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Prepared for:

Chevron U.S.A. Products Company
2410 Camino Ramon, P.O. Box 5004
San Ramon, CA 94583

REPORT OF LIMITED ENVIRONMENTAL ASSESSMENT FOR TANK CLOSURE AT CHEVRON SERVICE STATION NO. 6009-3883 YAKIMA, WASHINGTON

Prepared by:

Chen-Northern, Inc.
Tri-Cities, Washington

Contract No. P166CNW01628X
Release No. 8510010

March 1993

March 5, 1993

Chevron U.S.A., Inc.
P.O. Box 5004
San Ramon, CA 94583-0804

ATTENTION: Mr. Clint Rogers

SUBJECT: Report of Limited Environmental Assessment for Tank Closure, Chevron Service Station No. 9-3883
Yakima, Washington

Gentlemen:

Transmitted herewith is our report summarizing the findings of the limited environmental assessment for tank closure conducted at Chevron service station No. 6009-3883 in Yakima, Washington. If you have any questions regarding the contents of this report, please feel free to contact us at your convenience.

Respectfully submitted,

Gerald G. Harper
Division Manager

Enclosure

LIMITED ENVIRONMENTAL ASSESSMENT
FOR TANK CLOSURE AT
CHEVRON SERVICE STATION NO. 6009-3883
YAKIMA, WASHINGTON

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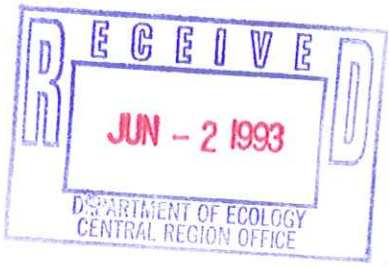

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Prepared by:

Chen-Northern, Inc.
Tri-Cities, Washington

Contract No. P166CNW01628X
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March 1993

Chen Northern, Inc.

Consulting Engineers and Scientists

2214 North 4th Avenue
P.O. Box 2601
Tri-Cities, Washington 99302

509 547-1671
509 547-1673 Facsimile

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1.0 INTRODUCTION

This report presents the findings of the limited environmental assessment for tank closures conducted at Chevron service station No. 6009-3883 at 1602 Terrace Heights Road in Yakima, Washington. Underground storage tanks (USTs) at the site were removed and decommissioned in compliance with EPA and State of Washington Department of Ecology (WDOE) requirements.

1.1 Purpose and Scope

The purpose of the limited environmental assessment is to render information on the presence of hydrocarbon constituents in the subsoil beneath the site. The primary tasks of this investigation were to:

- Observe the removal of the underground storage tanks;
- Obtain representative subsoil samples from the tank, product piping, and pump block excavations;
- Provide documentation on the condition of the tanks and the subsoils with regard to potential hydrocarbon infiltration; and
- Prepare a report summarizing the results of the investigation.

2.0 BACKGROUND

2.1 Site Description

Chevron service station No. 6009-3883 consists of a square parcel of land located at the southeast corner of the intersection of Terrace Heights road and Seventeenth Streets. The station is situated on a broad alluvial valley, approximately 400 yards southwest of the Yakima River (see Figure 1). Car dealerships are situated to the south and west of the site. A Texaco service station is located north and west of the site on the north side of Terrace Heights Road. The Yakima River and Sarge Hubbard Park are located east of the site.

Three underground storage tanks containing gasoline were located on the northeast portion of the site. The station had two operating pump islands located north of the building. A used oil and fuel oil UST located south of the station building were previously removed in March of 1992. Three groundwater monitoring wells are present at the site. Figure 2 displays the location of the station building, USTs, pump islands, and groundwater monitoring wells.

2.2 Geology

The City of Yakima is located near the western margin of the Columbia Plateau physiographic province adjacent to the Cascade Mountains. This region consists of a series of successive basaltic lava flows and interbeds of the Columbia River Basalt Group. In the Yakima area the basalt has been subsequently uplifted, folded and eroded. Recent alluvial gravels, sands, and silt flood plain sediments are deposited on the valley floor, and eolian silt are present on the adjacent hillsides.

3.0 FIELD INVESTIGATION AND METHODS

3.1 Underground Storage Tank Removal

On December 17, 1992, Chen-Northern personnel registered with WDOE to perform site assessments observed the excavation and removal of the three USTs. Kennedy Equipment, subcontracted by Golden West Builders, completed the tank removals. Gary Desmarais Construction was subcontracted by Kennedy Equipment for excavation services. Prior to removal, any remaining product was pumped out and the tanks were inerted with dry ice. Following removal, the tanks were cleaned and cut up for scrap. Each tank was visually inspected after removal. All three product tanks (Tank Nos. 1 through 3) were in fair condition with no observed perforations. The product piping displayed several loose fittings and connections, but no perforations were detected.

Table 1 presents physical data of the removed tanks. Appendix A contains tank removal documentation and WDOE site assessment checklists. All underground storage tanks were hauled off-site by Kennedy Equipment of Pasco, Washington and sold for scrap metal at Central Salvage of Yakima, Washington.

Following removal of the product tanks, the base and walls of the tank excavation were monitored for hydrocarbon constituents. Monitoring procedures consisted of visually examining the excavation and obtaining grab soil samples from various areas of the excavation with the backhoe bucket for measurement of hydrocarbon constituents. Head-space analyses were performed on the soil samples using Chen-Northern's standard field procedures. Field readings indicated hydrocarbon constituents were generally below 100 parts per million (PPM) in the tank basin. Measured head-space values were logged in field notes and are summarized in Appendix B. Laboratory analysis was also completed on samples.

On December 18 and 29, 1992, Chen-Northern personnel observed the excavation of test pits located at the north and south pump islands. Field readings indicated hydrocarbon

constituents were present in the upper four feet adjacent to the south pump island, however, concentrations decreased with depth.

Hydrocarbon impacted material accessible to the backhoe was excavated on January 12, 1993. However, the close proximity of the canopy supports and adjacent subsurface foundations restricted complete removal of infiltrated material. Subsoil samples for laboratory analyses were obtained at the locations displayed in Figure 2. Impacted subsoils excavated from the site were stockpiled on plastic sheeting behind the station building.

Materials excavated consisted primarily of unconsolidated alluvial sand and gravel or undifferentiated fill. The top three to four feet of soil under the asphalt is fill material which covers most of the site. Groundwater was not encountered in any of the excavations. The static water level is estimated at about 14 feet below ground surface during the winter months, but is expected to fluctuate seasonally. Bedrock was not encountered in any excavation.

Excavations in the vicinity of the pump islands exposed an 10 - 14" thick layer displaying dark discoloration (Photo, Appendix C). This layer appeared to extend south under the station building and was at a depth of approximately 1.5 feet to 3 feet below ground surface. The source of this material appears to be fill dumped on site prior to use of the property as a service station. Local residents indicated the site had been used as a dump for many years, prior to the construction of a station. Excavation of this material was not requested by Chevron due to the impractically of this approach and since fill material is not leachable into the groundwater based on historical and recent monitoring of groundwater wells in the vicinity. Soil in the vacinity of the south pump island was excavated a depth of 4-6 feet, to remove gasoline impacted soils.

Chen-Northern's work on the site was monitored by representatives of White Shield Inc., from Grandview, Washington. White Shield was hired by the buyer of the property to observe assessment activities.

Approximately 100 cubic yards of hydrocarbon infiltrated subsoils excavated from the pump block area have been disposed of at the Rabanco Landfill in Klickitat County, Washington. Other stockpiled subsoils located on the site were used as fill adjacent to the site, after analytical results indicated hydrocarbon constituents were not detected.

3.2 Sample Handling

All samples remained in the custody of Chen-Northern field personnel until shipment to the laboratory. Time and date of sample collection, sample identification numbers, custody personnel, and time and date received by laboratory personnel were transcribed on the chain-of-custody forms for each sample. All sample containers were transported directly by overnight courier to Analytical Technologies, Inc, in Renton Washington.

3.3 Sample Analysis

Subsoil samples collected from the product tank, product line and pump block excavations were submitted to the laboratory for analysis of total recoverable petroleum hydrocarbons (TRPH) by EPA method 418.1, total petroleum hydrocarbons (TPH) by EPA method 8015, benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA method 8020 and lead by EPA method 6010. Subsoil samples collected from areas potentially impacted with heavier hydrocarbon constituents were analyzed for TRPH by EPA method 418.1, and polychlorinated biphenyls (PCBs) by EPA method 8080. Appendix D presents complete analytical reports and chain of custody documentation.

4.0 ANALYTICAL RESULTS

Table 2 presents a summary of the analytical results of samples collected from site excavations. TPH as gasoline or BTEX constituents were generally not detected in subsoil

samples collected from the product tank excavations. Concentrations of total petroleum hydrocarbons as gasoline above 100 mg/kg and BTEX constituents above DOE action levels were only observed in sample #20 located at a depth of four feet below ground surface from the south pump island area. Concentrations of TRPH or TPH as diesel fuel at levels over 200 mg/kg were only detected in sample 19 and 22 located in the pump island area at a depth of 2 feet BGS. These samples were collected from the area of discolored in-place fill material.

5.0 SUMMARY

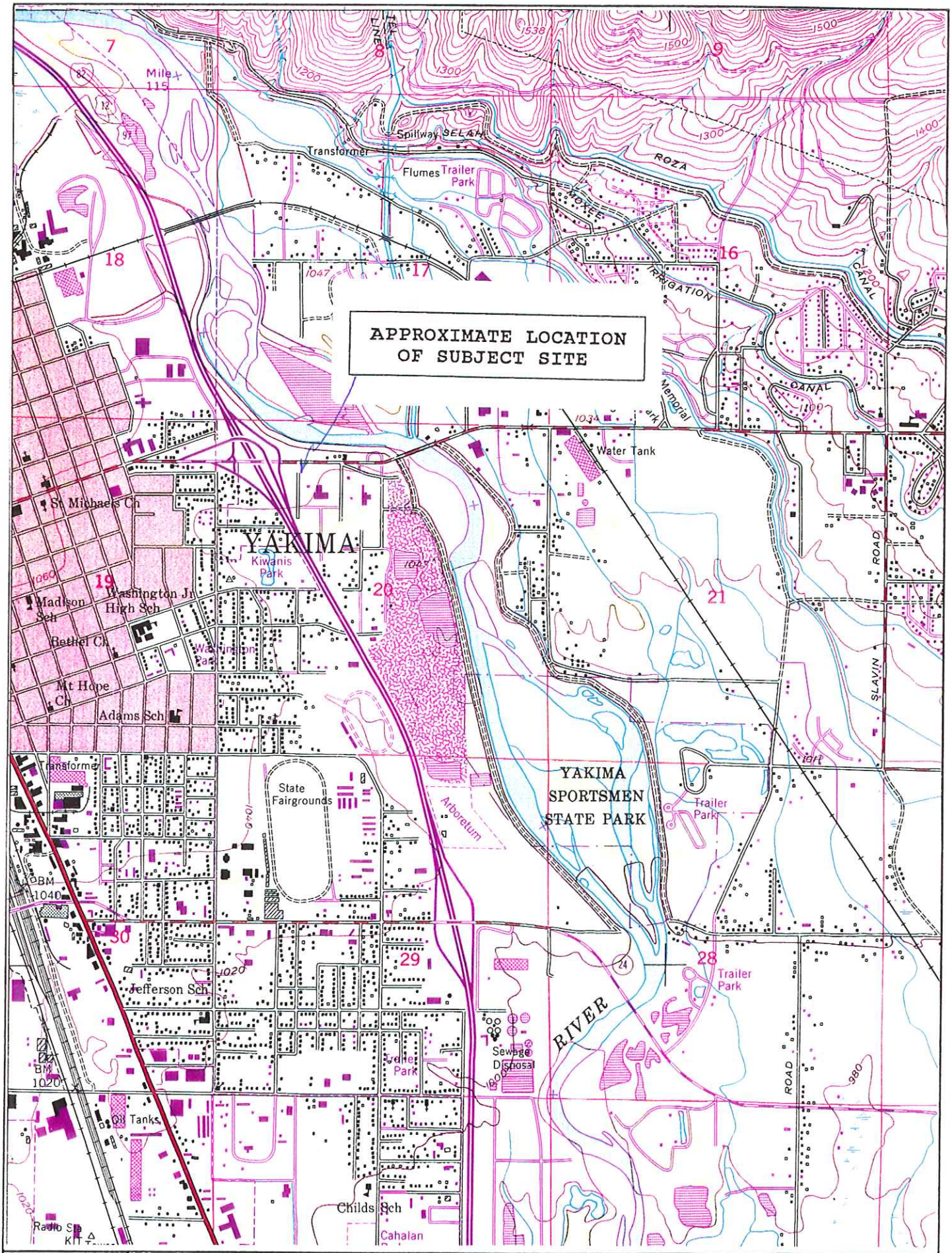
All three underground storage tanks located at the site were removed. Visual inspection of the tanks and product piping indicated the tanks were in good condition. Although, product piping appeared in good condition, connections may have been loose below some of the fuel dispensing equipment.

Field screening of the underground storage tank, product piping, and pump block excavations indicate hydrocarbon constituents were present in the subsoils adjacent to the south pump island. Subsequent over-excavation removed much of the gasoline impacted material adjacent to the south pump island, however, the location of canopy supports restricted complete removal of impacted material.

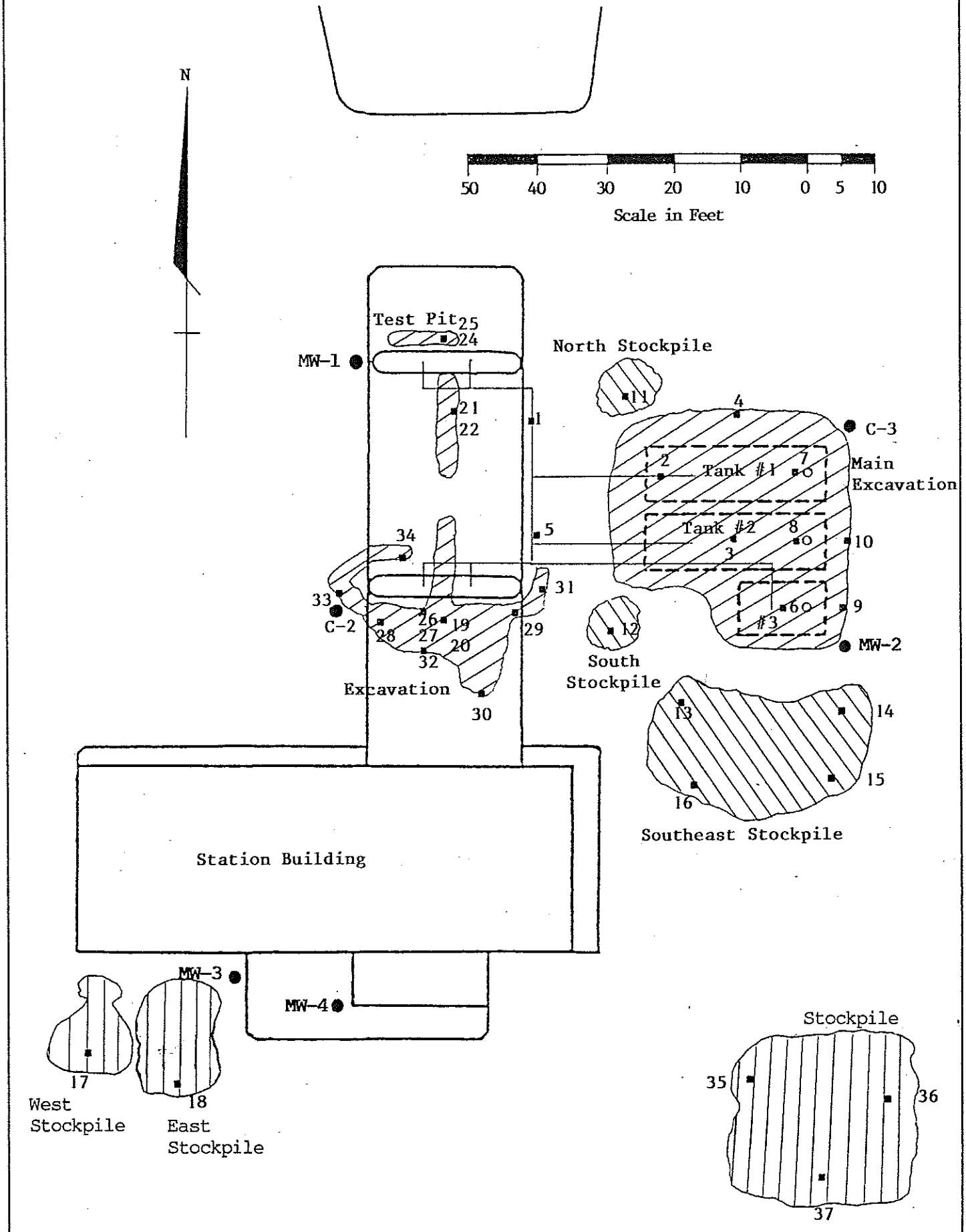
Based on confirmation soil sampling at the limits of the pump island over excavation and the pit side walls and base, remaining soils at the site do not contain gasoline hydrocarbon in excess of Washington State MTCA Method A clean up levels.

Prepared by: _____
Paul Danielson
Staff Geologist

Reviewed by: _____
Gerald G. Harper
Division Manager



192-2129	Chen Northern, Inc.	Area Map - Chevron Station 9-3883 Yakima, Washington	Fig. 1



192-2129	Chen Northern, Inc.	Site Plan - Chevron Station No# 9-3883 Yakima, Washington	Fig. 2

TABLE 1
Physical Data of Tanks Removed

Tank No.	Year Installed	Construction Material	Capacity (Gallons)	Type of Product
1	1967	Steel	10,000	Regular Gasoline
2	1967	Steel	10,000	Unleaded Gasoline
3	1967	Steel	5,000	Unleaded

TABLE 2
SOIL SAMPLE LAB RESULTS
CHEVRON YAKIMA STATION 6009-3883

Sample Location, Depth, Date Sampled	Benzene mg/kg	Ethyl-benzene mg/kg	Toluene mg/kg	Xylenes mg/kg	TRPH 418.1 mg/kg	PCB's mg/kg	TPHD mg/kg	TPHG mg/kg
1. 28N,4E, 4' Base of Lines 12-17-92	<0.025	<0.025	<0.025	<0.025				<6
2. Tank #1, 12' West Base 12-17-92	<0.025	<0.025	<0.025	<0.025				<5
3. Tank #3, 12' Center Base 12-17-92	<0.027	<0.027	<0.027	<0.027				<5
4. Tank #2, 7' North Sidewall 12-18-92	<0.028	<0.028	0.042	<0.028				<6
5. 7N,6E, 4' Base of Lines 12-17-02	<0.027	<0.027	0.17	0.10				<5
6. Tank #3, 12' Center Base 12-17-92	<0.027	<0.027	<0.027	<0.027				<5
7. Tank #1, 13' East Base 12-17-92	<0.027	<0.027	<0.027	<0.027				<5
8. Tank #2, 12' East Base 12-17-92	<0.027	<0.027	<0.027	<0.027				<5
9. Tank #3, 6' E. Sidewall 12-17-92	<0.030	<0.030	0.076	<0.030				<6
10. Tank #2, 5' E. Sidewall 12-17-92	<0.026	<0.026	0.046	<0.026				<5
11. Stockpile North 12-18-92	<0.027	<0.027	0.044	0.047				<5

TABLE 2 CONTINUED
SOIL SAMPLE LAB RESULTS
CHEVRON YAKIMA STATION 6009-3883

Sample Location, Depth, Date Sampled	Benzene mg/kg	Ethyl-benzene mg/kg	Toluene mg/kg	Xylenes mg/kg	TRPH 418.1 mg/kg	PCB's mg/kg	TPHD mg/kg	TPHG mg/kg
12. Stockpile South 12-18-92	<0.027	<0.027	0.085	0.15				<5
13. SE Stockpile West 12-18-92	<0.027	<0.027	0.085	0.15				<5
14. SE Stockpile East 12-18-92	<0.027	<0.027	<0.027	<0.027				9
15. SE Stockpile South East 12-18-92	<0.027	<0.027	<0.027	0.027				<5
16. SE Stockpile South West 12-18-92	<0.027	<0.027	0.032	<0.027				<6
17. Stockpile West 12-18-92	0.078	10	5.0	160	1,300	All <.038		
18. Stockpile East 12-18-92	<.027	<.027	<.027	<0.27	1,700	All <.035		
19. 6S, 6W, -2' 12-18-92					96		220	58
20. 6S, 6W, -4' 12-29-92	9.5	44	89	300				4300
21. 23N, 4W, -2' 12-29-92	<0.027	<0.027	<0.041	0.019				6
22. 23N, 4W, -4' 12-29-92					1,100		700	

TABLE 2 CONTINUED
SOIL SAMPLE LAB RESULTS
CHEVRON YAKIMA STATION 6009-3883

Sample Location, Depth, Date Sampled	Benzene mg/kg	Ethyl-benzene mg/kg	Toluene mg/kg	Xylenes mg/kg	TRPH 418.1 mg/kg	PCB's mg/kg	TPHD mg/kg	TPHG mg/kg
23. .Pit Excavation Composite 12-29-92	<0.026	0.043	0.10	0.40	55	All <.072		5
24. 36N, 6W, 4.5' 1-12-93	<.026	0.066	0.049	0.96	100			51
25. 36N, 6W, 9' 1-12-93	0.038	0.032	0.094	0.36	100			83
26. 4S,8W,5.5' 1-12-93	<.027	<.027	0.028	0.24	48			15
27. 4S, 8W, 9' 1-12-93	<.026	<.026	<.026	0.035	<21			<5
28. 14W, 6S, 4.5' 1-12-93	<.028	<.028	<.028	<.028				<6
29. 5S, 5E, 4.5' 1-12-93	<.027	<.027	<.027	<.027				<5
30. 18S, 2W, 4.5' 1-12-93	<.027	<.027	<.027	<.027				<5
31. 0S, 6E, 4.5' 1-12-93	<.028	<.028	<.028	<.028				<6
32. 12S, 8W, 5' 1-12-93	<.028	<.028	<.028	0.052				<6
33. 18W, 3S, 6' 1-12-93	<.028	<.028	<.028	<.028				<6
34. 9W, 4N, 4' 1-12-93	<.028	<.028	<.028	<.028				<6
35. SE, CS, East 1-12-93	<.029	<.029	<.029	<.029	400	<.039 All		<6

APPENDIX A

Tank Removal Documentation

UNDERGROUND STORAGE TANK
Site Check/Site Assessment Checklist

ECOLOGY

For Office Use Only	
Owner #	
Site #	

STRUCTIONS:

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

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

ANK INFORMATION: Please list all tanks for which the site check or site assessment is being conducted. Use the owner's tank ID numbers if available, and indicate tank capacity and substance stored.

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

CHECKLIST: Please initial each item in the appropriate box.

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

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

TE INFORMATION

Site ID Number (on invoice or available from Ecology if the tanks are registered): 005150

ite/Business Name: CHEVRON

Site Address: 1602 TERRACE HEIGHTS RD. (Street) Telephone: ( ) _____

YAKIMA (City) WASHINGTON (State) 98901 (ZIP-Code)

ANK INFORMATION

Tank ID No.	Tank Capacity	Substance Stored
#1	5,000	LEADED GASOLINE
#2	10,000	UNLEADED GASOLINE
#3	10,000	UNLEADED GASOLINE

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT

heck 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.
- X UST system permanently closed with tank removed.
- ____ Abandoned tank containing product.
- ____ Required by Ecology or delegated agency for UST system closed before 12/22/88.
- ____ Other (describe): _____

CHECKLIST

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

		YES	NO
1.	The location of the UST site is shown on a vicinity map.	P.D.	
2.	A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in site assessment guidance)	P.D.	
3.	A summary of UST system data is provided. (see Section 3.1)	P.D.	
4.	The soils characteristics at the UST site are described. (see Section 5.2)	P.D	
5.	Is there any apparent groundwater in the tank excavation?		P.D.
6.	A brief description of the surrounding land use is provided. (see Section 3.1)	P.D.	
7.	Information has been provided indicating the number and types of samples collected, methods used to collect and analyze the samples, and the name and address of the laboratory used to perform the analyses.	P.D.	
8.	A sketch or sketches showing the following items is provided:		
	- location and ID number for all field samples collected	P.D	
	- groundwater samples distinguished from soil samples (if applicable)	N/A	
	- samples collected from stockpiled excavated soil	P.D.	
	- tank and piping locations and limits of excavation pit	P.D.	
	- adjacent structures and streets	P.D.	
	- approximate locations of any on-site and nearby utilities	P.D	
9.	If sampling procedures different from those specified in the guidance were used, has justification for using these alternative sampling procedures been provided? (see Section 3.4)	N/A	
10.	A table is provided showing laboratory results for each sample collected including; sample ID number, constituents analyzed for and corresponding concentration, analytical method and detection limit for that method.	P.D.	
11.	Any factors that may have compromised the quality of the data or validity of the results are described.	P.D.	
12.	The results of this site check/site assessment indicate that a confirmed release of a regulated substance has **not** occurred.		P.D.

SITE ASSESSOR INFORMATION

Paul Danielson — Person registered with Ecology

Chen-Northern, Inc. — Firm Affiliated with

Business Address: 2214 N. 4th Avenue (Street)

Telephone: (509) 547-1671

Pasco (City) Washington (State) 99301 (ZIP+Code)

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

1-28-93 — Date

Paul Danielson — Signature of Person Registered with Ecology

UNDERGROUND STORAGE TANK
Permanent Closure/Change-In-Service Checklist

The purpose of this form is to certify the proper closure/change-in-service of underground storage tank (UST) systems. These activities must be conducted in accordance with Chapter 173.360 WAC. Washington State UST rules require the tank owner or operator to notify Ecology in writing 30 days prior to closure or change-in-service of tanks. This must be done by completing the 30 Day Notice form (ECY 010-155).

This Permanent Closure Checklist shall be completed and signed by a **Licensed Decommissioning Supervisor.** The supervisor shall be on site when all tank permanent closure/change-in-service activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a **Service Provider.** If any of the activities listed below have been supervised by a different licensed supervisor, a separate checklist must be filled out and signed by the licensed supervisor performing those activities.

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

A separate checklist must be completed for each UST system (tank and associated piping), except that UST systems at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of the completion of the closure or change-in-service.

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

1. UST SYSTEM OWNER AND LOCATION

Site Owner/Operator: Chevron USA

Owners Address: 2410 Camino (Street) PO Box 5004 (P.O. Box)

San Ramon (City) CA (State) 94583 (ZIP-Code)

Telephone: (510) 842-8658

Site ID Number (on invoice or available from Ecology if tank is registered): 005150

Site/Business Name: Aiders Chevron

Site Address: 1602 Terrace Heights RD (Street) (County)

Yakima (City) WA (State) (ZIP-Code)

2. TANK PERMANENT CLOSURE/CHANGE-IN-SERVICE PERFORMED BY:

Firm: Kennedy Equip Co License Number:

Address: 603 Ainsworth (Street) (P.O. Box)

Pasco (City) WA (State) 99301 (ZIP-Code)

Telephone: (509) 545-2163

Licensed Supervisor: Edward Trotter Decommissioning License Number: W001447

This page must be completed separately for each tank permanently closed (decommissioned) or change-in-service at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK CLOSURE/CHANGE-IN-SERVICE INFORMATION

1. Tank ID Number (as registered with Ecology): 1
2. Year installed: 1967
3. Tank capacity in gallons: ~~5,000~~ 5000
4. Date of last use: 12-1-92
5. Last substance stored: GASOLINE
6. Date of closure/change-in-service: 12-17-92
7. Type of closure: Closure with Tank Removal [X] In-place Closure [ ] Change-in-Service [ ]
8. If in-place closure is used, the tank has been filled with the following substance: N/A
9. If change-in-service, indicate new substance stored in tank: N/A
10. Local permit(s) (if any) obtained from: N/A

Always contact local authorities regarding permit requirements.

11. Has a site assessment been completed? Yes [X] No [ ]

Unless an external release detection system is operating at the time of closure or change in service, and a report is provided as specified in WAC 173-360-390, a site assessment must be conducted. This site assessment must be conducted by a person registered with the Department of Ecology to perform site assessments. Results of the site assessment must be included with the Site Assessment Checklist (ECY 010-158).

4. CHECKLIST

Each item of the following checklist shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has all liquid been removed from product lines?	X		
2. Has all product piping been capped or removed?	X		
3. Have all non-product lines been capped or removed?	X		
4. Have all liquid and accumulated sludges been removed from the tank?	X		
5. Has the tank been properly purged or inerted?	X		
6. Have the drop tube, fill pipe, gauge pipe, pumps and other tank fixtures been removed?	X		
7. Have all tank openings been plugged or capped? NOTE: One plug should have 1/8 inch vent hole.	X		
8. Have all sludges removed from the tank been designated and disposed of in accordance with the state of Washington's dangerous waste regulations (Chapter 173-303 WAC)?	X		
9. If removed, was tank properly labeled and disposed of in accordance with all applicable local, state and federal regulations?	X		

*Item not applicable

I hereby certify that I have been the licensed supervisor present on site during the above listed permanent closure activities and to the best of my knowledge they have been conducted in compliance with all applicable state and federal laws, regulations and procedures pertaining to underground storage tanks.

Persons submitting false information are subject to penalties under Chapter 173,360 WAC.

1-27-93 — Date

Edmund Pritchett — Signature of Licensed Supervisor

5. ADDITIONAL REQUIRED SIGNATURES

1-27-93 — Date

Edmund Pritchett — Signature of Licensed Service Provider (firm) Owner or Authorized Representative

1-27-93 — Date

Edmund Pritchett — Signature of Tank Owner or Authorized Representative

UNDERGROUND STORAGE TANK
Permanent Closure/Change-In-Service Checklist

The purpose of this form is to certify the proper closure/change-in-service of underground storage tank (UST) systems. These activities must be conducted in accordance with Chapter 173.360 WAC. Washington State UST rules require the tank owner or operator to notify Ecology in writing 30 days prior to closure or change-in-service of tanks. This must be done by completing the 30 Day Notice form (ECY 010-155).

This Permanent Closure Checklist shall be completed and signed by a **Licensed Decommissioning Supervisor.** The supervisor shall be on site when all tank permanent closure/change-in-service activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a **Service Provider.** If any of the activities listed below have been supervised by a different licensed supervisor, a separate checklist must be filled out and signed by the licensed supervisor performing those activities.

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

A separate checklist must be completed for each UST system (tank and associated piping), except that UST systems at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of the completion of the closure or change-in-service.

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

UST SYSTEM OWNER AND LOCATION

Site Owner/Operator: Chevron USA

Owners Address: 2410 Camino (Street) PO Box 5004 (P.O. Box)

San Ramon (City) CA (State) 94583 (ZIP-Code)

Telephone: (510) 842-8658

Site ID Number (on invoice or available from Ecology if tank is registered): 005150

Site/Business Name: Aders Chevron

Site Address: 1602 Terrace Heights RD (Street) (County)

Yakima (City) WA (State) (ZIP-Code)

TANK PERMANENT CLOSURE/CHANGE-IN-SERVICE PERFORMED BY:

Firm: Kennedy Equip Co License Number:

Address: 603 Ainsworth (Street) (P.O. Box)

Pasco (City) WA (State) 99301 (ZIP-Code)

Telephone: (509) 545-2163

Licensed Supervisor: Edward Mitchell Decommissioning License Number: W001447

This page must be completed separately for each tank permanently closed (decommissioned) or change-in-service at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK CLOSURE/CHANGE-IN-SERVICE INFORMATION

1. Tank ID Number (as registered with Ecology): 2
2. Year installed: 1967
3. Tank capacity in gallons: 10,000
4. Date of last use: 12-1-92
5. Last substance stored: GASOLINE
6. Date of closure/change-in-service: 12-17-92
7. Type of closure: Closure with Tank Removal [X] In-place Closure [ ] Change-in-Service [ ]
8. If in-place closure is used, the tank has been filled with the following substance: N/A
9. If change-in-service, indicate new substance stored in tank: N/A
10. Local permit(s) (if any) obtained from: N/A

Always contact local authorities regarding permit requirements.

11. Has a site assessment been completed? Yes [X] No [ ]

Unless an external release detection system is operating at the time of closure or change in service, and a report is provided as specified in WAC 173-360-390, a site assessment must be conducted. This site assessment must be conducted by a person registered with the Department of Ecology to perform site assessments. Results of the site assessment must be included with the Site Assessment Checklist (ECY 010-158).

4. CHECKLIST

Each item of the following checklist shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has all liquid been removed from product lines?	X		
2. Has all product piping been capped or removed?	X		
3. Have all non-product lines been capped or removed?	X		
4. Have all liquid and accumulated sludges been removed from the tank?	X		
5. Has the tank been properly purged or inerted?	X		
6. Have the drop tube, fill pipe, gauge pipe, pumps and other tank fixtures been removed?	X		
7. Have all tank openings been plugged or capped? NOTE: One plug should have 1/8 inch vent hole.	X		
8. Have all sludges removed from the tank been designated and disposed of in accordance with the state of Washington's dangerous waste regulations (Chapter 173-303 WAC)?	X		
9. If removed, was tank properly labeled and disposed of in accordance with all applicable local, state and federal regulations?	X		

*Item not applicable

I hereby certify that I have been the licensed supervisor present on site during the above listed permanent closure activities and to the best of my knowledge they have been conducted in compliance with all applicable state and federal laws, regulations and procedures pertaining to underground storage tanks.

Persons submitting false information are subject to penalties under Chapter 173.360 WAC.

1-27-93 Date — Edmond Mitchell — Signature of Licensed Supervisor

5. ADDITIONAL REQUIRED SIGNATURES

1-27-93 Date — Edmond Mitchell — Signature of Licensed Service Provider (firm) Owner or Authorized Representative

1-27-93 Date — Edmond Mitchell — Signature of Tank Owner or Authorized Representative

UNDERGROUND STORAGE TANK
Permanent Closure/Change-In-Service Checklist

The purpose of this form is to certify the proper closure/change-in-service of underground storage tank (UST) systems. These activities must be conducted in accordance with Chapter 173.360 WAC. Washington State UST rules require the tank owner or operator to notify Ecology in writing 30 days prior to closure or change-in-service of tanks. This must be done by completing the 30 Day Notice form (ECY 010-155).

This Permanent Closure Checklist shall be completed and signed by a **Licensed Decommissioning Supervisor.** The supervisor shall be on site when all tank permanent closure/change-in-service activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a **Service Provider.** If any of the activities listed below have been supervised by a different licensed supervisor, a separate checklist must be filled out and signed by the licensed supervisor performing those activities.

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

A separate checklist must be completed for each UST system (tank and associated piping), except that UST systems at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of the completion of the closure or change-in-service.

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

UST SYSTEM OWNER AND LOCATION

Site Owner/Operator: Chevron USA

Owners Address: 2410 Camino (Street) PO Box 5004 (P.O. Box)

San Ramon (City) CA (State) 94583 (ZIP-Code)

Telephone: (510) 842-8658

Site ID Number (on invoice or available from Ecology if tank is registered): 005150

Site/Business Name: Aiders Chevron

Site Address: 1602 Terrace Heights RD (Street) (County)

Yakima (City) WA (State) (ZIP-Code)

TANK PERMANENT CLOSURE/CHANGE-IN-SERVICE PERFORMED BY:

Firm: Kennedy Equip Co License Number:

Address: 603 Ainsworth (Street) (P.O. Box)

Pasco (City) WA (State) 99301 (ZIP-Code)

Telephone: (509) 545-2163

Licensed Supervisor: Edward Butterfield Decommissioning License Number: W001447

This page must be completed separately for each tank permanently closed (decommissioned) or change-in-service at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK CLOSURE/CHANGE-IN-SERVICE INFORMATION

1. Tank ID Number (as registered with Ecology): 3
2. Year installed: 1967
3. Tank capacity in gallons: 10,000
4. Date of last use: 12-1-92
5. Last substance stored: GASOLINE
6. Date of closure/change-in-service: 12-17-92
7. Type of closure: Closure with Tank Removal [X] In-place Closure [ ] Change-in-Service [ ]
8. If in-place closure is used, the tank has been filled with the following substance: N/A
9. If change-in-service, indicate new substance stored in tank: N/A
10. Local permit(s) (if any) obtained from: N/A

Always contact local authorities regarding permit requirements.

11. Has a site assessment been completed? Yes [X] No [ ]

Unless an external release detection system is operating at the time of closure or change in service, and a report is provided as specified in WAC 173-360-390, a site assessment must be conducted. This site assessment must be conducted by a person registered with the Department of Ecology to perform site assessments. Results of the site assessment must be included with the Site Assessment Checklist (ECY 010-158).

4. CHECKLIST

Each item of the following checklist shall be initialed by the **licensed supervisor** whose signature appears below.

	Yes	No	NA*
1. Has all liquid been removed from product lines?	X		
2. Has all product piping been capped or removed?	X		
3. Have all non-product lines been capped or removed?	X		
4. Have all liquid and accumulated sludges been removed from the tank?	X		
5. Has the tank been properly purged or inerted?	X		
6. Have the drop tube, fill pipe, gauge pipe, pumps and other tank fixtures been removed?	X		
7. Have all tank openings been plugged or capped? NOTE: One plug should have 1/8 inch vent hole.	X		
8. Have all sludges removed from the tank been designated and disposed of in accordance with the state of Washington's dangerous waste regulations (Chapter 173-303 WAC)?	X		
9. If removed, was tank properly labeled and disposed of in accordance with all applicable local, state and federal regulations?	X		

*Item not applicable

I hereby certify that I have been the licensed supervisor present on site during the above listed permanent closure activities and to the best of my knowledge they have been conducted in compliance with all applicable state and federal laws, regulations and procedures pertaining to underground storage tanks.

Persons submitting false information are subject to penalties under Chapter 173.360 WAC.

1-27-93 — Date

Edward [illegible] — Signature of Licensed Supervisor

5. ADDITIONAL REQUIRED SIGNATURES

1-27-93 — Date

Edward [illegible] — Signature of Licensed Service Provider (firm) Owner or Authorized Representative

1-27-93 — Date

Edward [illegible] — Signature of Tank Owner or Authorized Representative

Facility Id# 005150
Tank No. 3

TANK CLOSURE FORM

(a separate form needs to be filled out for each tank closed)

TANK OWNER'S NAME & ADDRESS:
Chevron U.S.A., Inc.
2410 Camino Ramon
P.O. Box 5004
San Ramon, CA 94583

FACILITY NAME AND LOCATION ADDRESS OF TANK:
Station No. 9-3883
1602 Terrace Heights Rd.
Yakima, WA

1. TANK AGE (YEARS): 24
2. TANK CAPACITY (GALLONS): 10,000
3. WHAT SUBSTANCE WAS LAST STORED IN THE TANK? Unleaded Gasoline
4. WHEN WAS TANK LAST USED? (month/year) 12-92
5. DATE OF CLOSURE? 12-17-92
6. TYPE OF CLOSURE:
   x Removed from Ground ___Filled with Inert Solid [Please describe inert solid (e.g., sand, concrete)]_____
7. CONDITION AND MATERIAL OF CONSTRUCTION OF TANK (Check andy that apply and include a complete description of the affected area. This may include photographs or tank test results.)

   Condition:
   _Pitted _Perforated __Cracked x Rusted x Good Condition

   Material of Construction:
   x Steel __Concrete __Fiberglass Reinforced Plastic
   __Cathodically Protected __Other. Please specify_____

   COMMENTS:

8. CONDITION AND MATERIAL OF CONSTRUCTION OF PIPING (Check all that apply and include a complete description of the affected area. This may include photographs or piping test results.):

CONDITION:
_Pitted __Perforated __Cracked x Rusted __Crushed
_Good Condition

Material of Construction:

Bare Steel _x_Galvanized Steel __Fiberglass Reinforced Plastic
Cathodically Protected __Other. Please specify_____

OMMENTS:

9. NAME AND ADDRESS OF CLOSURE CONTRACTOR:

ennedy Equipment, Inc.
Pasco, WA

10. NAME(S) AND ADDRESS(ES) OF LOCAL, COUNTY OR STATE OFFICIALS WHO WITNESSED LOSURE (Include statements if available.):

Charles Robinson - White Shield, Inc.
Clint Rogers and Pete Jaharris with Chevron

1. COMPLETE DESCRIPTION OF CLOSURE PROCEDURE (including disposition of tank):

Inerted tank, Exposed and removed concrete top, removed piping, pulled tank, cut up tank and moved to Central Salvage in Yakima for scrap.

