9] [EB] MID: 02



Chevron Products Company 6001 Bollinger Canyon Road Building L San Ramon, CA 94583 P.O. Box 6004 San Ramon, CA 94583-0904

Marketing - Sales West Phone 510 842-9500

Ms. Susan Hugo Alameda County Health Care Services Department of Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

Re: Chevron Service Station #9-1740 9580 Moraga Avenue Oakland, California

Dear Ms. Hugo:

Enclosed is the UST and Product Piping Removal and Overexcavation Soil Sampling Report, prepared by our consultant Touchstone Developments for the above noted facility. This report documents the removal of four underground storage tanks and related piping along with the overexcavation of soils and other related construction activities pertaining to the reconstruction of this site.

The four tanks were removed in the presence of Mr. Barney Chan of your office. No holes were detected in the tanks. After removal of the old tanks, overexcavation occurred, including the installation of steel shoring, to facilitate the installation of new double wall fiberglass tanks. In the course of the excavation, groundwater was encountered in the bottom of the tank excavation. To facilitate the installation of the new tanks the groundwater was pumped out of the excavation through a treatment system and than into the sanitary sewer. Approximately 35,000 gallons of water was treated and discharged into the sewer. The last analytical sample taken of the discharged water was within required limits and in accordance with EBMUD guidelines (see Table B).

Soil samples were collected in the tank excavation bottom and along the sidewalls. Refer to the attached Figures 2 and 3, and Table A for the locations where the samples were taken and the analytical results. Due to the UST locations and the dispenser configurations, most of the product piping was installed over and along the edge of the existing UST excavation. Therefore, no product piping trenches or dispenser areas were sampled.

Approximately 775 cubic yards of soil was removed during the excavation and overexcavation activities and this soil was stockpiled on site. Samples were taken of the stockpiled soil and analyzed for the constituents as noted in Table C. The stockpiled soil was than transported by Allwaste Transportation and Remediation to Browning-Ferris Industries Vasco Road facility in Livermore and Redwood Landfill in Novato.

It appears that the most highly impacted hydrocarbon soil has been removed from this site during the course of the reconstruction, and natural attenuation of any remaining hydrocarbon impacted soil is expected to take place. To confirm that this process of natural attenuation is occurring, Chevron will continue to monitor the site quarterly through the existing groundwater monitoring wells located on the site. If you have any questions are comments, call me at (510) 842-9136.

January 31, 1997 Ms. Susan Hugo Chevron Service Station # 9-1740 Page 2

Sincerely,

CHEVRON PRODUCTS COMPANY

Philip R. Briggs

Site Assessment and Remediation Project Manager

Enclosure

cc. Mr. Bill Scudder, Chevron

Mr. Eddie So RWQCB-San Francisco Bay Region 2101 Webster Street, Suite 500 Oakland, CA 94612



UST and Product Piping Removal and Overexcavation Soil Sampling Report

Chevron Service Station Number 9-1740 6550 Moraga Avenue Oakland, California

prepared for

Chevron Products Company 6001 Bollinger Canyon Road San Ramon, California

prepared by

Touchstone Developments

Jeff Monroe
Project Manager

December 21, 1996

INTRODUCTION

This report prepared by Touchstone Developments (Touchstone) documents the removal of three gasoline and one diesel Underground Storage Tanks (USTs), and associated piping at Chevron Station No. 9-1740, located at 6550 Moraga Avenue, Oakland, California (Figure 1). In addition, this report documents minor overexcavation activities, soil stockpile sampling and the disposal of soils generated at this site during the UST removal and subsequent UST replacement activities. Two backfill wells located with in the UST excavation limits were also removed along with the USTs. The UST and product piping removals were performed on May 10, 1996. Additional soil excavation was performed and soil verification samples were collected on May 16, 22, 24, and June 26, 1996. Soil stockpiles were sampled on May 10, 1996 and June 26, 1996.

Also performed and documented in this report is the collection of one groundwater sample from one UST excavation backfill well and the operation of a portable treatment system during dewatering activities at the site.

SITE CONDITIONS

The property is triangular in shape and is bordered on two sides; by Mountain Boulevard to the east and Moraga Avenue to the west. The site is located with in a retail business district. The service station facilities consisted of four (three gasoline and one diesel) 10,000-gallon single wall fiberglass storage tanks, one 1,000-gallon used-oil tank, two dispenser islands and associated product piping, and a station building with two service bays. The used-oil tank was replaced in August 1992. Groundwater was observed in the two on-site UST backfill wells between 2 and 6 feet below ground surface (bgs).

SERVICE STATION FIELD ACTIVITIES

USTs and associated piping removal, excavation, and backfill was performed by Armer/Norman & Associates, Inc. of Walnut Creek, California. A Touchstone representative was on site to observe the removal/excavation activities, and to collect soil samples from the excavations and soil stockpiles. Leroy Griffin from the City of Oakland Fire Department and Barney Chan of the Alameda County Department of Environmental Health (ACDEH), was present during the UST and piping removals. Also onsite were Doyle Warnock and Phil Briggs of Chevron Products Company. Transportation and disposal of the USTs and associated piping was accomplished by Erickson, Inc. of Richmond, California.

UST Sampling

Soil samples T1-7.5', T2-7.5', T3-8.0', T4-6.0', T5-5.5', T6-5.5', T7-5.0', and T8-4.0' were collected just above encountered groundwater from the sidewalls adjacent to the gasoline and diesel USTs, in native soil, between 4.0 and 8.0 feet below ground surface (bgs) as directed by the ACDEH. The resulting UST excavation was irregular in shape (see Figure 2). Steel shoring was placed by the contractor after the UST removals to facilitate the installation of the new USTs. Soil sample locations are shown on Figure 2 and analytical data and sample depths are presented in Table A.

Dispenser and Product Piping Sampling

Because of the shape of the facility and UST /dispenser island configuration, most of the product piping was installed over and along the edge of the existing UST excavation. Therefore, there were no product piping trenches or dispensers to be sampled (Figure 1).

OVEREXCAVATION SAMPLING ACTIVITIES

UST Excavation Activities

The overexcavation of soils to groundwater was performed to remove residual hydrocarbon contamination in the vicinity of the eastern former dispenser island, and soil sample T8-4.0'. On May 22, 1996, soil samples TX1-8.0' and TX2-8.0' were collected from the UST overexcavation sidewalls at 8 feet below grade, and on May 24, 1996 samples TX3-3.0' and TX4-5.0' were collected from the bottom and sidewall of the advancing, shallower overexcavation in the area east of the dispenser island. Due to the physical constraints of construction, this left a bench in a wedge shape between the deeper excavation up to the sidewalk (Figure 3). Soil samples TX5-4.0', TX6-5.0' and TX7-3.0' were collected on May 26, 1996 from the overexcavation sidewalls and bottom of the western dispenser island (Figure 3). The former UST excavation was deepened to approximately 17.5 feet bgs to accept the new USTs and soil samples TB1-17.5', TB2-17.5' and TB3-17.0' were collected from native material at the base of the excavation as requested by Susan Hugo of the ACDEH.

Approximately 775 cubic yards (cy) of soil were removed during the UST complex excavation and overexcavation activities and stockpiled onsite. The extent of the final UST overexcavation and soil sample locations are shown on Figures 2 and 3 and soil sample analytical data are presented in Table A.

STOCKPILE SAMPLING AND DISPOSAL

Soil stockpiles SP-1(A-D) through SP-7(A-D) represent approximately 700 cy of soil generated from UST removals and overexcavation activities. Soil stockpile sample TRSP-1 (A-D) represents an additional 75 cy of soil generated from the overexcavation the western dispenser island. Due to the lack of space available, most stockpiles were left in the excavation until they were loaded into trucks for transportation. Four soil samples were collected, combined in the laboratory and analyzed as one sample for approximately every 50 to 100 cy of stockpiled material. Upon receipt of chemical analytical data, stockpiles represented by composite samples SP-1(A-D) and TRSP-1(A-D) were transported by Allwaste Transportation and Remediation, Inc. (Allwaste) to Browning-Ferris Industries' (BFIs') Vasco Road facility located in Livermore, California. Soil stockpiles represented by composite samples SP-2(A-D) through SP-7(A-D) were transported by Allwaste to Redwood Landfill located in Novato, California. Soil stockpile analytical results are summarized in Table C.

GROUNDWATER DISCHARGE

Groundwater was encountered between 3 and 8 feet bgs in the UST excavation backfill wells. It was necessary to remove the encountered groundwater to facilitate the tank replacement activities. A sanitary sewer discharge permit was secured from the East Bay Municipal Utilities District (EBMUD) to allow for discharge of ground water from the UST excavation to the sanitary sewer. EBMUD Wastewater Discharge Permit number 503-36791 was issued on May 10, 1996. A copy of the EBMUD discharge permit is presented in Appendix A. The permit required groundwater to be treated prior to discharge and a temporary system consisting of a trash pump, sediment filter, two 2,000-pound carbon vessels and a flowmeter was constructed. Approximately 35,000 gallons of treated water were discharged to the sanitary sewer between May 20, 1996 and May 24, 1996.

Groundwater discharge compliance sampling was performed in accordance with the EBMUD discharge permit. One effluent sample was collected on May 20, 1996 and designated System 1. Analytical results for this sample were within the required permit discharge limits for discharge to the sanitary sewer except for the mineral zinc. A Notice of Violation, dated May 30, 1996, was sent from the EBMUD to Chevron. Chevron prepared a response dated June 7, 1996, to the EBMUD describing the potential causes of the elevated zinc levels (old galvanized pipes) and corrective measures taken. A second sample was collected prior to shutting down the system on May 24, 1996, to verify the zinc concentrations were below EBMUD's requirements and designated System 2.

The results of this sample were with in the required limits for discharge and in accordance with the EBMUD guidelines. Permit compliance water sample analytical data are summarized in Table B.

SAMPLING PROTOCOL

Verification soil samples were collected from the excavation sidewalls and/or bottoms at various depths or where hydrocarbon impact was suspected. Soil samples were collected from the excavator or backhoe bucket by removing the top few inches of soil and pushing a clean, six-inch-long, two-inch diameter, brass sample tube into the soil until completely full. The ends of the sample tubes were covered with aluminum foil and sealed with plastic end caps. The samples were then labeled, placed in a cooler with ice, entered on a Chain-of-Custody form and transported to Sequoia Analytical, a State-certified environmental laboratory located in Redwood City, California.

Stockpile Sampling

Four soil samples were collected for approximately every 75 to 100 cy of material generated. The four samples were then combined in the laboratory and analyzed as one. All stockpile samples were collected by removing the top 6 to 12 inches of soil, then pushing a sample tube or glass jar into the soil until completely full. The samples were sealed, labeled and handled as described above.

SAMPLE ANALYSIS

Soil samples collected from the gasoline and diesel UST excavation, dispenser island overexcavation, and associated stockpiles were analyzed for one or more of the following as per the ACDEH: Total Petroleum Hydrocarbons calculated as gasoline (TPH-Gasoline) and Total Petroleum Hydrocarbons calculated as Diesel (TPH-Diesel) according to EPA Method 8015 (Modified), MTBE, Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) according to EPA Method 8020, and Total Lead according to EPA SW-846 6010.

The groundwater samples collected from the UST backfill well and temporary pre-treatment discharge system were analyzed for one or more of the following as per the EBMUD and ACDEH: TPH-Gasoline, TPH-Diesel, BTEX, Volatile Organic Compounds (VOCs) according to EPA Method 8240, Copper, Lead, and Zinc according to EPA Method SW-846 6010, and Inorganic Persistent and Bioaccumulative Toxic Substances: TTLC (CAM 17 Metals) according to Title 22

of the California Code of Regulations. Copies of the analytical laboratory reports and Chain-of-Custody forms are presented in Appendix B.

List of Attachments

Table A Table B Table C	Soil and Groundwater Sampling Summary Discharge Water Sampling Summary Soil Stockpile Sampling Summary
Figure 1 Figure 2 Figure 3	Site Plan UST Complex Soil Sampling Map Overexcavation Soil Sampling Map
Appendix A Appendix B	EBMUD Discharge Permit Chemical Analytical Reports and Chain-of-Custody Forms

TABLE A

SOIL AND GROUNDWATER SAMPLING SUMMARY

Chevron Service Station No. 9-1740

6550 Moraga Avenue, Oakland, California

Results in mg/Kg - parts per million (ppm), unless otherwise noted

UST EXCAVATION SAMPLING RESULTS

SAMPLE ID	DEPTH (ft.)	DATE	TPH-Diesel	TPH- Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylenes	MTBE	Lead
T1-7.5'	7.5	10-May-96	13	50	0.15	ND	0.29	0.13	0.14	11
T2-7.5'	7.5	10-May-96	1.7	ND	ND	ND	ND	ND	ND	12
T3-8.0'	8	10-May-96	1.1	ND	ND	ND	ND	ND	ND	8.2
T4-6.0'	6	10-May-96	1.2	ND	ND	ND	ND	0.0053	1.0	8.9
T5-5.5'	5.5	10-May-96	4.6	70	0.32	ND	0.37	0.33	0.52	7.1
T6-6.5'	5.5	10-May-96	140	170	0.71	ND	3.0	1.0	1.1	7.9
T7-5.0'	5	10-May-96	90	320	1.8	ND	3.5	1.1	2.9	11
T8-4.0'	4	10-May-96	1,200	1,100	2.9	14	19	22	ND	16

UST OVEREXCAVATION SAMPLING RESULTS

SAMPLE ID	DEPTH (ft.)	DATE	TPH-Diesel	TPH- Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylenes	МТВЕ	Lead
TB1-17.5'	17.5	16-May-96	ND	ND	ND	ND	ND	0.0052	0.034	NA
TB2-17.5'	17.5	16-May-96	ND	ND	ND	ND	ND	ND -	0.051	NA
TB3-17.0'	17	17-May-96	1.0	ND	ND	ND	ND	ND	ND	NA
TX1-8.0'	8	22-May-96	1.1	ND	ND	ND	ND	ND	NA NA	NA NA
TX2-8.0'	8.	22-May-96	- 35	8 .1	ND	ND	0.012	0.02	NA NA	NA NA
TX3-3.0'	3	24-May-96	5.6	17	0.096	0.075	0.089	0.019	NA NA	NA NA
TX4-5.0'	5	24-May-96		800	16	5.4	4.2	16	NA NA	NA NA
TX5-4.0'	4	26-Jun-96	130	160	1	0.28	0.63	0.71		
TX6-3.0'	3	26-Jun-96	8.4	5.9	0.5	0.0059	0.03	0.039	ND 0.67	4.6
TX7-3.0'	3	26-Jun-96	200	780	3.9	0.0033	19	6.5	0.67 ND	5.5 7.4

TABLE A

SOIL AND GROUNDWATER SAMPLING SUMMARY Chevron Service Station No. 9-1740

6550 Moraga Avenue, Oakland, California

Results in mg/Kg - parts per million (ppm), unless otherwise noted

UST EXCAVATION GROUNDWATER SAMPLING RESULTS

SAMPLE ID	DATE	TPH-Diesel (ppb)	TPH- Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- Benzene (ppb)	Xylenes (ppb)	EPA 8240 (ppb)	CAM 17 TTLC (ppm)
BFH20	9-Apr-96	3,500	6,000	25	36	ND	ND	ND*	Ba 1.5 Cu 0.045 Zn 0.054

NOTES:

Sample BFH20 was collected from an ensite UST backfill well.

TPH-Diesel = Total Petroleum Hydrocarbons calculated as diesel.

TPH-Gasoline = Total Petroleum Hydrocarbons calculated as gasoline.

MTBE = Methyl t-Butyl Ether

ND = Not detected at or above the laboratory detection limits.

NA = Not Analyzed.

ppb = Parts per Billion, results reported in ug/L by the laboratory.

ppm = Parts per Million, results reported in mg/Kg by the laboratory.

CAM 17 = TTLC extraction of 17 metals. Detectable parameters listed. See CAR for complete list of parameters.

* EPA 8240 = All analytes reported as ND. See CAR for list of parameters.

TABLE B

DISCHARGE WATER SAMPLING SUMMARY Chevron Service Station No. 9-1740

6550 Moraga Avenue, Oakland, California

Results in ug/L - parts per billion (ppb), unless otherwise noted

DISCHARGE WATER SAMPLING RESULTS

SAMPLE ID	DATE	TPH-Diesei (ppb)	TPH- Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Xylenes (ppb)	Copper (ppm)	Lead (ppm)	Zinc (ppm)
System 1	20-May-96	ND	ND	ND	ND	ND	ND	0.039	ND	0.28
System 2	24-May-96	NA	NA	NA	NA	NA	NA	NA	NA	0.019

NOTES:

TPH-Gasoline = Total Petroleum Hydrocarbons calculated as gasoline.

TPH-Diesel = Total Petroleum Hydrocarbons calculated as diesel.

ND = Not detected at or above the laboratory detection limits.

NA = Not Analyzed

ppm = Parts per Million, results reported in mg/Kg by the laboratory

ppb = Parts per Billion, results reported in ug/L by the laboratory

TABLE C

SOIL STOCKPILE SAMPLING SUMMARY

Chevron Service Station No. 9-1740

6550 Moraga Avenue, Oakland, California

Results in mg/Kg - parts per million (ppm)

SOIL STOCKPILE SAMPLING RESULTS

SAMPLE ID	DATE	TPH- Diesel	TPH- Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes	Lead
SP-1 (A-D)	10-May-96	150	100	ND	ND	ND	3.9	ND
SP-2 (A-D)	10-May-96	55	7.3	0.016	0.02	0.012	0.18	ND `
SP-3 (A-D)	10-May-96	61	29	ND	ND	ND	1.1	5.2
SP-4 (A-D)	10-May-96	47	8.1	ND	ND	ND	0.13	ND
SP-5 (A-D)	10-May-96	75	18	ND	ND	ND	0.61	8.4
SP-6 (A-D)	10-May-96	52	32	ND	0.065	0.07	0.87	ND
SP-7 (A-D)	10-May-96	66	20	ND	0.05	0.13	0.12	44
TRSP-1 (A-D)	26-Jun-96	140	170	0.11	0.23	ND	4.2	13

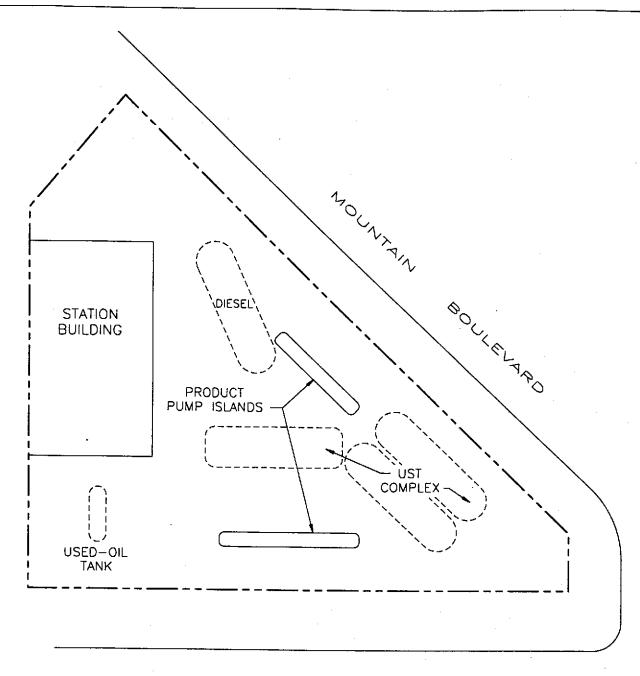
NOTES:

TPH-Gasoline = Total Petroleum Hydrocarbons calculated as gasoline.

