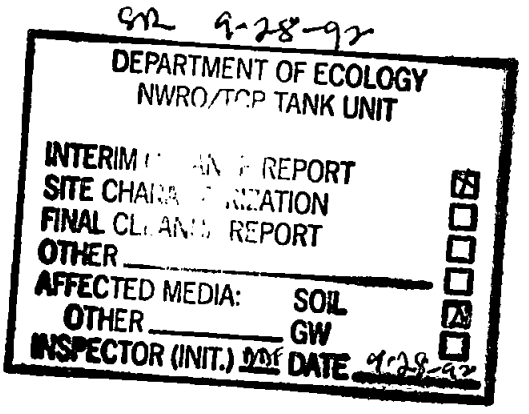
Ecology
Rcvd 8/12/92

PHASE I & II ENVIRONMENTAL SITE ASSESSMENT



Prepared for

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Stanwood, Washington

Prepared by

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Prepared by:

JULY 1992

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1.0 SUMMARY

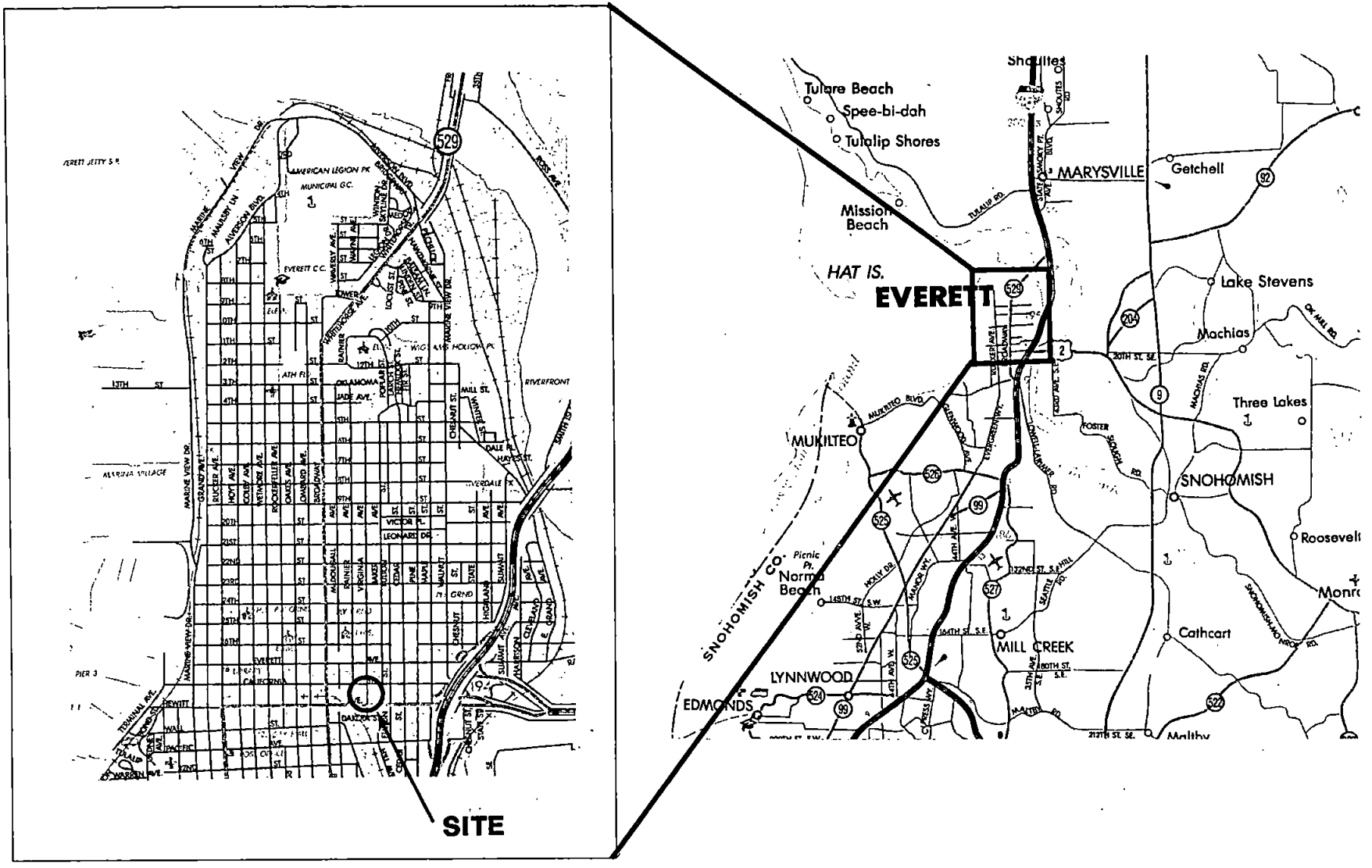
Tim Goodman performed a Phase I & II Environmental Site Assessment of the property located at 2815 Virginia Avenue in Everett, Washington (Figure 1). The Phase I Site Assessment was completed in April 1992, with the objective of identifying existing and potential environmental liabilities associated with the site property. As a follow-up, a Phase II Site Assessment was conducted in June 1992 to investigate the potential environmental liabilities identified in the Phase I Site Assessment. The Phase II Site Assessment consisted of the collection of ten soil samples from four investigative soil borings.

Soil samples, collected in an area identified as a probable former underground storage tank (UST) location, contained petroleum hydrocarbons in the gasoline range at levels which exceed Model Toxic Control Act (MTCA) Method A cleanup levels. Hydrocarbon contamination identified as gasoline extends from the surface to approximately 30 feet below ground surface (bgs). Contamination does not appear to extend to groundwater and contaminated soils are uniformly sandy. Because there is no reason to suspect significant lateral movement of the contaminant plume, the areal extent of contamination is assumed to be relatively small.

A Phase II Site Assessment of an adjacent property located to the south of the site reported levels of chromium in subsurface soils in excess of the MTCA method A cleanup level (100 mg/kg). A boring was installed in an area of the site judged most likely to be impacted by the chromium contaminated soils located to the south. Chromium was found in soils at the site in concentrations below method A cleanup levels.

