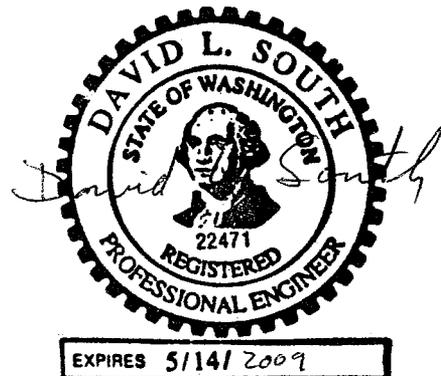


**Professional Engineer's Statement
Everett Smelter Cleanup
June 16, 2008**

Soil remediation was carried out at the following homes within the Everett Smelter Site during the period May 2007 to November 2007:

Address	Owner
229 Bridgeway	Arthur Guinn Shaffer
225 Bridgeway	Steffanie Campbell
223 Bridgeway	Godfrey and Ramona Holzinger
215 Bridgeway	Joshua & Michelle Allen
209 Bridgeway	Maria Paulay
207 Bridgeway	Paul D. King
205 Bridgeway	William C. MacPherson
201 Bridgeway	James and Kathleen Pankiewicz ←
115 Bridgeway	Mark & Lori Childress
109 Bridgeway	Bud E. Kast

Based on the results of testing and inspections, it is my opinion that the soil remediation carried out at these homes was performed in substantial compliance with the plans, specifications, and related documents governing the work



Washington Department of Ecology Everett Smelter Site 2007 Cleanup

Details of Cleanup Activities for 201 Bridgeway

In 2007, Department of Ecology (Ecology) selected 10 homes within the Everett Smelter Site for cleanup. These homes are located along the east side of Bridgeway in north Everett. Cleanup activities were conducted from May 21, 2007 – November 30, 2007. The cleanup was conducted according to the “Everett Smelter Site: Integrated Final Cleanup Action Plan and Final Environmental Impact Statement for the Upland Area” (see Document Repository information on page 5).

Where used for the first time, definitions for words marked in *bold italics* may be found in the definition section following this summary.

This report describes the cleanup actions that were conducted, where arsenic-contaminated soil was removed and where it remains for the following location:

Property Owner	James & Kathleen Pankiewicz
Address:	201 Bridgeway Everett, WA 98201
Snohomish County State of Washington	
Tax Parcel No.	# 005203-000-050-00

Purpose of Sampling

The purpose of sampling was to determine the required depth of excavation for this property. The property was divided into three *Decision Units* A, B, and C, as shown on the attached map in Attachment A. A *rotating laser level* was used to measure the depth of the excavated soil in each decision unit.

The following is a summary of the work done to remediate the property within each of the decision units or other areas on the property.

DECISION UNIT A

Cleanup Activities

Results of pre-cleanup sampling indicated 12 inches of soil would have to be excavated in this decision unit. The on-site coordinator witnessed the soil being removed to a depth of 12 inches.

Attachment B shows that:

- Below 12 inches, the composite and maximum sample analyses are below the remediation level of 60 *parts per million (ppm)* and 150 ppm, respectively.
- Below 12 inches, the composite sample analysis is above the cleanup level of 20 ppm; therefore, a *geofabric* marker was placed.

The Decision Unit A was backfilled with clean material as described in the “Specifications for Everett Residential Soil Remediation” (see Document Repository information on page 5). Approximately 6 inches of clean topsoil was placed above the *backfill*, and the surface was restored with sod.

Wooden Deck

The low wooden deck located adjacent to the front (southwest-facing) wall of the house at the south half was left in place. Soil was dug around the deck. A *1:1 slope* was maintained beneath the structure. Soil beneath this deck was not remediated.

An *animal barrier* was installed around this deck.

Street-Level Parking

The street-level parking area (located at landscape samples L-1 to L-5 in the map) was excavated to a depth of 24 inches. The *wooden railroad ties* were replaced with block walls and augmented with *geogrid* and retaining wall drainage. Originally, the timber steps were in the middle of the yard directly lined up with the front door. Per homeowner request, the original timber steps were placed at the northern end of the new block wall.

Wooden Shed

At the request of the tenants and with homeowner approval, the wooden shed formerly in the front yard (near the western corner of the house) was moved to the backyard. It's close to the northeast corner of the house in Decision Unit B (see attachment A). A *crushed rock* pad and pathway was prepared in this area.