TPH-Diesel = Total Petroleum Hydrocarbons calculated as diesel.

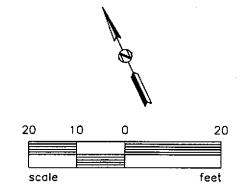
ND = Not detected at or above the laboratory detection limits.

NA = Not Analyzed



MORAGA

AVENUE





Touchstone Developments Environmental Menagement Job. No: 96-1740

Appr:

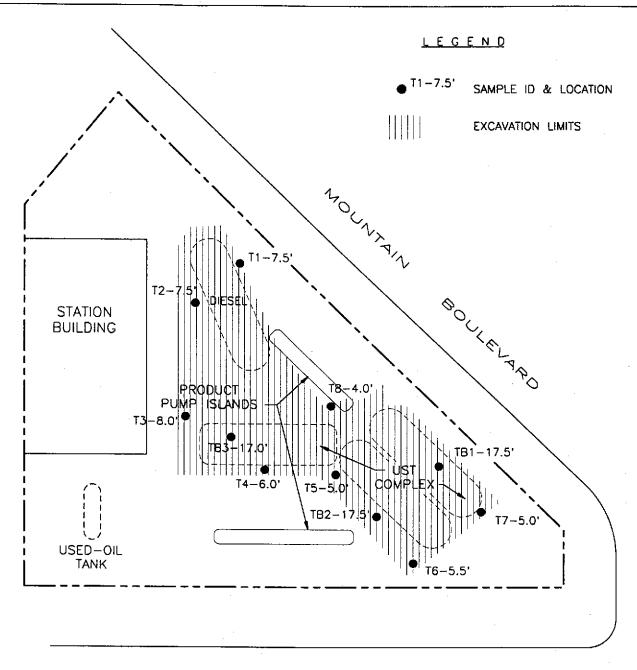
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Date: DEC 1996

SITE PLAN

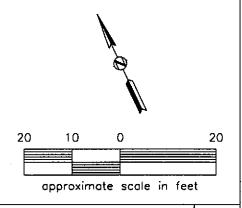
Chevron Station No 9—1740 6550 Moraga Way Moraga, California FIGURE

1



MORAGA

AVENUE





Touchstone Developments Environmental Management Job. No: 96-1740

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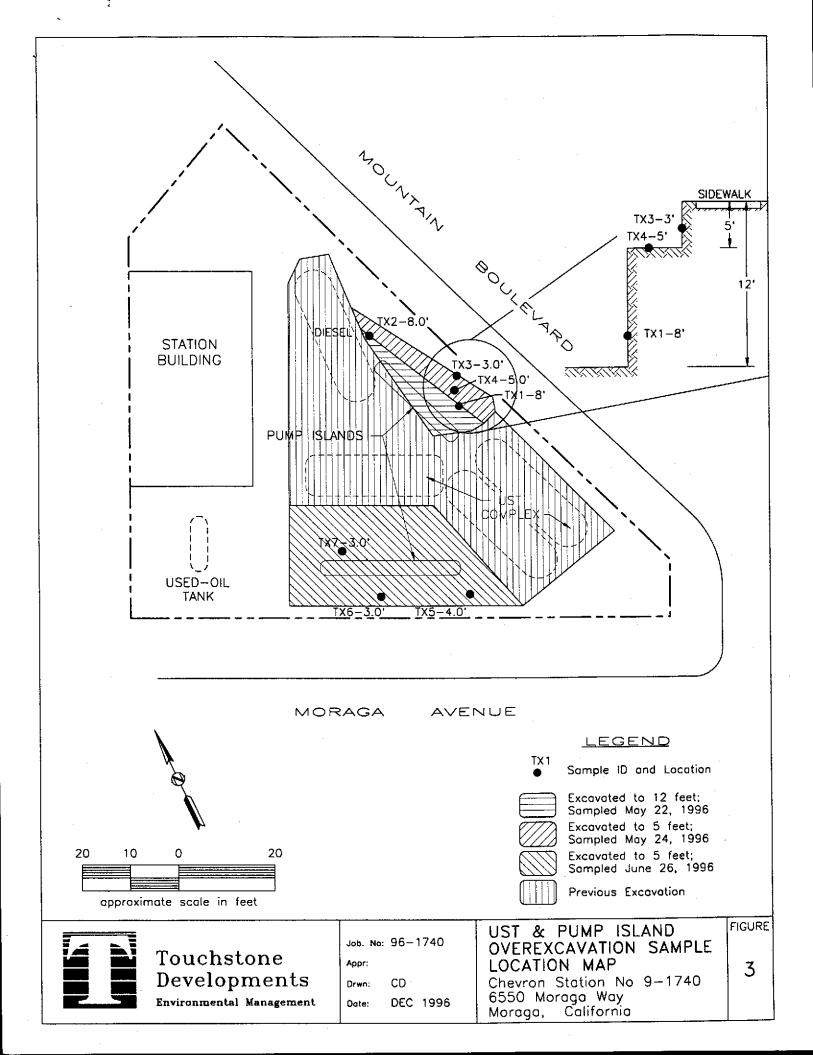
Dote: DEC 1996

UST REMOVAL SAMPLING MAP

Chevron Station No 9-1740

6550 Moraga Way Moraga, California FIGURE

2



APPENDIX A

EBMUD Discharge Permit



CERTIFIED MAIL
(Return Receipt Requested)
Certified Mail No. P 371 126 372

May 10, 1996

Mr. Philip R. Briggs Chevron USA Products Company P.O. Box 5004 San Ramon, CA 94583

Dear Mr. Briggs:

Re: Wastewater Discharge Permit Account Number 503-36791

Enclosed is the Wastewater Discharge Permit for the Chevron Service Station No. 9-1740 groundwater discharge located at 6550 Moraga Avenue, Oakland, effective May 10, 1996 through May 9, 1997. Please read the Terms and Conditions and Standard Provisions and Reporting Requirements attached to the permit. As a permit holder, you are legally responsible for complying with all permit conditions and requirements.

Chevron Service Station No. 9-1740 shall report to the EBMUD Source Control Division any changes, permanent or temporary, to the premises or operations that significantly affect the quality or volume of wastewater discharge or deviate from the Terms and Conditions under which the permit was granted.

If you have any questions regarding this Permit, please contact Raymond A. Maxwell of the Source Control Division at (510) 287-1655.

Sincerely,

JOSEPH G. DAMAS, JR. Manager of Source Control

JGD:RAM:llg

[PERMIT]CHEVRON_503_36791

Enclosures

cc: Robert C. Mallory, Touchstone Developments P.O. Box 2554, Santa Rosa, CA 95405

375 ELEVENTH STREET . OAKLAND . CA 94607-4240 . (510) 835-3000
BOARD OF DIRECTORS JOHN A. COLEMAN . KATY FOULKES . JOHN M. GIOIA
FRANK MELLON . NANCY J. NADEL . MARY SELKIRK . KENNETH H. SIMMONS

CHEVRON USA WC MKTG.

PHICANT BUBINESS NAME

CHEVRON

TEL: 415-842-8370

May 6.96 16:34 No.005 P.02



WASTEWATER DISCHARGE PERMIT APPLICATION

PRODUCTS

PERMIT NUMBER 503-36791

ADDRESS OF FREMISE DISCHARGING WASTEWATER	(33" 4-1740)
6550 MORAGA AVE	BUSINESS MAILING ADDRESS
CAKLAND CA	THEST WORLDS
HIEF EXECUTIVE OFFICER	- SAN ROMON U. 94843
D.C. SMITH	VICE FRESIDENT IN THE MAN
575 MONKET PINEET	SAN FRONCISCO
PERSON TO BE CONTACTED ABOUT THIS APPLICATION	PERSON TO BE CONTACTED IN EVENT OF EMERGENCY
MALLORY MASSELT MANGGER (SIO) 658-6872 PHONE	- 120 20 20 20 20 20 20 20 20 20 20 20 20 2
	PAY PHONE NIGHT CHONE RNED WITH THE PERMIT APPLICATION:
PROCESS DESCRIPTION	OEBCRIPTION OF TREATMENT SYSTEM
WATER BALANCE CALCULATIONS	SELF-MONITORING METHOD
WASTEWATER STRENGTH DATA BASE	8 PILL PREVENTION AND CONTAINMENT PLAN
SCHEMATIC FLOW DIAGRAM	A LIST OF ALL ENVIRONMENTAL PERMITS
BUILDING LAYOUT PLAN	OTHER Source of Polyments: Prolication for \$2,410

PROVISIONS

Applicant will comply with the EBMUD Westewater Control Ordinance and all applicable rules and regulations.

Applicant will report to EBMUD. Wastewater Department any changes, permanent or temporary, to the premise or operations that significantly change the quality or volume of the wastewater discharge or deviation from the terms and conditions under which this permit is granted.

CERTIFICATION

serify under penulty of lew that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that the qualified personnel properly gettier and evaluate the information submitted. Based on my houly of the person of persons who manage the system, or thuse persons directly responsible for gethering information, the nformation submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant sensities for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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AMS (Gas sadification	1 10 mpd	remente	VII FOR	10/09)

PLANE R B-595

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5-6-96 DATE



CHEVRON SERVICE STATION #9-1740

BUSINESS NAME

Process Description

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OTHER W	ASTES — List the type and volume of liquid was	ste and	sludges removed from th	e premises by	means other	r than the
communit	y sewer.				<u> </u>	
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(^	lame, address and State Transporter ID No.)		eatment sludge)		I.D. No.	(lbs)(gal)/mo
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Water Balance / Strength Summary

PURPOSE: This information will enable EBMUD to evaluate the volumes, source(s) a	nd
trengths of wastewater discharged to the community sewer.	

Permit Number

503-36791

WATER USE AND DISPOSITION: Show on a separate sheet the method and calculations used	to determine the
quantities shown in the table.	•

Figures are:

gallons per calendar day

gallons per working day

Number of working days per year 60

	WATER	SUPPLY FR	OM:	WASTEWATER DISCHARGED TO:							
WATER USE	EBMUD OTHER (1)				SIDE SE	OTHER (2)					
į	gal/day	gal/day	CODE	No.1	No	No	No	gal/day	CODE		
Sanitary											
Processes		1									
Boiler											
Cooling						1					
Washing											
Irrigation			1		· · · · · · · · · · · · · · · · · · ·						
Product											
Stormwater											
Other (3)		5,000		5,000							
		į									
		<u> </u>							•		
Subtotal		5,000] .	5,000		L		<u>i</u>			

EBMUD AND OTHER SUPPLY TOTAL 5,000

ALL SIDE SEWERS TOTAL 5,000 *

NOTES:

- 1. Enter the quantity and the appropriate code letter indicating the source:
 - a. Well b. Creek c. Stormwater d. Reclaimed Water e. Raw Materials.
- 2. Enter the quantity and appropriate code letter indicating the discharge point:
 - a. Stormdrain b. Rail, Truck, Barge c. Evaporation d. Product
- 3. Describe Other: <u>Underground storage tank excavation (i.e., groundwater)</u>

* Discharge for initial 5 days will be 20,000 gal/dat at 50-60 gpm

SANITARY DISCHARGE: Please use the following data from the Uniform Plumbing Code, 1985, to determine sanitary wastewater volumes.

Field service employees - 5 gallons per employee per day

Office employees - 20 gallons per employee per day

Production employees - 25 gallons per employee per day

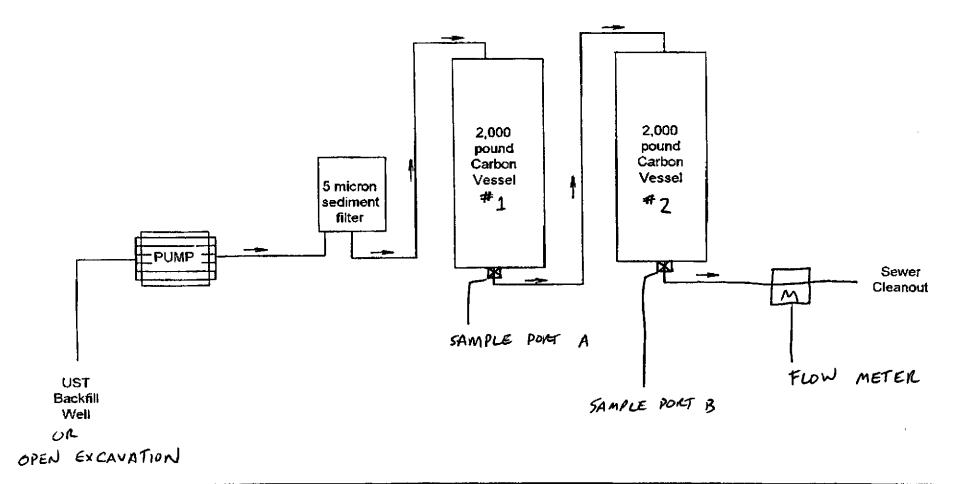
Production employees with showers - 35 gallons per employee per day

Include the effect that seasonal and weekend staffing changes may have on determining average volumes.

AVERAGE WASTEWATER STRENGTH: Data base must be attached, average self-monitoring and EBMUD data.

SIDE SEWER (mg/L)

	No. 1	No	No	No
CODF	15			
TSS	2			





TYPICAL FLOW DIAGRAM

CHEVRON SERVICE STATION NO. 9-1740 6550 Moraga Avenue Oakland, California

FIGURE

PROJECT NO.

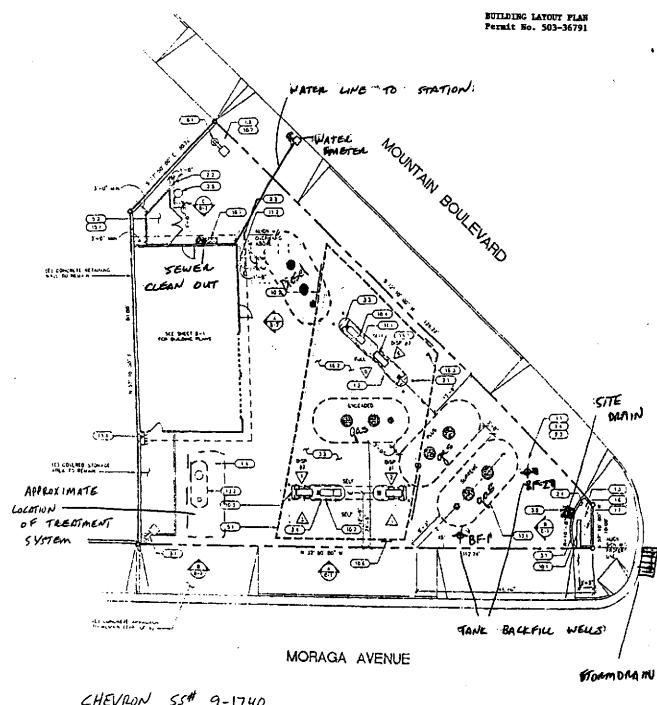
DATE:

DRAWN BY:

BASE MAP

4/96

9-1740



CHEVRON SS# 9-1740 6550 MORAGA AVENUE OAKLAND, CA. 94111



No.

ii Pasu



Terms and Conditions

Chevron Service Station No. 9-1740 Account No. 503-36791 Page 1

GENERAL CONDITIONS

- Chevron Service Station No. 9-1740 shall minimize the discharge of pollutants to the community sewer by reclaiming groundwater and utilizing technically and economically feasible treatment methods described in the Permit Application. Title I, Section 5 of EBMUD Ordinance No. 311 prohibits the discharge of groundwater to the community sewer. This Permit to discharge groundwater is considered a waiver of the prohibition.
- II. Chevron Service Station No. 9-1740 shall discharge treated groundwater to the side sewer only from the facility located at 6550 Moraga Avenue, Oakland.
- III. Chevron Service Station No. 9-1740 shall immediately cease discharge of treated groundwater if not in compliance with any of the Terms and Conditions of this Permit.
- IV. Chevron Service Station No. 9-1740 shall comply with all items of the attached <u>STANDARD PROVISIONS AND REPORTING REQUIREMENTS</u>, 6/95 Revision.

COMPLIANCE REQUIREMENTS

I. Chevron Service Station No. 9-1740 shall treat all groundwater according to the processes shown in the Flow Diagram, and the Building Layout Plan.

SELF-MONITORING REPORTING REQUIREMENTS

- I. Chevron Service Station No. 9-1740 shall obtain representative samples of the groundwater discharge. The sampling shall be performed on the dates, at locations, and for parameters specified below.
- II. Chevron Service Station No. 9-1740 shall comply with Reporting and Record Keeping and Monitoring and Sampling requirements found in STANDARD PROVISIONS AND REPORTING REQUIREMENTS, 6/95 Revision Sections B and C.
- III. Chevron Service Station No. 9-1740 shall submit Self-monitoring Reports. Self-monitoring Reports shall contain:
 - 1. Laboratory results.
 - Chain of custody documentation.
 - Monthly report of volume of groundwater pumped and a total to date.
 - 4. Signatory requirements.

Self-monitoring reports shall be submitted within thirty days of sampling.



