



Date: October 18, 2001

To: Norm Hepner  
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Job No: SGB

Project: Mathias Texaco

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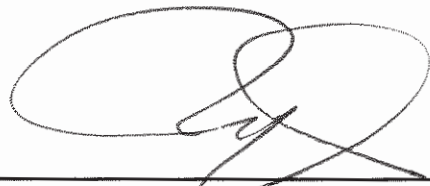
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Quantity	Date	Description
1	10/23/97	UST Closure Site Assessment Report

Remarks:

Sent By:

  
William J. Goggin PE

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**Engineering**  
**& Environmental Services**

1300 Stassen Way, Grandview, Washington USA 98930  
(509) 882-3000 Fax (509) 882-3991

## **UST CLOSURE SITE ASSESSMENT REPORT**

**Mathias Texaco Site**  
**601 Highway 12**  
**Sunnyside, Washington**

**Prepared for :**

**Robert Mathias**  
**471 West Woodin Road**  
**Sunnyside, Washington 98944**

**October 23, 1997**



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## UST CLOSURE SITE ASSESSMENT REPORT

### 1. SITE DATA

Ecology Site Number 9264  
Mathias Texaco  
601 Highway 12  
Sunnyside, WA 98944

### 2. SCOPE OF WORK

UST Closure by removal of the following:

- 8,000 gallon regular gasoline underground storage tank
- 4,000 gallon unleaded gasoline underground storage tank
- 4,000 gallon unleaded gasoline underground storage tank
- 4,000 gallon gasohol underground storage tank
- 4,000 gallon gasohol underground storage tank
- 550 gallon waste oil underground storage tank
- Associated piping and 2 fuel dispenser islands

### 3. UST DATA

Tank I.D. Numbers:

- (1) 8,000 gal. regular gasoline
- (2) 4,000 gal. unleaded gasoline
- (3) 4,000 gal. unleaded gasoline
- (4) 4,000 gal. gasohol
- (5) 4,000 gal. gasohol
- (6) <sup>1</sup>550 gal. waste oil

Last use: Retail fuel sales (#1 through #5) and used engine oil (#6)

Age: Approximately 18 years

(NOTE: This UST system is a replacement for a previous UST system which existed on the site prior to the present system.)

---

<sup>1</sup> No Ecology ID Number has been assigned to this UST

A small heating oil UST exists on the north side of the building. This tank was not removed as part of this site assessment and it remains in place.

#### 4. PERSONNEL

**TABLE I - PERSONNEL**

<b>TASK</b>	<b>RESPONSIBILITY</b>	<b>PERSONNEL</b>
Prime Contractor	Client contact, physical site operations, UST transportation, direction of subcontractor operations	Darrell Downing & Crew Downing Construction
Site management prior to and during UST closure	Project documentation, scheduling & contractor coordination	William J. Goggin PE SGB Engineering & Environmental Services
UST Decommissioning	Operations management, UST disposal documentation	William J. Goggin PE SGB Engineering & Environmental Services
Site Assessment	Soil & water sampling & analyses, closure report	William J. Goggin PE SGB Engineering & Environmental Services
Air monitoring, UST purging, inerting, dismantling & disposal	UST safety during removal & disposal of all UST's	Paul Konen Kennedy Equipment Co. Inc.
Safety Management	Site safety officer, traffic control	Ed Douglas Safety Management
Observation of UST Decommissioning for PLP Group	Overview of operations, sample splits	Bill Adams Secor International Inc.
Ecology Toxics Cleanup Program Manager	Overview of operations	John Wietfeld Department of Ecology
Texaco representative	Overview of operations	Chris Jones Environmental Management Services



## 5. PROJECT SUMMARY

On October 6 and 7, 1997 the UST fuel storage & delivery system as well as the waste oil UST were excavated and removed and a closure site assessment was performed. Soil samples were taken from the endwalls, sidewalls and bottom of each UST. A single excavation was performed to remove all of the UST's. All piping and both fuel islands were also removed. Soil was sampled beneath each fuel island. A groundwater sample was also taken from a test pit that was extended directly beneath the north fuel island. (Refer to Figure 1 Site Location Plan & Figure 2 Sampling Plan).

The entire UST system was removed from the ground, including both fuel dispenser islands, all fuel supply piping and all vent piping. The dispensers were not in place at the time of this UST closure and apparently they had been removed many years ago.

UST Number 3 was observed to have a leak in the seam at the bottom of the east end of the tank. The seam had rusted to the point where the metal outer wall of the tank separated from the end cap. Soil contamination was evident in the area of the leak. UST's 1,2,4,5 & 6 were in good shape with no apparent holes. The piping system, especially in the vicinity of each fuel island, revealed signs of leakage at some of the joints. Contaminated soil was evident in these locations.

Additional soil contamination was noted during the site assessment, primarily in the northern portion of the excavation. Heavy oil contamination was noted in the area of the waste oil tank. The waste oil UST and piping appeared to be in good shape. The contamination may have been the result of overfilling of the UST, with the excess waste oil escaping from the neck of the 3" access port into the soil surrounding the traffic flange and cover.

Upon removal of the UST system, the site was graded to stabilize the slopes but was not backfilled. Contaminated soil that was removed from the excavation has been temporarily stockpiled and is scheduled to be removed and disposed of at an approved disposal site.

This site is considered to be part of the "Manhole 34" site, a #1 WARM site that is currently in the Cleanup Action Plan (CAP) review stage.

## 6. SOILS

The native soil material is classified as ML in the Unified Soil Classification System. It is a mixture of very fine sand and silt with narrow bands of volcanic ash. Seams of coarse black volcanic sand were noted near the bottom of some portions of the excavation.

## 7. GROUNDWATER

Prior to beginning excavation on this site, three of the on site monitoring wells were checked for the presence of free petroleum product (a.k.a. LNAPL). The following was observed;

<u>LOCATION</u>	<u>OBSERVATION</u>
DMW-2	No free floating product, no petroleum odor, clear water sample
DMW-6	No free floating product, strong petroleum odor
DMW-5	Approximately 18" of dark, opaque petroleum product on top of the water in the monitoring well

No water was encountered in the UST excavation but the bottom of the excavation (at approximately 8 feet beneath the surface) was saturated and assumed to be very close to the static water level. A test pit was excavated beneath the north fuel island, near DMW-5, to a depth of 10.5 feet and water was observed in the pit at a depth of approximately 8 feet below the surface after the excavation was left open for approximately 45 minutes. No free petroleum product (a.k.a. LNAPL) was noted in the test pit. A slight sheen was observed on the surface of the water.

Water Sample No. 15097-124 was taken beneath the surface of the water in the test pit to quantify the level of petroleum contamination. The analytical results revealed gasoline, diesel fuel and oil contamination in the water exceeding the MTCA cleanup requirements. Refer to Table II for the analytical results.

## 8. LAND USE

The site and surrounding land for approximately 1/2 mile or more in all directions is currently used for retail commercial sales of various products. Some residential use was noted as well as a motel site and restaurant sites. The site is located in a predominantly commercial area of Sunnyside.

The site is part of a larger identified contaminated area known as "Manhole 34", which is currently in the Cleanup Action Stage and awaiting approval from Ecology on the Cleanup Action Plan being prepared by SECOR International Inc. Historically, the area in the immediate vicinity of the subject site has been used for numerous petroleum storage, distribution and retail sales facilities. The Remedial Investigation / Feasibility Study (RI/FS) for Manhole 34 revealed a large area of petroleum contamination in the soil and groundwater to the north and east of the subject site.

## 9. SAMPLING

The sample collection, storage and transportation procedures used for this project were performed in accordance with "Guidance for Site Checks and Site Assessments for Underground Storage Tanks" published by the Washington State Department of Ecology, February 1991, 90-52, Revised October 1992. Collected samples were analyzed for the following substances based on tank contents and historical contaminants found during studies performed by others;

- Gasoline range organic compounds (NTPH-G and BETX)
- Diesel range organic compounds (NWTPH-Dx)
- Petroleum compounds heavier than Diesel (WTPH-418.1)

## 10. SAMPLE RESULTS

Sample Results are tabulated on the following Table II. Refer to Figure 1 Site Location Plan for a general layout of the site. Refer to Figure 2 Sampling Plan for detailed layout sketches of the UST system and sampling locations. For detailed analytical data, refer to enclosed laboratory analytical documentation from OnSite Environmental Inc. dated October 16, 1997 (Appendix D).

TABLE II - LABORATORY ANALYTICAL DATA

SAMPLE NUMBER	SAMPLE LOCATION	MATRIX	LABORATORY ANALYTICAL RESULTS <sup>234</sup>				
			NWTPH - G / BETX		NWTPH -Dx		WTPH 418.1 mg/Kg (ppm)
			mg/Kg (ppm)		mg/Kg (ppm)		
15097-101	Center of West Fuel Island. Depth = 2'± below ground surface.	Soil	TPH	<b>450</b>	Diesel Fuel (C12-C24)	100	NT
			Benzene	0.3			
			Toluene	3			
			E-Benzene	2	Oil (C24-34)	<b>340</b>	
			Xylenes	17			
15097-102	W. end of UST#1 Depth = 8'± below ground surface. Composited with 15097-106	Soil	TPH	(See sample 15097-106)	Diesel Fuel (C12-C24)	(See sample 15097-106)	NT
			Benzene				
			Toluene				
			E-Benzene		Oil (C24-34)		
			Xylenes				
15097-103	S. sidewall of UST#1. Depth = 8'± below ground surface.	Soil	TPH	16	Diesel Fuel (C12-C24)	ND	NT
			Benzene	0.2			
			Toluene	ND			
			E-Benzene	<1	Oil (C24-34)	ND	
			Xylenes	1			
15097-104	E. end of UST#1 Depth = 8'± below ground surface. Composited with 15097-107	Soil	TPH	(See sample 15097-107)	Diesel Fuel (C12-C24)	(See sample 15097-107)	NT
			Benzene				
			Toluene				
			E-Benzene		Oil (C24-34)		
			Xylenes				
15097-105	Bottom center of UST#1. Depth = 10.5'± below ground surface.	Soil	TPH	57	Diesel Fuel (C12-C24)	ND	NT
			Benzene	<b>4</b>			
			Toluene	ND			
			E-Benzene	1	Oil (C24-34)	ND	
			Xylenes	5			

<sup>2</sup> **Bold** typeface indicates concentrations exceeding MTCA Method A cleanup levels

<sup>3</sup> ND indicates No Detection of contaminants

<sup>4</sup> NT indicates No Test performed

SAMPLE NUMBER	SAMPLE LOCATION	MATRIX	LABORATORY ANALYTICAL RESULTS <sup>234</sup>				
			NWTPH - G / BETX		NWTPH -Dx		WTPH 418.1 mg/Kg (ppm)
				mg/Kg (ppm)		mg/Kg (ppm)	
15097-106	W. end of UST#2 Depth = 8'± below ground surface. Composited with 15097-102	Soil	TPH Benzene Toluene E-Benzene Xylenes	<b>2800</b> <b>8</b> <b>65</b> <b>31</b> <b>194</b>	Diesel Fuel (C12-C24)  Oil (C24-34)	160  ND	NT
15097-107	E. end of UST#2 Depth = 8'± below ground surface. Composited with 15097-104	Soil	TPH Benzene Toluene E-Benzene Xylenes	7 ND ND ND <1	Diesel Fuel (C12-C24)  Oil (C24-34)	ND  ND	NT
15097-108	Bottom center of UST#2, Depth = 10'± below ground surface.	Soil	TPH Benzene Toluene E-Benzene Xylenes	8 <b>3</b> 1 <1 1	Diesel Fuel (C12-C24)  Oil (C24-34)	ND  ND	NT
15097-109	W. end of UST#3 Depth = 8'± below ground surface. Composited with 15097-112	Soil	TPH Benzene Toluene E-Benzene Xylenes	(See sample 15097- 112)	Diesel Fuel (C12-C24)  Oil (C24-34)	(See sample 15097- 112)	NT
15097-110	E. end of UST#3 Depth = 8'± below ground surface.	Soil	TPH Benzene Toluene E-Benzene Xylenes	<b>14,000</b> <b>27</b> <b>160</b> <b>100</b> <b>710</b>	Diesel Fuel (C12-C24)  Oil (C24-34)	<b>310</b>  77	NT
15097-111	Bottom center of UST#3, Depth = 10'± below ground surface.	Soil	TPH Benzene Toluene E-Benzene Xylenes	<b>620</b> <b>3</b> 6 2 14	Diesel Fuel (C12-C24)  Oil (C24-34)	ND  69	NT

SAMPLE NUMBER	SAMPLE LOCATION	MATRIX	LABORATORY ANALYTICAL RESULTS <sup>234</sup>				
			NWTPH - G / BETX		NWTPH -Dx		WTPH 418.1 mg/Kg (ppm)
				mg/Kg (ppm)		mg/Kg (ppm)	
15097-112	W. end of UST#4 Depth = 8'± below ground surface.	Soil	TPH Benzene Toluene E-Benzene Xylenes	6,800 33 260 94 480	Diesel Fuel (C12-C24)  Oil (C24-34)	270  ND	NT
15097-113	E. end of UST#4 Depth = 8'± below ground surface.	Soil	TPH Benzene Toluene E-Benzene Xylenes	15,000 79 490 210 900	Diesel Fuel (C12-C24)  Oil (C24-34)	1,600  1,200	NT
15097-114	Bottom center of UST#4, Depth = 10'± below ground surface.	Soil	TPH Benzene Toluene E-Benzene Xylenes	19 ND <1 ND <1	Diesel Fuel (C12-C24)  Oil (C24-34)	ND  ND	NT
15097-115	W. end of UST#5 Depth = 8'± below ground surface.	Soil	TPH Benzene Toluene E-Benzene Xylenes	12,000 11 120 83 660	Diesel Fuel (C12-C24)  Oil (C24-34)	580  ND	NT
15097-116	E. end of UST#5 Depth = 8'± below ground surface.	Soil	TPH Benzene Toluene E-Benzene Xylenes	3,500 10 100 5 210	Diesel Fuel (C12-C24)  Oil (C24-34)	450  410	NT
15097-117	Bottom center of UST#5, Depth = 10'± below ground surface.	Soil	TPH Benzene Toluene E-Benzene Xylenes	7,000 22 240 96 470	Diesel Fuel (C12-C24)  Oil (C24-34)	490  140	NT



SAMPLE NUMBER	SAMPLE LOCATION	MATRIX	LABORATORY ANALYTICAL RESULTS <sup>234</sup>				
			NWTPH - G / BETX		NWTPH - Dx		WTPH 418.1 mg/Kg (ppm)
				mg/Kg (ppm)		mg/Kg (ppm)	
15097-118	N. sidewall of UST#6. Depth = 5'± below ground surface.	Soil	TPH Benzene Toluene E-Benzene Xylenes	2,000 10 2 30 114	Diesel Fuel (C12-C24)  Oil (C24-34)	3,700  14,000	29,000
15097-119	Bottom center of UST#6. Depth = 7'± below ground surface.	Soil	TPH Benzene Toluene E-Benzene Xylenes	170 1 1 2 9	Diesel Fuel (C12-C24)  Oil (C24-34)	200  970	3,200
15097-120	Center of North Fuel Island. Depth = 2'± below ground surface.	Soil	TPH Benzene Toluene E-Benzene Xylenes	2,300 6 47 24 181	Diesel Fuel (C12-C24)  Oil (C24-34)	31  ND	NT
15097-121	West end of Stockpile Depth = 2.5' below top center of the stockpile.	Soil	TPH Benzene Toluene E-Benzene Xylenes	61 ND <1 <1 1	Diesel Fuel (C12-C24)  Oil (C24-34)	41  110	NT
15097-122	Center of Stockpile Depth = 2.5' below top center of the stockpile.	Soil	TPH Benzene Toluene E-Benzene Xylenes	380 0.48 <1 <1 9	Diesel Fuel (C12-C24)  Oil (C24-34)	130  280	NT
15097-123	East end of Stockpile Depth = 2.5' below top center of the stockpile.	Soil	TPH Benzene Toluene E-Benzene Xylenes	520 0.2 <1 <1 18	Diesel Fuel (C12-C24)  Oil (C24-34)	77  130	NT
15097-124	Test Pit in center of North Fuel Island. Water elev. = 8'± below ground surface.	Water	TPH Benzene Toluene E-Benzene Xylenes	580 15 23 10 54	Diesel Fuel (C12-C24)  Oil (C24-34)	100  20	NT

## 11. QUALITY CONTROL

### 11.1. Laboratory QA/QC

All samples collected by SGB were transported to OnSite Environmental Inc., 14924 NE 31<sup>st</sup> Circle, Redmond Washington for analyses. OnSite Environmental Inc. is a Washington State Department of Ecology accredited laboratory that maintains a Quality Assurance Program in accordance with Chapter 173-50 WAC. Copies of their Quality Assurance Manual are available upon request.

