LUST # 1821
VIKING FREIGHT SYS.
King Co.
Kent

SECOR
International Incorporated

ISIS # 11300

Underground Storage Tank Closure Site Assessment Viking Freight Facility 18221 East Valley Highway Kent, Washington

SECOR PN: 00155-004-02

For:
Mr. Chong Lee
Viking Freight, Inc.
6411 Guadalupe Mines Road
P.O. Box 649002
San Jose California 95164-9002

Prepared By:
SECOR International Incorporated

June 19, 1998

Prepared by:

John A. North, R.G.
Associate Geologist

Reviewed by:

Peter Jewett
Principal Engineering Geologist

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1.0 INTRODUCTION

This report documents underground storage tank (UST) closure activities conducted by SECOR International Incorporated (SECOR) for Viking Freight, Inc. (Viking). SECOR's services were provided for closure and decommissioning of one 15,000-gallon single-walled fiberglass diesel UST and associated fuel dispenser at the Viking facility located at 18221 East Valley Highway in Kent, Washington (herein referred to as "the site"). A site location map and site plan showing the location of the removed UST system are provided in Figures 1 and 2.

The scope of work included performing compliance sampling during decommissioning of the UST system and conduct an underground storage tank closure site assessment in accordance with the Washington State Department of Ecology's (Ecology) *Guidance for Site Checks and Site Assessments for Underground Storage Tanks*. SECOR's scope of work accomplished the stated objective and included the following tasks:

- Preparation and implementation of a site-specific Health and Safety Plan (HASP).
- Assessment of soil conditions in the UST and fuel dispenser excavation using field screening methods for petroleum hydrocarbon identification.
- Collection of soil samples from the UST and fuel dispenser excavation and submission of the samples for quantitative chemical analysis.
- Preparation of this Underground Storage Tank Closure Site Assessment report.

A copy of the UST Closure Site Assessment Checklist is included in Appendix A.

1.1 BACKGROUND

A groundwater monitoring and remediation system comprised of thirteen groundwater monitoring wells and a single groundwater recovery well is currently in place at the Viking Freight site. The wells were installed to monitor petroleum hydrocarbon-impacted groundwater present beneath the site as a result of a release from an underground storage tank (UST) system operated by the previous site owner.

1.2 REGIONAL SETTING

The site is situated on the eastern Green River alluvial floodplain at an elevation of approximately 8 feet above mean sea level (msl). The site is relatively flat, and is adjacent to a marshy area to the east. The north-south trending hills of the Renton Watershed rise up from the Green River Plain approximately 2,000 feet east of the subject site to elevations of approximately 125 feet msl. The surface and groundwater in the area flows to the west and northwest. The nearest surface body of water is the perennial Springbrook Creek which flows to the north at a distance of approximately 2,000 feet southwest of the subject site.

1.3 SITE DESCRIPTION

The site is located on the west side of the East Valley Highway, approximately 300 feet north of the intersection of 190th Street Southeast and the East Valley Highway in Kent, Washington (Figure 1). The

site includes a warehouse and truck depot for Viking Freight. Truck service activities include repair and diesel fueling (Figure 2). Diesel fuel is presently stored in a newly installed above ground, 15,000-gallon storage tank (AST). Land use in the vicinity of the site includes commercial and light industrial businesses.

2.0 FIELD INVESTIGATION

On April 20, 1998 one 15,000-gallon diesel UST was decommissioned and removed from the site. Excavation and UST closure services were provided by Lee Morse Contractors, a Washington State licensed environmental contractor, under direct contract to Viking Freight, Inc. SECOR personnel were present during excavation and removal of the diesel UST and related fuel dispensing island.

2.1 SOIL SAMPLING

A SECOR technician, registered as a site assessor with Ecology in accordance with Chapter 173-360 WAC, was on-site on April 20, 1998 to collect soil samples from the excavation. Soil samples were field screened for the presence of volatile organic vapors using a photoionization detector (PID).

