4.5.4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

Reply To
Attn Of: ECL-111

ACTION MEMORANDUM

DATE:

SUBJECT: **Action Memorandum for a Time-Critical Removal Action at the Terminal 117 Early Action Area, Lower Duwamish Waterway Superfund Site, Seattle, WA**

FROM: **Ravi Sanga, Remedial Project Manager**
Office of Environmental Cleanup

TO: **Daniel D. Opalski, Director**
Office of Environmental Cleanup

THRU: **Chris D. Field, Unit Manager**
Emergency Response Unit
Office of Environmental Cleanup

Sheila M. Eckman, Unit Manager
Site Cleanup Unit 3
Office of Environmental Cleanup

SITE ID: **CERCLIS** – WA0002329803
SSID – 10AK

USEPA SF
1241001

I. PURPOSE

The purpose of this Action Memorandum is to document approval for a Time Critical Removal Action (TCRA) for upland soils contaminated with polychlorinated bi-phenyls (PCBs) and total petroleum hydrocarbons (TPH) at the Terminal 117 (T-117) Early Action Area (EAA) of the Lower Duwamish Waterway (LDW) Superfund Site. The removal will reduce potential risks to public health and the environment from hazardous substances in the soils. Following the TCRA, a Non-Time-Critical Removal Action (NTRCA) will be implemented for removal of contaminated soils along the upper bank and sediments in the river. This action meets the criteria for initiating a removal action under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR 300.415.

The primary objectives of this removal action are to:

1. Prevent human exposure to contaminants on the upland of T-117; and
2. Remove contaminant sources and contain remaining contaminated soils in order to minimize the migration of contaminants to the waterway at levels that may cause exceedances of the State's Sediment Management Standards (SMS) for contaminants of concern.

II. BACKGROUND AND CONDITIONS AT T-117

A. Background

The Duwamish Manufacturing Company conducted asphalt manufacturing operations from approximately 1937 until 1978 on approximately the western half of T-117. The Malarkey Asphalt Company continued similar operations from 1978 until 1993. These operations released oil, PCBs, PAHs, and metals to the environment, including soils and groundwater. Fuel oils used primarily for heating, including waste oils from electrical equipment from Seattle City Light and other sources, are presumed to be the primary source of PCBs at T-117. The Port of Seattle purchased this property in 1999.

The existing south (metal) building was used for a period of time to containerize the roofing asphalt product and as a warehouse for finished product storage. Two of the three abandoned-in-place Underground Storage Tanks (USTs) were reportedly used to store gasoline and then waste oil, and the third stored diesel fuel. The latter tank served as a diesel fuel dispenser located at the north side of the small office shed (just inside the north gate). These three USTs were closed in place and remain on the T-117 property. During the early 1970s, the facility reportedly received approximately 1,000 gal (3,800 L) per month of waste oil, including PCB-contaminated waste oil that was used as fuel for the asphalt manufacturing process.

A "pond" or natural depression area adjacent to the shoreline in the center portion of the upland property was used for disposal of non-contact cooling water from asphalt distillation equipment, and for disposal of stormwater.

B. Description

1. Physical Location

T-117 is located at 8700 Dallas Avenue S in Seattle, Washington. The upland T-117 property covers approximately 3 acres, including a 50-foot-wide section of land adjacent to the shoreline, which is owned by the Port as successor in interest to the King County Commercial Waterway District No.1.

2. Current Characteristics and Operations at T-117

The only above-ground structures that remain from the time when the asphalt plant was operational are the north and south buildings, the small office/carport inside the north gate, and the truck scale at the west side of the property. The remainder of the T-117 upland property is covered with asphalt or concrete pavement, with the exception of the 25-foot-wide section of land adjacent to the shoreline.

T-117 is located in unincorporated King County and is zoned for industrial use. The property is fenced and gates are locked during off-hours to prevent public access. A portion of the building is currently occupied by International Inspection, a provider of non-destructive testing services. Second Use Building Materials, Inc., a recycling business that obtains reusable building materials from various demolition projects for resale to the public, uses the south building for inventory storage.

3. Release or Threatened Release into the Environment of a Hazardous Substance, Pollutant, or Contaminant

At T-117, a threat of release, to the Lower Duwamish Waterway LDW, of CERCLA hazardous substances exists. These include PCBs, arsenic, polycyclic aromatic hydrocarbons (PAHs) and Total Petroleum Hydrocarbons (TPH). High TPHs are an indicator of the presence of non-aqueous phase liquids (NAPLs) and are being removed due to the potential for NAPL movement into the banks and sediments.

Sampling results from the upland property from recent and historic sampling events are presented in the Upland Soil Data Report (Windward, 2006). The data indicate PCB concentrations in soil as high as 9,200 ppm. Soil with PCB concentrations above 50 ppm require disposal in a landfill designated for TSCA

hazardous waste. The maximum TPH concentration (sum of diesel and heavy oil range hydrocarbons) was 55,100 ppm. These concentrations substantially exceed the removal action levels for PCBs and for TPH.

Additional concerns are the potential for direct exposure of workers located at T-117 to COCs if the existing pavement fails.

4. National Priorities List (NPL) Status

The Terminal 117 EAA is part of the Lower Duwamish Waterway Superfund Site listed on the National Priorities List of Hazardous Waste Sites, September 13, 2001.