### 11.2. Field QA/QC

Sample collection, handling, shipping and analysis followed standard protocol and no factors were present that may have compromised the quality of the data or validity of the results.

## 12. SUMMARY & RECOMMENDATIONS

The observed status of the UST system that has been removed is as follows:

**TABLE III - UST STATUS**

UST COMPONENT	OBSERVED CONDITION
UST Number 1, 8,000 Gallon Regular Gasoline	Tank was in good condition, little rust and no observed perforations
UST Number 2, 4,000 Gallon Unleaded Gasoline	Tank was in good condition, little rust and no observed perforations
UST Number 3, 4,000 Gallon Unleaded Gasoline	A seam leak was discovered at the bottom of the eastern end cap. Soil contamination was evident and analytical results of soil samples in the area confirm the presence of a leak
UST Number 4, 4,000 Gallon Gasohol	Tank was in good condition, little rust and no observed perforations
UST Number 5, 4,000 Gallon Gasohol	Tank was in good condition, little rust and no observed perforations
UST Number 6, 550 Gallon Waste Oil	The tank and piping appeared to be in good condition but it appears that overfilling of the tank caused waste oil to infiltrate into the soil surrounding the tank.



October 23, 1997

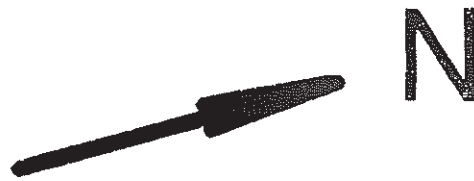
West Fuel Island	Soil contamination was evident beneath the fuel island and along the piping between the island and the UST's. Leaking joints in the single wall threaded steel piping are suspected to be the cause of the soil contamination.
North Fuel Island	Soil contamination was evident beneath the fuel island. Leaking joints in the single wall threaded steel piping are suspected to be the cause of the soil contamination. The piping between the north fuel island and the UST appeared to be intact with little evidence of contamination. A documented fuel spill occurred at this location as noted in numerous reports by Delta Environmental Consultants, Inc. starting in April 1989. The site was leased to R.H. Bowles, Inc. at the time.

In general, the excavation revealed that the soil in the southern end of the UST system site is not contaminated above the MTCA Method A action levels. Leaks in the fuel piping system appear to have contaminated the soil at the west and north fuel islands. A leak in UST Number 3 has contaminated the soil and potentially the groundwater in the east central area of the excavation.

The diesel fuel component that has been identified in many of the samples in the northern portion of the excavation and the groundwater sample, may be traveling with the groundwater from an offsite source. To the best of our knowledge, diesel fuel was never stored in any of the UST's on the subject site. The heavy oil component identified in many of the samples may also have traveled from an offsite source but sufficient evidence exists to suggest that some of the heavy oil contamination originated at the on site waste oil tank.

Characterization data from the Manhole 34 RI/FS indicates that this site is an integral part of the overall contamination area known as the Manhole 34 Site. The data generated by this UST closure reinforces the proposition that leaks and spills that have occurred on the subject site have combined and contributed to the overall Manhole 34 contamination problem. However, the extent and degree of the contamination, at least in the area of the recent excavation, is not as severe as previous data has reflected. No free petroleum product (LNAPL) was observed, a portion of the UST area is free of regulated contamination and the total volume of contaminated soil and groundwater on the subject site may be limited to 50% or less of the total site area.

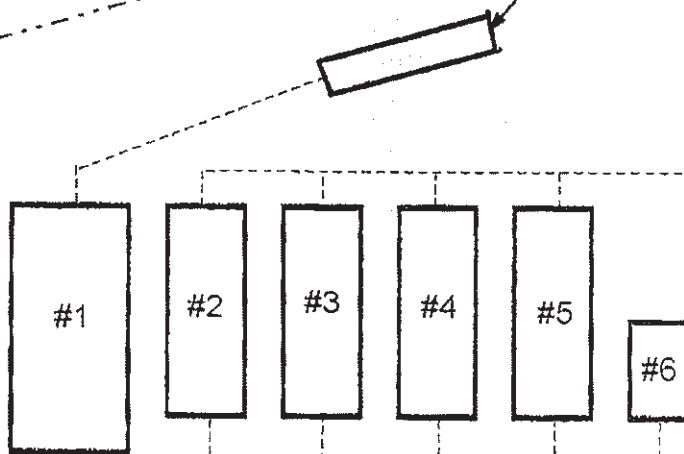
Remediation of the soil and groundwater within the site boundaries is possible but may not be cost effective. Recontamination from offsite sources is probable, even if physical barriers are implemented. Remediation of the entire Manhole 34 contamination area would be the only definitive solution to the soil and groundwater contamination on the subject site.



*Yakima  
Valley  
Highway*

*6<sup>th</sup> Street*

West Fuel Island



North Fuel Island



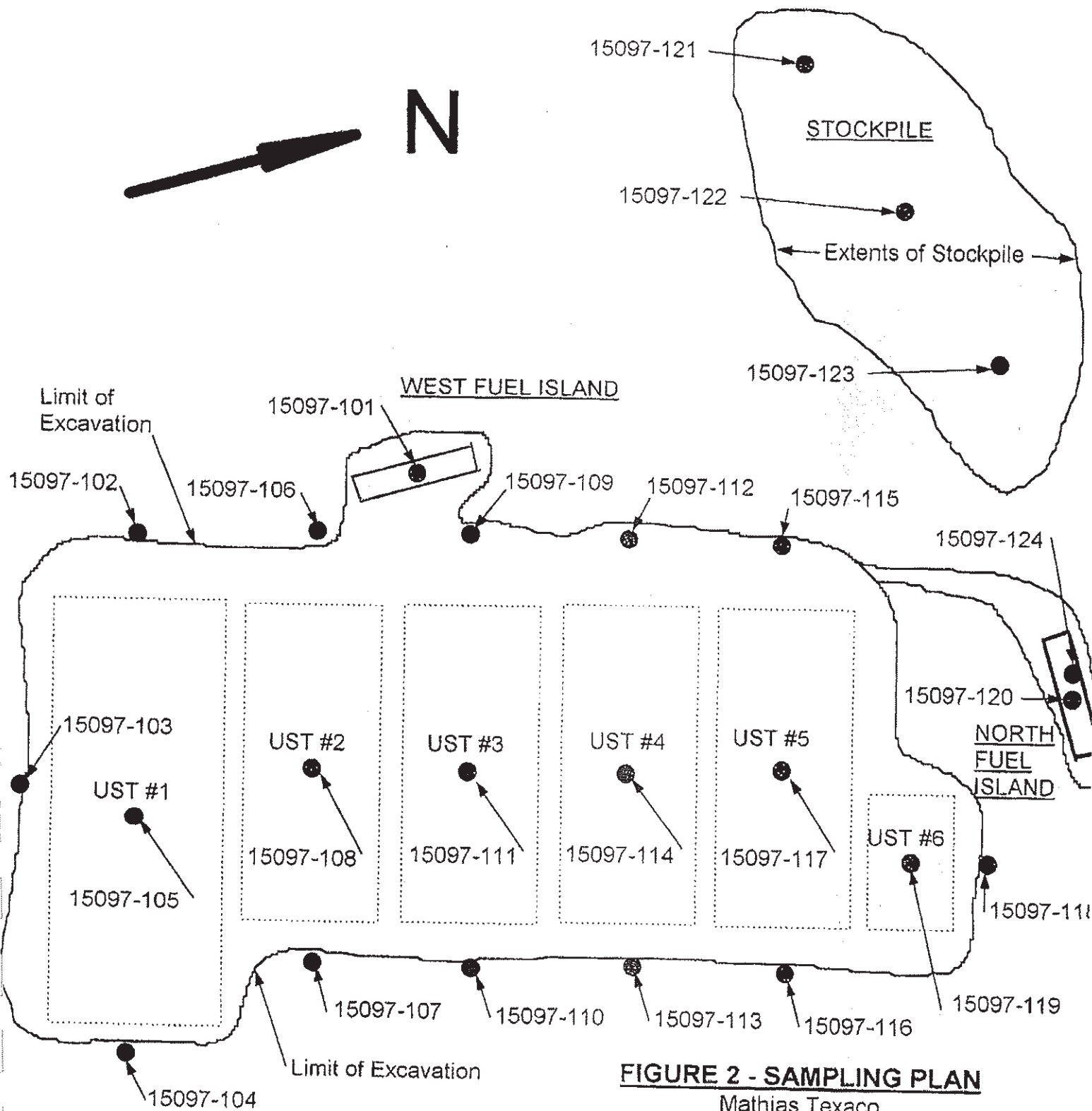
Building

Heating Oil UST



**FIGURE 1 - SITE LOCATION PLAN**

Mathias Texaco  
Sunnyside, Washington  
October 1997



**FIGURE 2 - SAMPLING PLAN**

Mathias Texaco  
Sunnyside, Washington  
October 1997

## ***APPENDIX A:***

30 Day Notice of Intent To Close / Decommission Tanks



# UNDERGROUND STORAGE TANK 30 Day Notice of Intent to Close/Decommission Tanks

The purpose of this form is to provide the Department of Ecology with notice of intent to close/decommission an UST. It must be received 30 days prior to the closure activities. It must be signed and dated by either the owner/operator of the UST to be closed or his/her authorized representative. (This could be the firm contracted to do the work.) Ecology will notify the identified person of the earliest date closure/decommissioning activities may commence.

For questions on completing this form please call (206) 459-6293.

Please type or use ink.

The completed checklist should be mailed to:

Underground Storage Tank Section  
Department of Ecology  
Mail Stop PV-11  
Olympia, WA 98504-8711

## 1. TANK OWNER AND LOCATION

UST Owner/Operator: ROBERT MATIAS

Owners Mailing Address: 471 WEST WOODEN ROAD  
SUNNYSIDE WA  
City State P.O. Box  
Telephone: (809) 830-0728 ZIP Code 98944

Site ID Number (on invoice or available from Ecology if tank is registered): 9264 / 600-085-854 001 0010

Site/Business Name: R & R TIRES

Site Address: 601 HIGHWAY 12  
SUNNYSIDE WA YAKIMA  
City State County ZIP Code 98944

## 2. TANK PERMANENT CLOSURE TO BE PERFORMED BY (if known):

Firm: DOWNING CONSTRUCTION

Address: 770 MIDVALE ROAD  
SUNNYSIDE WA  
City State P.O. Box  
Telephone: (509) 837-8419 ZIP Code 98944

Contact Name: DARREN DOWNING

## 3. TANK INFORMATION

Tank Identification	Approx. Closure Date	Tank Capacity (gallons)	Tank Age (years)	Last Substance Stored
<u>1</u>	<u>8-18-97</u>	<u>8,000</u>	<u>18</u>	<u>REG. GAS</u>
<u>2</u>		<u>4,000</u>	<u>18</u>	<u>UNL. GAS</u>
<u>3</u>		<u>4,000</u>	<u>18</u>	<u>UNL. GAS</u>
<u>4</u>		<u>4,000</u>	<u>18</u>	<u>GASOLINOL</u>
<u>5</u>	<u>Y</u>	<u>4,000</u>	<u>18</u>	<u>GASOLINOL</u>

## 4. SIGNATURE OF TANK OWNER/OPERATOR OR AUTHORIZED REPRESENTATIVE:

***APPENDIX B:***

**UST Closure and Site Assessment Notice**



# UNDERGROUND STORAGE TANK Closure and Site Assessment Notice

See back of form for instructions

FOR OFFICE USE ONLY	
Site ID #:	
Owner ID #:	

Please ☒ the appropriate box(es)

☐ Temporary  
Tank Closure

☐ Change-In-  
Service

☒ Permanent  
Tank Closure

☐ Site Check/  
Site Assessment

## Site Information

Site ID Number 9264

(Available from Ecology if the tanks are registered)

Site/Business Name MATHIAS TEXACO SITE

(AKA, R&R TIRE)

Site Address 601 HIGHWAY 12

Street

City/State SUNNYSIDE, WA.

Zip Code 98944 Telephone ( ) N/A

## Owner Information

(This form will be returned to this address)

UST Owner/Operator ROBERT MATHIAS

Mailing Address 471 W. WOODIN ROAD

Street

City/State SUNNYSIDE, WA.

P.O. Box

Zip Code 98944 Telephone (509) 830-0728

## Tank Closure/Change-In-Service Company

Service Company SGS ENGINEERING & ENVIRONMENTAL SERVICES

Certified Supervisor WILLIAM J. GOGGIN Decommissioning Certification No. IFC1 92869

Supervisor's Signature \_\_\_\_\_

Address 1300 STASSON WAY

Street

GRANDVIEW

WA.

P.O. Box

98930

City

State

Zip Code

Telephone (509) 882-3000

## Site Check/Site Assessor

Certified Site Assessor WILLIAM J. GOGGIN P.E. WA. P.E. #28128

Address 1300 STASSON WAY

Street

GRANDVIEW

WA

P.O. Box

98930

City

State

Zip Code

Telephone (509) 882-3000

## Tank Information

Tank ID	Closure Date	Closure Method	Tank Capacity	Substance Stored
1	10-6-97-97	REMOVAL	8,000 GAL	REG. GASOLINE
2			4,000 GAL	UNL. GASOLINE
3				↓
4				GASOLINE
5				↓
6			550 GAL	WASTE OIL

## Contamination Present at the Time of Closure

☒ Yes ☐ No ☐ Unknown

Check unknown if no obvious contamination was observed and sample results have not yet been received from analytical lab.

☒ Yes ☐ No

If contamination is present, has the release been reported to the appropriate regional office?

To receive this document in an alternative format, contact the TOXICS CLEANUP PROGRAM at 1-800-826-7716 (voice) OR (360) 407-6006 (TDD).

