STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office, 3190 - 160th Ave S.E. • Bellevue, Washington 98008-5452 • (206) 649-7000

Professional Engineer's Statement
Everett Smelter Cleanup, 2000-2001

Sampling and soil remediation were carried out at the following homes within the Everett Smelter Site during the years 2000 and 2001:

Address	Owner
Muriel Jones	110 Bridgeway
Andrew Michels	235 Bridgeway
Jeanette Mempa	236 Bridgeway
Thomas, Christine & Ronnie	240 Bridgeway
Martha Watkins	244 Bridgeway
Joanne Felmer	2803 Medora Way
Terry Tavares & Linda Guy-Tavares	2811 Medora Way
Duane & Edna Rapelje	2817 Medora Way
Dave & Rene Goodrich	2818 Medora Way
Ron & Bonnie Sylvester	2830 Medora Way
Anh Black	528 Hawthorne
Steve & Sherrie Wamba	415 Legion Drive
Gary & Darlene Bunger & Sandra Kane	112 Skyline Drive
Michael Paeth	116 Skyline Drive
Randy Hall	212 Skyline Drive
Willy Pompey	215 Skyline Drive
Dorothy Larson	218 Skyline Drive
Bob & Peggy Redline	221 Skyline Drive
Michael & Sheila Crehan	222 Skyline Drive
Kurt Bertilson	230 Skyline Drive
Louise Hiller	302 Skyline Drive
Margie Hogle	303 Skyline Drive
Fred Brown	307 Skyline Drive
Jackie Robinett	308 Skyline Drive
Al Vandenbosch	316 Skyline Drive
Al Sorenson	320 Skyline Drive
Jo Newland	323 Skyline Drive
John & Christina Bull	328 Skyline Drive

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 evaluation of crawl space data and addressing crawl spaces as necessary and carpet and duct cleaning. Some plant replacement also remains to be done and will be done this Spring.

DAVID L. SOUTH
STATE OF WASHINGTON
22471
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES 5/14/2003

Washington Department of Ecology
Everett Smelter Site
2000 - 2001 Cleanup

Details of Cleanup Activities

The Department of Ecology (Ecology) targeted the yards of 28 homes within the Everett Smelter Site for cleanup in 2000 and 2001. Cleanup activities were conducted between August 2000 and March 2001, and again between July and November, 2001. 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 not removed and where it remains for the following location:

Property Owner	Bob & Peggy Redline
Address:	221 Skyline Drive Everett, WA 98201
Snohomish County State of Washington Tax Parcel No.	# 005203-000-026-00

This property was divided by Ecology into three Decision Units, A, B and C, as shown on the attached map, for purposes of pre-cleanup sampling and decision-making regarding the depth to which excavation was required. The following is a summary of the work done in the remediation of the property within each of the decision units.

Decision Unit: A

Results of pre-cleanup sampling indicated 18 inches of soil were to be excavated from within this decision unit. Attachment B shows that below 18 inches, results of composite sample analyses are below the remediation levels of 60 parts per million (ppm), and discrete sample analyses are below the remediation level of 150 ppm. However, because the soil below 18 inches contains arsenic levels 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 18 inches. The paved driveway, carport and the walkways from Skyline

Drive and the driveway to the front door were not removed. Along the sides of the existing home, paved driveway, carport and the walkways, the excavation was sloped approximately 1:1 away from the foundations to protect the integrity of the structures. South of the walkway between Skyline Drive and the front door, a Keystone block wall was built parallel to Skyline Drive to restoration of the yard to its original grade. Extending from the southern end of this wall is another Keystone block wall running east along the property line shared with 2803 Medora Way. The wall extends through Decision Units B and C, and was constructed to allow removal of contaminated soils in the slope separating the two properties and to preserve the original grades and the driveway at 2803 Medora Way. A gravity wall was constructed north of the driveway to allow removal of contaminated soils, preservation of most of the paved driveway and restoration of the existing grades. Downspouts from the gutters were connected by PVC pipe to a drainage structure composed of washed rock and geofabric placed in Decision Unit B. The mortared planting beds abutting the house on the west side (front) and at the southwest corner of the driveway were built by a contractor hired by the owner. After placing a geofabric marker, the Decision Unit was backfilled with clean material, as described in the *Specifications for Everett Residential Soil Remediation*. The area north of the carport was excavated to a depth 6 inches, backfilled with crushed rock, compacted and paved. After placing the topsoil, sod and shrubs were planted.

Decision Unit: B

Results of pre-cleanup sampling indicated 24 inches of soil were to be excavated from within this decision unit. Attachment B shows that below 24 inches, results of composite sample analyses are below the remediation levels of 150 ppm. Because the soil below 24 inches contains arsenic levels below the cleanup level of 20 ppm, no geofabric marker was necessary. A small shed located near sampling station B-2 was moved to the paved patio under the deck.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 24 inches. The paved patio under the deck was not removed. Along the sides of the existing home, including the paved patio under the deck, the excavation was sloped approximately 1:1 away from the foundations to protect the integrity of the structures. All landscaped areas and planting beds were removed. In order to facilitate excavation, the chain-link fence between 221 and 215 Skyline Drive was removed. Upon the completion of excavation, the fence was replaced. At the owners' request, the lilac tree near sampling location C-3 was relocated to the new planting bed south and east of sampling location B-9. Downspouts from the gutters were connected by PVC pipe to a drainage structure composed of washed rock and geofabric placed in Decision Unit B. An old septic tank uncovered during excavation was pumped out and backfilled with sand. The mortared planting bed abutting the north and east side sides of the carport was built by a contractor hired by the owner. 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.