Two shallow borings were completed in the backlot of the site where tractors had historically been stored. Soil samples collected at 1 foot bgs were screened for petroleum hydrocarbons which may have potentially leaked from the tractors as diesel or hydraulic fluid. No evidence of petroleum hydrocarbons in the gasoline, diesel, and heavy oil range was found.

The Phase I & II Site Assessment indicates only one area environmentally impacted by on site activities. The detection of gasoline hydrocarbons which exceed MTCA method A cleanup levels triggers reporting requirements to the Washington State Department of Ecology (Ecology).



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SITE LOCATION MAP
2815 VIRGINIA AVENUE PROPERTY

FIGURE 1

2.0 INTRODUCTION

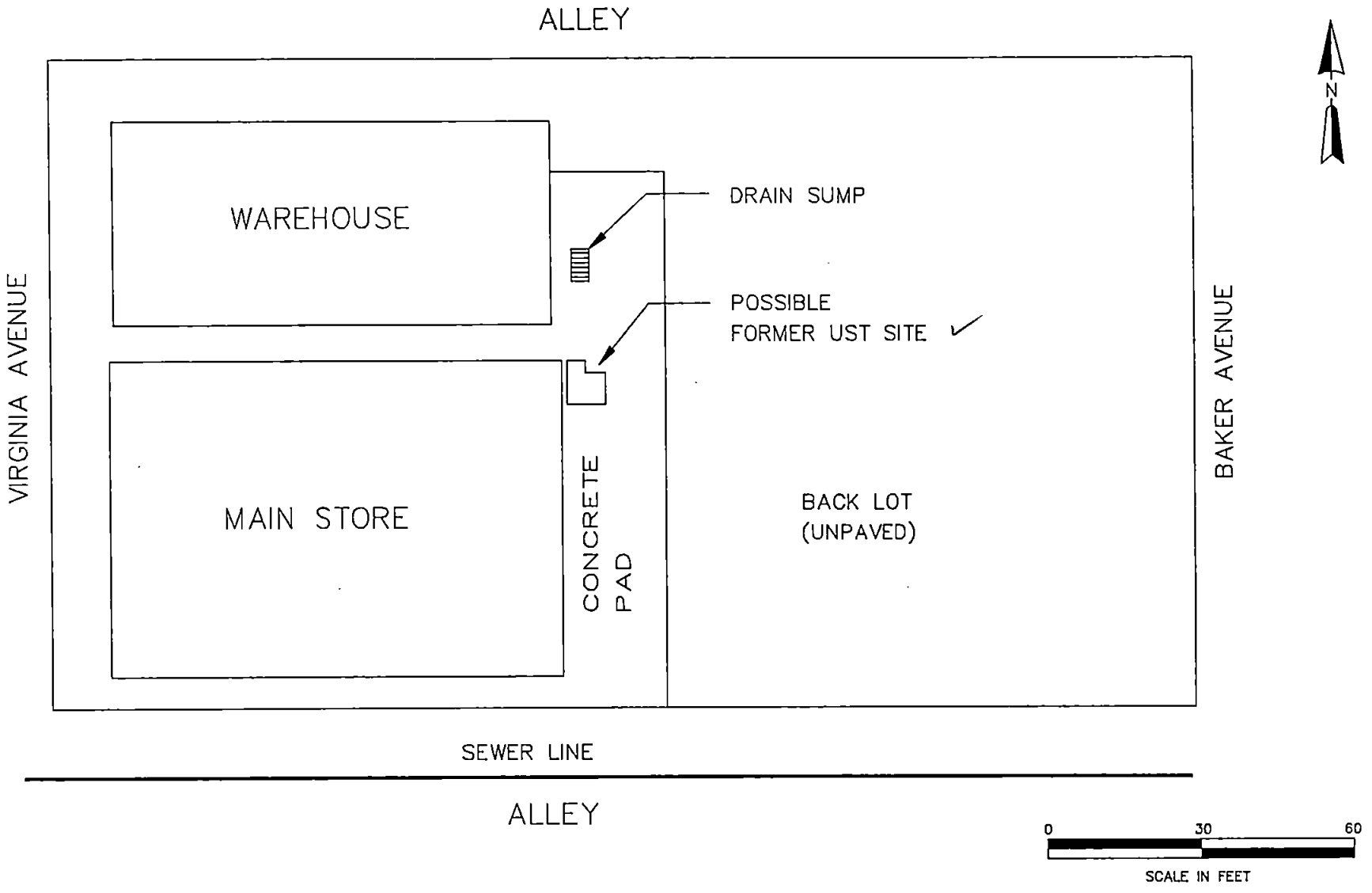
The purpose of the Phase I & II Site Assessment was to investigate and verify conditions resulting in potential environmental liability to the property. The Phase I portion of the site assessment included a site inspection, interviews, and a review of regulatory records and other pertinent documents. The scope of the Phase II portion of the site assessment was to provide an initial characterization of potential environmental liabilities identified in the Phase I analysis. The Phase II Site Assessment consisted of collecting and analyzing several soil samples (ten were submitted for analysis) collected from four soil borings.

3.0 SITE DESCRIPTION

The subject property is located at 2815 Virginia Avenue South in Snohomish County, Washington (Section 20, Township 29N, Range 5E). It is bordered on the north by California Avenue, on the south by Hewitt Avenue, on the west by Virginia Avenue, and on the east by Baker Avenue. The legal description of the site is as follows:

> Lots 12 & 13, lots 14, 15, and 16, lots 28, 29, and 30, block 659, Platte of Everett, Division I according to the plattes there of, recorded at Volume 5 of Plattes, Page 11, Records of the Auditor of the County of Snohomish, of Washington.

Approximately half of the property is covered by buildings used to house the operations of Sound Tractor Company (See Figure 2). Sound Tractor retails small tractors. The main building, formerly a church, is used for office and retail space. A warehouse is located a few feet to the north of the main building. Garage space, where maintenance and repair work is performed on the tractors, is located in the back of the main building and warehouse.



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SITE MAP
2815 VIRGINIA AVENUE PROPERTY

FIGURE 2

4.0 SITE INVESTIGATION RESULTS

As part of the Phase I Site Assessment, a site visit was made to examine on site structures and surrounding property. The purpose of the site visit was to identify any evidence of environmental problems.