5. Maps, Pictures, and Other Graphic Representations

Figures 1, 2, and 3 depict the site location, historical activities, and current uses of the site. (Figure 1 thru Figure 3)

C. Other Actions

Past Investigations

Key State and local actions are noted below. Elevated concentrations of PCBs, PAHs, and other constituents at T-117 were noted in investigations beginning in the mid-1980s to 2005. These observations were generally limited to the parcel adjacent to the shoreline and select locations within the former asphalt plant process area.

1. 1984 Metro Inspection

In 1984, the Municipality of Metropolitan Seattle (Metro) conducted an inspection of the LDW, which included portions of T-117 (URS 1994). Metro collected sediment and surface water samples from the waterway upstream and downstream of T-117. Sediment and surface water samples were also collected from an "on-site holding pond" from the storm drain outfall, and from observed groundwater seeps that were discharging into the waterway. PCBs and zinc were detected in sediment and water collected from the on-site roadway ponded area. The water sample collected from the storm outfall contained PCBs at 6.8 mg/L. Additional investigation was recommended to determine the source of PCBs and zinc at T-117 (EMCON 1996).

2. 1985 and 1986 Ecology Inspections

Washington State Department of Ecology conducted inspections at T-117 in 1985 and 1986 (URS 1994). Ecology identified "partially buried" USTs and ASTs and associated piping at the upland property and areas of visibly stained surface soil. Ecology collected sediment samples from an on-site drainage ditch and results indicated contamination of lead, arsenic, zinc, and cadmium. Ecology mandated additional investigation at T-117 through an enforcement action; however, the Malarkey Asphalt Company appealed based on economic hardship, and the investigation was never conducted (EMCON 1996; Parametrix 1991).

3. 1991 Ecology Site Hazard Assessment

Ecology performed a site hazard assessment in May 1991 under the Model Toxics Control Act (MTCA) (Parametrix 1991). The project site was given a ranking of 1 on a scale of 1 (for highest risk) to 5 (for lowest risk). The scope of the fieldwork included installing three monitoring wells, soil sampling, groundwater sampling and sampling product in the USTs and ASTs. The laboratory results of the samples indicated that metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) including PAHs, and PCBs were present beneath the upland property at depths ranging from 1 to 6 feet below ground surface. On August 27, 1991, Ecology listed Terminal 117 on the State's priority list of hazardous waste sites.

In 2001, the Washington Department of Health produced a health assessment for the Malarkey property which recommended that the pavement and fencing be maintained to prevent exposure to the community. In addition, they recommended that a re-evaluation be conducted in the event that site use was modified from Industrial to some other use.

4. Potential for Continued State and Local Response

Ecology has at this time deferred to EPA for time-critical actions required at T-117; however, this removal action would not preclude Ecology from taking further future action under the Model Toxics Control Act.

Past Actions

In 1996, a time critical removal action memorandum was issued by EPA. Malarkey Asphalt Company (Malarkey) entered into an Administrative Order on Consent (AOC) with EPA to implement portions of this 1996 Action Memorandum. Malarkey decommissioned the facility, which included an asbestos material survey and abatement, stormwater control, tank equipment decommissioning, hot spot soil and sump removal, and a focused characterization

for PCB and semivolatile contaminated soils. Only soils with the highest contamination levels were removed by this cleanup action.

A removal action was also conducted by the Port of Seattle pursuant to an EPA AOC between October 1999 and February 2000. Removal activities included excavation and off site disposal of contaminated soils from a natural depression area located east of the property near the shoreline. It also included placement of asphalt paving in some areas and repair in others to minimize the potential for direct contact with contaminated soils.

Additional soil and groundwater sampling completed since the 1999 removal action confirmed that substantial contamination remains at T-117 requiring further remedial action

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Conditions at T-117 present an imminent and substantial endangerment to public health or welfare or the environment. Conditions at T-117 meet the criteria for a removal action as stated in the National Contingency Plan (NCP), 40 CFR, Section 300.415 (b) (2) as follows:

A. Threats to Public Health or Welfare

Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances.

CERCLA hazardous substances (PCBs, PAHs, arsenic) in surface and subsurface soil beneath an asphalt pavement at T-117 threaten industrial workers and trespassers, should the pavement be compromised, exposing these soils. Exposed soils may be released to the environment through soil erosion and tidal influence on contaminated soils and provide adverse exposure to human populations or animals, through the food chain. Contaminants released to the LDW water column and sediments may adversely affect, and bioaccumulate in, resident fish, benthic organisms, and higher food chain predators such as birds and mammals.

High levels of hazardous substances in soils largely at or near the surface that may migrate.

PCBs are found in very high concentrations (9,200 ppm) within 2 feet of the surface. These concentrations pose a potential threat to industrial workers and trespassers, should the pavement be compromised, exposing these soils.

B. Threats to the Environment

Actual or potential contamination of drinking water supplies or sensitive ecosystems.

The LDW is a migratory corridor for threatened or endangered juvenile Chinook and resident habitat for Bull Trout. CERCLA hazardous substances that are present in soil and could potentially affect groundwater and surface water through direct runoff, should no removal action be taken. High concentrations of TPH in soil are indicative of NAPL which, if left unaddressed, can potentially migrate through groundwater and contaminate the LDW sediments and threaten endangered species, through benthic bioaccumulation.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from T-117 may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

The objective of the actions outlined below is to reduce potential exposures to human health and the environment from areas where soils contain the highest and most likely mobile concentrations of PCBs and TPH. The actions are based on the existing data regarding the conditions at T-117 and are based on future land uses consistent with the current industrial zoning of T-117 (Figure 4).

