



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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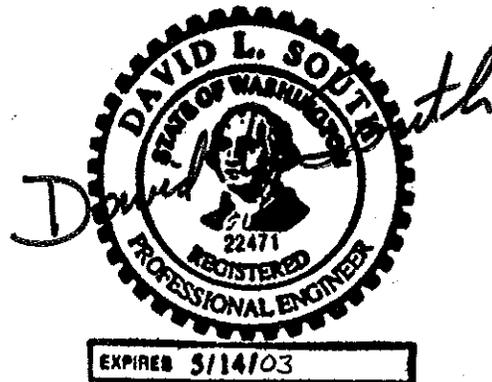
Professional Engineer's Statement
Everett Smelter Cleanup
March 17, 2003

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 Marion O. Lamb

Address: 209 Skyline Drive
 Everett, WA 98201

Snohomish County
State of Washington
Tax Parcel No. # 005203-000-029-00

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 12 inches of soil would have to be excavated in this decision unit. Attachment B shows that below 12 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 12 inches contains arsenic above the cleanup level of 20 ppm, a geofabric marker was placed. The chain link fence on the north side of the house was removed to allow access to the back yard.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 12 inches, except as noted below. The paved portions of the driveway and

carport were not removed during excavation. The planting bed along the front of the house (sampling locations L-1 & L-2) was excavated to a depth of 18 inches. The catch basin in the driveway was connected to a French drain in the planting bed. This drain, as well as the downspouts along the north side of the house, were connected to the French drains in the back yard (Decision Unit B). The grassy area in the driveway over the water line was excavated, backfilled with crushed rock and paved. A block wall was constructed along the north side of the driveway to allow restoration close to the original grade.

After placing a geofabric marker, the Decision Unit was backfilled as described in the *Specifications for Everett Residential Soil Remediation*. The area along the south side of the block wall and the planting bed along the front of the house (L-1 & L-2) were filled with topsoil. The portion of the yard immediately north of the block wall was backfilled with crushed rock to create a parking area. Topsoil was placed in the area yard north of the parking area and planted with sod and a planting bed was created along the north property line. Upon completion of work, the chain link fence was replaced. Replacement shrubs were delivered and planted by the residents.

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. The chain link fences on the north and east sides of the house were removed to allow access.

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 patio was not removed during excavation. Soil was not removed within 24 inches of the supports for the second story addition in order to preserve the integrity of the supports, which did not appear to be set on a footing. At the request of the owner, the snowball bush in the southeast corner of the yard was left in place. Within the drip line of the bush, soil was removed to the top of the roots. Beyond the drip line, soil was excavated to a depth of 24 inches. The soil in the planter in the paved patio was removed and the planter was found to be about 4 inches deep with a concrete bottom. A French drain was placed along the back of the house. Yard drains placed to collect water from the downspouts as well as the drains from the north and south sides of the house were connected to the French drains. All drainage was routed to plastic drain pipes that convey water to the storm drain on Bridgeway.

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 was planted. Upon completion of work, the chain link fences were restored to their original locations.

209 Skyline Drive
Everett, WA 98201

Landscape Area M-1 to M-4

The planting bed along the south side of the driveway and carport (M-1 to M-4) was excavated to a depth of 18 inches and a block wall was constructed to preserve the existing grades. Because the soil below 18 inches contains arsenic above the cleanup level of 20 ppm, a geofabric marker was placed. A French drain was placed along the base of the block wall and connected to the drainage in the back of the house. The planting bed was backfilled with clean material, as described in the *Specifications for Everett Residential Soil Remediation* and covered with a weed barrier. A portion of the bed was filled with topsoil while the remainder was topped with crushed rock.



