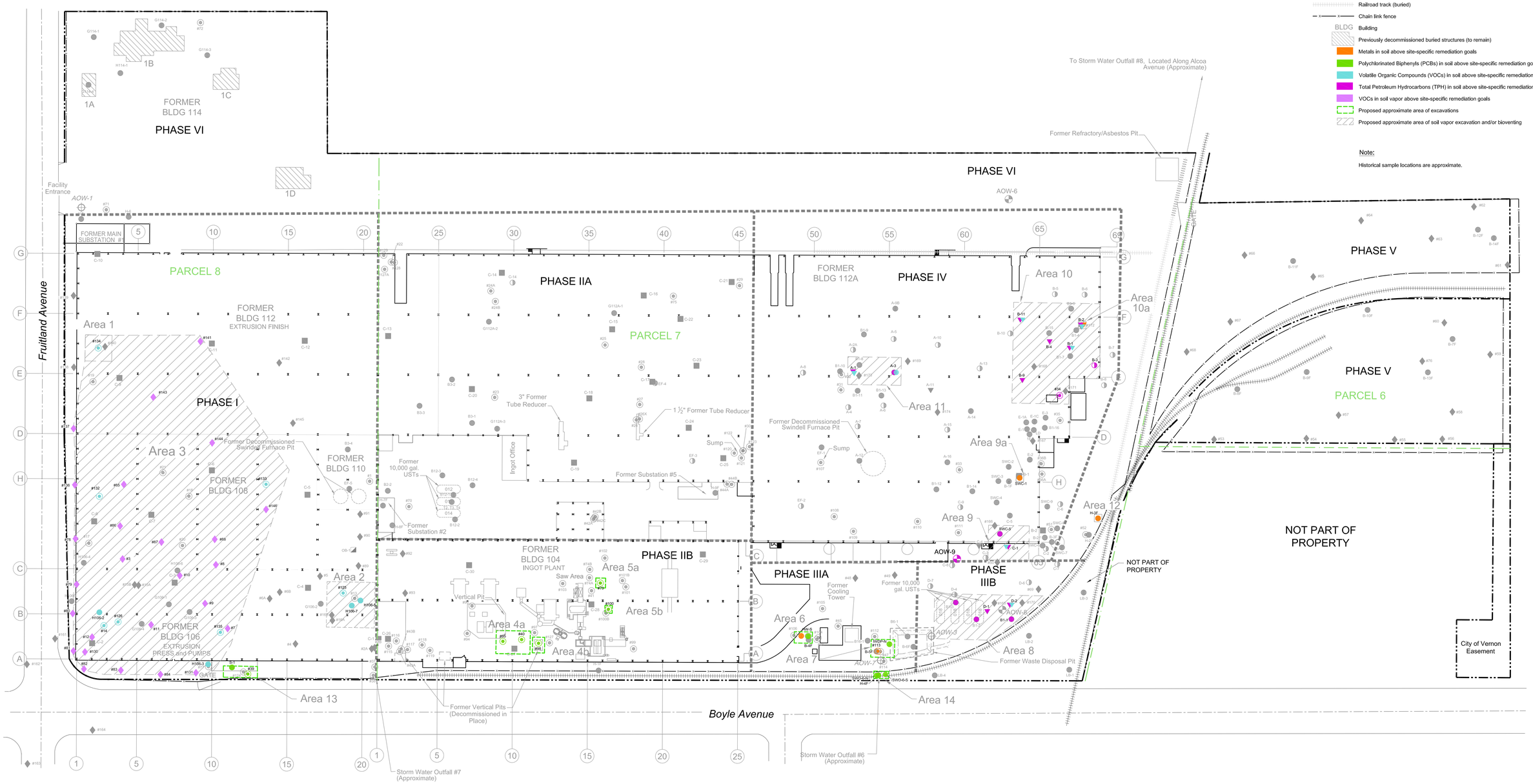
Basemap modified from Pechiney Cast Plate, Inc. Site Plan dated January 9, 2002; Geraghty & Miller, Inc. "Groundwater Elevation and Volatile Organic Compound Concentrations December 8, 1994" figure dated February 2, 1995; Aluminum Company of America "Works General&MFA" figure dated October 10, 1984; and Los Angeles County Assessor's Office Parcel Map 631/Sheet 8 dated November 5, 1958.