# ***APPENDIX C:***

## **Field Notes**



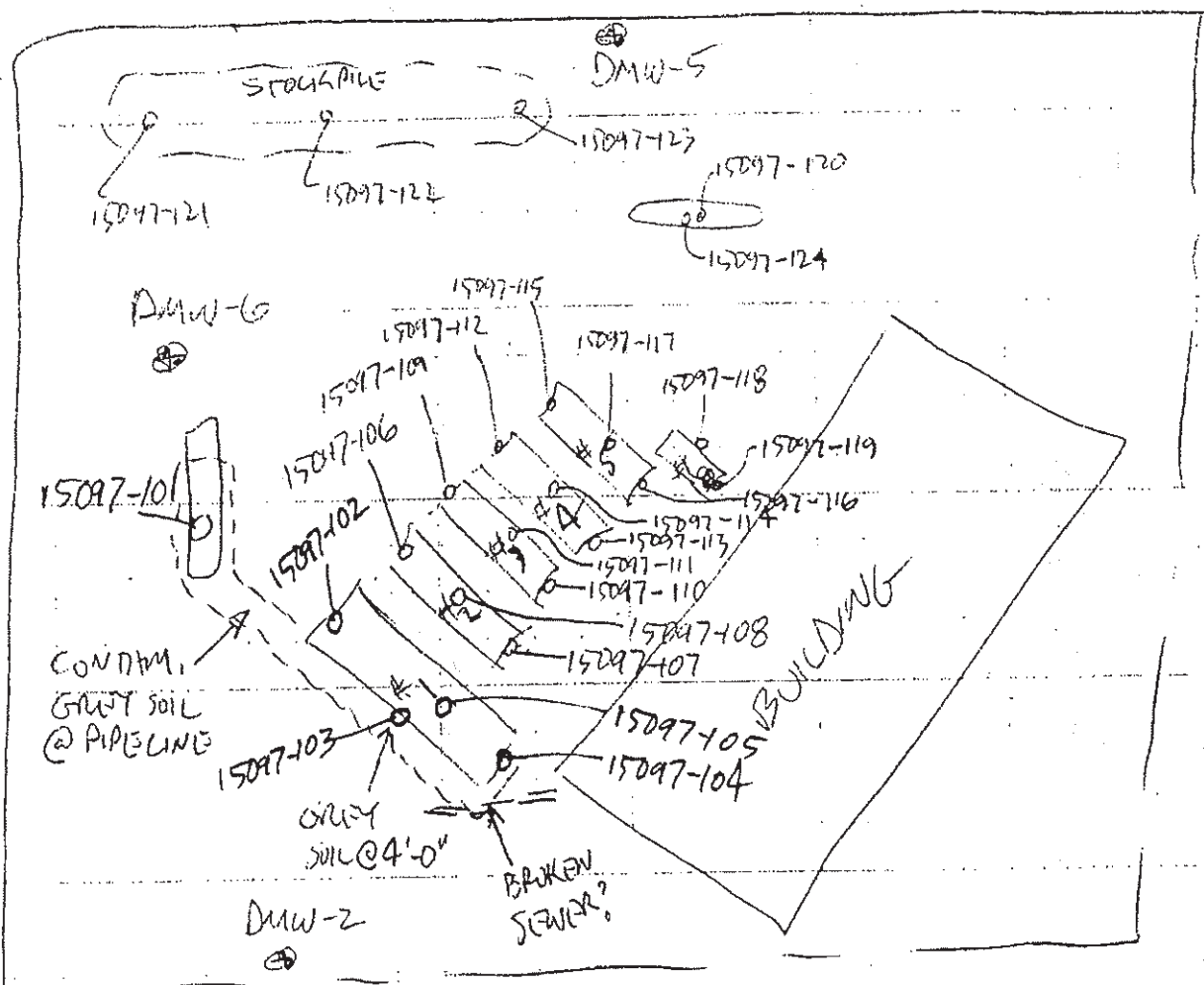
10-6-97

CO-ATW-114P

15017 MATILAS



YAKIMA VALLEY HIGHWAY



OBTAINED WELLS FOR PRODUCT 5:30PM 10-6-97

DMW-2 NONE - NO ODOR

DMW-6 NONE - PUTRID ODOR IN WATER

DMW-5 18" +

O <sub>2</sub>	CITIZEN BEFORE REMOVAL	DRAGER	CGI/O <sub>2</sub> METER
# 1	11.4	5	11.7
2	10.1	6	N/A
3	10.5		
4	11.2		

10-6-97

## SAMPLING LOG

15097

SAMPLE #	LOCATION	DEPTH	MATRIX	ODORS	NOTES
15097-101	W. FUEL ISLAND	2'±	SOIL	YES	Gusty, old spill
15097-102	W. WALL UST #1	8'±	SOIL	YES	Gusty, old spill
" - 103	S. " " "	8'±	↓	↓	↓
" - 104	E. " " "	8'±	↓	↓	↓
" - 105	BOTTOM UST #1	10 1/2'	↓	↓	↓
15097-106	W. WALL UST #2	8'±	SOIL	YES	Gusty, old spill
" - 107	E. " " "	8'±	↓	↓	↓
" - 108	BOTTOM UST #2	10 1/4'	↓	↓	↓
15097-109	W. WALL UST #3	8'±	SOIL	YES	REG. ITHEW IN UST #109 CORROSION. CORROSION.
" 110	E. " " "	8'±	↓	↓	
" 111	BOTTOM UST #3	10'	↓	↓	
15097-112	W. WALL UST #4	8'±	SOIL	YES	OLD CORROSION
" 113	E. " " "	8'±	↓	↓	MORE CORROSION,
" 114	BOTTOM UST #4	10'	↓	↓	OLD CORROSION
15097-115	W. WALL UST #5	8'±	SOIL	YES	OLD CORROSION.
" 116	E. " " "	8'±	↓	↓	↓
" 117	BOTTOM UST #5	10'	↓	↓	↓
15097-118	N. WALL UST #6	5'	SOIL	YES	STRONG OLD GAS
" - 119	BOT UST #6	8'	↓	↓	" " "
15097-120	N. FUEL ISLAND	2 1/2'±	SOIL	YES	
15097-121	STOCKPILE	3'	SOIL	YES	W. END
15097-122	↓	3'	SOIL	↓	CENTER
15097-123	↓	3'	SOIL	↓	GROUND
15097-124	TEST PIT #1	8'±	WATER	YES	UNDER N. FUEL ISLAND

1. NO GROUNDWATER GW COUNTED IN UST EXCAVATIONS - NO FUEL PRODUCT
2. OLD CONTAMINATION FOUND UNDER WEST FUEL ISLAND & ALONG PIPING BACK TO BOBOCAL UST.
3. W. END OF UST'S # 1, 2 & 3 APPEAR TO BE CONTAMINATED BY W. FUEL ISLAND LEAK (NEAR SURFACE)
4. E. END OF UST #1, 2 NOT BAD
5. E. END OF UST #3 - STRONG CONTAM. ODOOR, SPUT IN BOTTOM OF UST
6. EXCEPT FOR TOP 2' ±, ALL AREAS AROUND UST # 4, 5, 6 CONTAMINATED - SMORES LIKE CASOLINE BUT POSSIBLE MIX
7. N. FUEL ISLAND CONTAMINATED - STRONG GASOLINE (OLD) SMELL
8. TOP 2' OF UNCONTAM. SOIL USED FOR BACKFILL
9. NO ATTEMPT TO EXCAVATE CONTAM. SOIL BEYOND THAT NECESSARY TO REMOVE UST'S
10. UST'S INSPECTED - ALL OK EXCEPT BOTTOM E. END OF #3
11. CONTAM. SOIL FOUND AT ALL LIND & FUEL ISLAND LOCATIONS - AS SHOWN EXCEPT 30'
12. ALL SUPPLY & VENT PIPING REMOVED 10-7-97
13. APPROX. 45 C.Y. OF STOCKPILED CONTAMINATED SOIL / 3 SAMPLES
14. TEST PIT UNDER N. FUEL ISLAND - TO WATER @ 8' ± CONTAM SOIL LIMIT CHANGES TO DK. GRAY @ 5' BELOW GRADE

15017

15097-124

15097-122

15097-123

→ STÜCKLISTE

W. FUZISLAND

4

8000  
GAC

#3

4000  
GAL

57

4000  
CAL

Am

4000  
GAC

45

1000  
Cote

At 6

15097-124.

U. P. V. T.  
L. S. A. M.

TEST 015  
UNION  
ISLAND

RUSTED SPLINT  
SEAM @ BOTTOM  
DEUST #3

VIEW  
LINES  
REMOVED

BUILDING

## ***APPENDIX D:***

### **Laboratory Analytical Documentation & Chain of Custody Documentation**



**OnSite  
Environmental Inc.**

Analytical Testing and Mobile Laboratory Services

October 16, 1997

Bill Goggin  
SGB Engineering & Environmental  
1300 Stassen Way  
Grandview, WA 98930

Re: Analytical Data for Project 15097  
Laboratory Reference No. 9710-042

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on October 9, 1997.

The standard policy of OnSite Environmental Inc., is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister  
Project Chemist

Enclosures

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

## NWTPH-G/BTEX

Date Extracted: 10-09-97  
Date Analyzed: 10-09-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: 10-042-1  
Client ID: 15097-101

10-042-2,3 COMP,  
15097-  
102/106

Dilution Factor 250

1000

	Result	Flags	PQL	Result	Flags	PQL
Benzene	0.32		0.30	8.2		1.3
Toluene	2.9		0.30	65		1.3
Ethyl Benzene	2.1		0.30	31		1.3
m,p-Xylene	12		0.30	140		1.3
o-Xylene	4.5		0.30	54		1.3
TPH-Gas	450		30	2800		130

Surrogate Recovery:  
Fluorobenzene

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S

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S

3

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

## NWTPH-G/BTEX

Date Extracted: 10-09-97  
Date Analyzed: 10-09-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: 10-042-4  
Client ID: 10597-103

10-042-5,6 COMP.  
10597-  
104/107

Dilution Factor

50

50

	Result	Flags	PQL	Result	Flags	PQL
Benzene	0.18		0.066	ND		0.063
Toluene	ND		0.066	ND		0.063
Ethyl Benzene	0.13		0.066	ND		0.063
m,p-Xylene	0.50		0.066	0.096		0.063
o-Xylene	0.26		0.066	ND		0.063
TPH-Gas	16		6.6	6.8		6.3
Surrogate Recovery: Fluorobenzene	103%			103%		



Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-G/BTEX**

Date Extracted: 10-09-97  
Date Analyzed: 10-09-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: 10-042-7 10-042-8  
Client ID: **10597-105** **10597-108**

Dilution Factor 250 50

	Result	Flags	PQL	Result	Flags	PQL
Benzene	4.1		0.31	3.1		0.067
Toluene	ND		0.31	0.87		0.067
Ethyl Benzene	0.94		0.31	0.24		0.067
m,p-Xylene	3.3		0.31	0.93		0.067
o-Xylene	1.5		0.31	0.41		0.067
TPH-Gas	57		31	7.7		6.7

Surrogate Recovery:  
Fluorobenzene --- S 88%

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Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-G/BTEX**

Date Extracted: 10-09-97  
Date Analyzed: 10-09&13-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: 10-042-9,10 COMP. 10-042-11  
Client ID: 15097-109/112 15097-110

Dilution Factor 1000 1000

	<b>Result</b>	<b>Flags</b>	<b>PQL</b>	<b>Result</b>	<b>Flags</b>	<b>PQL</b>
Benzene	33		1.2	27		1.3
Toluene	260	E	1.2	160	E	1.3
Ethyl Benzene	94		1.2	100		1.3
m,p-Xylene	350	E	1.2	490	E	1.3
o-Xylene	130		1.2	220	E	1.3
TPH-Gas	6800		120	14000		130

Surrogate Recovery:  
Fluorobenzene --- S --- S

6

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

## NWTPH-G/BTEX

Date Extracted: 10-09-97  
Date Analyzed: 10-10-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: 10-042-12 10-042-13  
Client ID: 15097-111 15097-113

Dilution Factor 250 1000

	Result	Flags	PQL	Result	Flags	PQL
Benzene	3.3		0.32	79		1.2
Toluene	5.9		0.32	490	E	1.2
Ethyl Benzene	1.8		0.32	210	E	1.2
m,p-Xylene	9.7		0.32	610	E	1.2
o-Xylene	4.6		0.32	290	E	1.2
TPH-Gas	620		32	15000		120

Surrogate Recovery:  
Fluorobenzene

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S

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S

7

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-G/BTEX**

Date Extracted: 10-09-97  
Date Analyzed: 10-10-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: 10-042-14 10-042-15  
Client ID: 15097-114 15097-115

Dilution Factor 50 1000

	Result	Flags	PQL	Result	Flags	PQL
Benzene	ND		0.053	11		1.3
Toluene	0.12		0.053	120		1.3
Ethyl Benzene	ND		0.053	83		1.3
m,p-Xylene	0.23		0.053	460	E	1.3
o-Xylene	0.11		0.053	200	E	1.3
TPH-Gas	19		5.3	12000		130
Surrogate Recovery: Fluorobenzene	104%			---	S	

8

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-G/BTEX**

Date Extracted: 10-09-97  
Date Analyzed: 10-10&13-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: 10-042-16 10-042-17  
Client ID: 15097-116 15097-117

Dilution Factor 1000 1000

	Result	Flags	PQL	Result	Flags	PQL
Benzene	10		1.3	22		1.1
Toluene	100		1.3	240	E	1.1
Ethyl Benzene	4.8		1.3	96		1.1
m,p-Xylene	150	E	1.3	340	E	1.1
o-Xylene	60		1.3	130		1.1
TPH-Gas	3500		130	7000		110
Surrogate Recovery: Fluorobenzene	---	S		---	S	

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-G/BTEX**

Date Extracted: 10-09-97  
Date Analyzed: 10-10&13-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: 10-042-18 10-042-19  
Client ID: 15097-118 15097-119

Dilution Factor 250 50

	Result	Flags	PQL	Result	Flags	PQL
Benzene	10		0.32	0.70		0.062
Toluene	1.9		0.32	1.2		0.062
Ethyl Benzene	30		0.32	2.1		0.062
m,p-Xylene	99	D	1.3	6.8	D1	0.31
o-Xylene	15		0.32	2.5		0.062
TPH-Gas	2000		32	170		6.2
Surrogate Recovery: Fluorobenzene	---	S		104%		

10

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-G/BTEX**

Date Extracted: 10-09-97  
Date Analyzed: 10-10&13-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: 10-042-20 10-042-21  
Client ID: 15097-120 15097-121

Dilution Factor 1000 50

	Result	Flags	PQL	Result	Flags	PQL
Benzene	6.4		1.3	ND		0.060
Toluene	47		1.3	0.10		0.060
Ethyl Benzene	24		1.3	0.079		0.060
m,p-Xylene	130		1.3	0.79		0.060
o-Xylene	51		1.3	0.52		0.060
TPH-Gas	2300		130	61		6.0
Surrogate Recovery: Fluorobenzene	---	S		104%		

11

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

## NWTPH-G/BTEX

Date Extracted: 10-09-97  
Date Analyzed: 10-10&14-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: 10-042-22 10-024-23  
Client ID: 15097-122 15097-123

Dilution Factor 50 50

	Result	Flags	PQL	Result	Flags	PQL
Benzene	0.48		0.059	0.20		0.057
Toluene	0.28		0.059	0.32		0.057
Ethyl Benzene	0.65		0.059	0.48		0.057
m,p-Xylene	6.4		0.059	12	D1	0.28
o-Xylene	2.9		0.059	6.1		0.057
TPH-Gas	380		5.9	520		5.7
Surrogate Recovery: Fluorobenzene	99%			107%		



12

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-G/BTEX  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 10-09-97

Date Analyzed: 10-09-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: MB1009S1

Dilution Factor 50

	Result	Flags	PQL
Benzene	ND		0.050
Toluene	ND		0.050
Ethyl Benzene	ND		0.050
m,p-Xylene	ND		0.050
o-Xylene	ND		0.050
TPH-Gas	ND		5.0