1. Proposed Action Description

The proposed removal action will address threats identified in the Upland Area, which includes the entire area of the upland property except a narrow strip of land approximately 25 feet wide along the LDW shoreline bank. Areas for excavation are estimated based on PCB and TPH concentrations at or above specified action levels. PCB contaminated soil will be removed from all parts of the Upland Area above 10 ppm total PCBs in the top two feet and above 25 ppm total PCBs below 2 feet. TPH contaminated soil will be removed from all parts of the Upland Area to an action level of 4,000 ppm. Field sampling decisions, approved by EPA, will determine vertical depth and lateral extent of excavation. Soils under buildings will not be removed.

The proposed cleanup action levels of 10 ppm in the upper two feet; 25 ppm PCBs below two feet; and 4,000 ppm TPHs do not preclude any additional cleanups under EPA or State oversight should the land use change. EPA recognizes that uncertainty does exist with the TPH action level of 4,000 ppm. EPA believes this level will prevent potential NAPL migration to the waterway,

however, to confirm this, EPA will require 5 years of quarterly groundwater monitoring to document the protectiveness of the cleanup.

All excavated soils will be transported to appropriate disposal facilities permitted to accept such materials. Approximately 10,800 cubic yards (16,200 tons) of soil will be removed from the T-117 upland property. An estimated 4,800 cubic yards of excavated soil contains PCBs greater than 50 ppm and will be disposed accordingly in a Subtitle C (i.e., hazardous waste) landfill. The remainder of the soil contains less than 50 ppm PCBs and may be disposed of at a Subtitle D (i.e., "solid waste") or Subtitle C landfill, depending upon a final determination of applicable regulatory requirements.

The following elements are also included in the proposed removal action:

- Removal of concrete and asphalt pavement and any underground debris as necessary to implement soil excavations.
- Evaluation of data gaps and any potential effect on the removal action of three previously closed-in-place USTs.
- Management of contaminated materials to prevent its release to the environment during excavation, stockpiling, handling, and transportation.
- Decontamination of trucks leaving T-117 to prevent re-contamination of adjacent streets where the City of Seattle conducted an interim PCB cleanup in 2004/2005.
- Pre- and post-monitoring at and adjacent to the truck entrance at T-117 and at an EPA approved specified distance of the truck route to document and confirm that contaminants are not tracked from any T-117 work areas to public road right-of-ways.
- Proper management of excavated materials to ensure all contamination is captured for appropriate disposal. For example, excavated materials should be staged into a completely lined and bermed area and covered prior to loading for disposal.
- Air monitoring and sampling to ensure there are no unacceptable releases of hazardous substances (i.e., PCBs and VOCs) during removal action activities.
- Implementation of dust suppression and other engineering controls as necessary to control dust from soil excavation and handling operations.
- Completion of on-site confirmation sampling for PCBs and TPH to assure action levels are achieved prior to backfilling excavations with clean soil. Confirmation samples will also be collected for PAHs and arsenic to evaluate concentrations left behind after removal is complete.
- Construction of a temporary asphalt cap in areas that were excavated.
- Development of a groundwater monitoring plan using EPA approved performance criteria. The monitoring program would require specific

compliance with the State's surface water quality standards and compliance with groundwater screening criteria developed by EPA, to protect sediments as set forth in the State's sediment management standards.

- Development and implementation of an on-site operations and maintenance plan to ensure integrity of removal actions
- Performing routine monitoring and maintenance of the temporary asphalt cap.
- Implementation of access controls to prevent unauthorized access to the property.
- Development of an institutional control plan for the upland.

The removal action shall be completed in accordance with the T-117 Upland Removal Action Plan (RETEC Group, 2006), conditionally approved with comments by the U.S. Environmental Protection Agency (EPA), June 9, 2006. Additional documents that will be submitted to EPA for approval:

1. Final Removal Action Work Plan, including:
   a. Construction Design Plan with Construction Plans and Specifications.
   b. Construction Quality Assurance Project Plan and Sampling and Analysis Plan.
2. TCRA Construction Completion Report
3. Site Maintenance and Operations Plan (post construction)
4. Long-Term Monitoring Groundwater Monitoring Quality Assurance Project Plan and Sampling and Analysis Plan
5. Institutional Controls Plan for Site Development

2. Engineering Evaluation/Cost Analysis (EE/CA)

This applies only to non-time-critical responses and is not applicable to this TCRA.

3. Contribution to Remedial Performance

The T-117 EAA is located within the boundaries of the LDW Superfund Site. The LDW Record of Decision is expected several years after the completion of the T-117 time critical removal action. Due to the number of years remaining to select and implement a remedy river-wide, this removal action is designed to immediately address contaminated soils in the bank and upland areas of the T-117 EAA. This removal will reduce exposure to human and ecological receptors to contaminated soils and will eliminate ongoing erosion of contaminated soils to LDW sediments. Soil cleanup levels for this removal action will not affect the

selection of sediment cleanup levels for the LDW Superfund Site. This removal action will contribute to the efficient performance of the anticipated long-term remedial action for the LDW Site with respect to the threats being addressed by this action.

4. Description of Alternative Technologies

This TCRA proposes soil excavation with off-site disposal at a commercial facility permitted to receive such materials. In addition to upland disposal, incineration was evaluated for contaminated soils with PCB concentrations greater than 500 ppm. This alternative technology was evaluated based on effectiveness, implementability, and cost. Incineration for T-117 soils was not retained because other equally-protective options were more cost-effective. This approach is consistent with 40 CFR 761.75, which allows for non-incineration options to be considered for disposal of soils with greater than 500 ppm.