CONCRETE CHARACTERIZATION
SAMPLE LOCATIONS AND PCB CONCENTRATIONS
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

By: BRP	Date: 08/05/09	Project No. 10627.003
AMEC Geomatrix		Figure 4

Note: Figure shall be produced in color to maintain information.

Plot Date: 08/05/09 - 12:01pm, Plotted by: Pat Harring
Drawing: J:\10627.003 Former Pechiney Vernon, CA\Figures\Figure PCB_Compounds_8x.dwg



Area Designation	Length (ft)	Width (ft)	Depth (ft)	COPC(s)	Notes
1	--	--	--	VOCs	Soil Vapor Extraction
2	--	--	--	VOCs	Soil Vapor Extraction
3	--	--	--	VOCs	Soil Vapor Extraction
4a	50	40	12	PCBs	Excavation
4b	15	18	11	PCBs	Excavation (removal of material within former vertical pit)
5a	10	10	4	PCBs	Excavation
5b	10	10	4	PCBs	Excavation
6	15	15	8	Arsenic	Excavation
	15	15	4	PCBs	Excavation
7	40	25	12	PCBs, Arsenic	Excavation
8	--	--	--	Stoddard Solvent, VOCs	Soil Vapor Extraction/Bioventing
9	--	--	--	Stoddard Solvent, VOCs	Soil Vapor Extraction/Bioventing
9a	5	5	2	Arsenic	Excavation
10	--	--	--	Stoddard Solvent, VOCs	Soil Vapor Extraction/Bioventing
10a	5	5	2	Arsenic	Excavation
11	--	--	--	Stoddard Solvent, VOCs	Soil Vapor Extraction/Bioventing
12	5	5	2	Arsenic	Excavation
13	60	2	3	PCBs	Excavations (surface gravel and shallow soil)
14	10	2	3	PCBs	Excavation

Note: All dimensions are approximate

0 25 50
Approximate Scale in Feet

Basemap modified from Pechiney Cast Plate, Inc. Site Plan dated January 9, 2002; Geraghty & Miller, Inc. "Groundwater Elevation and Volatile Organic Compound Concentrations December 8, 1994" figure dated February 2, 1995; Aluminum Company of America "Works General-MPA" figure dated October 10, 1984; and Los Angeles County Assessor's Office Parcel Map 63/105/Sheet 8 dated November 5, 1955.

SOIL REMEDIATION AREAS
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

By: BRP	Date: 08/05/09	Project No. 10627.003.0
AMEC Geomatrix	Figure 5	

File/Date: 08/06/09, 11:10am, Thurlow, Lori Verify
Drawing Path: Y:\10627.003\Gis\MAPs Drawing Name: Remediation_Areas_Sc.dwg

Area 1
EXTRUSION FINISH
Fruitland
PHASE I
Area 3
Former Decommissioned Swindell Furnace Pit
FORMER BLDG 110
FORMER BLDG 108
Area 2
FORMER BLDG 106
EXTRUSION PRESS and PUMPS
GATE
Area 13
Boyle Avenue
1
5
10
15
20
1

Explanation

- Proposed shallow soil vapor extraction well locations
- #90 Geomatrix soil vapor sampling point
- #109 Geomatrix soil boring
- G106-1 Approximate location of historical boring
- C-30 Approximate location of historical concrete core sample
- Limits of work
- Phasing area boundary
- X Chain link fence
- BLDG Building
- Proposed approximate area of soil vapor extraction
- Radius of Influence 60 feet

0 25 50
Approximate Scale in Feet

Basemap modified from Pechiney Cast Plate, Inc. Site Plan dated January 8, 2002, Geraghty & Miller, Inc. "Groundwater Elevation and Volatile Organic Compound Concentrations December 8, 1994" Figure dated February 2, 1995, Aluminum Company of America "Works General-Map" figure dated October 10, 1984, and Los Angeles County Assessor's Office Parcel Map 6310 / Sheet 8 dated November 5, 1958.