Surrogate Recovery:  
Fluorobenzene 106%

13

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-G/BTEX  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 10-09-97

Date Analyzed: 10-10-97

Matrix: Soil

Units: mg/Kg (ppm)

Lab ID: MB1009S2

Dilution Factor 50

	Result	Flags	PQL
Benzene	ND		0.050
Toluene	ND		0.050
Ethyl Benzene	ND		0.050
m,p-Xylene	ND		0.050
o-Xylene	ND		0.050
TPH-Gas	ND		5.0

Surrogate Recovery:  
Fluorobenzene 120%

14

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-G/BTEX  
DUPLICATE QUALITY CONTROL**

Date Extracted: 10-09-97  
Date Analyzed: 10-09-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID	10-042-14 Original	10-042-14 Duplicate	RPD
Dilution Factor	50	50	
Benzene	ND	ND	NA
Toluene	0.117	0.124	6.2
Ethyl Benzene	ND	ND	NA
m,p-Xylene	0.222	0.236	6.1
o-Xylene	0.0995	0.105	5.4
TPH-Gas	17.9	18.9	5.1
Surrogate Recovery:			
Fluorobenzene	104%	110%	

15

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-G/BTEX  
DUPLICATE QUALITY CONTROL**

Date Extracted: 10-09-97  
Date Analyzed: 10-10-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID	10-042-21 Original	10-042-21 Duplicate	RPD
Dilution Factor	50	50	
Benzene	ND	ND	NA
Toluene	0.0840	0.0845	0.59
Ethyl Benzene	0.0660	0.0695	5.2
m,p-Xylene	0.660	0.675	2.2
o-Xylene	0.433	0.443	2.2
TPH-Gas	51.0	53.1	3.9
Surrogate Recovery:			
Fluorobenzene	104%	106%	

16

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-G/BTEX  
MS/MSD QUALITY CONTROL**

Date Extracted: 10-09-97  
Date Analyzed: 10-09-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID spiked @ 1 ppm	10-042-14 MS	Percent Recovery	10-042-14 MSD	Percent Recovery	RPD
Dilution Factor	50		50		
Benzene	0.905	91	0.910	91	0.55
Toluene	1.04	92	1.05	93	0.54
Ethyl Benzene	1.02	102	1.03	103	0.98
m,p-Xylene	1.14	92	1.16	93	1.6
o-Xylene	1.05	95	1.06	96	1.6

Surrogate Recovery:  
Fluorobenzene 102% 102%

17

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

## NWTPH-G/BTEX

Date Extracted: 10-09-97  
Date Analyzed: 10-09-97

Matrix: Water  
Units: ug/L (ppb)

Lab ID: 10-042-24  
Client ID: 15097-124

Dilution Factor 1000

	Result	Flags	PQL
Benzene	15000		1000
Toluene	23000		1000
Ethyl Benzene	9700		1000
m,p-Xylene	38000		1000
o-Xylene	16000		1000
TPH-Gas	580000		100000

Surrogate Recovery:  
Fluorobenzene 95%

18

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-G/BTEX  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 10-09-97  
Date Analyzed: 10-09-97

Matrix: Water  
Units: ug/L (ppb)

Lab ID: MB1009W1

Dilution Factor

1

	Result	Flags	PQL
Benzene	ND		1.0
Toluene	ND		1.0
Ethyl Benzene	ND		1.0
m,p-Xylene	ND		1.0
o-Xylene	ND		1.0
TPH-Gas	ND		100

Surrogate Recovery:  
Fluorobenzene 96%

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-G/BTEX  
DUPLICATE QUALITY CONTROL**

Date Extracted: 10-08-97  
Date Analyzed: 10-08-97

Matrix: Water  
Units: ug/L (ppb)

Lab ID:	10-037-1	10-037-1	
	Original	Duplicate	RPD
Dilution Factor	1	1	
Benzene	ND	ND	NA
Toluene	ND	ND	NA
Ethyl Benzene	ND	ND	NA
m,p-Xylene	ND	ND	NA
o-Xylene	ND	ND	NA
TPH-Gas	ND	ND	NA
Surrogate Recovery:			
Fluorobenzene	96%	99%	



20

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-G/BTEX  
MS/MSD QUALITY CONTROL**

Date Extracted: 10-07-97  
Date Analyzed: 10-07-97

Matrix: Water  
Units: ug/L (ppb)

Lab ID spiked @ 50 ppb Dilution Factor	10-034-1 MS 1	Percent Recovery	10-034-1 MSD 1	Percent Recovery	RPD
Benzene	42.8	86	44.1	88	3.0
Toluene	45.5	91	47.2	94	3.7
Ethyl Benzene	46.5	93	48.4	97	4.0
m,p-Xylene	45.8	92	47.6	95	3.9
o-Xylene	45.2	90	46.9	94	3.7

Surrogate Recovery:  
Fluorobenzene 98% 98%

21.

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

## NWTPH-Dx

Date Extracted: 10-09-97  
Date Analyzed: 10-10-97

Matrix: Soil  
Units: mg/Kg (ppm)

Client ID:	15097-101	15097-102,106	15097-103
Lab ID:	10-042-01	10-042-02,03 COMP	10-042-04
Dilution Factor:	1.0	1.0	1.0
Diesel Fuel C12-C24:	100	160	ND
PQL:	30	32	33
Oil C24-34:	340	ND	ND
PQL:	60	64	66
Surrogate Recovery:	135%	141%	83%
o-Terphenyl			
Flags	O1	N1,O1	

22

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

## NWTPH-Dx

Date Extracted: 10-09-97  
Date Analyzed: 10-10-97

Matrix: Soil

Units: mg/Kg (ppm)

Client ID:	15097-104,107	15097-105	15097-108
Lab ID:	10-042-05,06 COMP	10-042-07	10-042-08
Dilution Factor:	1.0	1.0	1.0
Diesel Fuel C12-C24:	ND	ND	ND
PQL:	31	31	33
Oil C24-34:	ND	ND	ND
PQL:	63	62	67
Surrogate Recovery:	87%	93%	66%
o-Terphenyl			

Flags

23

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

## NWTPH-Dx

Date Extracted: 10-09-97  
Date Analyzed: 10-10-97

Matrix: Soil  
Units: mg/Kg (ppm)

Client ID:	15097-109,112	15097-110	15097-111
Lab ID:	10-042-09,10 COMP	10-042-11	10-042-12
Dilution Factor:	1.0	1.0	1.0
Diesel Fuel C12-C24:	270	310	ND
PQL:	29	32	32
Oil C24-34:	ND	77	69
PQL:	59	63	64
Surrogate Recovery:	93%	96%	79%
o-Terphenyl			
Flags	N1	N1	

24

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

## NWTPH-Dx

Date Extracted: 10-09-97  
Date Analyzed: 10-10-97

Matrix: Soil  
Units: mg/Kg (ppm)

Client ID:	15097-113	15097-114	15097-115
Lab ID:	10-042-13	10-042-14	10-042-15
Dilution Factor:	1.0	1.0	1.0
Diesel Fuel C12-C24:	1600	ND	580
PQL:	31	26	31
Oil C24-34:	1200	ND	ND
PQL:	62	53	63
Surrogate Recovery:	---	94%	76%
o-Terphenyl			
Flags	F,N1,O1		N1

25

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

## NWTPH-Dx

Date Extracted: 10-09-97  
Date Analyzed: 10-10-97

Matrix: Soil  
Units: mg/Kg (ppm)

Client ID:	15097-116	15097-117	15097-118
Lab ID:	10-042-16	10-042-17	10-042-18
Dilution Factor:	1.0	1.0	10
Diesel Fuel C12-C24:	450	490	3700
PQL:	31	28	320
Oil C24-34:	410	140	14000
PQL:	63	57	253
Surrogate Recovery:	97%	81%	---
o-Terphenyl			
Flags	N1,O1	N1,O1	S,O1

26

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

## NWTPH-Dx

Date Extracted: 10-09-97  
Date Analyzed: 10-10-97

Matrix: Soil  
Units: mg/Kg (ppm)

Client ID:	15097-119	15097-120	15097-121
Lab ID:	10-042-19	10-042-20	10-042-21
Dilution Factor:	1.0	1.0	1.0
Diesel Fuel C12-C24:	200	31	41
PQL:	31	31	30
Oil C24-34:	970	ND	110
PQL:	62	63	60
Surrogate Recovery:	83%	57%	96%
o-Terphenyl			
Flags	O1		O1

27

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

## NWTPH-Dx

Date Extracted: 10-09-97  
Date Analyzed: 10-10-97

Matrix: Soil  
Units: mg/Kg (ppm)

Client ID: 15097-122 15097-123

Lab ID: 10-042-22 10-042-23

Dilution Factor: 1.0 1.0

Diesel Fuel C12-C24: 130 77

PQL: 29 28

Oil C24-34: 280 130

PQL: 59 57

Surrogate Recovery: 90% 91%

o-Terphenyl

Flags O1 O1



28

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-Dx  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 10-9-97  
Date Analyzed: 10-9-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: MB1009S1

Dilution Factor: 1.0

Diesel Fuel C12-C24: ND

PQL: 25

Surrogate Recovery: 143%

o-Terphenyl

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

NWTPH-Dx  
METHOD BLANK QUALITY CONTROL

Date Extracted: 10-9-97  
Date Analyzed: 10-10-97

Matrix: Soil

Units: mg/Kg (ppm)

Lab ID: MB1009S2

Dilution Factor: 1.0

Diesel Fuel C12-C24: ND

PQL: 25

Surrogate Recovery: 98%

o-Terphenyl

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

NWTPH-Dx  
DUPLICATE QUALITY CONTROL

Date Extracted: 10-09-97  
Date Analyzed: 10-10-97

Matrix: Soil

Units: mg/Kg (ppm)

Lab ID: 10-042-01 10-042-01 DUP

Diesel Fuel C12-C24: 85.6 94.9

PQL: 25 25

RPD: 10

Surrogate Recovery: 135% 132%

o-Terphenyl

31

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

NWTPH-Dx  
DUPLICATE QUALITY CONTROL

Date Extracted: 10-09-97  
Date Analyzed: 10-10-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: 10-042-13 10-042-13 DUP

Diesel Fuel C12-C24: 1290 1200

PQL: 25 25

RPD: 7.2

Surrogate Recovery: --- ---

o-Terphenyl

Flags: F F

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

NWTPH-Dx  
SB/SBD QUALITY CONTROL

Date Extracted: 10-09-97  
Date Analyzed: 10-10-97

Matrix: Soil  
Units: mg/Kg (ppm)  
Spike Level: 100 ppm

Lab ID: SB1009S1 SB1009S1 DUP

Diesel Fuel C12-C24: 72.2 90.5

PQL: 25 25

Percent Recovery: 72% 91%

RPD: 22.5

Surrogate Recovery: 134% 150%

o-Terphenyl

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

NWTPH-Dx  
SB/SBD QUALITY CONTROL

Date Extracted: 10-09-97  
Date Analyzed: 10-10-97

Matrix: Soil  
Units: mg/Kg (ppm)  
Spike Level: 100 ppm

Lab ID: SB1009S2 SB1009S2 DUP

Diesel Fuel C12-C24: 86.4 84.3

PQL: 25 25

Percent Recovery: 86% 84%

RPD: 2.5

Surrogate Recovery: 114% 116%

o-Terphenyl

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

## NWTPH-Dx

Date Extracted: 10-09-97  
Date Analyzed: 10-09-97

Matrix: Water

Units: mg/L (ppm)

Client ID: 15097-124

Lab ID: 10-042-24

Dilution Factor: 0.020

Diesel Fuel C12-C24: 100

PQL: 0.50

Oil C24-C34: 20

PQL: 1.0

Surrogate Recovery: —

o-Terphenyl

Flags F

35

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**NWTPH-Dx  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 10-9-97  
Date Analyzed: 10-9-97

Matrix: Water

Units: mg/L (ppm)

Lab ID: MB1009W1

Dilution Factor: 0.02

Diesel Fuel C12-C24: ND

PQL: 0.5

Surrogate Recovery: 72%

o-Terphenyl



36

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

NWTPH-Dx  
DUPLICATE QUALITY CONTROL

Date Extracted: 10-09-97  
Date Analyzed: 10-09-97

Matrix: Water  
Units: mg/L (ppm)

Lab ID:	10-042-24	10-042-24 DUP
Diesel Fuel C12-C24:	104	75.4
PQL:	0.5	0.5
RPD:	32	
Surrogate Recovery:	---	---
o-Terphenyl		
Flags:	F	F

37

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

NWTPH-Dx  
SB/SBD QUALITY CONTROL

Date Extracted: 10-09-97  
Date Analyzed: 10-09-97

Matrix: Water  
Units: mg/L (ppm)  
Spike Level: 2.0 ppm

Lab ID:	SB1009W1	SB1009W1 DUP
Diesel Fuel C12-C24:	1.62	1.84
PQL:	0.5	0.5
Percent Recovery:	81%	92%
RPD:	13	
Surrogate Recovery:	103%	88%
o-Terphenyl		

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Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

**WTPH 418.1**

Date Extracted: 10-10-97

Date Analyzed: 10-10-97

Matrix: Soil

Units: mg/Kg (ppm)

Client ID	Lab ID	Dilution Factor	Total Petroleum Hydrocarbons	Flags	PQL
15097-118	10-042-18	100	29000		633
15097-119	10-042-19	10	3200		62

Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

WTPH 418.1  
METHOD BLANK QUALITY CONTROL

Date Extracted: 10-10-97  
Date Analyzed: 10-10-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: MB1010S1

	Dilution Factor	Total Petroleum Hydrocarbons	Flags	PQL
Method Blank	5.0	ND		25

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Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

WTPH 418.1  
DUPLICATE QUALITY CONTROL

Date Extracted: 10-09-97  
Date Analyzed: 10-09-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: 10-031-3

	Dilution Factor	Total Petroleum Hydrocarbons	Flags	PQL
Sample	5.0	787		25
Duplicate	5.0	642		25
RPD		20		

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Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

WTPH 418.1  
SB/SBD QUALITY CONTROL

Date Extracted: 10-09-97  
Date Analyzed: 10-09-97

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: SB1009S1

	Dilution Factor	Total Petroleum Hydrocarbons	Percent Recovery	Flags	PQL
Spike Blank @ 100 ppm	5.0	98.1	98		25
Spike Blank Duplicate	5.0	85.5	86		25
RPD		14			

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Date of Report: October 16, 1997  
Samples Submitted: October 9, 1997  
Lab Traveler: 10-042  
Project: 15097

Date Analyzed: 10-9-97

**% MOISTURE**

Client ID	Lab ID	% Moisture
15097-101	10-042-1	16
15097-102/106	10-042-2/3	22
15097-103	10-042-4	24
15097-104/107	10-042-5/6	20
15097-105	10-042-7	19
15097-108	10-042-8	25
15097-109/112	10-042-9/10	15
15097-110	10-042-11	21
15097-111	10-042-12	22
15097-113	10-042-13	19
15097-114	10-042-14	5.0
15097-115	10-042-15	20
15097-116	10-042-16	20
15097-117	10-042-17	12
15097-118	10-042-18	21
15097-119	10-042-19	19
15097-120	10-042-20	20
15097-121	10-042-21	16
15097-122	10-042-22	15
15097-123	10-042-23	12