A 300 gallon above ground diesel storage tank is currently in use just inside the back of the warehouse. The area around the tank is concrete slab and no obvious leakage was noted.

A few feet east of the warehouse is a steel sump which, per discussions with Sound Tractor personnel, is connected by underground piping to the City sewer line located south of the site. The City Sewer line runs down the center of the alley which connects Virginia Avenue and Baker Avenue. The area around the sump is paved and the sump collects and drains pressurized water used to clean tractors. Site personnel stated that solvents have not been used as part of the pressure washing process.

The backlot is unpaved and has been used for approximately 20 years to park small tractors as part of the retail tractor business.

There are two typical environmental concerns associated with older buildings. These are asbestos containing materials and fluorescent light fixtures with polychlorinated biphenol (PCB) containing ballasts. The scope of this Phase I Site Assessment does not include identification of asbestos containing material. However, the fact that the building was built before the 50's makes the presence of asbestos containing material unlikely. The following information on asbestos is intended to familiarize the client with asbestos related problems.

Asbestos fibers have been used in many building materials to provide strength or other properties. They may be found in insulation, floor tiles, ceiling tiles, roof shingles, mastic, and wall and ceiling texture material. Roof shingles and mastic generally remain pliable and, thus, seldom release asbestos fiber. On the other hand, some of the other materials may become friable and easily crushed or may be damaged and release fibers into the air. OSHA considers asbestos fibers carcinogenic.

An asbestos survey is useful in locating ACMs in a structure. If the ACMs are in good condition, an operating and maintenance plan may be all that is required. If it is necessary to

remove or encapsulate the ACMs, the cost is much higher than for typical demolition work. The added cost is due to the steps that must be taken to avoid release of asbestos fibers during the work, and the protective equipment needed to protect workers performing the removal or encapsulation.

There were no PCB containing fluorescent light fixtures evident during the site visit.

5.0 SURROUNDING LAND USE AND HISTORY

An evaluation was made of present and historical land use on and around the site. The main building was built as a church prior to the 1940s. The warehouse appears to have been added perhaps in the 1950s. The site has been used to retail tractors for approximately 20 years. Underground tanks used to store heating fuel are commonly found at older churches. There are no records of any underground storage tanks (USTs) associated with the site. Interviews with site personnel and the property owner indicate that an underground storage tank had been previously removed from the site. Documentation on the tank removal could not be found

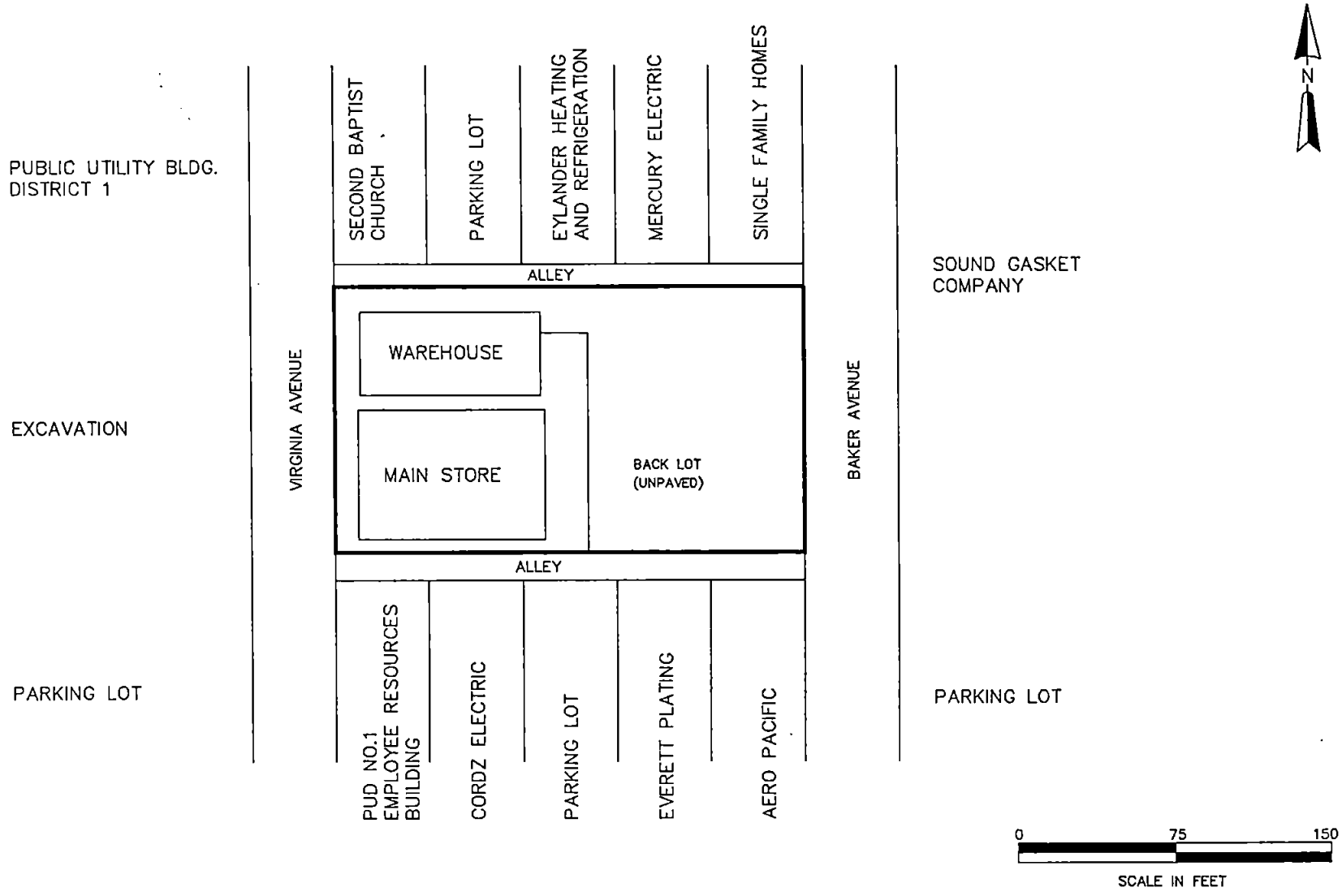
The site and surrounding vicinity has been used for commercial and residential use at least since 1941. Surrounding businesses have included lumber yards, electroplators, and photoprocessors. Some of these businesses commonly use chemicals known to be hazardous. The current businesses adjacent to the property are shown in Figure 3. The neighboring facility of greatest concern is the electroplating company that has been in operation for the last 15 years. It is shown in Figure 3 as Everett Plating located southeast of the site. Chromium is a heavy metal contaminant associated with the electroplating business.