2.1.1 Diesel UST Excavation

Soil samples were collected from the excavation sidewalls for laboratory analysis. Excavation floor samples were not collected from beneath the USTs as groundwater was encountered in the excavation. Soil samples were collected from the four excavation sidewalls just above the water table, at depths of approximately 4.5 feet below ground surface (bgs). The location of the diesel UST excavation, former fuel dispenser, soil sample locations, and other features of the site are shown on Figure 2.

Soil removed from the excavation consisted primarily of sandy gravel and pea gravel fill material. Approximately 10 cubic yards of soil were removed from around the UST and stockpiled onsite. A single three-part composite sample, labeled COMP-123-042098, was collected from the stockpile and submitted for quantitative analysis for use in characterizing the material prior to disposal.

Upon removal of soil and pea gravel backfill material, the UST floated up out of its original position in the excavation. An approximately 8-inch long fracture was noted by SECOR personnel on the southeast bottom quarter of the ribbing of the tank. The fracture did not penetrate the UST and may have been caused when the tank shifted.

2.1.2 Fuel Dispenser and Product Line Removal

A fuel dispenser was located approximately 15 feet to the west of the diesel UST, connected by a product line, directly to the diesel UST (Figure 2). Following removal of the fuel dispenser and associated product line, SECOR personnel collected a single soil sample (DIS-IS-042098) from beneath the former fuel dispenser at a depth of approximately 2.0 feet bgs. Based on existing groundwater quality at the site, extensive soil excavation and removal was not performed.

3.0 LABORATORY ANALYSIS

Soil samples were placed in laboratory-prepared glass sample jars, sealed with Teflon-lined screw caps and placed in a chilled cooler pending delivery to the analytical laboratory. Each sample was uniquely identified with a label denoting the job name and number, sample number, sample depth, location, date and time, and the sampler's initials.

Soil samples were submitted under standard chain-of-custody protocol to North Creek Analytical Laboratories, Inc., (NCA) of Bothell, Washington, for quantitative chemical analysis. Soil samples collected from the diesel UST excavation, fuel dispenser, and associated soil stockpile were analyzed for total petroleum hydrocarbons in the diesel range (TPH-D) using Ecology Method NWTPH-D.

4.0 SOIL SAMPLE ANALYTICAL DATA

Reported analytical results for the soil samples collected during this assessment are summarized in Table 1 and attached in Appendix B. The laboratory results indicate the following:

- Reported concentrations of TPH-D exceeded Washington State Model Toxics Control Act (MTCA) Method A Cleanup Levels for soil in the soil samples collected from the south, east, and west walls of the UST excavation, and from beneath the fuel dispenser.

- Soil sample collected from soil stockpile removed from the UST excavation contained a reported concentration of TPH-D exceeding MTCA Method A Cleanup Levels.

5.0 CONCLUSIONS

Analytical data for soil samples collected form the south, east, and west excavation sidewalls and from beneath the former fuel dispenser contained reported concentrations of TPH-D exceeding MTCA Method A Cleanup Levels for soil. Based on existing groundwater quality beneath the site, field observations, and PID measurements, and at the request of Viking Freight, soil removed from the UST excavation was used to backfill the excavation and additional over-excavation of soil from the UST excavation was not performed.

SECOR and Viking Freight are currently reviewing existing groundwater quality data. A Remedial Action Plan directed at addressing residual petroleum hydrocarbon concentrations in subsurface soil and groundwater will be prepared following review of available information. The objectives of the Remedial Action Plan will be to achieve compliance with MTCA Method A cleanup levels and obtain a No Further Action letter from Ecology.