PROPOSED SHALLOW SVE WELL LOCATIONS
PHASE 1 AREA
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

By: pah	Date:08/05/09	Project No. 10627.003.0
AMEC Geomatrix		Figure 6

Plot Date: 08/06/09 - 11:35am, Plotted by: pat.herring
Drawing Path: Y:\10627.003.0\acad\RAP\, Drawing Name: Proposed SVE Well Locations_tb.dwg

Area 1

EXTRUSION FINISH

Fruitland

PHASE I

Area 3

Former Decommissioned Swindell Furnace Pit

FORMER BLDG 110

FORMER BLDG 108

Area 2

FORMER BLDG 106 EXTRUSION PRESS and PUMPS

GATE

Area 13

Boyle Avenue

Explanation

- Proposed deeper soil vapor extraction well locations
- #90 Geomatrix soil vapor sampling point
- #109 Geomatrix soil boring
- G106-1 Approximate location of historical boring
- C-30 Approximate location of historical concrete core sample
- Limits of work
- Phasing area boundary
- X Chain link fence
- BLDG Building
- Proposed approximate area of soil vapor extraction
- Radius of Influence 85 feet

0 25 50

Approximate Scale in Feet

Basemap modified from Pechiney Cast Plate, Inc. Site Plan dated January 8, 2002, Geraghty & Miller, Inc. "Groundwater Elevation and Volatile Organic Compound Concentrations December 8, 1994" Figure dated February 2, 1995, Aluminum Company of America "Works General-Map" figure dated October 10, 1984, and Los Angeles County Assessor's Office Parcel Map 6310 / Sheet 8 dated November 5, 1958.

PROPOSED DEEP SVE WELL LOCATIONS
PHASE 1 AREA
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

By: pah	Date: 08/05/09	Project No. 10627.003.0
AMEC Geomatrix		Figure 7

Plot Date: 08/06/09 - 11:36am, Plotted by: pat.herring
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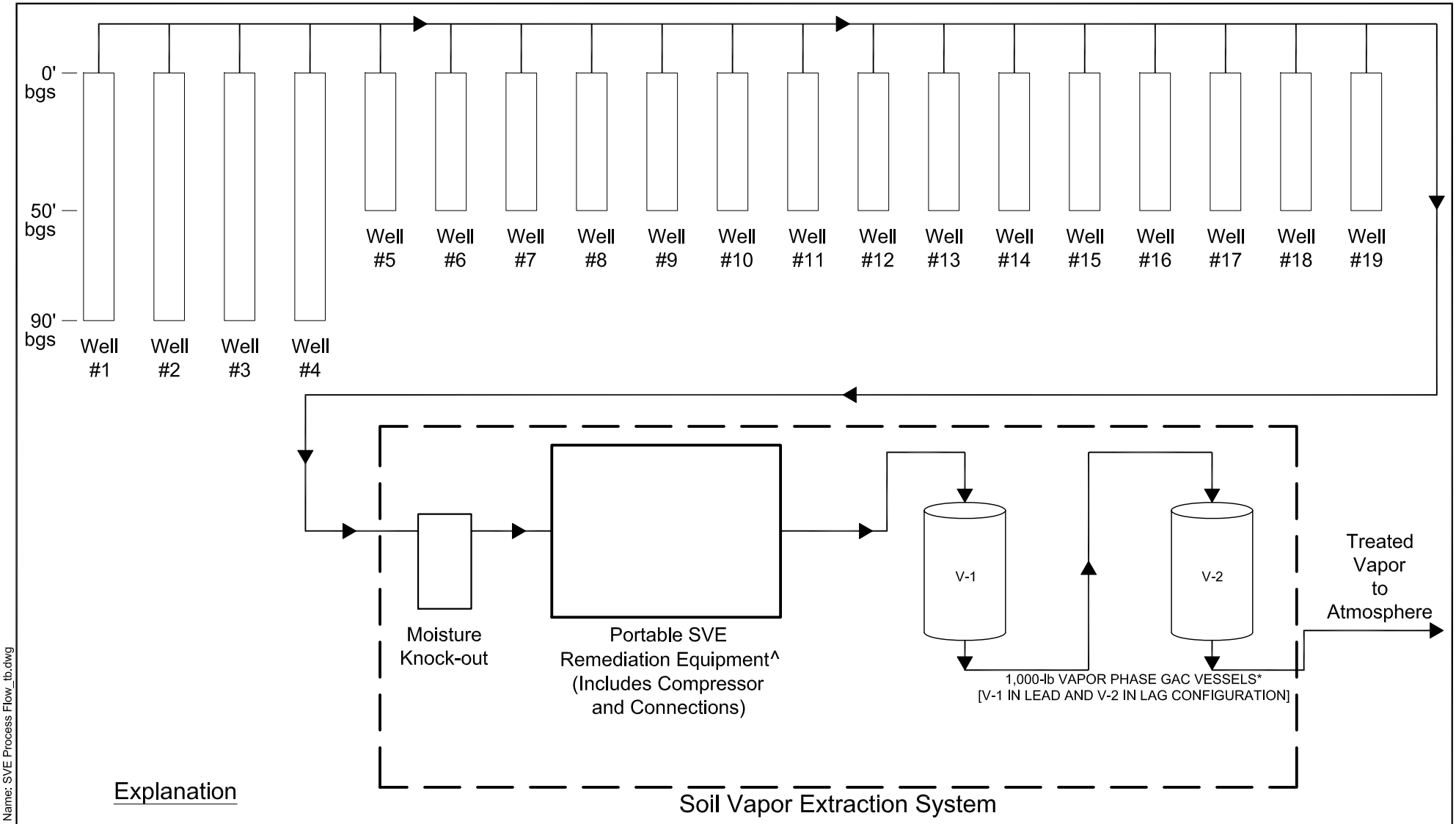