6.0 RECORDS REVIEW

A search of relevant regulatory documents was made for sites in the vicinity of the subject property.

6.1 CERCLIS

One of the statutory features of the Comprehensive Environmental Response, Compensation and Liability Act is the requirement and funding of remedial actions for release



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ADJACENT LAND USE
2815 VIRGINIA AVENUE PROPERTY

FIGURE 3

or threat of release of hazardous substances, pollutants or contamination which may present imminent or substantial damage to public health and welfare. The CERCLA list (CERCLIS) is a compilation of those facilities which the EPA has identified as having known or suspected uncontrolled releases of hazardous substances, contaminants or pollutants. The list also encompasses all abandoned hazardous waste sites.

Two sites are listed within one mile radius of the site. Neither one of the two CERCLA sites are within the immediate vicinity and are not upgradient of the assumed groundwater flow direction (to the southeast).

6.2 RCRA NOTIFIERS AND VIOLATIONS

The Resource Conservation and Recovery Act was enacted to regulate facilities that generate, treat, store, transport or dispose of hazardous and/or solid waste. These facilities must file notification forms with the EPA, who maintains the records in the RCRA Notifiers database. The EPA also maintains files on sites which have been found to be out of compliance with regulations pursuant to RCRA, identified as violations.

There are an estimated 40 facilities within one mile of the site required to document their hazardous waste activities to EPA or Ecology. A review of Ecology records revealed that Everett Plating/Custom Pacific Plating was subject to RCRA compliance inspections in 1986. In subsequent years Custom Plating was warned and found in violation of Dangerous Waste and Discharge Regulations. Information suggests that violations were not due to uncontrolled releases but, resulted from improper documentation of chemical wastes stored on site.

6.3 UNDERGROUND STORAGE TANKS

In general, USTs pose a threat in that they may become corroded or otherwise damaged and leak hydrocarbon. Washington state requires owners of underground storage tanks (USTs) to register with the Department of Ecology (Ecology). A record is kept of information such as the number of tanks, capacity, construction, owner, etc. Ecology's list of USTs is limited to registered USTs and does not necessarily include all existing USTs or former UST locations.

There are an estimated 72 locations with USTs within a one-mile radius of the subject property. The nearest location is the Snohomish County PUD No. 1 located approximately one block northwest of the site. The 4 PUD USTs are listed as having been removed in August 1990.

Ecology lists an estimated 19 leaking underground storage tank (LUST) facilities within one mile of the site. One site is located in the immediate vicinity- Snohomish County PUD No. 1, as mentioned above. Ecology notes that cleanup at the site was completed in 1990. If the PUD LUST was properly remediated, it should no longer pose a threat to the site.

6.4 AFFECTED MEDIA AND CONTAMINANTS REPORT

Within 90 days of learning of a potentially contaminated site, the Washington State Department of Ecology (Ecology) conducts an initial investigation of each site. If the initial investigation shows that further action is needed, the site will appear in the Affected Media and Contaminants Report.

The current affected media report (dated April 13, 1992) lists 4 sites within a one-mile radius of the subject property. Of these sites, 1 is located in the immediate vicinity. This site is the Olympic Foreign Auto Wrecking approximately 3 blocks southeast and hydrogeologically downgradient of the subject property. The site was found to have undergone bioremediation and should have no adverse impacts on the subject site.

6.5 MISCELLANEOUS RECORDS

Ecology recently conducted an inspection of the site. No significant problems were noted, however, a recommendation was made to install an oil-water separator between the outside drain sump and the sewer line.

A Level I & II Environmental Site Assessment was performed on the property located at 2411 Hewitt Avenue (Cordz Electric) which is adjacent to the subject site. Soil samples were collected from a parking lot located approximately 30 feet south of the subject site as part of the 2411 Hewitt Avenue site assessment. Analytical results for the boring nearest the subject site

indicate levels of chrome which exceed the MTCA method A cleanup level for chrome but are less than the Method A clean up levels established for industrial soils.

7.0 PHASE I SITE ASSESSMENT CONCLUSION AND RECOMMENDATIONS

The findings of the Phase I Site Assessment indicate three areas of concern. There is no documentation indicating the condition of soils when the former UST removal occurred. A leak from a former UST could substantially impact the environmental liability associated with the site. Poor waste management practices by businesses located directly to the south of the site may have resulted in chromium contamination of on site soils. Finally, the backlot of the site may have been impacted by a long history of potential hydraulic or diesel oil leaks occurring during maintenance of tractors.

Soil sampling was recommended to verify the presence or absence of each of these potential environmental liabilities.

8.0 SUBSURFACE INVESTIGATION

The Phase I Site Assessment indicated the need for soil sampling to address the environmental liability from three potential sources: a former UST, chromium from property immediately to the south, and drippage from tractors historically parked on the backlot. On May 29, five investigative borings were completed at Sound Tractor to address these issues (Figure 4). Hollow stem auger drilling techniques and split spoon sampling methods were used. Soil samples were generally collected at every five feet. Ten of the samples were submitted for analysis. Samples were collected in accordance with EPA protocol.

