LUST CSO 1/2 [redacted] 7474 JMS 36
Ø12216
LUST

file exists:
DOT - Rimrock (Naches)
Yak County

WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION
P. O. Box 1709
4200 Main Street
Vancouver, WA 98663
(206) 696-6518

SUPPLEMENT

SR 1/5/93

Cleanup Action
for the WSDOT Property at

RIMROCK

Junction U.S. 12 & SR 410
Naches, Washington

Fuel Tank Replacement
Phase 3 1990
August 1992

Rimrock DOT Facility
Junction US 12 & SR 410
Naches, Washington

In June and July 1991, a land farm was created on the DOT property known as Rimrock using the contaminated soil that was excavated from the fuel tank area.

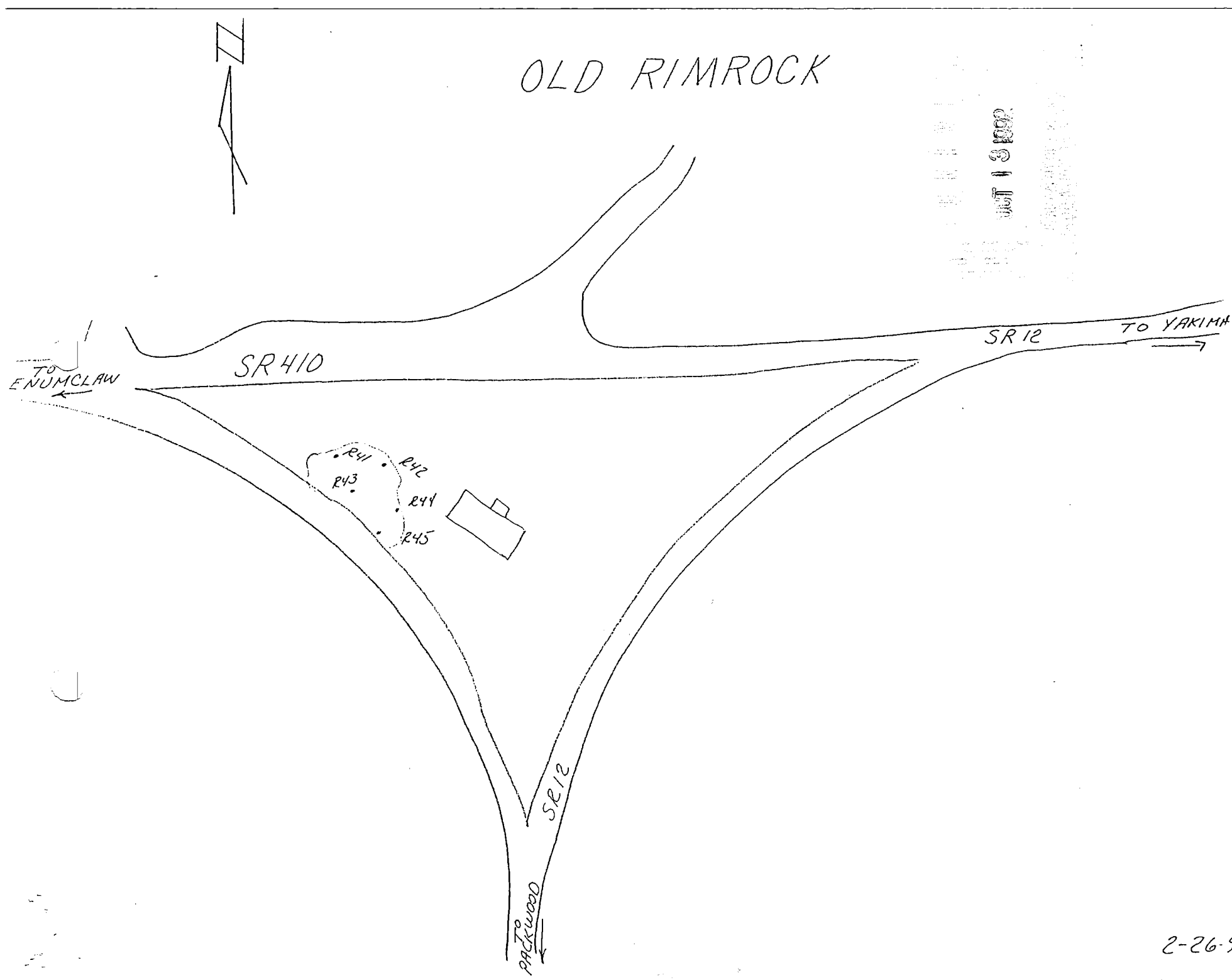
This material was spread out in a layer less than one foot thick. A front end loader was used to rotate and mix the soil.

On February 26, 1992, five soil samples were taken from the land farm. A WRPH-HCID test was performed on all five samples. The gasoline content was less than 20 mg/kg for all five samples. The heavy petroleum oils were less than 100 mg/kg for all five samples. The diesel content was less than 50 mg/kg for samples R-41 and R-42. Sample R-43 was 240 mg/kg, R-44 was 160 mg/kg and R-45 was 58 mg/kg as diesel.

By using Appendix E of Guidance for Remediation of Releases from Underground Storage Tanks, it can be shown that the TPH levels in the land farm are in compliance with cleanup standards. The mean for the five samples of 50, 50, 240, 160, and 58 is 111.6. The standard deviation is 85.6. The results of the formula in Appendix E is 170.3 mg/kg as diesel which is below the cleanup standard of 200 mg/kg.

The material from the land farm was used to fill a low area on site.

APPENDIX


OLD RIMROCK
SR 410
TO ENUMCLAW
SR 12
TO YAKIMA
R41
R42
R43
R44
R45
SR 12
TO PACKWOOD
2-26-92

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

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

Report To: WA St. Dept. of Transportation Date: March 17, 1992

Report On: Analysis of Soil Lab No: 22943

IDENTIFICATION:
Samples received on 02-28-92
Project: Rimrock

ANALYSIS:

Lab Sample No.	1	2	3
Client ID	R-41	R-42	R-43
Units	mg/kg	mg/kg	mg/kg
WTPH-HCID			
Gasoline (C7-C12)	< 20	< 20	< 20
Diesel (> C12-C24)	< 50	< 50	> 50
Heavy Petroleum Oils (C24+)	< 100	< 100	< 100
SURROGATE RECOVERIES			
WTPH-HCID			
1-Chlorooctane %	98	92	102
Perylene %	87	89	99

ND = None detected
< = less than
> = greater than

Results are reported on a dry weight basis.