#### DATA QUALIFIERS AND ABBREVIATIONS

- A - Due to high sample concentration, amount spiked insufficient for meaningful MS/MSD data recovery.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD outside control limits due to analyte concentration within five times the quantitation limit.
- D - Data from 1:1000 dilution.  
D1 - Data from 1:250 dilution.
- E - Value reported exceeds the quantitation range. Value is an estimate.
- F - Surrogate recovery data not available due to the high concentration in the sample.
- G - Insufficient sample quantity for duplicate analysis.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD outside control limits due to sample inhomogeneity. Sample re-extracted and re-analyzed with similar results.
- L - Quantitated from C7-C34 as diesel fuel #2.
- M - Predominantly \_\_\_\_\_ range hydrocarbons present in the sample.
- N - Hydrocarbons in the gasoline range (C7-toluene) present in the sample.  
N1 - Hydrocarbons in the gasoline range (C7-toluene) present in the sample which are elevating the diesel result.
- O - Hydrocarbons in the heavy oil range (>C24) present in the sample.  
O1 - Hydrocarbons in the heavy oil range (>C24) present in the sample which are elevating the diesel result.
- R - Hydrocarbons outside defined gasoline range present in the sample.
- S - Surrogate recovery data not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
- U - Matrix Spike/Matrix Spike Duplicate RPD outside control limits due to matrix effects.
- ~~V - Matrix Spike/Matrix Spike Duplicate recoveries outside control limits due to matrix effects.~~
- Z - Interferences were present which prevented the quantitation of the analyte below the detection limit reported.
- ND - Not Detected
- MRL - Method Reporting Limit
- PQL - Practical Quantitation



# Chain of Custody

**OnSite Environmental Inc.**  
 14924 NE 31st Circle • Redmond, WA 98052  
 Fax: (206) 885-4603 • Phone: (206) 883-3881

Company: SOB GUN-WEIRING  
 Project No: 15097  
 Project Name: MATHIAS TRXACO  
 Project Manager: W.J. GOGGIN

Project Analysis Requested		Project Chemist: <u>DB</u>		Laboratory No.	
(Check One)		Requested Analysis			
<input type="checkbox"/> Same Day	<input type="checkbox"/> 24 Hours	<input type="checkbox"/> 48 Hours	<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> (other)	
WTPH-HCID	WTPH-G/BTEX	WTPH-D	WTPH-418.1	Volatiles by 8240/624	Volatiles by 8260
				Chlorinated Volatiles by 8240/8260/624	Semivolatiles by 8270/625
				PAHs by 8270/625	PCBs by 8080/608
				Total RCRA Metals (8)	TCLP Metals
					% Moisture

COMMENTS:

RELINQUISHED BY	DATE	RECEIVED BY	DATE
<u>[Signature]</u>	<u>10-13-97</u>	<u>[Signature]</u>	<u>10/19/97</u>
FIRM	TIME	FIRM	TIME
<u>SOB Environmental Inc.</u>	<u>3:50 PM</u>	<u>Positive for lead</u>	<u>9:00</u>
RELINQUISHED BY	DATE	RECEIVED BY	DATE
FIRM	TIME	FIRM	TIME
REVIEWED BY	DATE REVIEWED		



Manager: W. J. GOGGIN

Page 2 of 2

**DISTRIBUTION LEGEND:** White - OnSite Copy    Yellow - Report Copy    Pink - Client Copy

***APPENDIX E:***  
**Safety & Health Plan**

# REVISED SAFETY AND HEALTH PLAN DOWNING CONSTRUCTION

ENGINEERING FIRM	SGB Engineering
JOB SITE	6th and Yakima Valley Highway Sunnyside, Washington
DATE STARTED	August 15th, 1997
DURATION OF JOB	45 Days
SITE FOREMAN	Darrell Downing
NUMBER EMPLOYEES	3
SITE SECURITY	Install a 6 foot high chain link fence around the perimeter with Placards on all four sides, NO SMOKING within 50 ft, HARDHAT AREA, AND CONSTRUCTION and gate to be locked during non-working hours
SAFETY PROGRAM	A written Safety Program will be on Site at all times, and a site Safety Check List will be completed and on site.
Written Safety Program	Available upon request
Site Safety check list	As follows: The following information is prepared to inform you of what is required on this job, any infractions will result in termination according to Company Policy. a. Hard Hats will be present on the job site at all times b. Hard Hats will be worn by all Employees engaged in in the excavation work and where there is an over head hazard. c. At least short sleeve shirts and long pants will be worn during working hours and while at the job site. d. All excavations will be protected by fencing e. Excavation inspection will be conducted daily and

- after every rain fall to ensure safe conditions.  
f. No Employee shall enter the excavation without approval of the Foreman.  
g. Adequate foot wear will also be worn.

## WORK SCHEDULE

- a. Install 6 ft fence around perimeter of site
- b. Remove canopy using scaffolding.
- c. Remove Concrete pad
- d. Remove tanks

## TESTING

All test will be done by SGB Engineering  
Test will consist of monitoring for Oxygen Deficiency, and for Flammable liquids  
Records of the testing results will be available at the job site (Ref 296-62-3070)

## PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment will be worn by all Employees exposed to Flammable liquids.

Respirators will be worn by all Employees exposed to the Flammable liquid fumes and these Employees will be monitored to ensure their Safety. The Backhoe operator will be wearing a half face canister type respirator and other exposed Employees will wear (Type 3M9920.) as spelled out in the Company Respirator Program.

Equipment for the face, hands, eyes, extremities will be available for use as required.

## EXCAVATION

This excavation will be under 20 feet in depth and no Engineering specifications are required. No Employees will be exposed to cave-ins as none will be required to enter the excavation except to connect the backhoe to the lifting devices on the tanks, which will be done by the use of a Wooden ladder (to prevent sparking)

## FIRST AID KITS AND CERTIFICATES

First Aid kits will be available at all times during construction and at least one (1) person holding a valid First Aid Certificate will be at the job site during working hours.

TANK REMOVAL The following is required when the tanks are removed

1. The tanks must be inerted
2. All tanks must be cleaned
3. All sludge must be removed from the tanks

#### LICENSE REQUIREMENTS

A certified IFEI commissioner is required on site (WAC173-360) during the above operations.

\_\_\_\_\_  
DOWNING CONSTRUCTION

\_\_\_\_\_  
SGB ENGINEERING

  
\_\_\_\_\_  
SAFETY CONSULTANT

The Dept of Ecology has reviewed this plan and is satisfactory



# Dräger

P/N 4594900

REVISION DATE 9/92 REV 4

**MATERIAL SAFETY DATA SHEET:**Electrochemical Sensors containing Potassium Hydroxide Electrolyte**SECTION I**Manufacturer:  
Address:National Draeger, Inc.  
101 Technology Drive  
Pittsburgh, PA 15275Chemtrac Emergency Number:  
Telephone Number for Information:  
Fax Number:(800) 424-9300  
(412) 787-8389  
(412) 787-2207**SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION**

HAZARDOUS COMPONENT:

Potassium Hydroxide

&lt; 50%

CHEMICAL FORMULA:

KOH

CAS # 1310-58-3

EXPOSURE LIMITS: 2 mg/m<sup>3</sup> OSHA Ceiling; 2 mg/m<sup>3</sup> ACGIH Ceiling  
CERCLA RATINGS (SCALE 0-3): Health = 3 Fire = 0 Reactivity = 1 Persistence = 0**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**

BOILING POINT: -150°C  
MELTING POINT: < -40°C  
SPECIFIC GRAVITY (H<sub>2</sub>O = 1): ~1.5  
PERCENT VOLATILE BY VOLUME: > 50%  
VAPOR PRESSURE: Not Available  
VAPOR DENSITY: Not Available  
SOLUBILITY IN WATER: infinitely soluble  
THERMAL DECOMPOSITION: > 400°C  
APPEARANCE AND ODOR: Colorless, odorless, strong base liquid

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

Negligible fire hazard when exposed to heat or flame.

FLASH POINT: Non-combustible

EXTINGUISHING MEDIA: Use an extinguisher which is appropriate for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Wear personal protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

**SECTION V - REACTIVITY DATA**

STABILITY: Stable under ambient temperatures and pressure, exothermic reaction during dilution.

INCOMPATIBILITIES: Reacts with amphoteric metals such as aluminum and zinc to form flammable hydrogen gas. Reacts violently with strong acids. Reacts with unstable organic and inorganic compounds.

HAZARDOUS DECOMPOSITION PRODUCTS:

Corrosive fumes of potassium oxide.

HAZARDOUS POLYMERIZATION:

Will not occur at ambient temperatures and pressures.

P/N 4594900 REVISION DATE 9/92 REV 4

**Dräger****MATERIAL SAFETY DATA SHEET:**Electrochemical Sensors containing Potassium Hydroxide Electrolyte**SECTION I**

Manufacturer:	National Dräger, Inc.	Chemtrec Emergency Number:	(800) 424-9300
Address:	101 Technology Drive	Telephone Number for Information:	(412) 787-8389
	Pittsburgh, PA 15275	Fax Number:	(412) 787-2207

**SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION**

HAZARDOUS COMPONENT: Potassium Hydroxide &lt; 50%

CHEMICAL FORMULA: KOH

CAS # 1310-58-3

EXPOSURE LIMITS: 2 mg/m<sup>3</sup> OSHA Ceiling; 2 mg/m<sup>3</sup> ACGIH Ceiling

CERCLA RATINGS (SCALE 0-3): Health = 3 Fire = 0 Reactivity = 1 Persistence = 0

**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**

BOILING POINT:	-150°C
MELTING POINT:	< -40°C
SPECIFIC GRAVITY (H <sub>2</sub> O = 1):	~1.5
PERCENT VOLATILE BY VOLUME:	> 50%
VAPOR PRESSURE:	Not Available
VAPOR DENSITY:	Not Available
SOLUBILITY IN WATER:	Infinitely soluble
THERMAL DECOMPOSITION:	> 400°C
APPEARANCE AND ODOR:	Colorless, odorless, strong base liquid

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

Negligible fire hazard when exposed to heat or flame.

FLASH POINT: Non-combustible

EXTINGUISHING MEDIA: Use an extinguisher which is appropriate for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Wear personal protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

**SECTION V - REACTIVITY DATA**

STABILITY: Stable under ambient temperatures and pressure, exothermic reaction during dilution.

INCOMPATIBILITIES: Reacts with amphoteric metals such as aluminum and zinc to form flammable hydrogen gas. Reacts violently with strong acids. Reacts with unstable organic and inorganic compounds.

HAZARDOUS DECOMPOSITION PRODUCTS: Corrosive fumes of potassium oxide.

HAZARDOUS POLYMERIZATION: Will not occur at ambient temperatures and pressures.



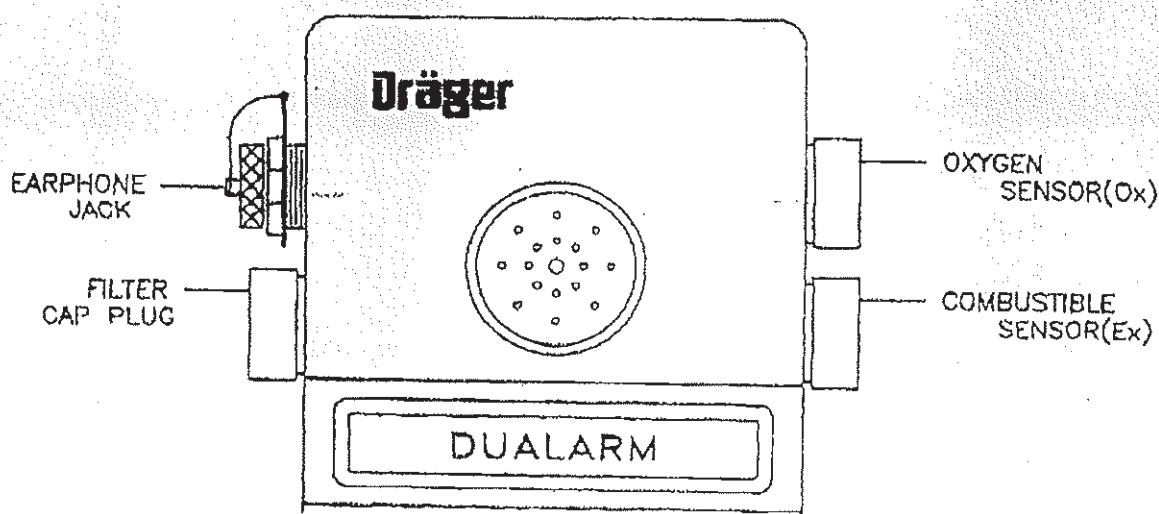
# DUALARM FILTER CAP PLUG INSTRUCTION SHEET

## General Description

The Dualarm filter cap plug permits the sampling adaptor accessory to be used with a Dualarm instrument.

## Attachment

The filter cap plug simply snaps into place on the Dualarm as shown.



National Draeger, Inc.  
101 Technology Drive  
P.O. Box 120  
Pittsburgh, PA 15230-0120  
TELEPHONE: (412) 787-8383  
CUSTOMER SERVICE TEL: (412) 787-8389

Mr. Robert Mathias  
September 23, 1997  
Page 2

SECOR trusts that this provides sufficient information for your needs. Should you have any questions, please contact the undersigned at (425) 641-9900.

Sincerely,

**SECOR International Incorporated**



Peter Jewett  
Principal Project Manager

PJ:je

cc: Don Abbott/Washington State Department of Ecology  
Angela Cote/Time Oil  
Mike Condon/Texaco  
Mike Whelan/ARCO  
Bill Groggin/SGB Engineering

# Dräger

## SAMPLING ADAPTORS INSTRUCTION SHEET

### General Description:

The sampling adaptors are optional accessories for the National Draeger series of multi-gas personal monitors. These sampling adaptors enable the user to sample gas from a remote location. Various regulations require workers to sample gas from an area to ensure it is safe before entering. These sampling adaptors safely pull an air sample from a remote location (up to 50 ft (15 meters)) and pass it over the sensors of the instrument. National Draeger offers the sampling adaptors in two versions: a manual pump version and a battery pump version.

### Attachment:

Both versions are attached to the back of the instrument (the side opposite the alarm horn) with the double sensor manifold on the left. Grasp the two sections of the adaptor and gently spread apart until it can fit past the sensor housings. Align the adaptor manifolds over the sensor housings and let the sections spring back together. Ensure that the adaptor manifolds are properly seated over the sensor housings by gently pushing the two sections together.

### Operation:

#### A. Manual Pump:

Hook up the necessary length of tubing (P/N 4594707) and end piece (acrylic rod P/N 4594732 or floating probe P/N 8802337) to the hand pump. Gently and steadily squeeze the hand pump at a rate of approximately thirty (30) times per minute for three (3) to five (5) minutes. This will provide enough sample flow to flush out the tubing and give a stable reading. Continue pumping if a longer reading is desired. This procedure is to be followed for each sample taken.

#### B. Battery Pump:

Hook up the necessary length of tubing (P/N 4594707) and end piece (acrylic rod P/N 4594732 or floating probe P/N 8802337) to the fitting on the pump module. Turn the pump on and sample for three (3) to five (5) minutes to flush the lines and get a stable reading. With the unit upright, check the low battery indicator and the flow indicator. Ensure there is gas flowing to the instrument (indicated by a bouncing ball) and the battery has sufficient charge (battery indicator-green). If the battery indicator is green and the flow indicator indicates gas flow, the unit will have a correct flow for the instrument. If the battery is charged, but the flow-indicating ball is not visibly bouncing:

- 1) Ensure that the ball can freely move.
- 2) Check adaptor alignment.
- 3) Check the dust filters for damage that prevents proper sealing to the manifolds. Replace if necessary.
- 4) Check if sensors are seated properly into their holders by removing the filters and looking for proper fits.
- 5) Check all plumbing.
- 6) If no visible problem is seen but a leak is still suspected, further troubleshooting will be necessary. Contact National Draeger Technical Service Department.