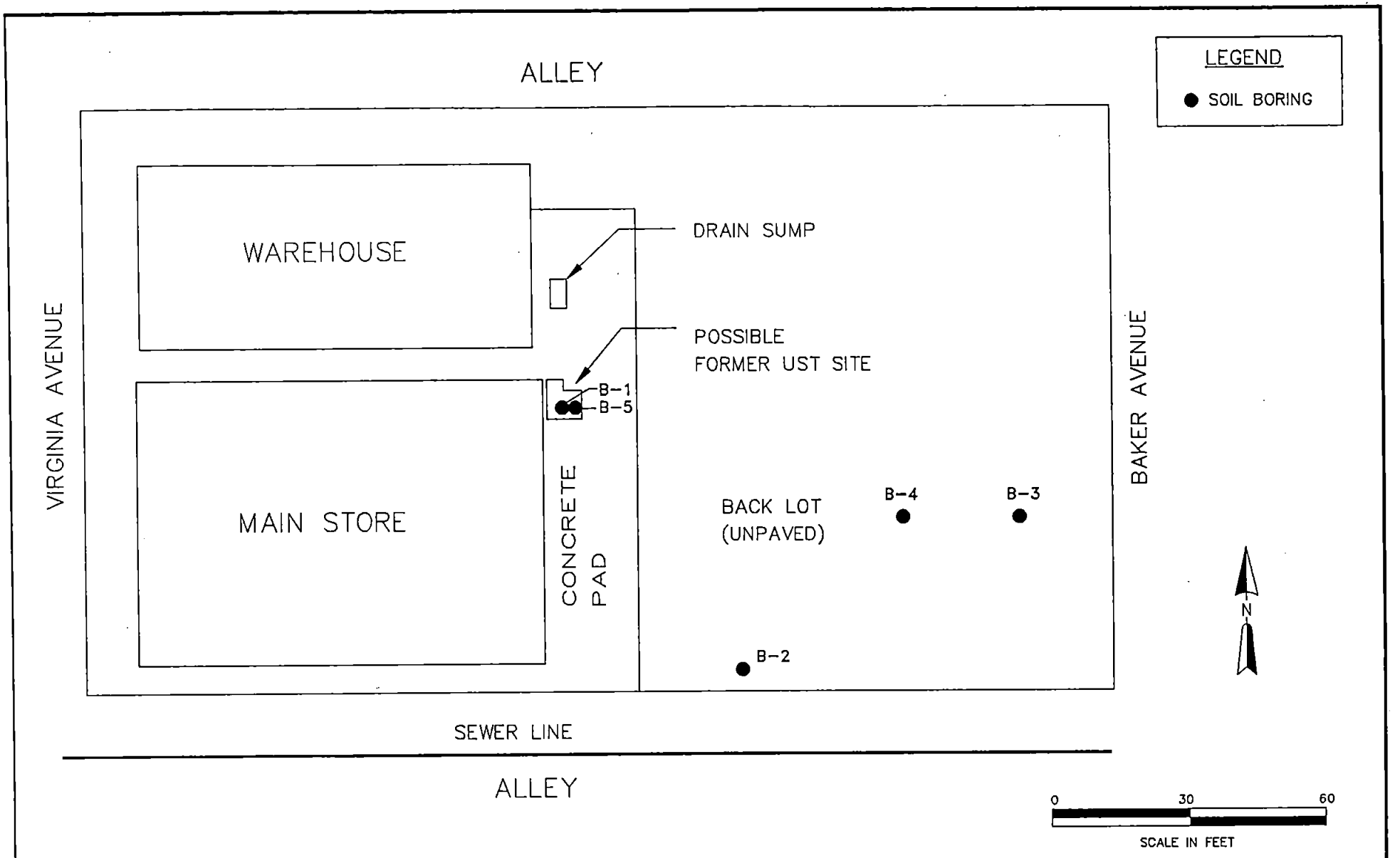
Two borings were completed in the area of the former underground storage tank. The first boring (B-1) was located directly over the presumed location of the former underground storage tank. This boring was unable to penetrate below cobbles encountered at 21 feet below ground surface (bgs). A second boring (B-5) was located two feet east of B-1 and continued the subsurface UST investigation to 45 feet bgs.

Visual examination of samples from B-1 and B-5 suggested that elevated gasoline hydrocarbon levels were encountered to a depth of about 35 feet BGS. A soil sample collected at three feet bgs from boring B-1 was submitted for analysis of gasoline (WTPH-G) to characterize soils presumably used as backfill when the UST was removed. Soil samples from boring B-5 at depths of 12, 25, 35, and 40 feet bgs were submitted for analysis of gasoline and gasoline related compounds. The sample from 12 feet had the greatest odor, and was screened for the full range of hydrocarbons.

Boring B-3 was installed to a depth of 24 feet bgs at a location across the alley from the adjacent property Phase II boring which contained low levels of chromium. Samples from 3, 15, and 24 feet bgs were submitted for analysis of total chromium.

Borings B-4 and B-5 were installed in the backlot area to depths of five feet bgs. Samples were collected at one and four feet bgs. Only the one foot samples were submitted for characterization of hydrocarbons.

Groundwater was not encountered in any of the borings. When complete, the borings were backfilled with bentonite.



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BORING LOCATION MAP
2815 VIRGINIA AVENUE PROPERTY

FIGURE 4

8.1 ANALYTICAL RESULTS

Analytical results are presented in Table 1. Complete lab reports are presented in Appendix A. Analytical results for soils collected in the former UST area indicate that gasoline concentrations exceed the MTCA method A cleanup level (100 ppm) from near surface to approximately 30 feet bgs. Hydrocarbon screening of soils taken at 12 feet bgs indicates that diesel may also be present in concentrations of at least 50 ppm. Field observations did not detect diesel fuel product or odor- the predominant odor was that of gasoline.

Chromium results for soils collected from boring B-2 were all below MTCA method A cleanup levels.

Screening of the one foot bgs soil samples from the backlot borings (B-3 and B-4) showed that gasoline, diesel and heavy oil concentrations were well below MTCA method A cleanup levels.

8.2 SUBSURFACE CONDITIONS

Groundwater elevation data was not available for the immediate vicinity. A general review of wells in the Everett area indicated that depth to groundwater can vary from shallow to over 100 feet bgs. Groundwater was not encountered in any of the borings, the deepest of which was 45 feet bgs. Groundwater is assumed to drain to the southeast, towards the Snohomish River.

Soils encountered while drilling to a maximum 45 feet bgs were consistently fine to medium sands with small amounts of gravel. Silty gravels were common in the first 10 feet bgs and are assumed to be backfill.

