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To Removed -





Final Ust Closuse

### WAYNE PERRY, INC.

Environmental Remediation, Construction and Consulting

December 14, 2005

12/20/05

Mr. Chuck Conley Tiger Oil Corporation 2850 Fletcher Boise, Idaho 83702

Subject: Results of Underground Piping and Dispenser Island Sampling at Tiger Oil Corporation Facility, 5511 Summitview in Yakima, Washington.

Dear Mr. Conley:

Wayne Perry Inc. (WPI) is pleased to submit this report documenting the results of soil sampling conducted along subsurface piping associated with the former underground storage tanks (USTs) and dispensers at the subject site. A site location map is included as Figure 1. According to the Washington State Department of Ecology (Ecology), the former UST system can not be permanently closed until site assessment requirements for the piping and dispensers have been completed according to WAC 173-360-390. Tiger Oil Corporation retained WPI to complete the sampling program in order to meet the site assessment requirements requested by Ecology.

# **Background**

The site is located at the northeast corner of Summitview Road and 56<sup>th</sup> Avenue. Three USTs formerly containing gasoline were removed from the site in January 2005. The site is currently paved with asphalt except at the location of the former USTs. Concrete pads are present around the dispenser island areas. A site map showing the former locations of the USTs and previous soil sampling locations at the time of the UST removal is included as Figure 2. Soil sampling was conducted beneath and along the sidewalls of UST excavation as part of the UST decommissioning program. The subsurface piping between the former USTs and dispensers were not removed or assessed during that time. The piping was drained and capped with quick setting cement at the time of UST removal and remains in place at the site. The findings of the UST decommissioning program were documented in a report prepared by TtEC, Inc. dated 29 March 2005.

Mr. Conley/Tiger Oil December 14, 2005 Page 2 of 3

## Soil Sampling

To meet site assessment requirements for the piping and dispensers, soil sampling was conducted on 26 October 2005 by a certified Washington State Site Assessor from WPI. Prior to soil sampling, Locating Inc. of Issaquah, Washington, a private utility locater, verified the location of the underground product piping. The approximate location of the piping is shown on Figure 2. The product piping at the site was found at a depth of approximately two feet below ground surface (bgs).

According to Ecology's Guidance for Site Checks and Site Assessments for Underground Storage Tanks, at least one soil sample should be collected at each dispenser island at a depth of two feet below where the piping enters the island and one soil sample along the piping for every fifty feet of piping (i.e. one soil sample if less than 50 feet of piping exists, two samples for 50-99 feet, etc.).

As part of this assessment, a soil sample was collected at the point where the piping entered the western-most dispenser island and one was collected along the 40 to 50 feet of piping at the point of a piping bend. Two soil samples were also collected along the piping at the eastern most dispenser island. These two samples were collected to assess both the dispenser island and piping due to the short piping run (approximately 10 feet) and close proximity of the soil samples collected as part of the UST assessment.

Borings were drilled using hand digging tools. A total of four borings (SVSS-1, SVSS-2, SVSS-3, and SVSS-4) were drilled to depths ranging from 3.5 feet to 4.5 feet below ground surface to assess the dispensers and piping at the site. Soil samples were collected at the base of each of the four borings at depths that corresponded to approximately 2 feet below the piping. The locations of the borings are shown on Figure 2.

During drilling the soil was visually inspected and monitored for organic vapors with a photoionization detector (PID). Soil samples were collected according to Ecology guidelines including the use of core sample methods for volatile organic compound analysis. Once collected, the soil samples were placed immediately into a cooler containing ice and then transported to CCI Analytical Laboratories an independent analytical laboratory located in Everett, Washington under chain of custody documentation. The four soil samples were analyzed for Total Petroleum Hydrocarbons-Volatile Range NWTPH-GX and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) according to EPA Method 8021.