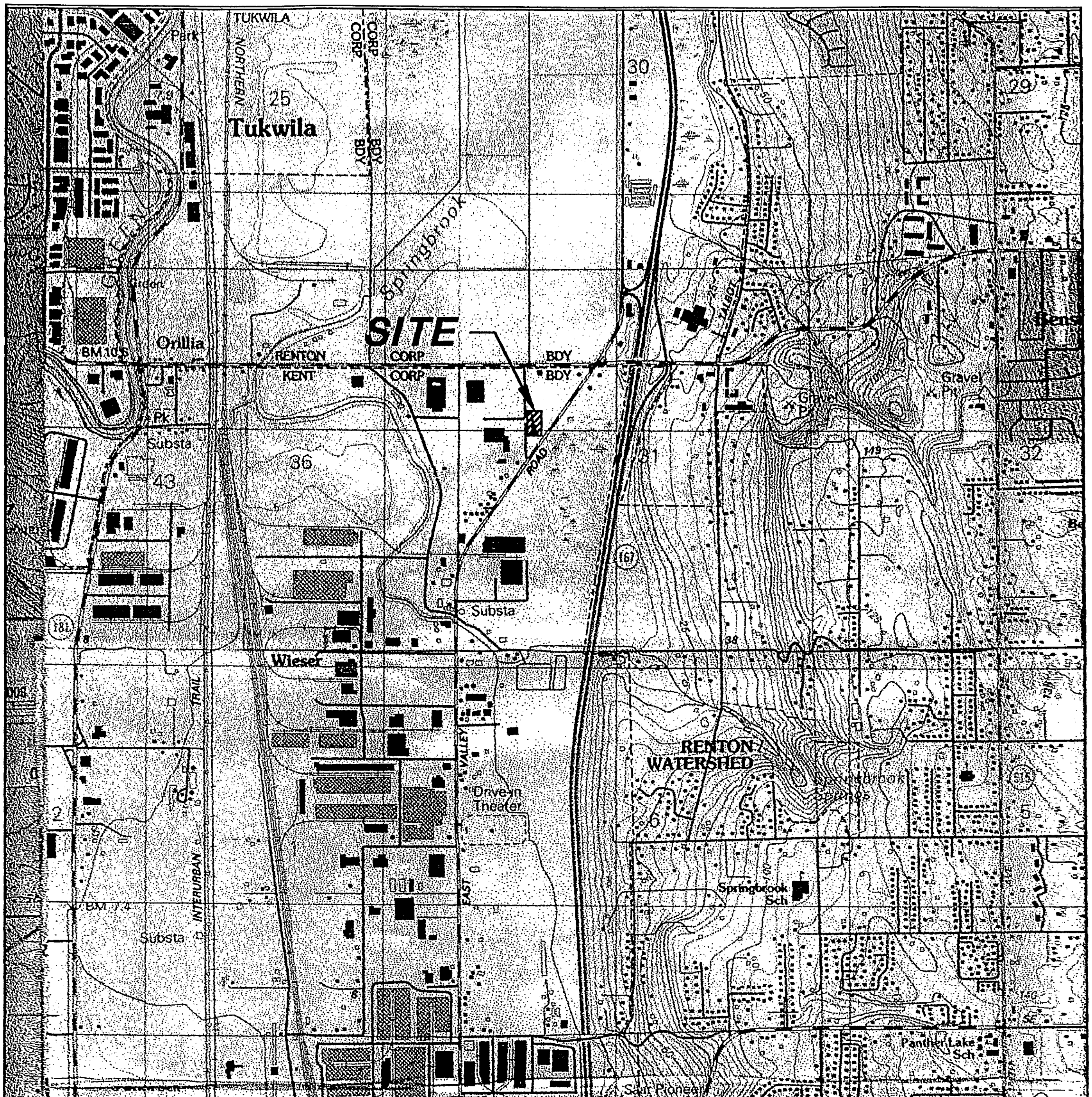
6.0 STANDARD LIMITATIONS

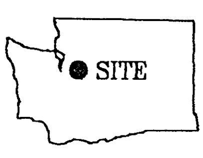
The findings and conclusions documented in this report have been prepared for the specific application to this project, and have been developed in a manner consistent with the level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions

in this area. No warranty, expressed or implied, is made. This report is for the exclusive use of Viking Freight, Inc. and their representatives.

A potential always remains for the presence of unknown, unidentified, or unforeseen subsurface contamination. Further evidence against such potential site contamination would require additional subsurface exploration and testing.

If new information is developed in future site work (which may include excavations, borings, or other studies), SECOR should be requested to re-evaluate the conclusions of this report, and to provide amendments as required.