TABLE 1
ANALYTICAL RESULTS FOR SOILS IN MG/KG
2815 VIRGINIA AVENUE SITE
PHASE II INVESTIGATION

PARAMETER	SAMPLE ID / LOCATION / DEPTH, FT / DATE	S-1-3 B-1 3 5-29-92	S-2-3 B-2 3 5-29-92	S-2-15 B-2 15 5-29-92	S-2-24 B-2 24 5-29-92	S-3-1 B-3 1 5-29-92	S-4-1 B-4 1 5-29-92	S-5-12 B-5 12 5-29-92	S-5-25 B-5 25 5-29-92	S-5-35 B-5 35 5-29-92	S-5-40 B-5 40 5-29-92	METHOD A CLEANUP CRITERIA (1)
GASOLINE		110	NT	NT	NT	NT	NT	4500	220	3.5	<1	100
SCREENING	GASOLINE	NT	NT	NT	NT	<20	<20	>20	NT	NT	NT	100
	DIESEL	NT	NT	NT	NT	<50	<50	>50	NT	NT	NT	200
	HEAVY OIL	NT	NT	NT	NT	<100	<100	<100	NT	NT	NT	200
BENZENE		NT	NT	NT	NT	NT	NT	26	NT	NT	NT	0.5
TOLUENE		NT	NT	NT	NT	NT	NT	230	NT	NT	NT	40
ETHYL BENZENE		NT	NT	NT	NT	NT	NT	60	NT	NT	NT	20
XYLENES		NT	NT	NT	NT	NT	NT	370	NT	NT	NT	20
LEAD, TOTAL		NT	NT	NT	NT	NT	NT	4	NT	NT	NT	250
CHROMIUM, TOTAL		NT	80	25	23	NT	NT	NT	NT	NT	NT	100

(1) Method A cleanup criteria are provided as a conservative guideline by the Washington State Department of Ecology and may not be appropriate for defining cleanup levels at every site.

9.0 CONCLUSIONS AND RECOMMENDATIONS

Phase II Site Assessment sampling indicates that backlot soils have not been significantly degraded and that off site chromium contamination has not impacted the site.

The primary area of concern is the gasoline hydrocarbons found in soils to 30 feet bgs. The presumed cause of the contamination is a leak from a former UST. Because groundwater was not encountered during boring the extent of contamination should be limited to soil directly beneath the former UST.

The discovery of petroleum hydrocarbon concentrations greater than MTCA method A cleanup levels triggers reporting requirements to Ecology. Owners and operators must report a release of hazardous materials to Ecology within 90 days of its discovery.

10.0 DISCLAIMER

The principal objective of an environmental assessment is to evaluate the potential presence or absence of contamination and to identify existing environmental impairments at the site. Environmental site assessments are conducted to minimize risk, not to eliminate it. The opinions expressed in this report do not guarantee that a site is free of environmental liability.

APPENDIX A

ANALYTICAL REPORTS

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

Report To: Bill Kidd

Date: June 8, 1992

Report On: Analysis of Soil

Lab No.: 24692

IDENTIFICATION:
Samples received on 06-02-92

ANALYSIS:

Lab No. 24692-1

Client ID: S-1-3

	WTPH-G	
Date Extracted:	6-3-92	
Date Analyzed:	6-4-92	
Gasoline, mg/kg (C7 - C12)	110	X2
SURROGATE RECOVERY, %		
Trifluorotoluene		X8

Continued . . .

SOUND ANALYTICAL SERVICES, INC.

Bill Kidd

Lab No. 24692
June 8, 1992

Lab No. 24692-2 Client ID: S-5-12

WTPH-HCID
Date Extracted: 6-3-92
Date Analyzed: 6-4-92

Gasoline, mg/kg (C7 - C12)	> 20	
Diesel, mg/kg (> C12 - C24)	> 50	
Heavy Oil, mg/kg (C24+)	< 100	
SURROGATE RECOVERY, %		
1-chlorooctane	265	X10
Perylene	99	

WTPH-G with BTEX by Method 8020
Date Extracted: 6-3-92
Date Analyzed: 6-4-92

Gasoline, mg/kg (C7 - C12)	4,500	
Benzene, mg/kg	26	
Toluene, mg/kg	230	
Ethyl Benzene, mg/kg	60	
Xylenes, mg/kg	370	
SURROGATE RECOVERY, %		
Trifluorotoluene		X8

ICP Metals Per Method 6010
Date Digested: 6-3-92
Date Analyzed: 6-5-92

Lead, mg/kg	4.0

Continued . . .

SOUND ANALYTICAL SERVICES, INC.

Lab No. 24692-3 Client ID: S-5-35

WTPH-G
Date Extracted: 6-3-92
Date Analyzed: 6-4-92

Gasoline, mg/kg (C7 - C12)	3.5
SURROGATE RECOVERY, %	
Trifluorotoluene	116

Lab No. 24692-4 Client ID: S-5-40

WTPH-G
Date Extracted: 6-3-92
Date Analyzed: 6-4-92

Gasoline, mg/kg (C7 - C12)	< 1.0
SURROGATE RECOVERY, %	
Trifluorotoluene	120

Continued . . .

SOUND ANALYTICAL SERVICES, INC.

Lab No. 24692-5 Client ID: S-2-3

ICP Metals Per Method 6010
Date Digested: 6-3-92
Date Analyzed: 6-5-92

Chromium, mg/kg	80

Lab No. 24692-6 Client ID: S-2-15

ICP Metals Per Method 6010
Date Digested: 6-3-92
Date Analyzed: 6-5-92

Chromium, mg/kg	25

Lab No. 24692-7 Client ID: S-2-24

ICP Metals Per Method 6010
Date Digested: 6-3-92
Date Analyzed: 6-5-92

Chromium, mg/kg	23

Continued . . .

SOUND ANALYTICAL SERVICES, INC.