Explanation

' = feet

bgs = below ground surface

GAC = Granular Activated Carbon

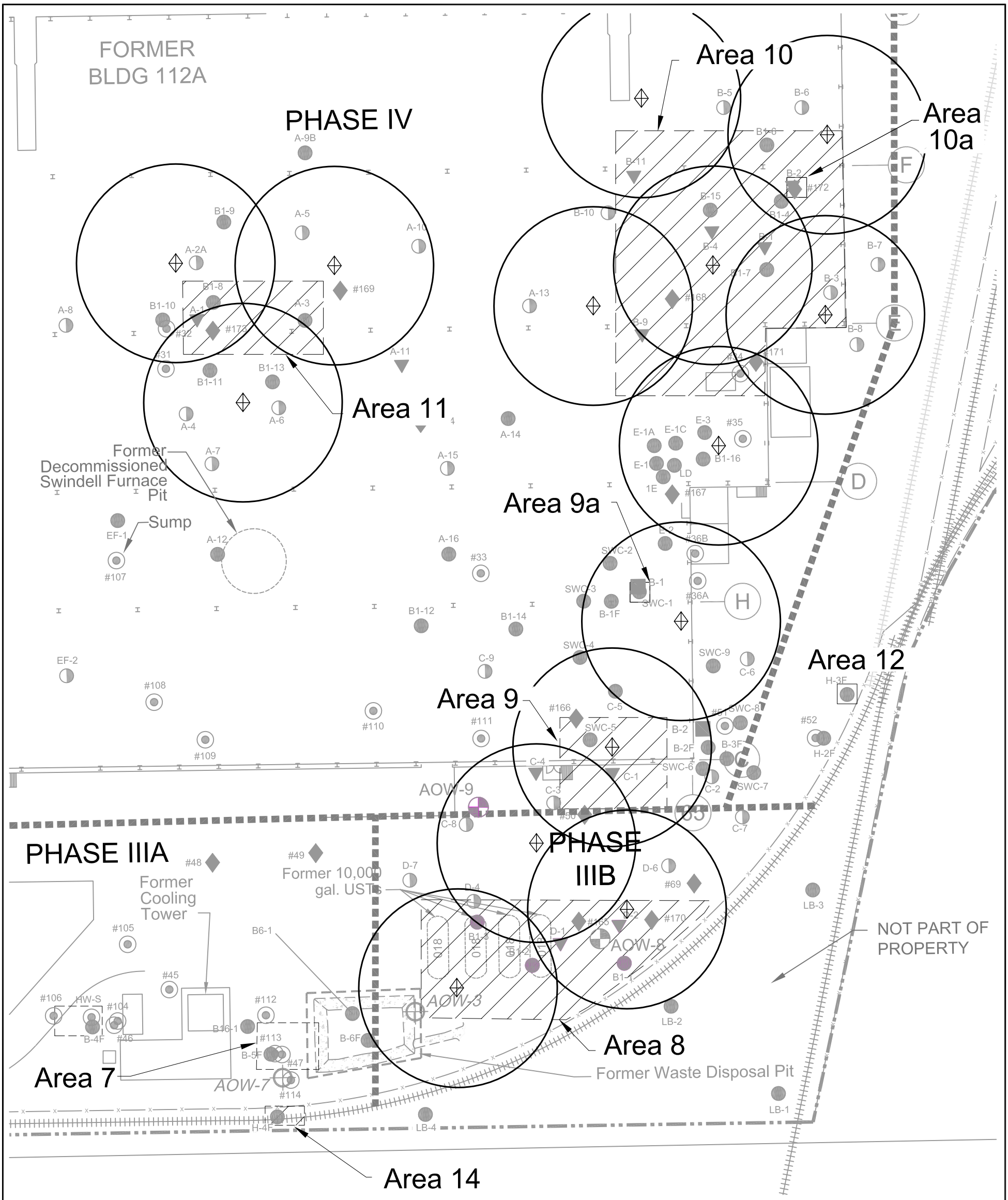
* = or as specified in South Coast Air Quality Management District permit