Continued . . .

SOUND ANALYTICAL SERVICES, INC.

WA St. Dept. of Transportation
Project: Rimrock

Lab No. 22943
March 17, 1992

Lab Sample No.	4	5
Client ID	R-44	R-45
Units	mg/kg	mg/kg
WTPH-HCID		
Gasoline (C7-C12)	< 20	< 20
Diesel (> C12-C24)	> 50	> 50
Heavy Petroleum Oils (C24+)	< 100	< 100
SURROGATE RECOVERIES		
WTPH-HCID		
1-Chlorooctane %	91	101
Perylene %	85	100

ND = None detected
< = less than
> = greater than

Results are reported on a dry weight basis.

Continued . . .

SOUND ANALYTICAL SERVICES, INC.

WA St. Dept. of Transportation
Project: Rimrock

Lab No. 22943
March 17, 1992

Lab Sample No.	3	4	5
Client Identification	R-43	R-44	R-45
Units	mg/kg	mg/kg	mg/kg
WTPH-D Diesel (> C12 - C24)	240	160	58
SURROGATE RECOVERIES WTPH-D Perylene %	68	66	68

Results are reported on a dry weight basis.

SOUND ANALYTICAL SERVICES

STAN P. PALMQUIST

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

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

ANALYTICAL NARRATIVE

Client: WA St. Dept. of Transportation Date: March 17, 1992

Project: Rimrock Lab No.: 22943

Delivered by: Harry Horne

Date Sampled: 02-27-92

Condition of Samples on Receipt:

Samples were received cold and in good condition. Chain-of-custody was in order.

EXTRACTION AND ANALYSIS DATES

Samples were analyzed for diesel range hydrocarbons per WA State DOE method WTPH-D. Samples were extracted on 03-12-92. The extracts were analyzed on 03-16-92 and reported on a dry weight basis.

Samples were qualitatively screened for total petroleum fuel hydrocarbons in accordance with WA State DOE Method WTPH-HCID. Samples were extracted on 03-01-92. The extracts were analyzed on 03-06-92 and reported on a dry weight basis.

All Quality Control was within acceptable limits.

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

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

QUALITY CONTROL REPORT

Client: WA St. Dept. of Transportation
Project: Rimrock
Lab No: 22943
Matrix: Soil
Units: mg/kg
Date: March 17, 1992

DUPLICATES

Lab No: 22943 (1) Client ID: R-41

Parameter	Sample(S)	Duplicate(D)	RPD
WTPH-HCID			
Gasoline (C7 - C12)	< 20	< 20	0.0
Diesel (>C12 - C24)	< 50	< 50	0.0
Heavy Petroleum Oils (>C24)	< 100	< 100	0.0
SURROGATE RECOVERIES			
WTPH-HCID			
1-Chlorooctane %	98	92	
Perylene %	87	87	

Lab No: 22943 (3) Client ID: R-43

Parameter	Sample(S)	Duplicate(D)	RPD
WTPH-D			
Diesel (>C12-C24)	240	230	4.3
SURROGATE RECOVERIES			
WTPH-D			
Perylene	68	73	

< = less than

Results reported on a dry weight basis.

*RPD = relative percent difference
= [(S - D) / ((S + D) / 2)] x 100

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

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

QUALITY CONTROL REPORT

Client: WA St. Dept. of Transportation
Project: Rimrock
Lab No: 22943
Matrix: Soil
Units: mg/kg
Date: March 17, 1992

DUPLICATES

Lab No: 22943 (1) Client ID: R-41

Parameter	Sample(S)	Duplicate(D)	RPD
WTPH-HCID			
Gasoline (C7 - C12)	< 20	< 20	0.0
Diesel (>C12 - C24)	< 50	< 50	0.0
Heavy Petroleum Oils (>C24)	< 100	< 100	0.0
SURROGATE RECOVERIES WTPH-HCID			
1-Chlorooctane %	98	92	
Perylene %	87	87	

Lab No: 22943 (3) Client ID: R-43

Parameter	Sample(S)	Duplicate(D)	RPD
WTPH-D			
Diesel (>C12-C24)	240	230	4.3
SURROGATE RECOVERIES WTPH-D			
Perylene	68	73	

< = less than

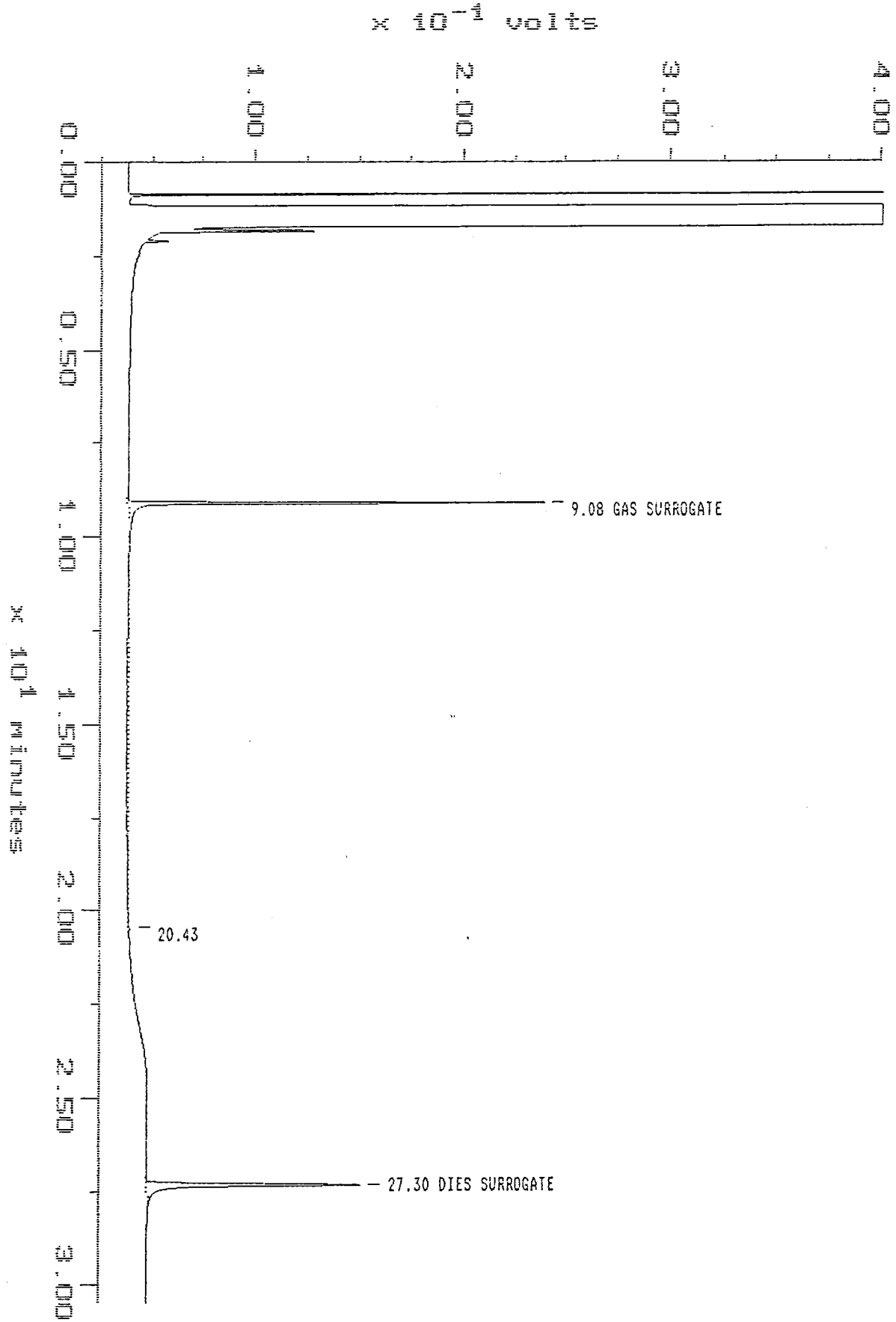
Results reported on a dry weight basis.