### Physical Results

Soil found during the drilling of the four borings consisted of silty, fine grained sand. The soil was generally brown, medium dense, and slightly moist. During drilling, field evidence of petroleum hydrocarbons was noted in Boring SVSS-1 at a depth of 2.5 feet to the base of the boring at 3.5 feet. PID readings ranged from 600 at 2.5 feet to 1,200 parts

Mr. Conley/Tiger Oil December 14, 2005 Page 3 of 3

per million (ppm) at 3.5 feet. No odors or PID readings were noted in the other three borings.

### Laboratory Results

The laboratory results indicated that of the four soil samples collected and analyzed for NWTPH-GX and BTEX only one (SVSS-1 at 3.5 feet) was found to contain concentrations exceeding laboratory detection limits. Sample SVSS-1 collected at 3.5 feet bgs was found to contain NWTPH-G concentrations of 11,000 parts per million (ppm) and BTEX concentrations of not detected (ND) (<8 ppm), 62 ppm, 29 ppm, and 840 ppm, respectively. No detectable NWTPH-G or BTEX concentrations were found in the other three soil samples. A copy of the laboratory report and chain of custody is provided as Attachment B.

#### Conclusions

Based on the results of soil sampling and laboratory analysis it appears that a release occurred near the western most dispenser island at the site. Considering that the laboratory noted that the sample contains product which is likely highly weather and that benzene concentrations appear relatively low in relation the TPH concentration, it appears that the release was historic in nature. The soil samples collected at the other three locations indicates that a release has not occurred at other locations along the piping and dispensers at the site.

With the completion of this piping and dispenser assessment, Ecology requirements for UST Closure Site Assessment should be met and it is our understanding that Ecology, upon receipt of this report, will permanently close the UST System at the site. If you have any further questions regarding these results please do not hesitate to contact the undersigned at (360) 668-6160.

Sincerely,

WAYNE PERRY, INC.

Chris Generous, LG

Principal Engineer/Northwest Regional Office Manager Certified Washington State Site Assessor # 0879618-U7