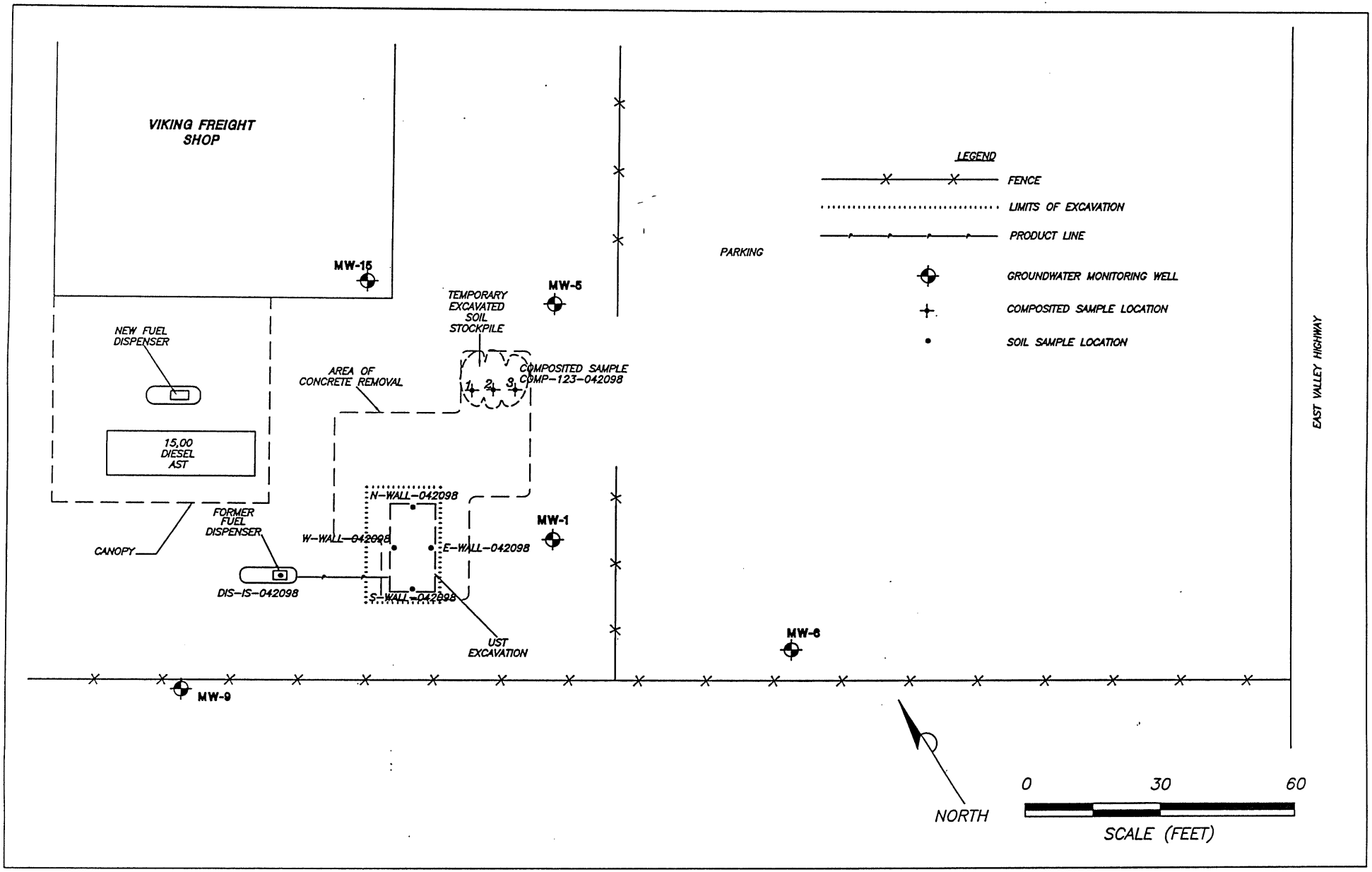
North

0 1/2 1
SCALE (MILES)

REFERENCE: USGS 7.5 X 15 MINUTE QUADRANGLE; RENTON, WASHINGTON; 1983

SECOR International Incorporated	SITE LOCATION MAP VIKING FREIGHT 18221 EAST VALLEY HIGHWAY KENT, WASHINGTON	FIGURE: 1
JOB#: 00155-004-02	APPR: DWN: SES	DATE: 05/08/98