*RPD = relative percent difference
= [(S - D) / ((S + D) / 2)] x 100

Sample: 22943-1
Acquired: 07-MAR-92 9:
Dilution: 1 : 10.000

Channel: HP 5890-II
Method: C:\MAX\DATA2\8015D
Amount: 10.657

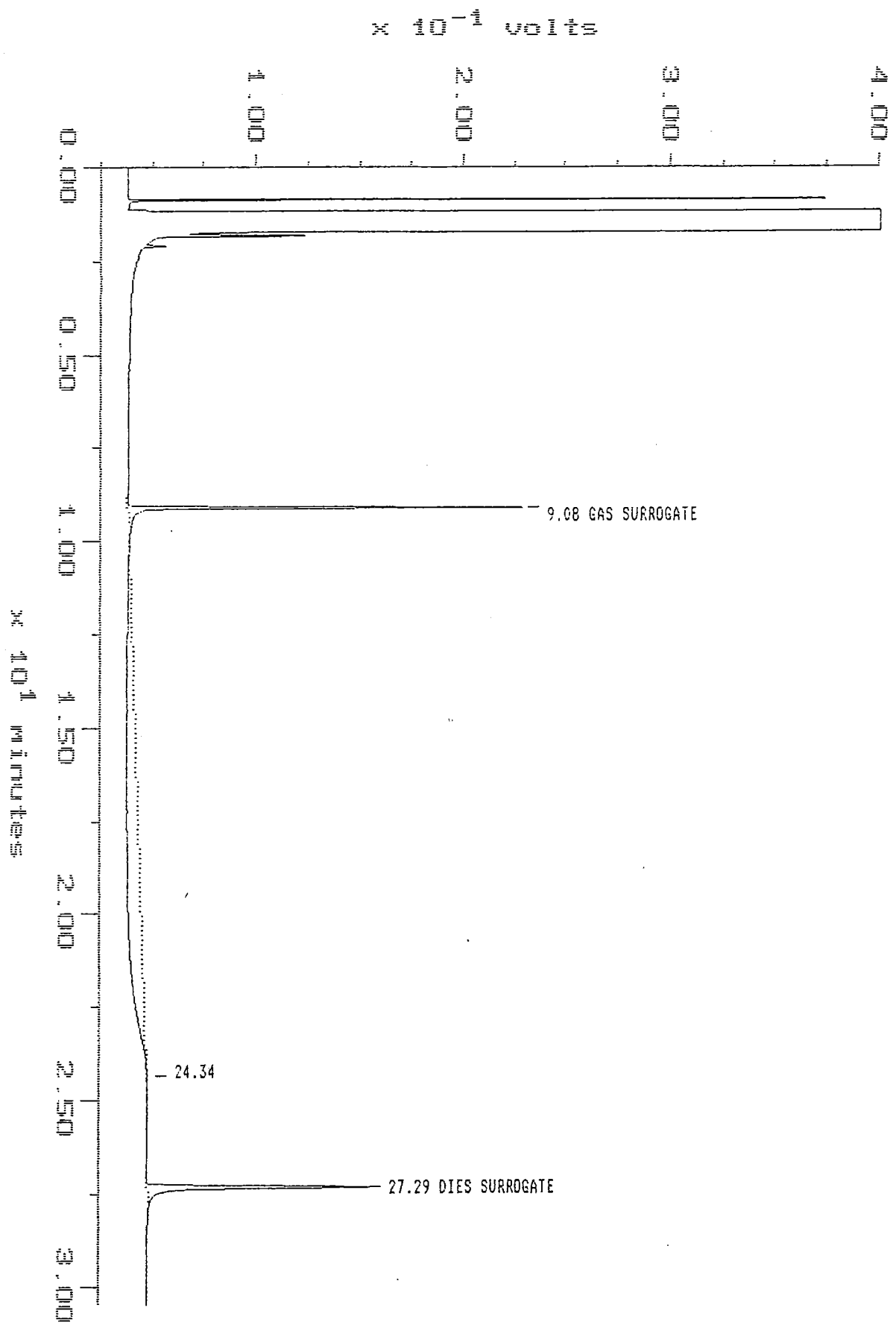
Filename: 22943-1
Operator: DAS



Sample: 22943-1D
Acquired: 07-MAR-92
Dilution: 1 : 10.000

Channel: HP 5890-II
Method: C:\MAX\DATA2\8015D
Amount: 10.260

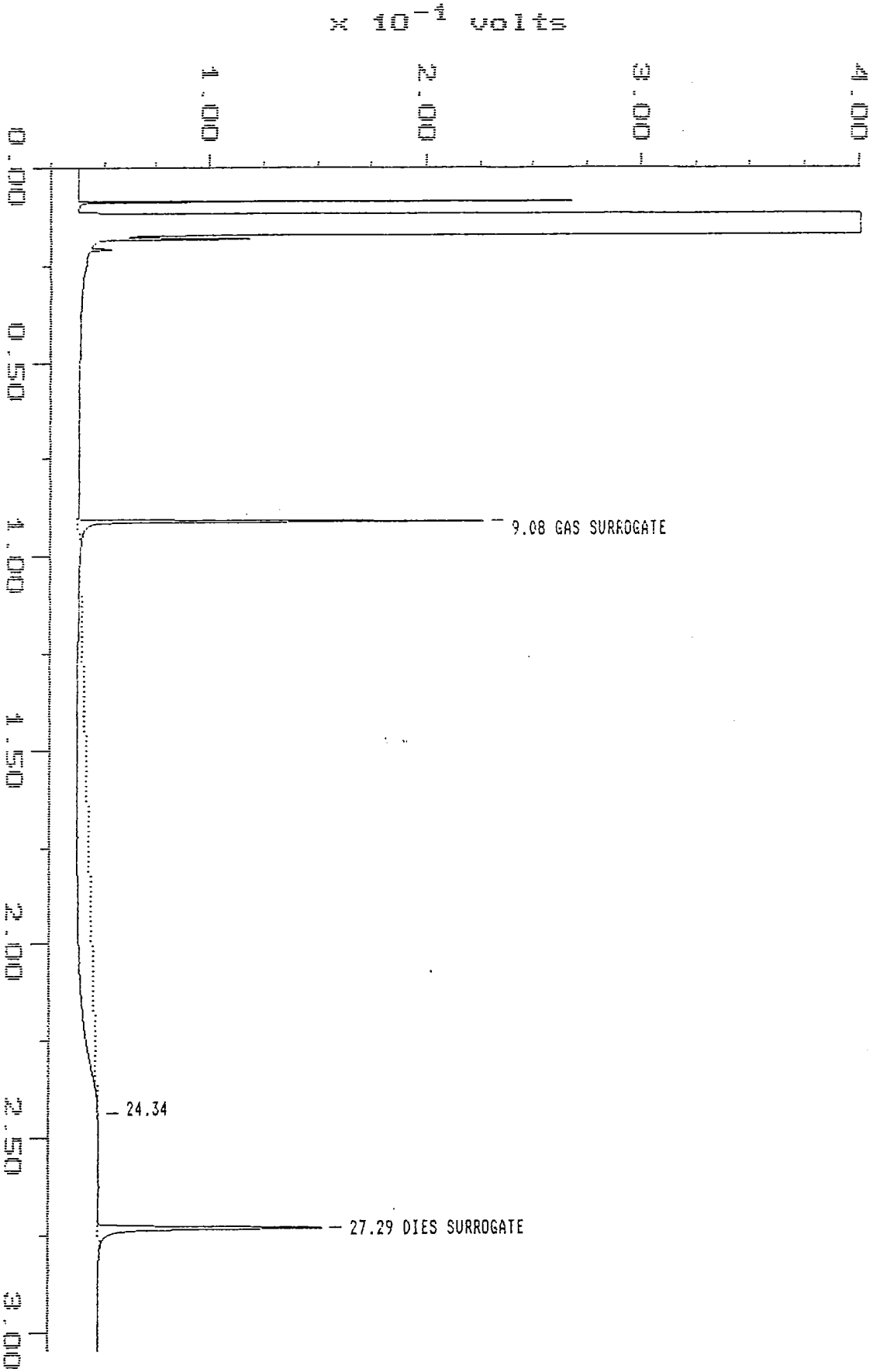
Filename: 22943-1D
Operator: DAS



Sample: 22943-2
Acquired: 07-MAR-92 1
Dilution: 1 : 10.000

Channel: HP 5890-II
Method: C:\MAX\DATA2\8015D
Amount: 10.385

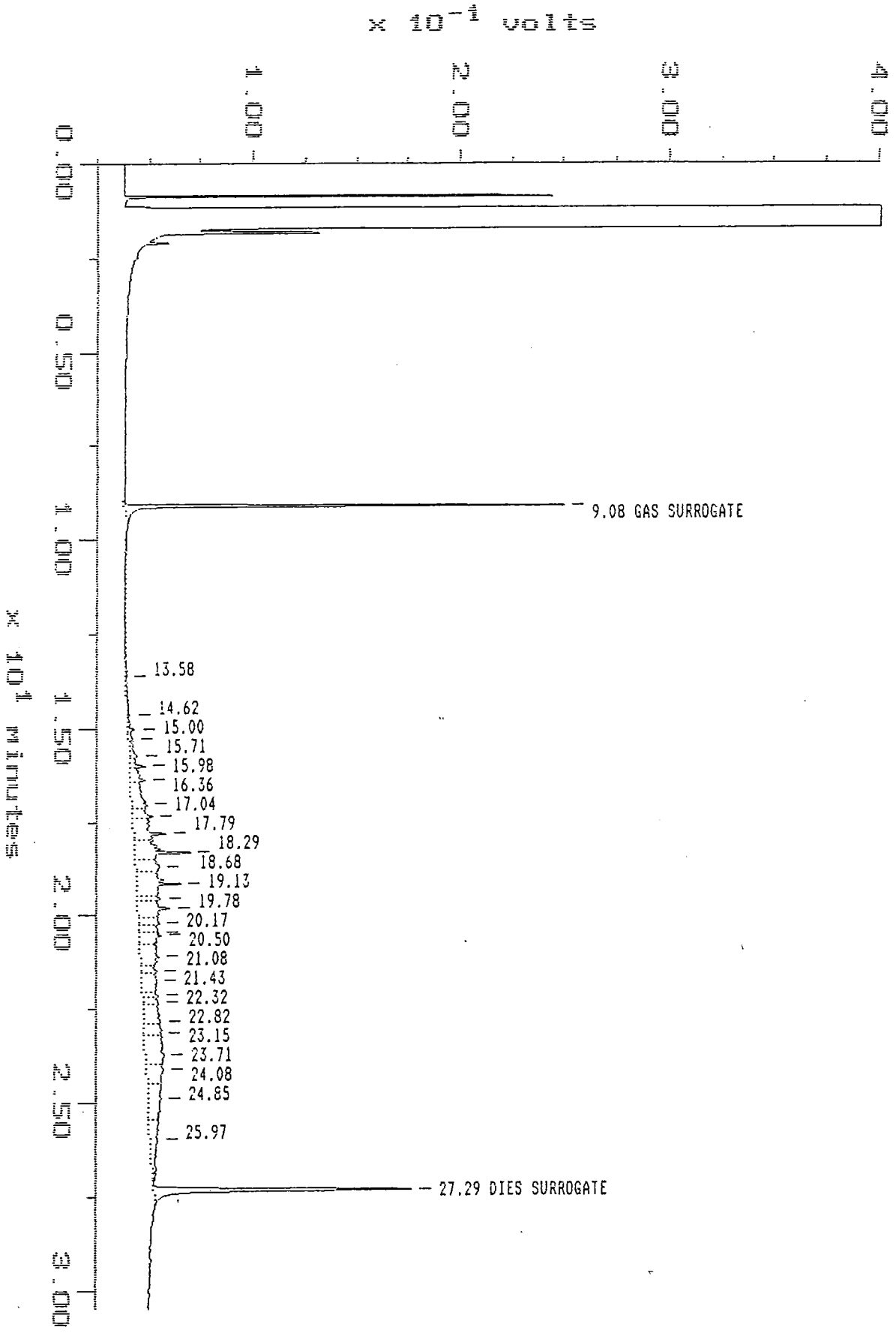
Filename: 22943-2
Operator: DAS



Sample: 22943-3
Acquired: 07-MAR-92 11
Dilution: 1 : 10.000

Channel: HP 5890-II
Method: C:\MAX\DATA2\8015D
Amount: 10.549

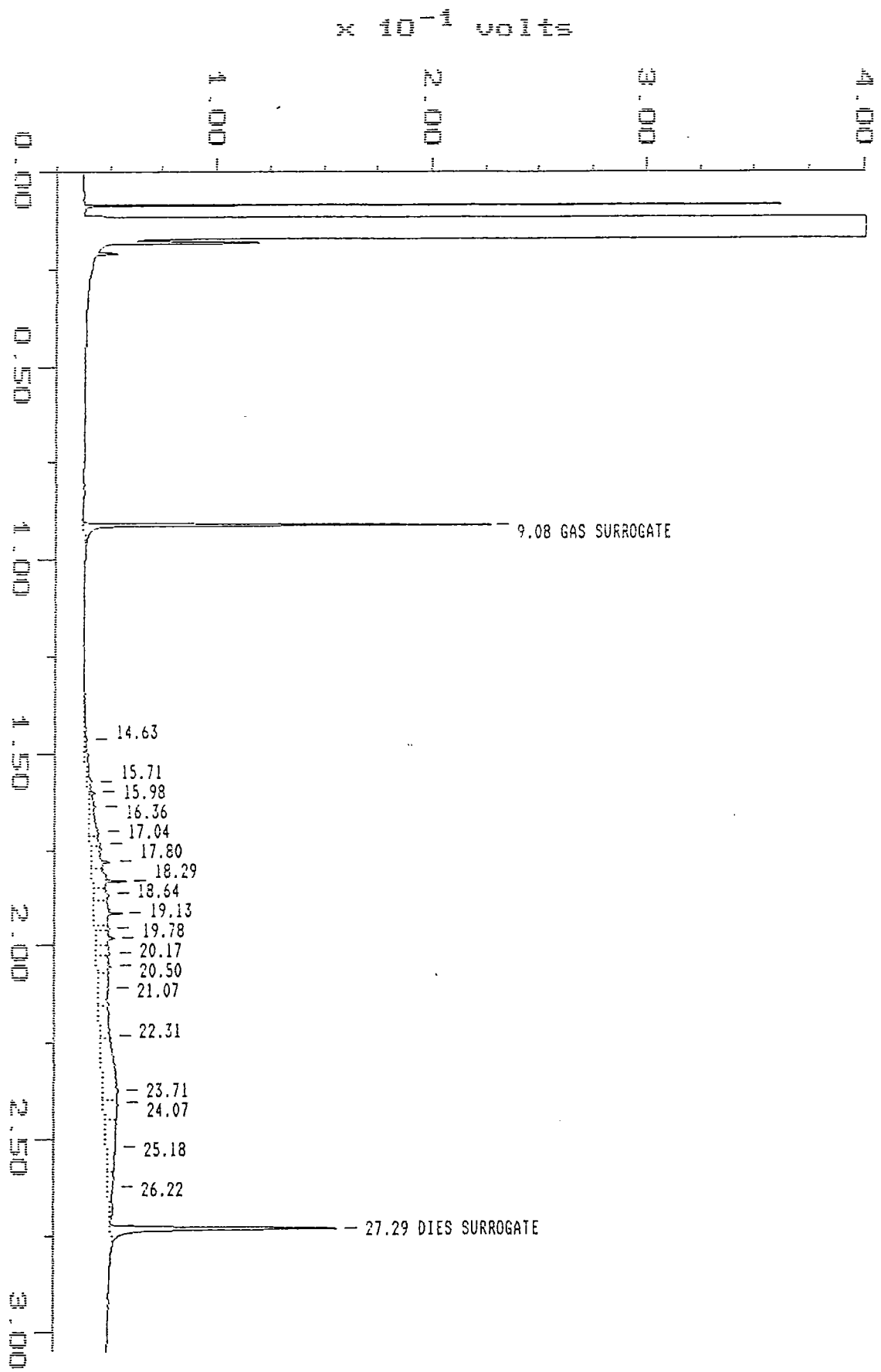
Filename: 22943-3
Operator: DAS



Sample: 22943-4
Acquired: 07-MAR-92 11
Dilution: 1 : 10.000

Channel: HP 5890-II
Method: C:\MAX\DATA2\8015D
Amount: 10.053

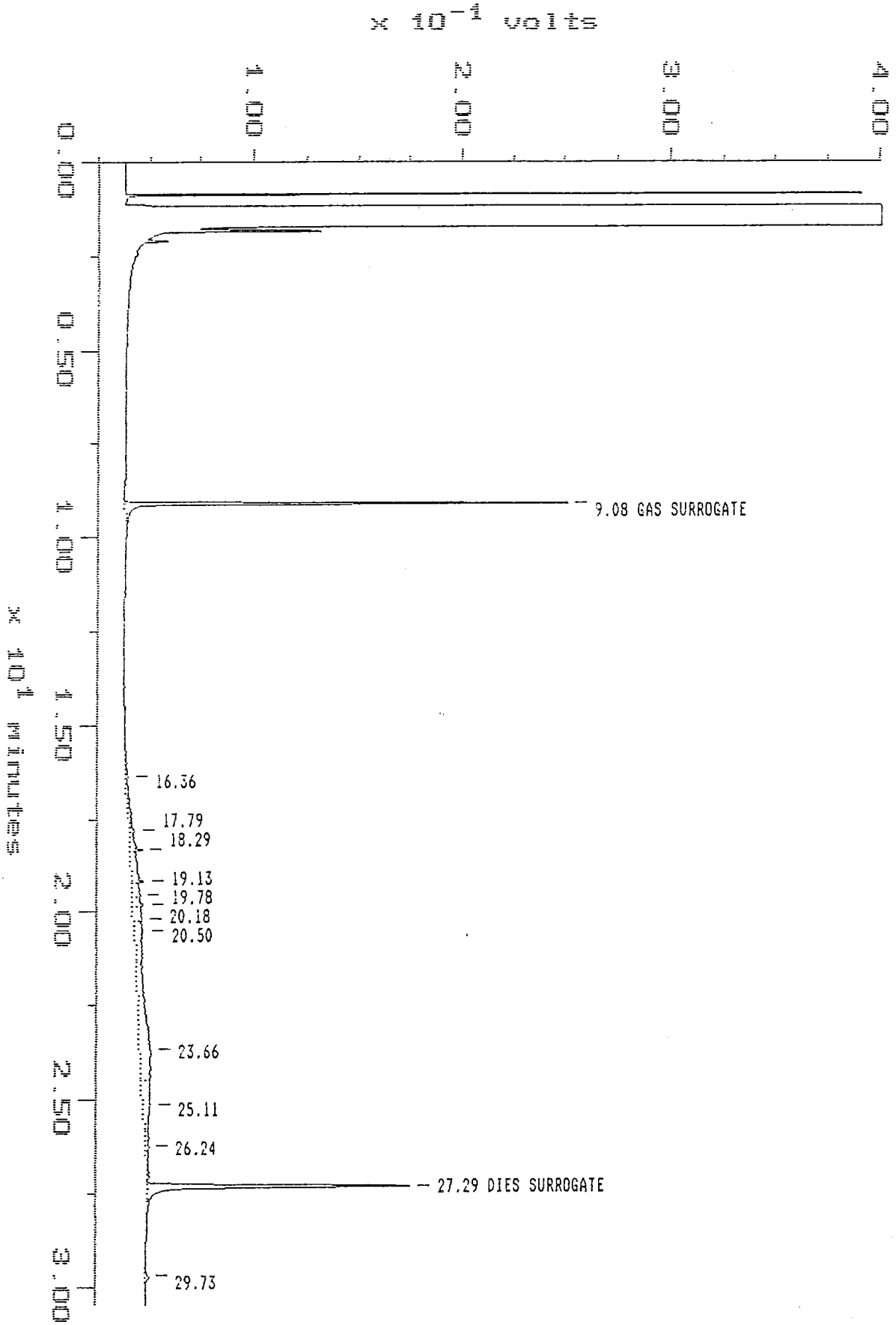
Filename: 22943-4
Operator: DAS



Sample: 22943-5
Acquired: 07-MAR-92 12
Dilution: 1 : 10.000

Channel: HP 5890-II
Method: C:\MAX\DATA2\8015D
Amount: 10.177

Filename: 22943-5
Operator: DAS



36

UNDERGROUND STORAGE TANK
Site Check/Site Assessment Checklist