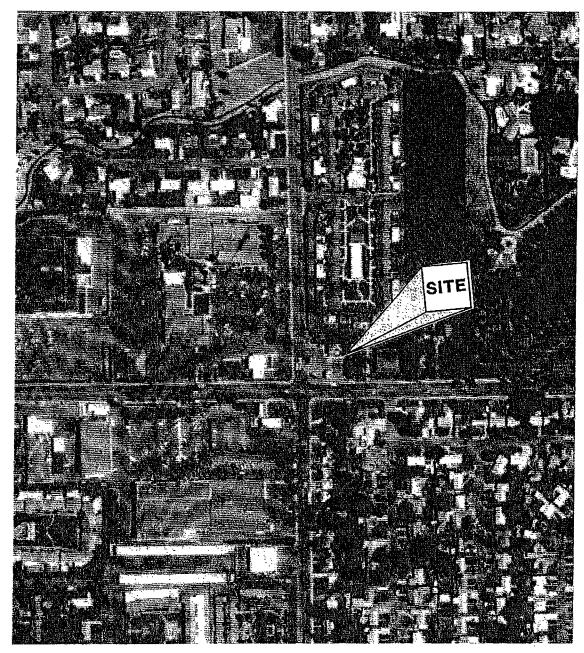
Attachments: Figures 1 and 2

Lab Report

CC: Christina Zerby, Ecology

ATTACHMENT A

**FIGURES** 



REFERENCE: USGS. MAPS, 1996





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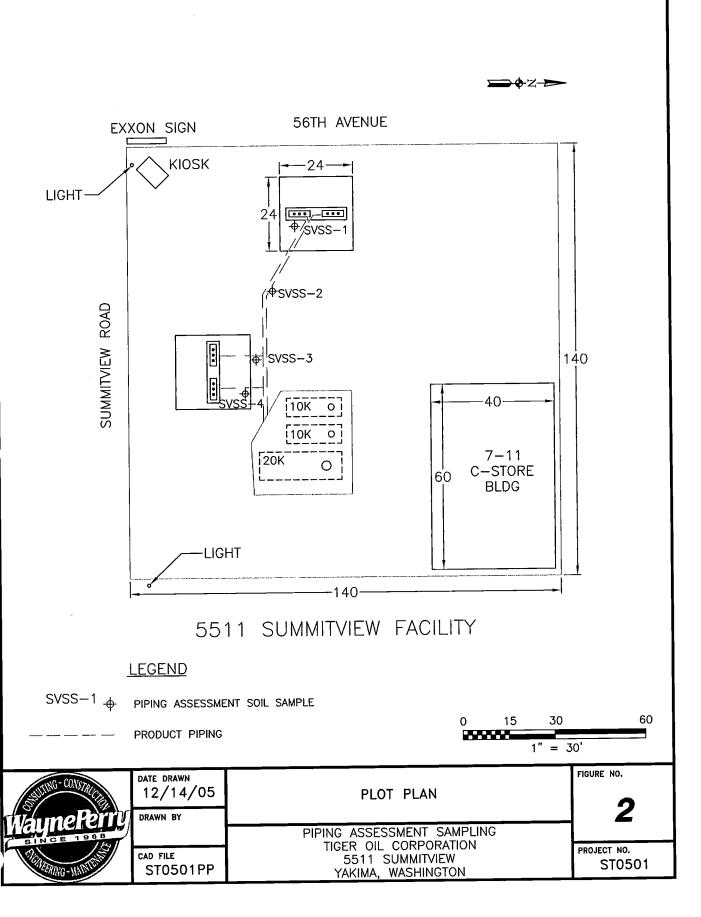
STO501LM

SITE LOCATION MAP

TIGER OIL CORPORATION 5511 SUMMITVIEW YAKIMA, WASHINGTON FIGURE NO.

1

PROJECT NO. STO501



# ATTACHMENT B

LABORATORY REPORTS
AND
CHAIN OF CUSTODY



CLIENT: WAYNE PERRY INC.

13401 KENWANDA DRIVE

SNOHOMISH, WA 98296

DATE:

11/1/05

CCIL JOB #:

510122

CCIL SAMPLE #:

DATE RECEIVED: 10/27/05

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: CHRIS GENEROUS

CLIENT PROJECT ID:

TIGER OIL CORP. 5511 SUMMITVIEW

CLIENT SAMPLE ID:

SVSS-1@3.5' 10/26/05 9:45AM

D	ATA RESULT	S			
ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	11000	MG/KG	10/31/05	LAP
BENZENE TOLUENE ETHYLBENZENE XYLENES	EPA-8021 EPA-8021 EPA-8021 EPA-8021	ND(<8.0) 62 29 840	MG/KG MG/KG MG/KG MG/KG	10/31/05 10/31/05 10/31/05 10/31/05	LAP LAP LAP LAP

CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY HIGHLY WEATHERED GASOLINE TE:

<sup>\* &</sup>quot;ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 750 MG/KG

<sup>\*\*</sup> UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



CLIENT:

WAYNE PERRY INC.

13401 KENWANDA DRIVE

SNOHOMISH, WA 98296

DATE:

11/1/05

CCIL JOB #:

510122

CCIL SAMPLE #:

DATE RECEIVED:

10/27/05

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: CHRIS GENEROUS

CLIENT PROJECT ID: CLIENT SAMPLE ID:

TIGER OIL CORP. 5511 SUMMITVIEW

SVSS-2@4.5' 10/26/05-11:00AM

	DATA RESUL	rs			
ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	10/28/05	LAP
BENZENE TOLUENE ETHYLBENZENE XYLENES	EPA-8021 EPA-8021 EPA-8021 EPA-8021	ND(<0.03) ND(<0.05) ND(<0.05) ND(<0.2)	MG/KG MG/KG MG/KG MG/KG	10/28/05 10/28/05 10/28/05 10/28/05	LAP LAP LAP LAP

<sup>\* &</sup>quot;ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

<sup>\*\*</sup> UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



WAYNE PERRY INC. CLIENT:

13401 KENWANDA DRIVE

SNOHOMISH, WA 98296

DATE:

11/1/05

CCIL JOB #:

510122

CCIL SAMPLE #:

DATE RECEIVED:

10/27/05

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: CHRIS GENEROUS

CLIENT PROJECT ID: CLIENT SAMPLE ID:

TIGER OIL CORP. 5511 SUMMITVIEW

SV\$S-3@4' 10/26/05 12:00-

DATA RESULTS ANALYSIS ANALYSIS ВΥ DATE UNITS\*\* RESULTS\* METHOD ANALYTE LAP 10/28/05 MG/KG ND **NWTPH-GX** TPH-VOLATILE RANGE 10/28/05 LAP MG/KG EPA-8021 ND(<0.03) BENZENE LAP 10/28/05 ND(<0.05) MG/KG EPA-8021 TOLUENE LAP 10/28/05 MG/KG EPA-8021 ND(<0.05) **ETHYLBENZENE** LAP 10/28/05 MG/KG ND(<0.2) EPA-8021 **XYLENES** 

<sup>\* &</sup>quot;ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

<sup>\*\*</sup> UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



CLIENT:

WAYNE PERRY INC.

13401 KENWANDA DRIVE

SNOHOMISH, WA 98296

DATE:

11/1/05

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510122

CCIL SAMPLE #:

DATE RECEIVED: 10/27/05

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: CHRIS GENEROUS

CLIENT PROJECT ID: CLIENT SAMPLE ID:

TIGER OIL CORP. 5511 SUMMITVIEW

SVSS-4@4' 10/26/05-12:45

	DATA RESUL	rs			
ANALYTE	метнор	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	10/28/05	LAP
BENZENE TOLUENE ETHYLBENZENE XYLENES	EPA-8021 EPA-8021 EPA-8021 EPA-8021	ND(<0.03) ND(<0.05) ND(<0.05) ND(<0.2)	MG/KG MG/KG MG/KG MG/KG	10/28/05 10/28/05 10/28/05 10/28/05	LAP LAP LAP LAP

<sup>\* &</sup>quot;ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

<sup>&</sup>quot; UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



CLIENT: WAYNE PERRY INC.

DATE:

11/1/05

13401 KENWANDA DRIVE

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510122

SNOHOMISH, WA 98296

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C142

CLIENT CONTACT: CHRIS GENEROUS

CLIENT PROJECT ID:

TIGER OIL CORP. 5511 SUMMITVIEW

# QUALITY CONTROL RESULTS

#### **SURROGATE RECOVERY**

CCIL SAMPLE ID	ANALYTE	SUR ID	% RECV
510122-01	NWTPH-GX	TFT	*
510122-01	EPA-8021	TFT	
510122-02	NWTPH-GX	TFT	106
510122-02	EPA-8021	TFT	105
	NWTPH-GX	TFT	117
	EPA-8021	TFT	116
510122-04	NWTPH-GX	TFT	117
510122-04	EPA-8021	TFT	118

<sup>\*</sup> SURROGATE DILUTED OUT OF CALIBRATION RANGE

CCI Analytical Laboratories, Inc. Phone (425) 356-2600 (206) 292-9059 Seattle (425) 356-2626 Fax http://www.ccilabs.com Everett, WA 98208 8620 Holly Drive

Laborato

**Analysis Request** Chain Of Custody/

(Laboratory Use Only)

CCI Pop#

ANALYSIS REQUESTED		7 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
MYTPH-GX  MTBE by EPA-8021  Halogenated Volatiles by EPA 8260  Volatile Organic Compounds by EPA 8260  Ethylene dibromide (EDB) by EPA-8260 □ EPA-504.1 □  Semivolatile Organic Compounds by EPA-8260  Semivolatile Organic Compounds by EPA 8270	XU-HdTWV	
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×.	<u>&gt;</u> <	- No.
	<i>*</i>	
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America		
	2.4.	

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions. TURNAROUND REQUESTED in Business Days\* Organic, Metals & Inorganic Analysis SIGNATURES (Name, Company, Date, Time):

Ŋ ო With the Depres Low 1. Relinquished By:

2. Relinquished By: Received By:

Received By:

Fuels & Hydrocarbon Analysis

\* Turnaround request less than standard may incur Rush Charges