DWG: VIK04M1.DWG



SECOR
International Incorporated

SITE PLAN
AND SOIL SAMPLE LOCATIONS
VIKING FREIGHT
18221 EAST VALLEY HIGHWAY
KENT, WASHINGTON

FIGURE: **2**

JOB#: **00155-004-02** APPR: DWN: **SES** DATE: **05/08/98**

DWG: VIK0401A.DWG

Table 1
Summary of Analytical Data - Soil
Viking Freight Facility
18221 East Valley Highway
Kent, Washington
SECOR PN: 00155-004-02

Sample ID	Sample Collection Date	Sample Collection Depth (ft)	PID Measurements (ppm)	TPH-D (mg/kg)
N-WALL-042098	4/20/98	4.5	2.7	43.9
E-WALL-042098	4/20/98	4.5	15.9	**3,580**
S-WALL-042098	4/20/98	4.5	4.7	**477**
W-WALL-042098	4/20/98	4.5	3.9	**293**
DIS-IS-042098	4/20/98	2.0	3.9	**8,730**
COMP-123-042098	4/20/98	composite	2.7	**209**
MTCA Method A Cleanup Level				200.0

Notes:

TPH-D Indicates Total Petroleum Hydrocarbons in the Diesel range (C12-C24) by Ecology Method WTPH-D
BOLD values indicate reported concentration exceeds MTCA Method A Cleanup Level for Soil

WASHINGTON STATE DEPARTMENT OF ECOLOGY

UNDERGROUND STORAGE TANK
Site Check/Site Assessment Checklist

For Office Use Only
Owner #
Site #

INSTRUCTIONS:

When a release has **not** been confirmed and reported, this Site Check/Site Assessment Checklist must be completed and signed by a person registered with the Department of Ecology. **The results of the site check or site assessment must be included with this checklist.** This form must be submitted to Ecology at the address shown below within 30 days after completion of the site check/site assessment.

SITE INFORMATION: Include the Ecology site ID number if the tanks are registered with Ecology. This number may be found on the tank owner's invoice or tank permit.

TANK INFORMATION: Please list all the tanks for which the site check and site assessment is being conducted. Use the tank ID number if available, and indicate tank capacity and substance stored.

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT: Please check the appropriate item.

CHECKLIST: Please initial each item in the appropriate box.

SITE ASSESSOR INFORMATION: This form must be signed by the registered site assessor who is responsible for conducting the site check/ site assessment.

Underground Storage Tank Section
Department of Ecology
P. O. Box 47655
Olympia, WA 98504-7655

SITE INFORMATION

Site ID Number (on invoice or available from Ecology if the tanks are registered): _____

Site/Business Name: Viking Freight Facility

Site Address: 18221 East Valley Highway (Street) Telephone: (___) _____

Kent (City), WA (State) _____ (ZIP-Code)

TANK INFORMATION

Tank ID No.	Tank Capacity	Substance Stored
	15,000-gallon	Diesel Fuel

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT

Check one:

- ___ Investigate suspected release due to on-site environmental contamination.
- ___ Investigate suspected release due to off-site environmental contamination.
- ___ Extend temporary closure of UST system for more than 12 months.
- ___ UST system undergoing change-in-service.
- ___ UST system permanently closed-in-place.
- ✓ UST system permanently closed with tank removed.
- ___ Abandoned tank containing product.
- ___ Required by Ecology or delegated agency for UST system closed before 12/22/88.
- ___ Other (describe): _____

CHECKLIST

Each item of the following checklist shall be initialed by the person registered with the Department of Ecology whose signature appears below.