If the battery indicator is red, the battery is low and needs to be recharged. Turn the unit off and plug in battery charger for 14 to 16 hours. If the unit will not run for 8 to 10 hours, deep discharge the unit by leaving it on until the motor stops running. Recharge unit for at least 16 hours. If the unit still does not operate for 10 hours, it is defective. Return the unit to National Draeger for repair.

**CAUTION: DO NOT CHARGE UNIT IN A HAZARDOUS ENVIRONMENT**

### Sampling Adaptors

Remote Sampling Adaptor, manual pump, Dualarm/Trialarm  
Remote Sampling Adaptor, battery pump, Dualarm/Trialarm  
Remote Sampling Adaptor, battery pump, Quadalarm

P/N 4509620  
P/N 4509621  
P/N 4509103

### Accessories

Charger, 110V AC, US Version  
Charger, 220V AC, European Version  
Tubing  
Acrylic Rod  
Floating Probe

P/N 4509269  
P/N 4509268  
P/N 4594707  
P/N 4594732  
P/N 8802337

National Draeger, Inc.  
101 Technology Drive, P.O. Box 120  
Pittsburgh, PA 15230-0120  
TELEPHONE: (412) 787-8383  
CUSTOMER SERVICE TEL: (412) 787-8388  
TELEX: 00 0704  
FAX: (412) 787-2207

P/N 4509918  
Rev. 4

---

### SECTION III. SPECIFIC SITE INFORMATION

---

#### SPECIFIC TANK SYSTEM INFORMATION:

Age/Size/Capacity of Tanks and Piping:

AGE: 18 YEARS ±

1 @ 8,000 GAL.

4 @ 4,000 GAL.

Contents of Tank: GASOLINE

Other (Specify):

---

#### TYPE OF SITE

CHECK ALL APPROPRIATE:

☐ Active  
☒ Inactive  
☐ Industrial facility  
☐ Gas station

☐ TSDF  
☐ R & D Facility  
☐ Military base  
☐ Other (Specify)

---

#### RELEASE HISTORY

No evidence of leaks or soil contamination ( )

Suspected or known leaks and soil contamination (X)

Known groundwater contamination ( )

BACKGROUND AND DESCRIPTION OF ANY PREVIOUS INVESTIGATIONS OR INCIDENCE:

SEE GEOLOGY DOCUMENTS - MANHOLE 34

BACKGROUND INFORMATION STATUS: ☒ COMPLETE ( ) INCOMPLETE

SECTION IV. POTENTIAL HEALTH AND SAFETY HAZARDS

ANTICIPATED PHYSICAL HAZARDS OF CONCERN: (CHECK ALL THAT APPLY, AND DESCRIBE)

☐ Heat (high ambient temp.)  
☐ Cold  
☐ Noise  
☐ Oxygen depletion  
☐ Asphyxiation

☒ Excavation  
☒ Cave-ins  
☐ Falls, trips, slipping

☒ Handling and transfer of petroleum products  
☒ Fire  
☒ Explosions

☒ Heavy equipment  
☒ Physical injury and trauma resulting from moving machinery

☐ General construction  
☐ Physical injury and trauma  
☐ Electrical Hazards

☐ Confined space entry  
☐ Explosions

☐ Other (Specify)

---

ANTICIPATED BIOLOGICAL HAZARDS: (LIST BELOW)

☐ Snakes  
☐ Insects  
☐ Rodents

☐ Poisonous plants  
☒ Other  
NONE

---

NARRATIVE: (Provide all information which could impact Health and Safety -- e.g., power lines, integrity of dikes, terrain, etc.)

---

ANTICIPATED CHEMICAL HAZARDS: (LIST BELOW ALL CHEMICALS PRESENT ON SITE; ATTACH MATERIAL SAFETY DATA SHEETS-MSDS)

---

1. SEE ATTACHED

2.

3.

4.

5.

6.

7.

8.

9.

10.

---

---

## PART II

Section V should only be completed by persons with technical expertise in health and safety.

---

### SECTION V. EVALUATION OF POTENTIAL HAZARDS

#### CHEMICALS OF CONCERN

<u>Chemical</u>	<u>Highest Observable Concentration (media)</u>	<u>PEL/ TLV</u>	<u>IDLH</u>	<u>Symptoms/ Effects of Acute Exposure</u>
GASOLINE	100%	300ppm	N/A	DIZZINESS, DROWSINESS SKIN IRRITATION

---

### PART III

---

Sections VI and VII should be completed by the UST Inspector prior to the site visit.

### SECTION VI. METHODS TO CONTROL POTENTIAL HEALTH AND SAFETY HAZARDS

---

MONITORING INSTRUMENTATION: (NOTE: MONITORING INSTRUMENTS MUST BE USED FOR ALL OPERATIONS UNLESS APPROPRIATE RATIONALE OR RESTRICTIONS ARE PROVIDED).

- ☐ Organic Vapor Analyzer
- ☐ Photoionization Detector
- ☒ Combustible Gas Indicator (CGI)
- ☒ Oxygen Meter
- ☐ Hydrogen Sulfide Meter
- ☐ Detector Tubes (specify)
- ☐ Other, specify (toxic gas, air sampling pumps, etc.)

---

IF MONITORING INSTRUMENTS ARE NOT USED, SPECIFY RATIONALE OR JUSTIFICATION OR ACTIVITY/AREA RESTRICTIONS.

---

#### ACTION LEVELS (breathing zone):

---

##### Combustible Gas Indicator

- |          |     |   |
|----------|-----|---|
| 0 - 10%  | LEL | No Explosion Hazard   |
| 10 - 25% | LEL | Potential Explosion Hazard; Notify Site Health and Safety Officer |
| >25%     | LEL | Explosion Hazard; Interrupt Task/Evacuate                         |



**ACTION LEVELS (breathing zone): continued**

**Oxygen Meter**

<21.0%	O <sub>2</sub>	Oxygen Normal
<21.0%	O <sub>2</sub>	Oxygen Deficient; Notify Site Health and Safety Officer
<19.5%	O <sub>2</sub>	Oxygen Deficient; Interrupt Task/Evacuate

---

**Photolionization  
Detector**

**Specify:**

( )	11.7 ev
( )	10.2 ev
( )	9.8 ev

**Type:**

---

**Flame Ionization  
Detector**

**Specify:**

**Type:**

---

**Detector Tubes**

**Specify:**

**Type**

**Type**

**Type**

---

**PERSONAL PROTECTIVE EQUIPMENT: List all applicable items**

**Minimum personal protective equipment:**

1. Hardhat
2. Safety glasses/goggles
3. Steel toed/shank shoes or boots
4. Flame retardant coveralls
5. Hearing protection (muffs or ear plugs)

**Is additional PPE required?**

**YES / NO**

*HALF MASK RESPIRATORS*

PERSONAL PROTECTIVE EQUIPMENT continued

Check all additional necessary items:

- ☐ Uncoated tyvek coveralls  
☐ Saranex tyvek coveralls  
☒ Rubber boots  
☐ Overboots  
☐ Surgical (inner) gloves  
☒ Butyl/neoprene/viton/nitrile outer gloves

- ☒ Full face respirators  
type of cartridge: ORG. VAPOR  
☐ SCBA / SAR  
☐ ELSAs  
☐ Other (specify):

VII. EMERGENCY INFORMATION

Emergency Contact: ROGER SCHWAB, FIRE CHIEF

Fire/Rescue: 911

Ambulance: 911

Police: 911

Hazardous Waste Material Response Units N/A

Health and Safety Director: ED DOUGLAS

Poison Control Center: N/A

On-site medical facility (clinic):

YES / NO

Facility health and safety officer:

YES / NO

Name: ED DOUGLAS

Phone number: (509) 698-3312

Hospital Name and Address: SUNNYSIDE COMMUNITY HOSPITAL

Directions to hospital (include a map):

PART IV

SECTION VIII. PLAN APPROVAL

Plan prepared by:

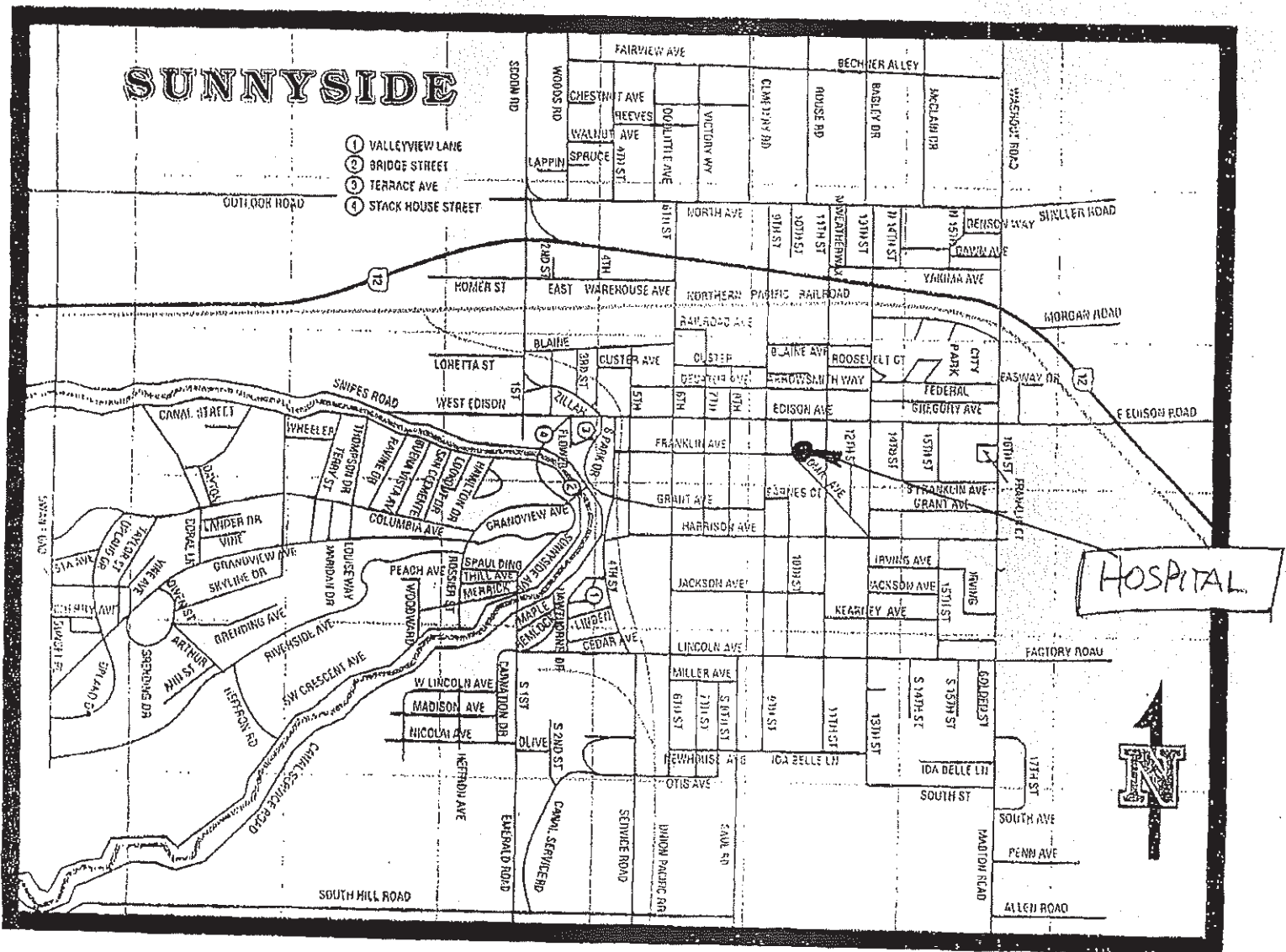
Edward G. [Signature] 9-25-97  
(Date)

Plan approved by:

\_\_\_\_\_  
(Date)

Plan approved by:

\_\_\_\_\_  
(Date)



## **FIRE AND TRAFFIC PLAN**

### **DOWNING CONSTRUCTION (tank removal job)**

1. The right turn lane of sixth street heading EAST and turning into the south bound lane of Yakima Valley Highway be coned off at approximately 200 ft from the corner and ending approximately 100 ft in the south bound right lane of Yakima Valley Highway.

2. Construction ahead sign(2) be placed 1000 ft from intersection of 6th and Yak Valley Highway . Right lane closed ahead sign (3) placed 500ft from intersection of 6th and Yakima Valley highway. A Construction ahead sign (2) be placed 1000 ft north of intersection in the south bound lane of Yakima Valley Highway and a Merge Left sign or Right lane closed ahead sign (3) be placed 500ft from intersection of 6th.of same lane.

3. Emergency Fire Equipment parking as indicated. Route to area by either of the three entrances into the store parking lot from 6th or the entrance from the south on Yakima Valley Highway.. If nearer distance is required the use of the right turn lane of 6th will be clear.

All traffic controls are from the Uniform Traffic Control manual.

4. FLAGMAN. A flag person will be placed in the vicinity of the Fire Parking area to remove traffic cones or type 1 barricade when necessary to allow Fire Equipment access to contruction area if required.

17pc + barricade  
0 Traffic Cones

SIXTH

K&K VALLEY Hwy

Job Site

Fire Equip  
Parking

K&K  
PART



Date issued: 06/25/92  
Supersedes: 05/02/91

TEXACO  
MATERIAL SAFETY DATA SHEET

NOTE: Read and understand Material Safety Data Sheet before handling or disposing of product

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL IDENTITY

Product Code and Name:  
00364 PREMIUM UNLEADED GASOLINE

Chemical Name and/or Family or Description:  
Automotive Lead-Free Gasoline

Manufacturer's Name and Address:  
Texaco Refining and Marketing, Inc.  
P.O. Box 1404 Houston, TX 77251

Telephone Numbers:  
TRANSPORTATION EMERGENCY Company: (914) 831-3400 CHEMTREC: (800) 424-9300  
HEALTH EMERGENCY Company: (914) 831-3400  
GENERAL MSDS ASSISTANCE (914) 838-7204  
TECHNICAL INFORMATION Fuels: (914) 838-7336; Lubricants/Antifreezes: (914) 838-7509  
Chemicals: (512) 459-6543

2. COMPOSITION/INFORMATION ON INGREDIENTS

THE CRITERIA FOR LISTING COMPONENTS IN THE COMPOSITION SECTION IS AS FOLLOWS:  
CHRONIC HAZARDS (CARCINOGENIC, TERATOGENIC, MUTAGENIC, NEUROTOXIC AND SENSITIZERS)  
ARE LISTED WHEN PRESENT AT 0.01% OR GREATER; ACUTE HAZARDS ARE LISTED WHEN PRESENT  
AT 1.0% OR GREATER AND NON-HAZARDOUS COMPONENTS ARE LISTED WHEN PRESENT AT 3.0% OR  
GREATER. THIS IS NOT INTENDED TO BE A COMPLETE COMPOSITIONAL DISCLOSURE.

Product and/or Component(s) Carcinogenic According to: OSHA IARC NTP OTHER NONE  
X X X X

Composition:

Chemical/Common Name	CAS No.	Exposure Limit	Range in %
* Gasoline consists mainly of straight chain and branched paraffinic hydrocarbons, olefins, cycloparaffins and aromatics. The benzene content normally varies from 0.2-3.5% with a typical value of 1.4%. The MTBE content varies from 0-15%.	MIXTURE	300ppm TWA OSHA 500ppm STEL OSHA 300 ppm TWA ACGIH 100 ppm TWA Texaco	100.00

Product is hazardous according to OSHA (1910.1200).