^ = based on field monitoring a second portable SVE may be added to piping network

PHASE I SVE PROCESS FLOW DIAGRAM
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

By: BRP	Date: 08/05/09	Project No. 10627.003.0
AMEC Geomatrix		Figure 8

Plot Date: 08/06/09 - 11:40am, Plotted by: pat.herring
Drawing Path: Y:\10627.003.0\acad\RAP\, Drawing Name: SVE Process Flow_tb.dwg



Explanation

- Proposed soil vapor extraction/bioventing well locations
- AOW-9 Groundwater monitoring well
- AOW-3 Ground monitoring well destroyed
- #109 Geomatrix soil boring
- B-1 Approximate location of historical boring
- D-1 Approximate location of historical CPT
- C-1 Approximate location of historical vapor extraction well (destroyed 2006)
- Limits of work
- Phasing area boundary
- Railroad track (at grade)
- X Chain link fence
- BLDG Building
- Proposed approximate area of soil vapor extraction
- Radius of Influence 50 feet

0 25 50
Approximate Scale in Feet

Basemap modified from Pechiney Cast Plate, Inc. Site Plan dated January 8, 2002, Geraghty & Miller, Inc. "Groundwater Elevation and Volatile Organic Compound Concentrations December 8, 1994" Figure dated February 2, 1995, Aluminum Company of America "Works General-Map" figure dated October 10, 1984, and Los Angeles County Assessor's Office Parcel Map 6310 / Sheet 8 dated November 5, 1958.