2. EXPLANATION OF SUBSURFACE SOIL INVESTIGATION (Check any which apply and include a description of what the soil under the tank looked like or test results from soil borings.):

__smell of fuel __discoloration __free product

__sheen on groundwater _x_no evidence of leak

OMMENTS:

ee Text.

Facility Id# 005150
Tank No. 2

TANK CLOSURE FORM

(A separate form needs to be filled out for each tank closed)

TANK OWNER'S NAME & ADDRESS:
Chevron U.S.A., Inc.
2410 Camino Ramon
P. O. Box 5004
San Ramon, CA 94583

FACILITY NAME AND LOCATION ADDRESS OF TANK:
Station No. 9-3883
1602 Terrace Heights Rd.
Yakima, WA

TANK AGE (YEARS): 24

2. TANK CAPACITY (GALLONS): 10,000

WHAT SUBSTANCE WAS LAST STORED IN THE TANK? unleaded gasoline

WHEN WAS TANK LAST USED? (month/year) 12-92

5. DATE OF CLOSURE? 12-17-92

6. TYPE OF CLOSURE:
x Removed from Ground
__Filled with Inert Solid [Please describe inert solid (e.g., sand, concrete)]_____

CONDITION AND MATERIAL OF CONSTRUCTION OF TANK (Check andy that apply and include a complete description of the affected area. This may include photographs or tank test results.)

Condition:
__Pitted __Perforated __Cracked x Rusted x Good Condition

Material of Construction:
x Steel __Concrete __Fiberglass Reinforced Plastic
__Cathodically Protected __Other. Please specify_____

COMMENTS:

CONDITION AND MATERIAL OF CONSTRUCTION OF PIPING (Check all that apply and include a complete description of the affected area. This may include photographs or piping test results.):

CONDITION:
Pitted __Perforated __Cracked x Rusted __Crushed
Good Condition

Material of Construction:

Bare Steel _x_Galvanized Steel __Fiberglass Reinforced Plastic
_Cathodically Protected __Other. Please specify_____

COMMENTS:

9. NAME AND ADDRESS OF CLOSURE CONTRACTOR:

Kennedy Equipment, Inc.
Pasco, WA

10. NAME(S) AND ADDRESS(ES) OF LOCAL, COUNTY OR STATE OFFICIALS WHO WITNESSED CLOSURE (Include statements if available.):

Charles Robinson - White Shield, Inc.
Pete Jaharris and Clint Rogers - Chevron

11. COMPLETE DESCRIPTION OF CLOSURE PROCEDURE (including disposition of tank):

Inerted, concrete broken off of top, removed piping, pulled tank, Cleaned and cut up, then removed to Central Salvage, Yakima, Washington for scrap

12. EXPLANATION OF SUBSURFACE SOIL INVESTIGATION (Check any which apply and include a description of what the soil under the tank looked like or test results from soil borings.):

_smell of fuel _discoloration __free product

__sheen on groundwater _x_no evidence of leak

COMMENTS:

Facility Id# 005150
Tank No. 1

TANK CLOSURE FORM

(a separate form needs to be filled out for each tank closed)

TANK OWNER'S NAME & ADDRESS:
Chevron U.S.A., Inc.
2410 Camino Ramon
San Ramon, CA 94583

FACILITY NAME AND LOCATION ADDRESS OF TANK:
Station No. 9-3883
1601 Terrace Heights Rd
Yakima, WA

1. TANK AGE (YEARS): 24
2. TANK CAPACITY (GALLONS): 5000
3. WHAT SUBSTANCE WAS LAST STORED IN THE TANK? leaded gasoline
4. WHEN WAS TANK LAST USED? (month/year) 12-92
5. DATE OF CLOSURE? 12-17-92
6. TYPE OF CLOSURE:
   x Removed from Ground ___Filled with Inert Solid [Please describe inert solid (e.g., sand, concrete)]_____
7. CONDITION AND MATERIAL OF CONSTRUCTION OF TANK (Check andy that apply and include a complete description of the affected area. This may include photographs or tank test results.)

   Condition:
   __Pitted __Perforated __Cracked x Rusted x Good Condition

   Material of Construction:
   x Steel __Concrete __Fiberglass Reinforced Plastic
   __Cathodically Protected __Other. Please specify_____

   COMMENTS:

8. CONDITION AND MATERIAL OF CONSTRUCTION OF PIPING (Check all that apply and include a complete description of the affected area. This may include photographs or piping test results.):

CONDITION:
__Pitted __Perforated __Cracked x Rusted __Crushed
__Good Condition

Material of Construction:
__Bare Steel x Galvanized Steel __Fiberglass Reinforced Plastic

_Cathodically Protected __Other. Please specify_____

'OMMENTS:

NAME AND ADDRESS OF CLOSURE CONTRACTOR:

ennedy Equipment, Inc.
asco, WA

.0. NAME(S) AND ADDRESS(ES) OF LOCAL, COUNTY OR STATE OFFICIALS WHO WITNESSED CLOSURE (Include statements if available.):

harles Robinson - White Shield, Inc.
Pete Jaharris and Clint Rogers - Chevron

11. COMPLETE DESCRIPTION OF CLOSURE PROCEDURE (including disposition of tank):

nerted, exposed and removed concrete top, removed piping, pulled tank, cut up and hauled to Central Salvage in Yakima

12. EXPLANATION OF SUBSURFACE SOIL INVESTIGATION (Check any which apply and include a escription of what the soil under the tank looked like or test results from soil borings.):

_smell of fuel _discoloration __free product

__sheen on groundwater _x_no evidence of leak

COMMENTS:

APPENDIX B

Headspace Analysis

Head-Space Analysis

Head-space samples are collected by filling a clean glass container approximately one-half full of soil and immediately covering it with aluminum foil. An air-tight lid is placed over the foil to seal the container. The sample is allowed to warm to room temperature (approximately 75 degrees F.) to release volatile hydrocarbons, if present, into the available head-space. The head-space of each sample container is then measured with an FID or PID by inserting the probe through the aluminum foil and recording on the lithologic logs the value of volatile organic constituents detected by the instrument.

FIELD DATA OF HEADSPACE ANALYSES

Sample No.	Depth BGS[1]	Sample Location	Head-space (ppm)
1	5	East sidewall tank #2	16
2	12	West base tank #1	99
3	4	West wall tank # 2	50
4	4	28N, 4E, base lines	5.7
5	13	East base tank # 1	7.7
6	4	7N,6E, base pipes	8.3
7	2	Base north pump island	43.9
8	2	Base south pump island	3285
9	12	East base tank #2	5
10	12	Center base tank #3	6.7
11	7	North sidewall tank #1	7.7
12	6	East sidewall tank # 3	3.4
13	4.5	36N,6W, North trench	147
14	5.5	4S,8W, South trench	50.6
15	6	36N,6W, North trench	43
16	7	4S,8W, South trench	18.9
17	9	36N,6W, North trench	44
18	9	4S,8W, South trench	16.4
19	4.5	14W,6S,	3.6
20	4.5	6S,0W,	36
21	3	5S,3E,	128
22	4.5	12S,2W,	38.3
23	4.5	12S,8W	113
24	4.5	5S,5E	12.2
25	4.5	18S,2W	28
26	4.5	18S,7W	20.8
27	4	0S,6E	4.0
28	5.5	18W,3S	101
29	6	18W,3S	13.0
30	4	16W,4N	17.3
31	4	9W,4N	15.9
32	5	12S,8W	19.9

APPENDIX C

PICTURE EXHIBITS

Test Pit Showing Black Impacted Zone

Tanks Removed from Site, Showing Excavation

Site View Showing Pump Island and Lines

Site View Showing Tank Basin

APPENDIX D

Analytical Results and Chain-of-Custody Forms

Analytical Technologies, Inc.
560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228-8335
John H. Taylor, Jr., Laboratory Manager
Frederick W. Grothkopp, Technical Director

ATI I.D. # 9212-138

January 4, 1993

Chen-Northern, Inc.
2214 N. 4th Avenue
Pasco, WA 99301

Attention : Paul Danielson

Project Number : 192-2129

Project Name : Chevron - Yakima

On December 19, 1992, Analytical Technologies, Inc., received 16 samples for analysis. The samples were analyzed with EPA methodology or equivalent methods as specified in the attached analytical schedule. The results, sample cross reference, and quality control data were issued on December 24, 1992.

Enclosed is a replacement report, correctly reflecting the client name on all pages. Please replace the original report with this update. We apologize for any inconvenience this may have caused.

Donna M. McKinney
Senior Project Manager

DMM/hal/ff/elf

cc: Clint Rogers
Chevron, USA

Analytical Technologies, Inc.

ATI I.D. # 9212-138

SAMPLE CROSS REFERENCE SHEET

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

ATI #	CLIENT DESCRIPTION	DATE SAMPLED	MATRIX
9212-138-1	28N, 4E-4 BASE LINES	12/17/92	SOIL
9212-138-2	N. TANK #1 WEST BASE -12'	12/17/92	SOIL
9212-138-3	CENTER TANK #2 BASE -12'	12/17/92	SOIL
9212-138-4	N. SIDEWALL TANK #1 -7'	12/17/92	SOIL
9212-138-5	BASE LINES, 7'N, 6'E -4'	12/17/92	SOIL
9212-138-6	CENTER BASE TANK #3 -12'	12/17/92	SOIL
9212-138-7	EAST BASE TANK #1 -13'	12/17/92	SOIL
9212-138-8	EAST BASE TANK #2 -12'	12/17/92	SOIL
9212-138-9	E. SIDEWALL TANK #3 -6'	12/17/92	SOIL
9212-138-10	E. SIDEWALL TANK #2 -5'	12/17/92	SOIL
9212-138-11	STOCKPILE NORTH	12/18/92	SOIL
9212-138-12	STOCKPILE SOUTH	12/18/92	SOIL
9212-138-13	S.E. STOCKPILE WEST	12/18/92	SOIL
9212-138-14	S.E. STOCKPILE EAST	12/18/92	SOIL
9212-138-15	S.E. STOCKPILE S.E.	12/18/92	SOIL
9212-138-16	S.E. STOCKPILE S.W.	12/18/92	SOIL

----- TOTALS -----

MATRIX	# SAMPLES
SOIL	16

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of the report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Analytical Technologies, Inc.

ATI I.D. # 9212-138

ANALYTICAL SCHEDULE

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

ANALYSIS	TECHNIQUE	REFERENCE	LAB
BETX	GC/PID	EPA 8020	R
TOTAL PETROLEUM HYDROCARBONS	GC/FID	WA DOE WTPH-G	R
LEAD	ICAP	EPA 6010	R
MOISTURE	GRAVIMETRIC	CLP SOW ILMO1.0	R

R = ATI - Renton
SD = ATI - San Diego
PHX = ATI - Phoenix
PNR = ATI - Pensacola
FC = ATI - Fort Collins
SUB = Subcontract

Analytical Technologies, Inc.

ATI I.D. # 9212-138

QUALITY CONTROL INFORMATION

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

BETX

DETECTION LIMITS

	WATER	SOIL
Benzene	0.0005 mg/L	0.025 mg/Kg
Toluene	0.0005 mg/L	0.025 mg/Kg
Ethyl Benzene	0.0005 mg/L	0.025 mg/Kg
Xylenes	0.0005 mg/L	0.025 mg/Kg

CONTROL LIMITS

	WATER	RPD	SOIL	RPD
BLANK SPIKE				
Benzene	80-111	20	63-115	20
Toluene	78-111	20	75-110	20
Xylenes	80-114	20	79-109	20
MATRIX SPIKE				
Benzene	77-112	20	35-113	20
Toluene	72-113	20	43-107	20
Xylenes	80-110	20	46-114	20

WA DOE WTPH-G

DETECTION LIMITS

	WATER	SOIL
Gasoline	0.1 mg/L	5 mg/Kg

CONTROL LIMITS

	WATER	RPD	SOIL	RPD
BLANK SPIKE				
Gasoline	75-120	20	80-119	20
MATRIX SPIKE				
Gasoline	58-127	20	50-112	20

CONTINUED ON NEXT PAGE

Analytical Technologies, Inc.

ATI I.D. # 9212-138

QUALITY CONTROL
INFORMATION
CONTINUED

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

METALS - ICAP

DETECTION LIMITS

	WATER	SOIL
Lead	0.030 mg/L	1.5 mg/Kg

CONTROL LIMITS

BLANK SPIKE	WATER	RPD	SOIL	RPD
Lead	80-120	-	80-120	-

MATRIX SPIKE	WATER	RPD	SOIL	RPD
Lead	75-125	20	65-125	35

Analytical Technologies, Inc.

ATI I.D. # 9212-138

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: 192-2129	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.025	ND
ETHYLBENZENE	0.025	ND
TOLUENE	0.025	ND
TOTAL XYLENES	0.025	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	97

Analytical Technologies, Inc.

ATI I.D. # 9212-138-1

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: 28N, 4E-4 BASE LINES	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	ND
TOTAL XYLENES	0.027	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	87

Analytical**Technologies,**Inc.

ATI I.D. # 9212-138-2

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: N. TANK #1 WEST BASE -12'	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.025	ND
ETHYLBENZENE	0.025	ND
TOLUENE	0.025	ND
TOTAL XYLENES	0.025	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	91

Analytical**Technologies,**Inc.

ATI I.D. # 9212-138-3

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: CENTER TANK #2 BASE -12'	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	ND
TOTAL XYLENES	0.027	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	93

AnalyticalTechnologies,Inc.

ATI I.D. # 9212-138-4

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: N. SIDEWALL TANK #1 -7'	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EP METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.028	ND
ETHYLBENZENE	0.028	ND
TOLUENE	0.028	0.042
TOTAL XYLENES	0.028	ND

SURROGATE PERCENT RECOVERY	
BROMOFLUOROBENZENE	77

Analytical Technologies, Inc.

ATI I.D. # 9212-138-4

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: N. SIDEWALL TANK #1 -7'	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.028	ND
ETHYLBENZENE	0.028	ND
TOLUENE	0.028	0.042
TOTAL XYLENES	0.028	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	77

Analytical Technologies, Inc.

ATI I.D. # 9212-138-5

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: BASE LINES, 7'N, 6'E -4'	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	0.17
TOTAL XYLENES	0.027	0.10

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	89

Analytical Technologies, Inc.

ATI I.D. # 9212-138-6

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: CENTER BASE TANK #3 -12'	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	ND
TOTAL XYLENES	0.027	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	82

Analytical Technologies, Inc.

ATI I.D. # 9212-138-7

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: EAST BASE TANK #1 -13'	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	ND
TOTAL XYLENES	0.027	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	90

Analytical Technologies, Inc.

ATI I.D. # 9212-138-8

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: EAST BASE TANK #2 -12'	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	ND
TOTAL XYLENES	0.027	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	89

Analytical Technologies, Inc.

ATI I.D. # 9212-138-9

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: E. SIDEWALL TANK #3 -6'	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.030	ND
ETHYLBENZENE	0.030	ND
TOLUENE	0.030	0.076
TOTAL XYLENES	0.030	ND
SURROGATE PERCENT RECOVERY		
BROMOFLUOROBENZENE	90	

Analytical Technologies, Inc.

ATI I.D. # 9212-138-10

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: E. SIDEWALL TANK #2 -5'	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.026	ND
ETHYLBENZENE	0.026	ND
TOLUENE	0.026	0.042
TOTAL XYLENES	0.026	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	89

Analytical Technologies, Inc.

ATI I.D. # 9212-138-11

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: STOCKPILE NORTH	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	0.044
TOTAL XYLENES	0.027	0.047

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	93

Analytical Technologies, Inc.

ATI I.D. # 9212-138-12

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: STOCKPILE SOUTH	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	0.085
TOTAL XYLENES	0.027	0.15

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	93

Analytical Technologies, Inc.

ATI I.D. # 9212-138-13

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: S.E. STOCKPILE WEST	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	ND
TOTAL XYLENES	0.027	ND
SURROGATE PERCENT RECOVERY		
BROMOFLUOROBENZENE	99	

Analytical Technologies, Inc.

ATI I.D. # 9212-138-14

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: S.E. STOCKPILE EAST	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	ND
TOTAL XYLENES	0.027	ND
SURROGATE PERCENT RECOVERY		
BROMOFLUOROBENZENE	99	

Analytical**Technologies**, Inc.

ATI I.D. # 9212-138-15

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: S.E. STOCKPILE S.E.	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	ND
TOTAL XYLENES	0.027	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	87

Analytical Technologies, Inc.

ATI I.D. # 9212-138-16

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: S.E. STOCKPILE S.W.	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	0.032
TOTAL XYLENES	0.027	ND
SURROGATE PERCENT RECOVERY		
BROMOFLUOROBENZENE	86	

Analytical Technologies, Inc.

ATI I.D. # 9212-138

VOLATILE ORGANIC COMPOUNDS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D.	: 9212-138-2
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/19/92
EPA METHOD	: 8020 (BETX)	MATRIX	: SOIL
		UNITS	: mg/Kg

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % REC	RPD
BENZENE	ND	1.00	0.931	93	0.950	95	2
TOLUENE	ND	1.00	1.01	101	1.02	102	1
TOTAL XYLENES	ND	2.00	2.02	101	2.02	101	0

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-138

VOLATILE ORGANIC COMPOUNDS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA
EPA METHOD : 8020 (BETX)

SAMPLE I.D. : BLANK SPIKE
DATE EXTRACTED : 12/19/92
DATE ANALYZED : 12/19/92
MATRIX : SOIL
UNITS : mg/Kg

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % REC	RPD
BENZENE	ND	1.00	0.889	89	N/A	N/A	N/A
TOLUENE	ND	1.00	0.915	92	N/A	N/A	N/A
TOTAL XYLENES	ND	2.00	1.86	93	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-138

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: 192-2129	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 12/21/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE		87

Analytical Technologies, Inc.

ATI I.D. # 9212-138-1

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: 28N, 4E-4 BASE LINES	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	6	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	75	

Analytical**Technologies,**Inc.

ATI I.D. # 9212-138-2

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: N. TANK #1 WEST BASE -12'	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE

SURROGATE PERCENT RECOVERY

TRIFLUOROTOLUENE	79

Analytical Technologies, Inc.

ATI I.D. # 9212-138-3

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: CENTER TANK #2 BASE -12'	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	76	

Analytical Technologies, Inc.

ATI I.D. # 9212-138-4

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: N. SIDEWALL TANK #1 -7'	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	6	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	84	

Analytical Technologies, Inc.

ATI I.D. # 9212-138-5

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: BASE LINES, 7'N, 6'E -4'	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	80	

Analytical**Technologies,**Inc.

ATI I.D. # 9212-138-6

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: CENTER BASE TANK #3 -12'	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	88	

Analytical Technologies, Inc.

ATI I.D. # 9212-138-7

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: EAST BASE TANK #1 -13'	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	78	

Analytical Technologies, Inc.

ATI I.D. # 9212-138-8

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: EAST BASE TANK #2 -12'	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	82	

Analytical Technologies, Inc.

ATI I.D. # 9212-138-9

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: E. SIDEWALL TANK #3 -6'	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	6	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	66	

Analytical Technologies, Inc.

ATI I.D. # 9212-138-10

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/17/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: E. SIDEWALL TANK #2 -5'	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	78	

Analytical Technologies, Inc.

ATI I.D. # 9212-138-11

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: STOCKPILE NORTH	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	83	

Analytical Technologies, Inc.

ATI I.D. # 9212-138-12

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: STOCKPILE SOUTH	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	76	

Analytical Technologies, Inc.

ATI I.D. # 9212-138-13

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: S.E. STOCKPILE WEST	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	51	

Analytical Technologies, Inc.

ATI I.D. # 9212-138-14

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: S.E. STOCKPILE EAST	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	9
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	64	

Analytical Technologies, Inc.

ATI I.D. # 9212-138-15

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: S.E. STOCKPILE S.E.	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	63	

Analytical Technologies, Inc.

ATI I.D. # 9212-138-16

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: S.E. STOCKPILE S.W.	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	6	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	80	

Analytical Technologies, Inc.

ATI I.D. # 9212-138

TOTAL PETROLEUM HYDROCARBON ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: 9212-138-11
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/20/92
METHOD	: WA DOE WTPH-G	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (GASOLINE)	ND	ND	NC	N/A	N/A	N/A	N/A	N/A	N/A

NC = Not Calculable.

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-138

TOTAL PETROLEUM HYDROCARBON ANALYSIS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA
METHOD : WA DOE WTPH-G
SAMPLE MATRIX : SOIL

SAMPLE I.D. # : 9212-138-2
DATE EXTRACTED : 12/19/92
DATE ANALYZED : 12/19/92
UNITS : mg/Kg

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (GASOLINE)	ND	ND	NC	100	85.6	86	85.5	86	0

NC = Not Calculable.

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-138

TOTAL PETROLEUM HYDROCARBON ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: BLANK SPIKE
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/21/92
METHOD	: WA DOE WTPH-G	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (GASOLINE)	ND	100	96.3	96	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-138

METALS ANALYSIS

CLIENT : CHEN-NORTHERN, INC. MATRIX : SOIL
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

ELEMENT	DATE PREPARED	DATE ANALYZED
LEAD	12/21/92	12/21/92

Analytical Technologies, Inc.

ATI I.D. # 9212-138

METALS ANALYSIS
DATA SUMMARY

CLIENT : CHEN-NORTHERN, INC. MATRIX : SOIL
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA UNITS : mg/Kg
RESULTS ARE CORRECTED FOR MOISTURE CONTENT

ATI I.D. #	CLIENT I.D.	LEAD MDL	RESULT
9212-138-2	N. TANK #1 WEST BASE -12'	1.6	20
METHOD BLANK	-	1.5	ND

Analytical**Technologies,**Inc.

ATI I.D. # 9212-138

METALS ANALYSIS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC. MATRIX : SOIL
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA UNITS : mg/Kg

ELEMENT	ATI I.D.	SAMPLE RESULT	DUP RESULT	RPD	SPIKED RESULT	SPIKE ADDED	% REC
LEAD	9212-096-4	6.0	8.0	29	57.9	53.8	96
LEAD	BLANK SPIKE	ND	N/A	N/A	45.0	50.0	90

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-138

GENERAL CHEMISTRY ANALYSIS

CLIENT : CHEN-NORTHERN, INC. MATRIX : SOIL
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

PARAMETER	DATE ANALYZED
MOISTURE	12/19/92

Analytical Technologies, Inc.

ATI I.D. # 9212-138

GENERAL CHEMISTRY ANALYSIS
DATA SUMMARY

CLIENT : CHEN-NORTHERN, INC. MATRIX : SOIL
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA UNITS : %

ATI I.D. #	CLIENT I.D.	MOISTURE
9212-138-1	28N, 4E-4 BASE LINES	8.6
9212-138-2	N. TANK #1 WEST BASE -12'	6.5
9212-138-3	CENTER TANK #2 BASE -12'	6.5
9212-138-4	N. SIDEWALL TANK #1 -7'	11
9212-138-5	BASE LINES, 7'N, 6'E -4'	6.4
9212-138-6	CENTER BASE TANK #3 -12'	6.6
9212-138-7	EAST BASE TANK #1 -13'	7.2
9212-138-8	EAST BASE TANK #2 -12'	7.8
9212-138-9	E. SIDEWALL TANK #3 -6'	17
9212-138-10	E. SIDEWALL TANK #2 -5'	5.4
9212-138-11	STOCKPILE NORTH	6.3
9212-138-12	STOCKPILE SOUTH	8.1
9212-138-13	S.E. STOCKPILE WEST	73.8
9212-138-14	S.E. STOCKPILE EAST	7.8
9212-138-15	S.E. STOCKPILE S.E.	8.2
9212-138-16	S.E. STOCKPILE S.W.	8.6

Analytical Technologies, Inc.

ATI I.D. # 9212-138

GENERAL CHEMISTRY ANALYSIS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC. MATRIX : SOIL
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA UNITS : %

PARAMETER	ATI I.D.	SAMPLE RESULT	DUP RESULT	RPD	SPIKED RESULT	SPIKE ADDED	% REC
MOISTURE	9212-138-2	6.5	6.9	6	N/A	N/A	N/A
MOISTURE	9212-138-13	7.8	8.1	4	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

DATE: 12-18-92 Page 1 of 3 ATI ACCESSION # 9212-138

COMPANY: Chevron - Northern Inc.
REPORT TO: Paul Davidson
ADDRESS: 2214 N. 4th
Pasco, WA 99301
PHONE: (509) 547-1671 FAX: (509) 547-1673
PROJECT MANAGER: Clint Rodgers
PROJECT NUMBER: 192-2129
PROJECT NAME: Chevron - Yakima
ATI will DISPOSE / RETURN samples (circle one)

Sample ID	Date	Time	Matrix	LabID	FUELS: TPH-HCID WA/OR	BETX/TPH-G combo WA/OR	BETX (by 8020) WA/OR	TPH-G WA/OR	TPH-D	8015 modified WA/OR	418.1	413.2	AK-GRO	AK-DRO	ORGANIC COMPOUNDS: 8240 GCMS Volatiles	8270 GCMS Semivolatiles	8060 Pesticides/PCBs	PCB only (by 8060) STD/lo level	9010 Halogenated VOCs	8020 Aromatic VOCs	8310 HPLC PAHs	8040 Phenols	8140 OP Pesticides	8150 OC Herbicides	METALS: Metals (Indicate below *)	Total Lead	Priority Pollutant Metals (13)	TAL Metals (23)	TCLP: TCLP-Volatiles (ZHE-8240)	TCLP-Semivolatiles (8270)	TCLP-Pesticides (8080)	TCLP-Herbicides (8150)	TCLP-Metals (8 metals)	OTHER: % Moisture (please indicate)
28N, 4E - 4 Base Line	12/17	1:00	Soil	1		X																				X	X						
N. Tank #1 West Base -12	12/17	1:00	"	2		X																											
Center Tank #2 Base -12	"	"	"	3		X																											
N. Sidewall Tank #1 -7'	"	"	"	4		X																											
Base Line, 7N, 6E -4	"	"	"	5		X																											
Center Base Tank #3 -12'	"	"	"	6		X																											
East Base Tank #1 -13'	"	"	"	7		X																											
Base Tank #2 -12'	"	"	"	8		X																											
E. Sidewall East Tank #3 -6'	"	"	"	9		X																											
E. Sidewall ~~Center~~ Tank #2 -5'	"	"	"	10		X																											
Stockpile North	12/18	"	"	11		X																											
Stockpile South	"	"	"	12		X																											
~~Mixed Stockpile Grab~~ #3 Stockpile	"	"	"	13		X																											

Turnaround Time	
STANDARD TAT	
1 WEEK TAT	
4 WORK DAY TAT	
3 WORK DAY TAT	
2 WORK DAY TAT	
X 24 HOUR TAT	

Sample Receipt	
TOTAL # CONTAINERS RECVD	30
COC SEALS PRESENT?	Y
COC SEALS INTACT?	Y
RECEIVED COLD?	Y
RECEIVED INTACT?	Y
RECEIVED VIA:	Fedex

Special Instructions: Attn: Lee Carfioli
Fax to Clintar: (510) 842-9591
* Metals needed: and Pb

Relinquished By:	Relinquished By:	Relinquished By:
Date: 12/18/92	Date:	Date:
Time:	Time:	Time:
Received By:	Received By:	Received By:
Date: 12/19/92	Date:	Date:
Time: 10:00 a.m.	Time:	Time:
STUART KENSLER ATI-WP		

Corporate Offices: 5550 Morehouse Drive, San Diego, CA 92121 (619)458-9141

Analytical Technologies, Inc.
560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228-8335

DATE: 12-16-92 Page 2 of 3 12/19/92 ATI ACCESSION # 9212-138

COMPANY: Chevron - Northern Inc.
REPORT TO:
ADDRESS:
PHONE: ( ) - FAX: ( ) -
PROJECT MANAGER:
PROJECT NUMBER:
PROJECT NAME:
ATI will DISPOSE / RETURN samples (circle one)

Sample ID	Date	Time	Matrix	LabID	FUELS: TPH-HCID WA/OR	BETX/TPH-G combo WA/OR	BETX (by 8020) WA/OR	TPH-G WA/OR	TPH-D WA/OR	8015 modified	418.1	413.2	AK-GRO	AK-DRO	ORGANIC COMPOUNDS: 8240 GCMS Volatiles	8270 GCMS Semivolatiles	8080 Pesticides/PCBs	PCB only (by 8080) STD/lo level	8010 Halogenated VOCs	8020 Aromatic VOCs	8310 HPLC PAHs	8040 Phenols	8140 OP Pesticides	8150 OC Herbicides	METALS: Metals (Indicate below *)	Total Lead	Priority Pollutant Metals (13)	TAL Metals (23)	TCLP: TCLP-Volatiles (ZHE-8240)	TCLP-Semivolatiles (8270)	TCLP-Pesticides (8080)	TCLP-Herbicides (8150)	TCLP-Metals (8 metals)	OTHER: % Moisture (please indicate)					Total # of Containers/sample
S.E. Stockpile East	12/15	9:00	Soil	14		X																																
S.E. Stockpile SE	"	"	"	15		X																																
S.E. Stockpile S.W.	"	"	"	16		X																																

Turnaround Time		Sample Receipt	
STANDARD TAT		TOTAL # CONTAINERS RECVD	
1 WEEK TAT		COC SEALS PRESENT?	
4 WORK DAY TAT		COC SEALS INTACT?	
3 WORK DAY TAT		RECEIVED COLD?	
2 WORK DAY TAT		RECEIVED INTACT?	
X 24 HOUR TAT		RECEIVED VIA:	

Special Instructions: Attn: Lee
850 9890 Chevron Rehandle #
Jac #
* Meta needed: C9-3883

Relinquished By:	Relinquished By:	Relinquished By:
Date:	Date:	Date:
Time:	Time:	Time:
Received By:	Received By:	Received By:
Date: 12/19/92	Date:	Date:
Time: 10:00 am	Time:	Time:
STINA KENSTER ATTWA		

Analytical Technologies, Inc.
560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228-8335
John H. Taylor, Jr., Laboratory Manager
Frederick W. Grothkopp, Technical Director

ATI I.D. # 9212-139

January 5, 1993

CHEN-Northern, Inc.
2214 N. 4th Ave.
Pasco, WA 99301

Attention : Paul Danielson

Project Number : 192-2129

Project Name : Chevron - Yakima

On December 19, 1992, Analytical Technologies, Inc., received six samples for analysis. The samples were analyzed with EPA methodology or equivalent methods as specified in the attached analytical schedule. The results, sample cross reference, and quality control data are enclosed.

Donna M. McKinney
Senior Project Manager

DMM/hal/elf/rmn

cc: Clint Rogers,
Chevron USA, Inc.

Analytical Technologies, Inc.

ATI I.D. # 9212-139

SAMPLE CROSS REFERENCE SHEET

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

ATI #	CLIENT DESCRIPTION	DATE SAMPLED	MATRIX
9212-139-1	CONTAMINATED STOCKPILE W.	12/18/92	SOIL
9212-139-2	CONTAMINATED STOCKPILE E.	12/18/92	SOIL
9212-139-3	6'S, 6W'-2'	12/18/92	SOIL
9212-139-4	6'S, 6W'-4'	12/18/92	SOIL
9212-139-5	23N, 4W,-4'	12/18/92	SOIL
9212-139-6	23N, 4W,-2'	12/18/92	SOIL

----- TOTALS -----

MATRIX	# SAMPLES
SOIL	6

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of the report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Analytical Technologies, Inc.

ATI I.D. # 9212-139

ANALYTICAL SCHEDULE

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

ANALYSIS	TECHNIQUE	REFERENCE	LAB
POLYCHLORINATED BIPHENYLS (PCBs)	GC/ECD	EPA 8080	PTL
BETX	GC/FID	EPA 8020	R
TOTAL PETROLEUM HYDROCARBONS	GC/PID	WA DOE WTPH-G	R
TOTAL PETROLEUM HYDROCARBONS	GC/PID	WA DOE WTPH-D	R
PETROLEUM HYDROCARBONS	IR	WA DOE WTPH-418.1 MODIFIED	R
MOISTURE	GRAVIMETRIC	CLP SOW ILM01.0	R

R = ATI - Renton
SD = ATI - San Diego
PTL = ATI - Portland
PHX = ATI - Phoenix
PNR = ATI - Pensacola
FC = ATI - Fort Collins
SUB = Subcontract

Analytical Technologies, Inc.

ATI I.D. # 9212-139

QUALITY CONTROL
INFORMATION

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

POLYCHLORINATED BIPHENYLS (PCBs)

DETECTION LIMITS

	WATER	SOIL
PCB 1016	0.0010 mg/L	0.033 mg/Kg
PCB 1221	0.0010 mg/L	0.033 mg/Kg
PCB 1232	0.0010 mg/L	0.033 mg/Kg
PCB 1242	0.0010 mg/L	0.033 mg/Kg
PCB 1248	0.0010 mg/L	0.033 mg/Kg
PCB 1254	0.0010 mg/L	0.033 mg/Kg
PCB 1260	0.0010 mg/L	0.033 mg/Kg

CONTROL LIMITS

	WATER	RPD	SOIL	RPD
BLANK SPIKE				
PCB 1260	67-136	20	74-120	31
MATRIX SPIKE				
PCB 1260	52-151	20	74-120	31

SURROGATE RECOVERIES

	WATER	SOIL
Decachlorobiphenyl	34-104	40-154
Tetrachlorometaxylene	60-150	43-145

CONTINUED ON NEXT PAGE

Analytical Technologies, Inc.

ATI I.D. # 9212-139

QUALITY CONTROL
INFORMATION
CONTINUED

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

BETX

DETECTION LIMITS

	WATER	SOIL
Benzene	0.0005 mg/L	0.025 mg/Kg
Toluene	0.0005 mg/L	0.025 mg/Kg
Ethyl Benzene	0.0005 mg/L	0.025 mg/Kg
Xylenes	0.0005 mg/L	0.025 mg/Kg

CONTROL LIMITS

	WATER	RPD	SOIL	RPD
BLANK SPIKE				
Benzene	80-111	20	63-115	20
Toluene	78-111	20	75-110	20
Xylenes	80-114	20	79-109	20
MATRIX SPIKE				
Benzene	77-112	20	35-113	20
Toluene	72-113	20	43-107	20
Xylenes	80-110	20	46-114	20

WA DOE WTPH-G

DETECTION LIMITS

	WATER	SOIL
Gasoline	0.1 mg/L	5 mg/Kg

CONTROL LIMITS

	WATER	RPD	SOIL	RPD
BLANK SPIKE				
Gasoline	75-120	20	80-119	20
MATRIX SPIKE				
Gasoline	58-127	20	50-112	20

CONTINUED ON NEXT PAGE

Analytical Technologies, Inc.

ATI I.D. # 9212-139

QUALITY CONTROL
INFORMATION
CONTINUED

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

WA DOE WTPH-D

DETECTION LIMITS

	WATER	SOIL
Diesel	0.5 mg/L	25 mg/Kg

CONTROL LIMITS

	WATER	RPD	SOIL	RPD
BLANK SPIKE				
Diesel	70-115	20	69-122	20
MATRIX SPIKE				
Diesel	*	20	63-131	20

* Control limits not yet established.

WTPH 418.1 Modified

DETECTION LIMITS

COMPOUND	WATER	SOIL
Petroleum Hydrocarbon	1 mg/L	20 mg/Kg

CONTROL LIMITS

	WATER	RPD	SOIL	RPD
BLANK SPIKE				
Petroleum Hydrocarbons	51-104	20	96-144	20
MATRIX DUPLICATE				
Petroleum Hydrocarbons	-	35	-	35
MATRIX SPIKE				
Fuel Hydrocarbons	40-121	35	45-187	35

Analytical Technologies, Inc.

ATI I.D. # 9212-139

PCB ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: 192-2129	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/22/92
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 12/28/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8080	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
PCB 1016	0.033	ND
PCB 1221	0.033	ND
PCB 1232	0.033	ND
PCB 1242	0.033	ND
PCB 1248	0.033	ND
PCB 1254	0.033	ND
PCB 1260	0.033	ND

SURROGATE PERCENT RECOVERIES

DECACHLOROBIPHENYL	141
TETRACHLOROMETAXYLENE	111

Analytical Technologies, Inc.

ATI I.D. # 9212-139-1

PCB ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/22/92
CLIENT I.D.	: CONTAMINATED STOCKPILE W.	DATE ANALYZED	: 12/28/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8080	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
PCB 1016	0.038	ND
PCB 1221	0.038	ND
PCB 1232	0.038	ND
PCB 1242	0.038	ND
PCB 1248	0.038	ND
PCB 1254	0.038	ND
PCB 1260	0.038	ND

SURROGATE PERCENT RECOVERIES

DECACHLOROBIPHENYL	118
TETRACHLOROMETAXYLENE	95

Analytical Technologies, Inc.

ATI I.D. # 9212-139-2

PCB ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/22/92
CLIENT I.D.	: CONTAMINATED STOCKPILE E.	DATE ANALYZED	: 12/28/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8080	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
PCB 1016	0.035	ND
PCB 1221	0.035	ND
PCB 1232	0.035	ND
PCB 1242	0.035	ND
PCB 1248	0.035	ND
PCB 1254	0.035	ND
PCB 1260	0.035	ND

SURROGATE PERCENT RECOVERIES

DECACHLOROBIPHENYL	115
TETRACHLOROMETAXYLENE	109

Analytical**Technologies,**Inc.

ATI I.D. # 9212-139

PCB ANALYSIS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA
EPA METHOD : 8080
SAMPLE MATRIX : SOIL
SAMPLE I.D. # : 9212-139-2
DATE EXTRACTED : 12/22/92
DATE ANALYZED : 12/28/92
UNITS : mg/Kg

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PCB 1260	ND	0.71	0.65	92	0.63	89	3

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-139

PCB ANALYSIS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA
EPA METHOD : 8080
SAMPLE MATRIX : SOIL
SAMPLE I.D. # : BLANK SPIKE
DATE EXTRACTED : 12/22/92
DATE ANALYZED : 12/28/92
UNITS : mg/Kg
RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PCB 1260	ND	0.67	0.80	119	0.76	113	5

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-139

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: 192-2129	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 12/19/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.025	ND
ETHYLBENZENE	0.025	ND
TOLUENE	0.025	ND
TOTAL XYLENES	0.025	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	97

Analytical Technologies, Inc.

ATI I.D. # 9212-139

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: 192-2129	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/24/92
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 12/28/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.025	ND
ETHYLBENZENE	0.025	ND
TOLUENE	0.025	ND
TOTAL XYLENES	0.025	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	94

Analytical Technologies, Inc.

ATI I.D. # 9212-139-1

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/24/92
CLIENT I.D.	: CONTAMINATED STOCKPILE W.	DATE ANALYZED	: 12/28/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT	
BENZENE	0.028	0.078	
ETHYLBENZENE	1.4	10	D6
TOLUENE	0.028	5.0	
TOTAL XYLENES	1.4	160	D6

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	200F

D6 = Value from a 50 fold diluted analysis.

F = Out of limits due to matrix interference.

Analytical Technologies, Inc.

ATI I.D. # 9212-139-2

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/24/92
CLIENT I.D.	: CONTAMINATED STOCKPILE E.	DATE ANALYZED	: 12/29/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	ND
TOTAL XYLENES	0.027	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	92

Analytical Technologies, Inc.

ATI I.D. # 9212-139-4

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: 6'S, 6'W-4'	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 20

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT	
BENZENE	0.61	9.5	
ETHYLBENZENE	0.61	44	
TOLUENE	0.61	89	
TOTAL XYLENES	1.5	300	D6

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	166F

D6 = Value from a 50 fold diluted analysis.

