



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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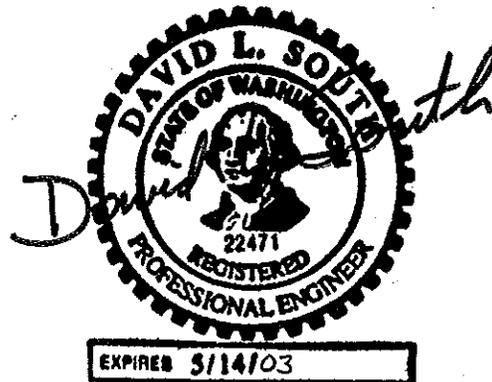
Professional Engineer's Statement
Everett Smelter Cleanup
March 17, 2003

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 Beverly Innes

Address: 212 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 three Decision Units, A, B and C, 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 30 inches of soil would have to be excavated in this decision unit. Attachment B shows that below 30 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 30 inches contains arsenic above the cleanup level of 20 ppm, a geofabric marker was placed. Chain link fences were removed to the extent necessary to allow access. The chain link fence between the house and the north property line was not removed at the request of the owner.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 30 inches, except as noted below. The paved driveway and walkway to the front door were not removed during excavation. At the request of the owner, the large evergreen tree and honeysuckle north of the driveway, the quince tree in the southeast corner of the yard and the azaleas in the planting bed south of the front door were not removed. Within the drip line of all trees and shrubs, the soil was removed from the top of the roots; beyond the drip line, soil was excavated to 30 inches. Because of the extensive root system of the large evergreen north of the driveway, most of this area could not be excavated to a depth of more than 7 to 8 inches. The owner hired a contractor to place a rock wall along a portion of the front yard.

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*. After placing the topsoil, sod and shrubs were planted. Upon completion of work, the chain link fences were restored to their original locations.

Decision Unit: B

Results of pre-cleanup sampling indicated 18 inches of soil would have to be excavated in this decision unit. Attachment B shows that below 18 inches, results of composite and discrete sample analyses are below the remediation levels of 60 parts per million (ppm) and 150 ppm, respectively. However, because the soil below 18 inches contains arsenic above the cleanup level of 20 ppm, a geofabric marker was placed. Chain link fences were removed as needed to allow access to and from adjacent properties.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 18 inches, except as noted below. The paved patio and concrete walkway were not removed during excavation. At the request of the owner, the large evergreen tree in the northwest corner of the yard, the three clematis near the patio and the lilac in the southwest corner of the yard were not removed. Within the drip line of all trees and shrubs, the topsoil and sod was removed from the top of the roots; beyond the drip line, soil was excavated to a depth of 18 inches. French drains were installed along the west side of the house. The south end of the drain was connected to a French drain placed along the south side of the property. The north end of the drain, as well as the downspout on the northwest corner of the house was connected to a pre-existing sub-surface drain line. Both lines are connected to the storm drain on Bridgeway.

After placing a geofabric marker, the Decision Unit was backfilled with clean material, as described in the *Specifications for Everett Residential Soil Remediation*. After placing the topsoil, sod and shrubs were planted. Upon completion of work, the chain link fences were restored to their original locations.

Decision Unit C:

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

212 Bridgeway
Everett, WA 98201

sample analyses are below the remediation level of 150 parts per million (ppm). However, because the soil below 24 inches contains arsenic above the cleanup level of 20 ppm, a geofabric marker was placed. The chain link fence along the north property line was partially removed to allow access to the adjacent property.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 24 inches, except as noted below. At the request of the owner, the large rhododendron and the honeysuckle along the fence were left in place. All other plants and shrubs were removed. Within the drip line of all shrubs, the soil was removed from the top of the roots; beyond the drip line, soil was excavated to a depth of 24 inches. Two block walls were constructed to allow restoration of the yard to an approximation of its original grade.

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* and planted with sod or left as planting beds.