5. Institutional Controls and/or Other EPA Considerations

Institutional controls will be required because some hazardous substances will remain on-site at levels that do not allow unlimited use and unrestricted exposure to upland soils. A draft Institutional Control Implementation Plan and a final Institutional Control Implementation plan will be prepared that will require restrictive covenants that will require the current and all future property owners to:

- Maintain and properly operate the upland property asphalt cap and stormwater system and to prevent any disturbance of the asphalt cap and underlying soils, except as approved in advance in writing by Ecology or EPA. Any proposal for disturbance of the cap will include a plan, subject to EPA review and approval, for worker health and safety and for proper handling and disposal of contaminated soils to ensure contamination is not released or spread.
- Prevent installation of a groundwater extraction well, stormwater infiltration facilities, or septic systems or drainfields.
- Provide written pre-notification to EPA and Ecology regarding any change in zoning, land use, construction or development.
- Allow for some or all of these restrictions to be removed only upon approval by EPA and Ecology after further evaluation and/or cleanup of T-117.

6. Applicable or Relevant and Appropriate Requirements (ARARs)

The proposed removal action will attain or exceed all ARARs to the extent practicable. Two factors will be applied to determine whether the identification and attainment of ARARs is practicable: (1) the exigencies of the situation; and (2) the scope of the removal action to be taken.

Federal ARARs:

The following is a summary of federal ARARs identified to date for the proposed removal action:

This upland soil removal should not affect listed species under the Endangered Species Act (ESA). 16 USC 1531 et seq. and therefore does not trigger the consultation requirement under ESA Section 7. Generally (and aside from any consideration of ESA as an ARAR), ESA provides that actions authorized, funded, or carried out by federal agencies may not jeopardize the continued existence of endangered or threatened species or adversely modify or destroy their habitat. EPA has determined, to be overly cautious, that the work will occur when listed endangered or threatened species are not migrating through the LDW corridor.

Toxic Substances Control Act (TSCA). TSCA under Title 40 Code of Federal Regulations (CFR) Part 761.61 PCB remediation waste (40 CFR 761.61) provides cleanup and disposal options for PCB remediation waste. PCB remediation wastes (40 CFR 761.3) includes, but is not limited to, environmental media containing PCBs, such as soils and ground water.

Resource Conservation and Recovery Act, as amended (RCRA), 42 U.S.C. 6901 et seq., and its implementing regulations codified in Chapters 260 through 265, and 268 of the Code of Federal Regulations (CFR), including but not limited to the following specific requirements identified at this time:

- 40 CFR 261.10 and 261.24, relating to the characteristics of hazardous wastes including the toxicity characteristic. May be needed to characterize some of the wastes on site;
- 40 CFR 262.20, 262.21, 262.22, 262.23, 262.30, 262.31, and 262.32, relating to hazardous waste manifesting and labeling requirements prior to transportation of hazardous waste containers off-site; and
- 40 CFR 263.20 and 263.21, relating to off-site transport of hazardous waste (handling and manifesting requirements).

Migratory Bird Treaty Act (MBTA), 16 USC 703 et seq. The MBTA makes it unlawful to hunt, take, capture, kill, or take various other actions adversely

affecting a broad range of migratory birds, including tundra swans, hawks, falcons, and songbirds without prior approval by the U.S. Fish and Wildlife Service. (See 50 CFR 10.13 for the list of birds protected under the MBTA.) Under the MBTA, permits may be issued for take (e.g., for research) or killing of migratory birds (e.g., hunting licenses). The mortality of migratory birds due to building demolition is not a permitted take under the MBTA. The MBTA and its implementing regulations are relevant and appropriate for protecting migratory bird species identified within the T-117 site. The selected removal action will be carried out in a manner that avoids the taking or killing of protected migratory bird species, including individual birds or their nests or eggs.

To date, EPA is not aware of the presence of any historic sites or structures or Native American artifacts. If any are encountered the following laws will be compiled with:

National Historic Preservation Act (NHPA), 16 U.SC. 470f, 36 CFR Parts 60, 63, and 800. The NHPA and implementing regulations require agencies to consider the possible effects on historic sites or structures of actions proposed for federal funding or approval. Historic sites or structures are those included on or eligible for the National Register of Historic Places, generally older than 50 years. If an agency finds a potential adverse effect on historic sites or structures, such agency must evaluate alternatives to avoid, minimize, or mitigate the impact, in consultation with the State Historic Preservation Office (SHPO). The NHPA and implementing regulations are applicable to selected remedial activities such as building demolition and soil excavation which could disturb historical sites or structures. In consultation with the SHPO, unavoidable impacts on historic sites or structures may be mitigated through such means as taking photographs and collecting historical records.

Archaeological Resources Protection Act (ARPA), 16 U.S.C. 470aa et. seq., 43 CFR Part 7. ARPA and implementing regulations prohibit the unauthorized disturbance of archaeological resources on public and Indian lands. Archaeological resources are any material remains of past human life and activities which are of archaeological interest, including pottery, baskets, tools, and human skeletal remains. The unauthorized removal of archaeological resources from public or Indian lands and any archaeological investigations at a site must be conducted by a professional archaeologist. ARPA and implementing regulations are applicable for the conduct of any selected removal actions that may result in ground disturbance.

Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. 3001 et. seq. 43 CFR Part 10. NAGPRA and implementing regulations are intended to protect Native American graves from desecration through the removal and trafficking of human remains and cultural items including funerary and sacred objects. To protect Native American burials and

cultural items, the regulations require that if such items are inadvertently discovered during excavation, the excavation must cease and the affiliated tribes must be notified and consulted. This program is applicable to ground disturbing activities such as soil grading and removal.

U.S. Department of Transportation, 49 CFR Parts 171-180 relating to transportation of hazardous materials to off-site disposal facilities.

State of Washington ARARs:

The following is a summary of State of Washington ARARs identified to date for the proposed removal action:

Model Toxics Control Act (MTCA) – MTCA as implemented under 173-340 provides procedures for identification, assessment, and cleanup of contaminated sites.

Water Quality Standards – The water quality standards under WAC 173-200 and 201A provide criteria for protection of waters of the State of Washington.

Sediment Management Standards (SMS). The SMS under WAC 173-204 provide sediment cleanup standards for the cleanup of contaminated surface sediment sites. The SMS established the minimum cleanup level that is the maximum allowed chemical concentration and level of biological effects permissible at any cleanup site (marine and estuarine) to be achieved by year 10 after completion of the active cleanup action. The T-117 upland property is not undergoing a sediment cleanup with this TCRA; however, one of the RAOs for this cleanup is to prevent concentrations greater than SMS Sediment Quality Standards (SQS) for remaining soil COCs from entering the Lower Duwamish Waterway.

B. Project Schedule

The selected removal action is estimated to require approximately 3 months time to complete, including demolition, upland soil removal and subsequent transportation and upland disposal, excluding final capping with asphalt and monitoring. Removal action construction is scheduled to begin in September 2006.

C. Estimated Costs

The total estimated cost for the T-117 EAA TCRA is nearly 7 million dollars. This cost includes off-site disposal costs for excavated soils.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delay or disapproval of the proposed action will allow the continued presence of CERCLA hazardous substances in the environment and increase the potential risk of exposure to workers and the public in the vicinity of the T-117 upland, and the environment. Failure to act will increase and/or prolong the threats to human health and the environment described above.

VII. OUTSTANDING POLICY ISSUES: None

VIII. ENFORCEMENT

It is projected that this removal action will be implemented by the Port of Seattle, pursuant to an Administrative Settlement Agreement and Order on Consent for Removal Action (Settlement Agreement). The Settlement Agreement is currently being negotiated. The Settlement Agreement describes the work to be performed for the removal action, including preparation and submittal of project removal action work plan and related documents, implementation of the removal action, submittal of a Removal Action Completion Report and Institutional Controls Implementation Plan, and a Long-Term Monitoring and Reporting Plan to ensure that the removal action objectives are achieved. If the Port does not enter into a Settlement Agreement, or adhere to the requirements of the Settlement Agreement, EPA can conduct an enforcement action.

In 2005, the Port and City of Seattle entered into a Settlement Agreement (CERCLA Docket No. 10-2006-013) with the EPA for a Non-time critical removal action for removal of contamination along the upper bank, capping the remainder of the bank and removing and backfilling the shoreline and submerged sediments contaminated with PCBs and PAHs. This removal action will occur following the removal of upland contaminated soils at T-117.

IX. RECOMMENDATION

Conditions at T-117 meet the NCP Section 300.415(b)(2) criteria for removal and I recommend your approval of the proposed removal action. None of the removal action costs come from the Regional Removal allowance. An Administrative Record for this action will be available for public comment per statutory requirement.

APPROVED

Daniel D. Opalski, Director
Office of Environmental Cleanup

Date: 6/15/06

DISAPPROVED

Daniel D. Opalski, Director
Office of Environmental Cleanup

Date: _____

REFERENCES

EPA, 2005. Administrative Settlement Agreement order on consent for Terminal 117 Upland Investigation. USEPA Docket No. CERCLA 10-2006-0072. U.S. Environmental Protection Agency, Seattle, WA

EMCON, 1996. Draft Removal Action Work Plan, Malarkey Asphalt Site, Seattle, WA.

Onsite, 2000. PCB removal/containment action, South Park site (formerly Malarkey Asphalt Company), Seattle, Washington.