Decision Unit: C

Results of pre-cleanup sampling indicated 18 inches of soil were to be excavated from within this decision unit. Attachment B shows that below 18 inches, results of composite sample analyses are below the remediation level of 60 ppm. Because the soil below 18 inches contains arsenic levels below the cleanup level of 20 ppm, no geofabric marker was necessary. In order to facilitate excavation, the chain-link fence between 221 and 215 Skyline Drive was removed. Upon the completion of excavation, the fence was replaced.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 18 inches. The Decision Unit was backfilled with clean material, as described in the *Specifications for Everett Residential Soil Remediation*. After placing the topsoil, sod was planted.

January 9, 2002

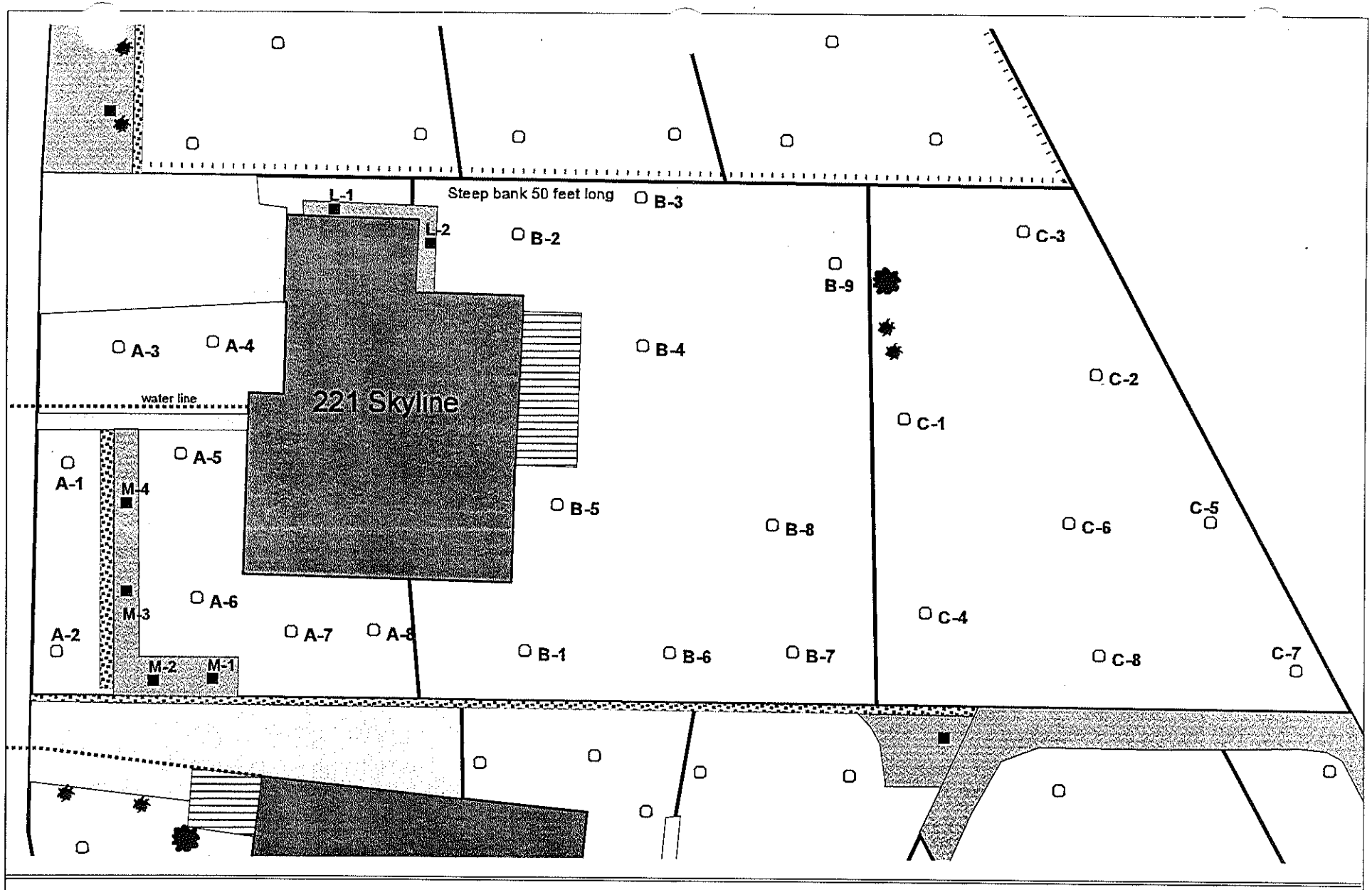
Dan Cargill
Washington Department of Ecology

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
Office of the Attorney General
Snohomish Health District
City of Everett Public Works
Everett Public Library
Snohomish PUD
Northeast Everett Community Organization
Northwest Everett Neighborhood Association
Asarco Information Center, Everett



221 Skyline

Everett Smelter Homesite Cleanup

Source: Snohomish Health District

■ Landscape Samples
○ DU Samples

N

Not to scale