\* Component(s) is hazardous according to OSHA or one or more state Right-to-Know laws.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance and Odor: Light straw to light red liquid



3. HAZARD IDENTIFICATION (CONT)

WARNING STATEMENT

DANGER!

EXTREMELY FLAMMABLE LIQUID AND VAPOR  
VAPOR MAY CAUSE FLASH FIRE  
HARMFUL IF INHALED  
MAY CAUSE DIZZINESS AND DROWSINESS  
MAY CAUSE EYE AND SKIN IRRITATION  
MAY BE HARMFUL IF ABSORBED THROUGH SKIN  
ASPIRATION HAZARD IF SWALLOWED -- CAN ENTER  
LUNGS AND CAUSE DAMAGE

ATTENTION! POSSIBLE CANCER HAZARD  
MAY CAUSE CANCER BASED ON ANIMAL DATA

Health:	2	HMIS	Reactivity:	0	Health:	1	NFPA
Flammability:	4		Special:	-	Flammability:	3	
							Reactivity: 0
							Special: -

POTENTIAL HEALTH EFFECTS

Primary Route of Exposure:	EYE	SKIN	INHALATION	INGESTION
Effects of Overexposure	X	X	X	-

Acute

Eyes:

May cause irritation, experienced as mild discomfort and seen as slight excess redness of the eye.

Skin:

Prolonged or widespread skin contact may result in the absorption of potentially harmful amounts of material.

Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort, seen as local redness and swelling.

Inhalation:

Vapors or mist may cause irritation of the nose and throat, headache, nausea, vomiting, dizziness, drowsiness, euphoria, loss of coordination, and disorientation. In poorly ventilated areas or confined spaces, unconsciousness and asphyxiation may result.

Ingestion:

If more than several mouthfuls are swallowed, abdominal discomfort, nausea, and diarrhea may occur. Aspiration may occur during swallowing or vomiting resulting in lung damage.

Sensitization Properties:

Unknown.

Chronic:

No adverse effects anticipated.

Medical Conditions Aggravated by Exposure:

Because of its irritating properties, repeated skin contact may aggravate an existing dermatitis (skin condition).

Other Remarks:

This product contains benzene. Prolonged and repeated exposure to benzene has been associated with anemia and leukemia in humans.

N.D. - Not Determined  
- Less Than

Page: 2  
N.A. - Not Applicable  
- Greater Than

N.T. - Not Tested



PRODUCT CODE: 00364  
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#### 4. FIRST AID MEASURES

##### Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.

##### Skin:

Wash skin with plenty of soap and water until all traces of material are removed. Remove and clean contaminated clothing (See Other Instructions). Destroy non-resistant footwear. Get medical attention if skin irritation persists or contact has been prolonged.

##### Ingestion:

If swallowed, get immediate medical attention. ONLY induce vomiting as directed by a doctor. Never give anything by mouth to an unconscious or convulsing person.

##### Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, qualified personnel may administer oxygen. Get immediate medical attention.

##### Other Instructions:

NOTE TO PHYSICIAN: Aspiration of this product during induced emesis can result in lung injury. If evacuation of stomach contents is considered necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation.

Remove and dry-clean or launder clothing soaked or soiled with this material before reuse. Dry cleaning of contaminated clothing may be more effective than normal laundering. Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing.

#### 5. FIRE-FIGHTING MEASURES

Ignition Temp. Degrees F.: 850 F  
Flammable Limits (%) Lower: 1.4%

Flash Point Degrees F. (Method): -40F (COC)  
Upper: 7.5%

##### Recommended Fire Extinguishing Agents And Special Procedures:

According to NFPA Guide, use dry chemical, foam, or carbon dioxide. Water may be ineffective on flames, but should be used to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for personnel attempting to stop the leak.

When handling, use non-sparking tools, ground and bond all containers.

##### Unusual or Explosive Hazards:

Gasoline vapors are heavier than air and may travel a considerable distance to a source of ignition and flash back. Flowing gasoline can generate static electricity and cause a fire explosion if a spark occurs in a flammable vapor-air atmosphere. When handling, use non-sparking tools, ground and bond all containers. Consult NFPA 77 for the proper handling precautions.





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## 6. ACCIDENTAL RELEASE MEASURES (Transportation Spills Call: CHEMTREC (800) 424-9300)

### Procedures in Case of Accidental Release, Breakage or Leakage:

Eliminate all ignition sources including internal combustion engines and power tools. Ventilate area. Keep people away. Stay upwind and warn of possible downwind explosion hazard. Avoid breathing vapor. Wear self-contained breathing apparatus. Avoid contact with skin, eyes or clothing. Use self-contained breathing apparatus or supplied air mask for large spills or confined areas. Contain spill if possible. Remove with inert absorbent. Prevent entry into sewers and waterways.

## 7. HANDLING AND STORAGE

### Precautions to be Taken in Handling and Storage:

Transport, handle, and store in accordance with OSHA Regulation 1910.106 and applicable DOT Regulations. Ground and bond shipping container, transfer line, and receiving container. Use spark-proof tools. Keep away from heat, sparks, flame and other sources of ignition. Material may be at elevated temperatures and/or pressures. Exercise due care when opening bleeders and sampling ports.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Protective Equipment (Type)

#### Eye/Face Protection:

Chemical-type goggles or face shield recommended to prevent eye contact.

#### Skin Protection:

Gloves resistant to petroleum distillates are recommended to minimize skin contact. The most effective glove materials are Nitrile rubber, Teflon, or Viton for prolonged contact with gasoline. Protective clothing such as uniforms, coveralls, or boots should be also be worn where contact with product is likely. Launder or dry clean soiled clothes.

#### Respiratory Protection:

Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated, use respirator approved by MSHA or NIOSH as appropriate. Supplied air respiratory protection should be used for cleaning large spills or upon entry into tanks, vessels, or other confined spaces. See below for applicable permissible concentrations.

#### Ventilation:

Adequate to meet recommended occupational exposure limits (see below)

#### Exposure Limit for Total Product:

The ACGIH TWA for gasoline is 300 ppm; OSHA TWA is 300 ppm, OSHA STEL is 500 ppm; Texaco recommends a TWA of 100 ppm.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Light straw to light red liquid

Boiling Point (Degrees F.): >90

Specific Gravity: 0.7-0.77 (H2O=1)

pH of undiluted product: N.A.

Vapor Pressure: 465-775 @ 100° FmmHg

Viscosity: < 1.4 cSt @ 100F

Percent VOC: 100

Vapor Density: 3-4.0

Solubility in Water: slight

Other: N.D.

Air=1



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## 10. STABILITY AND REACTIVITY

This Material Reacts Violently With: (If others is checked below, see comments for details)

Air	Water	Heat	Strong Oxidizers	Others	None of These
		<u>Y</u>	<u>Y</u>	-	-

Comments:  
None

Products Evolved When Subjected to Heat or Combustion:

Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones.

	OCCUR	DO NOT OCCUR
Hazardous Polymerizations:	-	<u>X</u>

## 11. TOXICOLOGICAL INFORMATION

### TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)

Median Lethal Dose (LD50 LC50) (Species)

Oral: believed to be > 5 g/kg (rat); practically non-toxic

Inhalation: N.D.

Dermal: believed to be > 3 g/kg (rabbit); practically non-toxic

Irritation Index, Estimation of Irritation (Species)

Skin: believed to be > 0.5-3/8.0 (rabbit); slightly irritating

Eyes: believed to be < 15/110 (rabbit); no appreciable effect

Sensitization: N.D.

Other:

Studies in laboratory rats and mice exposed to constant levels of wholly vaporized unleaded gasoline for six hours per day, five days per week for two years caused kidney damage and kidney cancer in male rats and liver tumors in female mice. Many scientists do not believe that the male rat is an appropriate predictor of human kidney disease and are not in agreement on the relationship between liver tumors in laboratory animals and humans.

Prolonged and repeated exposure to benzene has caused anemia, lymphoma, and other cancers, in laboratory animals. Benzene has been shown to cause embryo/fetal toxicity and birth defects in laboratory animals, but only at doses which cause maternal toxicity (i.e., illness in the mother).

MTBE has been shown to cause embryo/fetal toxicity and birth defects in mice, but only at maternally toxic doses. No developmental effects were seen in rabbits at the same exposure levels. Prolonged and repeated exposure to high levels of MTBE (8,000ppm for over 15 months) resulted in excess mortality (82%) in male rats. Preliminary evaluation showed a chronic progressive nephrosis (kidney damage) as the possible cause of death.

The Synthetic Organic Chemical Manufacturers Association (SOCMA), on behalf of members of the MTBE Committee, has filed 2 notices of substantial risk under TSCA Section 8(e) concerning an 18 month oncogenicity study in mice. In male mice, prolonged and repeated exposure to high levels of MTBE vapor produced a higher than expected mortality due to urinary tract obstruction believed caused by physical non-neoplastic blockage of the urethral canal. In females, preliminary unaudited data indicate increased incidence of hepatocellular adenomas (benign liver tumors). Similar effects at the same exposure levels have not been shown in rats. Although the significance of these findings is unclear, workers should minimize exposure to MTBE vapor.

Additional or repeat studies are planned or underway to better define the toxic potential of this product, or to verify the results obtained from previous animal studies.



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## 12. DISPOSAL CONSIDERATIONS

### WASTE DISPOSAL METHODS

This product (as presently constituted) has the RCRA classification of benzene toxicity and ignitability. If discarded in its present form, it would have the hazardous waste numbers D018 and D001 respectively. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may change the classification to non-hazardous, or hazardous for reasons other than, or in addition to benzene toxicity and ignitability.

### REMARKS

None

## 13. TRANSPORT INFORMATION

### TRANSPORTATION

DOT: PROPER SHIPPING NAME: Gasoline

HAZARD CLASS: Flammable liquid, UN 1203  
IDENTIFICATION NUMBER: N.D.  
LABEL REQUIRED: N.D.

IMDG: PROPER SHIPPING NAME: N.D.

IATA: PROPER SHIPPING NAME: N.D.

TDG: PROPER SHIPPING NAME: N.D.

## 14. REGULATORY INFORMATION

### A. SARA TITLE III

Title III Section 302/304 Extremely Hazardous Substance:

Component	CAS No.	Percent	RO (lbs)	TPQ (lbs)
NONE				

### CERCLA Section 102(a) Hazardous Substance

Component	CAS No.	Percent	RQ (lbs)
Cumene	98828	< 160 ppm	5000

### Title III Section 311 Hazard Categorization

Acute	Chronic	Fire	Pressure	Reactive	Not Applicable
X	X	X			

### Title III Section 313 Toxic Chemicals

Component	CAS No.	Percent
Benzene	71432	1-3.99
Toluene	108883	4-10.99
Ethylbenzene	100414	1-3.99
Xylene	1330207	4-10.99
Pseudocumene	95636	1-3.99
Methyl tert-butyl ether	1634044	0-15(vol%)

### B. WHMIS CLASSIFICATION

NA

### C. MICHIGAN CRITICAL MATERIALS

1.4% benzene, toluene and xylene from 4-10.99% each.

## 15. OTHER INFORMATION

Page: 5

N.D. - Not Determined  
< - Less Than

N.A. - Not Applicable  
> - Greater Than

N.T. - Not Tested



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THIS PRODUCT IS INTENDED FOR USE AS A MOTOR FUEL ONLY.

Texaco recommends that all exposures to this product be minimized by strictly adhering to recommended occupational controls procedures to avoid any potential adverse health effects.

Texaco has notified EPA of a TSCA 8(e) Notice of Substantial Risk to Health on the basis of results from a range finding developmental toxicity study for this product or a component of this product.  
A definitive developmental toxicity study is underway.

WARNING ! This product contains detectable amounts of benzene and toluene, which are known to the State of California to cause cancer and/or reproductive toxicity.

This product may be subject to export notification(s) under TSCA section 12(b); contains 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, cumene, and a C9 aromatic fraction.

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT FOR PURPOSE OF HAZARD COMMUNICATION AS PART OF TEXACO'S PRODUCT SAFETY PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE PRODUCT. NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN. DATA SHEETS ARE AVAILABLE FOR ALL TEXACO PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL TEXACO PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, USER SHOULD CONSULT HIS LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. TEXACO DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.

Date: 06-25-92

- New

X Revised, Supersedes: 05-02-91

Date Printed: 12-04-92

Inquiries regarding MSDS should be directed to:

Texaco Inc.  
Manager, Product Safety  
P.O. Box 509  
Beacon, N.Y. 12508

PLEASE SEE NEXT PAGE FOR PRODUCT LABEL





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# 16. PRODUCT LABEL

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT

00364 PREMIUM UNLEADED GASOLINE

## WARNING STATEMENT

DANGER!

EXTREMELY FLAMMABLE LIQUID AND VAPOR  
VAPOR MAY CAUSE FLASH FIRE  
HARMFUL IF INHALED  
MAY CAUSE DIZZINESS AND DROWSINESS  
MAY CAUSE EYE AND SKIN IRRITATION  
MAY BE HARMFUL IF ABSORBED THROUGH SKIN  
ASPIRATION HAZARD IF SWALLOWED -- CAN ENTER  
LUNGS AND CAUSE DAMAGE

ATTENTION! POSSIBLE CANCER HAZARD  
MAY CAUSE CANCER BASED ON ANIMAL DATA

## PRECAUTIONARY MEASURES

AVOID PROLONGED BREATHING OF MIST OR VAPOR  
AVOID CONTACT WITH EYES, SKIN, AND CLOTHING  
KEEP CONTAINER CLOSED  
USE WITH ADEQUATE VENTILATION  
NEVER SIPHON BY MOUTH  
WASH THOROUGHLY AFTER HANDLING  
KEEP AWAY FROM HEAT, SPARKS AND FLAME

## FIRST AID

### INGESTION:

If swallowed, get immediate medical attention. ONLY induce vomiting as directed by a doctor. Never give anything by mouth to an unconscious or convulsing person.

### INHALATION:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, qualified personnel may administer oxygen. Get immediate medical attention.

### EYE CONTACT:

Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.

### SKIN CONTACT:

Wash skin with plenty of soap and water until all traces of material are removed. Remove and clean contaminated clothing (See Other Instructions). Destroy non-resistant footwear. Get medical attention if skin irritation persists or contact has been prolonged.

### NOTE TO PHYSICIAN:

Aspiration of this product during induced emesis can result in lung injury. If evacuation of stomach contents is considered necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation.

## FIRE

In case of fire, use foam, dry chemical, or CO2. Use water spray to keep containers cool.

### Chemical/Common Name

CAS No.

Range in %

Gasoline consists mainly of straight chain and branched paraffinic hydrocarbons, olefins, cycloparaffins and aromatics. The benzene content normally varies from 0.2-3.5% with a typical value of 1.4%. The MTBE content varies from 0-15%.

MIXTURE

100.00

Product is hazardous according to DSHA (1910.1200).

Component(s) is hazardous according to OSHA or one or more state Right-to-Know laws.