F = Out of limits due to matrix interference.

AnalyticalTechnologies,Inc.

ATI I.D. # 9212-139-5

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: 23N, 4W,-4'	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	0.041
TOTAL XYLENES	0.027	0.19
SURROGATE PERCENT RECOVERY		
BROMOFLUOROBENZENE	89	

Analytical Technologies, Inc.

ATI I.D. # 9212-139

VOLATILE ORGANIC COMPOUNDS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA
EPA METHOD : 8020 (BETX)

SAMPLE I.D. : 9212-138-2
DATE EXTRACTED : 12/19/92
DATE ANALYZED : 12/19/92
MATRIX : SOIL
UNITS : mg/Kg

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % REC	RPD
BENZENE	ND	1.00	0.931	93	0.950	95	2
TOLUENE	ND	1.00	1.01	101	1.02	102	1
TOTAL XYLENES	ND	2.00	2.02	101	2.02	101	0

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-139

VOLATILE ORGANIC COMPOUNDS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D.	: 9212-164-5
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/24/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/28/92
EPA METHOD	: 8020 (BETX)	MATRIX	: SOIL
		UNITS	: mg/Kg

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % REC	RPD
BENZENE	ND	1.00	0.856	86	0.866	87	1
TOLUENE	ND	1.00	0.888	89	0.881	88	1
TOTAL XYLENES	ND	2.00	1.93	97	1.79	90	8

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-139

VOLATILE ORGANIC COMPOUNDS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D.	: BLANK SPIKE
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/19/92
EPA METHOD	: 8020 (BETX)	MATRIX	: SOIL
		UNITS	: mg/Kg

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % REC	RPD
BENZENE	ND	1.00	0.889	89	N/A	N/A	N/A
TOLUENE	ND	1.00	0.915	92	N/A	N/A	N/A
TOTAL XYLENES	ND	2.00	1.86	93	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-139

VOLATILE ORGANIC COMPOUNDS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D.	: BLANK SPIKE
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/24/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/28/92
EPA METHOD	: 8020 (BETX)	MATRIX	: SOIL
		UNITS	: mg/Kg

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % REC	RPD
BENZENE	ND	1.00	0.940	94	N/A	N/A	N/A
TOLUENE	ND	1.00	0.966	97	N/A	N/A	N/A
TOTAL XYLENES	ND	2.00	1.94	97	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical**Technologies**, Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: 192-2129	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 12/21/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	87	

Analytical Technologies, Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: 192-2129	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/21/92
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 12/21/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	88	

Analytical Technologies, Inc.

ATI I.D. # 9212-139-3

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/21/92
CLIENT I.D.	: 6'S, 6W'-2'	DATE ANALYZED	: 12/22/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 50

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	310	7,400
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	I	

I = Surrogate out of limits due to sample dilution.

Analytical Technologies, Inc.

ATI I.D. # 9212-139-4

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: 6'S, 6W'-4'	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 20

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	120	4,300
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	I	

I = Surrogate out of limits due to sample dilution.

Analytical Technologies, Inc.

ATI I.D. # 9212-139-5

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/19/92
CLIENT I.D.	: 23N, 4W,-4'	DATE ANALYZED	: 12/20/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	6	6
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	82	

Analytical Technologies, Inc.

ATI I.D. # 9212-139-6

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/21/92
CLIENT I.D.	: 23N, 4W,-2'	DATE ANALYZED	: 12/22/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 2

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	10	58
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	89	

Analytical Technologies, Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: 9212-138-11
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/20/92
METHOD	: WA DOE WTPH-G	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (GASOLINE)	ND	ND	NC	N/A	N/A	N/A	N/A	N/A	N/A

NC = Not Calculable.

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical**Technologies,**Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: 9212-138-2
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/19/92
METHOD	: WA DOE WTPH-G	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (GASOLINE)	ND	ND	NC	100	85.6	86	85.5	86	0

NC = Not Calculable.

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical**Technologies**, Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: 9212-141-1
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/21/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/21/92
METHOD	: WA DOE WTPH-G	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (GASOLINE)	ND	ND	NC	100	91.8	92	90.3	90	2

NC = Not Calculable.

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: BLANK SPIKE
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/21/92
METHOD	: WA DOE WTPH-G	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (GASOLINE)	ND	100	96.3	96	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: BLANK SPIKE
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/21/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/21/92
METHOD	: WA DOE WTPH-G	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (GASOLINE)	ND	100	97.6	98	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: 192-2129	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/21/92
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 12/22/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-D	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	10	ND
HYDROCARBON RANGE		C12 - C24
HYDROCARBON QUANTITATION USING		DIESEL
SURROGATE PERCENT RECOVERY		
O-TERPHENYL	107	

Analytical Technologies, Inc.

ATI I.D. # 9212-139-3

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
DATA SUMMARY

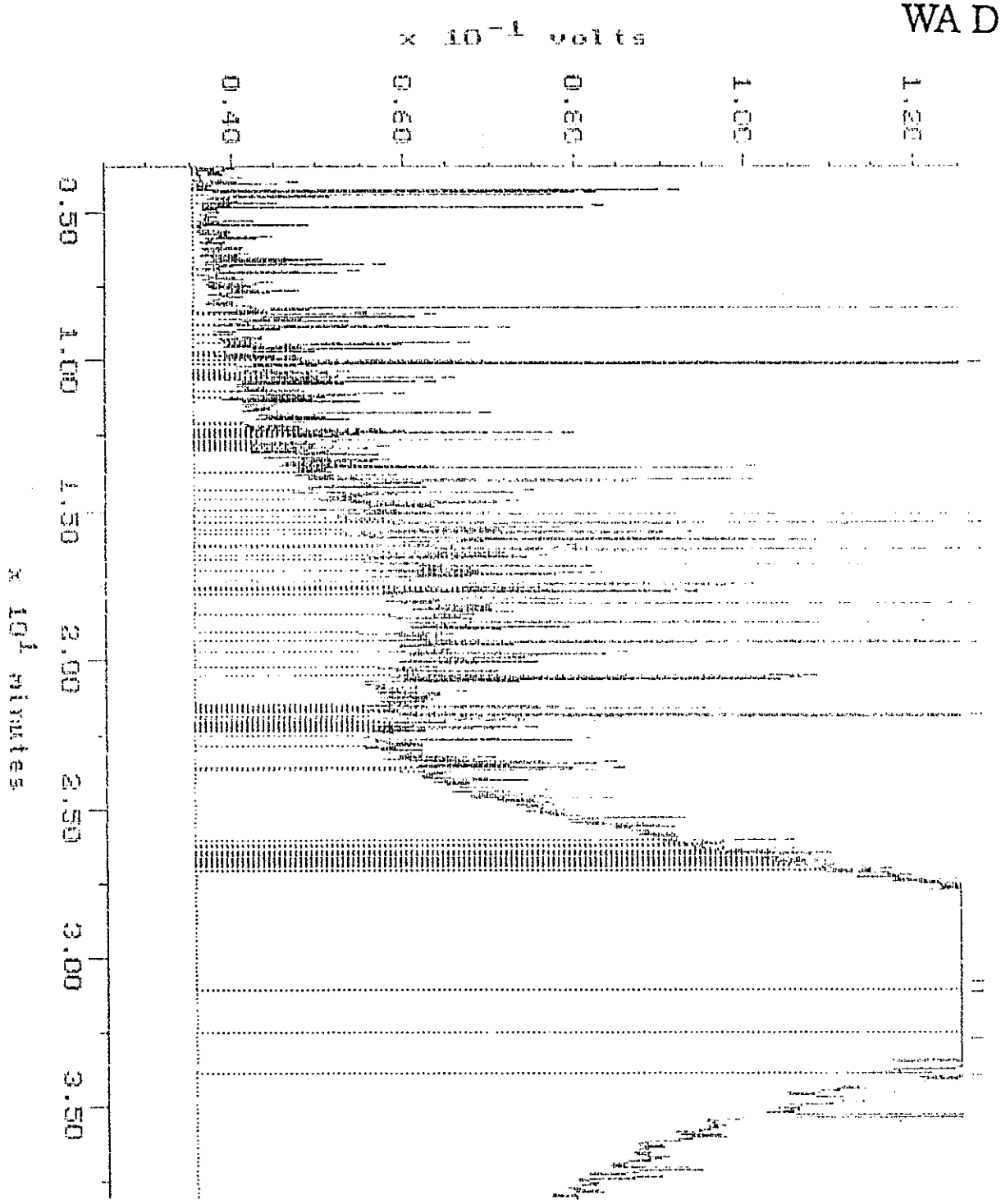
CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/21/92
CLIENT I.D.	: 6'S, 6W'-2'	DATE ANALYZED	: 12/23/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-D	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	12	220
HYDROCARBON RANGE		C12 - C24
HYDROCARBON QUANTITATION USING		DIESEL
SURROGATE PERCENT RECOVERY		
O-TERPHENYL		97

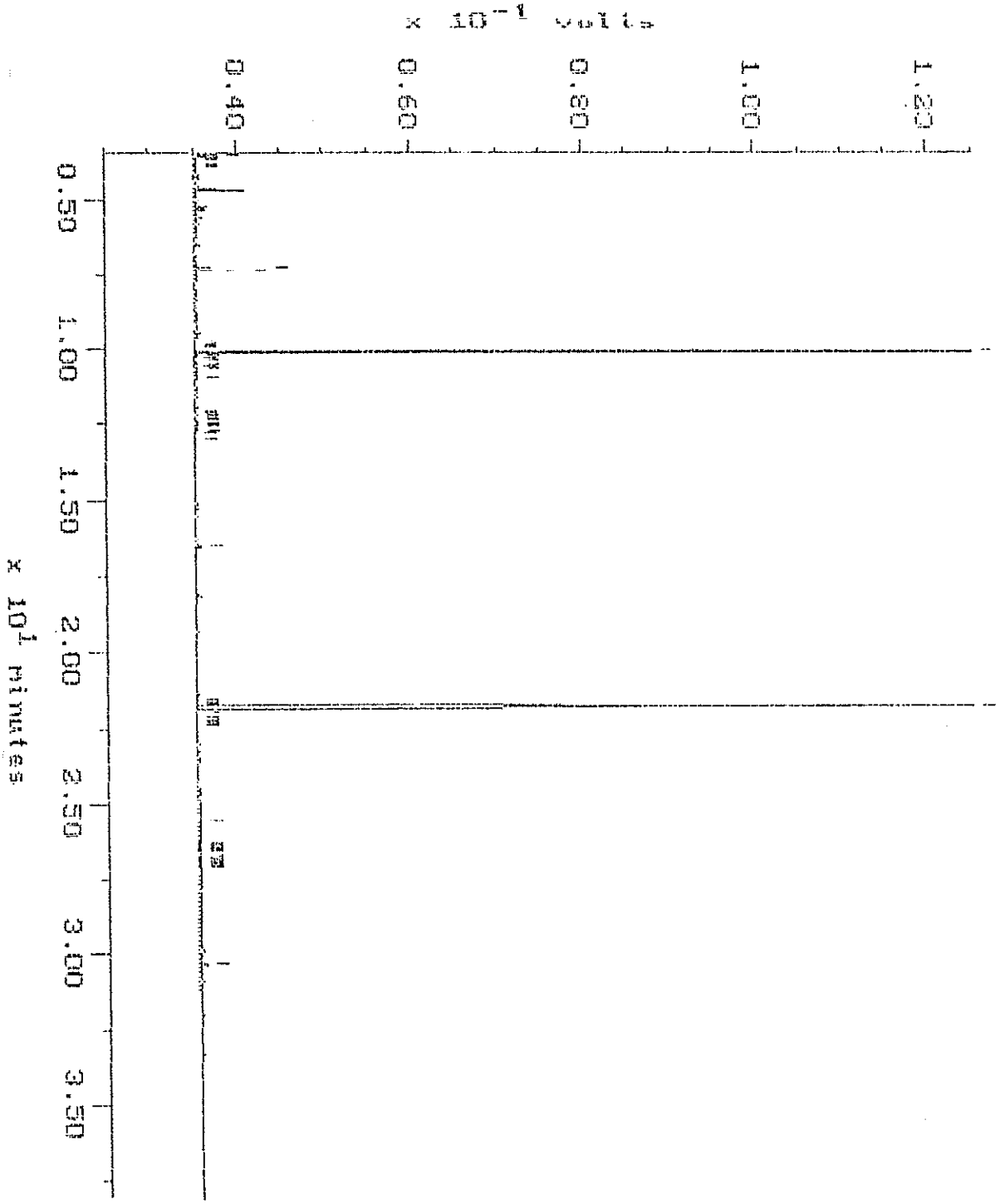
Sample: 9212-139-6 Channel: DEMITR1 Filename: 1-025D09
Acquired: 23-DEC-92 10:36 Method: H:\BRUCE\RHADATA\SCRIPT-DA\FULL225 Operator: RTI
Inj Vol: 1.00

WA DOE WTPH-D



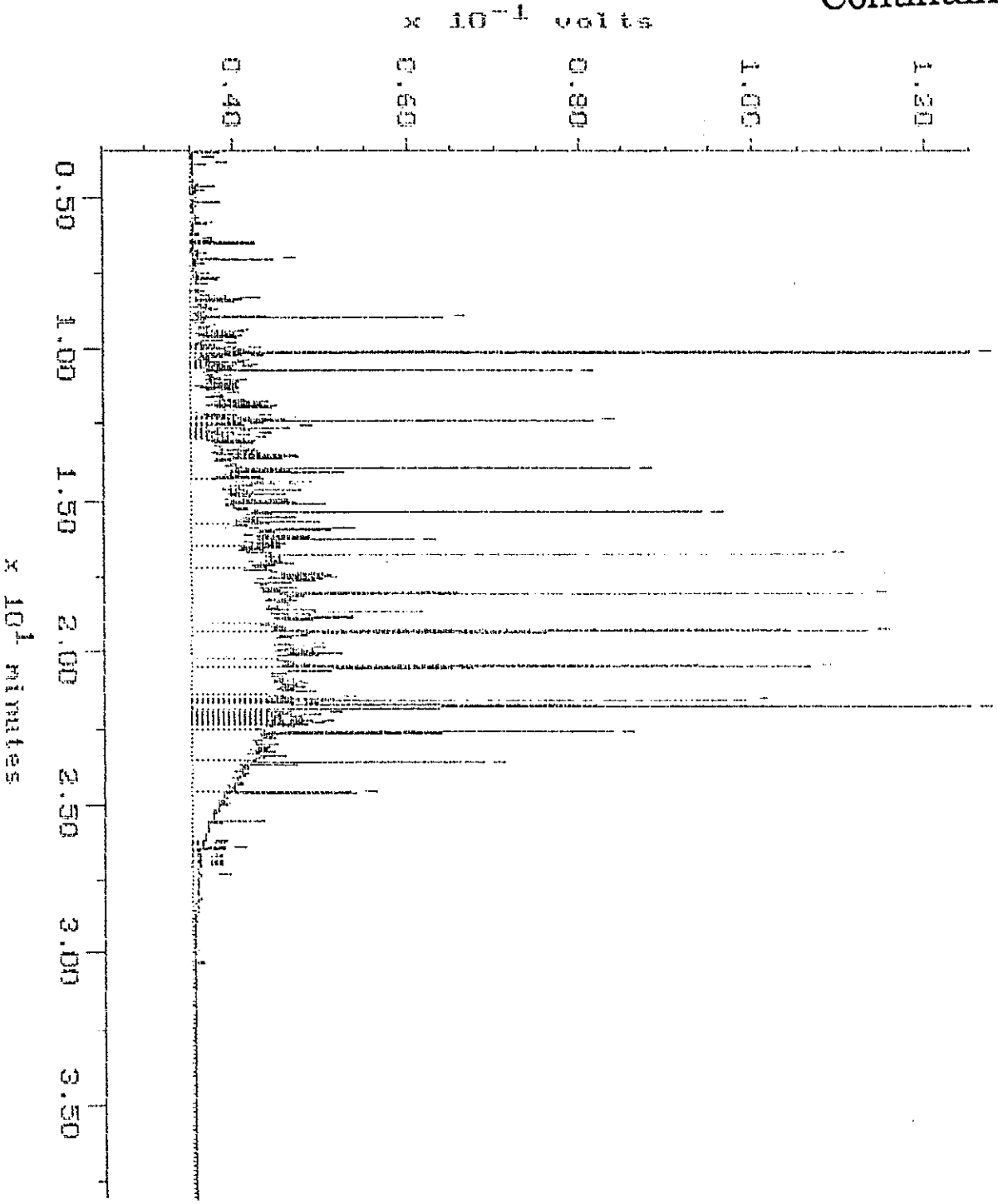
Sample: SRB 12-21 Channel: DEMIXI Filename: 1220\002
Acquired: 22-DEC-92 7:44 Method: H:\BRUZ\MAXDATA\SERGE-D\FUEL1220 Operator: ATI
Inj Vol: 1.00

Blank



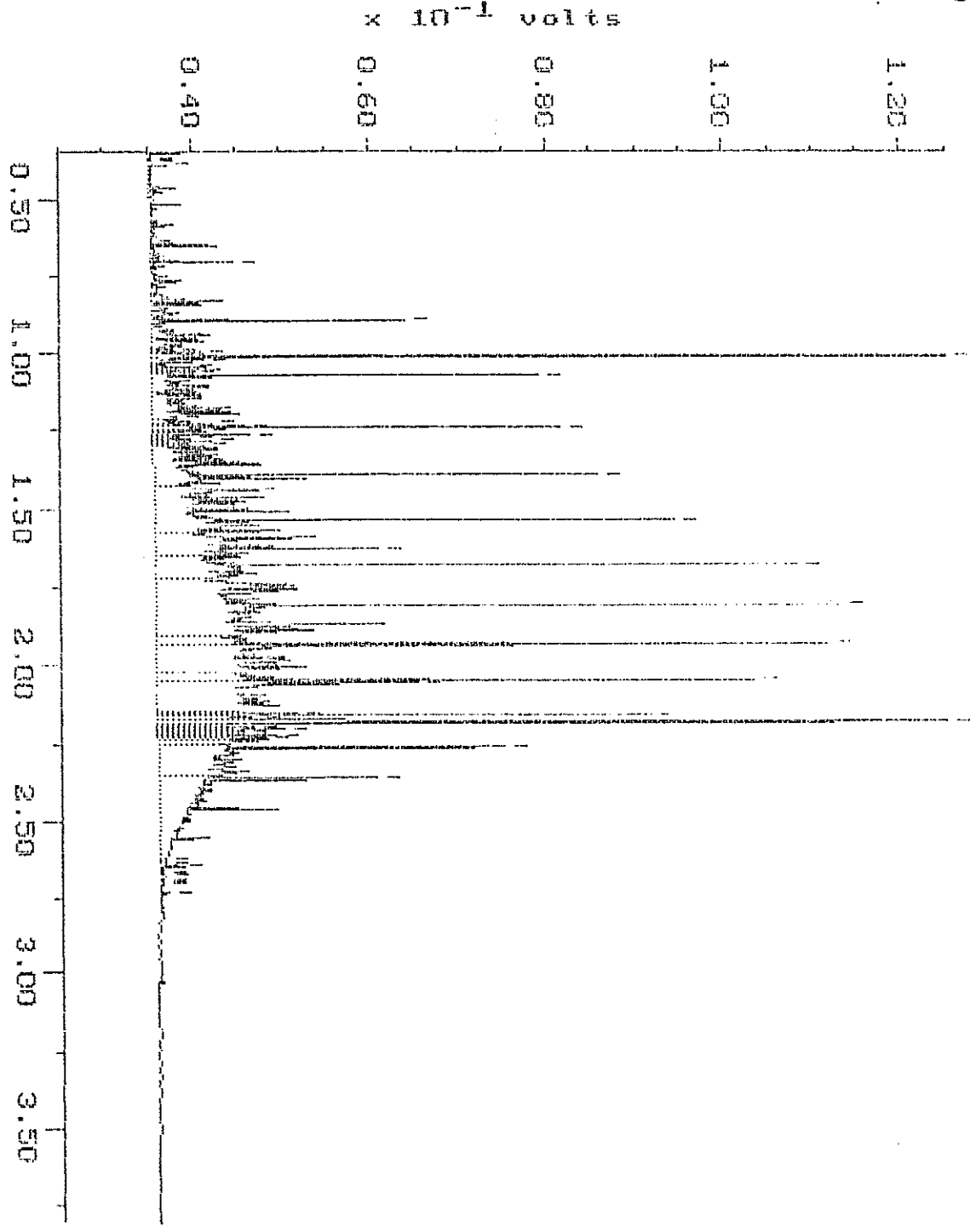
Sample: D300 Channel: VEMITR1 Filename: 1222001
Acquired: 22-DEC-92 6:58 Method: H:\BRU2\MAXDATA\SERGE-D\FUEL1222 Operator: ATT
Inj Vol: 1.00

Continuing Calibration



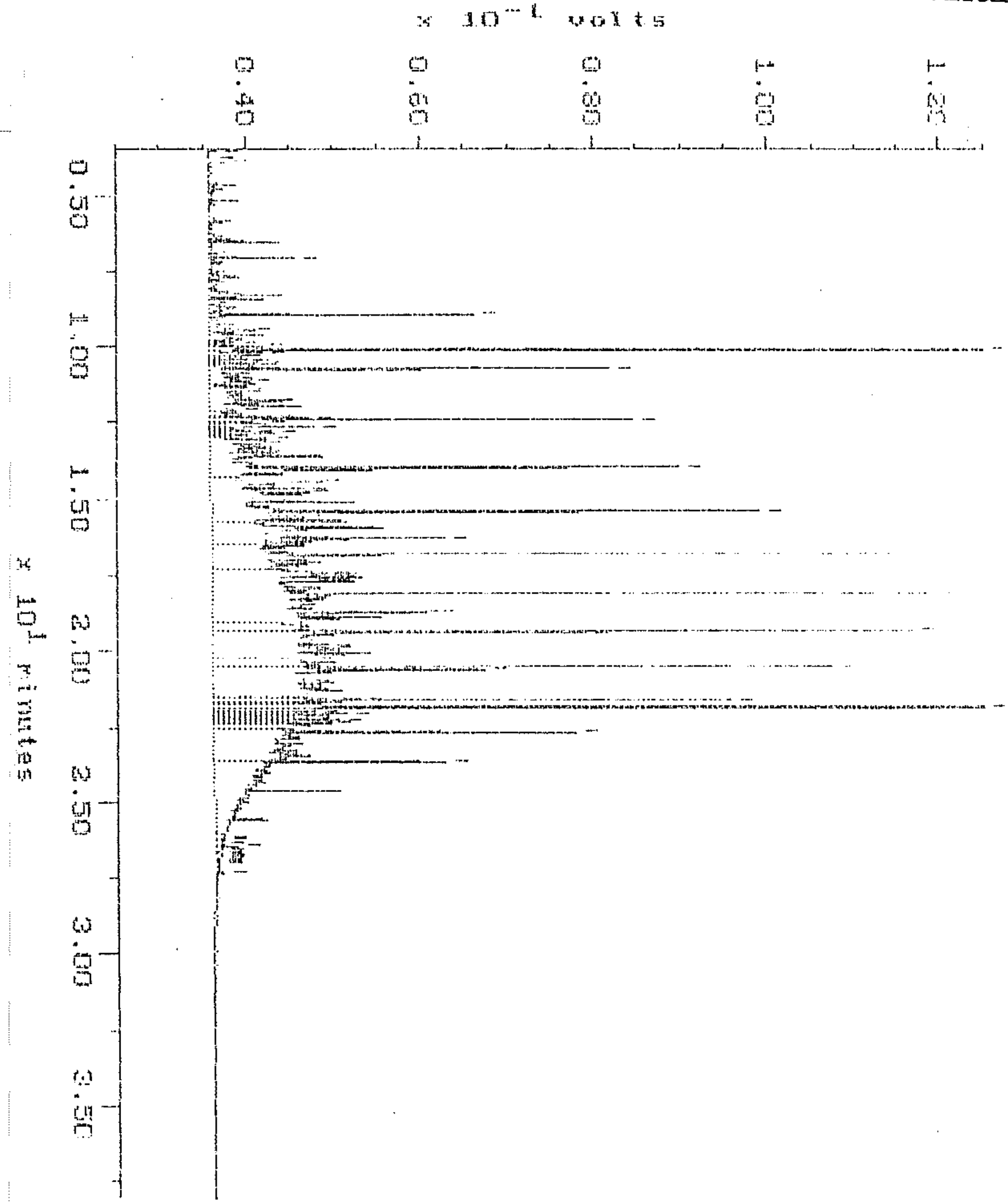
Sample: 0500 Channel: UEHITRI Filename: 12220027
Acquired: 23-DEC-92 3:02 Method: H:\BRU2\MAXDATA\DEMOE-D\FULL1222 Operator: ATT
Inj Vol: 1.00

Continuing Calibration



Sample: U200 Channel: UENIIIAI Filename: 12[illegible]
Acquired: 23-DEC-92 7:50 Method: A:\8NOZ\MAXDATA\SERGE-D\FULL1223 Operator: ATI
Inj Vol: 1.00

Continuing Calibration

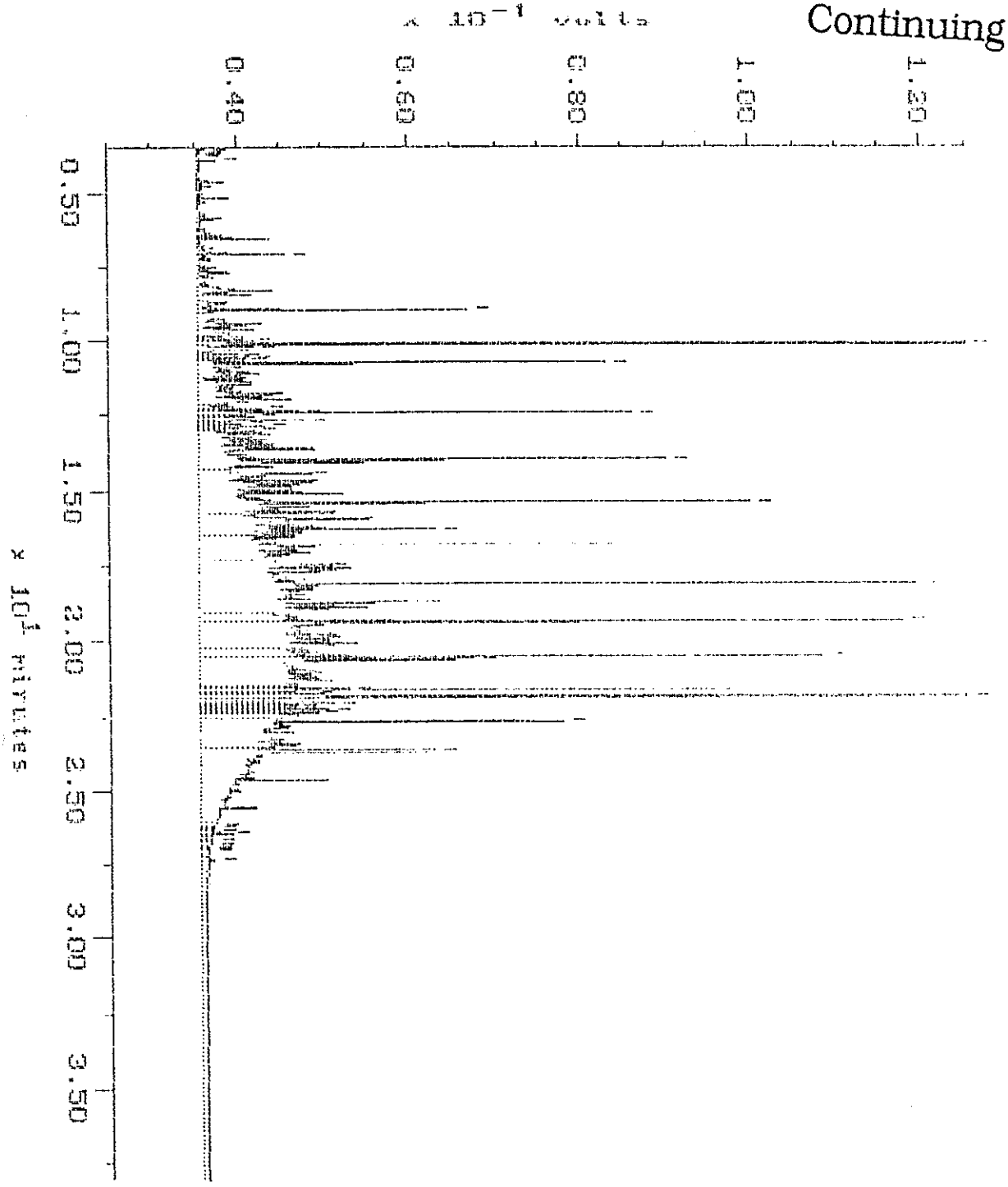


Sample: USQ0
Acquired: 23-DEC-92 17:42
Inj Vol: 1.00

Channel: DEN1[0]
Method: H:\EAGLE\MAXDATA\SCRIPT-D\FUEL1223

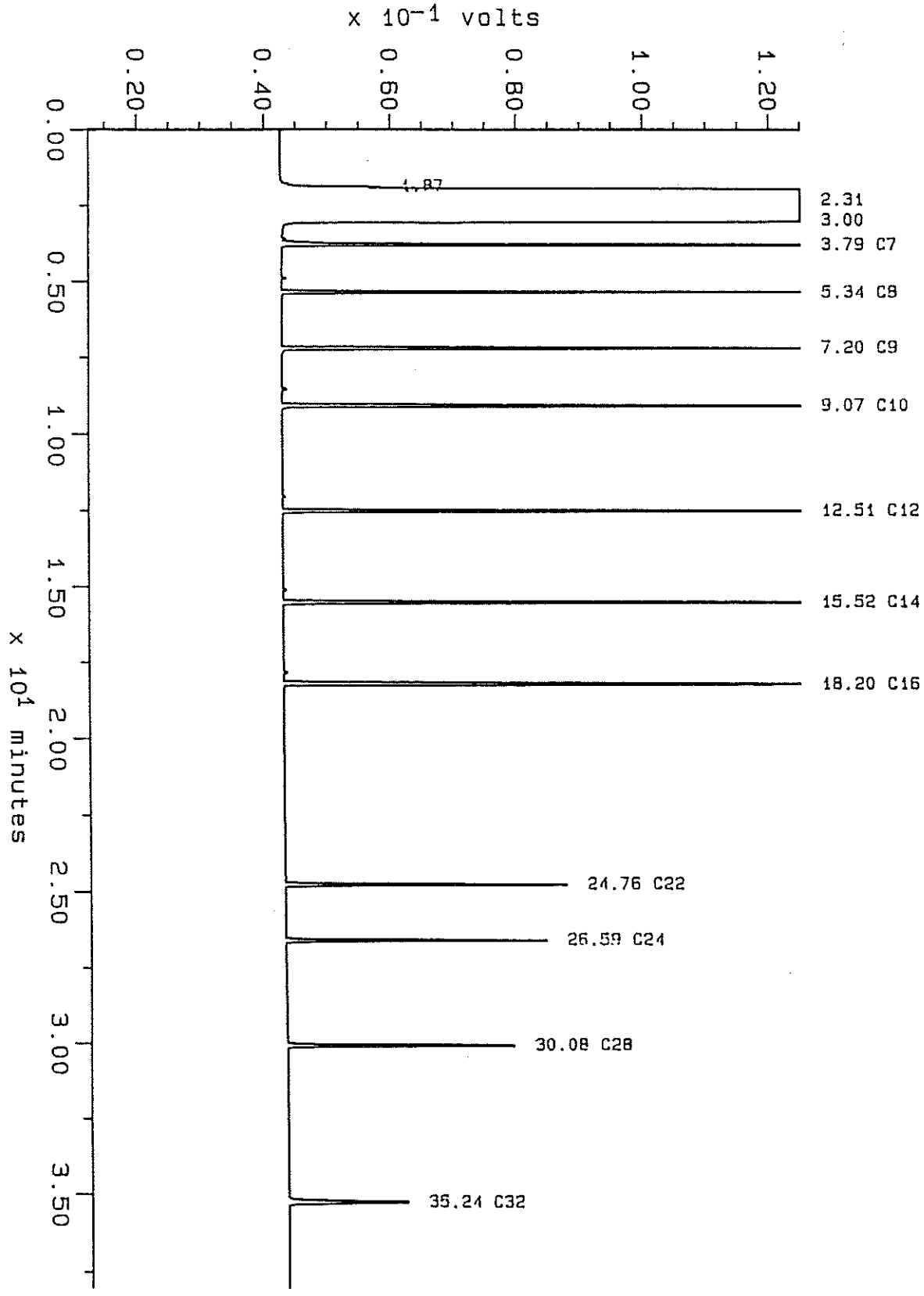
Filename: 1223S013
Operator: ATT

Continuing Calibration



Alkane

Sample: ALKANE Channel: DEMITRI Filename: 1102SD02
Acquired: 02-NOV-92 12:49 Method: L:\BR02\MAXDATA\SERGE-D\FUEL0902 Operator: ATI
Inj Vol: 1.00



Analytical Technologies, Inc.

DATE: 12/18/92 Page 1 of 1 12/19/92 ATI ACCESSION # 9212-1389

COMPANY: Chevron - Northern Fac
REPORT TO: Paul Davidson / Clint Rodgers
ADDRESS: 2214 N. 4th Ave
Pasco WA 99301
PHONE: (509) 547-1671 FAX: (509) 547-1673
PROJECT MANAGER: Clint Rogers
PROJECT NUMBER: 192-2129
PROJECT NAME: Chevron - Yakima
ATI will DISPOSE / RETURN samples (circle one)

Sample ID	Date	Time	Matrix	Lab ID	FUELS: TPH-HCID WA/OR	BETX/TPH-G combo WA/OR	BETX (by 8020) WA/OR	TPH-G WA/OR	TPH-D WA/OR	8015 modified WA/OR	418.1 WA/OR	413.2 WA/OR	HX-GRO WA/OR	HX-DRO WA/OR	ORGANIC COMPOUNDS: 8240 GCMS Volatiles	8270 GCMS Semivolatiles	8080 Pesticides/PCBs	PCBs only (by 8080) STD/lo level	8010 Halogenated VOCs	8020 Aromatic VOCs	8310 HPLC PAHs	8040 Phenols	8140 OP Pesticides	8150 OC Herbicides	METALS: Metals (Indicate below *)	Total Lead	Priority Pollutant Metals (13)	TAL Metals (23)	TCLP: TCLP-Volatiles (ZHE-8240)	TCLP-Semivolatiles (8270)	TCLP-Pesticides (8080)	TCLP-Herbicides (8150)	TCLP-Metals (8 metals)	OTHER: % Moisture (please indicate)					Total # of Containers/sample
Contaminated Stockpile West	12/18/92	3:00	Soil	17-1			X	X			X							X	X									As	Soil	Coll	for	Analysis						1
Contaminated Stockpile East	"	"	"	18-2			X				X							X	X									1											1
6'S, 6W'-2'	"	12:00	"	19-3				X	X		X																												
6'S, 6W'-4'	"	"	"	20-4		X		X																															
23N, 4W, -4'	"	"	"	21-5		X																																
23N, 4W, -2'	"	"	"	22-6				X	X		X																												
				on 12/21/92																																			

Turnaround Time		Sample Receipt	
STANDARD TAT		TOTAL # CONTAINERS RECVD	
1 WEEK TAT	X on 12/21/92	COC SEALS PRESENT?	
4 WORK DAY TAT		COC SEALS INTACT?	
3 WORK DAY TAT		RECEIVED COLD?	
2 WORK DAY TAT		RECEIVED INTACT?	
24 HOUR TAT		RECEIVED VIA:	

Special Instructions: Attn: Lee Corfali
Chevron Release Not 7165990 Fax Results to Clinton (510) 842-9591
* Metals needed: will contact on Contaminated Stockpile

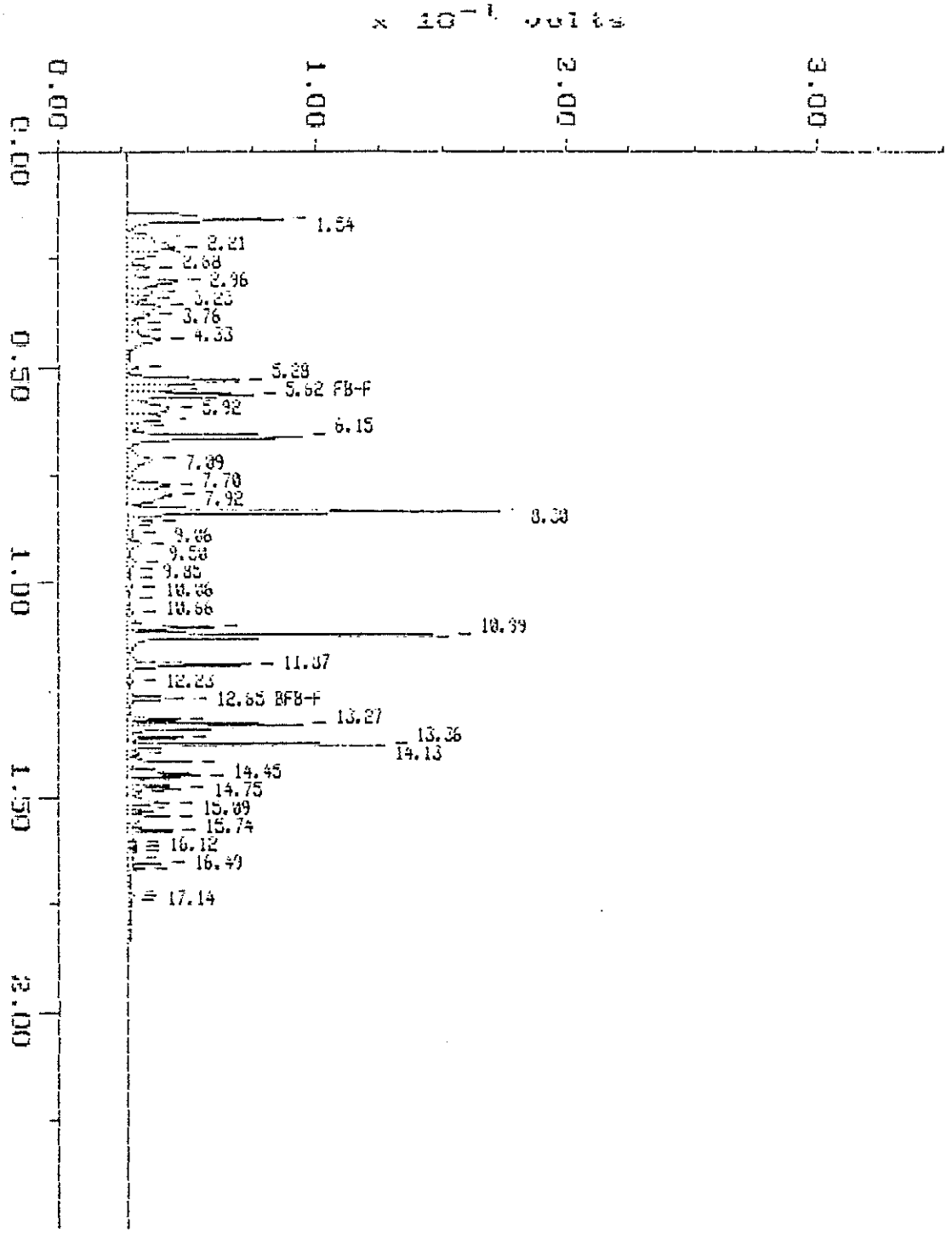
Relinquished By:	Relinquished By:	Relinquished By:
Date: 12/18/92	Date:	Date:
Time:	Time:	Time:
Received By:	Received By:	Received By:
Date: 12/18/92	Date:	Date:
Time: 10:00 AM	Time:	Time:
STANDARD ATTN		