Bill Kidd

Lab No. 24692
June 8, 1992

Lab No. 24692-8 Client ID: S-3-1

WTPH-HCID
Date Extracted: 6-3-92
Date Analyzed: 6-4-92

Gasoline, mg/kg (C7 - C12)	< 20
Diesel, mg/kg (> C12 - C24)	< 50
Heavy Oil, mg/kg (C24+)	< 100
SURROGATE RECOVERY, %	
1-chlorooctane	73
Perylene	102

Lab No. 24692-9 Client ID: S-4-1

WTPH-HCID
Date Extracted: 6-3-92
Date Analyzed: 6-4-92

Gasoline, mg/kg (C7 - C12)	< 20
Diesel, mg/kg (> C12 - C24)	< 50
Heavy Oil, mg/kg (C24+)	< 100
SURROGATE RECOVERY, %	
1-chlorooctane	74
Perylene	99

SOUND ANALYTICAL SERVICES

MARTY FRENCH

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

QUALITY CONTROL REPORT

Total Chromium

Client: Bill Kidd
Lab No: 24692qc1
Matrix: Soil
Units: mg/kg
Date: June 8, 1992

DUPLICATE

Dup No. 24692-7

Parameter	Sample (S)	Duplicate (D)	RPD
Chromium	23	24	4.3

RPD = Relative Percent Difference
= [(S - D) / ((S + D) / 2] x 100

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

QUALITY CONTROL REPORT

WTPH-G

Client: Bill Kidd
Lab No: 24692qc2
Matrix: Soil
Units: mg/kg
Date: June 8, 1992

DUPLICATE

Dup No. 24692-4

Parameter	Sample (S)	Duplicate (D)	RPD	FLAGS
Gasoline (C_7-C_{12})	< 1.0	< 1.0	0.0	
SURROGATE RECOVERY, % Trifluorotoluene	120	116		

RPD = Relative Percent Difference
= [(S - D) / ((S + D) / 2] x 100

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

QUALITY CONTROL REPORT

WTPH-HCID

Client: Bill Kidd
Lab No: 24692mb
Matrix: Soil
Units: mg/kg
Date: June 8, 1992

METHOD BLANK

Parameter	Blank Value
Gasoline (C_7-C_{12})	< 20
Diesel (C_{12}-C_{24})	< 50
Heavy Petroleum Oil (C_{24})	< 100
SURROGATE RECOVERY, %	
1-Chlorooctane	78
Perylene	102

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

DATA QUALIFIER FLAGS

ND: Indicates that the analyte was analyzed for but was not detected. The associated numerical value is the practical quantitation limit, corrected for sample dilution.

J: The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity. This qualifier is used when estimating a TIC concentration or when the concentration of the analyte is less than the practical quantitation limit.

C: The identification of this analyte was confirmed by GC/MS.

B: This analyte was also detected in the associated method blank. There is a possibility of blank contamination.

E: The concentration of this analyte exceeded the instrument calibration range.

D: The reported result for this analyte is calculated based on a secondary dilution factor.

A: This TIC is a suspected aldol-condensation product.

X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be _____.

X2: Contaminant does not appear to be "typical" product. Further testing is suggested for identification.

X3: Identification and quantification of peaks was complicated by matrix interference; GC/MS confirmation is recommended.

X4: RPD for duplicates outside QC limits. Sample was re-analyzed with similar results. Sample matrix is nonhomogeneous.

X5: Matrix spike was diluted out during analysis.

X6: Recovery of matrix spike outside QC limits. Sample was re-analyzed with similar results.

X7: Recovery of matrix spike outside QC limits. Matrix interference is indicated by blank spike recovery data.

X8: Surrogate was diluted out during analysis.

X9: Surrogate recovery outside QC limits due to matrix composition.

X10: Surrogate recovery outside QC limits due to high contaminant levels.

№ 5542

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
92-001	SOUND TRACTOR

SAMPLERS: Tim Goodman

RECEIVING LABORATORY: Sound Analytical

LAB I.D. NO.	DATE	TIME	SAMPLE NO.	NO. OF CONTAINERS	BTEX 8020	WTPH-G	TOT LEAD 6010	WTPH-HCID	TOT. Chrome 6010			REMARKS
	5-29-92	0810	S-1-3			X						
	"	1500	S-5-12		X	X	X	X				Please Provide verbals for HCIDs
	"	1715	S-5-35			X						
	"	1750	S-5-40			X						
	"	1055	S-2-3						X			Hold left over sample for S-3-1, S-4-1, and S-5-40.
	"	1140	S-2-15						X			
	"	1230	S-2-24						X			
	"	1400	S-3-1					X				Billing:
	"	1430	S-4-1					X				
												See Cover letter. Bill directly to Bill Kidd. Address on cover letter.

SEND RESULTS TO: Tim Goodman Bill Kidd

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Tim Goodman	6-2-92 1000	T Palmquist	T Palmquist	6-2 12:45P	
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time		
		Mary Coates	6/2/92 12:45		

Shipper Information: SOUND P/U

REMEDIATION TECHNOLOGIES INC

REMEDIATION TECHNOLOGIES
1011 S.W. Klickitat Way
Suite 207
Seattle, WA 98134
(206) 624-9349

PINK COPY - Sampler YELLOW COPY - Laboratory WHITE COPY - ReTeC

APPENDIX B

BORING LOGS

BORING LOG

BOREHOLE NO. B-1 SHEET 1 OF 1

PROJECT NAME/NUMBER: 2815 Virginia Avenue, Everett, Washington	DRILLING CO: ESD, Inc.
LOCATION: Northeast corner of main store	DRILLER: Ed
DATE: 5/29/92 START: 0800 FINISH: 1000	BORING ID: 7 7/8 inches / RIG TYPE: B40 Mobile
WATER LEVEL: No water	BORING DEPTH: 20.5 feet / METHOD: HSA
DATE MEASURED:	GROUND ELEVATION: / LOGGED BY: Tim Goodman

DEPTH IN FEET	SAMPLE DATA TYPE	DEPTH	BLOWS	%RECOV	PID ppm	USCS	SOIL DESCRIPTION
0							
	SS	X		20		GM	GRAVELLY SILT: Dark brown, some medium gravel, little fine to medium sand, moist, trace organic fiber, slight gasoline odor, no visual contamination.
5							
10	SS	X		10		SM	SAND: Light gray, fine to medium sand, some silt, trace fine gravel, moist, strong odor of gasoline, no visual contamination.
15	SS	X		0			Could not drive split spoon. Suspect cobbles.
20							Drilled for 20 minutes at 20.5 feet without progress. Suspect cobbles.
25							

REMARKS: Backfilled with 8 bags of 3/8" bentonite chip
0900 zeroed OVM.