Terms and Conditions

Chevron Service Station No. 9-1740 Account No. 503-36791 Page 2

SELF-MONITORING REPORTING REQUIREMENTS, CONTINUED

- IV. Chevron Service Station No. 9-1740 shall sample from location "B". Sample location "B" shall be the sample port located after the final carbon vessel. The sample location is shown on the Flow Diagragm, Project No. 9-1740, dated 4/96.
- V. Chevron Service Station No. 9-1740 shall collect and analyze samples from sample location "B" per the following schedule:
 - One hour after system start-up ¹
 - Once per calendar week (Sun-Sat) for three consecutive weeks after start-up
 - 3. Once per calendar month thereafter
 - ¹ Laboratory results are to be available within 48 hours of sample collection and faxed to (510) 287-0621.
- VI. Chevron Service Station No. 9-1740 shall sample for the following parameters according to approved test methods listed in <u>STANDARD PROVISIONS AND REPORTING REQUIREMENTS</u>, 6/95 Revision Section C. III.

Parameter	Sample Type
Copper - Total	grab
Zinc - Total	grab
Lead - Total	grab
Purgeable Aromatic Hydrocarbons (BTEX)	grab

WASTEWATER DISCHARGE LIMITATIONS

- I. Chevron Service Station No. 9-1740 shall comply with the EBMUD Wastewater Control Ordinance and all applicable rules and regulations.
- II. Chevron Service Station No. 9-1740 shall not discharge groundwater into the community sewer if the strength of the groundwater exceeds the following:

Regulated Parameter	Daily Maximum (in mg/L)
Copper - Total	0.071
Zinc - Total	0.234
Lead -Total	0.028
Benzene	0.005
Toluene	0.005
Ethylbenezene	0.005
Xylenes	0.005



Terms and Conditions

Chevron Service Station No. 9-1740

Account No. 503-36791

Page 3

MONITORING and TESTING CHARGES

Total EBMUD Inspections Per Year:

2 @ \$530.00 each =

\$1,060.00 /year

Total Analyses Per Year:

Tests

Charge

Total Charge

Parameter

per year

per test

per year

EPA 624

2

\$156.00

\$312.00

Monitoring and Testing Charge =

\$1,372.00 /year \$114.33 /month

WASTEWATER DISPOSAL CHARGE

All wastewater discharged will be charged for treatment and disposal service at the unit rate measured for other carbon treated groundwater discharges.

Current unit rate: \$0.35 /Ccf

Volume discharged in Ccf/month =

203.2

\$71.12 /month

WASTEWATER CAPACITY FEE

The capacity fee is calculated by multiplying the maximum monthly wastewater discharge volume by the app; icable fee in effect at start-up. A monthly capacity fee will be charged until the entire fee has been paid in 1 year. The final capacity fee payment for this account will be May 1997.

Discharge Volume = 151,994 gallons per month

Capacity Fee Rate = \$48.76 /Ccf-month

Total Capacity Fee = \$9,908

Capacity Fees Paid = \$0

Capacity Fees Due = \$9,908 or \$825.67 /month

(Through May 1997 only)

SD-30 7 2/8



Terms and Conditions

Chevron Service Station No. 9-1740 Account No. 503-36791 Page 4

FEES AND WASTEWATER CHARGES

The following fees and charges are due when billed by the District:

Permit Fee	\$2,410.00
Monthly Monitoring Charges	\$114.33
Monthly Wastewater Disposal Charge	\$71.12
Monthly Wastewater Capacity Fee	\$825.67

Total Monthly Charges = \$1,011.12

This Permit may be amended to include changes to rates and charges which may be established by the District during the term of this Permit.

AVERAGE WASTEWATER DISCHARGE *

LAST 12 MONTHS	PRECEDING 12 - 24 MONTHS		
N/A	N/A		
* Gallons per calendar day.			

Gallons per calendar day.

Effective Date: May 10, 1996

Expiration Date: May 9, 1997

AUTHORIZATION

The above named Applicant is hereby authorized to discharge wastewater to the community sewer, subject to said Applicant's compliance with EBMUD Wastewater Control Ordinance, compliance conditions, reporting requirements and billing conditions.

David RWilliam

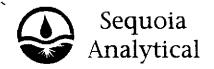
DIRECTOR, WASTEWATER DEPARTMENT

5/16/96

DATE

APPENDIX B

Chemical Analytical Reports and Chain-of-Custody Forms



680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8

Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554 Santa Rosa, CA 95405 Client Proj. ID: Chevron 9-1740 / 1740-3

Sample Descript: BFH20 Matrix: LIQUID

Analysis Method: EPA 8015 Mod Lab Number: 9604746-01 Sampled: 04/09/96 Received: 04/10/96 Extracted: 04/11/96 Analyzed: 04/11/96

Reported: 04/12/96

Attention: Jeff Monroe

QC Batch Number: GC0411960HBPEXB

Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

50

Analyte

TEPH as Diesel Chromatogram Pattern:

Surrogates n-Pentacosane (C25) Detection Limit ug/L

100 C9-C24

Control Limits %

Sample Results ug/L

3500 Unidentified HC

% Recovery 260 Q

Results quantitated against a diesel standard.

Analytes reported as N.D. were not present above the stated limit of detection.

ELAP #1210

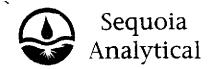
SEQUOIA ANALYTICAL -

Kevin Follett

Project Manager

Page:

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Touchstone Developments
P.O. Box 2554
Santa Rosa, CA 95405

Attention: Jeff Monroe

Client Proj. ID: Chevron 9-1740 / 1740-3

Sample Descript: BFH20

Matrix: LIQUID Analysis Method: EPA 8240 Lab Number: 9604746-01 Sampled: 04/09/96 Received: 04/10/96

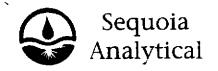
Analyzed: 04/10/96 Reported: 04/12/96

QC Batch Number: MS0409968240F3A

Instrument ID: F3

Volatile Organics (EPA 8240)

Analyte	Detection Limit ug/L	Sample Results ug/L
Acetone	500	N.D.
Benzene	100	Ņ.D.
Bromodichloromethane	100	N.D.
Bromoform	100	Ŋ.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	Ŋ.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	Ŋ.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	Ŋ.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	Ņ.D.
1,2-Dichloropropane	100	Ņ.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	Ŋ.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	250	N.D.
Vinýl chloride	100	N.D.



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Touchstone Developments

P.O. Box 2554 Santa Rosa, CA 95405

Attention: Jeff Monroe

Client Proj. ID: Chevron 9-1740 / 1740-3

Sample Descript: BFH20

Matrix: LIQUID Analysis Method: EPA 8240 Lab Number: 9604746-01

Sampled: 04/09/96

Received: 04/10/96

Analyzed: 04/10/96 Reported: 04/12/96

QC Batch Number: MS0409968240F3A

Instrument ID: F3

Detection Limit Sample Results Analyte ug/L ug/L 100 N.D. **Total Xylenes**

% Recovery **Control Limits % Surrogates** 103 1,2-Dichloroethane-d4 114 76 110 102 88 Toluene-d8 98 115 4-Bromofluorobenzene 86

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

ELAP #1210

Kevin Follett Project Manager

Page:



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Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405

Client Proj. ID: Chevron 9-1740 / 1740-3

Sample Descript: BFH20

Matrix: LIQUID

Analysis Method: 8015Mod/8020

Lab Number: 9604746-01

Sampled: 04/09/96

Received: 04/10/96

Analyzed: 04/11/96 Reported: 04/12/96

QC Batch Number: GC041196BTEX17A

instrument ID: GCHP17

Attention: Jeff Monroe

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern: Discrete Peaks	1000 10 10 10 10	6000 25 36 N.D. N.D.
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 96

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -

ELAP #1210

Kevin Follett **Project Manager**

Page:



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Touchstone Developments P.O. Box 2554

Client Proj. ID:

Chevron 9-1740 / 1740-3

Sampled: 04/09/96

F.O. Box 2554
Santa Rosa, CA 95405

Sample Descript: BFH20 Matrix: LIQUID

Received: 04/10/96

Attention: Jeff Monroe

Analysis Method: Title 22 Lab Number: 9604746-01

Analyzed: Reported: 04/12/96

Inorganic Persistent and Bioaccumulative Toxic Substances: TTLC

Analyte	Max. Limit mg/L	• . •	ction Limit mg/L	•	Sample Results mg/L
Antimony, Sb Arsenic, As	500		0.10		N.D.
Barium, Ba	500 10000		0.10 0.10		N.D. 1.5
Beryllium, Be	75		0.010		N.D.
Çadmium, Cd	100		0.010		N.D.
Chromium, Cr	2500		0.010		N.D.
Cobalt, Co	8000		0.050		N.D.
Copper, Cu Lead, Pb	2500	************	0.010		. 0.045
Mercury, Hg	1000 20		0.10 0.00020		N.D. N.D.
Molybdenum, Mo	3500		0.00020		N.D. N.D.
Nickel, Ni	2000		0.050		N.D.
Selenium, Se	100		0.10		N.D.
Silver, Ag_	500		0.010		N.D.
Thallium, TI	700		0.10		N.D.
Vanadium, V	2400		0.050		N.D.
Zinc, Zn	5000	***********	0.010		. 0.054

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -

ELAP #1210

Kevin Follett Project Manager

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680 Chesapeake Drive 404 N. Wiget Lane

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FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments P.O. Box 2554

Client Proj. ID: Chevron 9-1740 / 1740-3

Received: 04/10/96

Santa Rosa, CA 95405 Attention: Jeff Monroe Lab Proj. ID: 9604746

Reported: 04/12/96

LABORATORY NARRATIVE

8240 note: sample 9604746-01 was diluted 50 fold due to high MTBE content.

sample 9604746-01 was diluted 2 fold. High surrogate due to TEPH note:

co-elution

sample 9604746-01 was diluted 20 fold. TPPH note:

SEQUOIA ANALYTICAL

Kevin Follett Project Manager

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Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe

Client Project ID: Chevron 9-1740 / 1740-3

Matrix: Liquid

Work Order #: 9604746 01 Reported: Apr 15, 1996

QUALITY CONTROL DATA REPORT

Analyte:

Diesel

QC Batch#: GC0409960HBPEXB Analy. Method:

EPA 8015M

Prep. Method:

EPA 3510

Analyst: MS/MSD #:

B. Ali 960434101

Sample Conc.:

550

Prepared Date: Analyzed Date:

4/9/96 4/10/96

Instrument I.D.#: Conc. Spiked:

GCHP5A 1000 μg/L

Result:

1500

MS % Recovery:

95

Dup. Result:

1600

MSD % Recov.:

105

RPD:

6.5

RPD Limit:

0-50

LCS #:

BLK041196

Prepared Date:

4/11/96

Analyzed Date:

4/11/96 GCHP5B

Instrument I.D.#: Conc. Spiked:

 $1000 \mu g/L$

LCS Result:

1100

LCS % Recov.:

110

MS/MSD

LCS Control Limits 50-150

SEQUOIA ANALYTICAL

Kevin Follett Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

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Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Matrix:

Chevron 9-1740 / 1740-3 Liquid

Work Order #:

9604746 01

Reported:

Apr 15, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl	Xylenes	ı
·			Benzene		- 1
QC Batch#:	GC041196BTEX17A	GC041196BTEX17A	GC041196BTEX17A	GC041196BTEX17A	
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	
A.n.a.la.A.			1 146	J. Woo	
Analyst:	J. Woo	J. Woo	J. Woo	9603J2106	
MS/MSD #:	9603J2106	9603J2106	9603J2106	900302100 N.D.	
Sample Conc.:	N.D.	N.D.	N.D.		
Prepared Date:	4/11/96	4/11/96	4/11/96	4/11/96	
Analyzed Date:	4/11/96	4/11/96	4/11/96	4/11/96	
nstrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17	
Conc. Spiked:	10 μg/L	10 µg/L	10 μg/L	30 μg/L	
Result:	9.7	9.8	9.7	29	
MS % Recovery:	97	98	97	97	
Dup. Result:	9.3	9.2	9.2	27	
MSD % Recov.:	93	92	92	90	
RPD:	4.2	6.3	5.3	7.1	
RPD Limit:	0-50	0-50	0-50	0-50	
LCS #:	BLK041196	BLK041196	BLK041196	BLK041196	
Prepared Date:	4/11/96	4/11/96	4/11/96	4/11/96	
Analyzed Date:		4/11/96	4/11/96	4/11/96	
Instrument I.D.#:		GCHP17	GCHP17	GCHP17	
Conc. Spiked:	10 µg/L	10 μg/L	10 μg/L	30 μg/L	
LCS Result:	9.6	9.6	9.6	29	
LCS % Recov.:		96	96	97	•
MS/MSD LCS	70-130	70-130	70-130	70-130	

SEQUOIA ANALYTICAL

Kevin Follett Project Manager

Control Limits

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

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Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Matrix:

Chevron 9-1740 / 1740-3

Liquid

Work Order #:

9604746 01 Reported:

Apr 15, 1996

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloroethene	Trichloroethene	Benzene	Toluene	Chloro-
•	•				benzene
QC Batch#:	MS0410968240F3A	MS0410968240F3A	MS0410968240F3A	MS0410968240F3A	MS0410968240F3/
Analy. Method:	EPA 8240	EPA 8240	EPA 8240	EPA 8240	EPA 8240
Prep. Method:					
7 7 Opt 1310 1310 131					
Analyst:	M. Williams	M. Williams	M. Williams	M. Williams	M. Williams
MS/MSD #:	960438304	960438304	960438304	960438304	960438304
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96
Analyzed Date:	4/10/96	4/10/96	4/10/96	4/10/ 9 6	4/10/96
nstrument I.D.#:	F3	F3	F3	F3	F3
Conc. Spiked:	25 00 μg/L	2 500 μg/L	2500 μg/L	2500 μg/L	2500 μg/L
Result:	1900	2300	2300	2400	2400
MS % Recovery:	76	92	92	96	96
Dup. Result:	2100	2500	2500	2600	2600
MSD % Recov.:		100	100	104	104
RPD:	10	8.3	8.3	8.0	8.0
RPD Limit:		0-50	0-50	0-50	0-50
LCS #:	VB041096	VB041096	VB041096	VB041096	VB041096
Prepared Date:	. N.A.	N.A.	N.A.	N.A.	N.A.
Analyzed Date:		4/10/96	4/10/96	4/10/96	4/10/96
Instrument I.D.#:		F3	F3	F3	F3
Conc. Spiked:		2500 μg/L	2500 μg/L	2500 μg/L	2500 μg/L
LCS Result	: 1900	2600	2600	2700	2700
LCS % Recov.		104	104	108	108 =
MS/MSD			<u> </u>		
LCS Control Limits	40-140	70-140	40-130	40-130	40-140

SEQUOIA ANALYTICAL

Kevin Follett Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9604746.TTT <3>



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Matrix:

Chevron 9-1740 / 1740-3

Liquid

Work Order #:

9604746 01

Reported:

Apr 15, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel	Mercury
QC Batch#: ME	0410966010MDC	ME0410966010MDC	ME0410966010MDC	ME0410966010MDC	ME0411967470M4A
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 7470
Prep. Method:	EPA 3010	EPA 3010	EPA 3010	EPA 3010	EPA 7470
Analyst:	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	T. Hua
MS/MSD #:	960415201	960415201	960415201	960415201	960465301
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/10/96	4/10/96	4/10/96	4/10/96	4/11/96
Analyzed Date:	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96
nstrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2	MPE4
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L	0.0040 mg/L
Result:	1.0	1.0	0.99	1.0	0.0040
MS % Recovery:	100	100	99	100	100
Dup. Result:	1.0	1.0	0.99	1.0	0.0041
MSD % Recov.:	100	100	99	100	103
RPD:	0.0	0.0	0.0	0.0	2.5
RPD Limit:	0-30	0-30	0-30	0-30	0-30
LCS #:	BLK041096	BLK 0 41096	BLK041096	BLK041096	BLK041196
Prepared Date:	4/10/96	4/10/96	4/10/96	4/10/96	4/11/96
Analyzed Date:	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2	MPE4
Conc. Spiked:	1.0 mg/L	1. 0 mg/ L	1.0 mg/L	1.0 mg/L	0.0040 mg/L
LCS Result:	1.1	1.1	1.0	1.1	0.0039
LCS % Recov.:	110	110	100	110	98
MS/MSD LCS	75-125	75-125	75-125	75-125	85-115

SEQUOIA ANALYTICAL

Kevin Follett Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

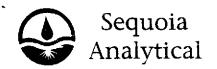
9604746.TTT <4>



Date : 4/11/96 16:54 Time of Injection: 4/11/96 15:35 Low Point : 0.00 mV High : S:\GHP_04\0414\411A009.raw :lleName Method > Method : TPH04\\Start Time : 0.00 min High Point : 400.00 mV End Time : 33.65 min Scale Factor: 0.0 Plot Offset: 0 mV Plot Scale: 400.0 mV Response [mV] -V1 O 19,5 N-PENTAGO 20.18 <u>-21.565</u> -22.05 22.64 24:38 25.92 5=262 Q

∐ Yes Chain-of-Custody-Record Fax copy of Lab Report and COC to Chevron Contact: No Chevron Contact (Name) Chevron Facility Number. Cosc Michiga Chevron U.S.A. Inc. Consultant Project Number. Laboratory Name ... P.O. BOX 5004 Laboratory Release Number Consultant Name... San Ramon, CA 94583 Samples Collected by (Name) FAX (415)842-9591 Collection Date 707 (Phone) 5388818 (Fax Number) 53888812 Slanature Analyses To Se Performed ¥δ Lab Sample Number BTEX + TPH GAS (8020 + 8015) Purpecible Aran (8020) Oil and Gream (5520) 1PH Dieses (8015) Purgeoble (8240) Purgeoble (8010) 900 Remorks 120 2 2 2 3 Turn Around Time (Circle Choloe) Date/Time Received By (Signature) Organization Organization Date/Time Relinquished By (Signature) 24 Hre. 48 Hre. Date/Time Organization Organization Date/Time Received By (Signature) Relinquished By (Signature) 5 Days 10 Days Date/Time Date/Time Regieved For Laboratory By (Signature) As Contracted Relinquished By (Signature) Organization