The purpose of this form is to certify the proper investigation of an UST site for the presence of a release. These activities shall be conducted in accordance with Chapter 173.360 WAC. A description of the various situations requiring a site check or site assessment is provided in the guidance document for UST site checks and site assessments.

This Site Check/Site Assessment Checklist shall be completed and signed by a person registered with the Department of Ecology to perform site assessments.

Two copies of the results of the site check or site assessment should be included with this checklist according to the reporting requirements in the guidance document for UST site checks and site assessments.

For further information about completing this form, please contact the Department of Ecology UST Program.

The completed checklist should be mailed to the following address:

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

DEPARTMENT OF ECOLOGY
UNDERGROUND STORAGE TANKS
RECEIVED
SEP 10 1992

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: W.S.D.O.T.

Owners Address: Transportation Bldg KF-01 (Street)

Olympia (City) Wa (State) 98504 (ZIP-Code) P.O. Box

Telephone: (206) 753-7062

Site ID Number (on invoice or available from Ecology if tank is registered): 012216

Site/Business Name: WSDOT- OLD Rimrock Maintenance Site

Site Address: Jct SR 12 & SR 410 (Street) Yakima (County)

Naches (City) Wa (State) (ZIP-Code)

2. SITE CHECK/SITE ASSESSMENT CONDUCTED BY:

Registered Person: Harry Horn

Address: 4200 Main S.T. (Street) 1709 P.O. Box

Vancouver (City) Wa (State) 98668 (ZIP-Code)

Telephone: (206) 696-6518

3. TANK INFORMATION

1. Tank ID Number (as registered with Ecology): _____ 2. Year installed: _____

3. Tank capacity in gallons: _____ 4. Last substance stored: _____

4. REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT

Check one:

_____ Investigate suspected release due to on-site environmental contamination

_____ Investigate suspected release due to off-site environmental contamination

_____ Extend temporary closure of UST system for more than 12 months

_____ UST system undergoing change-in-service

_____ UST system permanently closed-in-place

_____ UST system permanently closed with tank removed

_____ Required by Ecology or delegated agency for UST system closed before December 22, 1988

_____ Other (describe): _____

5. CHECKLIST

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

	Yes	No
1. Has the site check/site assessment been conducted according to applicable procedures specified in the UST site check/site assessment guidance issued by the Department of Ecology?	HH	
2. Has a release from the UST system been confirmed? *NOTE: Owners/operators must report all confirmed releases to the Department of Ecology or delegated agency within 24 hours.*	HH	
3. Are the results of the site check/site assessment enclosed with this checklist? *NOTE: Two copies of the site check/site assessment results must be submitted to the Department of Ecology according to the reporting requirements specified in the UST site check/site assessment guidance.*	HH	

I hereby certify that I have been in responsible charge of performing the site check/site assessment described above. Persons submitting false information are subject to penalties under Chapter 173.360 WAC.

11-6-91 Harry Horn

Date — Signature of Person Registered with Ecology

6. OWNER'S SIGNATURE

11-6-91 Harry Horn

Date — Signature of Tank Owner or Authorized Representative

WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION
P. O. Box 1709
4200 Main Street
Vancouver, WA 98663
(206) 696-6518

Cleanup Action
for the WSDOT Property at

RIMROCK

Junction U.S. 12 & SR 410
Naches, Washington

Fuel Tank Replacement
Phase 3 1990
October 1991

Rimrock DOT Facility
Junction US 12 & SR 410
Naches, Washington

On May 7, 1991, Washington State Department of Transportation (DOT) and its contractor, Stokes Construction, Inc. of Seattle, WA removed a 500 gallon unleaded tank and a 1,500 gallon diesel tank. The unleaded tank had two holes in the north end of the tank.