Corporate Offices: 5550 Morehouse Drive, San Diego, CA 92121 (619)458-9141

WA DOE WTPH-G

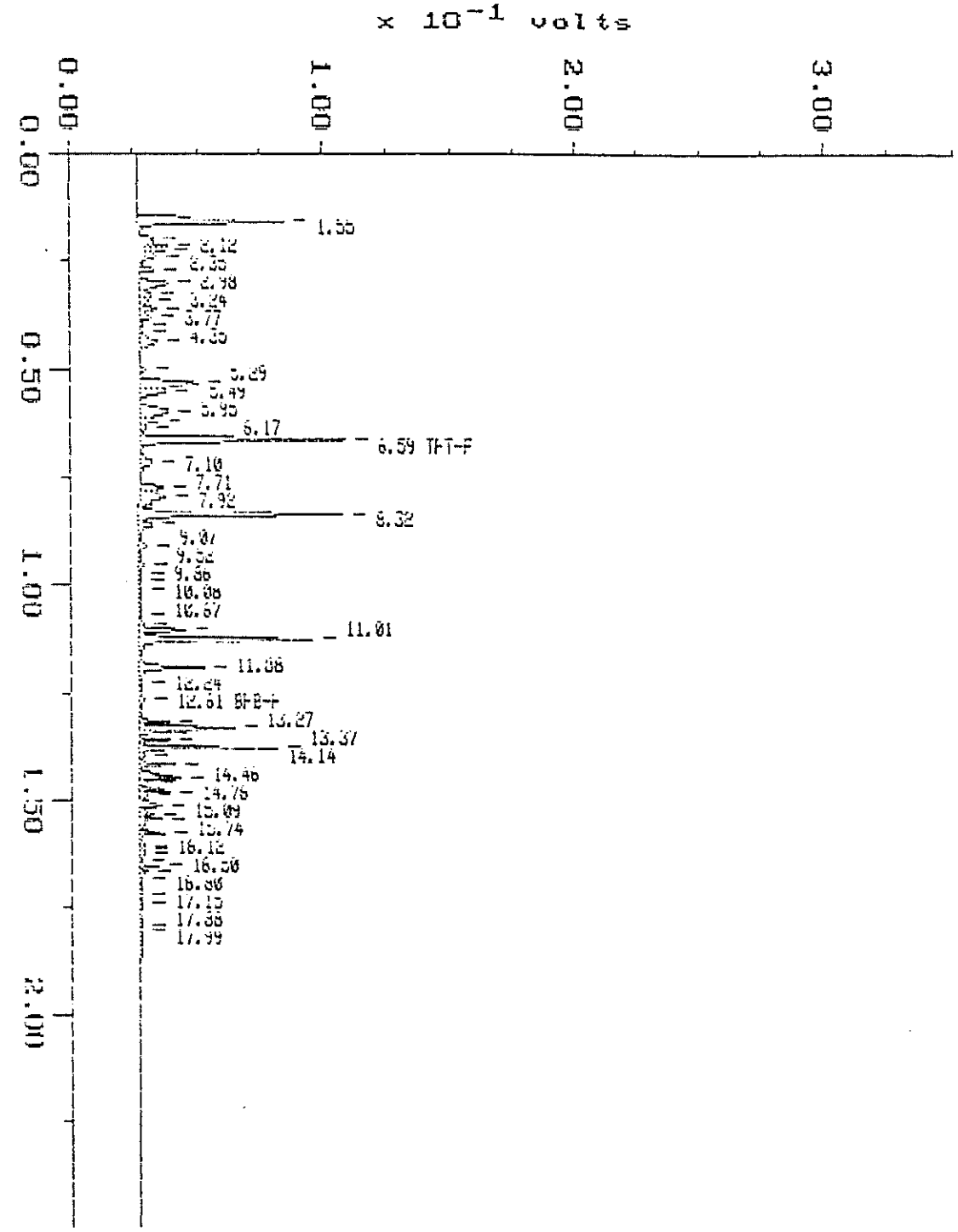
Continuing Calibration

Sample: C.C. 2 PPM Channel: FID Filename: 12216535
Acquired: 22-DEC-92 9:06 Method: N:\BRO2\RAWDATA\GLAB\12210265 Operator: ATI
Comments: ATI : A COMMITMENT TO QUALITY



WA DOE WTPH-G

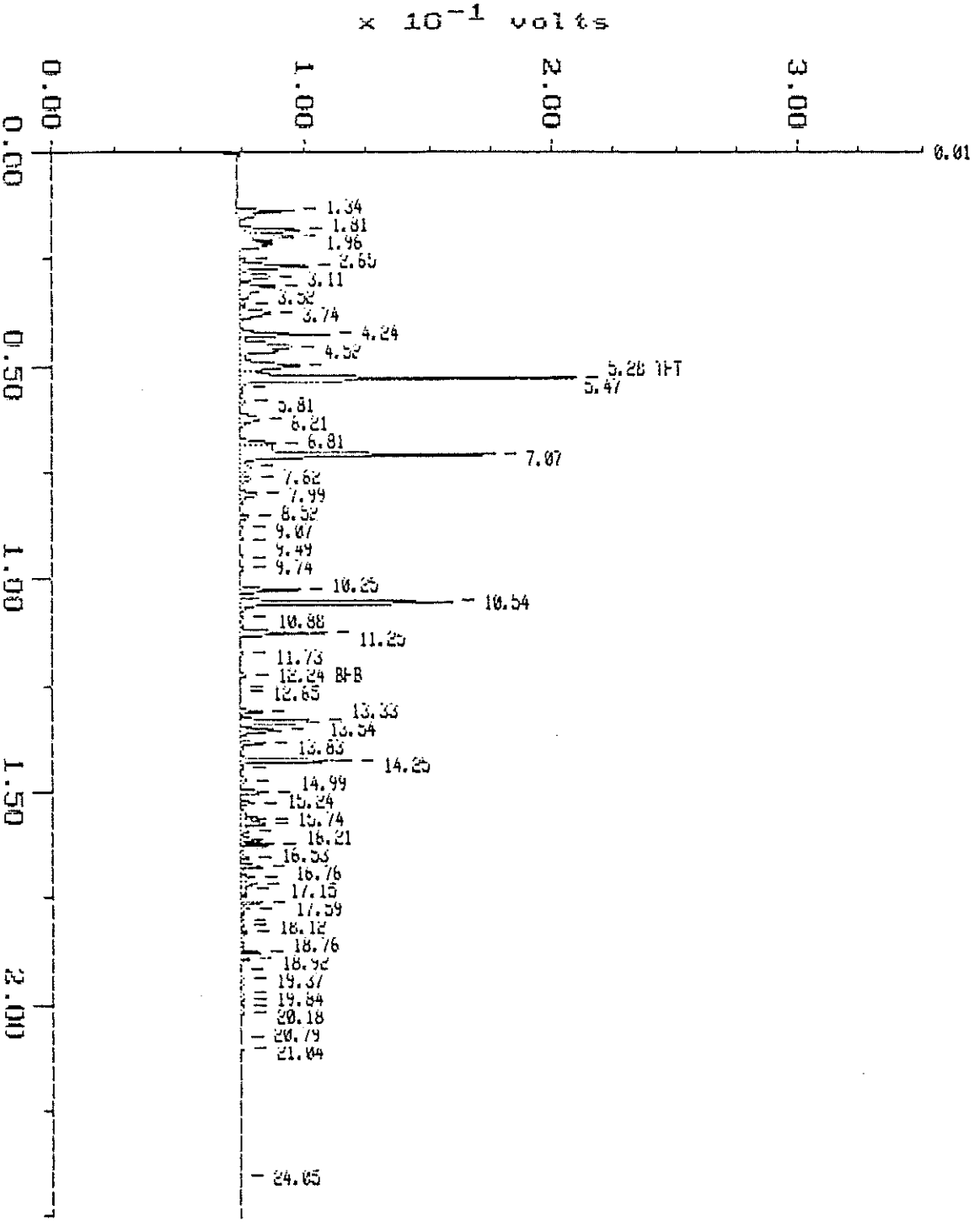
Sample: STD-C Channel: FID Filename: 12208S04
Acquired: 20-DEC-92 10:22 Method: N:\BRO2\MAXDATA\GLAD\12209265 Operator: AFI
Comments: AFI : A COMMITMENT TO QUALITY



WA DOE WTPH-G

Continuing Calibration

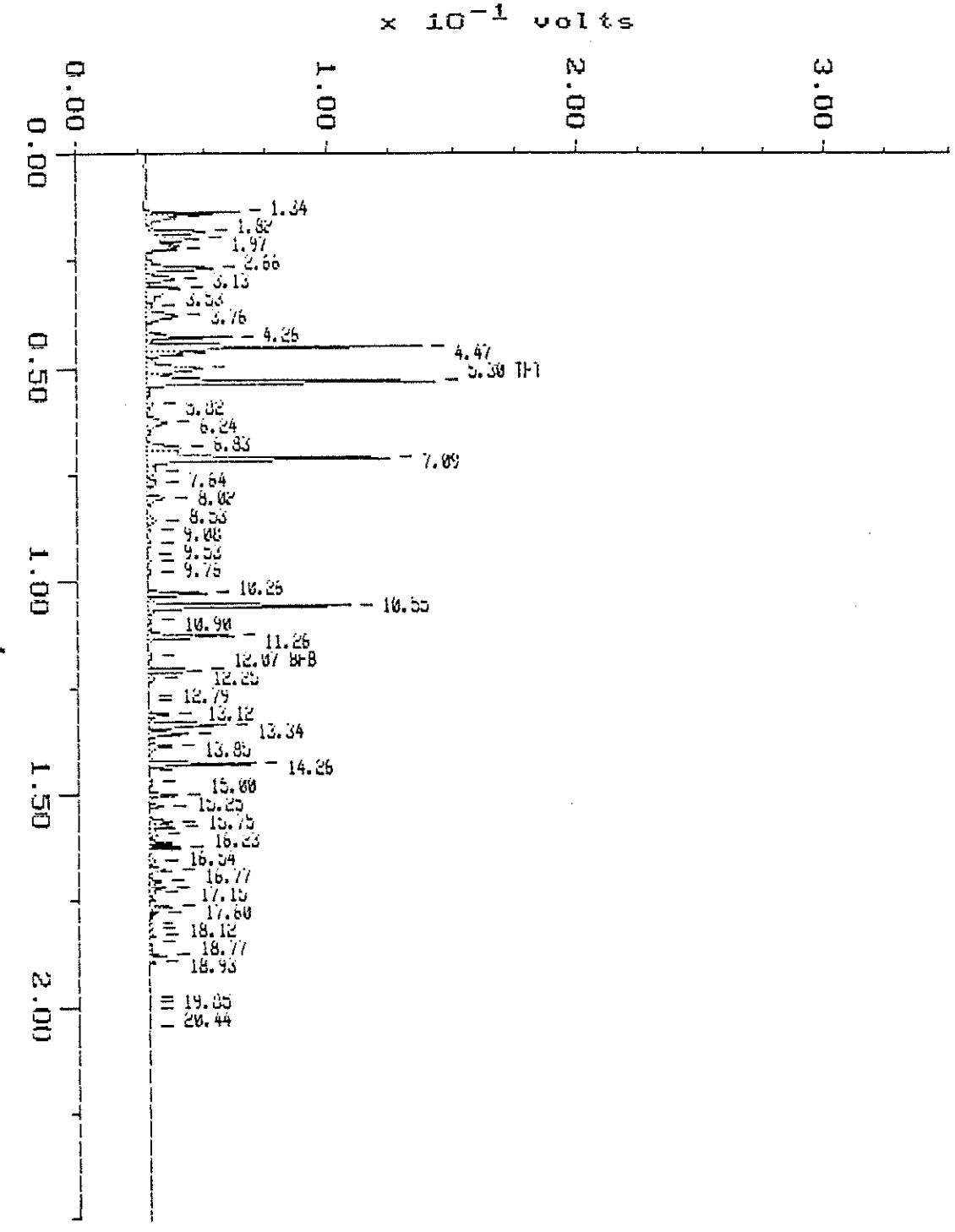
Sample: STD-C Channel: PRISCILLA Filename: 1222EP01
Acquired: 22-DEC-92 10:51 Method: N:\BRO2\MAXDATA\ELVIS-P\122292EP Operator: ATI
Comments: ATI FUELS: A MISSION OF EXCELLENCE IN ANALYTICAL CHROMATOGRAPHY.



WA DOE WTPH-G

Continuing Calibration

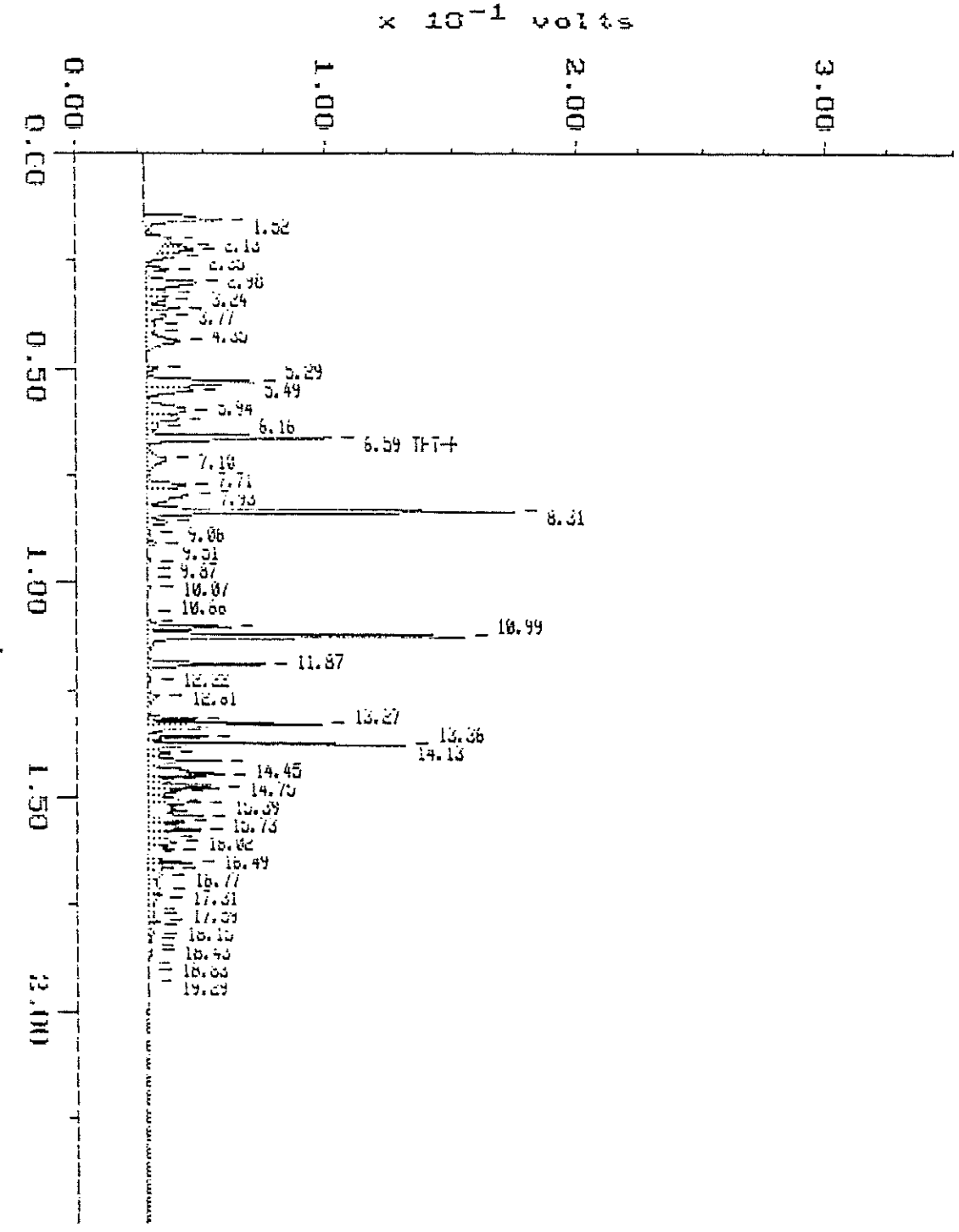
Sample: STD-C Channel: PRISCILLA Filename: 12229P20
Acquired: 22-DEC-92 22:28 Method: N:\BRU2\MAXDATA\ELVIS-P\12229P2P Operator: ATI
Comments: ATI FUELS: A MISSION OF EXCELLENCE IN ANALYTICAL CHROMATOGRAPHY.



WA DOE WTPH-G

Continuing Calibration

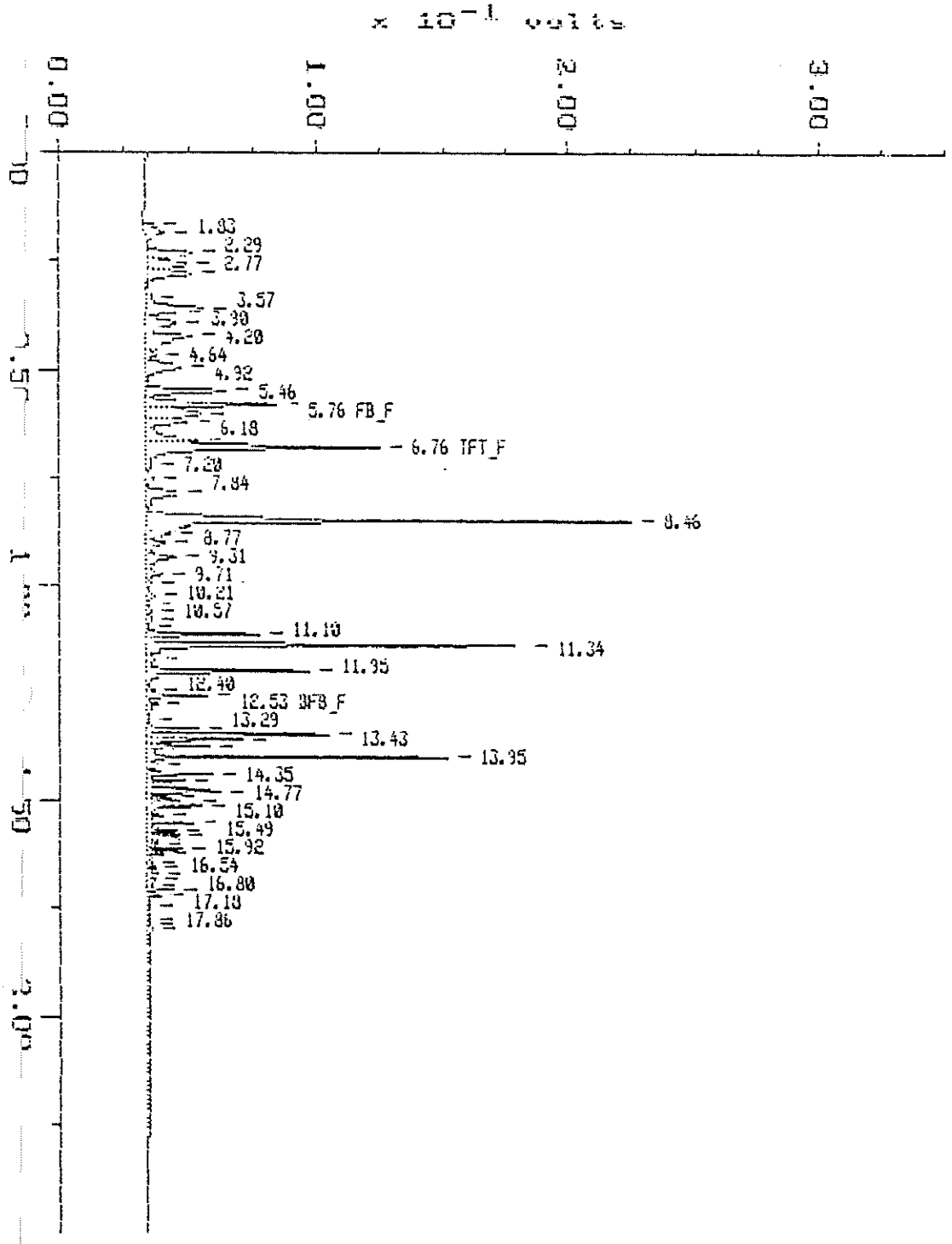
Sample: C.C. 2 PPM Channel: FID Filename: 12206528
Acquired: 20-DEC-92 22:43 Method: N:\BRU2\MAXDATA\GLAD\12209265 Operator: ATI
Comments: ATI : A COMMITMENT TO QUALITY



WA DOE WTPH-G

Continuing Calibration

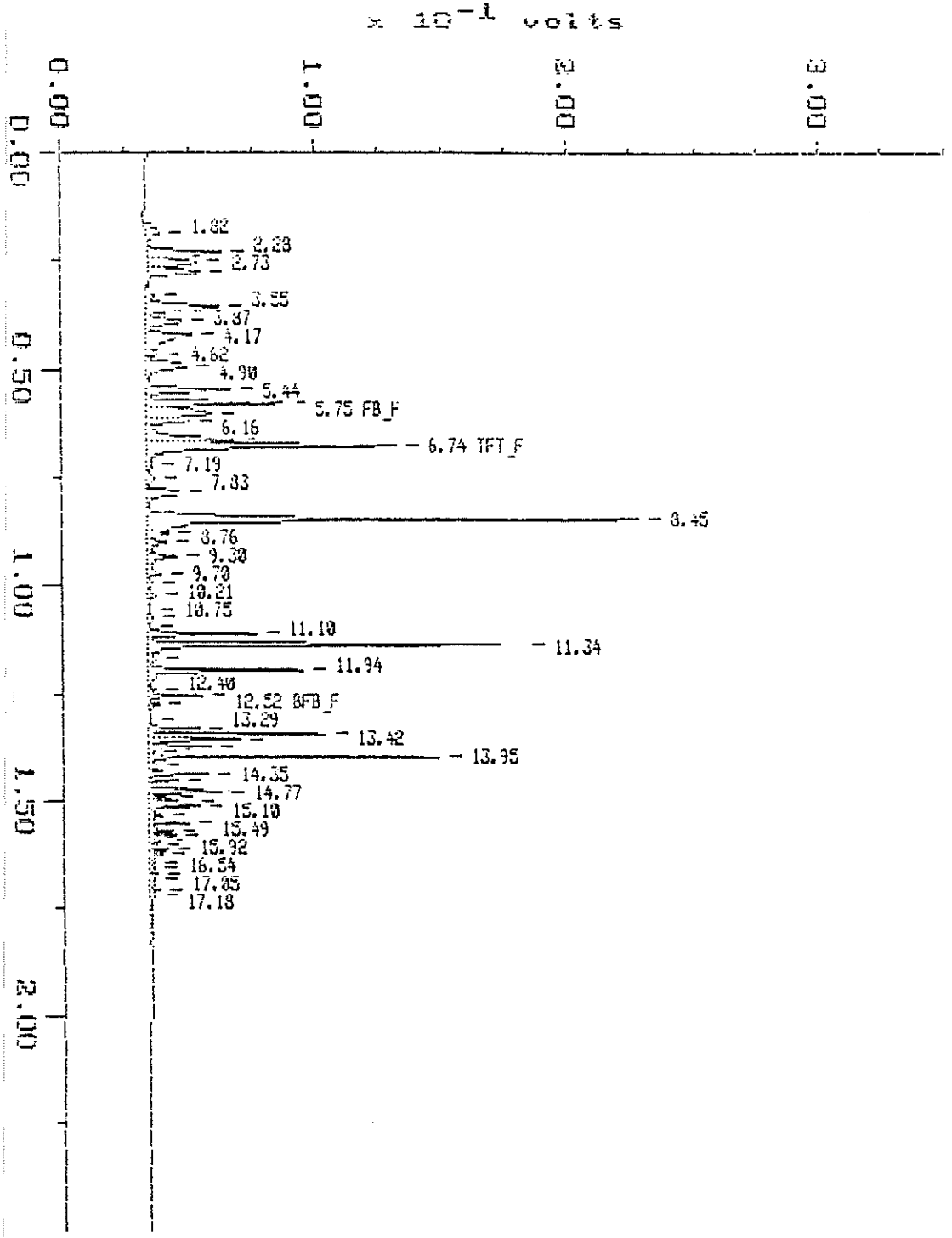
Sample: C.C. 2 PPM Channel: JEROME-PID Filename: 1221JR02
Acquired: 21-DEC-92 8:42 Method: H:\DR02\HAXDATA\JEROME\J1221928A Operator:



WA DOE WTPH-G

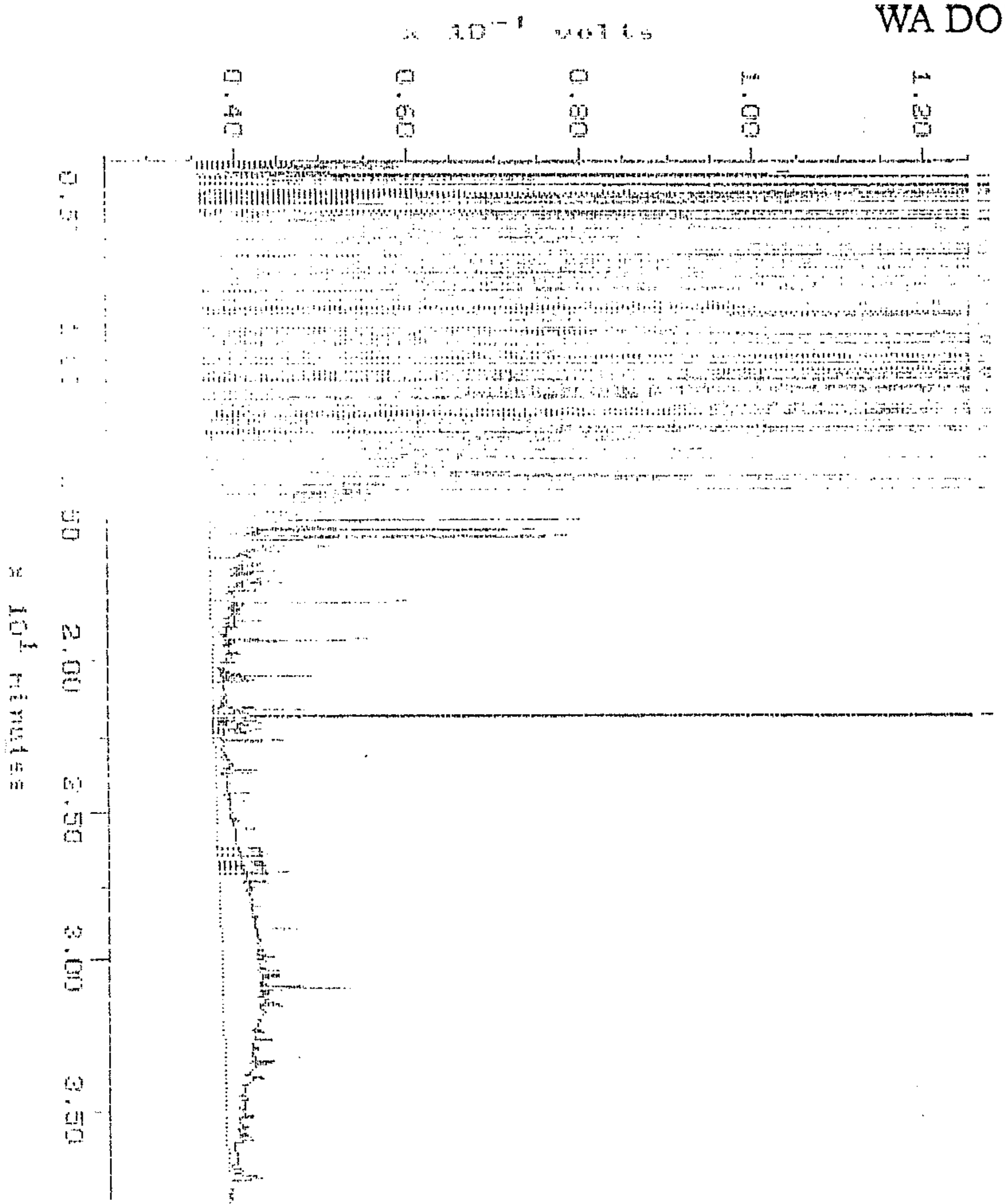
Continuing Calibration

Sample: C.C. 2 PPM Channel: JEROME-FID Filename: 1221JR03
Acquired: 21-DEC-92 12:12 Method: H:\BRG2\MAXDATA\JEROME\J122192A Operator:



Sample: 9212 139-3 Channel: [illegible] Filename: 12233003
Acquired: 23-DEC-92 [illegible] Method: [illegible] Operator: [illegible]
Inj Vol: 1.00

WA DOE WTPH-D



Analytical**Technologies,**Inc.

ATI I.D. # 9212-139-6

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/18/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/19/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/21/92
CLIENT I.D.	: 23N, 4W-2'	DATE ANALYZED	: 12/23/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-D	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	11	770
HYDROCARBON RANGE		C12 - C24
HYDROCARBON QUANTITATION USING		DIESEL
SURROGATE PERCENT RECOVERY		
O-TERPHENYL	99	

Analytical Technologies, Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
CONTINUING CALIBRATION STANDARDS SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: 192-2129	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: N/A
CLIENT I.D.	: 500 PPM CCV	DATE ANALYZED	: 12/22/92
SAMPLE MATRIX	: WATER	UNITS	: %
METHOD	: WA DOE WTPH-D	DILUTION FACTOR	: 1

COMPOUND	% DIFFERENCE
FUEL HYDROCARBONS QUANTITATED USING DIESEL	2

Analytical Technologies, Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
CONTINUING CALIBRATION STANDARDS SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: 192-2129	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: N/A
CLIENT I.D.	: 500 PPM CCV	DATE ANALYZED	: 12/23/92
SAMPLE MATRIX	: WATER	UNITS	: %
METHOD	: WA DOE WTPH-D	DILUTION FACTOR	: 1

COMPOUND	% DIFFERENCE
FUEL HYDROCARBONS QUANTITATED USING DIESEL	3

Analytical Technologies, Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA
METHOD : WA DOE WTPH-D
SAMPLE MATRIX : SOIL

SAMPLE I.D. # : 9212-146-1
DATE EXTRACTED : 12/21/92
DATE ANALYZED : 12/22/92
UNITS : mg/Kg

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (DIESEL)	ND	ND	NC	200	209	105	197	99	6

NC = Not Calculable.

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: BLANK SPIKE
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/21/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/22/92
METHOD	: WA DOE WTPH-D	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (DIESEL)	ND	200	240	120	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS
DATA SUMMARY

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA
METHOD : WA DOE WTPH-418.1 MODIFIED
DATE EXTRACTED : 12/21/92
DATE ANALYZED : 12/21/92
UNITS : mg/Kg
SAMPLE MATRIX : SOIL
RESULTS ARE CORRECTED FOR MOISTURE CONTENT

ATI I.D. #	CLIENT I.D.	MDL	TOTAL PETROLEUM HYDROCARBONS	TOTAL PETROLEUM HYDROCARBONS *
9212-139-1	CONTAMINATED STOCKPILE W.	22	1,300	1,300
9212-139-2	CONTAMINATED STOCKPILE E.	21	1,700	1,600
9212-139-3	6'S, 6W'-2'	25	96	89
9212-139-6	23N, 4W,-2'	22	1,100	1,100
METHOD BLANK	-	20	ND	ND

* Reanalyzed after second aliquot of silica gel added.

Analytical**Technologies,**Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: ICV
PROJECT #	: 192-2129	DATE EXTRACTED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/21/92
METHOD	: WA DOE WTPH-418.1 MODIFIED	UNITS	: mg/L
SAMPLE MATRIX	: WATER		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS	N/A	N/A	N/A	100	99	99	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: 9212-136-31
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/21/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/21/92
METHOD	: WA DOE WTPH-418.1 MODIFIED	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (MOTOR OIL)	129	121	6	400	498	92	578	112	15

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-139

TOTAL PETROLEUM HYDROCARBONS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: BLANK SPIKE
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/21/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/21/92
METHOD	: WA DOE WTPH-418.1 MODIFIED	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (MOTOR OIL)	ND	N/A	N/A	400	416	104	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-139

GENERAL CHEMISTRY ANALYSIS

CLIENT : CHEN-NORTHERN, INC. MATRIX : SOIL
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

PARAMETER	DATE ANALYZED
MOISTURE (SAMPLES -4,-5)	12/19/92
MOISTURE (SAMPLES -1 THROUGH -3, -6)	12/21/92
MOISTURE*	12/22/92

* Analyzed at ATI, Portland, OR, laboratory.

Analytical Technologies, Inc.

ATI I.D. # 9212-139

GENERAL CHEMISTRY ANALYSIS
DATA SUMMARY

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

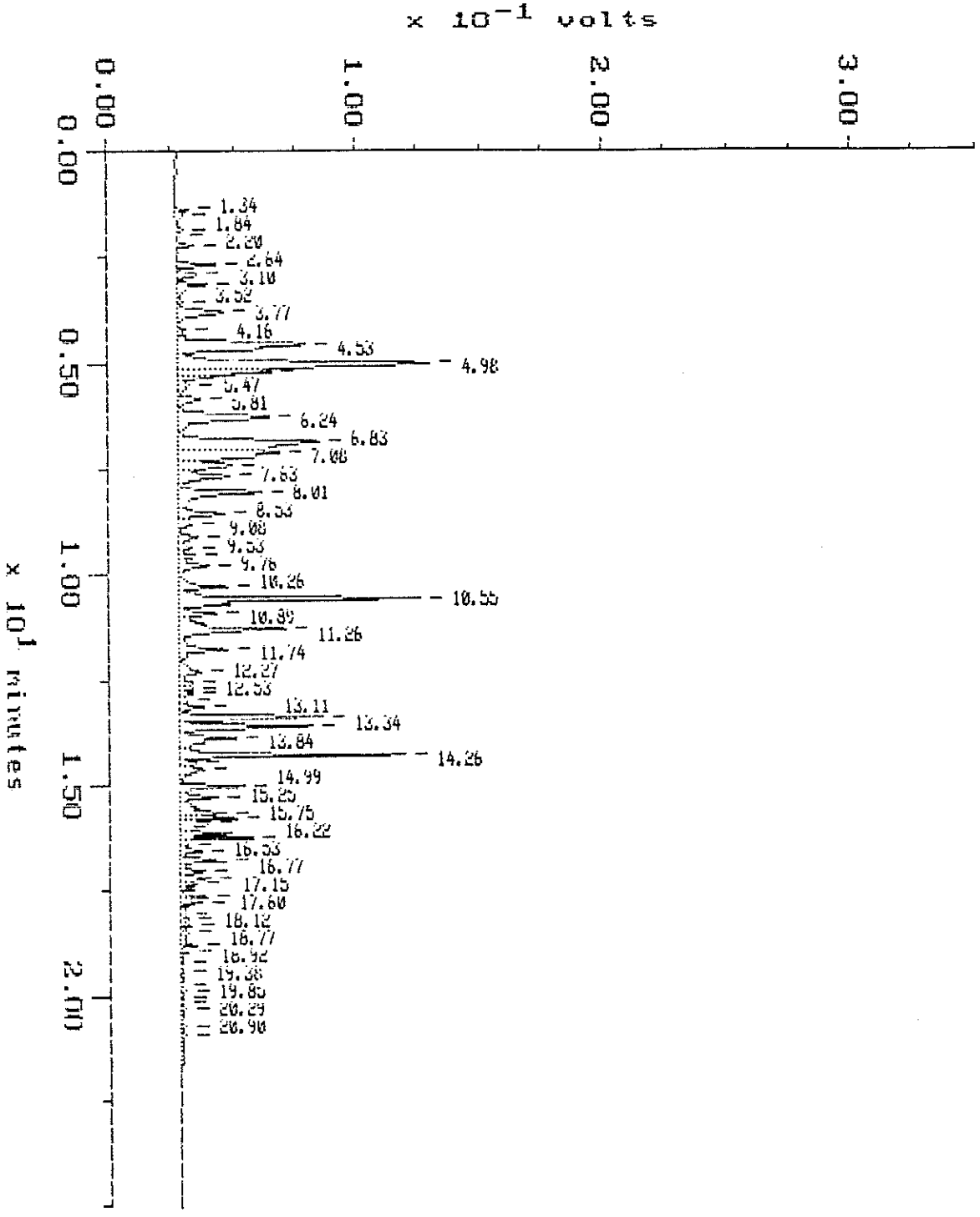
MATRIX : SOIL
UNITS : %

ATI I.D. #	CLIENT I.D.	MOISTURE MDL	RESULT	RESULT*
9212-139-1	CONTAMINATED STOCKPILE W.	0.5	10	13
9212-139-2	CONTAMINATED STOCKPILE E.	0.5	6.1	6
9212-139-3	6'S, 6W'-2'	0.5	19	-
9212-139-4	6'S, 6W'-4'	0.5	18	-
9212-139-5	23N, 4W,-4'	0.5	9.0	-
9212-139-6	23N, 4W,-2'	0.5	7.8	-

* Analyzed at ATI, Portland, OR, laboratory.

WA DOE WTPH-G

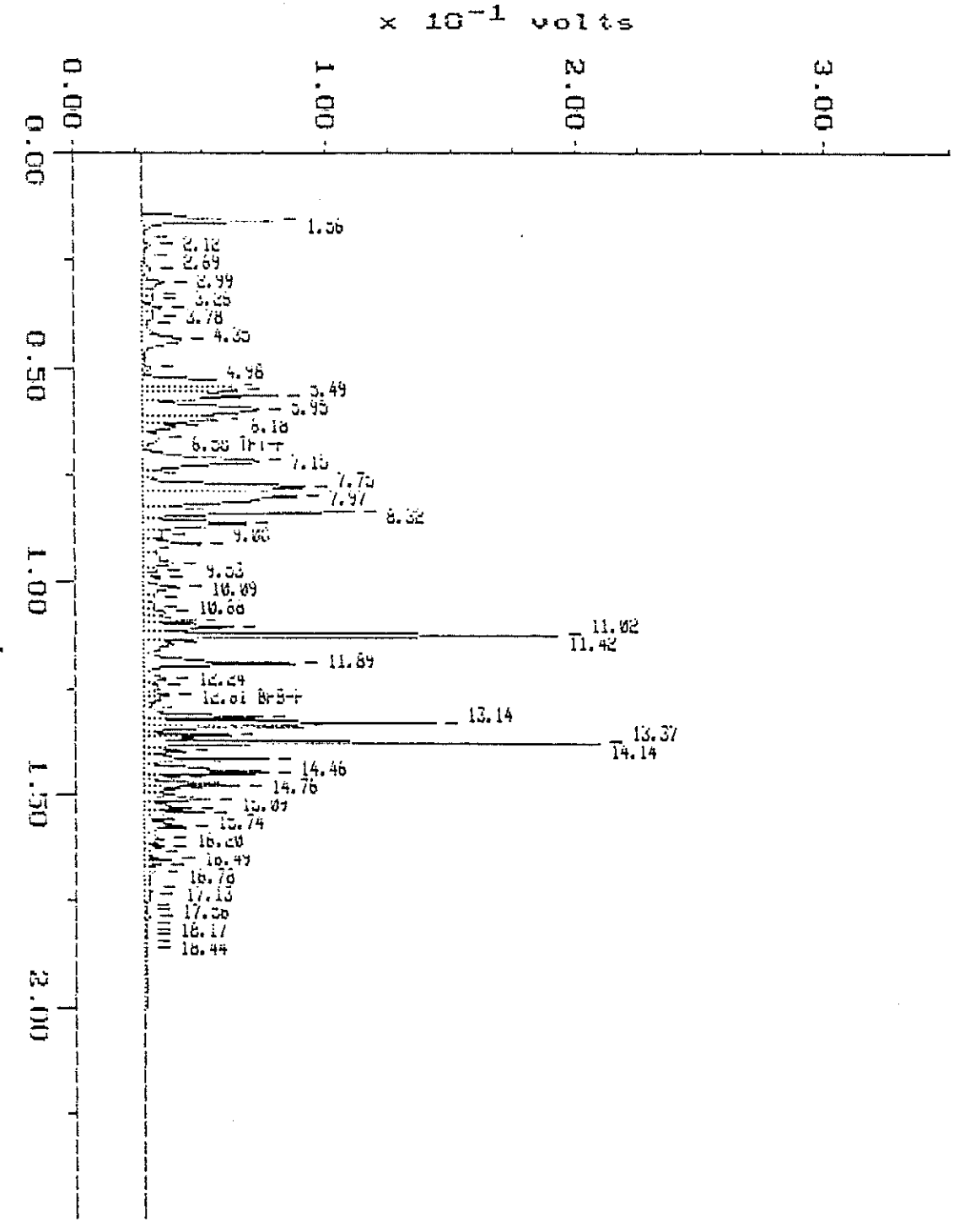
Sample: 9212-139-3 DIL Channel: PRISCILLA Filename: 12229P12
Acquired: 22-DEC-92 18:00 Method: N:\BRU2\MAXDATA\ELVIS-P\122292EP Operator: ATI
Dilution: 1 : 50.000
Comments: ATI FUELS: A MISSION OF EXCELLENCE IN ANALYTICAL CHROMATOGRAPHY.