☐ Yes Chain-of-Custody-Record Fax copy of Lab Report and COC to Chevron Contact: No Chevron Contact (Name) Chevron Foolity Number Chevron U.S.A. Inc. Laboratory Name ... Consultant Project Number P.O. BOX 5004 Laboratory Release Number San Ramon, CA 94583 Samples Callected by (Name) FAX (415)842-9591 707 (Phone) 5588818 (Fox Humber) 5388812 Analyses To Be Performed 9604746 (8020 + 3015) Purpeoble Organi (8240) Purpeoble Aron (adzo) Purpendie Hoto (8010) Oil and Gree (5520) Remorks BF HO 01 A-H Turn Around Time (Circle Cholce) Organization Date/Time Received By (Signature) Organization Date/Time Relinquished By (Signature) 24 Hrs. 48 Hrs. Date/Time Relinquiened by (Signature) Received By (Signature) Organization Date/Time Organization 6 Days 10 Doye Regioned For Laboratory By (Signature) Date/Time Relinquished By (Signature) Organization Date/Ilme As Contracted 16.26



Redwood City, CA 94063 Walnut Creek, CA 94598

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FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments P.O. Box 2554

Jeff Monroe

Santa Rosa, CA 95405

Attention:

Client Proj. ID:

Chevronn 9-1740 / 1740-3

Sampled: 05/10/96 Received: 05/10/96

Reported: 05/16/96

Lab Proj. ID: 9605890

Analyzed: see bélow

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9605890-01 Sample Desc : SOIL,T4-6			· · · · · · · · · · · · · · · · · · ·	
Lead	mg/Kg	05/15/96	5.0	8.9
Lab No: 9605890-02 Sample Desc : SOIL,T5-5.5				
Lead	mg/Kg	05/15/96	5.0	7.1
Lab No: 9605890-03 Sample Desc : SOIL,T8-4				
Lead	mg/Kg	05/15/96	5.0	16

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett **Project Manager**



Redwood City, CA 94063 Walnut Creek, CA 94598

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Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe

ient Proj. ID: Chevronn 9-1740 / 1740-3 Sampled: 05/10/96 Client Proj. ID:

Sample Descript: T4-6

Matrix: SOIL

Analysis Method: 8015Mod/8020 Lab Number: 9605890-01

Received: 05/10/96 Extracted: 05/15/96

Analyzed: 05/15/96 Reported: 05/16/96

QC Batch Number: GC051596BTEXEXA

Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	1.0 0.025 0.0050 0.0050 0.0050	N.D. 1.0 N.D. N.D. N.D. 0.0053
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 89

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -

ELAP #1210

Kevin Follett Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 (415) 364-9600 (510) 988-9600 (916) 921-9600

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Touchstone Developments

P.O. Box 2554 Santa Rosa, CA 95405

Attention: Jeff Monroe

Client Proj. ID: Chevronn 9-1740 / 1740-3

Sample Descript: T4-6

Matrix: SOIL Analysis Method: EPA 8015 Mod

Lab Number: 9605890-01

Sampled: 05/10/96

Received: 05/10/96 Extracted: 05/14/96 Analyzed: 05/15/96

Reported: 05/16/96

QC Batch Number: GC0510960HBPEXC

Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

50

Analyte

TEPH as Diesel Chromatogram Pattern:

Surrogates n-Pentacosane (C25) **Detection Limit** mg/Kg

> 1.0 C14-C24

Unidentified HC

Sample Results

mg/Kg

Control Limits %

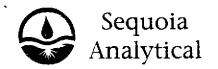
150

% Recovery

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments P.O. Box 2554

Client Proj. ID: Sample Descript: T5-5.5

nevronn 9-1740 / 1740-3 Sampled: 05/10/96 Chevronn 9-1740 / 1740-3

Received: 05/10/96 Extracted: 05/15/96

Santa Rosa, CA 95405 Attention: Jeff Monroe

Matrix: SOIL

Analysis Method: 8015Mod/8020 Lab Number: 9605890-02

Analyzed: 05/15/96 Reported: 05/16/96

QC Batch Number: GC051596BTEXEXA

Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern: Unidentified HC	10 0.25 0.050 0.050 0.050 0.050	70 0.52 0.32 N.D. 0.37 0.33
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 152 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -**ELAP #1210**

Kevin Follett Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554 Santa Rosa, CA 95405

Attention: Jeff Monroe

Client Proj. ID: Chevronn 9-1740 / 1740-3

Sample Descript: T5-5.5 Matrix: SOIL

Analysis Method: EPA 8015 Mod Lab Number: 9605890-02

Sampled: 05/10/96 Received: 05/10/96 Extracted: 05/14/96

Analyzed: 05/15/96 Reported: 05/16/96

QC Batch Number: GC0510960HBPEXC

Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte

Detection Limit mg/Kg

Sample Results mg/Kg

TEPH as Diesel Chromatogram Pattern: C9-C24

4.6 Unidentified HC

Surrogates n-Pentacosane (C25)

Control Limits % 50

150

% Recovery 93

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -

ELAP #1210

Kevin Follett Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Sampled: 05/10/96

Received: 05/10/96

Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405

Client Proj. ID: Chevronn 9-1740 / 1740-3

Sample Descript: T8-4

Matrix: SOIL Analysis Method: 8015Mod/8020

Extracted: 05/15/96 Analyzed: 05/15/96 Reported: 05/16/96 Lab Number: 9605890-03

QC Batch Number: GC051596BTEXEXA

Instrument ID: GCHP18

Attention: Jeff Monroe

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	500 12 2.5 2.5 2.5 2.5	1100 N.D. 2.9 14 19 22 Gas
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 96

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -ELAP #1210

Kevin Follett

Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598

(415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405

Attention: Jeff Monroe

Client Proj. ID: Chevronn 9-1740 / 1740-3

Sample Descript: T8-4

Matrix: SOIL

Analysis Method: EPA 8015 Mod

Lab Number: 9605890-03

Sampled: 05/10/96

Received: 05/10/96 Extracted: 05/14/96

Analyzed: 05/15/96 Reported: 05/16/96

QC Batch Number: GC0510960HBPEXC

Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte

Detection Limit mg/Kg

Sample Results mg/Kg

TEPH as Diesel Chromatogram Pattern: 50 C9-C13

1200 W-DIESEL+

Surrogates n-Pentacosane (C25)

Control Limits % 50

150

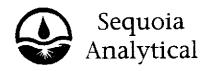
% Recovery

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -

ELAP #1210

Kevin Follett Project Manager



Redwood City, CA 94063 (415) 364-9600 Walnut Creek, CA 94598 (510) 988-9600

(916) 921-9600

FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405

Attention:

Jeff Monroe

Client Proj. ID: Chevronn 9-1740 / 1740-3

Received: 05/10/96

Lab Proj. ID: 9605890

Reported: 05/16/96

LABORATORY NARRATIVE

TPPH note: Sample 9605890-02 was diluted 10 fold.

Sample 9605890-03 was diluted 500 fold.

Sample 9605890-03 was diluted 50 fold. Surrogate is diluted out. TEPH note:

SEQUOIA ANALYTICAL

Kevin Follett Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

(415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Matrix: Solid

Work Order #:

9605890 01-03

Chevron 9-1740 / 1740-3

Reported: May 17, 1996

QUALITY CONTROL DATA REPORT

Analyte:

Diesel

QC Batch#: GC0510960HBPEXC Analy. Method: **EPA 8015M** Prep. Method: **EPA 3550**

Analyst:

J. Minkel

MS/MSD #:

960561601

Sample Conc.:

N.D.

Prepared Date: Analyzed Date:

5/10/96 5/11/96

Instrument I.D.#: Conc. Spiked:

GCHP5A 25 mg/Kg

Result:

19

MS % Recovery:

76

Dup. Result:

19

MSD % Recov.:

76

RPD:

0.0

RPD Limit:

0-50

LCS #:

BLK0510/96

Prepared Date:

5/10/96

Analyzed Date: instrument I.D.#:

5/11/96 GCHP5A

Conc. Spiked:

25 mg/Kg

LCS Result:

19

LCS % Recov.:

76

MS/MSD

50-150 60-140

LCS **Control Limits**

SEQUOIA ANALYTICAL

Kevin Follett Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9605890.TTT <1>





Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Chevron 9-1740 / 1740-3

Matrix:

Solid

Work Order #:

9605890

01-03

Reported: May 17, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel	Cobalt
QC Batch#: r	ME0514966010MDE	ME0514966010MDE	ME0514966010MDE	ME0514966010MDE	ME0514966010MDE
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050	EPA 5030
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	960578803	960578803	960578803	960578803	960578803
Sample Conc.:	N.D.	N.D.	24	34	7.9
Prepared Date:	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96
Analyzed Date:	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96
nstrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	1 00 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	89	87	130	130	96
MS % Recovery:	89	87	106	96	88
Dup. Result:	75	73	102	110	89
MSD % Recov.:	75	73	78	76	81
RPD:	17	18	24	17	7.6
RPD Limit:	0-20	0-20	0-20	0-20	0-20
LCS #:	BLK051496	BLK051496	BLK051496	BLK051496	BLK051496
Prepared Date:	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96
Analyzed Date:	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
LCS Result:	110	100	110	110	110
LCS % Recov.:	110	100	110	110	110 =
MS/MSD					
LCS Control Limits	80-120	80-120	80-120	80-120	80-120

SEQUOIA ANALYTICAL

Kevin Follett Project Manager Please Note:

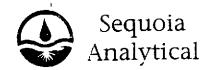
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9605890.TTT <2>



	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Consultant Projections Address	Humber 6550 Address 6550 Addres	Moraga A 740 F 3	ve, Oakla- ovelopme Rosa,	Late Late Son	(Phone poratory Name) boratory Release Nummples Collected by (I	Doyle of State of Sta	1-Custody- Jacusck 842 9500 5250 45 Monoc 196
The state of the s	25 - 12 - 25 - 25 - 25 - 25 - 25 - 25 -		D 11:00 11:20 11:30 11:30 11:30	Comple Presentation (New or No.)	(3020 + 3013) (3020 + 3013) (3015) (3015) (3015)	Purgeable Halocarbons (8010)	Furgachia Organica (82.40)	MISE MISE	Remotks Remotks
	Relinquished By (Signatu	Mar	ryanization Organization	Dote/Ilme //: 45 1 5/10/96 Dote/Ilme	Received By (Signature Received By (Signature Received For Labyrolin	•)	Organization	Date/Time	Turn Around Time (Circle Choloe) 24 Hrs. 48 Hrs. 5 Doye 2 Area



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Touchstone Developments

Jeff Monroe

P.O. Box 2554

Attention:

Santa Rosa, CA 95405

Client Proj. ID: Chevron 9-1740/1740-3

Lab Proj. ID: 9605644

Sampled: 05/10/96

Received: 05/10/96 Analyzed: see below

Reported: 05/13/96

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9605644-01 Sample Desc : SOLID,SP-1(A-D) comp				
Lead	mg/Kg	05/11/96	5.0	N.D.
Lab No: 9605644-02 Sample Desc : SOLID,SP-2(A-D) comp				
Lead	mg/Kg	05/11/96	5.0	N.D.
Lab No: 9605644-03 Sample Desc : SOLID,SP-3(A-D) comp				
Lead	mg/Kg	05/11/96	5.0	5.2
Lab No: 9605644-04 Sample Desc : SOLID,SP-4				
Lead	mg/Kg	05/11/96	5.0	N.D.
Lab No: 9605644-05 Sample Desc : SOLID,SP-5(B-D) comp				
Lead	mg/Kg	05/11/96	5.0	8.4
Lab No: 9605644-06 Sample Desc : SOLID,SP-6(A-C) comp				
Lead	mg/Kg	05/11/96	5.0	N.D.
Lab No: 9605644-07 Sample Desc : SOLID,SP-7(A-D) comp				
Lead	mg/Kg	05/11/96	5.0	44

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett Project Manager

£3



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FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe

ouchstone Developments Client Proj. ID: Chevron 9-1740 / 1740-3

Sample Descript: T1-7.5

Matrix: SOLID

Analysis Method: 8015Mod/8020 Lab Number: 9605754-01

Sampled: 05/10/96 Received: 05/10/96 Extracted: 05/17/96 Analyzed: 05/18/96

Reported: 05/28/96

QC Batch Number: GC051796BTEXEXA

Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern: Unidentified HC	5.0 0.12 0.025 0.025 0.025 0.025	50 0.14 0.15 N.D. 0.29 0.13
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 106

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett

Project Manager

Page:

2



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Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe

Client Proj. ID: Chevron 9-1740 / 1740-3

Sample Descript: T1-7.5

Matrix: SOLID

Analysis Method: EPA 8015 Mod

Lab Number: 9605754-01

Sampled: 05/10/96

Received: 05/10/96 Extracted: 05/20/96

Analyzed: 05/21/96 Reported: 05/28/96

Sample Results

mg/Kg

98

Unidentified HC

QC Batch Number: GC0520960HBPEXA

Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

50

Analyte

TEPH as Diesel Chromatogram Pattern:

Surrogates n-Pentacosane (C25) **Detection Limit** mg/Kg

> 1.0 C9-C24

% Recovery

Control Limits % 150

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett

Project Manager



680 Chesapeake Drive 404 N. Wiget Lane

Redwood City, CA 94063 Walnut Creek, CA 94598 319 Striker Avenue, Suite 8 Sacramento, CA 95834

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Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe

Chevron 9-1740 / 1740-3 Client Proj. ID:

Sample Descript: T2-7.5 Matrix: SOLID

Analysis Method: 8015Mod/8020

Lab Number: 9605754-02

Sampled: 05/10/96

Received: 05/10/96 Extracted: 05/17/96 Analyzed: 05/18/96

Reported: 05/28/96

QC Batch Number: GC051796BTEXEXA

Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	1.0 0.025 0.0050 0.0050 0.0050 0.0050	N.D. N.D. N.D. N.D. N.D. N.D.
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 84

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -ELAP #1210

Kevin Follett

Project Manager



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Touchstone Developments

P.O. Box 2554 Santa Rosa, CA 95405

Attention: Jeff Monroe

Client Proj. ID: Chevron 9-1740 / 1740-3

Sample Descript: T2-7.5

Matrix: SOLID Analysis Method: EPA 8015 Mod

Lab Number: 9605754-02

Sampled: 05/10/96

Received: 05/10/96 Extracted: 05/15/96 Analyzed: 05/16/96

Reported: 05/28/96

QC Batch Number: GC0515960HBPEXA

Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte

TEPH as Diesel Chromatogram Pattern:

Surrogates n-Pentacosane (C25) **Detection Limit** mg/Kg

C14-C24

Control Limits % 150 50

Sample Results mg/Kg

Unidentified HC

% Recovery

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett Project Manager

Page:

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:



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Touchstone Developments

P.O. Box 2554 Santa Rosa, CA 95405 Client Proj. ID:

Chevron 9-1740 / 1740-3

Sample Descript: T3-8 Matrix: SOLID

Analysis Method: 8015Mod/8020 Lab Number: 9605754-03

Sampled: 05/10/96 Received: 05/10/96 Extracted: 05/17/96 Analyzed: 05/18/96

Reported: 05/28/96

Attention: Jeff Monroe QC Batch Number: GC051796BTEXEXA

Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	1.0 0.025 0.0050 0.0050 0.0050 0.0050	N.D. N.D. N.D. N.D. N.D. N.D.
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 75

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL ELAP #1210

Kevin Follett

Project Manager



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Touchstone Developments P.O. Box 2554

Client Proj. ID: Chevron 9-1740 / 1740-3 Sampled: 05/10/96

Santa Rosa, CA 95405

Sample Descript: T3-8 Matrix: SOLID

Received: 05/10/96 Extracted: 05/15/96 Analyzed: 05/16/96 Reported: 05/28/96

Attention: Jeff Monroe

Analysis Method: EPA 8015 Mod Lab Number: 9605754-03

QC Batch Number: GC0515960HBPEXA

Instrument ID: GCHP4A

Analyte

Total Extractable Petroleum Hydrocarbons (TEPH)

Detection Limit mg/Kg

Sample Results mg/Kg

TEPH as Diesel Chromatogram Pattern: C9-C24

Unidentified HC

Surrogates n-Pentacosane (C25) **Control Limits %**

% Recovery

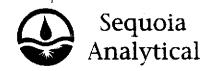
150 50

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett

Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

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Touchstone Developments

P.O. Box 2554 Santa Rosa, CA 95405

Chevron 9-1740 / 1740-3 Client Proj. ID:

Sample Descript: T6-6.5

Matrix: SOLID

Analysis Method: 8015Mod/8020 Lab Number: 9605754-06

Sampled: 05/10/96

Received: 05/10/96 Extracted: 05/17/96 Analyzed: 05/18/96

Reported: 05/28/96

QC Batch Number: GC051796BTEXEXA

Instrument ID: GCHP07

Attention: Jeff Monroe

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern: Unidentified HC	20 0.50 0.10 0.10 0.10 0.10	170 1.1 0.71 N.D. 3.0 1.0
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -**ELAP #1210**

Kevin Follett Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

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Touchstone Developments P.O. Box 2554

Client Proj. ID: Chevron 9-1740 / 1740-3 Sampled: 05/10/96

Santa Rosa, CA 95405

Sample Descript: T6-6.5 Matrix: SOLID

Received: 05/10/96 Extracted: 05/15/96

Attention: Jeff Monroe

Analysis Method: EPA 8015 Mod Lab Number: 9605754-06

Analyzed: 05/16/96 Reported: 05/28/96

QC Batch Number: GC0515960HBPEXA

Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte

Detection Limit mg/Kg

Sample Results mg/Kg

TEPH as Diesel **Chromatogram Pattern:** 5.0 C9-C24

Unidentified HC

Surrogates n-Pentacosane (C25)

Control Limits % 50

150

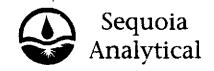
% Recovery 113

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

ELAP #1210

Kevin Follett **Project Manager**



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments
P.O. Box 2554

Client Proj. ID:

Chevron 9-1740 / 1740-3

Sampled: 05/10/96 Received: 05/10/96 Extracted: 05/17/96

Santa Rosa, CA 95405

Attention: Jeff Monroe

Sample Descript: T7-5 Matrix: SOLID

Analysis Method: 8015Mod/8020

Lab Number: 9605754-07

Analyzed: 05/18/96 Reported: 05/28/96

QC Batch Number: GC051796BTEXEXA

Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	20 0.50 0.10 0.10 0.10 0.10	320 2.9 1.8 N.D. 3.5 1.1
Unidentified HC		C6-C12
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 110

Analytes reported as N.D. were not present above the stated limit of detection.

