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 Randy and Kathy Hall

Address: 212 Skyline Drive
Everett, WA 98201

Snohomish County
State of Washington
Tax Parcel No. # 005203-000-007-00

This property was divided by Ecology into three Decision Units, A and B, 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.

<u>Decision Unit: A</u>

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 existing walkway and stairs between the driveway and the front door were not removed. Along the sides of the existing home and the walkway and

stairs, the excavation was sloped approximately 1:1 away from the foundations to protect the integrity of the structures. At the owners' request, the four evergreen trees in landscaped area in the vicinity of sampling location A-4 and the large evergreen tree to the west of sampling location L-4 were not removed. Within the dripline of the trees, only the existing sod and soil was removed; beyond the dripline, 18 inches were excavated. All other plants and planting beds were excavated and replaced. In order to facilitate excavation, the rock wall running from the concrete retaining wall for 218 Skyline Drive to the southern edge of the driveway and extending to the house was removed. After excavation and backfilling with clean material, the wall was replaced. During excavation, the footing drains at the northeast corner of the house were found to drain into the soil under the driveway. After backfilling the driveway area, the drains were connected to a PVC pipe which was placed under the western edge of the paved driveway. The pipe continues east along to property line to a pop-up drain at the northeast corner of the property next to Skyline Drive. A French drain was installed along the southern edge of the paved driveway, from the base of the stairs to Skyline Drive. The line then runs north under the paved driveway and is connected to the pop-up drain at the northeast corner of the property next to Skyline Drive. After placing a geofabric marker, the Decision Unit was backfilled with clean material, as described in the *Specifications for Everett Residential Soil Remediation*. All pavement damaged by trucks and equipment, as well as the underlying soils, were removed. The excavation was backfilled with crushed rock, compacted and re-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 level of 150 ppm and discrete sample analyses are below the remediation level of 500 ppm. However, because the soil below 24 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 24 inches. The paved patio and carport were not removed. Along the sides of the existing home and the paved carport and patio, the excavation was sloped approximately 1:1 away from the foundations to protect the integrity of the structures. The rock wall located at the western end of the poured-concrete retaining wall and the planting bed in the southwest corner of the property was removed to facilitate access to the adjoining property. At the owners' request, the evergreen trees and shrubs along the northern and western property lines were not removed. Within the dripline of the trees only the existing sod and soil was removed from the top of the root balls; beyond the dripline, 24 inches was removed. A Keystone block wall was built at the western end of the poured-concrete retaining wall to allow restoration of 218 Skyline to its original grade. In order to preserve the tree in 218 Skyline's yard, the western end of the Keystone wall was built over the root ball. Within the dripline of this tree, only the existing sod and soil was removed from the top of the root ball; beyond the dripline, 24 inches was removed. Downspouts from the roof drains were reconnected with plastic

footing drains. After placing a geofabric marker, the Decision Unit was backfilled with clean material, as described in the *Specifications for Everett Residential oil Remediation*. After placing the topsoil, sod and shrubs were planted.

January 9, 2002

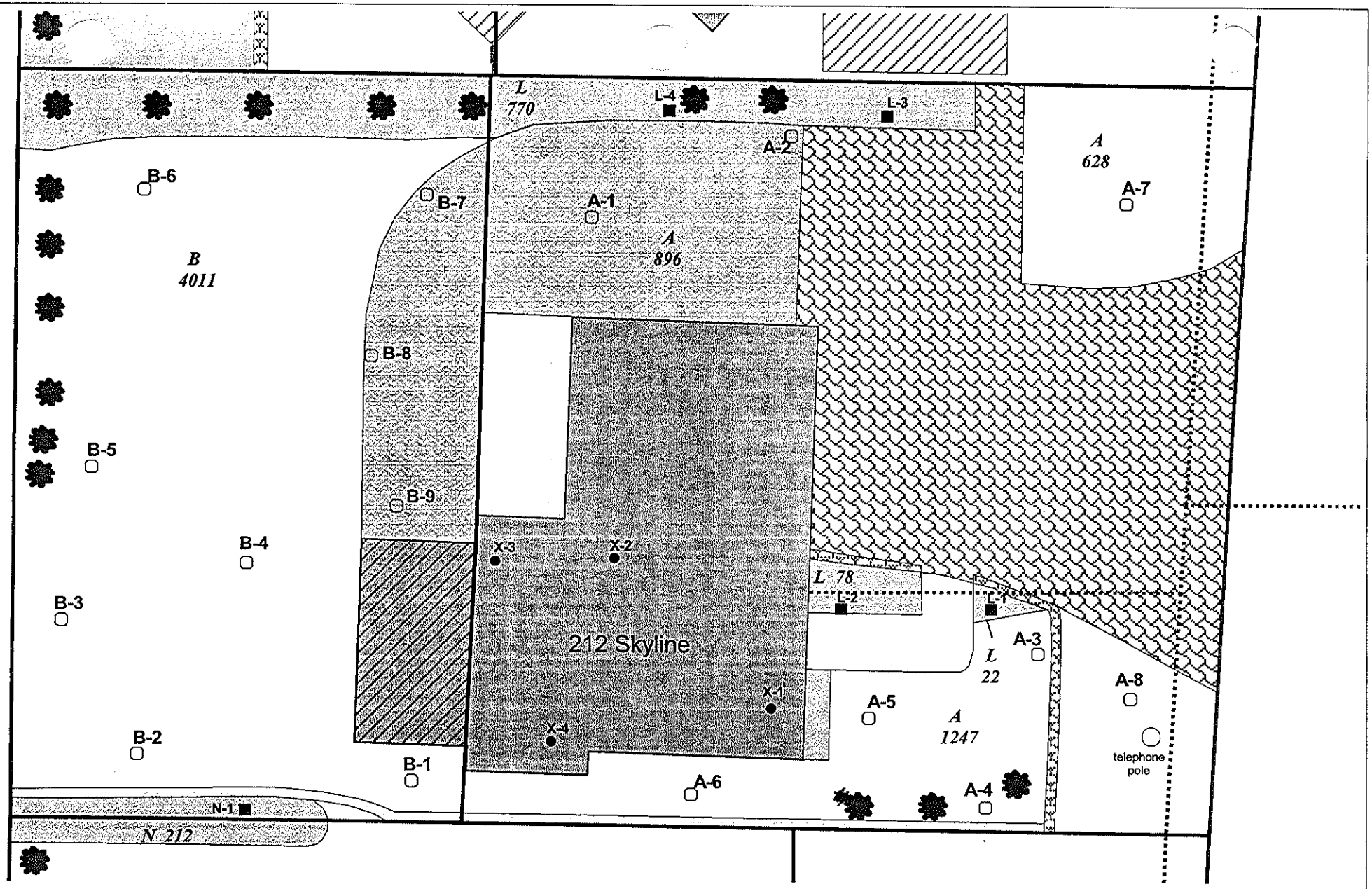
Dan Cargill
Washington Department of Ecology

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



212 Skyline (Home 036)

Everett Smelter Homesite Cleanup

Source of Basemap: Snohomish Health District

- ● Crawlspace Samples
- ■ Landscape Samples
- ▢ DU Samples

N

Not to scale

SAIC
Science Applications International Corporation