Roof Drain

The front roof drain downspouts were connected to a 4 inch diameter corrugated plastic pipe subsurface drainage system that surface down gradient at the property line.

DECISION UNIT B

Cleanup Activities

Results of pre-cleanup sampling indicated 24 inches of soil would have to be excavated in this decision unit. The on-site coordinator witnessed the soil being removed to a depth of 24 inches.

Attachment B shows that:

- Below 24 inches, the composite and maximum sample analyses are below the remediation levels of 150 ppm and 500 ppm, respectively.
- Below 24 inches, the soil contains arsenic above the cleanup level of 20 ppm; therefore, a geofabric marker was placed.

After placing a geofabric marker, the decision unit was backfilled with clean material as described in the “Specifications for Everett Residential Soil Remediation” (see Document Repository information on page 5). Approximately 6 inches of clean topsoil was placed above the backfill, and the surface was restored with sod unless noted otherwise.

Wooden Shed

The wooden shed formerly in the front yard (near the western corner of the house, in Decision Unit A) was moved to the backyard close to the northeast corner of the house. A crushed rock pad and pathway was prepared for this area.

French Drain

A *French drain* was constructed at the foot of the sloping front yard where it intersects the north side yard. This was done to collect runoff from the street that spills onto the property and could cause erosion during a heavy downpour. Backyard roof drain downspouts were connected to a 4 inch diameter corrugated plastic pipe subsurface drainage system that surfaces down gradient at the property line.

DECISION UNIT C

Cleanup Activities

Results of pre-cleanup sampling indicated 24 inches of soil would have to be excavated in this decision unit. The on-site coordinator witnessed the soil being removed to a depth of 24 inches.

Attachment B shows that:

- Below 24 inches, the composite and maximum sample analyses are below the remediation levels of 150 parts per million (ppm) and 500 ppm, respectively.
- Below 24 inches, the soil contains arsenic above the cleanup level of 20 ppm; therefore, a geofabric marker was placed.

After placing a geofabric marker, the decision unit was backfilled with clean material as described in the "Specifications for Everett Residential Soil Remediation" (see Document Repository information on page 5). Approximately 6 inches of clean topsoil was placed above the backfill, and the surface was restored with sod unless noted otherwise.

Septic Tank

An old septic tank in the backyard was encountered during cleanup. The tank was broken up in place and filled with clean backfill.

Ground-level Deck

The space underneath the backyard deck was too confined to allow for cleanup, therefore, the soil was excavated around this structure. Soil beneath this deck was not remediated.

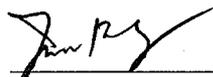
An animal barrier was installed around this deck.

RESTORATION SUMMARY

- As part of the property restoration, all roof drain downspouts were connected to a 4" diameter corrugated plastic pipe subsurface drain system that surfaces at the down slope eastern property line.
- Railroad tie retaining walls containing creosote were replaced with a concrete **block retaining wall**. The wall incorporates a geogrid tie back mesh in the backfill.
- A storage shed was moved from the front yard to the back yard
- Front stairs and retaining wall were reconfigured to improve parking and aesthetic appeal.
- Rotted front stair hand rail uprights were replaced and set in concrete.
- An old septic tank in the backyard was encountered during cleanup. The tank was broken up in place and filled with clean backfill.

MATERIAL QUANTITIES

Quantity of contaminated soil removed:	242.60 Tons
Quantity of clean backfill used:	337.20 Cubic Yards
Quantity of clean topsoil used:	80 Cubic Yards



Jerome Cruz
Washington Department of Ecology

January 31, 2008

201 Bridgeway
Everett, WA 98201

3190 160th Ave SE
Bellevue, WA 98008

Attachments: A. Site Map
B. Graphs of Arsenic Concentration vs. Depth
C. Explanation of graphs