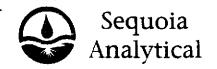
SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett

Project Manager

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Touchstone Developments

P.O. Box 2554 Santa Rosa, CA 95405

Client Proj. ID: Chevron 9-1740 / 1740-3

Sample Descript: T7-5 Matrix: SOLID

Analysis Method: EPA 8015 Mod

Lab Number: 9605754-07

Sampled: 05/10/96

Received: 05/10/96 Extracted: 05/15/96

Analyzed: 05/16/96 Reported: 05/28/96

QC Batch Number: GC0515960HBPEXA

Instrument ID: GCHP4B

Attention: Jeff Monroe

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte

Detection Limit mg/Kg

Sample Results mg/Kg

TEPH as Diesel Chromatogram Pattern: 5.0 C9-C24

Unidentified HC

Surrogates n-Pentacosane (C25)

Control Limits % 50

150

% Recovery

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -

ELAP #1210

Kevin Follett Project Manager

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Touchstone Developments P.O. Box 2554

Client Proj. ID: Chevron 9-1740 / 1740-3

Received: 05/10/96

Santa Rosa, CA 95405 Attention: Jeff Monroe Lab Proj. ID: 9605754

Reported: 05/28/96

LABORATORY NARRATIVE

sample 9605754-01 was diluted 5 fold. TPPH note:

sample 9605754-06 was diluted 20 fold. sample 9605754-07 was diluted 20 fold.

sample 9605754-06 was diluted 5 fold. TEPH note:

sample 9605754-07 was diluted 5 fold.

SEQUOIA ANALYTICAL

Kévin Follett Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Chevron 9-1740 / 1740-3

Matrix:

Solid

Work Order #:

01

Reported:

May 29, 1996

QUALITY CONTROL DATA REPORT

9605754

Analyte:

Diesel

QC Batch#: GC0520960HBPEXA
Analy. Method: EPA 8015M
Prep. Method: EPA 3550/DHS

Analyst:

J. Minkel

MS/MSD #:

960575401

Sample Conc.:

13

Prepared Date:

5/20/96 5/21/96

Analyzed Date: Instrument I.D.#:

GCHP5A

Conc. Spiked:

25 mg/Kg

Result:

41

MS % Recovery:

112

Dup. Result:

44

MSD % Recov.:

124

RPD:

7.1

RPD Limit:

0-50

LCS #:

BLK052096

Prepared Date:

5/20/96 5/21/96

Analyzed Date: Instrument I.D.#:

GCHP5A

Conc. Spiked:

25 mg/Kg

LCS Result:

23

LCS % Recov.:

92

MS/MSD

50-150

LCS
Control Limits

60-140

SEQUOIA ANALYTICAL

Kevin Follett Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9605754.TTT <1>





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Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Chevron 9-1740 / 1740-3 Matrix:

Solid

Work Order #:

9605754

02, 03, 06, 07

May 29, 1996 Reported:

QUALITY CONTROL DATA REPORT

Analyte:

Diesel

QC Batch#: GC0515960HBPEXA Analy. Method: **EPA 8015M** Prep. Method: **EPA 3550/DHS**

Analyst:

J. Minkel

MS/MSD #: Sample Conc.: 960577801 60

Prepared Date: Analyzed Date:

5/15/96 5/16/96

Instrument I.D.#: Conc. Spiked:

GCHP5B 25 mg/Kg

Result:

91

MS % Recovery:

124

Dup. Result: MSD % Recov.:

93 132

RPD:

2.2

RPD Limit:

0-50

LCS#:

BLK051596

Prepared Date: Analyzed Date:

5/15/96 5/16/96 GCHP5A

Instrument I.D.#: Conc. Spiked:

25 mg/Kg

LCS Resuit:

25

LCS % Recov.:

100

MS/MSD LCS

50-150

60-140

Control Limits

SEQUOIA ANALYTICAL

Please Note:

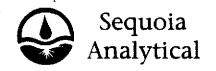
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9605754.TTT <2>



Kevin Follett **Project Manager**



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Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Chevron 9-1740 / 1740-3

Matrix: Solid

Work Order #:

9605754 01-03, 06, 07

Reported: Ma

May 29, 1996

QUALITY CONTROL DATA REPORT

				V. I	
Analyte:	Benzene	Taluene	Ethyl	Xylenes	
			Benzene		
	GC051796BTEXEXA	GC051796BTEXEXA	GC051796BTEXEXA	GC051796BTEXEXA	1
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	
Analyst:	J. Hills	J. Hills	J. Hills	J. Hills	
MS/MSD #:	960531601	960531601	960531601	960531601	
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	
Prepared Date:	5/17/96	5/17/96	5/17/96	5/17/96	
Analyzed Date:	5/17/96	5/17/96	5/17/96	5/17/96	
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1	
Conc. Spiked:	0. 20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg	
Result:	0.19	0.19	0.19	0.58	
MS % Recovery:	95	95	95	97	
ino a ricoorci y.	56	55	•••	-	
Dup. Result:	0.18	0.18	0.18	0.55	
MSD % Recov.:	90	90	90	92	
RPD:	5.4	5.4	5.4	5.3	
RPD Limit:	0-25	0-25	0-25	0-25	
LCS #:	BLK051796	BLK051796	BLK051796	BLK051796	
Prepared Date:	5/17/96	5/17/96	5/17/96	5/17/96	
Analyzed Date:	5/17/96	5/17/96	5/17/96	5/17/96	
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1	
Conc. Spiked:	0.20 mg/Kg	0. 20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg	
LCS Result:	0.16	0.16	0.16	. 0.49	
LCS % Recov.:	80	80	80	82	•
MS/MSD	60-140	60-140	60-140	60-140	
LCS Control Limits	70-130	70-130	70-130	70-130	

SEQUOIA ANALYTICAL

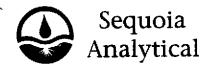
Kevin Follett Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9605754.TTT <3>





e Redwood City, CA 94063 Walnut Creek, CA 94598 uite 8 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Chevron 9-1740 / 1740-3

Matrix:

Solid

Work Order #:

9605754 01, 02, 03, 06, 07

Reported: 1

May 29, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel	
QC Batch#: M	E0514966010MDF	ME0514966010MDF	ME0514966010MDF	ME0514966010MDF	
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	ŀ
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050	
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donneil	
MS/MSĎ #:	960583601	960583601	960583601	960583601	
Sample Conc.:	0.53	N.D.	52	78	
Prepared Date:	5/14/96	5/14/96	5/14/96	5/14/96	
Analyzed Date:	5/16/96	5/16/96	5/16/96	5/16/96	
instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2	
Conc. Spiked:	10 0 mg /Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg	
Result:	98	92	150	170	
MS % Recovery:	97	92	98	92	
Dup. Result:	99	93	150	170	
MSD % Recov.:	98	93	98	92	
RPD:	1.0	1.1	0.0	0.0	
RPD Limit:	0-20	0-20	0-20	0-20	
LCS#:	BL K05 1496	BLK051496	BLK051496	BLK051496	
Prepared Date:	5/14/96	5/14/96	5/14/96	5/14/96	
Analyzed Date:	5/16/96	5/16/96	5/16/96	5/16/96	
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2	
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg	
LCS Result:	100	99	100	100	_
LCS % Recov.:	100	99	100	100	2
MS/MSD					
LCS Control Limits	80-120	80-120	80-120	80-120	

SEQUOIA ANALYTICAL

Kevin Follett Project Manager Please Note:

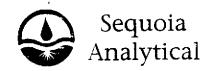
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9605754.TTT <4>



	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583	Facility Humber Facility Address 650 Miles ant Project Number ont Name Ress 20 888554	Chevron Contact: 740 orage Ave, Databand orage A	Laboratory Name Loboratory Release No. Samples Collected by	(Name) 5/10/96	. a e / e
200	15 - 25 - 25 - 25 - 25 - 25 - 25 - 25 -	707 (Phone) \$ 8 8 0 (Phone) \$ 9 0 (P		Purpectie Aromatice (8020) Purpectie Organica (8240) Extractable Organica or (8270) C.A.OPb. Za.Mi	TO TO	Remorks
	Relinquished By (Signature) Relinquished By (Signature) Relinquished By (Signature)	Organization Date/Tim Organization Date/Tim	Received By (Signature)	Organization 5 ESUCIE Organization (Signature)	5/10/96 Date/Time	d Time (Circle Choloe) 24 Hrs. 45 Hrs. 5 Doys 10 Doys 2 Contracted



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Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe

Chevron 9-1740/1740-3 Client Proj. ID:

Sample Descript: SP-1(A-D) comp Matrix: SOLID

Analysis Method: 8015Mod/8020 Lab Number: 9605644-01

Sampled: 05/10/96 Received: 05/10/96

Extracted: 05/11/96 Analyzed: 05/12/96 Reported: 05/13/96

QC Batch Number: GC051396BTEXEXA

Instrument ID: GCHP01

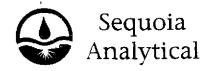
Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	25 0.12 0.12 0.12 0.12	100 N.D. N.D. N.D. 3.9 Gas
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 106

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Kevin Follett Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

(415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Client Proj. ID: P.O. Box 2554

Santa Rosa, CA 95405

Attention: Jeff Monroe

Chevron 9-1740/1740-3 Sample Descript: SP-1(A-D) comp

Matrix: SOLID Analysis Method: EPA 8015 Mod

Lab Number: 9605644-01

Sampled: 05/10/96 Received: 05/10/96

Extracted: 05/10/96 Analyzed: 05/13/96 Reported: 05/13/96

QC Batch Number: GC0510960HBPEXC

Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte

TEPH as Diesel Chromatogram Pattern:

Surrogates n-Pentacosane (C25) **Detection Limit** mg/Kg

> 5.0 Unid. HC

Sample Results mg/Kg

> 150 W-Diesel

Control Limits % 50

150

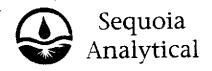
% Recovery 140

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOTA ANALYTICAL -

ELAP #1210

Kevin Follett Project Manager



680 Chesapeake Drive 404 N. Wiget Lane

Redwood City, CA 94063 Walnut Creek, CA 94598 319 Striker Avenue, Suite 8 Sacramento, CA 95834

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Touchstone Developments

P.O. Box 2554 Santa Rosa, CA 95405

Attention: Jeff Monroe

Client Proj. ID: Chevron 9-1740/1740-3 Sample Descript: SP-2(A-D) comp

Matrix: SOLID Analysis Method: 8015Mod/8020

Lab Number: 9605644-02 Sampled: 05/10/96 Received: 05/10/96

Extracted: 05/11/96 Analyzed: 05/12/96 Reported: 05/13/96

QC Batch Number: GC051396BTEXEXA

Instrument ID: GCHP01

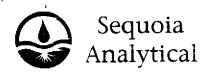
Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg	
TPPH as Gas Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	1.0 0.0050 0.0050 0.0050 0.0050	7.3 0.016 0.020 0.012 0.18 Gas	
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 94	

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOÍA ANALYTICAL -

Kevin Follett Project Manager



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Touchstone Developments
P.O. Box 2554

Santa Rosa, CA 95405

Client Proj. ID: Chevron 9-1740/1740-3 Sample Descript: SP-2(A-D) comp Matrix: SOLID

Sampled: 05/10/96 Received: 05/10/96 Extracted: 05/10/96 Analyzed: 05/11/96

Analysis Method: EPA 8015 Mod Attention: Jeff Monroe Lab Number: 9605644-02

Reported: 05/11/96

QC Batch Number: GC0510960HBPEXC

Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte Detection Limit mg/Kg

Sample Results mg/Kg

TEPH as Diesei Chromatogram Pattern: 1.0 Unid. HC 55 W-Diesel

Surrogates n-Pentacosane (C25) Control Limits % 50

150

% Recovery 103

Results quantitated against a diesel standard.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOJA ANALYTICAL -

ELAP #1210

Kevin Follett Project Manager

Page:

5



Redwood City, CA 94063 Walnut Creek, CA 94598 819 Striker Avenue, Suite 8 Sacramento, CA 95834

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FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe

Client Proj. ID: Chevron 9-1740/1740-3 Sample Descript: SP-3(A-D) comp

Matrix: SOLID

Analysis Method: 8015Mod/8020 Lab Number: 9605644-03

Sampled: 05/10/96 Received: 05/10/96 Extracted: 05/11/96 Analyzed: 05/12/96

Reported: 05/13/96

QC Batch Number: GC051396BTEXEXA

Instrument ID: GCHP01

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg	
TPPH as Gas Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	10 0.050 0.050 0.050 0.050	29 N.D. N.D. N.D. 1.1 Gas	
Surrogates Trifluorotoluene	Control Limits % 70 130	% Recovery 97	

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOJÁ ANALYTICAL -

ELAP #1210

Kevin Follett Project Manager

Page:



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Touchstone Developments P.O. Box 2554

Santa Rosa, CA 95405

Attention: Jeff Monroe

Client Proj. ID: Chevron 9-1740/1740-3 Sample Descript: SP-3(A-D) comp

Matrix: SOLID

Analysis Method: EPA 8015 Mod Lab Number: 9605644-03

Sampled: 05/10/96 Received: 05/10/96 Extracted: 05/10/96

Analyzed: 05/11/96 Reported: 05/13/96

Sample Results

mg/Kg

61

QC Batch Number: GC0510960HBPEXC

Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

50

Analyte

TEPH as Diesel Chromatogram Pattern:

Surrogates n-Pentacosane (C25) **Detection Limit** mg/Kg

Control Limits %

1.0 Unid. HC

150

W-Diesel

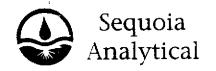
% Recovery 93

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

ELAP #1210

Kevin Follett **Project Manager**



Redwood City, CA 94063 Walnut Creek, CA 94598 819 Striker Avenue, Suite 8 Sacramento, CA 95834

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Touchstone Developments P.O. Box 2554

Client Proj. ID: Sample Descript: SP-4

Chevron 9-1740/1740-3

Sampled: 05/10/96 Received: 05/10/96

Santa Rosa, CA 95405 Attention: Jeff Monroe

Matrix: SOLID

Analysis Method: 8015Mod/8020 Lab Number: 9605644-04

Extracted: 05/11/96 Analyzed: 05/12/96 Reported: 05/13/96

QC Batch Number: GC051396BTEXEXA

Instrument ID: GCHP01

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

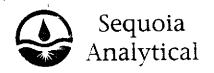
Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern: Weathered Gas	5.0 0.025 0.025 0.025 0.025	8.1 N.D. N.D. N.D. 0.13 C9-C12
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 91

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -

Kevin Follett

Project Manager



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Touchstone Developments P.O. Box 2554 Client Proj. ID: Chevron 9-1740/1740-3

Sampled: 05/10/96 Received: 05/10/96

Santa Rosa, CA 95405

Sample Descript: SP-4 Matrix: SOLID

Extracted: 05/10/96 Analyzed: 05/11/96

Reported: 05/13/96

Analysis Method: EPA 8015 Mod
Attention: Jeff Monroe Lab Number: 9605644-04

QC Batch Number: GC0510960HBPEXC Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte

Detection Limit mg/Kg

Sample Results mg/Kg

TEPH as Diesel Chromatogram Pattern: 1.0 C9-C24 47 Unidentified HC

Surrogates n-Pentacosane (C25) Control Limits % 50

150

% Recovery 101

Results quantitated against a diesel standard.

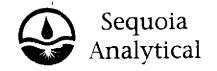
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -

ELAP #1210

Kevin Follett Project Manager

Page:



Redwood City, CA 94063 Walnut Creek, CA 94598 319 Striker Avenue, Suite 8 Sacramento, CA 95834

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Touchstone Developments P.O. Box 2554

Santa Rosa, CA 95405

Attention: Jeff Monroe

Client Proj. ID. Chevron 9-1740/1740-3 Sample Descript: SP-5(B-D) comp Matrix: SOLID

Analysis Method: 8015Mod/8020

Lab Number: 9605644-05

Sampled: 05/10/96 Received: 05/10/96 Extracted: 05/11/96 Analyzed: 05/12/96

Reported: 05/13/96

QC Batch Number: GC051396BTEXEXA

Instrument ID: GCHP01

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg		
TPPH as Gas Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	10 0.050 0.050 0.050 0.050	18 N.D. N.D. N.D. 0.61 Gas		
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 98		

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -

Kevin-Follett

Project Manager

Page:



Redwood City, CA 94063 Walnut Creek, CA 94598 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe

Chevron 9-1740/1740-3 Client Proj. ID: Sample Descript: SP-5(B-D) comp

Matrix: SOLID

Analysis Method: EPA 8015 Mod

Lab Number: 9605644-05

-3 Sampled: 05/10/96

Received: 05/10/96 Extracted: 05/10/96

Analyzed: 05/13/96 Reported: 05/13/96

QC Batch Number: GC0510960HBPEXC

Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte

TEPH as Diesel

Chromatogram Pattern:

Detection Limit mg/Kg

> 2.0 Unid. HC

Sample Results mg/Kg

> 75 Diesel

Surrogates

n-Pentacosane (C25)

Control Limits % 50

150

% Recovery 113

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA\ANALYTICAL -

ELAP #1210

Kevin Pollett Project Manager





Redwood City, CA 94063 Walnut Creek, CA 94598

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Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405

Chevron 9-1740/1740-3 Client Proj. ID: Sample Descript: SP-6(A-C) comp Matrix: SOLID

Sampled: 05/10/96 Received: 05/10/96 Extracted: 05/11/96 Analyzed: 05/12/96

Reported: 05/13/96

Analysis Method: 8015Mod/8020 Lab Number: 9605644-06 Attention: Jeff Monroe

QC Batch Number: GC051396BTEXEXA Instrument ID: GCHP01

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg	
TPPH as Gas Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	10 0.050 0.050 0.050 0.050	32 N.D. 0.065 0.070 0.87 Gas	
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 89	

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOTA ANALYTICAL - ELAP #1210

Kevin Follett

Project Manager

Page:



Redwood City, CA 94063 Walnut Creek, CA 94598

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Touchstone Developments

P.O. Box 2554 Santa Rosa, CA 95405

Attention: Jeff Monroe

Chevron 9-1740/1740-3 Client Proj. ID: Sample Descript: SP-6(A-C) comp

Matrix: SOLID Analysis Method: EPA 8015 Mod

Lab Number: 9605644-06

Sampled: 05/10/96

Received: 05/10/96 Extracted: 05/10/96 Analyzed: 05/11/96

Reported: 05/13/96

QC Batch Number: GC0510960HBPEXC

Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

50

Analyte

TEPH as Diesel Chromatogram Pattern:

Surrogates n-Pentacosane (C25) **Detection Limit** mg/Kg

> 1.0 Unid. HC

Control Limits % 150 % Recovery 52

Sample Results

mg/Kg

W-Diesel

52

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

ANALYTICAL -

Kevin Follett **Project Manager**

Page:



Redwood City, CA 94063 Walnut Creek, CA 94598 (415) 364-9600 (510) 988-9600 (916) 921-9600

FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Sampled: 05/10/96

Touchstone Developments

Client Proj. ID: P.O. Box 2554 Santa Rosa, CA 95405

Sample Descript: SP-7(A-D) comp Matrix: SOLID

Received: 05/10/96 Extracted: 05/11/96 Analyzed: 05/12/96 Analysis Method: 8015Mod/8020 Lab Number: 9605644-07 Reported: 05/13/96

QC Batch Number: GC051396BTEXEXA

Instrument ID: GCHP01

Attention: Jeff Monroe

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Chevron 9-1740/1740-3

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg		
TPPH as Gas Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	10 0.050 0.050 0.050 0.050	20 N.D. 0.050 0.13 0.12 Gas		
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 93		

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIÁ ANALYTICAL

Kevin Follett Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 319 Striker Avenue, Suite 8 Sacramento, CA 95834

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Touchstone Developments

P.O. Box 2554 Santa Rosa, CA 95405

Attention: Jeff Monroe

D: Chevron 9-1740/1740-3 Sampled: 05/10/96 Client Proj. ID:

Sample Descript: SP-7(A-D) comp Matrix: SOLID

Analysis Method: EPA 8015 Mod Lab Number: 9605644-07

Received: 05/10/96 Extracted: 05/10/96

Analyzed: 05/13/96 Reported: 05/13/96

QC Batch Number: GC0510960HBPEXC

Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

50

Analyte

Detection Limit mg/Kg

> 2.0 Unid. HC

Sample Results mg/Kg

66 Diesel

TEPH as Diesel Chromatogram Pattern:

n-Pentacosane (C25)

Surrogates

Control Limits %

% Recovery 104

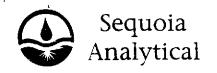
Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOTA ANALYTICAL -

ELAP #1210

Kevin Follett Project Manager

Page:



Redwood City, CA 94063 Walnut Creek, CA 94598 819 Striker Avenue, Suite 8 Sacramento, CA 95834

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FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405 Jeff Monroe Attention:

Client Proj. ID: Chevron 9-1740/1740-3

Lab Proj. ID: 9605644

Received: 05/10/96

Reported: 05/13/96

LABORATORY NARRATIVE

Sample 9605644-01 was diluted 25-fold. TPPH Note:

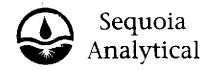
Sample 9605644-03 was diluted 10-fold. Sample 9605644-04 was diluted 5-fold. Sample 9605644-05 was diluted 10-fold. Sample 9605644-06 was diluted 10-fold. Sample 9605644-07 was diluted 10-fold.

TEPH Note: Sample 9605644-01 was diluted 5-fold.

Sample 9605644-05 was diluted 2-fold. Sample 9605644-07 was diluted 2-fold.

SEQUOIA ANALYTICAL

Kevin Follett Project Manager



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Touchstone Development

Client Project ID: P.O. Box 2554

Chevron 9-1740/1740-3

Matrix:

Solid

Santa Rosa, CA 95405 Attention: Jeff Monroe

Work Order #:

9605644

-01 - **07**

Reported:

May 14, 1996

QUALITY CONTROL DATA REPORT

Analyte:

Diesel

QC Batch#: GC0510960HBPEXC

Anaiy. Method:

EPA 8015 M

Prep. Method:

EPA 3550

Analyst:

J. Minkel

MS/MSD #:

9605616-01

Sample Conc.:

N.D.

Prepared Date:

5/10/96

Analyzed Date:

5/11/96

Instrument I.D.#: Conc. Spiked:

GCHP5A 25 mg/kg

Result:

19

MS % Recovery:

76

Dup. Result:

19

MSD % Recov.:

76

RPD:

0.0

RPD Limit:

0-50

LCS #:

BLK051096BS

Prepared Date:

5/10/96

Analyzed Date:

5/11/96

Instrument I.D.#:

GCHP5A 25 mg/kg

Conc. Spiked: LCS Result:

19

LCS % Recov.:

76

MS/MSD

50-150

LCS **Control Limits**

SEQUOIA ANALYTICAL

Kevin Follett Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9605644.TTT < 1 >



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Touchstone Development

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Chevron 9-1740/1740-3

Solid

Work Order #:

Matrix:

-01 - 07

Reported:

May 14, 1996

QUALITY CONTROL DATA REPORT

9605644

Analyte:	Benzene	Toluene	Ethyl	Xylenes	
-			Benzene		
QC Batch#:	GC051196BTEXEXA	GC051196BTEXEXA	GC051196BTEXEXA	GC051196BTEXEXA	
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	
Analyst:	J. Heider	J. Heider	J. Heider	J. Heider	
MS/MSD #:		9605508-01	9605508-01	9605508-01	
Sample Conc.:		N.D.	N.D.	N.D.	
Prepared Date:		5/11/96	5/11/96	5/11/96	
Analyzed Date:		5/11/96	5/11/96	5/11/96	
strument I.D.#:		GCHP1	GCHP1	GCHP1	
Conc. Spiked:	0 .20 mg/k g	0.20 mg/kg	0.20 mg/kg	0.60 mg/kg	
Result:	0.17	0.17	0.17	0.51	
MS % Recovery:	85	85	85	85	
Dup. Result:	0.17	0.17	0.17	0.50	
MSD % Recov.:		85	85	83	
RPD:	0.0	0.0	0.0	2.0	
RPD Limit:	0-25	0-25	0-25	0-25	

LCS #:	GBLK051196BSA	GBLK051196BSA	BLK051196BSA	GBLK051196BSA	
Prepared Date:	5/11/96	5/11/96	5/11/96	5/11/96	
Analyzed Date:	5/11/96	5/11/96	5/11/96	5/11/96	
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1	
Conc. Spiked:	0. 20 mg/kg	0. 20 m g/kg	0.20 mg/kg	0.6 0 mg/kg	
LCS Result:	0.18	0.19	0.19	0.56	
LCS % Recov.:	90	95	95	93	:
MS/MSD	60-140	60-140	60-140	60-140	-
LCS Control Limits	70-130	70-130	70-130	70-130	

SEQUOIA ANALYTICAL

Kevin Follett Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9605644.TTT <2>





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Touchstone Development

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Chevron 9-1740/1740-3

Matrix:

Solid

Work Order #:

-01 - 07

Reported:

May 14, 1996

QUALITY CONTROL DATA REPORT

9605644

Analyte:	Beryllium	Cadmium	Chromium	Nickel	
QC Batch#: M	E0510966010MDF	ME0510966010MDF	ME0510966010MDF	ME0510966010MDF	
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050	
Analyst:	S. O'Donnell	S. O'Donneli	S. O'Donnell	S. O'Donneil	
MS/MSD #:	9605412-01	9605412-01	9605412-01	9605412-01	
Sample Conc.:	N.D.	N.D.	31	38	
Prepared Date:	5/10/96	5/10/96	5/10/96	5/10/96	
Analyzed Date:	5/11/96	5/11/96	5/11/96	5/11/96	
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2	
Conc. Spiked:	100 mg/kg	100 mg/kg	100 mg/kg	100 mg/kg	
Result:	97	95	120	110	
MS % Recovery:	97	95	89	72	
Dup. Result:	98	96	120	120	
MSD % Recov.:	98	96	89	82	
M3D % Recov	96	3 0	05	55	
RPD:	1.0	1.0	0.0	8.7	
RPD Limit:	0-20	0-20	0-20	0-20	
LCS #:	BLK051096	BLK051096	BLK051096	BLK051096	
Prepared Date:	5/10/96	5/10/96	5/10/96	5/10/96	
Analyzed Date:	5/11/96	5/11/96	5/11/96	5/11/96	
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2	
Conc. Spiked:	100 mg/kg	100 mg/kg	1 00 mg/kg	100 mg/kg	
LCS Result:	100	100	100	100	
LCS % Recov.:	100	100	100	100	•
MS/MSD					
LCS Control Limits	80-120	80-120	80-120	80-120	

SEQUOIA ANALYTICAL

Kevin Follett Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix linterference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9605644.TTT <3>



/ Fax cop	y of l	.ab	Repo	ort a	nd C	COC to	Che	vron	Cor	ntac'	l: 🗆	No				· ر	e li	6 1000	ork	<u></u>
Chevron U.S P.O. BOX San Ramon, G	i.A. Inc. 5004 XA 94583	Consu Consu Consu	Facility Facility Hant Proj Hant Non Idrees A	Address Num	165 WAS	740-5 740-5 54 Sa	rag Da ta	a Al	Mesos,	Tale La CH	lans 1	- Lo	boratory boratory imples (plieation gnature	Hame Releas Collected Date	• Numl	ame) _	5	084 2952 75/	50 10 f	100 16
Sumber 1	ob Sample Number	tumber of Containers	Actoria S = Soil A = Air P = Water C = Charcool	G = Greb C = Composite 0 = Discrete	Time	Sample Preservation	iced (Yee or No)	ВПС + ТРН GAS (8020 + 8015)	17PH Okened (8013)	Oil and Graces (5520)	Purpeable Holocontons (8010)	Purpeoble Aromatics (8020)	Purgeothe Organide of	ble Organica	,Zn.Ni	16				9605644 Remorka
\$1/2 d \$1.3 (a) \$1.3 (a) \$1.4 (a) \$1.5 (a) \$1.6 (a) \$1.7 (a)	0 A-D 0 2 1 0 4 A 0 05 AC 0 6 4 0 6 A	4	S		11:4 11:4 11:4 11:4 11:4 11:4	7	Ve.	\(\lambda\)	V							V		Ç	2 Supra	briver waited
						·					.,,					;				for Samples!
Reiling friends	By AST Gnature	1/26	0	ganistic	ın	_/ //	6	Received	By (Sig	noture)	-		S/ El Organiz	190	24 5 6	//0/9 pate/Time	6) Turn		Time (Circle Choloe) 24 Hrs. 48 Hrs. 6 Days 0 Days Contracted
	Chevron U.S. P.O. BOX San Ramon, G FAX (415)84 P.O. d SP-Sand	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591 PARTITION OF A-D PARTITION OF A-D SP-Fan St A SP-Fan St A	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591 Property of the proper	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591 Project Consultant Non Address A Project Con Address A Project Consultant Non Address A Project Con Addre	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591 Project Contact (No. 207) Pr	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591 Project Contact (Name) TOT (Phone) Project Contact (Name) Project Contact	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591 Project Contact (Nome) Address C.S. Project Contact (Nome) Project Contact	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591 Project Contact (Nome) TOT (Phona) State (Nome)	Chevron U.S.A. Inc. P.O. BOX 5004 Son Ramon, CA 94583 FAX (415)842-9591 Project Contact (Nome) TOT (Phone) TOT (Phone)	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591 Consultant Name Jack Structure Consultant Name Jack	Chevron U.S.A. Inc. P.O. BOX 5004 Son Ramon, CA 94583 FAX (415)842-9591 Project Contact (Name) Proje	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramen, CA 94583 FAX (415)842-9591 Project Contact (Norma) Projec	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591 FAX (415)842-9591 Project Contact (Nome) Project Co	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591 Project Contesting Homes TO Thems San Ramon To Thems S	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591 Project Contact (Home) Project Contact (Ho	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591 Project Contact (Noma) Project Contact (N	Chevron U.S.A. Inc. P.O. BOX 5004 Son Ramon, CA 94583 FAX (415)842-9591 Consultant Project Number 1990	Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591 Preject Contest (Hame) Preje	Chevron U.S.A. Inc. P.O. BOX 5004 San Roman, CA 9453 FAX (415)842-9591 Project Contect (himm) Projec	Charron U.S.A. Inc. P.O. BOX 5004 FX (415)842-9591 Charron Foath, Number 555 Morage Att. Charles (Phon) 500 Morage Att. Cha



Redwood City, CA 94063 Walnut Creek, CA 94598 (415) 364-9600 (510) 988-9600 (916) 921-9600

FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments P.O. Box 2554

Santa Rosa, CA 95405

Attention: Jeff Monroe

Client Proj. ID: Chevron 9-1740 / 1740-5

Sample Descript: TB1-17.5 Matrix: SOLID

Analysis Method: 8015Mod/8020 Lab Number: 9605B87-01

Sampled: 05/16/96 Received: 05/17/96 Extracted: 05/22/96 Analyzed: 05/22/96 Reported: 05/30/96

QC Batch Number: GC052296BTEXEXA

Instrument ID: GCHP18

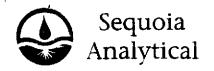
Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg		
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	1.0 0.025 0.0050 0.0050 0.0050	N.D. 0.034 N.D. N.D. N.D. 0.0052		
Surrogates Trifluorotoluene	Control Limits % 70 130	% Recovery 97		

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett Project Manager



680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8

Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

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FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments P.O. Box 2554

Santa Rosa, CA 95405

Attention: Jeff Monroe

Client Proj. ID: Chevron 9-1740 / 1740-5

Sample Descript: TB1-17.5

Matrix: SOLID Analysis Method: EPA 8015 Mod

Lab Number: 9605B87-01

Sampled: 05/16/96 Received: 05/17/96 Extracted: 05/21/96

Analyzed: 05/22/96 Reported: 05/30/96

QC Batch Number: GC0521960HBPEXA

Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Detection Limit Analyte

Sample Results mg/Kg

TEPH as Diesel Chromatogram Pattern: 1.0

mg/Kg

N.D.

Surrogates n-Pentacosane (C25)

Control Limits % 50

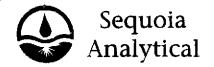
150

% Recovery 88

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598

(415) 364-9600 (510) 988-9600 (916) 921-9600

FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments P.O. Box 2554

Client Proj. ID: Chevron 9-1740 / 1740-5

Sampled: 05/16/96

Santa Rosa, CA 95405

Sample Descript: TB2-17.5 Matrix: SOLID

Received: 05/17/96 Extracted: 05/22/96

Analysis Method: 8015Mod/8020 Attention: Jeff Monroe Lab Number: 9605B87-02

Analyzed: 05/22/96 Reported: 05/30/96

QC Batch Number: GC052296BTEXEXA

Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

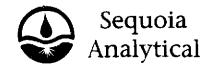
Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	1.0 0.025 0.0050 0.0050 0.0050 0.0050	N.D. 0.051 N.D. N.D. N.D. N.D.
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 87

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -ELAP #1210

Kevin Follett

Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments P.O. Box 2554

Client Proj. ID: Chevron 9-1740 / 1740-5 Sample Descript: TB2-17.5

Sampled: 05/16/96 Received: 05/17/96

Santa Rosa, CA 95405

Matrix: SOLID

Extracted: 05/21/96 Analyzed: 05/22/96

Analysis Method: EPA 8015 Mod Lab Number: 9605B87-02 Attention: Jeff Monroe

Reported: 05/30/96

QC Batch Number: GC0521960HBPEXA

instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte

Detection Limit mg/Kg

Sample Results mg/Kg

TEPH as Diesel Chromatogram Pattern: 1.0

N.D.

Surrogates n-Pentacosane (C25)

Control Limits % 50

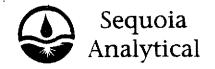
150

% Recovery

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett **Project Manager**



Jeff Monroe

680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063 Walnut Creek, CA 94598

(415) 364-9600 (510) 988-9600 (916) 921-9600

FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405

Client Proj. ID: Chevron 9-1740 / 1740-5

Received: 05/17/96

Lab Proj. ID: 9605B87

Reported: 05/30/96

LABORATORY NARRATIVE

No issues.