WA DOE WTPH-G

9212-139-4

Sample: ~~9212-138-20~~ DIL Channel: FID Filename: 12206526
Acquired: 20-DEC-92 21:44 Method: N:\BRU2\MAXDATA\GLAD\12209265 Operator: ATI
Dilution: 1 : 20.000
Comments: ATI : A COMMITMENT TO QUALITY



WA DOE WTPH-G

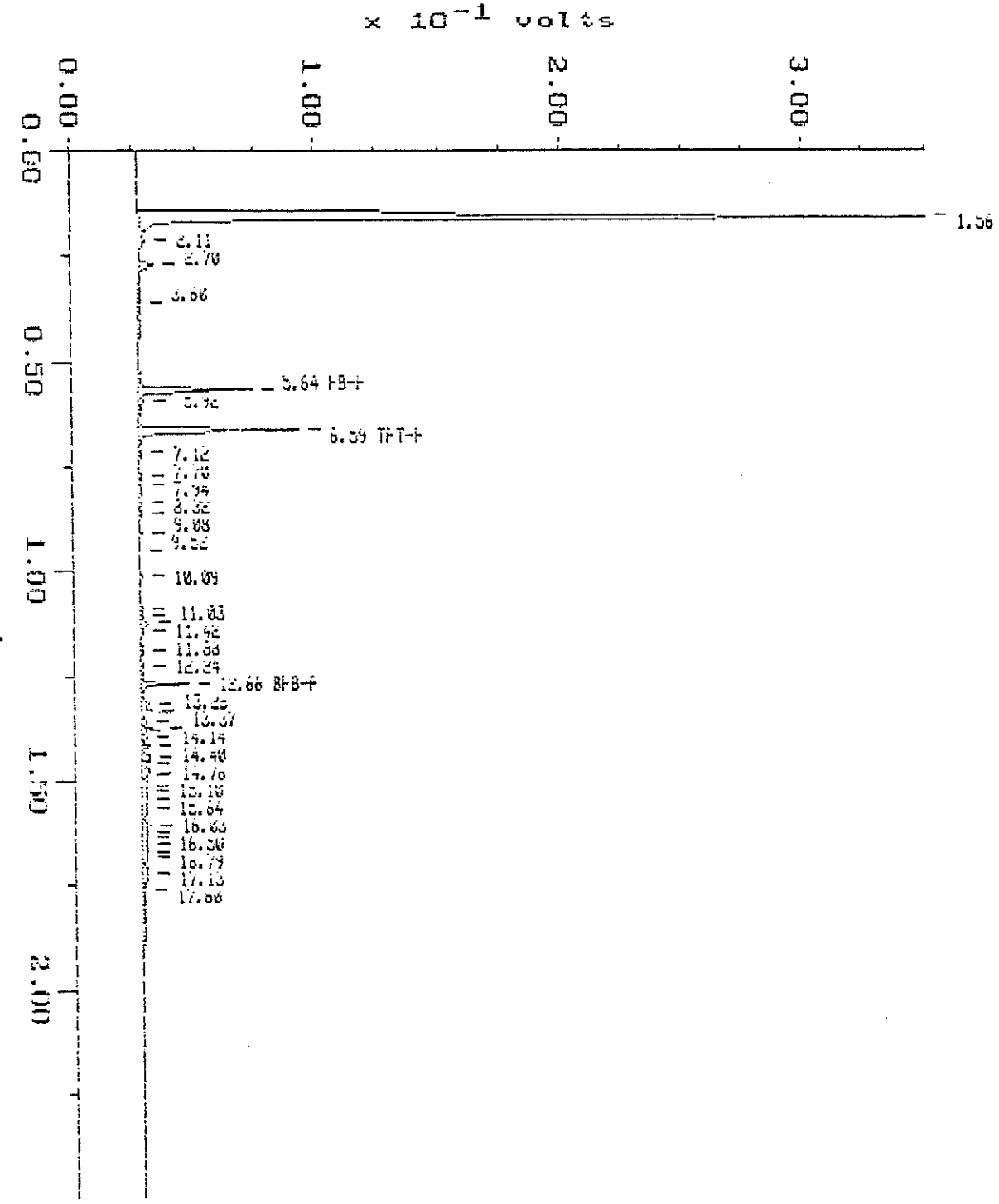
Continuing Calibration

9212-139-5

Sample: ~~9212-138-21~~ Channel: FID Filename: 12206S15

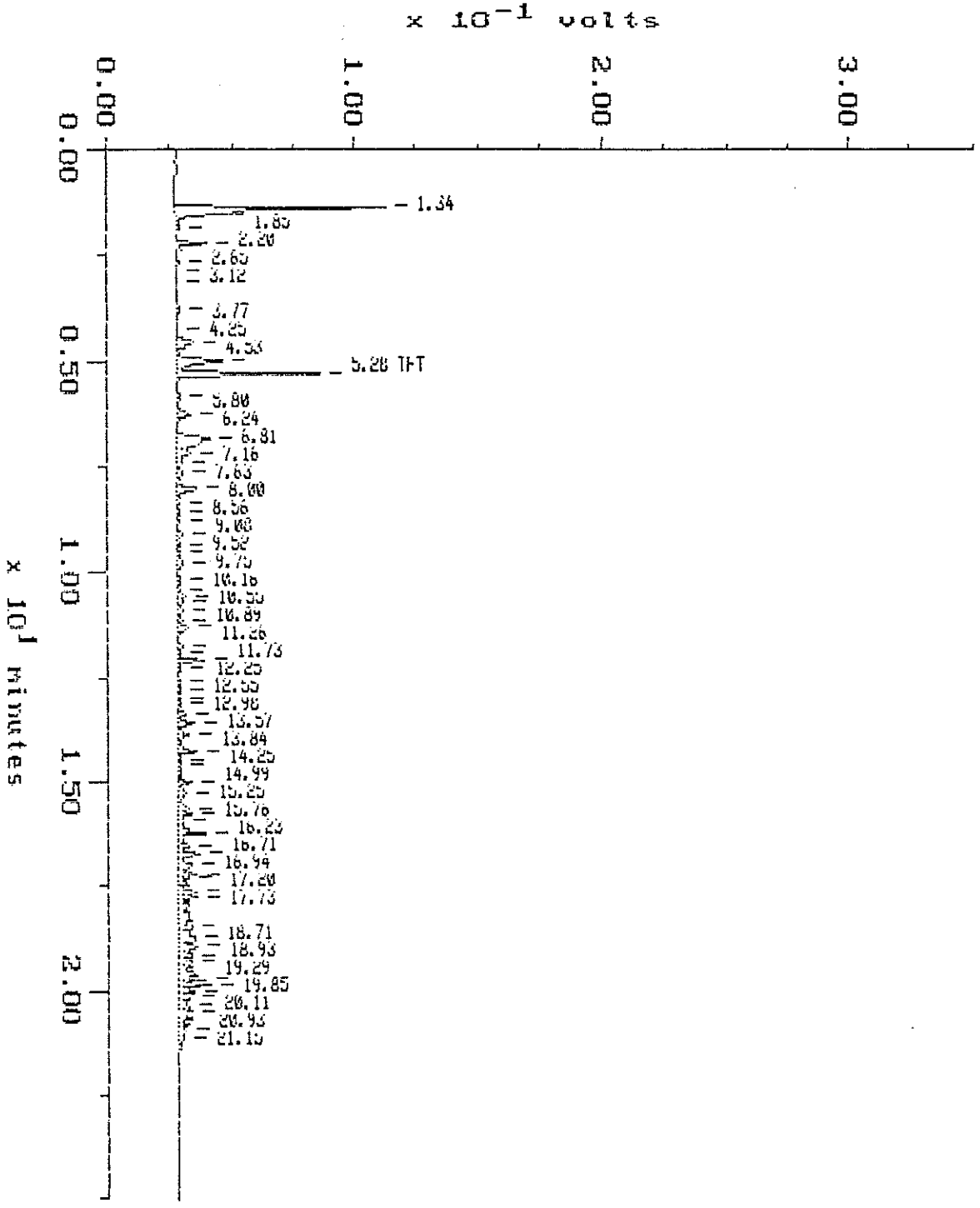
Acquired: 20-DEC-92 16:14 Method: N:\BRU2\MAXDATA\GLAD\12209206S Operator: ATI

Comments: ATI : A COMMITMENT TO QUALITY



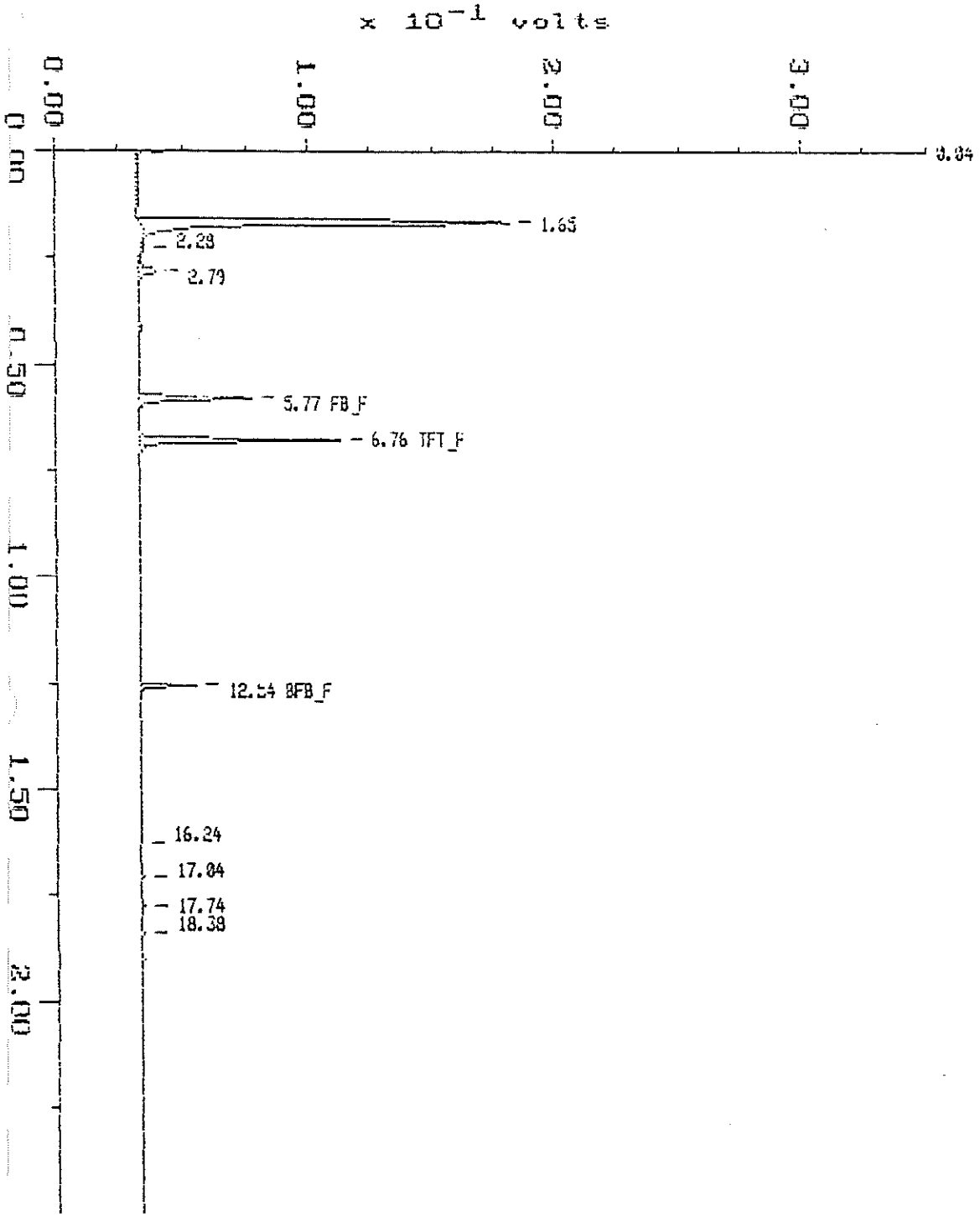
WA DOE WTPH-G

Sample: 9212-139-6 DIL Channel: PRISCILLA Filename: 12229P14
Acquired: 22-DEC-92 19:07 Method: N:\BR02\MAXDATA\ELVIS-P\12229DEP Operator: ATI
Dilution: 1 : 2.000
Comments: ATI FUELS: A MISSION OF EXCELLENCE IN ANALYTICAL CHROMATOGRAPHY.



WA DOE WTPH-G

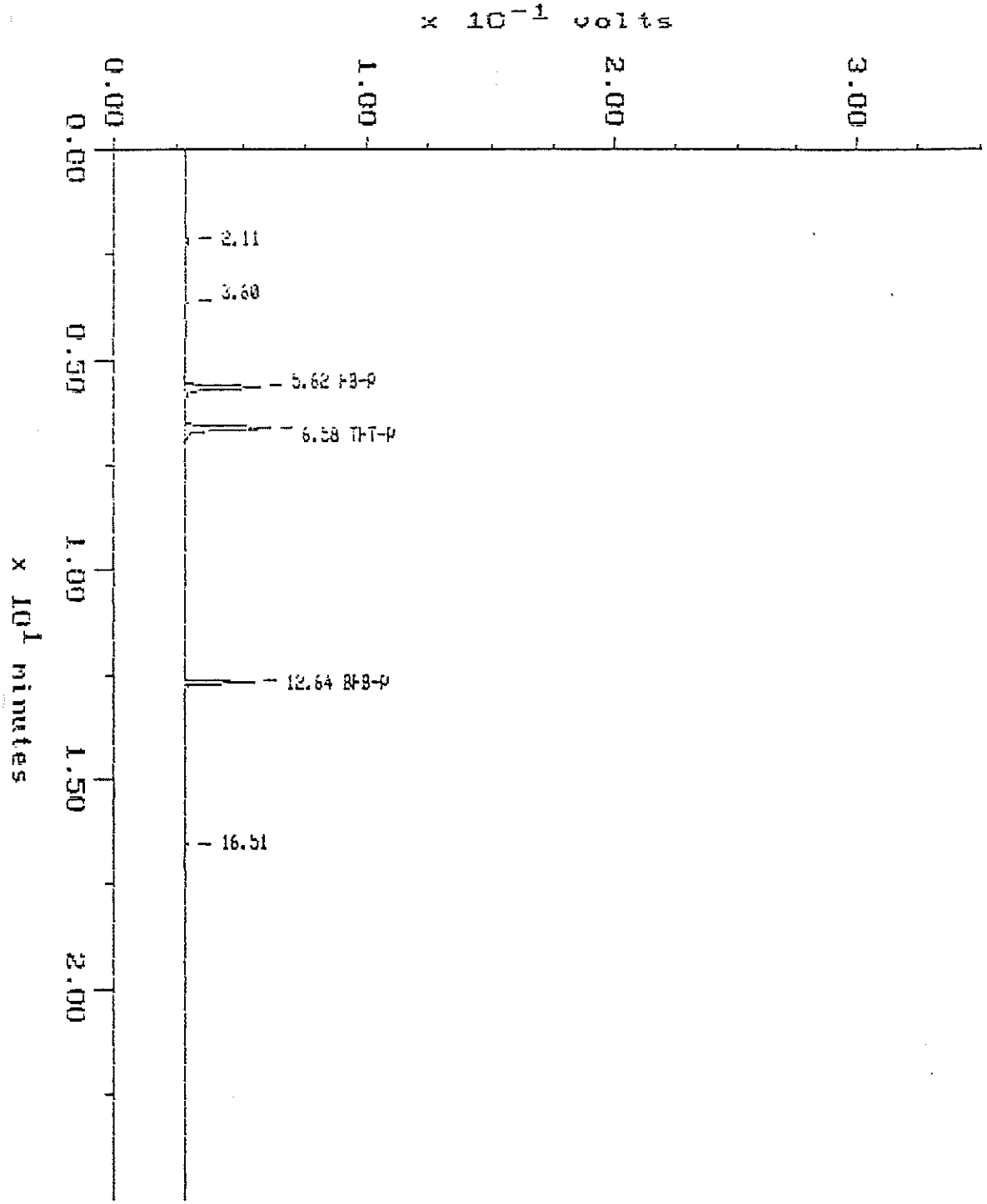
Sample: SRB 12/19 Channel: JEROME-FID Filename: 1221JK05
Acquired: 21-DEC-92 10:37 Method: H:\GRG2\MAXDATA\JEROME\J122193A Operator:



WA DOE WTPH-G

Blank

Sample: SKB 1221 Channel: PID Filename: 12216307
Acquired: 21-DEC-92 18:51 Method: N:\BRU2\MAXDATA\GLAU\12219205 Operator: ATI
Comments: ATI : A COMMITMENT TO QUALITY



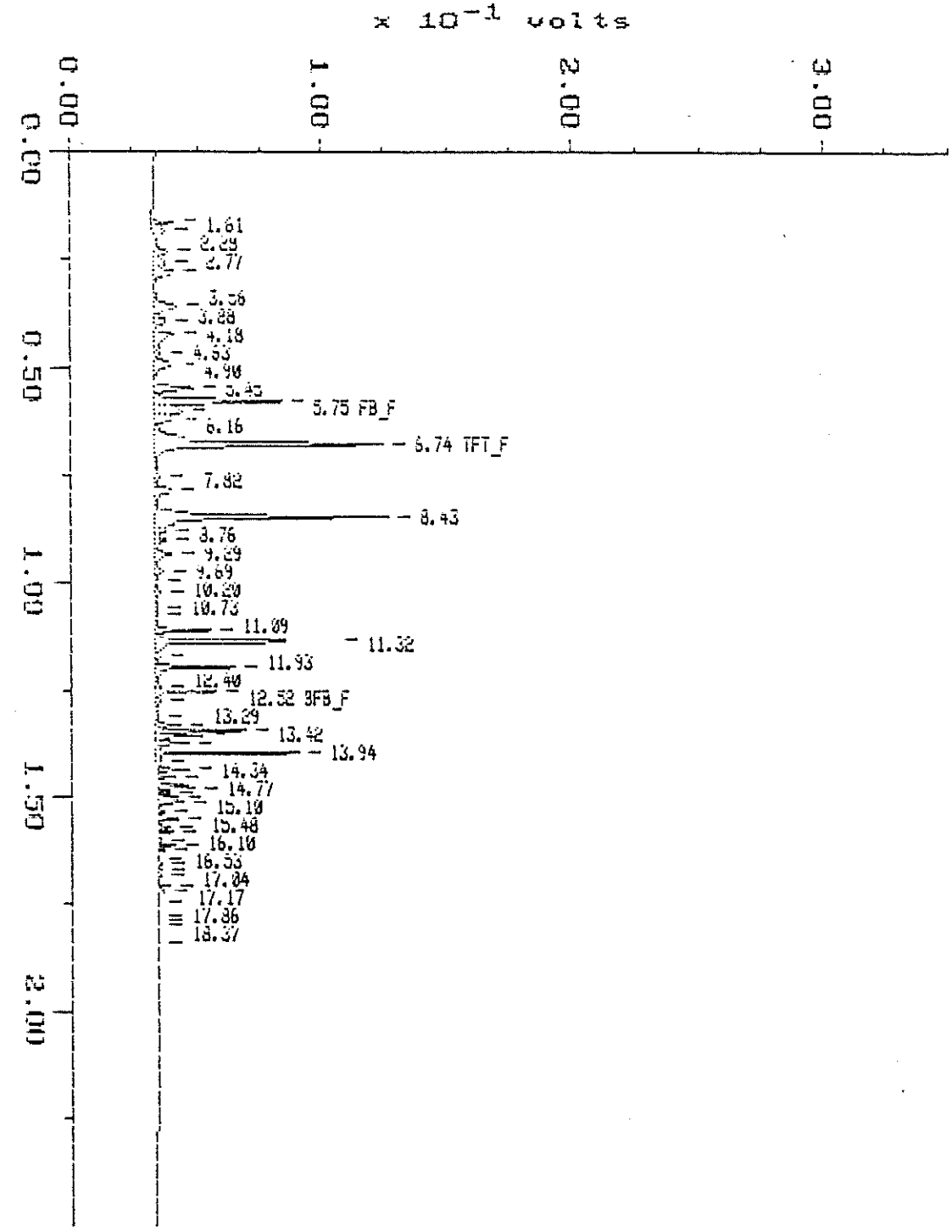
WA DOE WTPH-G

Continuing Calibration

Sample: STD-C
Acquired: 19-DEC-92 16:12

Channel: JEROME-FID
Method: H:\BR02\MAXDATA\JEROME\J121992A

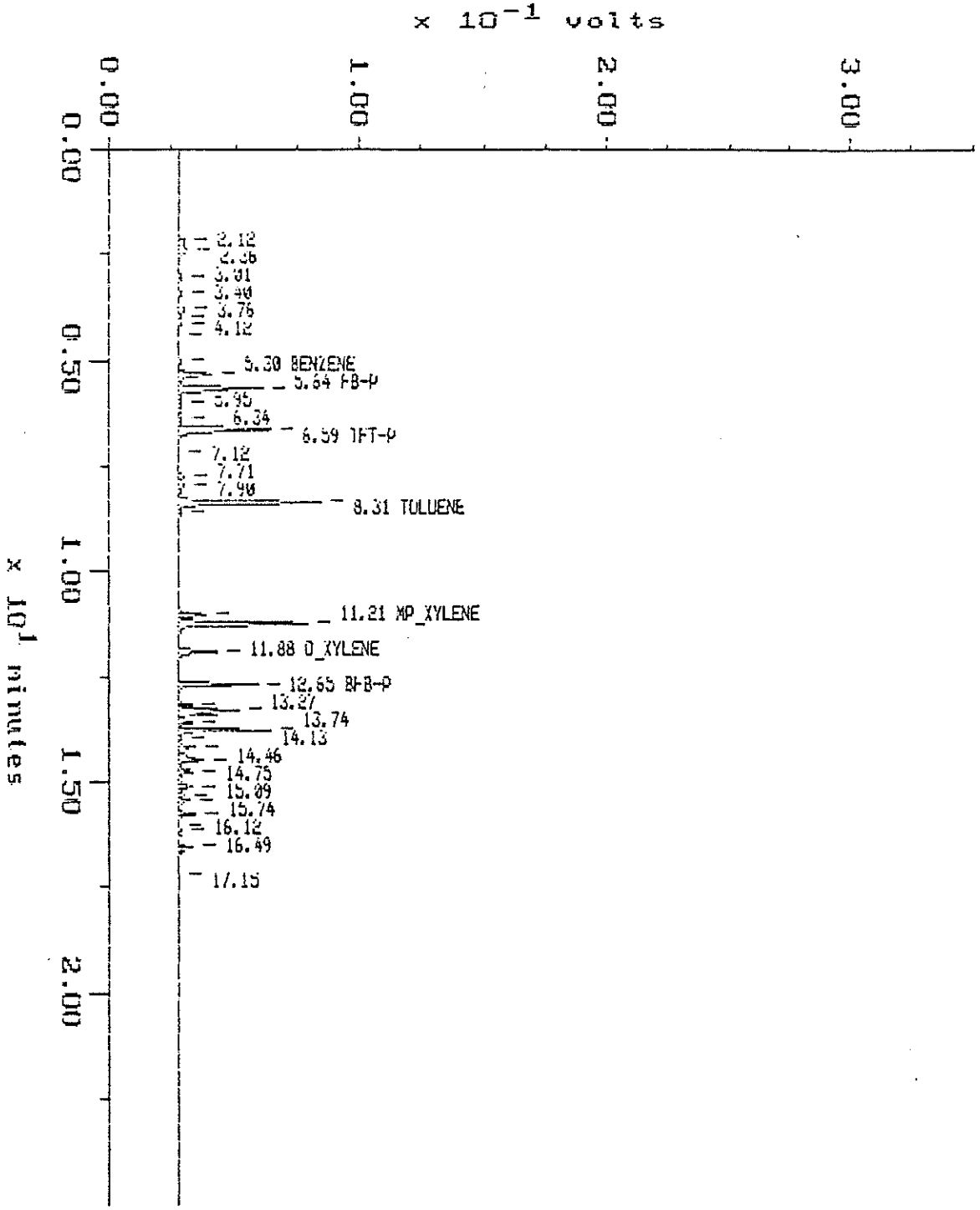
Filename: 1219JR02
Operator:



WA DOE WTPH-G

Continuing Calibration

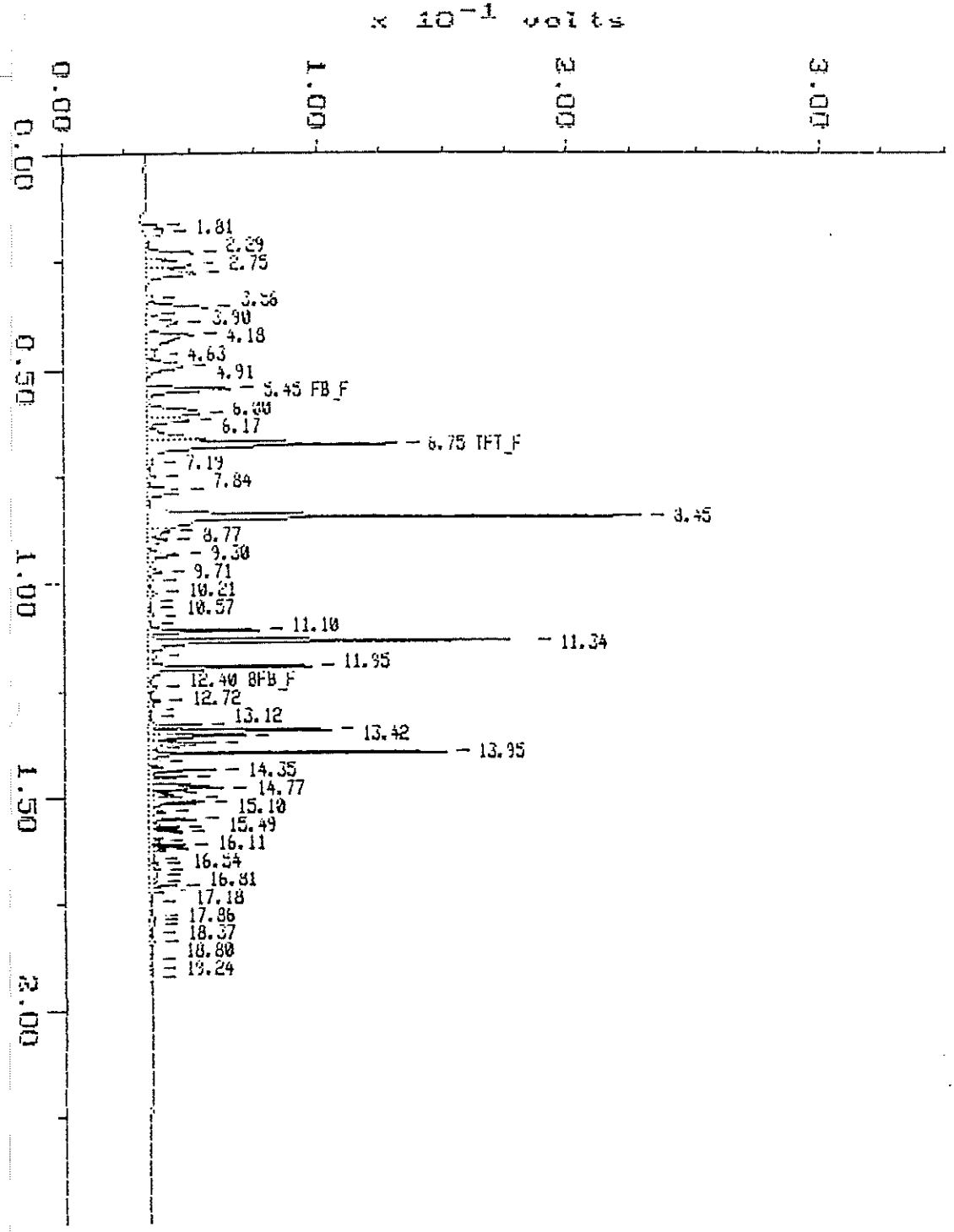
Sample: STD-C 6 Channel: PID Filename: 12216S02
Acquired: 21-DEC-92 14:00 Method: N:\BRU2\MAXDATA\GLAD\12219206 Operator: AFI
Comments: AFI : A COMMITMENT TO QUALITY



WA DOE WTPH-G

Continuing Calibration

Sample: C.C. 2 PPM Channel: JEROME-FID Filename: 1219JR37
Acquired: 20-DEC-92 11:20 Method: H:\BK02\MAXDATA\JEROME\J121992A Operator:



Analytical**Technologies,**Inc.

560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228-8335
John H. Taylor, Jr., Laboratory Manager
Frederick W. Grothkopp, Technical Director

ATI I.D. # 9212-186

January 11, 1993

CHEN-Northern
2214 N. 4th Avenue
Pasco, WA 99301

Attention : Paul Danielson

Project Number : 192-2129

Project Name : Chevron - Yakima

On December 31, 1992, Analytical Technologies, Inc., received five samples for analysis. The samples were analyzed with EPA methodology or equivalent methods as specified in the attached analytical schedule. The results, sample cross reference, and quality control data are enclosed.

Donna M. McKinney
Senior Project Manager

DMM/hal/dmc

cc: Clint Rogers
Chevron USA Products Company

Analytical Technologies, Inc.

560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228-8335
John H. Taylor, Jr., Laboratory Manager
Frederick W. Grothkopp, Technical Director

ATI I.D. # 9212-186

January 12, 1993

CHEN-Northern
2214 N. 4th Avenue
Pasco, WA 99301

Attention : Paul Danielson

Project Number : 192-2129

Project Name : Chevron - Yakima

On December 31, 1992, Analytical Technologies, Inc., received five samples for analysis. The samples were analyzed with EPA methodology or equivalent methods as specified in the attached analytical schedule. The results, sample cross reference, and quality control data are enclosed.

Donna M. McKinney
Senior Project Manager

DMM/hal/dmc

cc: Clint Rogers
Chevron USA Products Company

Analytical Technologies, Inc.

ATI I.D. # 9212-186

SAMPLE CROSS REFERENCE SHEET

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

ATI #	CLIENT DESCRIPTION	DATE SAMPLED	MATRIX
9212-186-1	TEST PIT 4 1/2' 36N, 6W	12/29/92	SOIL
9212-186-2	TEST PIT 9' 36N, 6W	12/29/92	SOIL
9212-186-3	TEST PIT 5 1/2' 4S, 8W	12/29/92	SOIL
9212-186-4	TEST PIT 9' 4S, 8W	12/29/92	SOIL
9212-186-5	PIT EXCAVATION COMPOSITE	12/29/92	SOIL

----- TOTALS -----

MATRIX	# SAMPLES
SOIL	5

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of the report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Analytical Technologies, Inc.

ATI I.D. # 9212-186

ANALYTICAL SCHEDULE

CLIENT : CHEN-NORTHERN
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

ANALYSIS	TECHNIQUE	REFERENCE	LAB
POLYCHLORINATED BIPHENYLS (PCBs)	GC/ECD	EPA 8080	R
BETX	GC/PID	EPA 8020	R
TOTAL PETROLEUM HYDROCARBONS	GC/FID	WA DOE WTPH-G	R
PETROLEUM HYDROCARBONS	IR	WA DOE WTPH-418.1 MODIFIED	R
MOISTURE	GRAVIMETRIC	CLP SOW ILMO1.0	R

R = ATI - Renton
SD = ATI - San Diego
PHX = ATI - Phoenix
PNR = ATI - Pensacola
FC = ATI - Fort Collins
SUB = Subcontract

Analytical Technologies, Inc.

ATI I.D. # 9212-186

QUALITY CONTROL INFORMATION

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

POLYCHLORINATED BIPHENYLS (PCBs)

DETECTION LIMITS

	WATER	SOIL
PCB 1016	0.0010 mg/L	0.033 mg/Kg
PCB 1221	0.0010 mg/L	0.033 mg/Kg
PCB 1232	0.0010 mg/L	0.033 mg/Kg
PCB 1242	0.0010 mg/L	0.033 mg/Kg
PCB 1248	0.0010 mg/L	0.033 mg/Kg
PCB 1254	0.0010 mg/L	0.033 mg/Kg
PCB 1260	0.0010 mg/L	0.033 mg/Kg

CONTROL LIMITS

	WATER	RPD	SOIL	RPD
BLANK SPIKE				
PCB 1260	67-136	20	74-120	31
MATRIX SPIKE				
PCB 1260	52-151	20	55-131	31

SURROGATE RECOVERIES

	WATER	SOIL
Decachlorobiphenyl	34-104	52-125
Dibutylchlorendate	33-137	24-137

CONTINUED ON NEXT PAGE

Analytical Technologies, Inc.

ATI I.D. # 9212-186

QUALITY CONTROL
INFORMATION
CONTINUED

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

BETX

DETECTION LIMITS

	WATER	SOIL
Benzene	0.0005 mg/L	0.025 mg/Kg
Toluene	0.0005 mg/L	0.025 mg/Kg
Ethyl Benzene	0.0005 mg/L	0.025 mg/Kg
Xylenes	0.0005 mg/L	0.025 mg/Kg

CONTROL LIMITS

BLANK SPIKE	WATER	RPD	SOIL	RPD
Benzene	80-111	20	63-115	20
Toluene	78-111	20	75-110	20
Xylenes	80-114	20	79-109	20

MATRIX SPIKE	WATER	RPD	SOIL	RPD
Benzene	77-112	20	35-113	20
Toluene	72-113	20	43-107	20
Xylenes	80-110	20	46-114	20

SURROGATE RECOVERY

	WATER	SOIL
Bromofluorobenzene	76-120	52-116
Trifluorotoluene	84-114	57-118

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Analytical Technologies, Inc.

ATI I.D. # 9212-186

QUALITY CONTROL
INFORMATION
CONTINUED

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

WA DOE WTPH-G

DETECTION LIMITS

	WATER	SOIL
Gasoline	0.1 mg/L	5 mg/Kg

CONTROL LIMITS

	WATER	RPD	SOIL	RPD
BLANK SPIKE				
Gasoline	75-120	20	80-119	20
MATRIX SPIKE				
Gasoline	58-127	20	50-112	20
SURROGATE PERCENT RECOVERY				
Trifluorotoluene	50-150	-	50-150	-

WTPH 418.1 Modified

DETECTION LIMITS

	WATER	SOIL
COMPOUND		
Petroleum Hydrocarbon	1 mg/L	20 mg/Kg

CONTROL LIMITS

	WATER	RPD	SOIL	RPD
BLANK SPIKE				
Petroleum Hydrocarbons	51-104	20	96-144	20
MATRIX DUPLICATE				
Petroleum Hydrocarbons	-	35	-	35
MATRIX SPIKE				
Fuel Hydrocarbons	40-121	35	45-187	35

Analytical Technologies, Inc.

ATI I.D. # 9212-186

CASE NARRATIVE

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

CASE NARRATIVE: POLYCHLORINATED BIPHENYLS (PCBs) ANALYSIS

These samples were analyzed by EPA method 3550/8080 as follows: Approximately 30 grams of sample were mixed with sodium sulfate and spiked with 8080 surrogate solution. Three separate 100 mL aliquots of methylene chloride were added to the sample. With each solvent addition, the sample was sonicated for three minutes and the methylene chloride was poured off and filtered. The total filtrate was collected and concentrated using Kuderna-Danish apparatus and reduced to a volume of 4 mL with nitrogen. The extract was exchanged to hexane to a relative final volume of 20 mLs. The final extract was analyzed by GC/ECD.

The method blank was free of target compounds. All surrogate percent recoveries were within ATI control limits. The matrix spike/matrix spike duplicate (MS/MSD) recoveries and MS/MSD relative percent differences (RPDs) were within ATI control limits.

The sample analysis requested was for PCBs only. However the sample was extracted as a pesticide sample. The same extraction procedure is utilized, but different relative final volumes are used and different spike compounds are added to the quality control set. The quality control set passed all of our pesticide control limits. The reporting limits for the PCBs are elevated by a factor of two due to the increased relative final volume.

No sample dilutions were required. All sample extraction and analysis hold times were met.

Analytical Technologies, Inc.

ATI I.D. # 9212-186

ORGANOCHLORINE PESTICIDES AND PCB ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: 192-2129	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/31/92
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 01/04/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8080	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUNDS	MDL	RESULTS
PCB 1016	0.067	ND
PCB 1221	0.067	ND
PCB 1232	0.067	ND
PCB 1242	0.067	ND
PCB 1248	0.067	ND
PCB 1254	0.067	ND
PCB 1260	0.067	ND

SURROGATE PERCENT RECOVERY

DECACHLOROBIPHENYL	53
DIBUTYLCHLORENDATE	58

Analytical Technologies, Inc.

ATI I.D. # 9212-186-5

ORGANOCHLORINE PESTICIDES AND PCB ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/29/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/31/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/31/92
CLIENT I.D.	: PIT EXCAVATION COMPOSITE	DATE ANALYZED	: 01/04/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8080	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUNDS	MDL	RESULTS
PCB 1016	0.072	ND
PCB 1221	0.072	ND
PCB 1232	0.072	ND
PCB 1242	0.072	ND
PCB 1248	0.072	ND
PCB 1254	0.072	ND
PCB 1260	0.072	ND

SURROGATE PERCENT RECOVERY

DECACHLOROBIPHENYL	103
DIBUTYLCHLORENDATE	132

Analytical Technologies, Inc.

ATI I.D. # 9212-186

ORGANOCHLORINE PESTICIDES AND PCB ANALYSIS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA
SAMPLE MATRIX : SOIL
EPA METHOD : 8080
RESULTS ARE CORRECTED FOR MOISTURE CONTENT

SAMPLE I.D. # : 9212-186-5
DATE EXTRACTED : 12/31/92
DATE ANALYZED : 01/04/93
UNITS : mg/Kg

COMPOUNDS	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
ALDRIN	ND	0.0717	0.0519	72	0.0564	79	8
GAMMA-BHC (LINDANE)	ND	0.0717	0.0479	67	0.0525	73	9
P,P'-DDT	ND	0.143	0.112	78	0.123	86	9
DIELDRIN	ND	0.143	0.117	82	0.127	89	8
ENDRIN	ND	0.143	0.117	82	0.127	89	8
HEPTACHLOR	ND	0.0717	0.0575	80	0.0618	86	7

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-186

ORGANOCHLORINE PESTICIDES AND PCB ANALYSIS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
ROJECT NAME : CHEVRON - YAKIMA
AMPLE MATRIX : SOIL
EPA METHOD : 8080
ESULTS ARE CORRECTED FOR MOISTURE CONTENT

SAMPLE I.D. # : BLANK SPIKE
DATE EXTRACTED : 12/31/92
DATE ANALYZED : 01/06/93
UNITS : mg/Kg

OMPOUNDS	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
LDRIN	ND	0.0667	0.0462	69	N/A	N/A	N/A
AMMA-BHC (LINDANE)	ND	0.0667	0.0421	63	N/A	N/A	N/A
P,P'-DDT	ND	0.133	0.0999	75	N/A	N/A	N/A
IELDRIN	ND	0.133	0.105	79	N/A	N/A	N/A
NDRIN	ND	0.133	0.101	76	N/A	N/A	N/A
HEPTACHLOR	ND	0.0667	0.0508	76	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-186

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: 192-2129	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/31/92
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 12/31/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUNDS	MDL	RESULTS
BENZENE	0.025	ND
ETHYLBENZENE	0.025	ND
TOLUENE	0.025	ND
TOTAL XYLENES	0.025	ND
SURROGATE PERCENT RECOVERY		
BROMOFLUOROBENZENE	97	

Analytical Technologies, Inc.