		YES	NO
1.	The location of the UST site is shown on the vicinity map.	✓	
2.	A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in the Site Assessment Guidance)	✓	
3.	A summary of UST system data is provided. (see Section 3.1)	✓	
4.	The soils characteristics at the UST site are described. (see Section 5.2)	✓	
5.	Is there apparent groundwater in the tank excavation?	✓	
6.	A brief description of the surrounding land is provided. (see Section 3.1)	✓	
7.	Information has been provided indicating the number and types of samples collected, methods used to collect and analyze the samples, and the name and address of the laboratory used to perform the analyses.	✓	
8.	A sketch or sketches showing the following items is provided:		
	- location and ID number for all field samples collected	✓	
	- groundwater samples distinguished from soil samples (if applicable)		
	- samples collected from stockpiled excavated soil	✓	
	- tank and piping locations and limits of excavation pit	✓	
	- adjacent structures and streets	✓	
	- approximate locations of any on-site and nearby utilities		
9.	If sampling procedures different from those specified in the guidance were used, has justification for using these alternative sampling procedures been provided? (see Section 3.4)	✓	
10.	A table is provided showing laboratory results for each sample collected including: sample ID number, constituents analyzed for and corresponding concentration, analytical method and detection limit for that method.	✓	
11.	Any factors that may have compromised the quality of the data or validity of the results are described.	✓	
12.	*The results of this site check/site assessment indicate that a confirmed release of regulated substance has occured.*	✓	

SITE ASSESSOR INFORMATION

Kenneth A. Scott
PERSON REGISTERED WITH ECOLOGY

SECOR
FIRM AFFILIATED WITH

BUSINESS ADDRESS: 15400 S.E. 30th Place
TELEPHONE:(425) 641-9900

Suite 100, Bellevue, WA. 98007
CITY STATE ZIP+CODE

I hereby certify that I have been in responsible charge of performing the site check/site assessment described above. Persons submitting false information are subject to penalties under Chapter 173-360 WAC.

6-5-98
Date

Kenneth A. Scott
Signature of Person Registered with Ecology

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL ▪ (425) 481-9200 ▪ FAX 485-2992
SPOKANE ▪ (509) 924-9200 ▪ FAX 924-9290
PORTLAND ▪ (503) 906-9200 ▪ FAX 906-9210

Secor-Bellevue	Project:	Viking Freight	Sampled: 4/20/98
15400 SE 30th Place, Ste. 100	Project Number:	00155-004-01	Received: 4/21/98
Bellevue, WA 98007	Project Manager:	Peter Jewett	Reported: 5/11/98 16:54

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
N-WALL-042098	B804439-01	Soil	4/20/98
E-WALL-042098	B804439-02	Soil	4/20/98
S-WALL-042098	B804439-03	Soil	4/20/98
W-WALL-042098	B804439-04	Soil	4/20/98
DIS-IS-042098	B804439-05	Soil	4/20/98
COMP-123-042098	B804439-06	Soil	4/20/98

Matthew Essig, Project Manager

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East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

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15400 SE 30th Place, Ste. 100	Project Number:	00155-004-01	Received: 4/21/98
Bellevue, WA 98007	Project Manager:	Peter Jewett	Reported: 5/11/98 16:54

Diesel Hydrocarbons (C12-C24) by WTPH-D
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
N-WALL-042098			**B804439-01**				**Soil**	
Diesel Range Hydrocarbons	0580284	5/8/98	5/9/98		10.0	**43.9**	mg/kg dry	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*93.6*	*%*	
E-WALL-042098			**B804439-02**				**Soil**	
Diesel Range Hydrocarbons	0580284	5/8/98	5/11/98		110	**3580**	mg/kg dry	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*138*	*%*	
S-WALL-042098			**B804439-03**				**Soil**	
Diesel Range Hydrocarbons	0580284	5/8/98	5/9/98		10.0	**477**	mg/kg dry	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*96.6*	*%*	
W-WALL-042098			**B804439-04**				**Soil**	
Diesel Range Hydrocarbons	0580284	5/8/98	5/9/98		10.0	**293**	mg/kg dry	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*109*	*%*	
DIS-IS-042098			**B804439-05**				**Soil**	
Diesel Range Hydrocarbons	0580284	5/8/98	5/9/98		50.0	**8730**	mg/kg dry	
Surrogate: Octacosane	"	"	"	*50.0-150*		*134*	*%*	*1*
COMP-123-042098			**B804439-06**				**Soil**	
Diesel Range Hydrocarbons	0580284	5/8/98	5/9/98		10.0	**209**	mg/kg dry	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*97.8*	*%*	

North Creek Analytical, Inc.