Attention:

SEQUOIA ANALYTICAL

Kevin Follett Project Manager



680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8

Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

(415) 364-9600 (510) 988-9600 (916) 921-9600

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Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Chevron 9-1740 /1740-5

Matrix: Solid

Work Order #:

9605B87 01,02 Reported:

May 30, 1996

QUALITY CONTROL DATA REPORT

Analyte:

Diesel

QC Batch#: GC0521960HBPEXa Analy. Method:

EPA 8015M

Prep. Method:

EPA 3550/DHS

Analyst:

J. Minkel

MS/MSD #:

Sample Conc.: Prepared Date:

Analyzed Date:

Instrument I.D.#: Conc. Spiked:

Result:

MS % Recovery:

Dup. Result: MSD % Recov.:

RPD:

RPD Limit:

LCS #:

BLK052196

Prepared Date:

5/21/96 5/22/96

Analyzed Date: Instrument I.D.#:

GCHP19A

Conc. Spiked:

25 mg/Kg

LCS Result:

20

LCS % Recov.:

80

MS/MSD LCS

50-150

Control Limits

60-140

SEQUOIA ANALYTICAL

Kevin Follett Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9605B87.TTT < 1>





680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8 Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Chevron 9-1740 /1740-5

Matrix:

Work Order #:

9605B87 01, 02

Reported: May 30, 1996

QUALITY CONTROL DATA REPORT

Solid

Analista		- .		Xylenes	
Analyte:	Benzene	Toluene	Ethyl	Aylenes	
00 D-1-1-#	00	000-000-00-00-00-00-00-00-00-00-00-00-0	Benzene	GC052296BTEXEXA	
-,	GC052296BTEXEXA	GC052296BTEXEXA	GC052296BTEXEXA	EPA 8020	1
Analy, Method:	EPA 8020	EPA 8020	EPA 8020	EPA 5030	1
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	
Analyst:	E. Cunanan	E. Cunanan	E. Cunanan	E. Cunanan	
MS/MSD #:	960590102	960590102	960590102	960590102	
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	
Prepared Date:	5/22/96	5/22/96	5/22/96	5/22/ 9 6	
Analyzed Date:	5/22/96	5/22/96	5/22/96	5/22/96	
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1	
Conc. Spiked:	0. 20 mg/Kg	0.20 mg/Kg	0. 20 mg /Kg	0. 60 mg/Kg	
Result:	0.18	0.18	0.18	0.54	
MS % Recovery:	90	90	90	90	
Dup. Result:	0.18	0.18	0.18	0.54	
MSD % Recov.:		90	90	90	
RPD:	0.0	0.0	0.0	0.0	
RPD Limit:		0-25	0-25	0-25	
LCS#:	BLK052296	BLK052296	BLK052296	BLK052296	
Prepared Date:	5/22/96	5/22/96	5/22/96	5/22/96	
Analyzed Date:	5/22/96	5/22/96	5/22/96	5/22/96	
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1	
Conc. Spiked:	0. 20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg	
LCS Result	0.20	0.20	0.20	0.58	
LCS % Recov.	: 100	100	100	97	:
MS/MSD	60-140	60-140	60-140	60-140	
LCS Control Limits	70-130	70-130	70-130	70-130	

SEQUOIA ANALYTICAL

Kevin Follett Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9605B87.TTT <2>



Chromatogram

. Sample Name : DS9605B87-1 (20:1)

: S:\GHP_04\0526\522A012.raw

: TPHO4A Method

Start Time : 0.00 min Scale Factor: 0.0

End Time : 33.65 min

Plot Offset: 0 mV

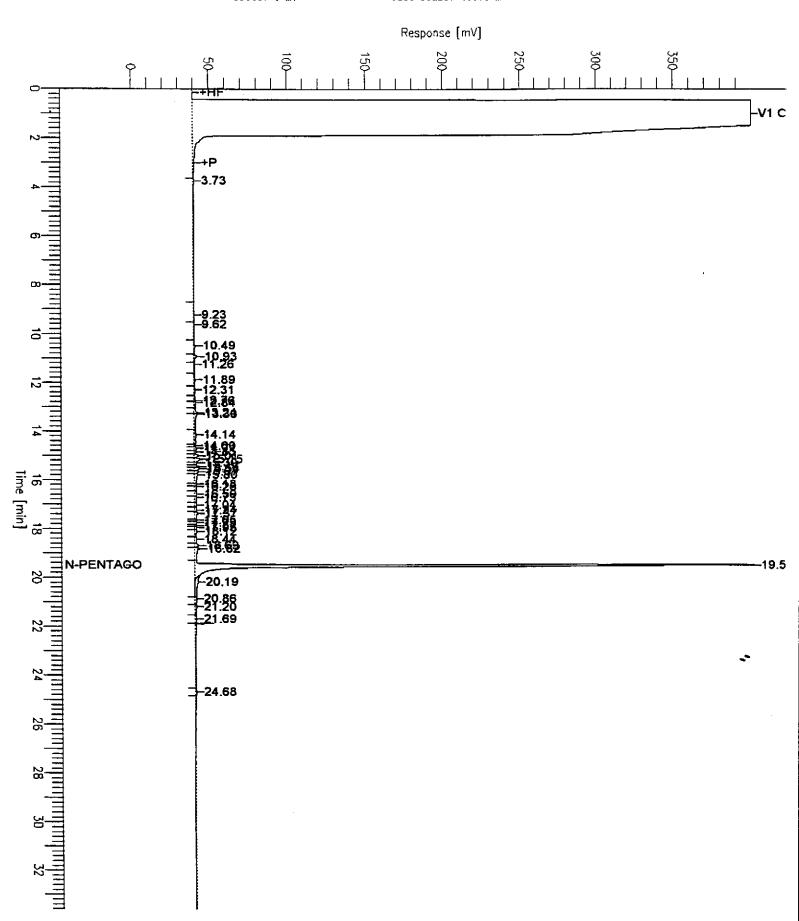
Sample #: TB1-17.5

Date: 5/23/96 11:27 Time of Injection: 5/22/96 18:48

Low Point : 0.00 mV High Point : 400.00 mV

Page 1 of 1

Plot Scale: 400.0 mV



Chromatogram

. Sample Name : DS9605B87-2 (20:1)

: S:\GHP_04\0526\522A013.raw FileName

Method : TPHO4A

Start Time : 0.00 min Scale Factor: 0.0

End Time : 33.65 min

Plot Offset: 0 mV

Sample #: TB2-17.5

Date: 5/23/96 11:27

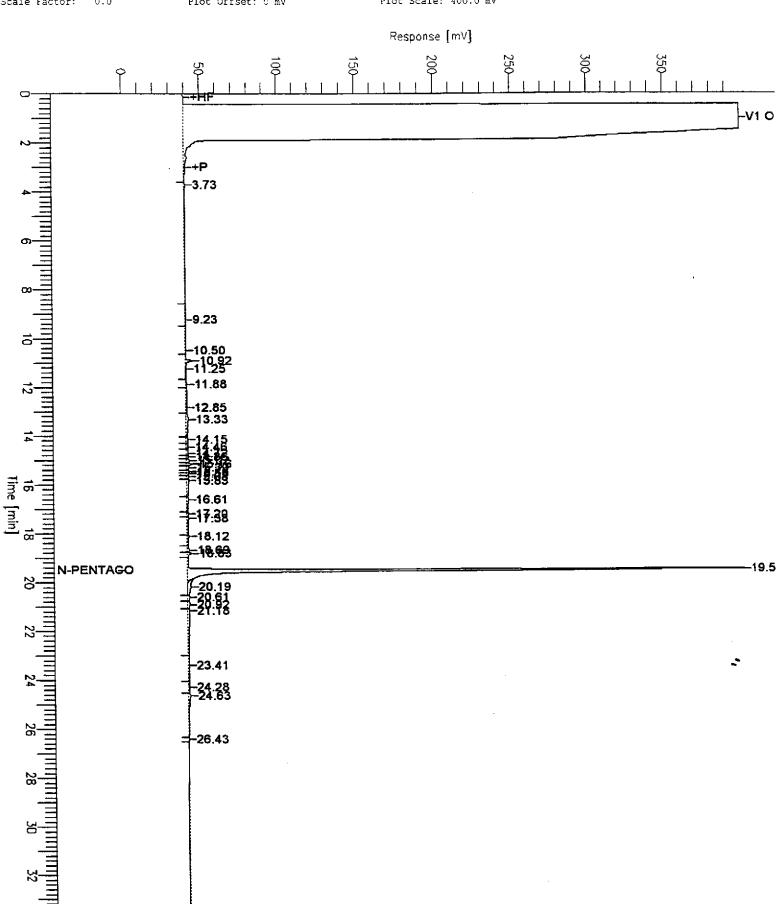
Time of Injection: 5/22/96 19:30

Low Point : 0.00 mV

High Point : 400.00 mV

Page 1 of 1

Plot Scale: 400.0 mV



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PS-17.	Containers	ii 8	Type 6 = Grub C = Composite D = Discrete	# //:30	Sample Preservadon	Par	,			Purqueble Holocarbons (6010)	and the same of th	Purpencie Organical (8240)	Amo	CLOPEZAMI CLOPEZAMI (ICVP or AA)	111					9605B87
Relinquished By (Signature		17	panization		Date/Time 5-16-9 Date/Time	6	Received	By (51g	jngture)			Organi:			ale/Time	· · · · · · · · · · · · · · · · · · ·		Turn Ar	2 4 5	rne (Circle Choloe) 4 Hrs. 8 Hrs. Doys contracted



Redwood City, CA 94063 Walnut Creek, CA 94598 (415) 364-9600 (510) 988-9600 (916) 921-9600

FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405

Client Proj. ID: Chevron 9-1740 / 1740-4

Sample Descript: TB3-17

Matrix: SOLID

Analysis Method: 8015Mod/8020 Lab Number: 9605E91-01

Sampled: 05/17/96 Received: 05/21/96 Extracted: 05/24/96

Analyzed: 05/24/96 Reported: 05/29/96

QC Batch Number: GC052496BTEXEXB

Instrument ID: GCHP01

Attention: Jeff Monroe

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

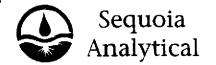
Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	1.0 0.0050 0.0050 0.0050 0.0050	N.D. N.D. N.D. N.D. N.D.
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 92

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -

ELAP #1210

Kevin Follett Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598

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Touchstone Developments

P.O. Box 2554 Santa Rosa, CA 95405

Attention: Jeff Monroe

Client Proj. ID: Chevron 9-1740 / 1740-4

Sample Descript: TB3-17

Matrix: SOLID

Analysis Method: EPA 8015 Mod Lab Number: 9605E91-01

Sampled: 05/17/96 Received: 05/21/96

Extracted: 05/24/96 Analyzed: 05/24/96 Reported: 05/29/96

QC Batch Number: GC0524960HBPEXA

Instrument ID: GCHP4

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte

Detection Limit mg/Kg

Sample Results mg/Kg

TEPH as Diesel Chromatogram Pattern: 1.0 C9-C24

1.0 Unidentified HC

Surrogates n-Pentacosane (C25)

Control Limits % 50

150

% Recovery 87

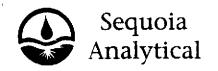
Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

ELAP #1210

Kevin Follett Project Manager

Page:



Redwood City, CA 94063 Walnut Creek, CA 94598 (510) 988-9600 819 Striker Avenue, Suite 8 Sacramento, CA 95834

(415) 364-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405 Jeff Monroe Attention:

Client Proj. |D: Chevron 9-1740 / 1740-4 Received: 05/21/96

Lab Proj. ID: 9605E91

Reported: 05/29/96

LABORATORY NARRATIVE

No issues.

Changed site ID from COC as per Jeff Monroe. (05/30/96)

SEQUOIA ANALYTICAL

Kevin Follett Project Manager



680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8

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Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Chevron 9-1740 / 1740-4

Matrix: Solid

Work Order #:

9605E91 01 Reported:

May 29, 1996

QUALITY CONTROL DATA REPORT

Analyte:

Diesel

QC Batch#: GC0524960HBPEXA Analy. Method: **EPA 8015M** Prep. Method: **EPA 3550/DHS**

Analyst:

J. Minkel

MS/MSD #:

9605D1808

Sample Conc.:

1.5

Prepared Date:

5/24/96

Analyzed Date:

5/25/96

Instrument I.D.#:

GCHP4A

Conc. Spiked:

25 mg/Kg

Result:

19

MS % Recovery:

70

Dup. Result:

17

MSD % Recov.:

62

RPD:

11

RPD Limit:

0-50

LCS #:

Prepared Date:

Analyzed Date:

Instrument I.D.#:

Conc. Spiked:

LCS Result:

LCS % Recov.:

SEQUOIA ANALYTICA

MS/MSD LCS

50-150 60-140

Control Limits

Please Note:

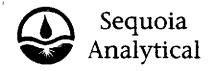
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

Kevin Follett Project Manager

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9605E91.TTT <1>





680 Chesapeake Drive 404 N. Wiget Lane 319 Striker Avenue, Suite 8

Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Chevron 9-1740 / 1740-4

Solid

Work Order #:

Matrix:

9605E91

01

Reported:

May 29, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl	Xylenes	
			Benzene		
QC Batch#: Go	C052396BTEXEXB	GC052396BTEXEXB	GC052396BTEXEXB	GC052396BTEXEXB	
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	
Analyst:	E. Cunanan	E. Cunanan	E. Cunanan	E. Cunanan	
MS/MSD #:	960590105	960590105	960590105	960590105	
Sample Conc.:	ND.	ND.	ND.	ND.	
Prepared Date:	5/23/96	5/23/96	5/23/96	5/23/96	
Analyzed Date:	5/23/96	5/23/96	5/23/96	5/23/96	
instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1	
Conc. Spiked:	0. 20 mg/Kg	0. 20 mg/Kg	0. 20 mg/Kg	0.60 mg/Kg	
Result:	0.15	0.15	0.16	0.46	
MS % Recovery:	75	75	80	π	
Dup. Result:	0.14	0.15	0.15	0.45	
MSD % Recov.:	70	75	75	75	
RPD:	6.9	0.0	6.5	2.2	
RPD Limit:	0-25	0-25	0-25	0-25	
LCS #:	BLK052396	BLK052396	BLK052396	BLK052396	
Prepared Date:	5/23/96	5/23/96	5/23/96	5/23/96	
Analyzed Date:	5/23/96	5/23/96	5/23/96	5/23/96	
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1	
Conc. Spiked:	0. 20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg	
LCS Result:	0.19	0.19	0.20	0.58	
LCS % Recov.:	95	95	100	97	:
MS/MSD	60-140	60-140	60-140	60-140	

SEQUOIA ANALYTICAL

Kevin Follett Project Manager

Control Limits

Piease Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9605E91.TTT <2>



Chromatogram

• Sample Mame : DS9605E91-1 (20:1)RS

End Time : 33.65 min Plot Offset: 1 m7

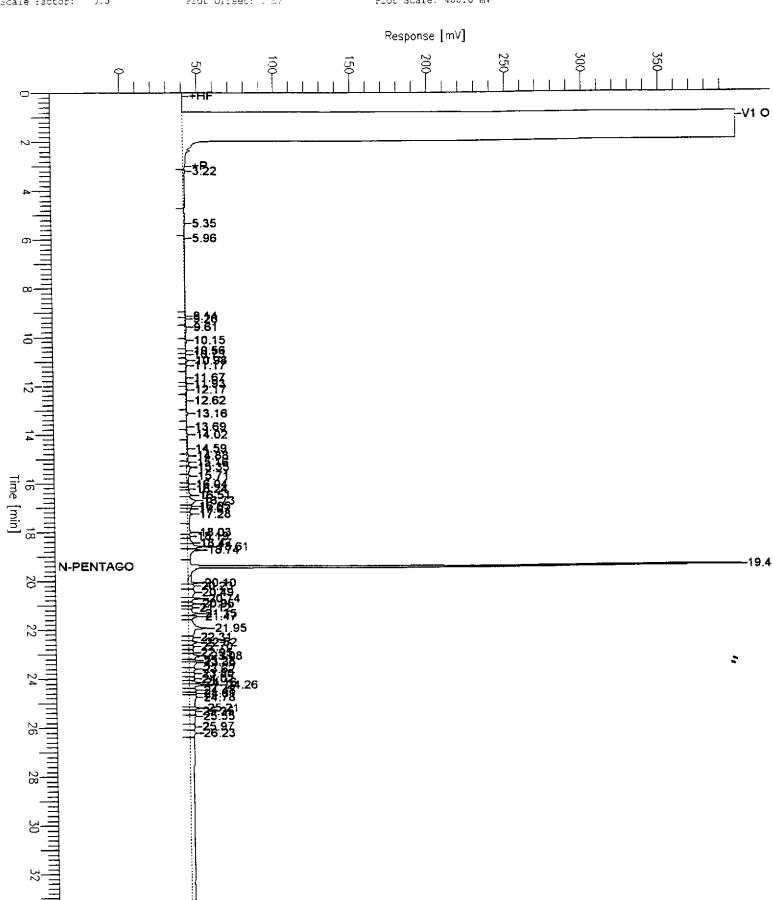
Sample #: TB3-17 Date: 5/28/96 08:56

Time of Injection: 5/24/96 18:56

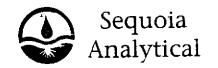
Low Point : 0.00 mV Plot Scale: 400.0 mV

High Point : 400.00 mV

Page 1 of 1



Fax copy o	f Lab	Repo	ort a	ind (COC to	Chev	ron	Cor	ntac	t: 🗀	No				Cl	<u> air</u>	1-0	<u>1-C</u>	uste	ody-Kecord
Chevron U.S.A. 1 P.O. BOX 5004 San Ramon, CA 94 FAX (415)842-99	Chevr	on Focility Facility uitant Pro uitant Hai ddress Co	y Address	9- 65- 70-1	d Mari	rga 14 Del	AVE,	Oal me	to H		_ CI	hevron (aborator) aborator)	/ Hame / Releas Collected	(Hame) (Phone) • 'Numb I by (Na	er	\$1000000000000000000000000000000000000	0 8 6 1 7-9	12	Brig 50 one	9500
ompte Number	Number of Containers	Leotra S = Sol A = Ar W = Weter C = Chercool	Type G = Grab C = Compasite D = Clearete	Ime	Sample Preservation	toad (Yes or No)	(8020 + 8015)	TPH Olesed (8015)	· ·	Purpentie Holocarboru (8010)	Purgeoble Arginatics (9020)	and the same of th	granica	CLAPENM (ICAP or AL)	med C	90	20.	5 <i>E</i>	9/	Remarks
TB3-17	1/	5	D ,	400	- 1A	Ves	X	X											E	-5day
					Date/TimeO	\(\frac{1}{2}\)	ocelyed	By (Sler	noture)			Organiza	atlon	Del	le/Time			Turn A	ound Tir	ne (Circle Choloe)
Relinquished By (Sign	oture)	on	gantzatlon	-47	5-21-9 Dete/Time	(Q) Ri	ocelyed ocelyed	By (Slgr	nature)	<i>p</i> y (S1g:		Quantité O 1	atlon P 15		te/Time	<u>.</u>	-		46 6 10	fire. Hre. Daye Daye portraoted



Redwood City, CA 94063 Walnut Creek, CA 94598

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Touchstone Developments

P.O. Box 2554

Chevron 9-1740 / 1740-4 Client Proj. ID:

Sampled: 05/20/96 Received: 05/21/96

Lab Proj. ID: 9605C47 Santa Rosa, CA 95405

Analyzed: see below

Jeff Monroe Attention:

Reported: 05/22/96

LABORATORY ANALYSIS

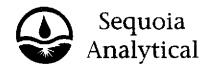
Analyte	Units	Date Analyzed	Detection Limit	Sample Results		
Lab No: 9605C47-01 Sample Desc : LIQUID,System 1						
Copper Lead Zinc	mg/L mg/L mg/L	05/22/96 05/22/96 05/22/96	0.010 0.10 0.010	0.039 N.D. 0.28		

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett Project Manager

Fax copy o	f Lab	Repo	ort a	nd C	COC to	Chev	ron	Cor	ntac	t: U	No				Ch	ain	-01	<u>-U</u>	<u> 1sto</u>	dy-Kecord
Chevron U.S.A. Ir P.O. BOX 5004 San Ramon, CA 945 FAX (415)842-95	Chen	ron Facility	y Number Address Ject Num ne	SEX BY	Mera 17-40 lopon	EA Sun	Ave Defe Defe Number	logi	Vale yen 788	land De	- La - La - Sa	oboratory oboratory omples C ollection ignoture	Hame Releas Collected Date	humy by (Ho	mo) J	Storic ICt	1807 1607 1605	184. 113 Von	0	7580
Sample Number	Number of Containers	Metrix S = Sol A = Air W = Woter C = Chorcook	Type G = Grab C = Composite 0 = Discrete	Ime	Semple Preservation	load (Yes or No)	9TEX + TPH GAS (8020 + 8015)	TPH Clean (8015)	Oll and Grasse (5520)	Purpenble Holecarbone (8010)	Purpectole Attendates (8020)	200	Extractable Organica (8270)	CA, O. Ph. Zn. M	Copper, Zinc					Remarks
System 1	8	┩——	G	17:3	Wind -	Yes	X,	X							\times					140 841
Relinquished By (Sign			T D	,	Dote/Ilms	G R	ecelved ecelved	By (Sig	natur+)			Organiza		Do	ite/Time			Turn Acc	24 40 6	Hre. Daye
Rediriquined By (Shor	noture)	O	rgenizatio	<u> </u>	Date/Time],	ecleved	for Lol	12) By (\$10	neture)	08	25		10/11me 121/9		ļ		As Co	ntraoted



Redwood City, CA 94063 Walnut Creek, CA 94598

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Touchstone Developments

Client Proj. ID: Sample Descript: System 1

Chevron 9-1740 / 1740-4

Sampled: 05/20/96

P.O. Box 2554 Santa Rosa, CA 95405

Matrix: LIQUID

Received: 05/21/96

Attention: Jeff Monroe

Analysis Method: 8015Mod/8020 Lab Number: 9605C47-01

Analyzed: 05/21/96 Reported: 05/22/96

QC Batch Number: GC052196BTEX17A

Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	50 0.50 0.50 0.50 0.50	N.D. N.D. N.D. N.D. N.D.
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 91

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 319 Striker Avenue, Suite 8 Sacramento, CA 95834

(415) 364-9600 (510) 988-9600 (916) 921-9600

FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments
P.O. Box 2554

Client Proj. ID:

Chevron 9-1740 / 1740-4

Sampled: 05/20/96 Received: 05/21/96

Santa Rosa, CA 95405 Attention: Jeff Monroe

Sample Descript: System 1 Matrix: LIQUID

Extracted: 05/21/96 Analyzed: 05/21/96

Analysis Method: EPA 8015 Mod Lab Number: 9605C47-01

Reported: 05/22/96

QC Batch Number: GC0520960HBPEXD

Instrument ID: GCHP19A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte

Detection Limit ug/L

Sample Results ug/L

TEPH as Diesel Chromatogram Pattern: 50

N.D.