ATI I.D. # 9212-186-1

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/29/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/31/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/31/92
CLIENT I.D.	: TEST PIT 4 1/2' 36N, 6W	DATE ANALYZED	: 12/31/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUNDS	MDL	RESULTS
BENZENE	0.026	ND
ETHYLBENZENE	0.026	0.066
TOLUENE	0.026	0.049
TOTAL XYLENES	0.026	0.96
SURROGATE PERCENT RECOVERY		
BROMOFLUOROBENZENE		97

Analytical Technologies, Inc.

ATI I.D. # 9212-186-2

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/29/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/31/92
ROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/31/92
LIENT I.D.	: TEST PIT 9' 36N, 6W	DATE ANALYZED	: 12/31/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
PA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

ESULTS ARE CORRECTED FOR MOISTURE CONTENT

OMPOUNDS	MDL	RESULTS
BENZENE	0.026	0.038
THYLBENZENE	0.026	0.032
OLUENE	0.026	0.094
TOTAL XYLENES	0.026	0.36
SURROGATE PERCENT RECOVERY		
ROMOFLUOROBENZENE	99	

Analytical Technologies, Inc.

ATI I.D. # 9212-186-3

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/29/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/31/92
ROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/31/92
LIENT I.D.	: TEST PIT 5 1/2' 4S, 8W	DATE ANALYZED	: 12/31/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
PA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

ESULTS ARE CORRECTED FOR MOISTURE CONTENT

OMPOUNDS	MDL	RESULTS
BENZENE	0.027	ND
THYLBENZENE	0.027	ND
OLUENE	0.027	0.028
TOTAL XYLENES	0.027	0.24
SURROGATE PERCENT RECOVERY		
ROMOFLUOROBENZENE	95	

Analytical Technologies, Inc.

ATI I.D. # 9212-186-4

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/29/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/31/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/31/92
CLIENT I.D.	: TEST PIT 9' 4S, 8W	DATE ANALYZED	: 12/31/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUNDS	MDL	RESULTS
BENZENE	0.026	ND
ETHYLBENZENE	0.026	ND
TOLUENE	0.026	ND
TOTAL XYLENES	0.026	0.035
SURROGATE PERCENT RECOVERY		
BROMOFLUOROBENZENE	96	

Analytical Technologies, Inc.

ATI I.D. # 9212-186-5

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/29/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/31/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/31/92
CLIENT I.D.	: PIT EXCAVATION COMPOSITE	DATE ANALYZED	: 12/31/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUNDS	MDL	RESULTS
BENZENE	0.026	ND
ETHYLBENZENE	0.026	0.043
TOLUENE	0.026	0.10
TOTAL XYLENES	0.026	0.40
SURROGATE PERCENT RECOVERY		
BROMOFLUOROBENZENE		97

Analytical Technologies, Inc.

ATI I.D. # 9212-186

VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA
SAMPLE MATRIX : SOIL
EPA METHOD : 8020 (BETX)

SAMPLE I.D. # : 9212-186-4
DATE EXTRACTED : 12/31/92
DATE ANALYZED : 12/31/92
UNITS : mg/Kg

COMPOUNDS	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
BENZENE	ND	1.00	0.824	82	0.943	94	13
TOLUENE	ND	1.00	0.889	89	1.01	101	13
TOTAL XYLENES	0.0340	2.00	1.88	92	2.12	104	12

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical**Technologies,**Inc.

ATI I.D. # 9212-186

VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA
SAMPLE MATRIX : SOIL
EPA METHOD : 8020 (BETX)

SAMPLE I.D. # : BLANK SPIKE
DATE EXTRACTED : 12/31/92
DATE ANALYZED : 12/31/92
UNITS : mg/Kg

COMPOUNDS	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
BENZENE	ND	1.00	0.925	93	N/A	N/A	N/A
TOLUENE	ND	1.00	0.976	98	N/A	N/A	N/A
TOTAL XYLENES	ND	2.00	1.95	98	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-186

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: 192-2129	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/31/92
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 12/31/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	95	

Analytical Technologies, Inc.

ATI I.D. # 9212-186-1

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/29/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/31/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/31/92
CLIENT I.D.	: TEST PIT 4 1/2' 36N, 6W	DATE ANALYZED	: 12/31/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	51
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	91	

Analytical Technologies, Inc.

ATI I.D. # 9212-186-2

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/29/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/31/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/31/92
CLIENT I.D.	: TEST PIT 9' 36N, 6W	DATE ANALYZED	: 12/31/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	83
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	91	

Analytical Technologies, Inc.

ATI I.D. # 9212-186-3

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/29/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/31/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/31/92
CLIENT I.D.	: TEST PIT 5 1/2' 4S, 8W	DATE ANALYZED	: 12/31/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	15
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	87	

Analytical Technologies, Inc.

ATI I.D. # 9212-186-4

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/29/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/31/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/31/92
CLIENT I.D.	: TEST PIT 9' 4S, 8W	DATE ANALYZED	: 12/31/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	86	

Analytical Technologies, Inc.

ATI I.D. # 9212-186-5

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 12/29/92
PROJECT #	: 192-2129	DATE RECEIVED	: 12/31/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 12/31/92
CLIENT I.D.	: PIT EXCAVATION COMPOSITE	DATE ANALYZED	: 12/31/92
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	19
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	91	

Analytical Technologies, Inc.

ATI I.D. # 9212-186

TOTAL PETROLEUM HYDROCARBON ANALYSIS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA
METHOD : WA DOE WTPH-G
SAMPLE MATRIX : SOIL

SAMPLE I.D. # : 9212-186-4
DATE EXTRACTED : 12/31/92
DATE ANALYZED : 12/31/92
UNITS : mg/Kg

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (GASOLINE)	ND	ND	NC	100	93.0	93	97.6	98	5

NC = Not Calculable.

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-186

TOTAL PETROLEUM HYDROCARBON ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: BLANK SPIKE
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/31/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/31/92
METHOD	: WA DOE WTPH-G	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (GASOLINE)	ND	100	99.4	99	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-186

TOTAL PETROLEUM HYDROCARBONS
DATA SUMMARY

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA
METHOD : WA DOE WTPH-418.1 MODIFIED
RESULTS ARE CORRECTED FOR MOISTURE CONTENT

DATE EXTRACTED : 12/31/92
DATE ANALYZED : 12/31/92
UNITS : mg/Kg
SAMPLE MATRIX : SOIL

ATI I.D. #	CLIENT I.D.	TOTAL PETROLEUM HYDROCARBONS MDL	RESULT	RESULT*
9212-186-1	TEST PIT 4 1/2' 36N, 6W	21	100	100
9212-186-2	TEST PIT 9' 36N, 6W	21	100	99
9212-186-3	TEST PIT 5 1/2' 4S, 8W	21	48	45
9212-186-4	TEST PIT 9' 4S, 8W	21	ND	-
9212-186-5	PIT EXCAVATION COMPOSITE	21	55	55
METHOD BLANK	-	20	ND	ND

* Reanalyzed after second aliquot of silica gel added.

Analytical Technologies, Inc.

ATI I.D. # 9212-186

TOTAL PETROLEUM HYDROCARBONS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: ICV
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/31/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/31/92
METHOD	: WA DOE WTPH-418.1 MODIFIED	UNITS	: mg/L
SAMPLE MATRIX	: WATER		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (MOTOR OIL)	N/A	N/A	N/A	100	98	98	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical**Technologies,**Inc.

ATI I.D. # 9212-186

TOTAL PETROLEUM HYDROCARBONS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: 9212-186-4
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/31/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/31/92
METHOD	: WA DOE WTPH-418.1 MODIFIED	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (MOTOR OIL)	ND	ND	NC	400	395	99	N/A	N/A	N/A

NC = Not Calculable.

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-186

TOTAL PETROLEUM HYDROCARBONS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: BLANK SPIKE
PROJECT #	: 192-2129	DATE EXTRACTED	: 12/31/92
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 12/31/92
METHOD	: WA DOE WTPH-418.1 MODIFIED	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (MOTOR OIL)	ND	N/A	N/A	400	390	98	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9212-186

GENERAL CHEMISTRY ANALYSIS

CLIENT : CHEN-NORTHERN, INC. MATRIX : SOIL
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

PARAMETER	DATE ANALYZED
MOISTURE*	12/31/92
MOISTURE	01/04/93

* Percent moisture results associated with Total Petroleum Hydrocarbon analyses.

Analytical Technologies, Inc.

ATI I.D. # 9212-186

GENERAL CHEMISTRY ANALYSIS
DATA SUMMARY

CLIENT : CHEN-NORTHERN, INC. MATRIX : SOIL
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA UNITS : %

ATI I.D. #	CLIENT I.D.	MOISTURE*	MOISTURE
9212-186-1	TEST PIT 4 1/2' 36N, 6W	5.0	-
9212-186-2	TEST PIT 9' 36N, 6W	4.5	-
9212-186-3	TEST PIT 5 1/2' 4S, 8W	7.0	-
9212-186-4	TEST PIT 9' 4S, 8W	4.1	-
9212-186-5	PIT EXCAVATION COMPOSITE	4.3	7.0

* Percent moisture results associated with Total Petroleum Hydrocarbon analyses.

Analytical Technologies, Inc.

ATI I.D. # 9212-186

GENERAL CHEMISTRY ANALYSIS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC. MATRIX : SOIL
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA UNITS : %

PARAMETER	ATI I.D.	SAMPLE RESULT	DUP RESULT	RPD	SPIKED RESULT	SPIKE ADDED	% REC
MOISTURE*	9212-186-2	4.5	4.7	4	N/A	N/A	N/A
MOISTURE	9212-186-5	7.0	6.0	15	N/A	N/A	N/A

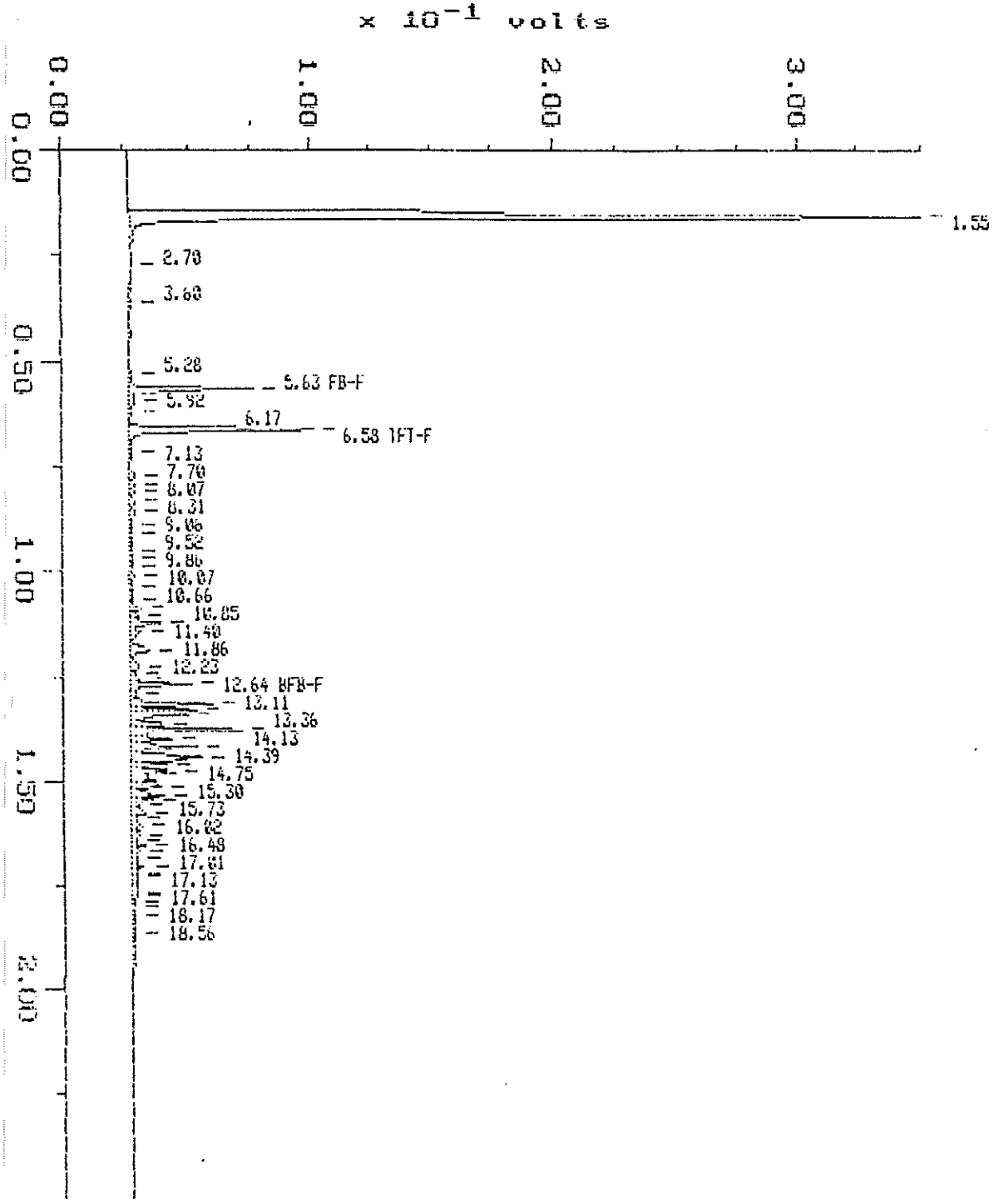
* Percent moisture results associated with Total Petroleum Hydrocarbon analyses.

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

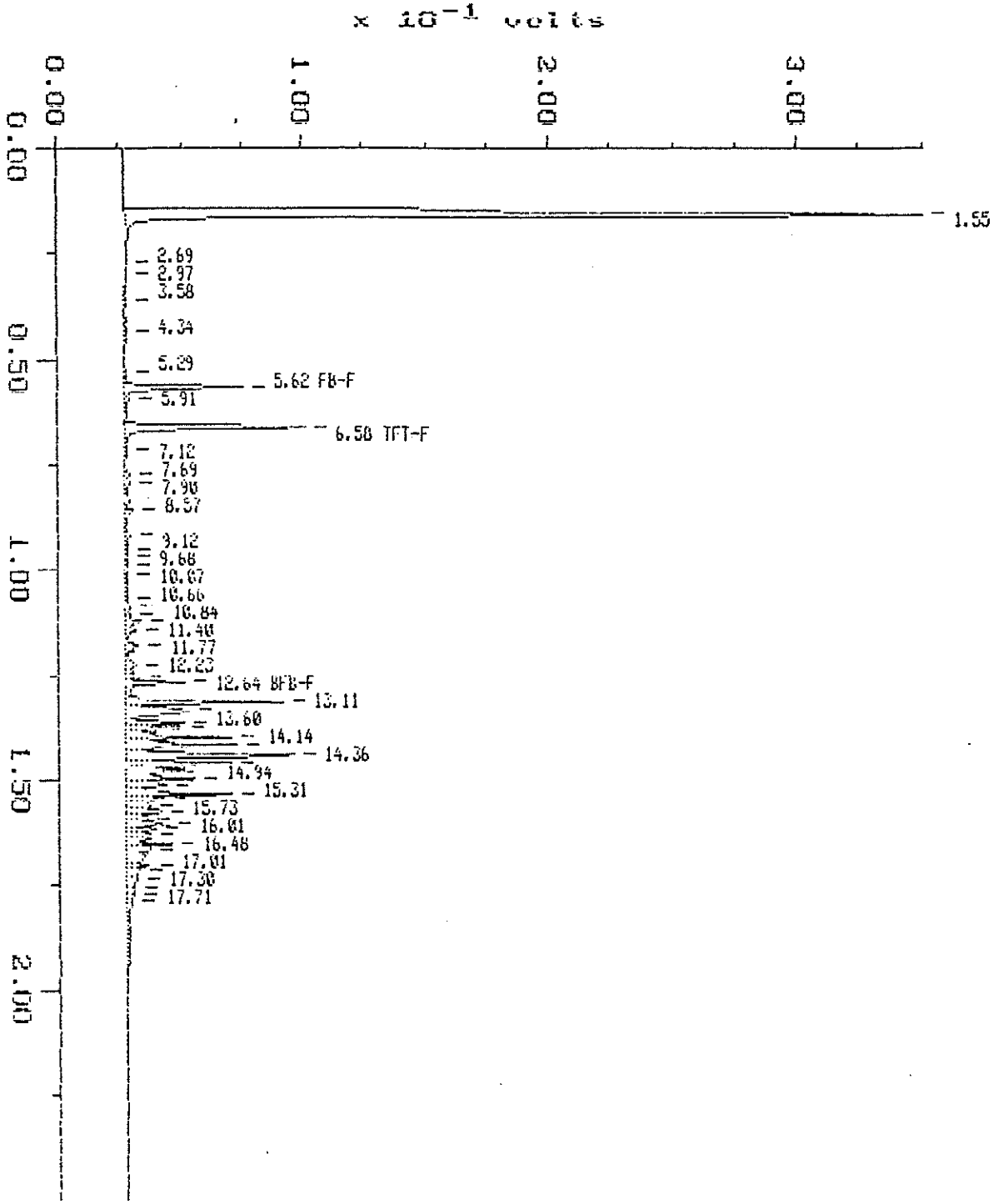
WA DOE WTPH-G

Channel: FID
Filename: 12316S07
Acquired: 31-DEC-92 15:21
Method: N:\BRO2\MAXDATA\GLA0\123192GS
Operator: ATI
Comments: ATI : A COMMITMENT TO QUALITY



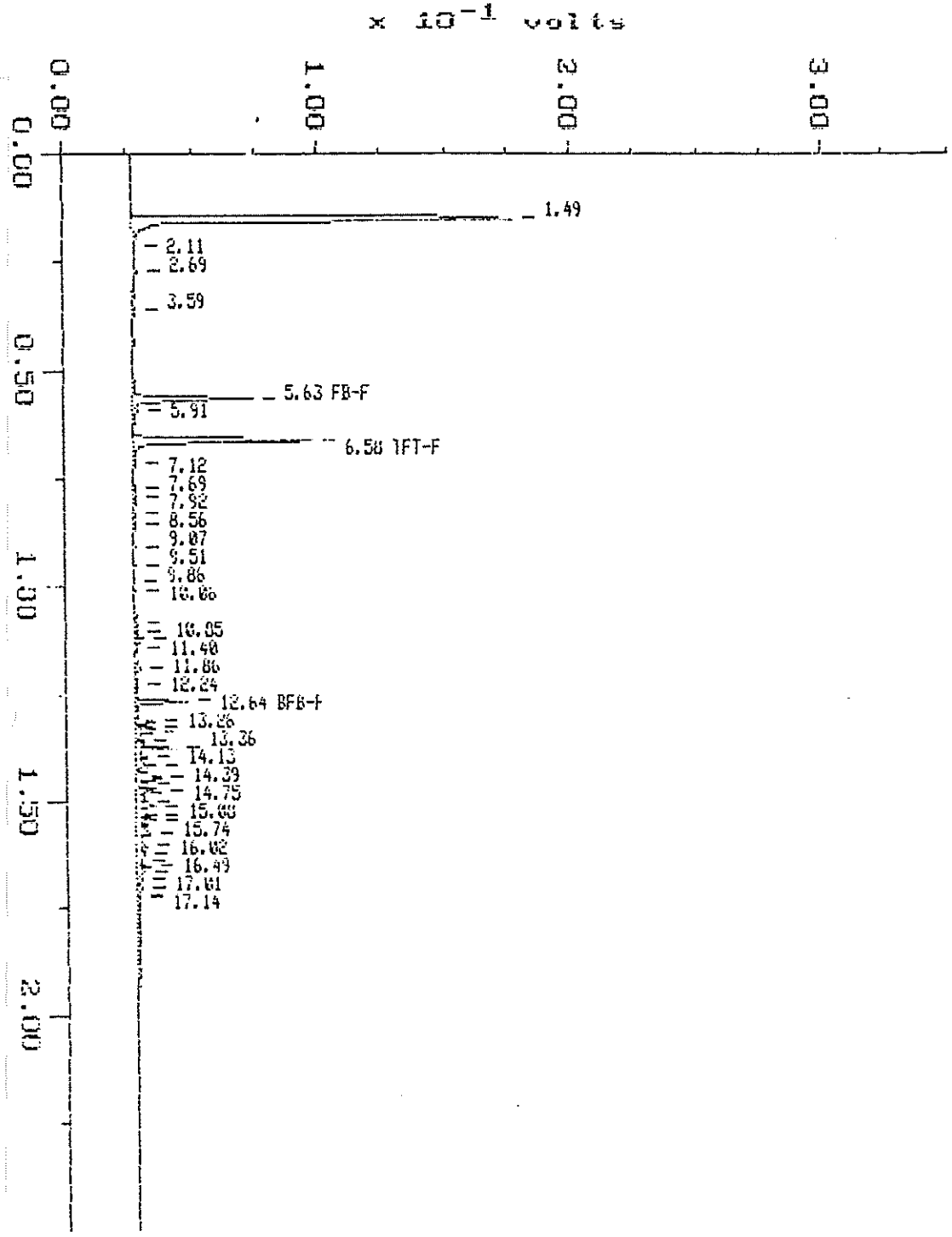
WA DOE WTPH-G

Sample: 9212-186-2 Channel: FID Filename: 12310033
Acquired: 31-DEC-92 15:51 Method: N:\BRO2\MAXDATA\GLAD\12319265 Operator: ATI
Comments: ATI : A COMMITMENT TO QUALITY



WA DOE WTPH-G

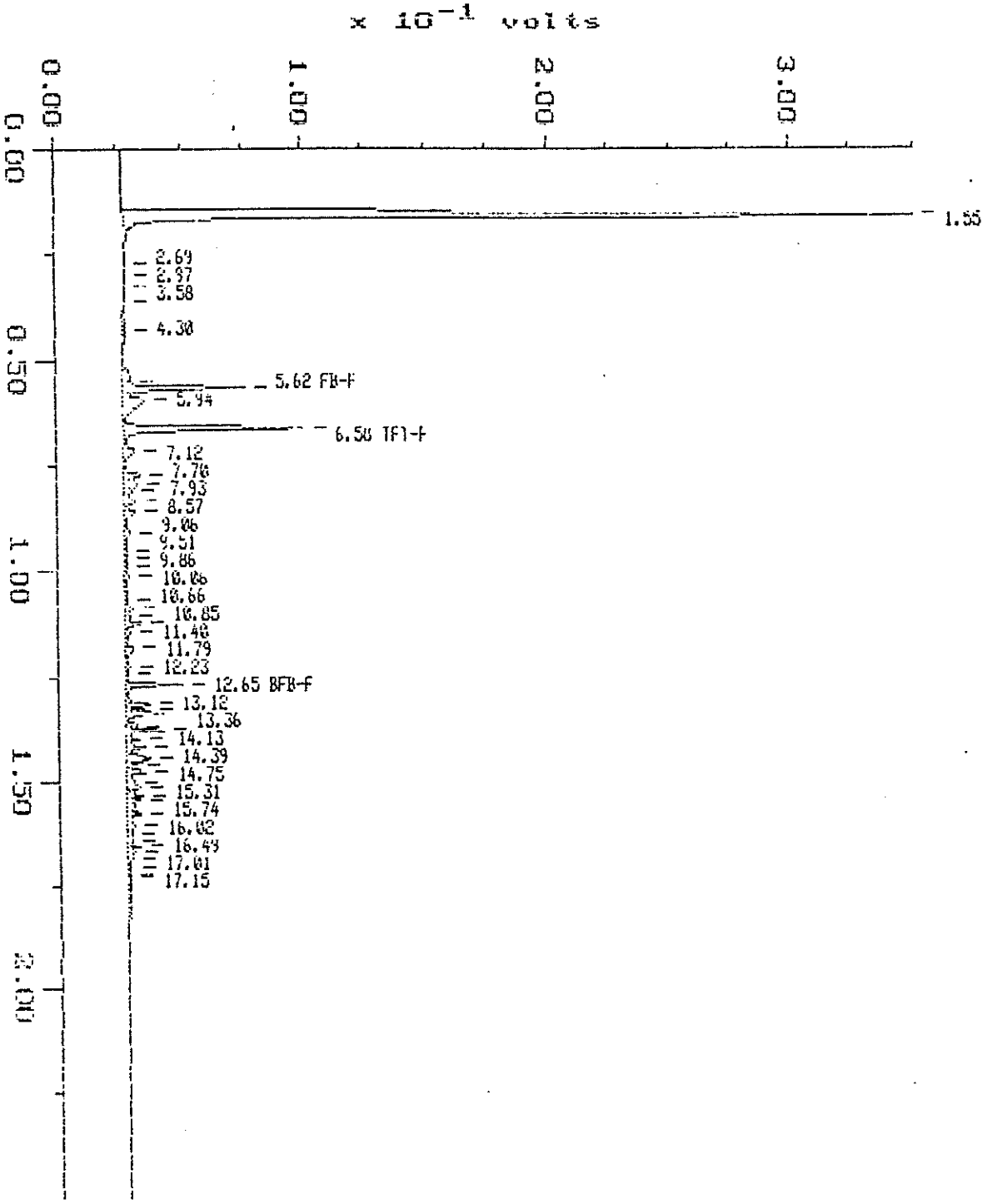
Sample: 9212-186-3 Channel: FID Filename: 12310S09
Acquired: 31-DEC-92 16:21 Method: N:\BK02\MAXDATA\GLAD\12319205 Operator: ATI
Comments: ATI : A COMMITMENT TO QUALITY



x 10⁻¹ volts

WA DOE WTPH-G

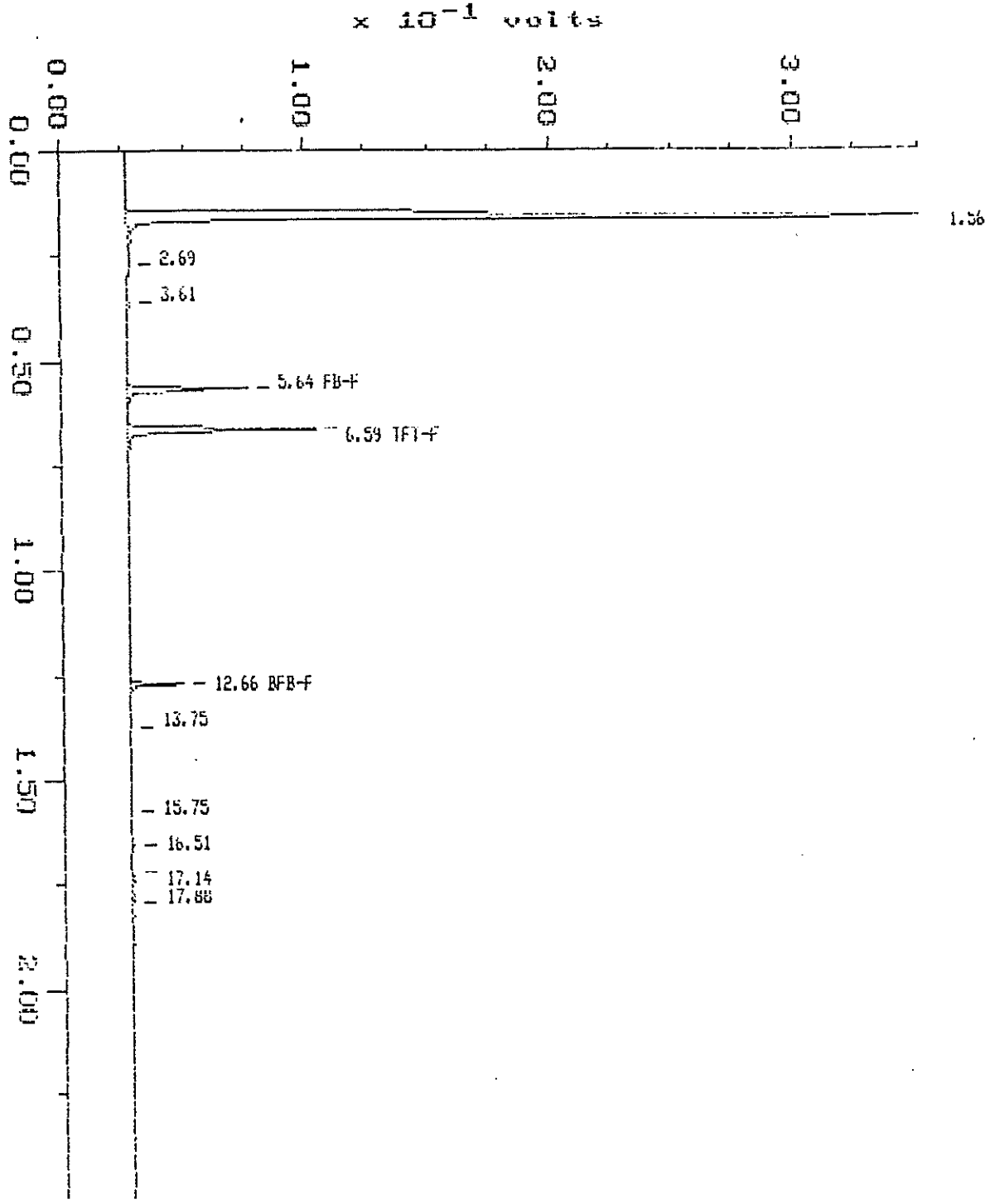
Sample: 9212-186-5 Channel: FID Filename: 12316S11
Acquired: 31-DEC-92 17:21 Method: N:\BRG2\MAXDATA\GLAD\12319238 Operator: ATI
Comments: ATI : A COMMITMENT TO QUALITY



WA DOE WTPH-G

Blank

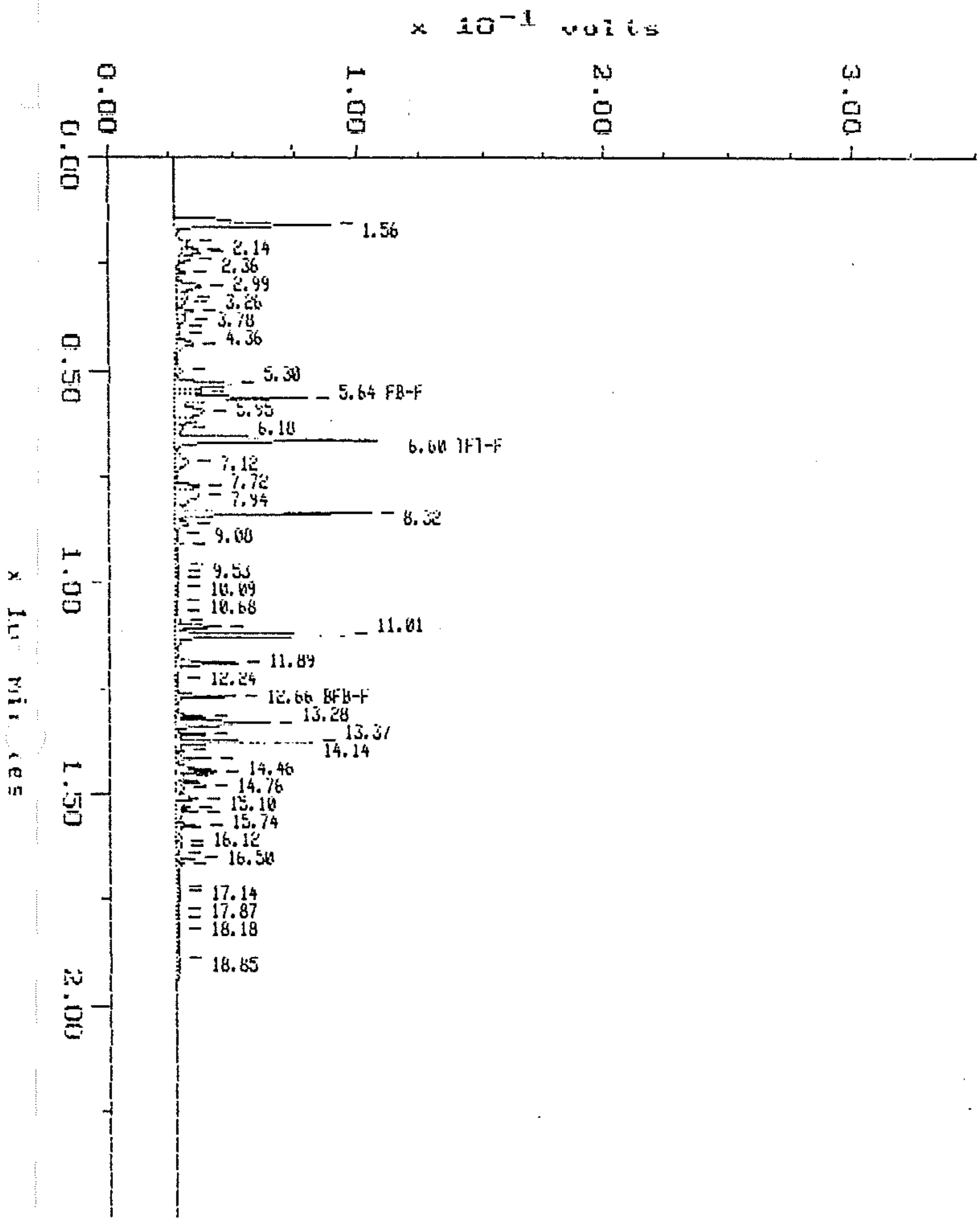
Sample: SRB 12-31 Channel: FID Filename: 12316504
Acquired: 31-DEC-92 13:51 Method: N:\BRU2\MAXDATA\GLAD\12319e65 Operator: ATI
Comments: ATI : A COMMITMENT TO QUALITY



WA DOE WTPH-G

Continuing Calibration

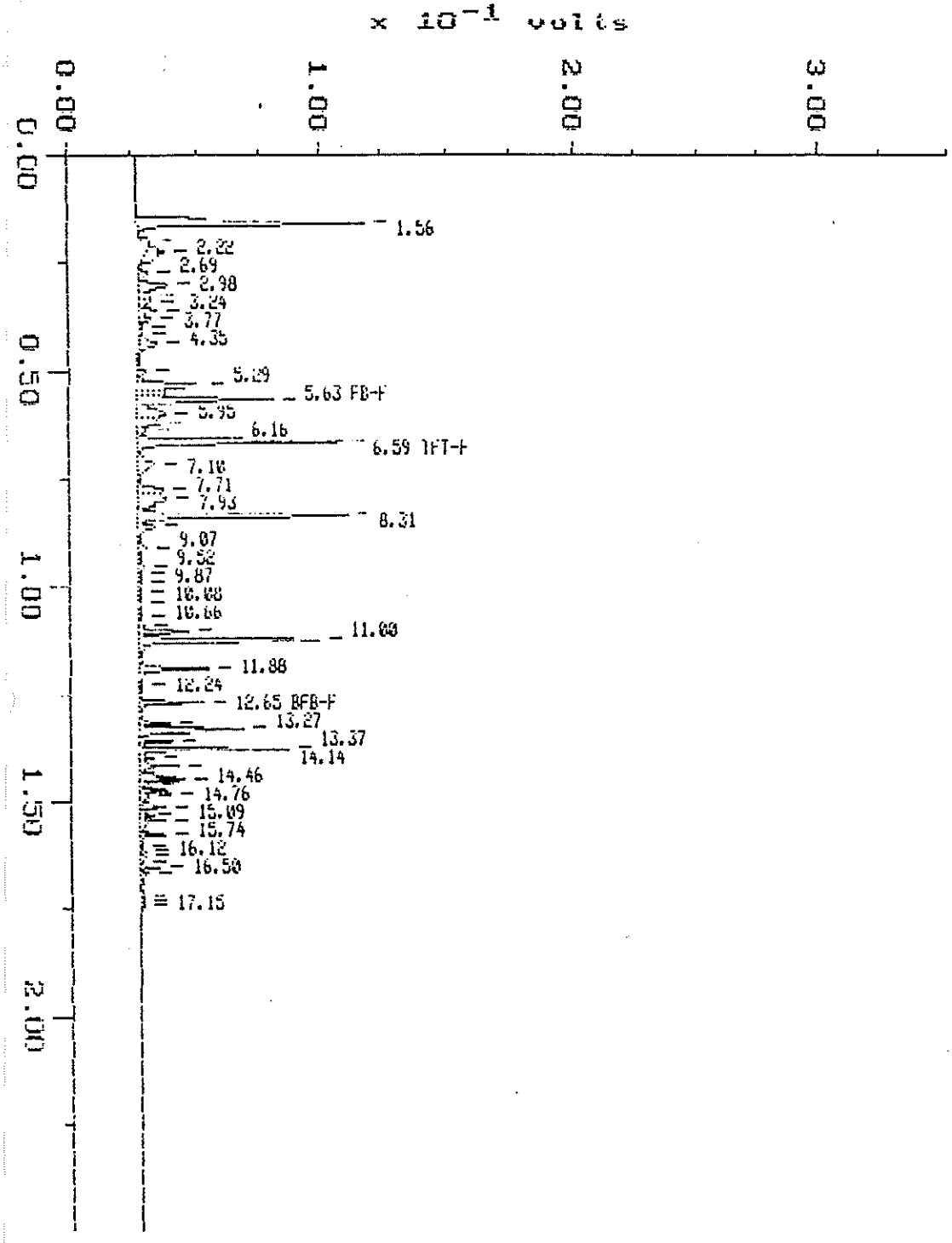
Sample: STD-C (G) Channel: FID Filename: 12310G01
Acquired: 31-DEC-92 6:44 Method: N:\BKO2\MAXDATA\GLAD\1231926S Operator: ATI
Comments: ATI : A COMMITMENT TO QUALITY



WA DOE WTPH-G

Continuing Calibration

Sample: STD-C Channel: FID Filename: 12316S22
Acquired: 31-DEC-92 22:50 Method: N:\BRG2\MAXDATA\GLAD\12319265 Operator: ATI
Comments: ATI : A COMMITMENT TO QUALITY



AnalyticalTechnologies,Inc.
560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228 0335

DATE: 12-30-92 Page 1 of 1 ATI ACCESSION # 9212-186

COMPANY: Chem-Northern Inc.
REPORT TO: Paul Danielson / Clint Rogers
ADDRESS: 2214 N. 4th Ave
Pasco WA 99301
PHONE: (509) 547-1671 FAX: (509) 547-1673
PROJECT MANAGER: Clint Rogers
PROJECT NUMBER: 192-2129
PROJECT NAME: Chem-Ediline

ATI will DISPOSE / RETURN samples (circle one)

Sample ID	Date	Time	Matrix	LabID	FUELS: TPH-HCID WA/OR	BETX/TPH-G combo WA/OR	BETX (by 8020)	TPH-G WA/OR	TPH-D WA/OR	8015 modified	418.1 WA/OR	413.2	AK-GRO	AK-DRO	ORGANIC COMPOUNDS: 8240 GCMS Volatiles	8270 GCMS Semivolatiles	8080 Pesticides/PCBs	PCB only (by 8080) STD/lo level	8010 Halogenated VOCs	8020 Aromatic VOCs	8310 HPLC PAHs	8040 Phenols	8140 OP Pesticides	8150 CC Herbicides	METALS: Metals (Indicate below *)	Total Lead	Priority Pollutant Metals (13)	TAL Metals (23)	TCLP: TCLP-Volatiles (ZHE-8240)	TCLP-Semivolatiles (8270)	TCLP-Pesticides (8080)	TCLP-Herbicides (8150)	TCLP-Metals (8 metals)	OTHER: % Moisture (please indicate)					Total # of Containers/sample
Test Pit -4½' 3CR, Elev	12/29	10:00	Soil	1		X					X																												
Test Pit -9' 3CR, Elev	"	1:00	"	2		X					X																												
Test Pit -5½' 4S, Elev	"	10:00	"	3		X					X																												
Test Pit -9' 4S, Elev	"	1:00	"	4		X					X																												
Pit Excavation composite	"	2:00	"	5		X					X						X																						

Turnaround Time	
STANDARD TAT	
1 WEEK TAT	
4 WORK DAY TAT	
3 WORK DAY TAT	
2 WORK DAY TAT	
24 HOUR TAT	

Sample Receipt	
TOTAL # CONTAINERS RECVD	11
COC SEALS PRESENT?	N
COC SEALS INTACT?	NA
RECEIVED COLD?	Y
RECEIVED INTACT?	Y
RECEIVED VIA:	UPS

Relinquished By:	Relinquished By:	Relinquished By:
[signature] Date: 12/30/92 Time: 12:00	Date: Time:	Date: Time:
Received By: [signature] BRYNA KEUSLER ATI-WA. Date: 12/31/92 Time: 10:00am.	Received By: Date: Time:	Received By: Date: Time:

Special instructions: Fax to Paul, Plus Fax to Clint Rogers at (510) 842-8252

* Metals needed: Chem Release N# 716599C

Analytical**Technologies,**Inc.