Because of the odors present during tank removal, additional excavation of contaminated soils was done. The contaminated material was stockpiled on site.

Seven soil samples were taken from the excavation and one water sample was taken from the ponding area to the west of the site. The soil samples yielded results up to 4,800 ppm gas and up to 270 ppm as diesel. High levels of BTEX were also present. No contamination was found in the water sample.

On June 14, 1991, additional excavation of contaminated soils was performed using a DOT backhoe and operator. Soil samples 21, 22, and 23 were taken from the excavated area at the end of the day. Sample 22 yielded 8,400 ppm as aged gas/diesel.

On June 25, 1991, excavation was again performed using a DOT backhoe and operator. The excavated material was stockpiled on site. At the end of the day, samples 41 through 49 were taken. The results of these samples showed that high levels of contamination still existed in the center area and the south end of the excavation.

On July 11, 1991, additional excavation was done using a DOT backhoe and operator. At the end of the day, samples 51 through 55 were taken. The results of these samples showed the high levels of contamination had finally been removed. However, sample 51 was 110 ppm as aged gas/diesel and sample 54 was 340 ppm as aged gas/diesel. These samples were taken adjacent to the shop building. Further excavation in the direction of the remaining contamination would damage the building.

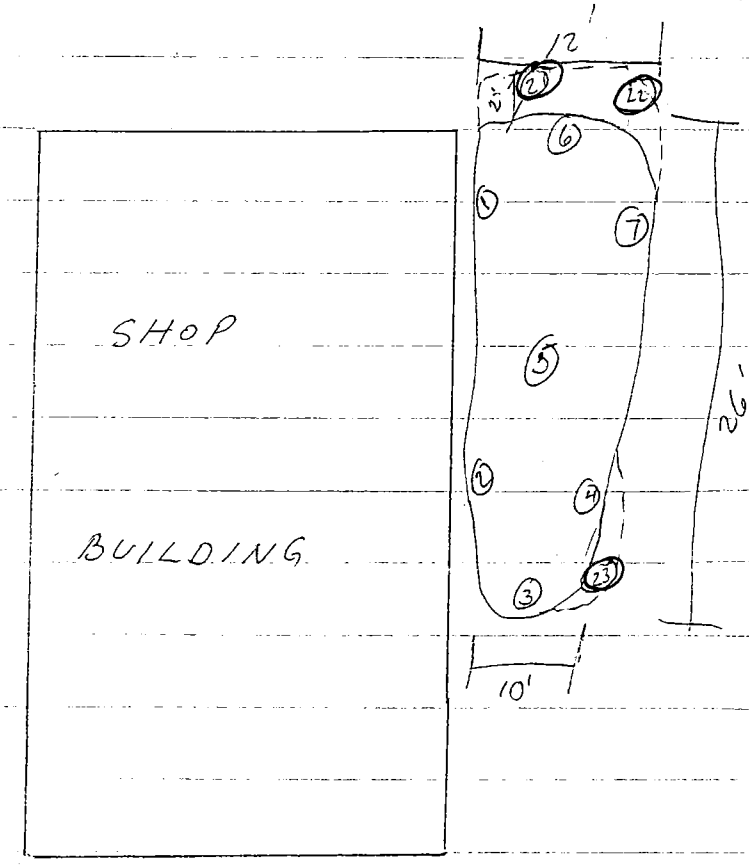
The excavated contaminated soil was placed into a land farm on site. The material was spread out into a layer about 12" thick.

The DOT is requesting a conditional closure of this site due to the contamination extending under the shop building. When the shop building is removed or before the property is sold, the contaminated areas will be re-excavated, tested, and treated in accordance with regulations then in place. A copy of this report shall be kept in the DOT facility file at all times.

Soil samples will be taken from the land farm. When the Total Petroleum Hydrocarbons (TPH) results due to diesel contamination are all below 200 ppm and/or due to gasoline contamination are all below 100 ppm, the land farm will be considered closed and a supplemental report will be prepared.

APPENDIX

RIM ROCK (OLD)



SAMPLES TAKEN WERE 5'± DEEP

REMOVED:

1-500 gal unleaded

1-1500 gal diesel

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

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

Report To: WA State Dept. of Transportation

Date: May 17, 1991

Report On: Analysis of Soil & Water

Lab No.: 17508

IDENTIFICATION:
Samples Received on 05-08-91
Project: Rim Rock

ANALYSIS:

Lab Sample No.	1	2	3	4
Client Identification	#1	#2	#3	#4
Matrix/Units	Soil mg/kg	Soil mg/kg	Soil mg/kg	Soil mg/kg
Benzene	5.5	< 0.05	< 0.05	0.41
Toluene	130	< 0.05	0.20	2.7
Ethyl Benzene	32	< 0.05	< 0.05	0.73
Xylenes	340	< 0.05	0.62	6.9
BTEX by EPA SW-846 Method 8020				
Total Petroleum Fuel Hydrocarbons by EPA SW-846 Modified Method 8015	1,500	< 10.0	94	270
TPH as	Aged Gas		Diesel	Diesel

Note - BTEX and TPH 8015 soil results reported on an as received basis.

Continued . . . . .

SOUND ANALYTICAL SERVICES, INC.

WA State Dept. of
Transportation
Project: Rim Rock

Lab No. 17508
May 17, 1991

Lab Sample No.	5	6	7	8
Client Identification	#5	#6	#7	#8
Matrix/Units	Soil mg/kg	Soil mg/kg	Soil mg/kg	Water mg/l
Benzene	0.44	0.51	9.0	< 0.001
Toluene	5.3	14	190	< 0.001
Ethyl Benzene	1.3	3.1	62	< 0.001
Xylenes	15.	62	420	< 0.001
BTEX by EPA SW-846 Method 8020				
Total Petroleum Fuel Hydrocarbons by EPA SW-846 Modified Method 8015	49	380	4,800	< 1.0
TPH as	Aged Gas	Aged Gas	Aged Gas	

Note - BTEX and TPH 8015 soil results reported on an as received basis.