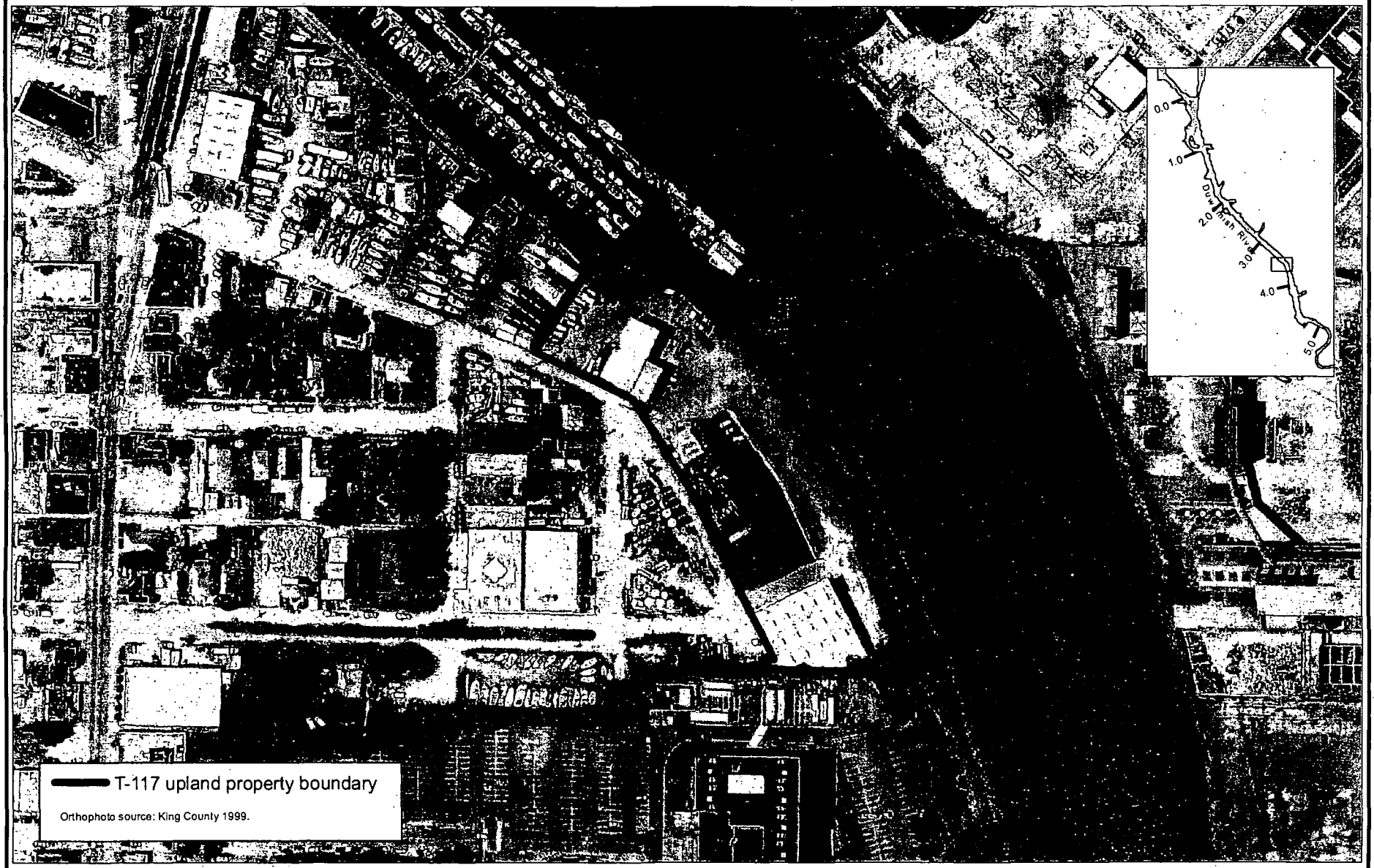
Parametrix, 1991. Site Hazard Assessment Summary Report for Malarkey Asphalt Company, Seattle, Washington. Prepared for Washington Department of Ecology.

RETEC, 2006. Draft T-117 Upland Removal Action Plan, Terminal 117 Seattle, Washington. May.

URS, 1994, Site Inspection Report for the Malarkey Asphalt Company, Seattle ,Washington. Prepared for United States Environmental Protection Agency, Region 10.

Washington Department of Health, 2000.

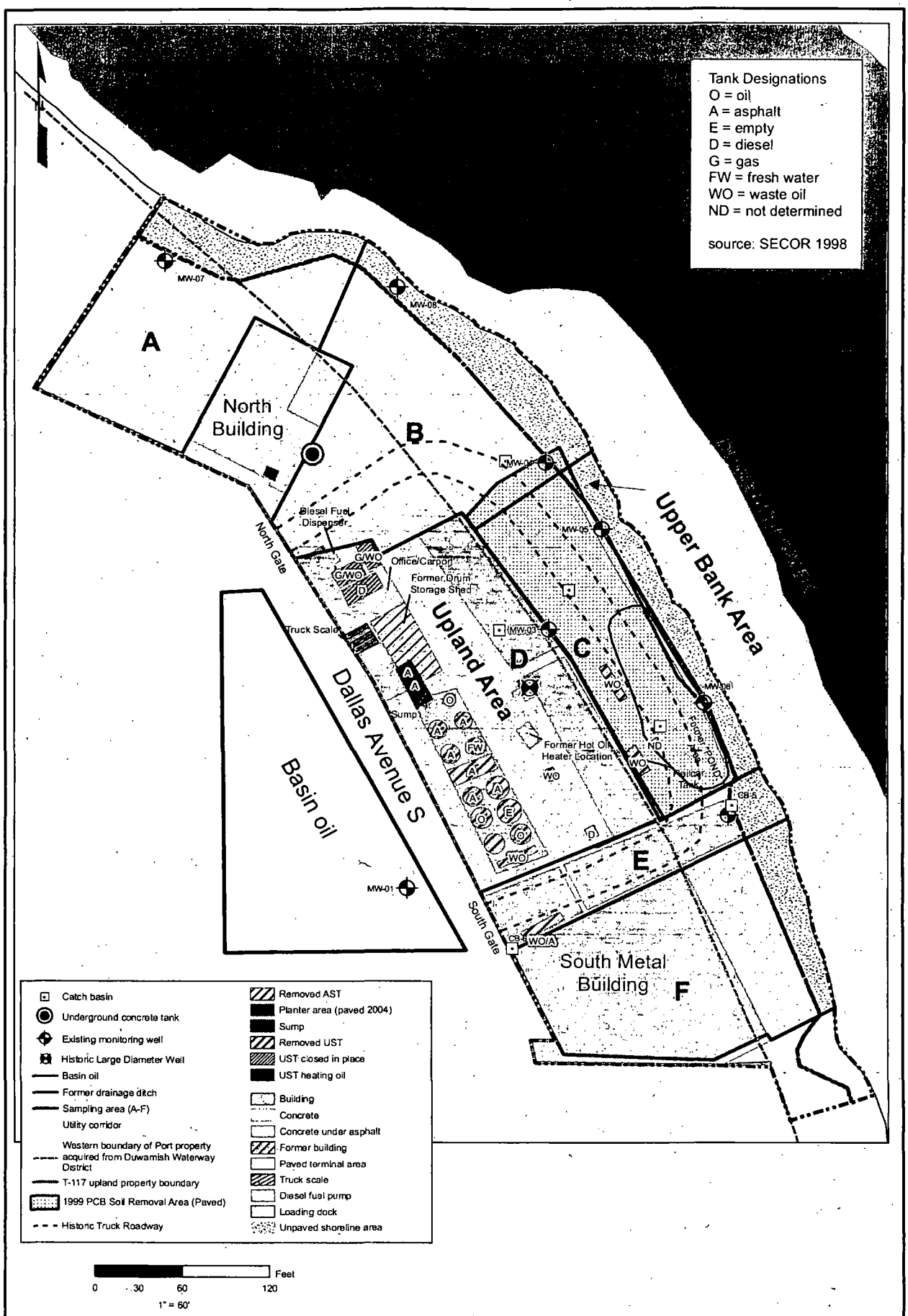
Windward, 2006. T117 Upland Area Soil Investigation Field Sampling and Data Report.