560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228-8335
John H. Taylor, Jr., Laboratory Manager
Frederick W. Grothkopp, Technical Director

ATI I.D. # 9301-076

January 25, 1993

Chen-Northern, Inc.
2214 N. 4th Avenue
Pasco, WA 99301

Attention : Paul Danielson

Project Number : 192-2129

Project Name : Chevron - Yakima

On January 14, 1993, Analytical Technologies, Inc., received ten samples for analysis. The samples were analyzed with EPA methodology or equivalent methods as specified in the attached analytical schedule. The results, sample cross reference, and quality control data are enclosed.

Cari Trimble for
Donna M. McKinney
Senior Project Manager

DMM/hal/ff

cc: Clint Rogers
Chevron, USA

Analytical Technologies, Inc.

ATI I.D. # 9301-076

SAMPLE CROSS REFERENCE SHEET

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

ATI #	CLIENT DESCRIPTION	DATE SAMPLED	MATRIX
9301-076-1	9'W, 4'N-4'	01/12/93	SOIL
9301-076-2	18'W, 3'S-6	01/12/93	SOIL
9301-076-3	18'S, 5'W-4.5	01/12/93	SOIL
9301-076-4	14'W, 6'S-4.5	01/12/93	SOIL
9301-076-5	8'W, 12'S-6'	01/12/93	SOIL
9301-076-6	5'E, 5'S-4.5	01/12/93	SOIL
9301-076-7	6'E, 0'S-4.0	01/12/93	SOIL
9301-076-8	S.E., C.S. WEST	01/12/93	SOIL
9301-076-9	S.E., C.S. SOUTH	01/12/93	SOIL
9301-076-10	S.E., C.S. EAST	01/12/93	SOIL

----- TOTALS -----

MATRIX	# SAMPLES
SOIL	10

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of the report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Analytical Technologies, Inc.

ATI I.D. # 9301-076

ANALYTICAL SCHEDULE

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

ANALYSIS	TECHNIQUE	REFERENCE	LAB
BETX	GC/PID	EPA 8020	PTL
TOTAL PETROLEUM HYDROCARBONS	GC/FID	WA DOE WTPH-G	PTL
MOISTURE	GRAVIMETRIC	CLP SOW ILMO1.0	PTL

R = ATI - Renton
SD = ATI - San Diego
PHX = ATI - Phoenix
PTL = ATI - Portland
PNR = ATI - Pensacola
FC = ATI - Fort Collins
SUB = Subcontract

Analytical Technologies, Inc.

ATI I.D. # 9301-076

QUALITY CONTROL INFORMATION

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

BETX

DETECTION LIMITS

	WATER	SOIL
Benzene	-	0.025 mg/Kg
Ethyl Benzene	-	0.025 mg/Kg
Toluene	-	0.025 mg/Kg
Xylenes	-	0.025 mg/Kg

CONTROL LIMITS

MATRIX SPIKE	WATER	RPD	SOIL	RPD
Benzene	-	-	53-115	20
Ethylbenzene	-	-	55-116	20
Toluene	-	-	57-115	20
Xylenes	-	-	56-116	20

BLANK SPIKE	WATER	RPD	SOIL	RPD
Benzene	-	-	80-130	20
Ethylbenzene	-	-	80-125	20
Toluene	-	-	80-130	20
Xylenes	-	-	80-125	20

SURROGATE RECOVERY

	WATER	SOIL
Trifluorotoluene	-	50-134

WA DOE WTPH-G

DETECTION LIMITS

	WATER	SOIL
Gasoline	-	5 mg/Kg

CONTROL LIMITS

BLANK SPIKE	WATER	RPD	SOIL	RPD
Gasoline	-	-	72-124	20

MATRIX SPIKE	WATER	RPD	SOIL	RPD
Gasoline	-	-	50-119	20

SURROGATE RECOVERY

	WATER	SOIL
Trifluorotoluene	-	50-150

Analytical Technologies, Inc.

ATI I.D. # 9301-076

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: 192-2129	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.025	ND
ETHYLBENZENE	0.025	ND
TOLUENE	0.025	ND
TOTAL XYLENES	0.025	ND

SURROGATE PERCENT RECOVERY

TRIFLUOROTOLUENE	122

Analytical Technologies, Inc.

ATI I.D. # 9301-076-1

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 01/12/93
PROJECT #	: 192-2129	DATE RECEIVED	: 01/14/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: 9'W, 4'N-4'	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.030	ND
ETHYLBENZENE	0.030	ND
TOLUENE	0.030	ND
TOTAL XYLENES	0.030	ND

SURROGATE PERCENT RECOVERY

TRIFLUOROTOLUENE	105

Analytical**Technologies,**Inc.

ATI I.D. # 9301-076-2

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 01/12/93
PROJECT #	: 192-2129	DATE RECEIVED	: 01/14/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: 18'W, 3'S-6	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.031	ND
ETHYLBENZENE	0.031	ND
TOLUENE	0.031	ND
TOTAL XYLENES	0.031	ND

SURROGATE PERCENT RECOVERY

TRIFLUOROTOLUENE	97

Analytical Technologies, Inc.

ATI I.D. # 9301-076-3

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 01/12/93
PROJECT #	: 192-2129	DATE RECEIVED	: 01/14/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: 18'S, 5'W-4.5	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	ND
TOTAL XYLENES	0.027	0.029

SURROGATE PERCENT RECOVERY

TRIFLUOROTOLUENE	109

Analytical**Technologies,**Inc.

ATI I.D. # 9301-076-4

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 01/12/93
PROJECT #	: 192-2129	DATE RECEIVED	: 01/14/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: 14'W, 6'S-4.5	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.028	ND
ETHYLBENZENE	0.028	ND
TOLUENE	0.028	ND
TOTAL XYLENES	0.028	ND

SURROGATE PERCENT RECOVERY

TRIFLUOROTOLUENE	107

Analytical Technologies, Inc.

ATI I.D. # 9301-076-5

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 01/12/93
PROJECT #	: 192-2129	DATE RECEIVED	: 01/14/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: 8'W, 12'S-6'	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	ND
TOTAL XYLENES	0.027	ND

SURROGATE PERCENT RECOVERY

TRIFLUOROTOLUENE	115

Analytical Technologies, Inc.

ATI I.D. # 9301-076-6

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 01/12/93
PROJECT #	: 192-2129	DATE RECEIVED	: 01/14/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: 5'E, 5'S-4.5	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	ND
TOTAL XYLENES	0.027	ND

SURROGATE PERCENT RECOVERY

TRIFLUOROTOLUENE	113

Analytical Technologies, Inc.

ATI I.D. # 9301-076-7

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 01/12/93
PROJECT #	: 192-2129	DATE RECEIVED	: 01/14/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: 6'E, 0'S-4.0	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.029	ND
ETHYLBENZENE	0.029	ND
TOLUENE	0.029	ND
TOTAL XYLENES	0.029	ND

SURROGATE PERCENT RECOVERY

TRIFLUOROTOLUENE	103

Analytical Technologies, Inc.

ATI I.D. # 9301-076

VOLATILE ORGANIC COMPOUNDS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D.	: 9301-076-2
PROJECT #	: 192-2129	DATE EXTRACTED	: 01/21/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 01/21/93
EPA METHOD	: 8020 (BETX)	MATRIX	: SOIL
RESULTS ARE CORRECTED FOR MOISTURE CONTENT		UNITS	: mg/Kg

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % REC	RPD
BENZENE	ND	1.23	1.04	85	1.11	90	7
ETHYLBENZENE	ND	1.23	1.15	93	1.20	98	4
TOLUENE	ND	1.23	1.09	89	1.15	93	5
TOTAL XYLENES	ND	2.47	2.37	96	2.48	100	5

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9301-076

VOLATILE ORGANIC COMPOUNDS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D.	: BLANK SPIKE
PROJECT #	: 192-2129	DATE EXTRACTED	: 01/21/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 01/21/93
EPA METHOD	: 8020 (BETX)	MATRIX	: SOIL
RESULTS ARE CORRECTED FOR MOISTURE CONTENT		UNITS	: mg/Kg

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % REC	RPD
BENZENE	ND	1.00	1.02	102	1.03	103	1
ETHYLBENZENE	ND	1.00	1.08	108	1.13	113	5
TOLUENE	ND	1.00	1.04	104	1.07	107	3
TOTAL XYLENES	ND	2.00	2.22	111	2.30	115	4

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9301-076

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: 192-2129	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE

SURROGATE PERCENT RECOVERY

TRIFLUOROTOLUENE	126

Analytical Technologies, Inc.

ATI I.D. # 9301-076-1

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 01/12/93
PROJECT #	: 192-2129	DATE RECEIVED	: 01/14/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: 9'W, 4'N-4'	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	6	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE

SURROGATE PERCENT RECOVERY

TRIFLUOROTOLUENE	111

Analytical Technologies, Inc.

ATI I.D. # 9301-076-2

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 01/12/93
PROJECT #	: 192-2129	DATE RECEIVED	: 01/14/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: 18'W, 3'S-6	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	6.2	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE

SURROGATE PERCENT RECOVERY

TRIFLUOROTOLUENE	109

Analytical Technologies, Inc.

ATI I.D. # 9301-076-3

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 01/12/93
PROJECT #	: 192-2129	DATE RECEIVED	: 01/14/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: 18'S, 5'W-4.5	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5.4	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	116	

Analytical Technologies, Inc.

ATI I.D. # 9301-076-4

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 01/12/93
PROJECT #	: 192-2129	DATE RECEIVED	: 01/14/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: 14'W, 6'S-4.5	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5.6	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	115	

Analytical Technologies, Inc.

ATI I.D. # 9301-076-5

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 01/12/93
PROJECT #	: 192-2129	DATE RECEIVED	: 01/14/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: 8'W, 12'S-6'	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5.3	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	121	

Analytical Technologies, Inc.

ATI I.D. # 9301-076-6

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 01/12/93
PROJECT #	: 192-2129	DATE RECEIVED	: 01/14/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: 5'E, 5'S-4.5	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5.4	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE		122

Analytical Technologies, Inc.

ATI I.D. # 9301-076-7

TOTAL PETROLEUM HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN-NORTHERN, INC.	DATE SAMPLED	: 01/12/93
PROJECT #	: 192-2129	DATE RECEIVED	: 01/14/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/21/93
CLIENT I.D.	: 6'E, 0'S-4.0	DATE ANALYZED	: 01/21/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5.8	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	117	

Analytical Technologies, Inc.

ATI I.D. # 9301-076

TOTAL PETROLEUM HYDROCARBON ANALYSIS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC.
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA
METHOD : WA DOE WTPH-G
SAMPLE MATRIX : SOIL
SAMPLE I.D. # : 9301-076-1
DATE EXTRACTED : 01/21/93
DATE ANALYZED : 01/21/93
UNITS : mg/Kg
RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (GASOLINE)	ND	ND	NC	N/A	N/A	N/A	N/A	N/A	N/A

NC = Not Calculable.

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9301-076

TOTAL PETROLEUM HYDROCARBON ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: 9301-076-4
PROJECT #	: 192-2129	DATE EXTRACTED	: 01/21/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 01/21/93
METHOD	: WA DOE WTPH-G	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (GASOLINE)	ND	106	87	82	87	82	0

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9301-076

TOTAL PETROLEUM HYDROCARBON ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN-NORTHERN, INC.	SAMPLE I.D. #	: BLANK SPIKE
PROJECT #	: 192-2129	DATE EXTRACTED	: 01/21/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 01/21/93
METHOD	: WA DOE WTPH-G	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (GASOLINE)	ND	100	109	109	109	109	0

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9301-076

GENERAL CHEMISTRY ANALYSIS

CLIENT : CHEN-NORTHERN, INC. MATRIX : SOIL
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA

PARAMETER	DATE ANALYZED
MOISTURE	01/21/93

Analytical Technologies, Inc.

ATI I.D. # 9301-076

GENERAL CHEMISTRY ANALYSIS
DATA SUMMARY

CLIENT : CHEN-NORTHERN, INC. MATRIX : SOIL
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA UNITS : %

ATI I.D. #	CLIENT I.D.	MOISTURE MDL	RESULT
9301-076-1	9'W, 4'N-4'	0.5	17
9301-076-2	18'W, 3'S-6	0.5	19
9301-076-3	18'S, 5'W-4.5	0.5	8
9301-076-4	14'W, 6'S-4.5	0.5	11
9301-076-5	8'W, 12'S-6'	0.5	6
9301-076-6	5'E, 5'S-4.5	0.5	7
9301-076-7	6'E, 0'S-4.0	0.5	14

Analytical**Technologies,**Inc.

ATI I.D. # 9301-076

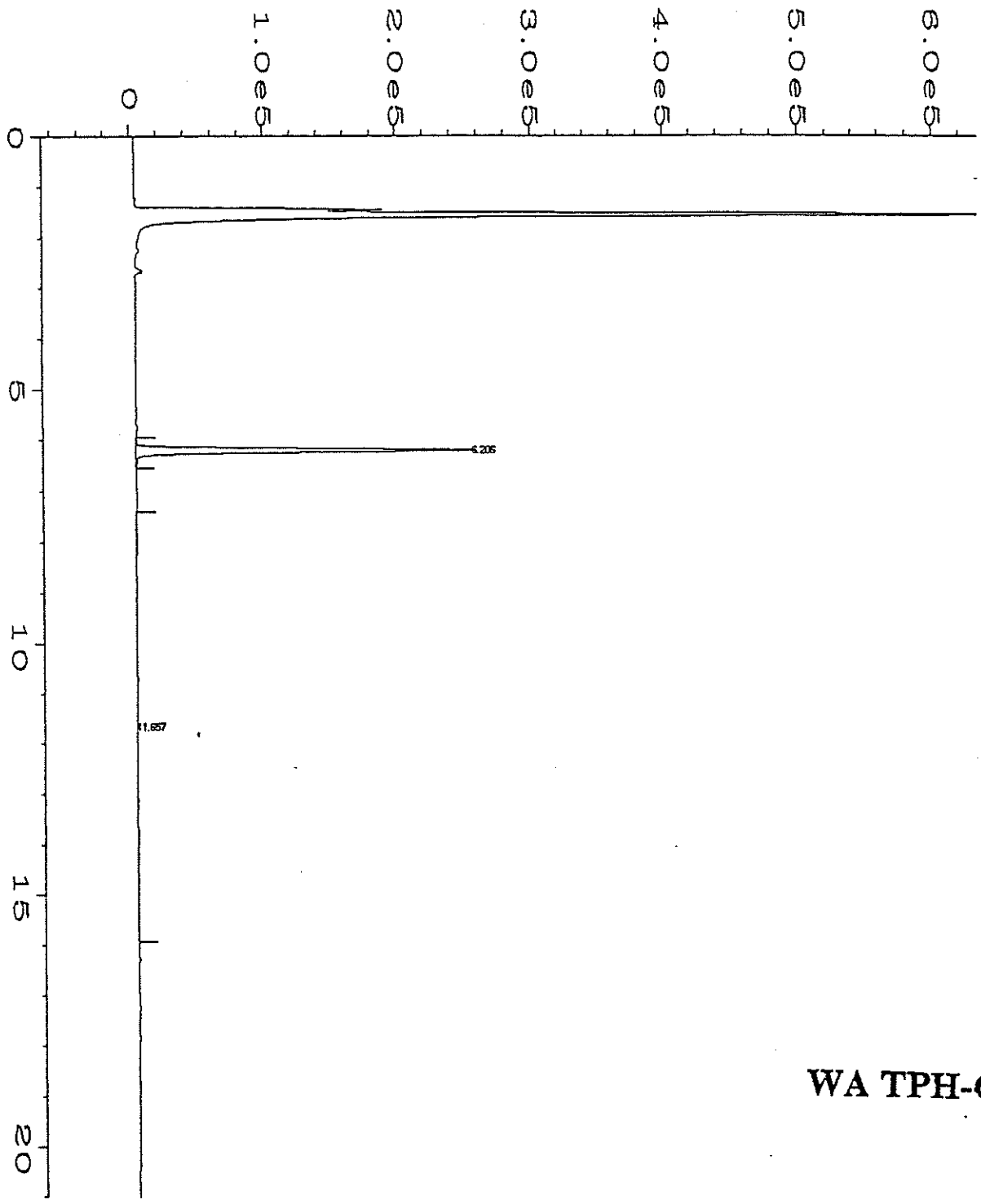
GENERAL CHEMISTRY ANALYSIS
QUALITY CONTROL DATA

CLIENT : CHEN-NORTHERN, INC. MATRIX : SOIL
PROJECT # : 192-2129
PROJECT NAME : CHEVRON - YAKIMA UNITS : %

PARAMETER	ATI I.D.	SAMPLE RESULT	DUP RESULT	RPD	SPIKED RESULT	SPIKE ADDED	% REC
MOISTURE	9301-076-7	14	14	0	N/A	N/A	N/A

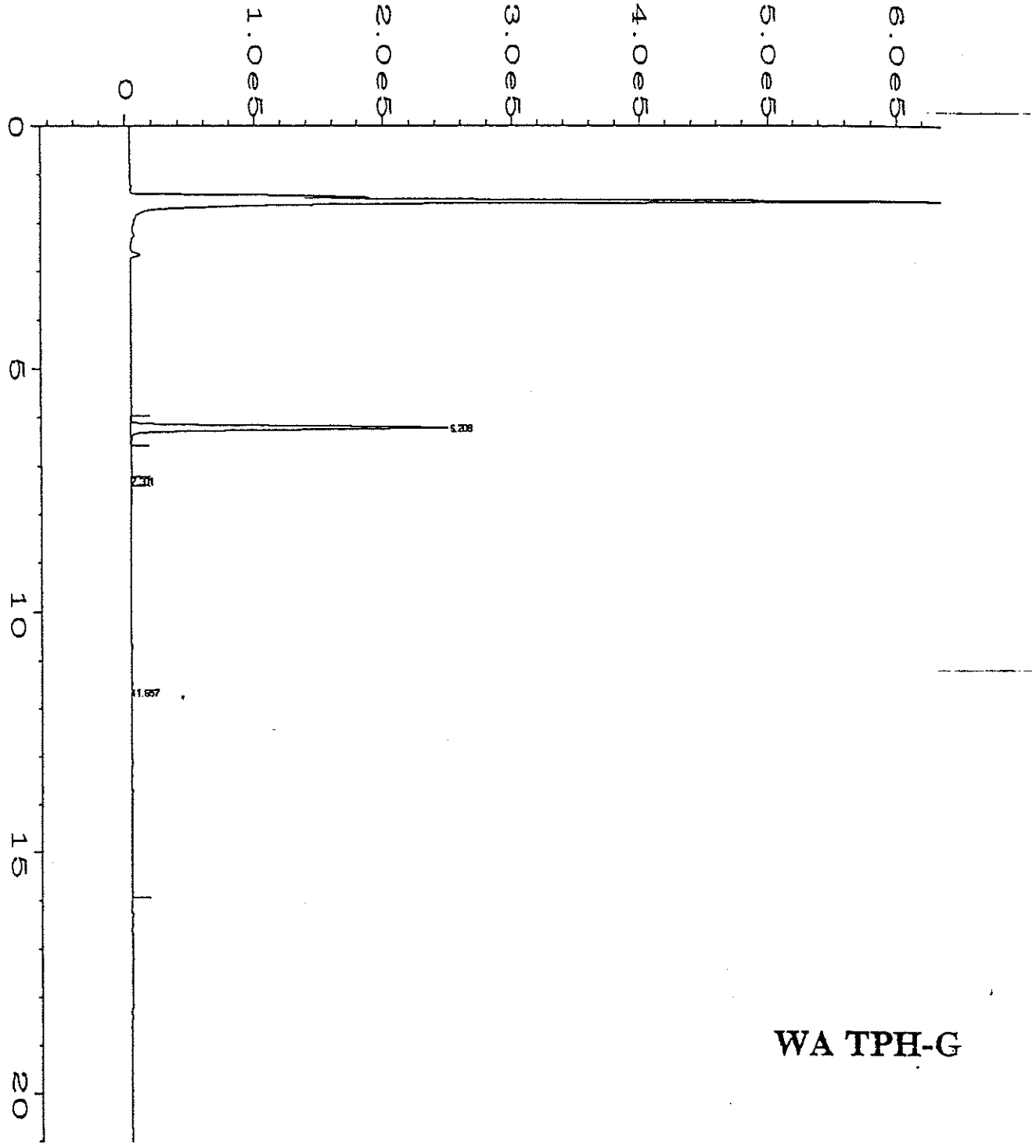
$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



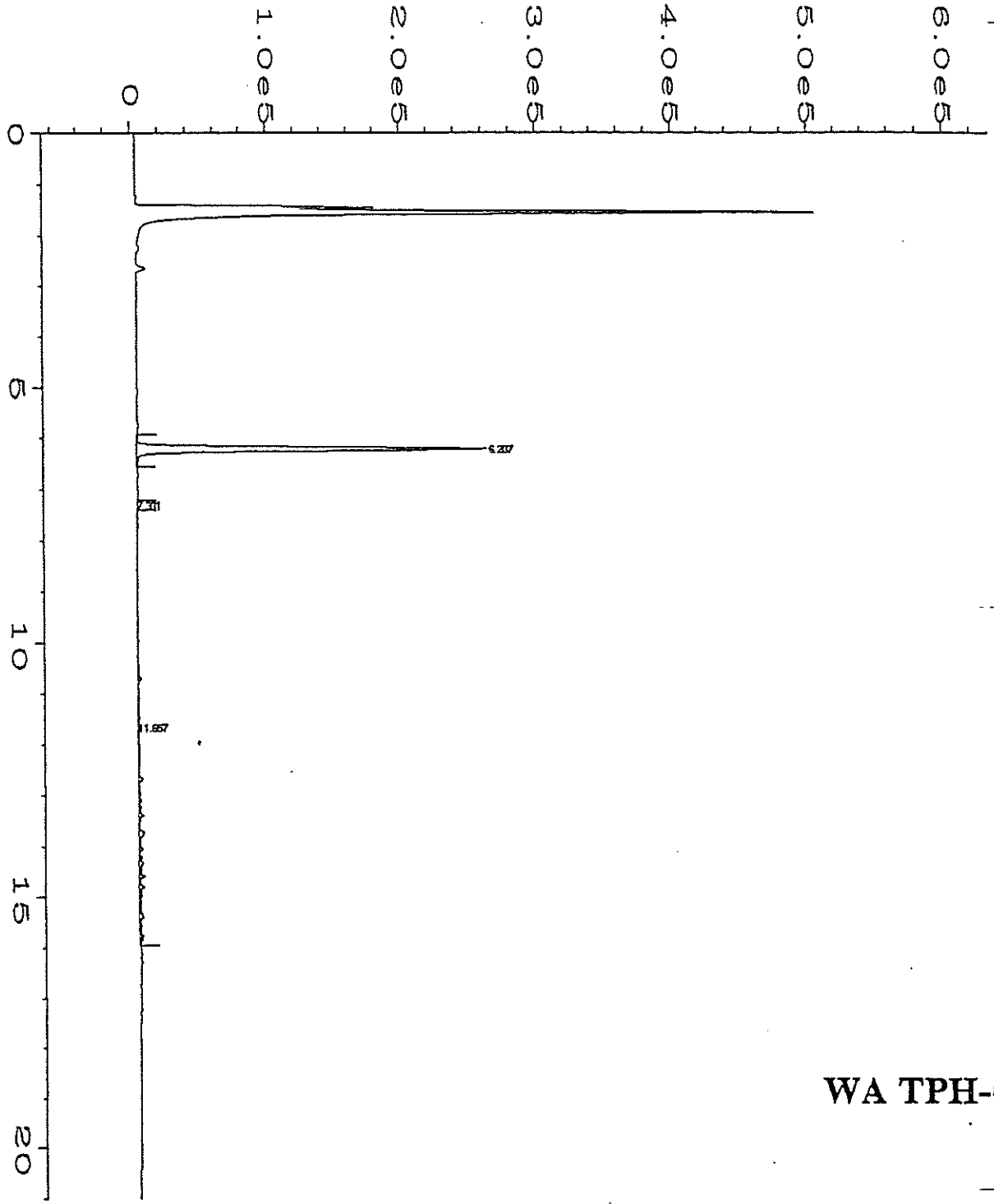
WA TPH-G

Data File Name	: F:\DATA\FUELS\WATSON\D\930121\004R0101.D		
Operator	: !!!FUELS!!!	Page Number	: 1
Instrument	: WATSON	Vial Number	: 4
Sample Name	: 301542-1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 21 Jan 93 12:04 PM	Instrument Method	: TPHG.MTH
Report Created on	: 21 Jan 93 01:33 PM	Analysis Method	: WTPHG.MTH
Last Recalib on	: 20 JAN 93 04:45 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



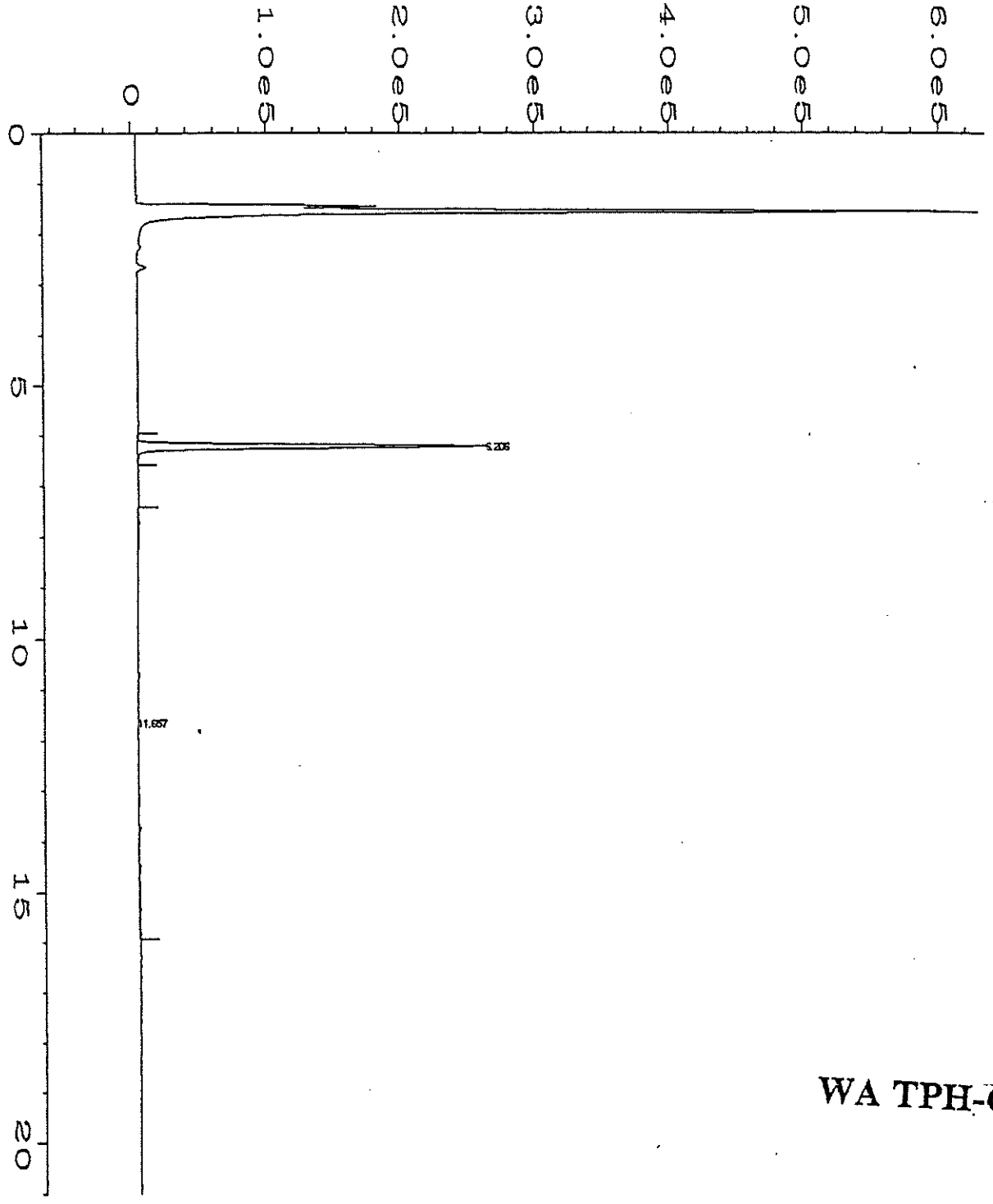
WA TPH-G

Data File Name	: F:\DATA\FUELS\WATSON\D\930121\005R0101.D		
Operator	: !!!FUELS!!!	Page Number	: 1
Instrument	: WATSON	Vial Number	: 5
Sample Name	: 301542-2	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 21 Jan 93 12:32 PM	Instrument Method	: TPHG.MTH
Report Created on	: 21 Jan 93 01:34 PM	Analysis Method	: WTPHG.MTH
Last Recalib on	: 20 JAN 93 04:45 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



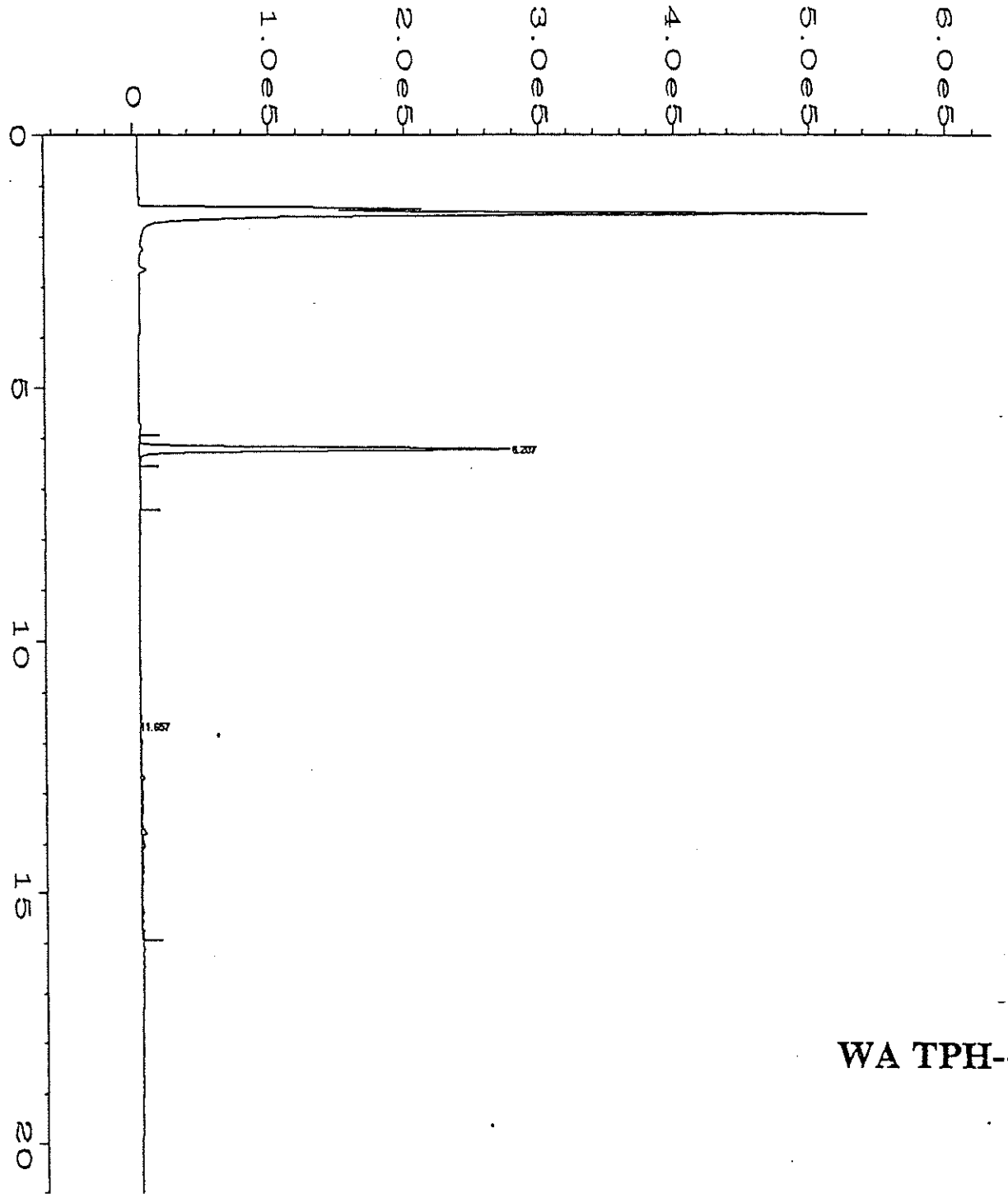
WA TPH-G

Data File Name	: F:\DATA\FUELS\WATSON\D\930121\006R0101.D		
Operator	: !!!FUELS!!!	Page Number	: 1
Instrument	: WATSON	Vial Number	: 6
Sample Name	: 301542-3	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 21 Jan 93 01:00 PM	Instrument Method	: TPHG.MTH
Report Created on	: 21 Jan 93 01:35 PM	Analysis Method	: WTPHG.MTH
Last Recalib on	: 20 JAN 93 04:45 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



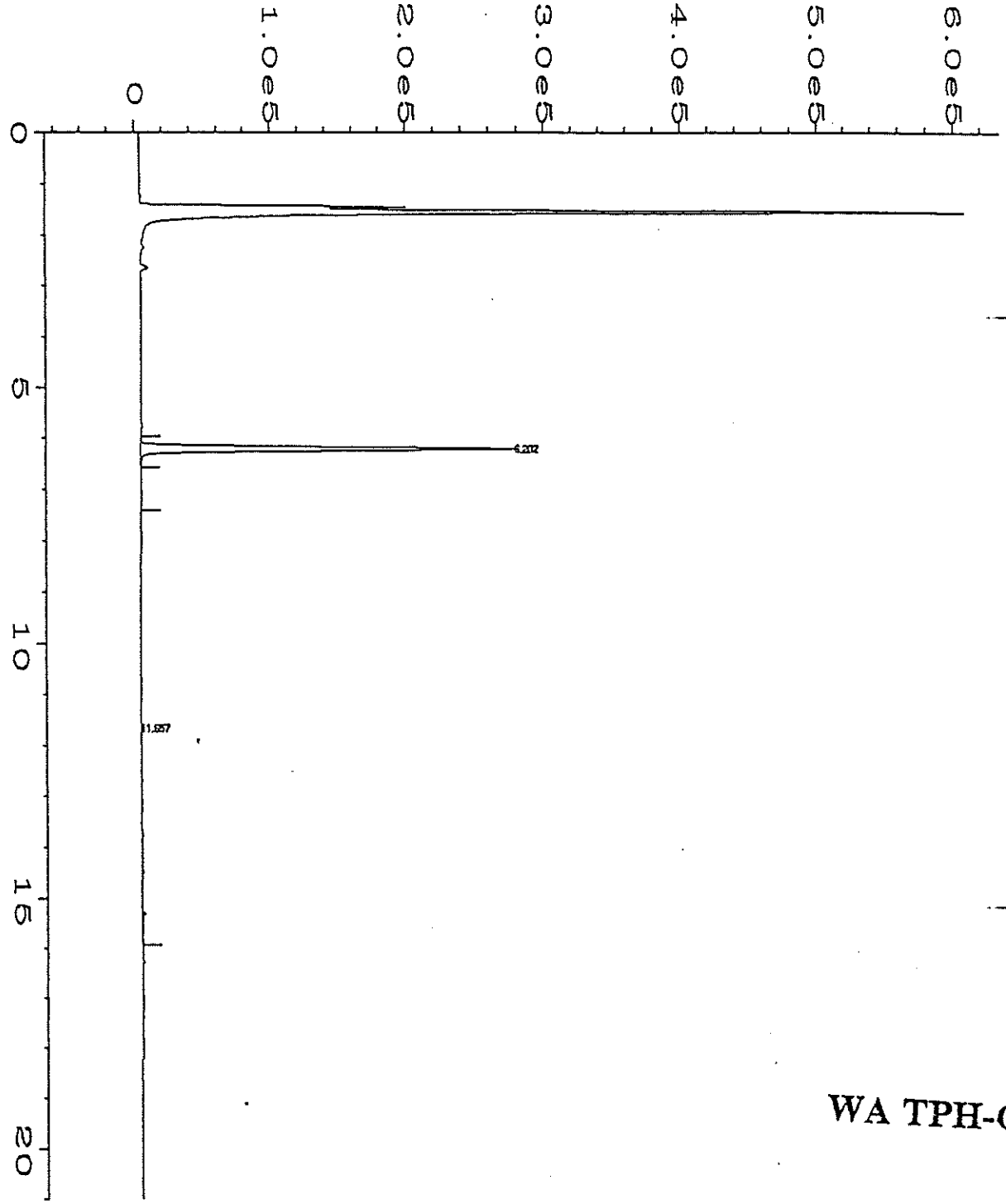
WA TPH-G

ata File Name	: F:\DATA\FUELS\WATSON\D\930121\007R0101.D		
Operator	: !!!FUELS!!!	Page Number	: 1
Instrument	: WATSON	Vial Number	: 7
ample Name	: 301542-4	Injection Number	: 1
un Time Bar Code:		Sequence Line	: 1
Acquired on	: 21 Jan 93 01:28 PM	Instrument Method	: TPHG.MTH
eport Created on	: 21 Jan 93 01:51 PM	Analysis Method	: WTPHG.MTH
ast Recalib on	: 20 JAN 93 04:45 PM	Sample Amount	: 0
ultiplier	: 1	ISTD Amount	:



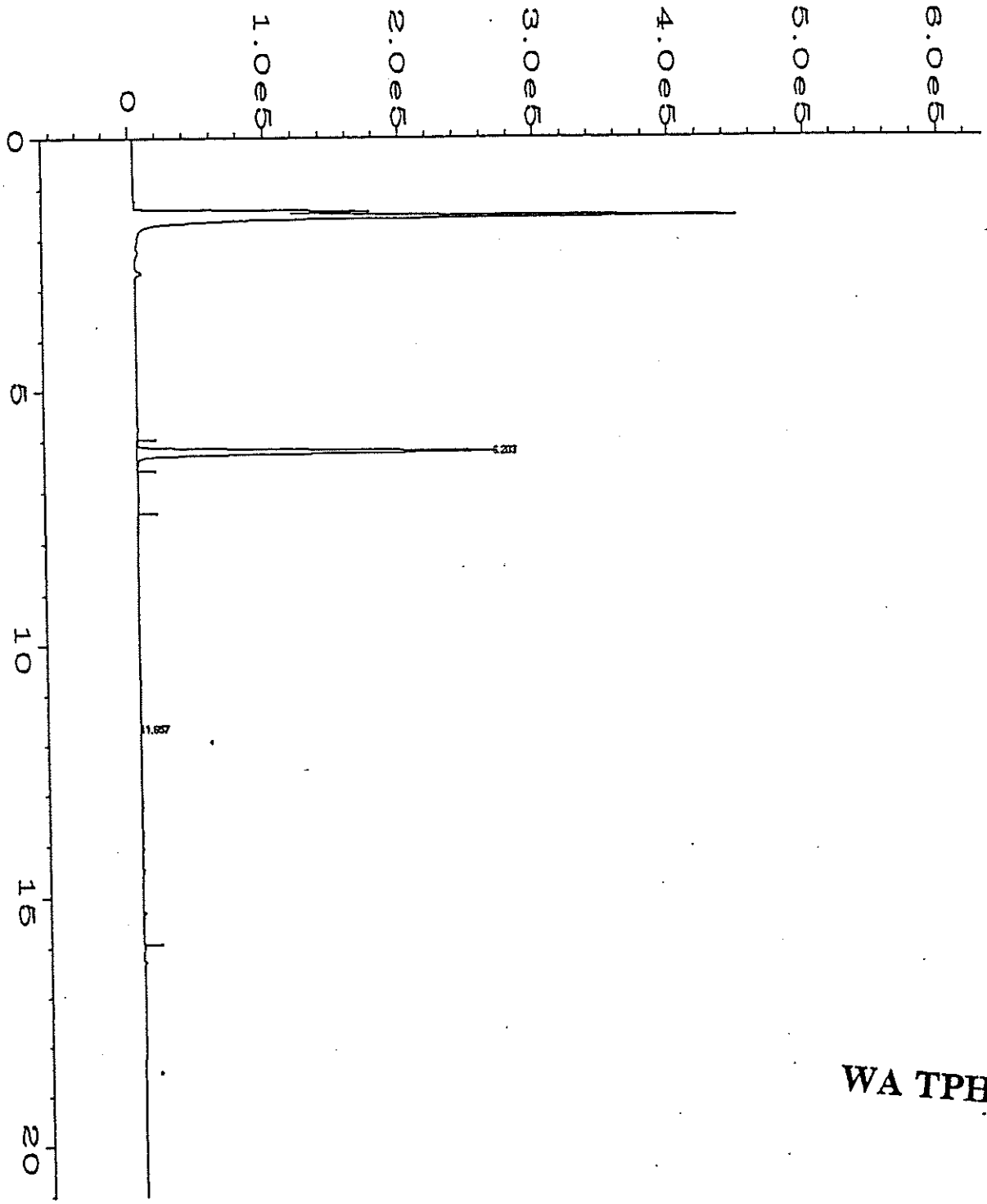
WA TPH-G

Data File Name	: F:\DATA\FUELS\WATSON\D\930121\008R0101.D		
Operator	: !!!FUELS!!!	Page Number	: 1
Instrument	: WATSON	Vial Number	: 8
Sample Name	: 301542-5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 21 Jan 93 01:56 PM	Instrument Method	: TPHG.MTH
Report Created on	: 21 Jan 93 03:35 PM	Analysis Method	: WTPHG.MTH
Last Recalib on	: 20 JAN 93 04:45 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



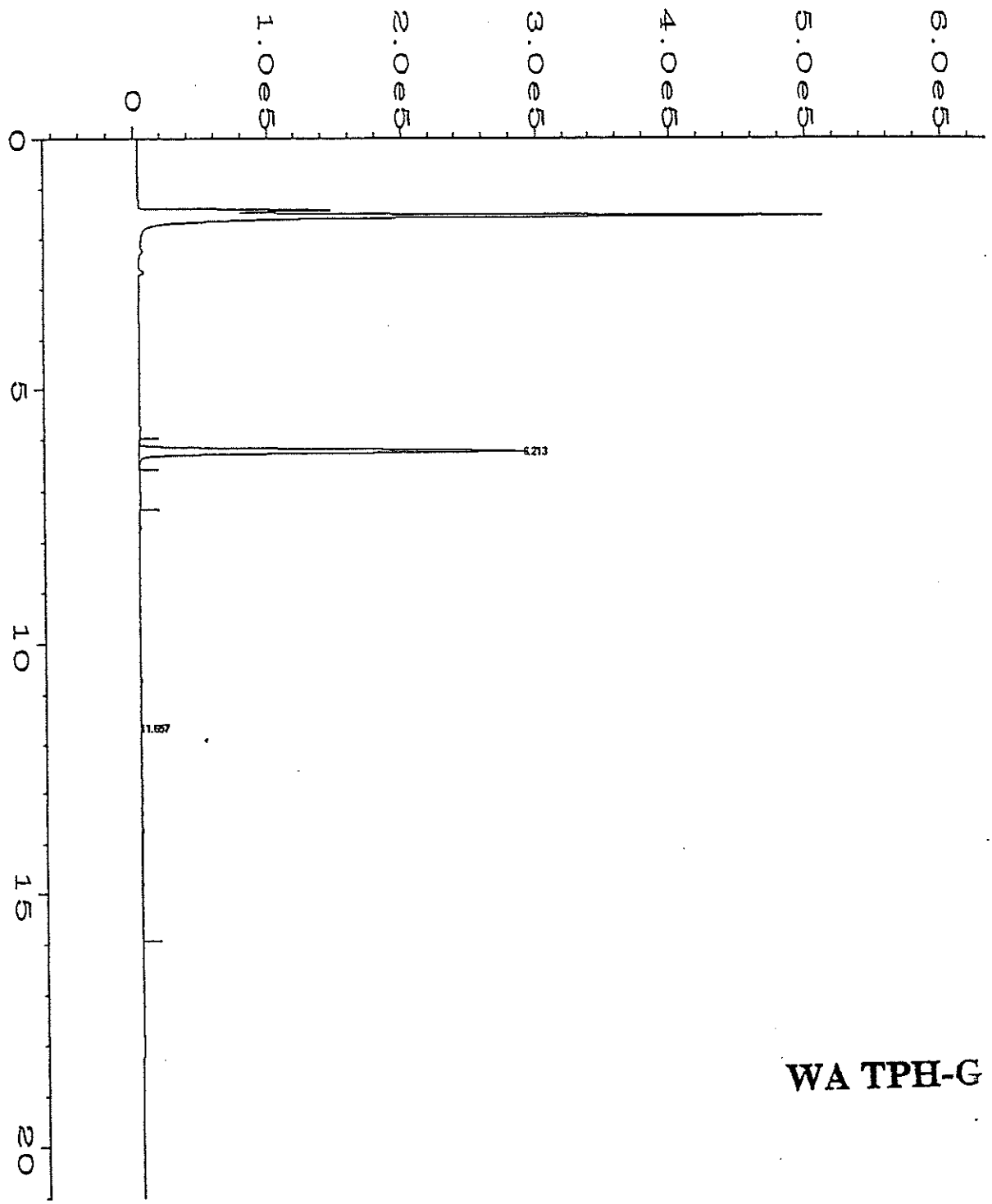
WA TPH-G

Data File Name	: F:\DATA\FUELS\WATSON\D\930121\009R0101.D		
Operator	: !!!FUELS!!!	Page Number	: 1
Instrument	: WATSON	Vial Number	: 9
Sample Name	: 301542-6	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 21 Jan 93 02:24 PM	Instrument Method	: TPHG.MTH
Report Created on	: 21 Jan 93 03:39 PM	Analysis Method	: WTPHG.MTH
Last Recalib on	: 20 JAN 93 04:45 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



WA TPH-G

ata File Name	: F:\DATA\FUELS\WATSON\D\930121\010R0101.D		
Operator	: !!!FUELS!!!	Page Number	: 1
Instrument	: WATSON	Vial Number	: 10
ample Name	: 301542-7	Injection Number	: 1
un Time Bar Code:		Sequence Line	: 1
cquired on	: 21 Jan 93 02:52 PM	Instrument Method	: TPHG.MTH
eport Created on	: 21 Jan 93 03:40 PM	Analysis Method	: WTPHG.MTH
ast Recalib on	: 20 JAN 93 04:45 PM	Sample Amount	: 0
ultiplier	: 1	ISTD Amount	:



WA TPH-G

ata File Name	: F:\DATA\FUELS\WATSON\D\930121\003R0101.D		
Operator	: !!!FUELS!!!	Page Number	: 1
Instrument	: WATSON	Vial Number	: 3
ample Name	: MB 1-21	Injection Number	: 1
un Time Bar Code:		Sequence Line	: 1
Acquired on	: 21 Jan 93 11:36 AM	Instrument Method:	TPHG.MTH
eport Created on:	21 Jan 93 01:32 PM	Analysis Method	: WTPHG.MTH
ast Recalib on	: 20 JAN 93 04:45 PM	Sample Amount	: 0
ultiplier	: 1	ISTD Amount	:

PLEASE FAX A SIGNED COPY OF THIS COC TO THE PROJECT MANAGER

~~TO PHOENIX, AZ~~
ATI-PTL

Analytical Technologies, Inc.
560 Naches Avenue SW, Suite 101 Renton, WA 98055 (206)228 8335

Chain of Custody

DATE 1/20/93 PAGE 1 OF 1

LABORATORY NUMBER: 301542

PROJECT MANAGER: Donna McKinney

ANALYTICAL TECHNOLOGIES, INC.
560 NACHES AVE SW, SUITE 101
RENTON, WA 98055
(206) 228-8335

SAMPLE DISPOSAL INSTRUCTIONS

☐ ATI Disposal ☒ Return

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	8240 GC/MS Volatiles	8270 GC/MS BNA's	8310 HPLC PNA's	8080 Pest/PCB's	PCB's only	8150 Herbicides	TOC 9060	TOX 9020	BOD	COD	CYANIDE	MBAS	NITRATE/NITRITE	PP METALS	EPTOX METALS	TCLP METALS	TCLP 8240 (ZHE)	TCLP 8270	TCLP 8150	TCLP 8080	PHENOLS, total	% MOISTURE	BETX/G	NUMBER OF CONTAINERS
9301-076 -1	1/12/93		Soil	-1																						X	X	1
-2	|		|	-2																						X	X	1
-3	|		|	-3																						X	X	1
-4	|		|	-4																						X	X	1
-5	|		|	-5																						X	X	1
-6	|		|	-6																						X	X	1
-7	1/12/93		Soil	-7																						X	X	1

PROJECT INFORMATION

ATI PROJ #: 9301-076
ATI PROJ NAME: Chen - Northern
CLIENT PROJ: Chevron-Yakima 192-2129

SPECIAL INSTRUCTIONS: fax data to Clint Rogers Chevron (510) 842-9252
Paul Danielson Chen-Northern (509) 547-1673

VERBALS DUE: ~~ASAP~~ 1/21 pm
HARDCOPY DUE: ______
PRICE: ______ DISC: ____%
DIGESTION NEEDED?

SAMPLE RECEIPT

TOTAL NUMBER OF CONTAINERS	7
COC SEALS/INTACT? Y/N/NA	Y
RECEIVED GOOD COND./COLD	Y
RECEIVED VIA: FedX	

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [signature] Time: 15:15	Signature: Time:	Signature: Time:
Printed Name: D McKinney Date: 1/20/93	Printed Name: Date:	Printed Name: Date:
Company: AJJ WA	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2	RECEIVED BY: (LAB) 3.
Signature: Time:	Signature: Time:	Signature: [signature] Time: 945
Printed Name: Date:	Printed Name: Date:	Printed Name: ANDI [illegible] Date: 1·21·93
Company:	Company:	Analytical Technologies, Inc.

in Die 9)45 · Pl (602) 530 · lo (20 8335 nsac 4)474 D BUTI White, y · A ink · C

AnalyticalTechnologies, Inc.
560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228-8335

DATE: 1-13-93 Page 1 of 1 ATI ACCESSION # 9301-074

COMPANY: Chem-Northern Inc
REPORT TO: Clint Rogers / Paul Davidson
ADDRESS: 2214 N. 4th Ave
Pasco WA 99301
PHONE: (509) 547-1671 FAX: (509) 547-1673
PROJECT MANAGER: Clint Rogers
PROJECT NUMBER: 192-R129
PROJECT NAME: Chevron - Yakima
ATI will DISPOSE / RETURN samples (circle one)

Sample ID	Date	Time	Matrix	LabID	FUELS: TPH-HCID WA/OR	BETX/TPH-G combo WA/OR	BETX (by 8020)	TPH-G WA/OR	TPH-D WA/OR	8015 modified	418.1 WA/OR	413.2	AK-GRO	AK-DRO	ORGANIC COMPOUNDS: 8240 GCMS Volatiles	8270 GCMS Semivolatiles	8080 Pesticides/PCBs	PCB only (by 8080) STD/lo level	8010 Halogenated VOCs	8020 Aromatic VOCs	8310 HPLC PAHs	8040 Phenols	8140 OP Pesticides	8150 OC Herbicides	METALS: Metals (Indicate below *)	Total Lead	Priority Pollutant Metals (13)	TAL Metals (23)	TCLP: TCLP-Volatiles (ZHE-8240)	TCLP-Semivolatiles (8270)	TCLP-Pesticides (8080)	TCLP-Herbicides (8150)	TCLP-Metals (8 metals)	OTHER: % Moisture (please indicate)	PCB 40 CFR 761.60				Total # of Containers/sample
9'W 4'N-4'	1/12/93	3:00	Soil	1		X																																	1
19'W 3'S-6	1/12	3:00	"	2		X																																	1
19'S 5'W-4.5	1/12	3:00	"	3		X																																	1
14'W 6'S -4.5	1/12	11:00	"	4		X																																	1
8'W 12'S-6'	1/12	3:00	"	5		X																																	1
5'E 5'S -4.5	1/12	3:00	"	6		X																																	1
6'E 0'S -4.0	1/12	3:00	"	7		X																																	1
~~SE-A [illegible]~~																																							
S.E. C.S. wall	1/12	3:00	"	8		X					X																								X				2
S.E. C.S. Soil	1/12	3:00	"	9		X					X																								X				2
S.E. C.S. Gas	1/12	3:00	"	10		X					X																								X				2

L.1/20/93 SKS
[illegible] 1/20 [illegible] samples

Turnaround Time	
STANDARD TAT	
1 WEEK TAT	
4 WORK DAY TAT	
3 WORK DAY TAT	
2 WORK DAY TAT	X
24 HOUR TAT	

Sample Receipt	
TOTAL # CONTAINERS RECVD	13
COC SEALS PRESENT?	N
COC SEALS INTACT?	NA
RECEIVED COLD?	Y
RECEIVED INTACT?	Y
RECEIVED VIA:	UPS.

Relinquished By:	Relinquished By:	Relinquished By:
Paul Davidson Date: 1/13/93 Time: 9:00	Date: Time:	Date: Time:
Received By:	**Received By:**	**Received By:**
[signature] Date: ~~1/20~~ 1/20/93 Time: 11:00 a.m. JIMA KEXIFIELD [illegible]	Date: Time:	Date: Time:

Special Instructions: Chevron Release No# 7165990
Fax results to Paul + Fax to Clint at
(510) 842-9252
* Metals needed:

Corporate Offices: 5550 Morehouse Drive, San Diego, CA 92121 (619)458-9141

Analytical**Technologies,**Inc.

560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228-8335
John H. Taylor, Jr., Laboratory Manager
Frederick W. Grothkopp, Technical Director

ATI I.D. # 9301-118

February 1, 1993

Chen - Northern, Inc.
2214 N. 4th Avenue
Pasco WA 99301

Attention : Paul Danielson

Project Number : Station #9-3883

Project Name : Chevron - Yakima

Dear Mr. Danielson:

On January 26, 1993, Analytical Technologies, Inc. (ATI), received ten samples for analysis. The samples were analyzed with EPA methodology or equivalent methods as specified in the attached analytical schedule. The results, sample cross reference, and quality control data are enclosed.

Sincerely,

Donna M. McKinney
Senior Project Manager

DMM/hal/dmc

Enclosure

cc: Clint Rogers
Chevron USA, Inc.

Analytical Technologies, Inc.

ATI I.D. # 9301-118

SAMPLE CROSS REFERENCE SHEET

CLIENT : CHEN-NORTHERN
PROJECT # : STATION #9-3883
PROJECT NAME : CHEVRON - YAKIMA

ATI #	CLIENT DESCRIPTION	DATE SAMPLED	MATRIX
9301-118-1	14W, 6S, -4.5'	01/22/93	SOIL
9301-118-2	5S, 5E, -4.5'	01/22/93	SOIL
9301-118-3	18S, 2W, -4.5'	01/22/93	SOIL
9301-118-4	0S, 6E, -4.0'	01/22/93	SOIL
9301-118-5	12S, 8W, -5.0'	01/22/93	SOIL
9301-118-6	18W, 3S, -6.0'	01/22/93	SOIL
9301-118-7	9W, 4N, -4.0'	01/22/93	SOIL
9301-118-8	SE, C.S., WEST	01/22/93	SOIL
9301-118-9	SE, C.S., SOUTH	01/22/93	SOIL
9301-118-10	SE, C.S., EAST	01/22/93	SOIL

----- TOTALS -----

MATRIX	# SAMPLES
SOIL	10

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of the report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Analytical Technologies, Inc.

ATI I.D. # 9301-118

ANALYTICAL SCHEDULE

CLIENT : CHEN - NORTHERN
PROJECT # : STATION #9-3883
PROJECT NAME : CHEVRON - YAKIMA

ANALYSIS	TECHNIQUE	REFERENCE	LAB
POLYCHLORINATED BIPHENYLS (PCBs)	GC/ECD	EPA 8080	R
BETX	GC/PID	EPA 8020	R
TOTAL PETROLEUM HYDROCARBONS	GC/FID	WA DOE WTPH-G	R
PETROLEUM HYDROCARBONS	IR	WA DOE WTPH-418.1 MODIFIED	R
MOISTURE	GRAVIMETRIC	CLP SOW ILMO1.0	R

R = ATI - Renton
SD = ATI - San Diego
PHX = ATI - Phoenix
PNR = ATI - Pensacola
FC = ATI - Fort Collins
SUB = Subcontract

Analytical Technologies, Inc.

ATI I.D. # 9301-118

QUALITY CONTROL INFORMATION

CLIENT : CHEN - NORTHERN, INC.
PROJECT # : STATION #9-3883
PROJECT NAME : CHEVRON - YAKIMA

POLYCHLORINATED BIPHENYLS (PCBs)

DETECTION LIMITS

	WATER	SOIL
PCB 1016	0.0010 mg/L	0.033 mg/Kg
PCB 1221	0.0010 mg/L	0.033 mg/Kg
PCB 1232	0.0010 mg/L	0.033 mg/Kg
PCB 1242	0.0010 mg/L	0.033 mg/Kg
PCB 1248	0.0010 mg/L	0.033 mg/Kg
PCB 1254	0.0010 mg/L	0.033 mg/Kg
PCB 1260	0.0010 mg/L	0.033 mg/Kg

CONTROL LIMITS

	WATER	RPD	SOIL	RPD
BLANK SPIKE				
PCB 1260	67-136	20	74-120	31
MATRIX SPIKE				
PCB 1260	52-151	20	55-131	31

SURROGATE RECOVERIES

	WATER	SOIL
Decachlorobiphenyl	34-104	52-125
Dibutylchlorendate	33-137	24-137

CONTINUED ON NEXT PAGE

Analytical Technologies, Inc.

ATI I.D. # 9301-118

QUALITY CONTROL
INFORMATION
CONTINUED

CLIENT : CHEN - NORTHERN, INC.
PROJECT # : STATION #9-3883
PROJECT NAME : CHEVRON - YAKIMA

BETX

DETECTION LIMITS

	WATER	SOIL
Benzene	0.0005 mg/L	0.025 mg/Kg
Toluene	0.0005 mg/L	0.025 mg/Kg
Ethyl Benzene	0.0005 mg/L	0.025 mg/Kg
Xylenes	0.0005 mg/L	0.025 mg/Kg

CONTROL LIMITS

BLANK SPIKE	WATER	RPD	SOIL	RPD
Benzene	80-111	20	63-115	20
Toluene	78-111	20	75-110	20
Xylenes	80-114	20	79-109	20

MATRIX SPIKE	WATER	RPD	SOIL	RPD
Benzene	77-112	20	35-113	20
Toluene	72-113	20	43-107	20
Xylenes	80-110	20	46-114	20

SURROGATE RECOVERY

	WATER	SOIL
Bromofluorobenzene	76-120	52-116

CONTINUED ON NEXT PAGE

Analytical Technologies, Inc.

ATI I.D. # 9301-118

QUALITY CONTROL
INFORMATION
CONTINUED

CLIENT : CHEN - NORTHERN, INC.
PROJECT # : STATION #9-3883
PROJECT NAME : CHEVRON - YAKIMA

WA DOE WTPH-G

DETECTION LIMITS

	WATER	SOIL
Gasoline	0.1 mg/L	5 mg/Kg

CONTROL LIMITS

	WATER	RPD	SOIL	RPD
BLANK SPIKE				
Gasoline	75-120	20	80-119	20
MATRIX SPIKE				
Gasoline	58-127	20	50-112	20

SURROGATE RECOVERY

	WATER	SOIL
Trifluorotoluene	50-150	50-150

WTPH 418.1 Modified

DETECTION LIMITS

	WATER	SOIL
COMPOUND		
Petroleum Hydrocarbon	1 mg/L	20 mg/Kg

CONTROL LIMITS

	WATER	RPD	SOIL	RPD
BLANK SPIKE				
Petroleum Hydrocarbons	51-104	20	96-144	20
MATRIX DUPLICATE				
Petroleum Hydrocarbons	-	35	-	35
MATRIX SPIKE				
Fuel Hydrocarbons	40-121	35	45-187	35

Analytical Technologies, Inc.

ATI I.D. # 9301-118

CASE NARRATIVE

CLIENT : CHEN - NORTHERN, INC.
PROJECT # : STATION #9-3883
PROJECT NAME : CHEVRON - YAKIMA

CASE NARRATIVE: POLYCHLORINATED BIPHENYLS (PCBs) ANALYSIS

These samples were analyzed by EPA method 3550/8080 as follows:

Approximately 30 grams of sample were mixed with sodium sulfate and spiked with 8080 surrogate solution. Three separate 100 mL aliquots of methylene chloride were added to the sample. With each solvent addition, the sample was sonicated for three minutes, and the methylene chloride was poured off and filtered. The total filtrate was collected and concentrated using Kuderna-Danish apparatus and reduced to a volume of 4 mL with nitrogen. The extract was exchanged to hexane to a relative final volume of 10 mLs. The final extract was analyzed by GC/ECD.

The method blanks were free of target compounds. All surrogate percent recoveries were within ATI control limits. The matrix spike/matrix spike duplicate (MS/MSD) recoveries and MS/MSD relative percent differences (RPDs) were within ATI control limits.

No sample dilutions were required. All sample extraction and analysis hold times were met.

AnalyticalTechnologies,Inc.

ATI I.D. # 9301-118

PCB ANALYSIS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: STATION #9-3883	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8080	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
PCB 1016	0.033	ND
PCB 1221	0.033	ND
PCB 1232	0.033	ND
PCB 1242	0.033	ND
PCB 1248	0.033	ND
PCB 1254	0.033	ND
PCB 1260	0.033	ND

SURROGATE PERCENT RECOVERIES

DECACHLOROBIPHENYL	83
DIBUTYLCHLORENDATE	101

Analytical Technologies, Inc.

ATI I.D. # 9301-118-8

PCB ANALYSIS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: SE, C.S., WEST	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8080	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
PCB 1016	0.038	ND
PCB 1221	0.038	ND
PCB 1232	0.038	ND
PCB 1242	0.038	ND
PCB 1248	0.038	ND
PCB 1254	0.038	ND
PCB 1260	0.038	ND

SURROGATE PERCENT RECOVERIES

DECACHLOROBIPHENYL	81
DIBUTYLCHLORENDATE	82

Analytical**Technologies,**Inc.

ATI I.D. # 9301-118-9

PCB ANALYSIS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: SE, C.S., SOUTH	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8080	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
PCB 1016	0.040	ND
PCB 1221	0.040	ND
PCB 1232	0.040	ND
PCB 1242	0.040	ND
PCB 1248	0.040	ND
PCB 1254	0.040	ND
PCB 1260	0.040	ND

SURROGATE PERCENT RECOVERIES

DECACHLOROBIPHENYL	82
DIBUTYLCHLORENDATE	83

Analytical Technologies, Inc.

ATI I.D. # 9301-118-10

PCB ANALYSIS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: SE, C.S., EAST	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8080	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
PCB 1016	0.038	ND
PCB 1221	0.038	ND
PCB 1232	0.038	ND
PCB 1242	0.038	ND
PCB 1248	0.038	ND
PCB 1254	0.038	ND
PCB 1260	0.038	ND

SURROGATE PERCENT RECOVERIES

DECACHLOROBIPHENYL	83
DIBUTYLCHLORENDATE	92

Analytical Technologies, Inc.

ATI I.D. # 9301-118

PCB ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN - NORTHERN, INC.	SAMPLE I.D. #	: 9301-118-8
PROJECT #	: STATION #9-3883	DATE EXTRACTED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 01/27/93
EPA METHOD	: 8080	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PCB 1260	ND	0.383	0.370	97	0.369	96	0

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9301-118

PCB ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN - NORTHERN, INC.	SAMPLE I.D. #	: BLANK SPIKE
PROJECT #	: STATION #9-3883	DATE EXTRACTED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 01/27/93
EPA METHOD	: 8080	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PCB 1260	ND	0.333	0.327	98	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical**Technologies,**Inc.

ATI I.D. # 9301-118

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: STATION #9-3883	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 01/26/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.025	ND
ETHYLBENZENE	0.025	ND
TOLUENE	0.025	ND
TOTAL XYLENES	0.025	ND
SURROGATE PERCENT RECOVERY		
BROMOFLUOROBENZENE	84	

Analytical Technologies, Inc.

ATI I.D. # 9301-118-1

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: 14W, 6S, -4.5'	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.028	ND
ETHYLBENZENE	0.028	ND
TOLUENE	0.028	ND
TOTAL XYLENES	0.028	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	86

Analytical Technologies, Inc.

ATI I.D. # 9301-118-2

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: 5S, 5E, -4.5'	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	ND
TOTAL XYLENES	0.027	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	93

Analytical Technologies, Inc.

ATI I.D. # 9301-118-3

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: 18S, 2W, -4.5'	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.027	ND
ETHYLBENZENE	0.027	ND
TOLUENE	0.027	ND
TOTAL XYLENES	0.027	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	75

Analytical Technologies, Inc.

ATI I.D. # 9301-118-4

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: 0S, 6E, -4.0'	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.028	ND
ETHYLBENZENE	0.028	ND
TOLUENE	0.028	ND
TOTAL XYLENES	0.028	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	75

Analytical Technologies, Inc.

ATI I.D. # 9301-118-5

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: 12S, 8W, -5.0'	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.028	ND
ETHYLBENZENE	0.028	ND
TOLUENE	0.028	ND
TOTAL XYLENES	0.028	0.052

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	87

Analytical Technologies, Inc.

ATI I.D. # 9301-118-6

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: 18W, 3S, -6.0'	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.028	ND
ETHYLBENZENE	0.028	ND
TOLUENE	0.028	ND
TOTAL XYLENES	0.028	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	72

Analytical Technologies, Inc.

ATI I.D. # 9301-118-7

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: 9W, 4N, -4.0'	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.028	ND
ETHYLBENZENE	0.028	ND
TOLUENE	0.028	ND
TOTAL XYLENES	0.028	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	70

Analytical Technologies, Inc.

ATI I.D. # 9301-118-8

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: SE, C.S., WEST	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.029	ND
ETHYLBENZENE	0.029	ND
TOLUENE	0.029	ND
TOTAL XYLENES	0.029	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	69

Analytical Technologies, Inc.

ATI I.D. # 9301-118-9

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: SE, C.S., SOUTH	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.030	ND
ETHYLBENZENE	0.030	ND
TOLUENE	0.030	ND
TOTAL XYLENES	0.030	ND

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	79

Analytical Technologies, Inc.

ATI I.D. # 9301-118-10

VOLATILE ORGANIC COMPOUNDS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: SE, C.S., EAST	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8020 (BETX)	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
BENZENE	0.028	0.030
ETHYLBENZENE	0.028	0.86
TOLUENE	0.028	0.84
TOTAL XYLENES	0.028	8.4

SURROGATE PERCENT RECOVERY

BROMOFLUOROBENZENE	95

Analytical Technologies, Inc.

ATI I.D. # 9301-118

VOLATILE ORGANIC COMPOUNDS
QUALITY CONTROL DATA

CLIENT	: CHEN - NORTHERN, INC.	SAMPLE I.D.	: 9301-092-15
PROJECT #	: STATION #9-3883	DATE EXTRACTED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 01/27/93
EPA METHOD	: 8020 (BETX)	MATRIX	: SOIL
		UNITS	: mg/Kg

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % REC	RPD
BENZENE	ND	1.00	0.664	66	0.749	75	12
TOLUENE	ND	1.00	0.804	80	0.875	88	8
TOTAL XYLENES	ND	2.00	1.73	87	1.85	93	7

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9301-118

VOLATILE ORGANIC COMPOUNDS
QUALITY CONTROL DATA

CLIENT	: CHEN - NORTHERN, INC.	SAMPLE I.D.	: BLANK SPIKE
PROJECT #	: STATION #9-3883	DATE EXTRACTED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 01/26/93
EPA METHOD	: 8020 (BETX)	MATRIX	: SOIL
		UNITS	: mg/Kg

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % REC	RPD
BENZENE	ND	1.0	0.892	89	N/A	N/A	N/A
TOLUENE	ND	1.0	0.899	90	N/A	N/A	N/A
TOTAL XYLENES	ND	2.0	1.78	89	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9301-118

FUEL HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: N/A
PROJECT #	: STATION #9-3883	DATE RECEIVED	: N/A
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 01/26/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	95	

Analytical Technologies, Inc.

ATI I.D. # 9301-118-1

FUEL HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: 14W, 6S, -4.5'	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	6	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	71	

Analytical Technologies, Inc.

ATI I.D. # 9301-118-2

FUEL HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: 5S, 5E, -4.5'	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	76	

Analytical Technologies, Inc.

ATI I.D. # 9301-118-3

FUEL HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: 18S, 2W, -4.5'	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	5	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	84	

Analytical Technologies, Inc.

ATI I.D. # 9301-118-4

FUEL HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: 0S, 6E, -4.0'	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	6	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	72	

Analytical Technologies, Inc.

ATI I.D. # 9301-118-5

FUEL HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: 12S, 8W, -5.0'	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	6	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	77	

Analytical Technologies, Inc.

ATI I.D. # 9301-118-6

FUEL HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: 18W, 3S, -6.0'	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	6	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	78	

Analytical Technologies, Inc.

ATI I.D. # 9301-118-7

FUEL HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: 9W, 4N, -4.0'	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	6	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	63	

Analytical Technologies, Inc.

ATI I.D. # 9301-118-8

FUEL HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: SE, C.S., WEST	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	6	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	74	

Analytical Technologies, Inc.

ATI I.D. # 9301-118-9

FUEL HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: SE, C.S., SOUTH	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	6	ND
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	75	

Analytical Technologies, Inc.

ATI I.D. # 9301-118-10

FUEL HYDROCARBON ANALYSIS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE SAMPLED	: 01/22/93
PROJECT #	: STATION #9-3883	DATE RECEIVED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE EXTRACTED	: 01/26/93
CLIENT I.D.	: SE, C.S., EAST	DATE ANALYZED	: 01/27/93
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
METHOD	: WA DOE WTPH-G	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUND	MDL	RESULT
FUEL HYDROCARBONS	6	370
HYDROCARBON RANGE		TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING		GASOLINE
SURROGATE PERCENT RECOVERY		
TRIFLUOROTOLUENE	80	

Analytical Technologies, Inc.

ATI I.D. # 9301-118

FUEL HYDROCARBON ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN - NORTHERN, INC.	SAMPLE I.D. #	: 9301-118-6
PROJECT #	: STATION #9-3883	DATE EXTRACTED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 01/27/93
METHOD	: WA DOE WTPH-G	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
FUEL HYDROCARBONS (GASOLINE)	ND	ND	NC	N/A	N/A	N/A	N/A	N/A	N/A

NC = Not Calculable.

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9301-118

FUEL HYDROCARBON ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN - NORTHERN, INC.	SAMPLE I.D. #	: 9301-092-15
PROJECT #	: STATION #9-3883	DATE EXTRACTED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 01/27/93
METHOD	: WA DOE WTPH-G	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
FUEL HYDROCARBONS (GASOLINE)	ND	5.00	71.8	72	75.8	76	5

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9301-118

FUEL HYDROCARBON ANALYSIS
QUALITY CONTROL DATA

CLIENT	: CHEN - NORTHERN, INC.	SAMPLE I.D. #	: BLANK SPIKE
PROJECT #	: STATION #9-3883	DATE EXTRACTED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 01/26/93
METHOD	: WA DOE WTPH-G	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
FUEL HYDROCARBONS (GASOLINE)	ND	100	92.6	93	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9301-118

TOTAL PETROLEUM HYDROCARBONS
DATA SUMMARY

CLIENT	: CHEN - NORTHERN, INC.	DATE EXTRACTED	: 01/26/93
PROJECT #	: STATION #9-3883	DATE ANALYZED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	UNITS	: mg/Kg
EPA METHOD	: WA DOE WTPH-418.1 MODIFIED	SAMPLE MATRIX	: SOIL

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

ATI I.D. #	CLIENT I.D.	TOTAL PETROLEUM HYDROCARBONS MDL	RESULTS	RESULTS*
9301-118-8	SE, C.S., WEST	23	400	400
9301-118-9	SE, C.S., SOUTH	24	410	400
9301-118-10	SE, C.S., EAST	23	280	270
METHOD BLANK	-	20	ND	ND

* Reanalyzed after second aliquot of silica gel added.

Analytical Technologies, Inc.

ATI I.D. # 9301-118

TOTAL PETROLEUM HYDROCARBONS
QUALITY CONTROL DATA

CLIENT	: CHEN - NORTHERN, INC.	SAMPLE I.D. #	: ICV
PROJECT #	: STATION #9-3883	DATE EXTRACTED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 01/26/93
EPA METHOD	: WA DOE WTPH-418.1 MODIFIED	UNITS	: mg/L
SAMPLE MATRIX	: WATER		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (MOTOR OIL)	N/A	N/A	N/A	100	100	100	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9301-118

TOTAL PETROLEUM HYDROCARBONS
QUALITY CONTROL DATA

CLIENT	: CHEN - NORTHERN, INC.	SAMPLE I.D. #	: 9301-092-4
PROJECT #	: STATION #9-3883	DATE EXTRACTED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 01/26/93
EPA METHOD	: WA DOE WTPH-418.1 MODIFIED	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (MOTOR OIL)	72	91	23	400	451	95	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9301-118

TOTAL PETROLEUM HYDROCARBONS
QUALITY CONTROL DATA

CLIENT	: CHEN - NORTHERN, INC.	SAMPLE I.D. #	: BLANK SPIKE
PROJECT #	: STATION #9-3883	DATE EXTRACTED	: 01/26/93
PROJECT NAME	: CHEVRON - YAKIMA	DATE ANALYZED	: 01/26/93
EPA METHOD	: WA DOE WTPH-418.1 MODIFIED	UNITS	: mg/Kg
SAMPLE MATRIX	: SOIL		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
PETROLEUM HYDROCARBONS (MOTOR OIL)	ND	N/A	N/A	400	432	108	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spiked Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Spike Result} - \text{Dup. Spike Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

ATI I.D. # 9301-118

GENERAL CHEMISTRY ANALYSIS

CLIENT : CHEN - NORTHERN, INC.
PROJECT # : STATION #9-3883
PROJECT NAME : CHEVRON - YAKIMA

MATRIX : SOIL

PARAMETER	DATE ANALYZED
MOISTURE	01/26/93

Analytical**Technologies,**Inc.

ATI I.D. # 9301-118

GENERAL CHEMISTRY ANALYSIS
DATA SUMMARY

CLIENT : CHEN - NORTHERN, INC. MATRIX : SOIL
PROJECT # : STATION #9-3883
PROJECT NAME : CHEVRON - YAKIMA UNITS : %

ATI I.D. #	CLIENT I.D.	MOISTURE MDL	RESULT
9301-118-1	14W, 6S, -4.5'	0.5	11
9301-118-2	5S, 5E, -4.5'	0.5	6.7
9301-118-3	18S, 2W, -4.5'	0.5	5.9
9301-118-4	0S, 6E, -4.0'	0.5	11
9301-118-5	12S, 8W, -5.0'	0.5	9.8
9301-118-6	18W, 3S, -6.0'	0.5	10
9301-118-7	9W, 4N, -4.0'	0.5	9.7
9301-118-8	SE, C.S., WEST	0.5	13
9301-118-9	SE, C.S., SOUTH	0.5	16
9301-118-10	SE, C.S., EAST	0.5	12

Analytical Technologies, Inc.

ATI I.D. # 9301-118

GENERAL CHEMISTRY ANALYSIS
QUALITY CONTROL DATA

CLIENT : CHEN - NORTHERN, INC. MATRIX : SOIL
PROJECT # : STATION #9-3883
PROJECT NAME : CHEVRON - YAKIMA UNITS : %

PARAMETER	ATI I.D.	SAMPLE RESULT	DUP RESULT	RPD	SPIKED RESULT	SPIKE ADDED	% REC
MOISTURE	9301-118-8	13	13	0	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

AnalyticalTechnologies, Inc.
560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228-8335

DATE: 1-25-93 Page 1 of 1 ATI ACCESSION #

COMPANY: Chem-Northern Inc.
REPORT TO: Paul Daniels / Clint Rogers
ADDRESS: 2214 N. 4th Ave
Pasco WA 99301
PHONE: (509) 547-1671 FAX: (509) 547-1673
PROJECT MANAGER: Clint Rogers
PROJECT NUMBER: Station No # 9-3883
PROJECT NAME: Chevron - Katrina
ATI will ~~DISPOSE~~ / RETURN samples (circle one)

Sample ID	Date	Time	Matrix	LabID
14 W, 6S, -4.5'	1/22	3:00	Soil	
5S, 5E, -4.5'				
18S, 2W, -4.5'				
0S, 6E, -4.0'				
12S, 8W, -5.0'				
18W, 3S, -6.0'				
9W, 4N, -4.0'				
SE, C.S., west				
SE, C.S., South				
SE, C.S., East				

	FUELS										ORGANIC COMPOUNDS										METALS				TCLP					OTHER					
	TPH-HCID	BETX/TPH-G combo WA/OR	BETX (by 8020) WA/OR	TPH-G WA/OR	TPH-D WA/OR	8015 modified	418.1 WA/OR	413.2	AK-GRO	AK-DRO	8240 GCMS Volatiles	8270 GCMS Semivolatiles	8080 Pesticides/PCBs	PCB only (by 8080) STD/lo level	8010 Halogenated VOCs	8020 Aromatic VOCs	8310 HPLC PAHs	8040 Phenols	8140 OP Pesticides	8150 OC Herbicides	Metals (Indicate below *)	Total Lead	Priority Pollutant Metals (13)	TAL Metals (23)	TCLP-Volatiles (ZHE-8240)	TCLP-Semivolatiles (8270)	TCLP-Pesticides (8080)	TCLP-Herbicides (8150)	TCLP-Metals (8 metals)	% Moisture (please indicate)					Total # of Containers/sample
14 W, 6S, -4.5'	X																																	1
5S, 5E, -4.5'	X																																	1
18S, 2W, -4.5'	X																																	1
0S, 6E, -4.0'	X																																	1
12S, 8W, -5.0'	X																																	1
18W, 3S, -6.0'	X																																	1
9W, 4N, -4.0'	X																																	1
SE, C.S., west	X						X							X																				3
SE, C.S., South	X						X							X																				3
SE, C.S., East	X						X							X																				3

Turnaround Time		Sample Receipt	
STANDARD TAT		TOTAL # CONTAINERS RECVD	
1 WEEK TAT		COC SEALS PRESENT?	
4 WORK DAY TAT		COC SEALS INTACT?	
3 WORK DAY TAT		RECEIVED COLD?	
2 WORK DAY TAT		RECEIVED INTACT?	
24 HOUR TAT	X	RECEIVED VIA:	

Special Instructions: Fax results to Clint Rogers at (510) 842-8252, Special Billing

* Metals needed:

Relinquished By:	Relinquished By:	Relinquished By:
Date: 1-25-93	Date:	Date:
Time: 8:00	Time:	Time:
Received By:	**Received By:**	**Received By:**
Date:	Date:	Date:
Time:	Time:	Time:

Corporate Offices: 5550 Morehouse Drive, San Diego, CA 92121 (619) 458-9141

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