**Refer to end of report for text of notes and definitions.*

Matthew Essig, Project Manager

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Secor-Bellevue	Project:	Viking Freight	Sampled:	4/20/98
15400 SE 30th Place, Ste. 100	Project Number:	00155-004-01	Received:	4/21/98
Bellevue, WA 98007	Project Manager:	Peter Jewett	Reported:	5/11/98 16:54

Dry Weight Determination
North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
N-WALL-042098	B804439-01	Soil	76.1	%
E-WALL-042098	B804439-02	Soil	67.2	%
S-WALL-042098	B804439-03	Soil	60.0	%
W-WALL-042098	B804439-04	Soil	73.7	%
DIS-IS-042098	B804439-05	Soil	73.2	%
COMP-123-042098	B804439-06	Soil	77.6	%

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Bellevue, WA 98007	Project Manager:	Peter Jewett	Reported: 5/11/98 16:54

Diesel Hydrocarbons (C12-C24) by WTPH-D/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0580284	**Date Prepared: 5/8/98**					**Extraction Method: EPA 3550B**				
Blank	**0580284-BLK1**									
Diesel Range Hydrocarbons	5/9/98			**ND**	mg/kg dry	**10.0**				
Surrogate: 2-FBP	"	*10.7*		*9.51*	"	*50.0-150*	*88.9*			
LCS	**0580284-BS1**									
Diesel Range Hydrocarbons	5/9/98	66.7		54.1	mg/kg dry	60.0-140	81.1			
Surrogate: 2-FBP	"	*10.7*		*9.87*	"	*50.0-150*	*92.2*			
Duplicate	**0580284-DUP1**		**B804439-01**							
Diesel Range Hydrocarbons	5/9/98		43.9	56.0	mg/kg dry			50.0	**24.2**	
Surrogate: 2-FBP	"	*14.0*		*12.8*	"	*50.0-150*	*91.4*			

North Creek Analytical, Inc.

**Refer to end of report for text of notes and definitions.*

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Bellevue, WA 98007	Project Manager:	Peter Jewett	Reported: 5/11/98 16:54

Notes and Definitions

#	Note
1	Due to interference from coeluting organic compounds with the primary surrogate, results of the secondary surrogate have been used to control the analysis.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical, Inc.

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East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

ATTN: PETER JEWETT

Chain-of Custody Number: B804439

SECOR Chain-of Custody Record

☐ Additional documents are attached, and are a part of this Record.

Field Office: Bellevue
Address: 15400 S.E. 30th Place, Suite 100
Bellevue, WA. 98007

Job Name: Viking Freight
Location: 18221 East Valley Highway
Kent, WA.

Project # 02155-004-01 Task #
Project Manager John North
Laboratory NCA
Turnaround Time Standard

Sampler's Name Ken Scott
Sampler's Signature Ken Scott

Sample ID	Date	Time	Matrix
N-WALL-042098	4-20-98	15:30	S
E-WALL-042098		15:40	
S-WALL-042098		15:50	
W-WALL-042098		16:00	
Dis-Ts-042098		16:15	
Comp-123-042098	↓	15:15	↓

Analysis Request

HCID	TPHg/BTEX/WTPH-G 8015 (modified)/8020	TPHd/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals			Comments/ Instructions	Number of Containers
		✓		p/s. relog				5	8/98					B804439-01	1
		✓												-02	1
		✓												-03	1
		✓		NEXT DAY										-04	1
		J												-05	1
		✓												-06 (Please hold for analysis)	1

Please run this sample ASAP.

Special Instructions/Comments:
Please hold sample Comp-123-042098 until told what to do.

Relinquished by: KS
Sign Ken Scott
Print KEN SCOTT
Company SECOR
Time 17:30 Date 4-20-98

Relinquished by:
Sign
Print
Company
Time Date

Relinquished by:
Sign
Print
Company
Time Date

Relinquished by:
Sign
Print
Company
Time Date

Sample Receipt
Total no. of containers:
Chain of custody seals:
Rec'd. in good condition/cold:
Conforms to record:

Client:
Client Contact:
Client Phone:

SECOR CUSTREC Rev. 8/94

Date: 4/20/98 Page 1 of 1

APR 21 '98 10:15
4256419092
PAGE.02