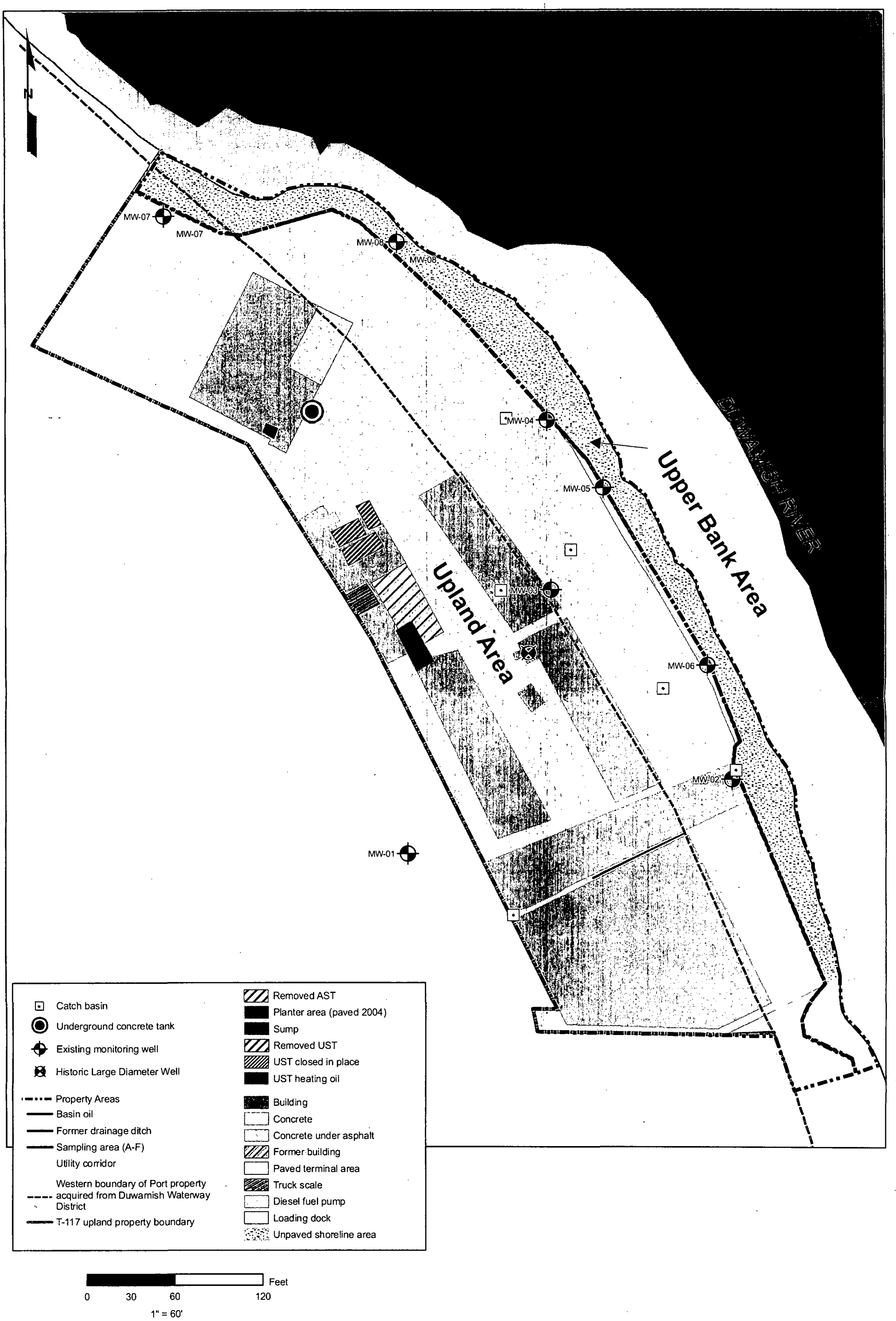
0 120 240 480 Feet

1" = 200'