April 3, 2003

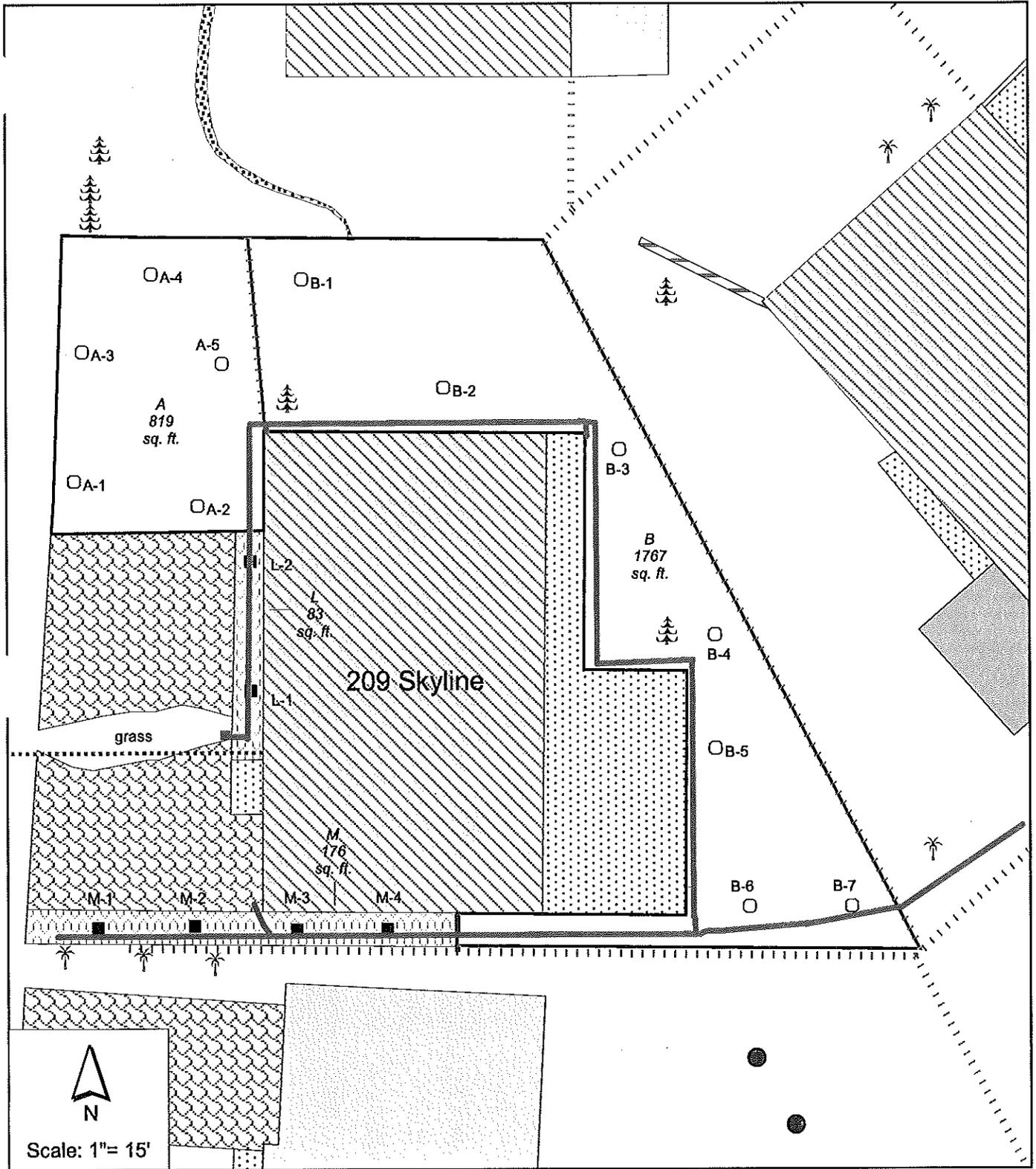
Daniel R. Cargill
Washington Department of Ecology

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



Scale: 1"= 15'

LEGEND

- Decision Unit Samples
- Landscape Samples
- Sub surface drains

209 Skyline (Home 42)

Everett Smelter Homesite Cleanup

Source: Snohomish Health District