Note

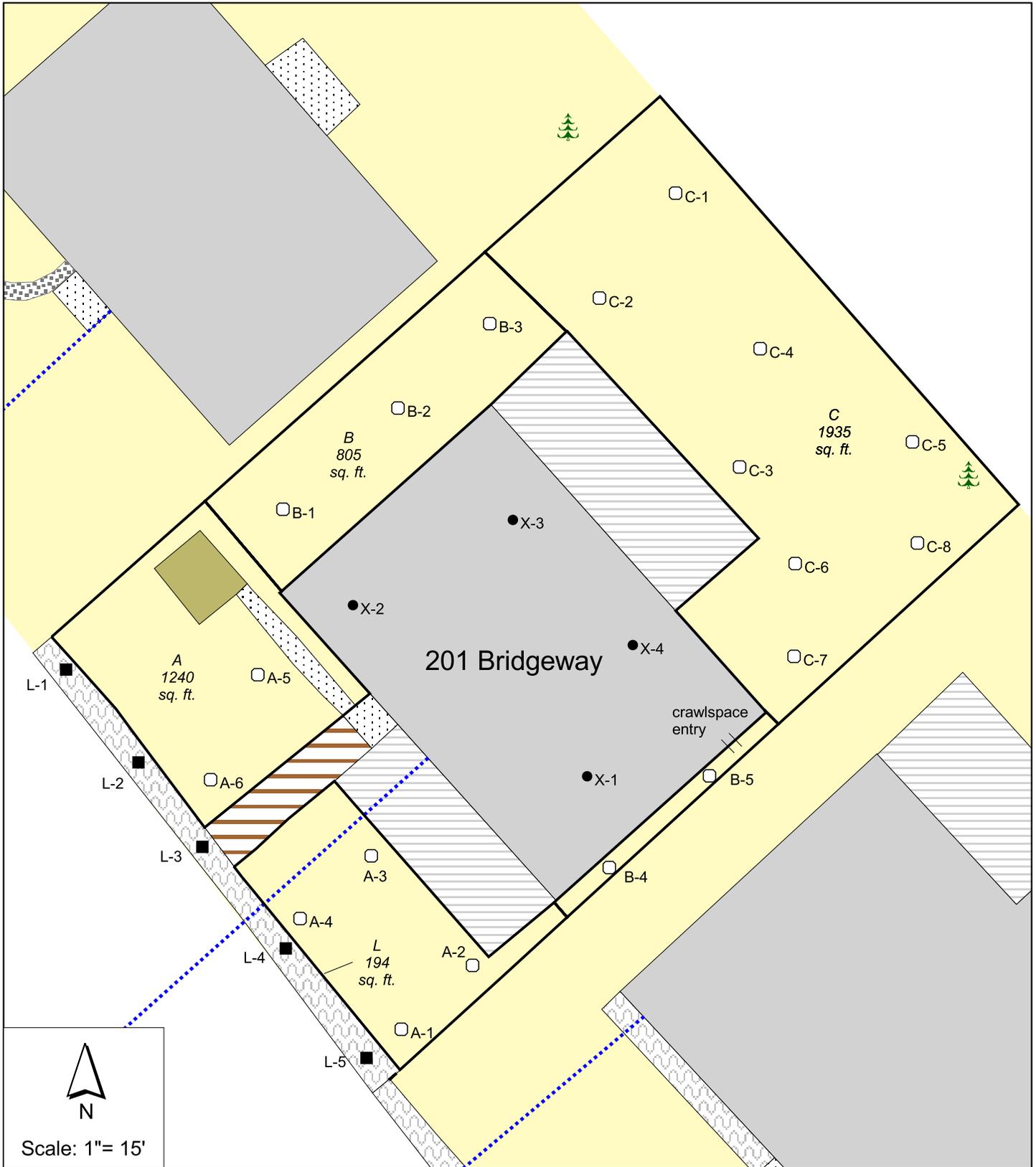
If the attachments listed above do not accompany this document, copies may be obtained from Ecology. Please contact Central Records at Ecology's Northwest Regional Office (NWRO) at (425) 649-7190 for information on obtaining copies.

Document Repository

These following documents can also be found at NWRO:

- Integrated Final Cleanup Action Plan
- Final Environmental Impact Statement for the Upland Area
- Specifications for Everett Residential Soil Remediation

cc: City of Everett Public Works
Ecology Central Files, Northwest Regional Office
Ecology Contract Officer, Headquarters
Ecology, Office of the Attorney General
Ecology On-site Coordinator, SAIC
Everett Public Library
Northeast Everett Community Organization
Northwest Everett Neighborhood Association
Snohomish PUD
Wyser Construction, Inc.



LEGEND

- Decision Unit Samples
- Landscape Samples
- Crawlspace Samples

201 Bridgeway (Home 45)

Everett Smelter Homesite Cleanup

Source: Snohomish Health District



SAIC