



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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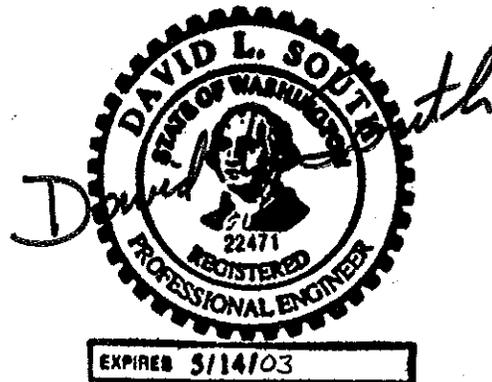
Professional Engineer's Statement
Everett Smelter Cleanup
March 17, 2003

Sampling and soil remediation were carried out at the following homes within the Everett Smelter Site during the period September 2002 to January 2003:

<u>Address</u>	<u>Owner</u>
Jeffrey G. Martz	108 Skyline Drive
William Udman and Alice Shaefer	203 Skyline Drive
Sam Bagley	206 Skyline Drive
Marion O. Lamb	209 Skyline Drive
Beverly Innes	212 Bridgeway
Gertrude L. Vaughn	216 Bridgeway
Scott Schroeder	222 Bridgeway
Mark M. Leonard	226 Bridgeway
Jean M. Burt	232 Bridgeway

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.

Remediation work remaining to be done at these homes includes addressing crawl spaces as necessary and carpet and duct cleaning.



Washington Department of Ecology

Everett Smelter Site

2002 Cleanup

Details of Cleanup Activities

The Department of Ecology (Ecology) selected 9 homes within the Everett Smelter Site for cleanup in 2002. Cleanup activities were conducted between September 4, 2002 and January 29, 2003. The cleanup was conducted according to the *Everett Smelter Site: Integrated Final Cleanup Action Plan and Final Environmental Impact Statement for the Upland Area*.

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

Property Owner Gertrude L. Vaughn

Address: 216 Bridgeway
Everett, WA 98201

Snohomish County
State of Washington
Tax Parcel No. # 005203-000-032-00

For the purposes of sampling to determine the depth to which excavation would be required, this property was divided into two Decision Units, A and B, as shown on the attached map. The following is a summary of the work done to remediate the property within each of the decision units.

Decision Unit: A

Results of pre-cleanup sampling indicated 36 inches of soil would have to be excavated in this decision unit. Attachment B shows that below 36 inches, results of discrete sample analyses are below the remediation levels of 150 parts per million (ppm) and 500 ppm, respectively. However, because the soil below 36 inches contains arsenic above the cleanup level of 20 ppm, a geofabric marker was placed. The chain link fences along the north, south and east side of the yard were removed to allow access.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 36 inches, except as noted below. The wood deck and the storage shed in the back yard were not removed during excavation. A concrete septic tank was exposed during excavation. Because a portion of the tank lies under the southwest corner of the deck, the tank was left in place. A portion of the sewer line at the southwest corner of the house was found to be cracked and leaking. The damaged section was removed and

216 Bridgeway
Everett, WA 98201

replaced with PVC sewer pipe. French drains were placed at the bottom of the excavation along the base of the slope on the western side of the yard, through the center and along the western side of the house. These were connected to French drains on the north and south sides of the house which run through the front yard and are connected to the storm sewer on Bridgeway. The downspouts on three corners of the house were connected to the French drains. Because there was no downspout on the southwest corner, a stub of drain pipe was left exposed to allow connection in the future.

After placing a geofabric marker, the Decision Unit was backfilled with clean material and topsoil as described in the *Specifications for Everett Residential Soil Remediation*. A portion of the back yard was established as a parking area and finished with crushed rock. The slope on the western side of the yard was covered with jute netting, planted with groundcover and covered with bark. A planting bed was placed along the west side of the house and deck. The rest of the yard was planted with sod. Upon completion of work, the chain link fences were restored to their original locations.

Decision Unit: B

Results of pre-cleanup sampling indicated 24 inches of soil would have to be excavated in this decision unit. Attachment B shows that below 24 inches, results of composite and discrete sample analyses are below the remediation levels of 150 parts per million (ppm) and 500 ppm, respectively. However, because the soil below 24 inches contains arsenic above the cleanup level of 20 ppm, a geofabric marker was placed.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 24 inches, except as noted below. The paved driveway was not removed during excavation. The landscape timbers supporting the terraced planting beds (sampling locations L-1 through L-5) could not be reused. The planting beds and timbers were excavated and disposed. A rock wall was constructed to allow restoration to the original grade as closely as possible. The galvanized water service line was found to be in very poor condition. The line was replaced with a plastic service line at the owner's expense.