BORING LOG

BOREHOLE NO. B-3 SHEET 1 OF 1

PROJECT NAME/NUMBER: 2815 Virginia Avenue, Everett, Washington	DRILLING CO: ESD, Inc.
LOCATION: Appr. 80 east of main store, at south edge of property	DRILLER: BM
DATE: 6/29/92	BORING ID: 7 7/8 inches	RIG TYPE: B40 Mobile
START: 1045 FINISH: 1800	BORING DEPTH: 24	METHOD: HSA
WATER LEVEL: No water	GROUND ELEVATION:	LOGGED BY: Tim Goodman
DATE MEASURED:		

DEPTH IN FEET	SAMPLE DATA TYPE	DEPTH	BLOWS	%RECOV	PID ppm	USCS	SOIL DESCRIPTION
0							
	SS			60		ML	SILT: Mottled gray brown, little clay, slightly moist, no odor visual contamin.
5							7 feet-encountered cobbles as indicated by auger performance.
10	SS			20		SM	SAND: Light brown, fine to medium, slightly moist, no odor.
15	SS			10		SW	SAND: Light brown, fine to medium, trace very fine gravel, slightly moist, no odor.
20	SS			10		SW	SAND: Light brown, fine to medium, trace very fine gravel, slightly moist, no odor.
25	SS			10		SW	SAND: Light brown, fine to medium, trace very fine gravel, slightly moist, no odor.

REMARKS: Backfilled with 3/8" bentonite chip.

BORING LOG

BOREHOLE NO. B-3 SHEET 1 OF 1

PROJECT NAME/NUMBER: 2815 Virginia Avenue, Everett, Washington	DRILLING CO: ESD, Inc.
LOCATION: East half of backlot	DRILLER: Ed
DATE: 8/29/92	BORING ID: 7 7/8 inches
START: 1350 FINISH: 1600	RIG TYPE: B40 Mobile
WATER LEVEL: No water	BORING DEPTH: 41 feet
DATE MEASURED:	METHOD: HSA
GROUND ELEVATION:	LOGGED BY: Tim Goodman

DEPTH IN FEET	SAMPLE DATA: TYPE	DEPTH	BLOWS	% RECOV	PID ppm	USCS	SOIL DESCRIPTION
0						GW	GRAVEL: Gray, fine, dry.
	SS	X		10		SM	SITL AND SAND: Brown, very fine to fine, trace very fine gravel, slightly moist, no odor.
	SS	X		5		ML	SILT: Mottled gray brown, little clay, slightly moist, no odor visual contamin.
5							
10							
15							
20							
25							

REMARKS: Backfilled with 3/8" bentonite chip.

BORING LOG

BOREHOLE NO. B-4 SHEET 1 OF 1

PROJECT NAME/NUMBER:	2315 Virginia Avenue, Everett, Washington	DRILLING CO:	ESD, Inc.
LOCATION:	West half of backlot	DRILLER:	Ed
DATE: 5/28/92	BORING ID: 7 7/8 inches	RIG TYPE: —--	B40 Mobile
START: 1425 FINISH: 1425	BORING DEPTH: 4 feet	METHOD:	HSA
WATER LEVEL: No water	GROUND ELEVATION:	LOGGED BY:	Tim Goodman
DATE MEASURED:			

DEPTH IN FEET	TYPE	SAMPLE DEPTH	BLOWS	% RECOV	PID ppm	USCS	SOIL DESCRIPTION
0						GW	GRAVEL: Gray, fine, dry.
	SS	X		10		SM	SILT AND SAND: Brown, very fine to fine, trace very fine gravel, slightly moist, no odor.
	SS	X		50		ML	SILT: Dark brown to gray to light brown, little clay, slightly moist, no odor.
5							
10							
15							
20							
25							

REMARKS: Backfilled with 3/8" bentonite chip.

BORING LOG

BOREHOLE NO. B-6 SHEET 1 OF 2

PROJECT NAME/NUMBER: 2815 Virginia Avenue, Everett, Washington	DRILLING CO: ESD, Inc.
LOCATION: Northeast corner of main store	DRILLER: Ed
DATE: 5/29/02 START: 1500 FINISH: 1700	BORING ID: 7 7/8 inches / RIG TYPE: B40 Mobile
WATER LEVEL: No water / DATE MEASURED:	BORING DEPTH: 45 feet. / METHOD: HSA
	GROUND ELEVATION: / LOGGED BY: Tim Goodman

DEPTH IN FEET	SAMPLE TYPE	SAMPLE DEPTH	BLOWS	% RECOV	PID ppm	USCS	SOIL DESCRIPTION
0							
							Slight gasoline odor.
5							
							8 feet- very strong gasoline odor.
10							
	SS			60	543	SP	SAND: Pale Brown, fine to medium, trace silt, trace fine gravel, slightly moist, strong gasoline odor.
15							
20	SS			60	295	SP	SAND: Brownish gray, fine to medium silt, trace fine gravel, slightly moist, gasoline odor.
25							

REMARKS: Backfilled with 3/8" bentonite chip.

BORING LOG

BOREHOLE NO. B-5 SHEET 2 OF 2

DEPTH IN FEET	SAMPLE DATA TYPE	DEPTH	BLOWS	% RECOV	PID ppm	USCS	SOIL DESCRIPTION
25	SS	X		40	210	GP	GRAVELLY SAND: Brownish gray, fine to medium sand, and fine gravel, slightly moist with two inches saturated in sample middle, gasoline odor.
30	SS	X		30	BD	SP	SAND: Gray, fine to medium sand, little fine gravel, strong gasoline odor, moist.
35	SS	X		60	BD	SP	SAND: Gray, very fine to fine, trace silt, slightly moist, slight odor.
40	SS	X		20	BD	SP	SAND: Gray, very fine to fine, little fine gravel, trace silt, slightly moist, no odor.
45	SS	X		20	BD	SP	SAND: Gray, very fine to fine, little fine gravel, trace silt, slightly moist, no odor.
50							
55							

REMARKS: Backfilled with 3/8" bentonite chip.