April 3, 2003

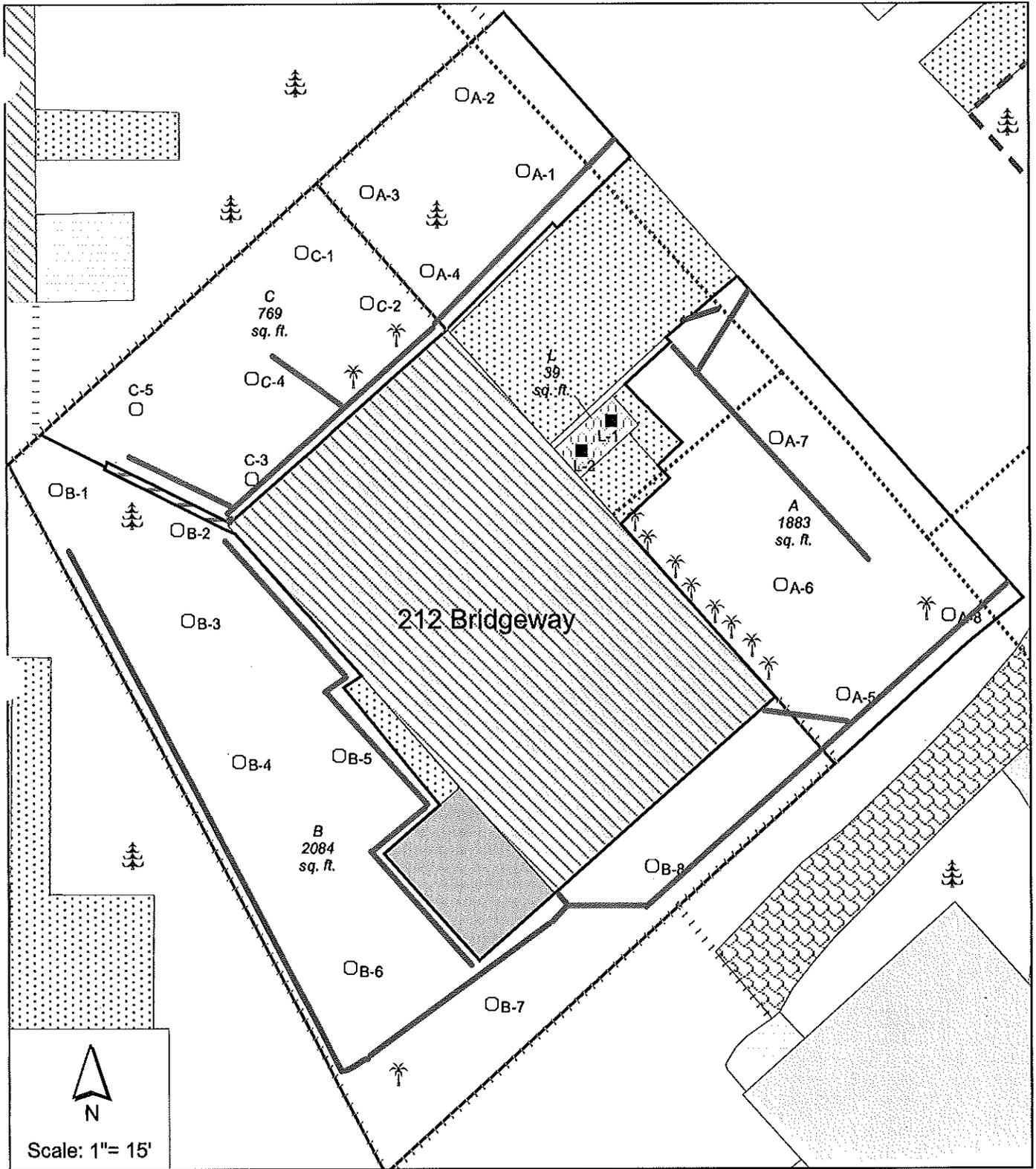
Daniel R. Cargill
Washington Department of Ecology

DRC:dc

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



- LEGEND**
- Decision Unit Samples
 - Landscape Samples
 - Sub surface drains
 - - - Pre-existing sub-surface drain
 - True water line location

212 Bridgeway (Home 49)
 Everett Smelter Homesite Cleanup
 Source: Snohomish Health District