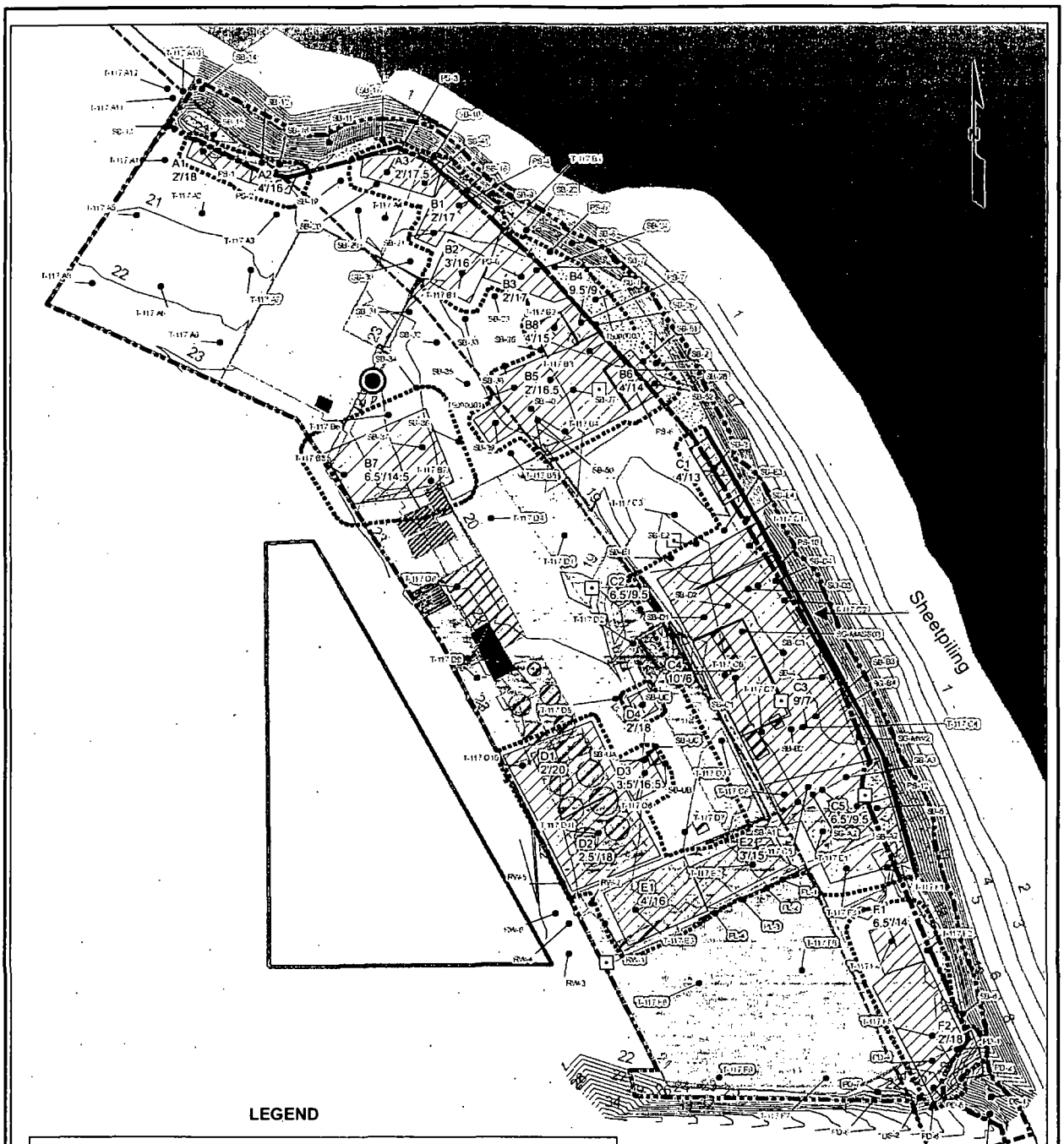
PORT OF SEATTLE T-117 PORS5-19078-300		T117 SITE LOCATION
DATE: 5/8/06	DWN. BY: JDH/sea	FIGURE 1



PORT OF SEATTLE T-117 PORS5-19078-300	POTENTIAL HISTORICAL SOURCES
DATE: 5/15/06 DWN BY: JDH/sea	FIGURE 2



PORT OF SEATTLE T-117 PORS5-19078-300		CURRENT SITE FEATURES
DATE: 5/15/06	DWN. BY: JDH/sea	FIGURE 3



LEGEND

- T117 F9 — Soil Sample with Location ID
- Catch basin
- Underground concrete tank
- Existing monitoring well
- Property Areas
- Basin oil
- Former drainage ditch
- Sampling area (A-F)
- Utility corridor
- Topographic Contours
- Western boundary of Port property acquired from Duwamish Waterway District
- T-117 upland property boundary
- F1 2/18 — Excavation Prisms, with Prism ID and Depth/Elevation of Base of Excavation (feet)
- Approximate Extent of Sloped Excavation Sidewall (2:1 slope)

Vertical Datum: MLLW

- Removed AST
- Planter area (paved 2004)
- Sump
- Removed UST
- UST closed in place
- UST heating oil
- Building
- Concrete
- Concrete under asphalt
- Former building
- Paved terminal area
- Truck scale
- Diesel fuel pump
- Loading dock
- Unpaved shoreline area

Note: TPH is driving the excavation in areas B2, B8 and D4.

0 30 60 120 Feet
1" = 60'

PORT OF SEATTLE T-117 PORS5-19078-300	PROPOSED REMOVAL ACTION
DATE: 6/15/06 DWN. BY. JDH/sea	FIGURE 4