After placing a geofabric marker, the Decision Unit was backfilled with clean material and topsoil as described in the *Specifications for Everett Residential Soil Remediation*. The gravel path to between the front door and the driveway was restored with crushed rock. After placing the topsoil, sod and shrubs were planted.


Daniel R. Cargill
Washington Department of Ecology

March 13, 2003

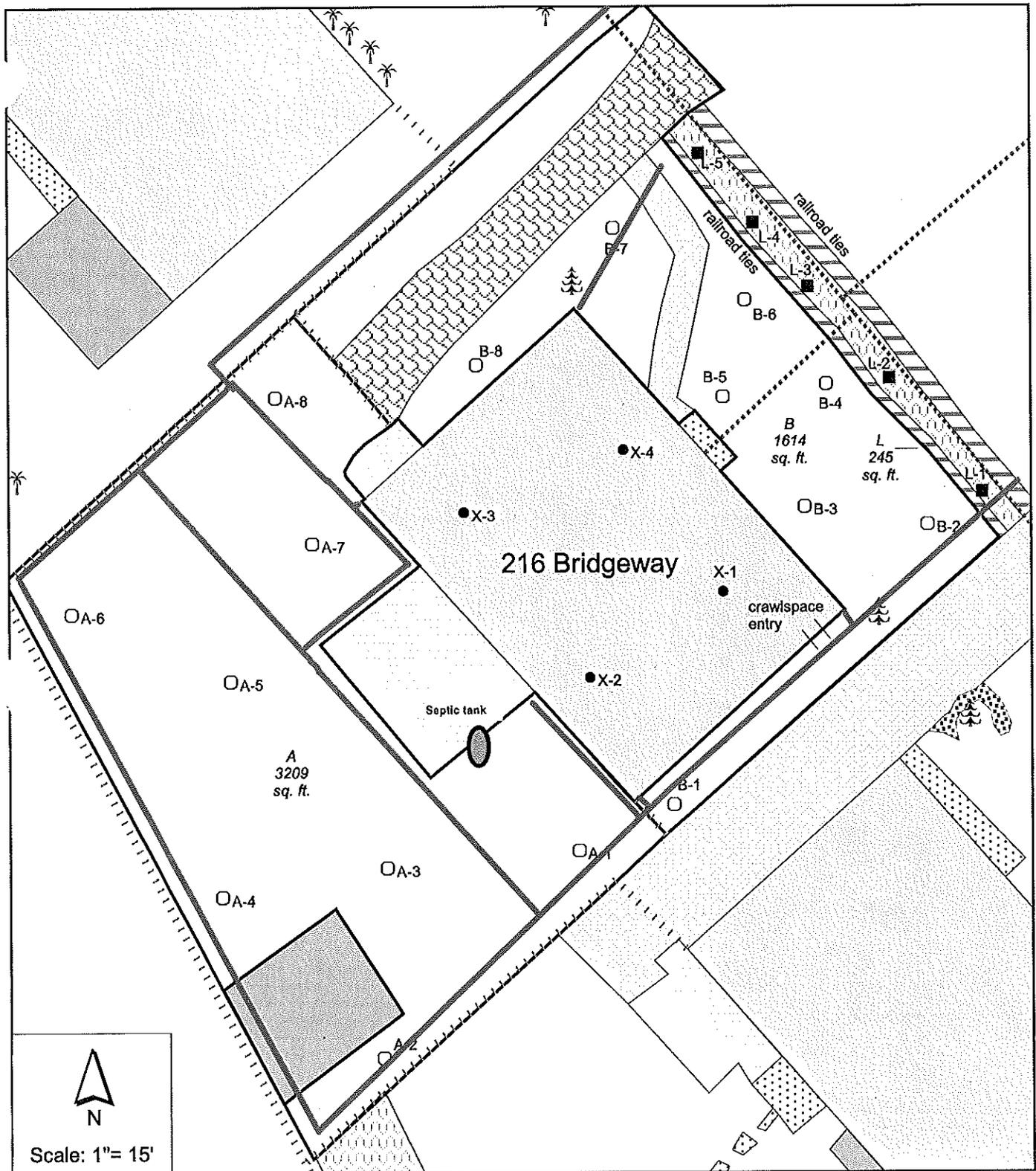
DRC:dc

216 Bridgeway
Everett, WA 98201

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.

cc: Ecology Central Files, NWRO
Everett Public Library
Asarco Information Center, Everett
Northeast Everett Community Organization
Northwest Everett Neighborhood Association
City of Everett Public Works
Snohomish PUD
Office of the Attorney General
Ecology Contract Officer
Ecology On-site Coordinator



Scale: 1" = 15'

LEGEND

- Decision Unit Samples
- Landscape Samples
- Crawlspace Samples
- Sub surface drains

216 Bridgeway (Home 51)

Everett Smelter Homesite Cleanup

Source: Snohomish Health District