### HMTS

Health : 2 Reactivity : 0  
Flammability: 4 Special : -

National Fire Protection Association  
Health : 1 Reactivity : 0  
Flammability: 3 Special : -

Page: 8

N.D. - Not Determined  
< - Less Than

N.A. - Not Applicable  
> - Greater Than

N.T. - Not Tested



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PRODUCT NAME: PREMIUM UNLEADED GASOLINE

Date Issued: 06/25/92  
Supersedes: 05/02/91

16. PRODUCT LABEL (CONT)

DOT Proper Shipping Name: Gasoline  
DOT Hazardous Class : Flammable liquid, UN 1203

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

Manufacturer's Name: Texaco Refining and Marketing, Inc.  
P.O. Box 1404 Houston, TX 77251

TRANSPORTATION EMERGENCY Company: (914) 831-3400  
CHEMTREC: (800) 424-9300

HEALTH EMERGENCY Company: (914) 831-3400

P/N 4594900

REVISION DATE 9/92 REV 4

**Dräger****MATERIAL SAFETY DATA SHEET:****Electrochemical Sensors containing Potassium Hydroxide Electrolyte****SECTION I**

Manufacturer: National Draeger, Inc.  
Address: 101 Technology Drive  
Pittsburgh, PA 15275

Chemtrec Emergency Number:  
Telephone Number for Information:  
Fax Number:

(800) 424-9300  
(412) 787-8389  
(412) 787-2207

**SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION**

HAZARDOUS COMPONENT:

Potassium Hydroxide

&lt; 50%

CHEMICAL FORMULA:

KOH

CAS # 1310-58-3

EXPOSURE LIMITS: 2 mg/m<sup>3</sup> OSHA Ceiling; 2 mg/m<sup>3</sup> ACGIH Ceiling

CERCLA RATINGS (SCALE 0-3): Health = 3 Fire = 0 Reactivity = 1 Persistence = 0

**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**

BOILING POINT:	~ 150°C
MELTING POINT:	< -40°C
SPECIFIC GRAVITY (H <sub>2</sub> O = 1):	~ 1.5
PERCENT, VOLATILE BY VOLUME:	> 50%
VAPOR PRESSURE:	Not Available
VAPOR DENSITY:	Not Available
SOLUBILITY IN WATER:	Infinitely soluble
THERMAL DECOMPOSITION:	> 400°C
APPEARANCE AND ODOR:	Colorless, odorless, strong base liquid

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

Negligible fire hazard when exposed to heat or flame.

FLASH POINT:

Non-combustible

EXTINGUISHING MEDIA:

Use an extinguisher which is appropriate for surrounding fire.

SPECIAL FIRE

FIGHTING PROCEDURES:

Wear personal protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND

EXPLOSION HAZARDS:

None

**SECTION V - REACTIVITY DATA**

STABILITY:

Stable under ambient temperatures and pressure, exothermic reaction during dilution.

INCOMPATIBILITIES:

Reacts with amphoteric metals such as aluminum and zinc to form flammable hydrogen gas. Reacts violently with strong acids. Reacts with unstable organic and inorganic compounds.

HAZARDOUS  
DECOMPOSITION  
PRODUCTS:

Corrosive fumes of potassium oxide.

HAZARDOUS  
POLYMERIZATION:

Will not occur at ambient temperatures and pressures.

P/N 4584900

REVISION DATE 9/92 REV 4

**Dräger****MATERIAL SAFETY DATA SHEET:****Electrochemical Sensors containing Potassium Hydroxide Electrolyte****SECTION I**

Manufacturer:	National Draeger, Inc.	Chemtrec Emergency Number:	(800) 424-9300
Address:	101 Technology Drive	Telephone Number for Information:	(412) 787-8389
	Pittsburgh, PA 15275	Fax Number:	(412) 787-2207

**SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION**

HAZARDOUS COMPONENT: Potassium Hydroxide &lt; 50%

CHEMICAL FORMULA: KOH

CAS # 1310-58-3

EXPOSURE LIMITS: 2 mg/m<sup>3</sup> OSHA Ceiling; 2 mg/m<sup>3</sup> ACGIH Ceiling

CERCLA RATINGS (SCALE 0-3): Health = 3 Fire = 0 Reactivity = 1 Persistence = 0

**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**

BOILING POINT:	-150°C
MELTING POINT:	< -40°C
SPECIFIC GRAVITY (H <sub>2</sub> O = 1):	~1.5
PERCENT VOLATILE BY VOLUME:	> 50%
VAPOR PRESSURE:	Not Available
VAPOR DENSITY:	Not Available
SOLUBILITY IN WATER:	infinitely soluble
THERMAL DECOMPOSITION:	> 400°C
APPEARANCE AND ODOR:	Colorless, odorless, strong base liquid

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

Negligible fire hazard when exposed to heat or flame.

FLASH POINT: Non-combustible

EXTINGUISHING MEDIA: Use an extinguisher which is appropriate for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Wear personal protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

**SECTION V - REACTIVITY DATA**

STABILITY: Stable under ambient temperatures and pressure, exothermic reaction during dilution.

INCOMPATIBILITIES: Reacts with amphoteric metals such as aluminum and zinc to form flammable hydrogen gas. Reacts violently with strong acids. Reacts with unstable organic and inorganic compounds.

HAZARDOUS DECOMPOSITION PRODUCTS: Corrosive fumes of potassium oxide.

HAZARDOUS POLYMERIZATION: Will not occur at ambient temperatures and pressures.



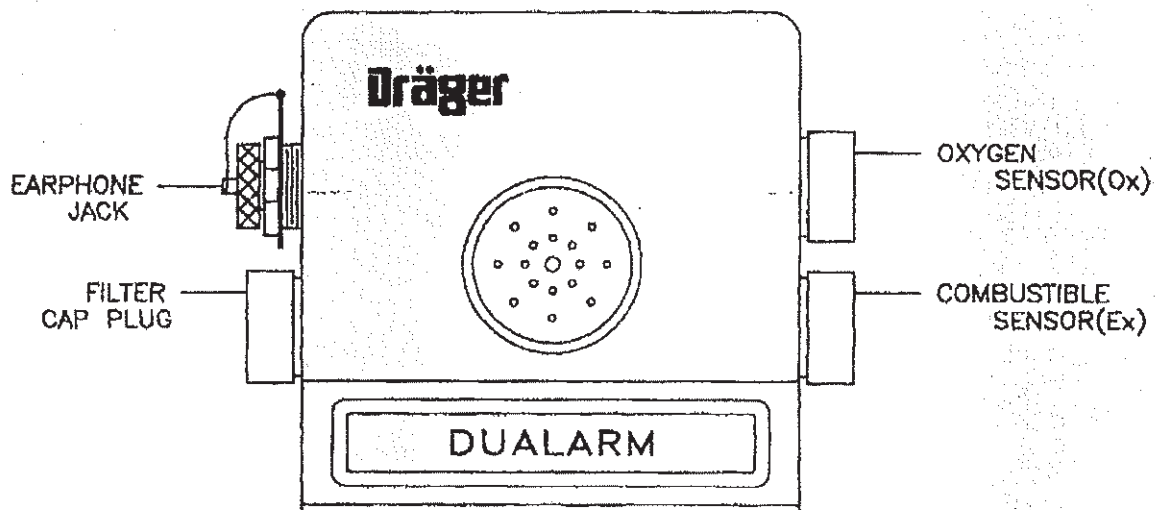
# DUALARM FILTER CAP PLUG INSTRUCTION SHEET

## General Description

The Dualarm filter cap plug permits the sampling adaptor accessory to be used with a Dualarm instrument.

## Attachment

The filter cap plug simply snaps into place on the Dualarm as shown.



National Draeger, Inc.  
101 Technology Drive  
P.O. Box 120  
Pittsburgh, PA 15230-0120  
TELEPHONE: (412) 787-8383  
CUSTOMER SERVICE TEL: (412) 787-8389

# Dräger

## SAMPLING ADAPTORS INSTRUCTION SHEET

### General Description:

The sampling adaptors are optional accessories for the National Draeger series of multi-gas personal monitors. These sampling adaptors enable the user to sample gas from a remote location. Various regulations require workers to sample gas from an area to ensure it is safe before entering. These sampling adaptors safely pull an air sample from a remote location (up to 50 ft (15 meters)) and pass it over the sensors of the instrument. National Draeger offers the sampling adaptors in two versions: a manual pump version and a battery pump version.

### Attachment:

Both versions are attached to the back of the instrument (the side opposite the alarm horn) with the double sensor manifold on the left. Grasp the two sections of the adaptor and gently spread apart until it can fit past the sensor housings. Align the adaptor manifolds over the sensor housings and let the sections spring back together. Ensure that the adaptor manifolds are properly seated over the sensor housings by gently pushing the two sections together.

### Operation:

#### A. Manual Pump:

Hook up the necessary length of tubing (P/N 4594707) and end piece (acrylic rod P/N 4594732 or floating probe P/N 6802337) to the hand pump. Gently and steadily squeeze the hand pump at a rate of approximately thirty (30) times per minute for three (3) to five (5) minutes. This will provide enough sample flow to flush out the tubing and give a stable reading. Continue pumping if a longer reading is desired. This procedure is to be followed for each sample taken.

#### B. Battery Pump:

Hook up the necessary length of tubing (P/N 4594707) and end piece (acrylic rod P/N 4594732 or floating probe P/N 6802337) to the fitting on the pump module. Turn the pump on and sample for three (3) to five (5) minutes to flush the lines and get a stable reading. With the unit upright, check the low battery indicator and the flow indicator. Ensure there is gas flowing to the instrument (indicated by a bouncing ball) and the battery has sufficient charge (battery indicator-green). If the battery indicator is green and the flow indicator indicates gas flow, the unit will have a correct flow for the instrument. If the battery is charged, but the flow-indicating ball is not visibly bouncing:

- 1) Ensure that the ball can freely move.
- 2) Check adaptor alignment.
- 3) Check the dust filters for damage that prevents proper sealing to the manifolds. Replace if necessary.
- 4) Check if sensors are seated properly into their holders by removing the filters and looking for proper fits.
- 5) Check all plumbing.
- 6) If no visible problem is seen but a leak is still suspected, further troubleshooting will be necessary. Contact National Draeger Technical Service Department.

If the battery indicator is red, the battery is low and needs to be recharged. Turn the unit off and plug in battery charger for 14 to 18 hours. If the unit will not run for 8 to 10 hours, deep discharge the unit by leaving it on until the motor stops running. Recharge unit for at least 16 hours. If the unit still does not operate for 10 hours, it is defective. Return the unit to National Draeger for repair.

**CAUTION: DO NOT CHARGE UNIT IN A HAZARDOUS ENVIRONMENT!**

### Sampling Adaptors

Remote Sampling Adaptor, manual pump, Dualarm/Trialarm  
Remote Sampling Adaptor, battery pump, Dualarm/Trialarm  
Remote Sampling Adaptor, battery pump, Quadalarm

P/N 4509620  
P/N 4509621  
P/N 4509103

### Accessories

Charger, 110V AC, US Version  
Charger, 220V AC, European Version  
Tubing  
Acrylic Rod  
Floating Probe

P/N 4509269  
P/N 4509268  
P/N 4594707  
P/N 4594732  
P/N 6802337

National Draeger, Inc.  
101 Technology Drive, P.O. Box 120  
Pittsburgh, PA 15230-0120  
TELEPHONE: (412) 787-8383  
CUSTOMER SERVICE TEL: (412) 787-8388  
TELEX: 88 8704  
FAX: (412) 787-2207

P/N 4509618  
Rev. A

## ***APPENDIX F:***

### **Site Safety Officer Report**

# SITE PROGRAM AND PROCEDURES

SITE-- 6179 1/2 Valley Hwy Sumpside, VA (Tank Removal)

DATE- 10-6-97

FOREMAN- Danell Downing

CREW- John Wind

Paul Koenen

Mike Hartley

Bill Goggins

W.J. Adams

Jim Stanton Deputy Chief  
John Wetfield  
Logan

The following information is prepared to inform you of what is required on this job., any infractions will result in termination according to Company Policy.

- Hard hats will be present on the Job site at all times.
- Hard hats will be worn by all Employees engaged in the trenching/Excavation operations.
- At least short sleeve shirts and long pants will be worn during working hours and while at the job site.
- All excavations will be protected by barricades or fences when left unattended when deeper then 4 foot.
- Excavation Inspections will be conducted daily and after every rain fall to ensure safe conditions. This Inspection will be recorded below.
- Employees exposed to vehicular traffic shall wear high visibility vest.

Insp Date

Time

Conducted by

10/6/97

10:00 AM

DD

11:30 AM

DD

2:15 PM


DD

5:00 PM

DD

Inversion of tanks began  
Digging started  
8:00 AM Tank Removal  
all tanks removed  
liquid in ground area.

PERSON COMPLETING THIS SITE PROCEDURE

 Title Consultant

Date Prepared.

CD Type I Barricade

o Traffic Cones

YAK VALLEY HWY

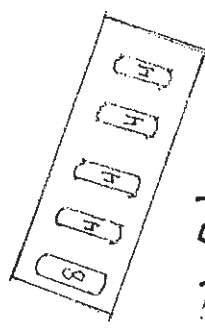
MATHIAS TEXAS

TRAFFIC CONTROL PLAN

10-6-97

SIXTH

YAKI  
MART



Job Site

Fire Equip  
Parking

11

## ***APPENDIX G:***

### **MTCA Method A Action Levels for Petroleum Releases**

Table 8-1. Action Levels for Petroleum Releases

Indicator Constituent	CAS Number <sup>1</sup>	Groundwater Action Level	Soil Action Level
Benzene	71-43-2	1 µg/L <sup>2,4</sup>	0.5 mg/kg <sup>3</sup>
Ethylbenzene	100-41-4	30 µg/L	20 mg/kg
Toluene	108-88-3	40 µg/L	40 mg/kg
Xylene	1330-20-7	20 µg/L	20 mg/kg
TPH	---	1,000 µg/L	---
TPH (gasoline)	---	---	100 mg/kg
TPH (diesel)	---	---	200 mg/kg
TPH (heavier than diesel)	---	---	200 mg/kg
Lead	7439-92-1	5.0 µg/L	250 mg/kg

- 1 CAS number is the Chemical Abstracting Service number; "—" means no CAS number has been defined for these constituents.
- 2 µg/L can also be expressed as ppb.
- 3 mg/kg can also be expressed as ppm.
- 4 Groundwater quality based criteria (Chapter 173-200 WAC).



***APPENDIX H:***  
**SECOR Site Access Request**

September 23, 1997

Mr. Robert Mathias  
471 West Woodin Road  
Sunnyside, WA 98944

**RE: ACCESS FOR FIELD OPERATIONS  
UNDERGROUND STORAGE TANK DECOMMISSIONING  
MATHIAS SITE  
NORTH 6TH AND YAKIMA VALLEY HIGHWAY  
SUNNYSIDE, WASHINGTON  
SECOR PN: 00600-002-08**

Dear Mr. Mathias:

SECOR International Incorporated (SECOR) has prepared this letter on behalf of the ARCO, Texaco, and Time Oil (PLP Group) to confirm access to the Mathias site located on the southeast corner of North 6th Street and Yakima Valley Highway in Yakima, Washington during the decommissioning of the underground storage tanks (USTs). SECOR has been engaged by the PLP Group to assist with the preparation of the Corrective Action Plan (CAP) for remediation of the Manhole 34 Area (MH 34) as required by the Washington State Department of Ecology (Ecology). As part of the remediation process, Mr. Don Abbott, Project Manager at Ecology for the MH 34 Project, has requested that the PLP Group engage SECOR to observe the UST decommissioning at the Mathias site.

SECOR understands that you have engaged SGB Engineering to oversee the UST decommissioning. This letter has been prepared to confirm that SECOR will be on-site during the UST decommissioning. SECOR will conduct the following while on-site:

- Prepare a health and safety plan for SECOR personnel
- Observe the UST decommissioning
- Photograph and note visual observations
- Record field measurements collected by SGB Engineering
- Collect split samples of all samples collected by SGB Engineering

SECOR will not direct, oversee, or impede the UST decommissioning in any way. All work will be under the direction of SGB Engineering. The information obtained by SECOR will be available for you and/or SGB Engineering.