PROPOSED SVE BIOVENTING WELL LOCATIONS
PHASE III AND IV AREAS
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

By: pah	Date:08/05/09	Project No. 10627.003.0
AMEC Geomatrix		Figure 9

Plot Date: 09/24/09 - 3:37pm, Plotted by: pat.herring
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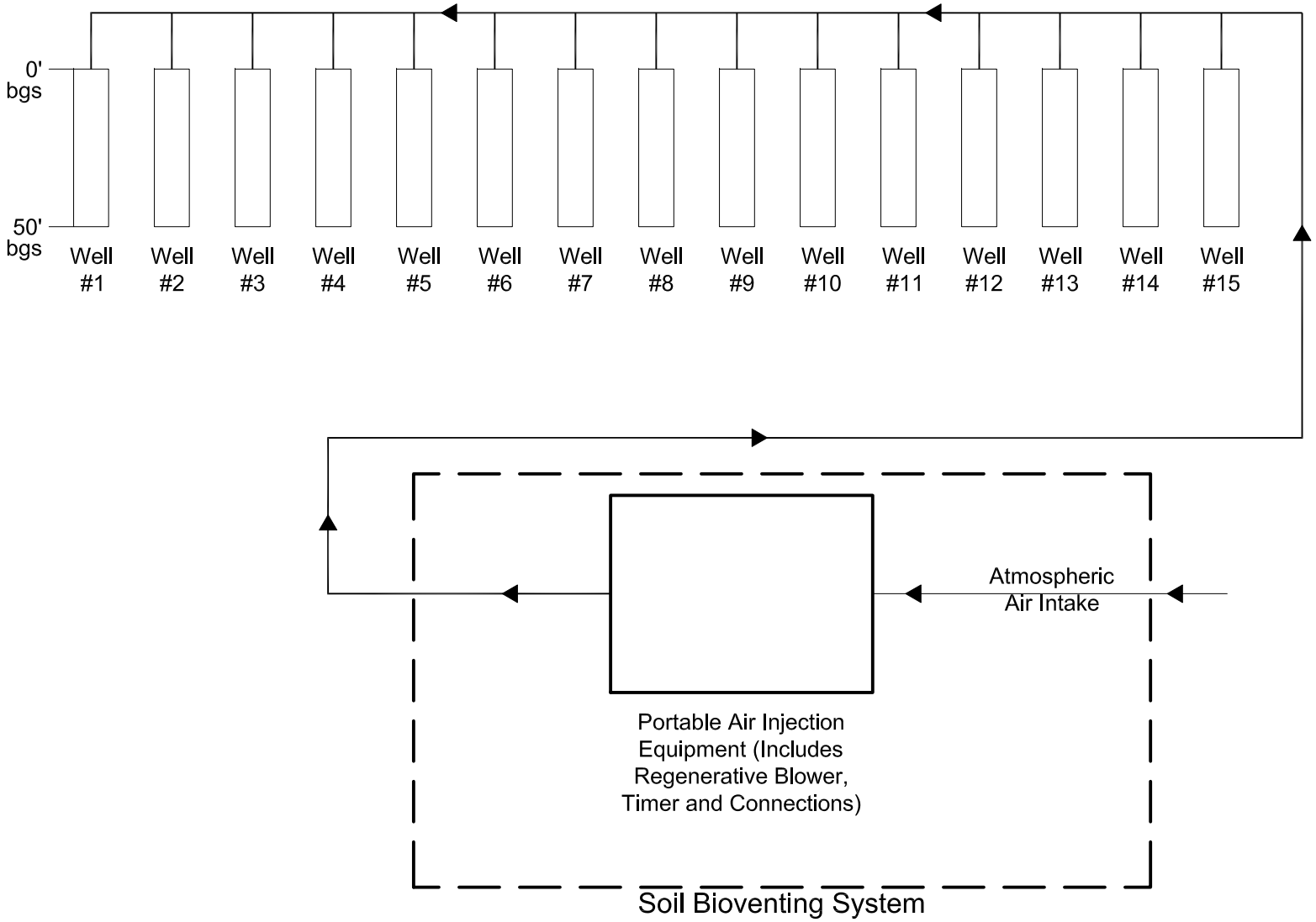

Note:

1. Initial SVE component of this remedy will be similar to the Process Flow Diagram shown on Figure 8.

Explanation

' = feet

bgs = below ground surface

PHASE III & IV SOIL BIOVENTING
PROCESS FLOW DIAGRAM
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

By: BRP	Date: 08/05/09	Project No. 10627.003.0
AMEC Geomatrix		Figure 10

Plot Date: 08/06/09 - 11:41am, Plotted by: pat.herring
Drawing Path: Y:\10627.003.0\acad\RAP\, Drawing Name: SVE Process Flow_tb.dwg