SOUND ANALYTICAL SERVICES

C. LARRY ZURAW

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

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

Report To: WA State Dept. of Transportation

Date: June 18, 1991

Report On: Analysis of Soil

Lab No.: 18155

IDENTIFICATION:
Samples Received on 06-14-91
Project: Rim Rock

ANALYSIS:

Lab Sample No.	Client ID	*Total Petroleum Fuel Hydrocarbons, mg/kg
1	#1 21	< 10
2	#2 22	8,400 as Aged Gas/Diesel
3	#3 23	< 10

*TPH by EPA SW-846 Modified Method 8015

Note - Results reported on an as received basis.

SURROGATE RECOVERY, %

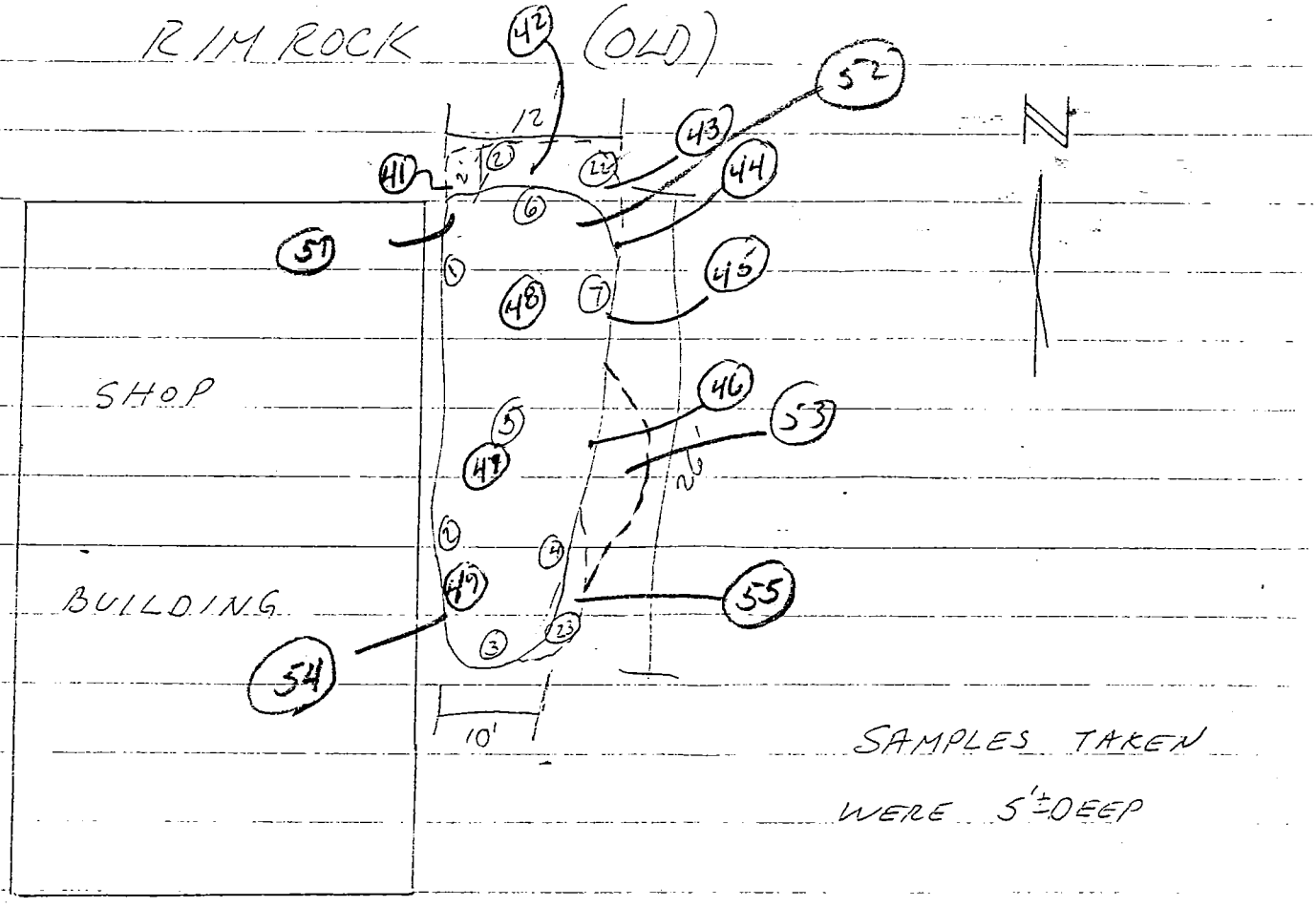
Lab Sample No.	1	2	3
TPH by Mod 8015			
1-Chlorooctane	89	249*	93
Perylene	72	76	75

*Surrogate recovery invalid due to matrix interference.

SOUND ANALYTICAL SERVICES

C. LARRY ZURAW

RIM ROCK (OLD)



SAMPLES TAKEN WERE 5'± DEEP

REMOVED:

1-500 gal unleaded

1-1500 gal diesel

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

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

Report To: WA State Dept. of Transportation

Date: July 3, 1991

Report On: Analysis of Soil

Lab No.: 18422

IDENTIFICATION:
Samples Received on 06-28-91
Project: Rim Rock

ANALYSIS:

Lab Sample No.	Client ID	*Total Petroleum Fuel Hydrocarbons, mg/kg
1	41	< 10.0
2	42	22 Aged Gas
3	43	29 Aged Gas/Diesel
4	~~4210~~ 44	210 Aged Gas/Diesel
5	45	140 Aged Gas/Diesel
6	46	7,600 Aged Gas/Diesel
7	47	7,100 Gas/Diesel
8	48	720 Aged Gas/Diesel
9	49	1,200 Aged Gas/Diesel

*TPH by EPA SW-846 Modified Method 8015

Note - Results reported on an as received basis.

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

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

Report To: WA State Dept. of Transportation

Date: July 15, 1991

Report On: Analysis of Soil

Lab No.: 18642

IDENTIFICATION:
Samples Received on 07-11-91
Project: Rimrock

ANALYSIS:

Lab Sample No.	Client ID	*Total Petroleum Fuel Hydrocarbons, mg/kg
1	51	110 * Aged Gas/Diesel
2	52	45 Aged Gas/Diesel
3	53	85 Aged Gas/Diesel
4	54	340 * Aged Gas/Diesel
5	55	58 Aged Gas/Diesel

*TPH by EPA SW-846 Modified Method 8015 * NEXT TO BLDG.

Note - Results reported on an as received basis.

SURROGATE RECOVERY, %

Lab Sample No.	1	2	3	4	5
TPH by Mod 8015	106	86	101	104	84
1-Chlorooctane	84	72	65	73	75
Perylene					

SOUND ANALYTICAL SERVICES

C. LARRY ZURAW