Surrogates n-Pentacosane (C25)

Control Limits % 50

150

% Recovery

105

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

ELAP #1210

Kevin Follett Project Manager



680 Chesapeake Drive 404 N. Wiget Lane 319 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063 Walnut Creek, CA 94598

(415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments P.O. Box 2554

Client Proj. ID: Chevron 9-1740 / 1740-4

Received: 05/21/96

Santa Rosa, CA 95405 tion: Jeff Monroe Attention:

Lab Proj. ID: 9605C47

Reported: 05/22/96

LABORATORY NARRATIVE

No issues.

SEQUOIA ANALYTICAL

Kevin Follett **Project Manager**



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

(415) 364-9600 (510) 988-9600 (916) 921-9600

FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Chevron 9-1740 / 1740-4

Matrix:

Liquid

Work Order #:

9605C47 01 Reported:

May 23, 1996

QUALITY CONTROL DATA REPORT

Analyte:

Diesel

QC Batch#: GC0520960HBPEXD Analy. Method:

EPA 8015M

Prep. Method:

EPA 3510

Analyst:

B. Ali

MS/MSD #:

BLK052096

Sample Conc.: **Prepared Date:**

N.D. 5/20/96

Analyzed Date: Instrument I.D.#:

5/21/96 GCHP5A

Conc. Spiked:

1000 μg/L

Result:

1100

MS % Recovery:

110

Dup. Result:

1100

MSD % Recov.:

110

RPD:

0.0

RPD Limit:

0-50

LCS #:

BLK052196

Prepared Date:

5/21/96

Analyzed Date: Instrument I.D.#:

5/21/96 GCHP9A

Conc. Spiked:

 $1000 \mu g/L$

LCS Result:

810

LCS % Recov.:

81

MS/MSD

50-150

LCS

60-140

Control Limits

SEQUOIA ANALYTICAL

Please Note:

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Kevin Follett **Project Manager** ** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9605C47.TTT <1>





680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063 Walnut Creek, CA 94598 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Chevron 9-1740 / 1740-4

Matrix: Liquid

Work Order #:

9605C47 01 Reported:

May 23, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl	Xylenes
			Benzene	ļ
QC Batch#:	GC052196BTEX17A	GC052196BTEX17A	GC052196BTEX17A	GC052196BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	96 05 A6003	9605A6003	9605A6003	9605A6003
Sample Conc.:		N.D.	N.D.	N.D.
Prepared Date:		5/21/96	5/21/96	5/21/96
Analyzed Date:		5/21/96 5/21/96	5/21/96	5/21/96
Instrument I.D.#:		GCHP17	GCHP17	GCHP17
Conc. Spiked:		10 μg/L	10 μg/L	30 μg/L
Conc. opiaca.	10 pg/L	ιο μg/ C	ισμg/L	
Result:	9.8	10	8.8	25
MS % Recovery:	98	100	- 88	83
Dup. Result:	10	11	9.3	28
MSD % Recov.:	100	110	93	93
RPD:	2.0	9.5	5.5	11
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK052196	BLK052196	BLK052196	BLK052196
Prepared Date:	5/21/96	5/21/96	5/21/96	5/21/96
Analyzed Date:	5/21/96	5/21/96	5/21/96	5/21/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	: 10 μg/L	10 µg/L	10 μg/L	30 μg/L
LCS Result	9.4	9.9	9.0	27
LCS % Recov.:		99	90	90
	- - ·			

SEQUOIA ANALYTICAL

Kevin Follett Project Manager

MS/MSD

LCS

Control Limits

Please Note:

60-140

70-130

60-140

70-130

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

60-140

70-130

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9605C47.TTT <2>



60-140

70-130



680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8

Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405

Client Project ID:

Chevron 9-1740 / 1740-4

Matrix:

Liquid

Attention: Jeff Monroe

Work Order #:

9605C47 01

Reported: May 23, 1996

QUALITY CONTROL DATA REPORT

QC Batch#: ME0521966010MDB ME0521966010MDD MEDECTOR MEDECTOR MEDECTOR MEDCTOR MEDCTOR MEDCTOR MEDCTOR MEDCTOR MEDCTOR MEDCTOR MEDCTOR MEDCTOR ME	Analyte:	Beryilium	Cadmium	Chromium	Nickel
Analy. Method: EPA 6010	OC Batch#	MEGEOTOREGIONADO	MEDECTORECTOMED	MEGEOTOGGOTOMOR	MC0521066010MDR
Prep. Method: EPA 3010					1
Analyst: R. Butler R. Butler P. Butler P. Butler R. Butler MS/MSD #: 9606B5801 9606B5801 9605B5801 9605B58					
MS/MSD #: 9605B5801 9605B5801 9605B5801 9605B5801 Sample Conc.: N.D. N.D. N.D. 0.060 Prepared Date: 5/21/96 5/21/96 5/21/96 5/21/96 Analyzed Date: 5/21/98 5/21/96 5/21/96 5/21/96 Instrument I.D.#: MTJA2 MTJA2 MTJA2 MTJA2 Conc. Spiked: 1.0 mg/L 1.0 mg/L 1.0 mg/L 1.0 mg/L Result: 0.95 0.94 0.93 0.96 MS % Recovery: 95 94 93 92 0.96 MSD % Recov.: 94 93 92 90 RPD Limit: 0.90 0.20 0.20 0.20 LCS #: BLK052196 BLK052196 BLK052196 BLK052196 Prepared Date: 5/21/96 5/21/96 5/21/96 5/21/96 Analyzed Date: 5/21/96 5/21/96 5/21/96 5/21/96 Instrument I.D.#: MTJA2 MTJA2 MTJA2 <th>Frep. Metriou.</th> <th>LFA 3010</th> <th>EFASOIO</th> <th>CFA 3010</th> <th>LI X 30 IO</th>	Frep. Metriou.	LFA 3010	EFASOIO	CFA 3010	LI X 30 IO
Sample Conc.: N.D. N.D. N.D. 0.060 Prepared Date: 5/21/96 5/21/96 5/21/96 5/21/96 Analyzed Date: 5/21/96 5/21/96 5/21/96 Instrument I.D.#: MTJA2 MTJA2 MTJA2 Conc. Spiked: 1.0 mg/L 1.0 mg/L 1.0 mg/L Result: 0.95 0.94 0.93 0.96 MS Recovery: 95 94 93 90 Dup. Result: 0.94 0.93 0.92 0.96 MSD % Recov.: 94 93 92 90 RPD: 1.0 1.0 1.0 0.0 RPD Limit: 0-20 0-20 0-20 0-20 LCS #: BLK052196 BLK052196 BLK052196 BLK052196 Prepared Date: 5/21/96 5/21/96 5/21/96 5/21/96 Analyzed Date: 5/21/96 5/21/96 5/21/96 5/21/96 Instrument I.D.#: MTJA2 MTJA2 <t< th=""><th>Analyst:</th><th>R. Butler</th><th>R. Butler</th><th>R. Butler</th><th>R. Butler</th></t<>	Analyst:	R. Butler	R. Butler	R. Butler	R. Butler
Prepared Date: 5/21/96	MS/MSD #:	96 05 B5801	9605B5801	9605B5801	9605B5801
Analyzed Date: 5/21/96	Sample Conc.:	N.D.	N.D.	N.D.	0.060
Analyzed Date: 5/21/96	Prepared Date:	5/21/96	5/21/96	5/21/96	5/21/96
Instrument I.D.#: MTJA2	Analyzed Date:			, .	5/21/96
Result: 0.95 0.94 0.93 0.96 MS % Recovery: 95 94 93 90 Dup. Result: 0.94 0.93 0.92 0.96 MSD % Recov.: 94 93 92 90 RPD: 1.0 1.0 1.0 0.0 0.0 RPD Limit: 0-20 0-20 0-20 0-20 LCS #: BLK052196 BLK052196 BLK052196 BLK052196 Prepared Date: 5/21/96 5/21/96 5/21/96 5/21/96 Analyzed Date: 5/21/96 5/21/96 5/21/96 5/21/96 Instrument I.D.#: MTJA2 MTJA2 MTJA2 Conc. Spiked: 1.0 mg/L 1.0 mg/L 1.0 mg/L LCS Result: 0.98 0.96 0.95 0.94	Instrument I.D.#:	MTJA2	MTJA2	· ·	MTJA2
MS % Recovery: 95 94 93 90 Dup. Result: 0.94 0.93 0.92 0.96 MSD % Recov.: 94 93 92 90 RPD: 1.0 1.0 1.0 0.0 RPD Limit: 0-20 0-20 0-20 0-20 LCS #: BLK052196 BLK052196 BLK052196 BLK052196 Prepared Date: 5/21/96 5/21/96 5/21/96 5/21/96 Analyzed Date: 5/21/96 5/21/96 5/21/96 5/21/96 instrument I.D.#: MTJA2 MTJA2 MTJA2 Conc. Spiked: 1.0 mg/L 1.0 mg/L 1.0 mg/L LCS Result: 0.98 0.96 0.95 0.94	Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
Dup. Result: MSD % Recov.: 9.94 9.93 9.92 9.90 RPD: RPD Limit: 1.0 1.0 1.0 0.0 RPD Limit: 0-20 0-20 0-20 0-20 LCS #: BLK052196 BLK052196 BLK052196 BLK052196 Prepared Date: 5/21/96 5/21/96 5/21/96 5/21/96 Analyzed Date: 5/21/96 5/21/96 5/21/96 5/21/96 Instrument I.D.#: MTJA2 MTJA2 MTJA2 MTJA2 MTJA2 Conc. Spiked: 1.0 mg/L 1.0 mg/L 1.0 mg/L 1.0 mg/L LCS Result: 0.98 0.96 0.95 0.94	Resuit:	0.95	0.94	0.93	0.96
MSD % Recov.: 94 93 92 90 RPD: RPD Limit: 1.0 1.0 1.0 0.0 RPD Limit: 0-20 0-20 0-20 0-20 LCS #: BLK052196 BLK052196 BLK052196 BLK052196 Prepared Date: 5/21/96 5/21/96 5/21/96 5/21/96 Analyzed Date: 5/21/96 5/21/96 5/21/96 5/21/96 Instrument I.D.#: MTJA2 MTJA2 MTJA2 MTJA2 Conc. Spiked: 1.0 mg/L 1.0 mg/L 1.0 mg/L LCS Result: 0.98 0.96 0.95 0.94	MS % Recovery:	95	94	93	90
RPD: 1.0 1.0 1.0 0.0 0.0 RPD Limit: 0-20 0-20 0-20 0-20 0-20 LCS #: BLK052196 BLK052196 BLK052196 BLK052196 Prepared Date: 5/21/96 5/21/96 5/21/96 5/21/96 5/21/96 Instrument I.D.#: MTJA2 MTJA2 MTJA2 MTJA2 MTJA2 MTJA2 MTJA2 MTJA2 MTJA2 Conc. Spiked: 1.0 mg/L 1.0 mg/L 1.0 mg/L 1.0 mg/L 1.0 mg/L LCS Result: 0.98 0.96 0.95 0.94	Dup. Result:	0.94	0.93	0.92	0.96
RPD Limit: 0-20 0-20 0-20 0-20 LCS #: BLK052196 BLK052196 BLK052196 Prepared Date: 5/21/96 5/21/96 5/21/96 Analyzed Date: 5/21/96 5/21/96 5/21/96 Instrument I.D.#: MTJA2 MTJA2 MTJA2 Conc. Spiked: 1.0 mg/L 1.0 mg/L 1.0 mg/L LCS Result: 0.98 0.96 0.95 0.94	MSD % Recov.:	94	93	92	90
RPD Limit: 0-20 0-20 0-20 0-20 LCS #: BLK052196 BLK052196 BLK052196 Prepared Date: 5/21/96 5/21/96 5/21/96 Analyzed Date: 5/21/96 5/21/96 5/21/96 Instrument I.D.#: MTJA2 MTJA2 MTJA2 MTJA2 Conc. Spiked: 1.0 mg/L 1.0 mg/L 1.0 mg/L 1.0 mg/L LCS Result: 0.98 0.96 0.95 0.94	RPD:	1.0	1.0	1.0	0.0
Prepared Date: 5/21/96 5/21/96 5/21/96 Analyzed Date: 5/21/96 5/21/96 5/21/96 Instrument I.D.#: MTJA2 MTJA2 MTJA2 Conc. Spiked: 1.0 mg/L 1.0 mg/L 1.0 mg/L LCS Result: 0.98 0.96 0.95 0.94	RPD Limit:	0-20	0-20		0-20
Prepared Date: 5/21/96 5/21/96 5/21/96 Analyzed Date: 5/21/96 5/21/96 5/21/96 Instrument I.D.#: MTJA2 MTJA2 MTJA2 Conc. Spiked: 1.0 mg/L 1.0 mg/L 1.0 mg/L LCS Result: 0.98 0.96 0.95 0.94					
Analyzed Date: 5/21/96 5/21/96 5/21/96 Instrument I.D.#: MTJA2 MTJA2 MTJA2 Conc. Spiked: 1.0 mg/L 1.0 mg/L 1.0 mg/L LCS Result: 0.98 0.96 0.95 0.94	LCS#	BLK052196	BLK052196	BLK052196	BLK052196
Analyzed Date: 5/21/96 5/21/96 5/21/96 Instrument I.D.#: MTJA2 MTJA2 MTJA2 Conc. Spiked: 1.0 mg/L 1.0 mg/L 1.0 mg/L LCS Result: 0.98 0.96 0.95 0.94	Prepared Date:	5/21/96	5/21/96	5/21/96	5/21/96
Conc. Spiked: 1.0 mg/L 1.0 mg/L 1.0 mg/L LCS Result: 0.98 0.96 0.95 0.94	Analyzed Date:	5/21/96			5/21/96
Conc. Spiked: 1.0 mg/L 1.0 mg/L 1.0 mg/L LCS Result: 0.98 0.96 0.95 0.94	Instrument I.D.#:		MTJA2	, ,	• •
	Conc. Spiked:	: 1.0 mg/L	1.0 mg/L		1.0 mg/L
· · · -	LCS Result	. 0.98	0.96	0.95	0.94
	LCS % Recov.	98			94

ſ	MS/MSD LCS	80-120	80-120	80-120	80-120	
ı	Control Limits					

SEQUOIA ANALYTICAL

Kevin Follett Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

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Chevron U.S.A P.O. BOX 50 San Ramon, CA FAX (415)842	., Inc. 104 94583	Consu	herron Facility Number 9-1740 herron Facility Number 9-1740 Facility Address SD Managa All October (Name) Foresultant Project Number 1740 F4 Consentant Name 1844 1854 1854 1854 1854 1854 1856 Project Contact (Name) Project Contact (Name) Forest Contact (Name) Froject Contact													- - - - - - - - - -						
Relinquiered By			Martis S + Sol A Ar S + Sol	The Companies of the Co	17:3	Science Freezonation	Veg	(3020 + 3015)	By (Sign	nature)	Purpeatie Hatecontern	ometica	Anolyse	Latroctobie Organica (8270)	CACP-PLZALM CACP-PLZALM CACP-PLZALM	ate/time		7601	Turn As	ound I	Remorks A Hre. B Hre. Doye D Doye	
B Retinguened By				Organizatio	,,	Date/Ilme	F	lecleved :	For Lo	borotos	By \$519	nelure) 08	25		121 /9			<u></u>		Contracted	



680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063 Walnut Creek, CA 94598 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554 Santa Rosa, CA 95405

Attention: Jeff Monroe

Client Proj. ID: Chevron 9-1740 / 1740-4

Sample Descript: TX1-8

Matrix: SOLID

Analysis Method: 8015Mod/8020

Lab Number: 9605G66-01

Sampled: 05/22/96

Received: 05/23/96

Analyzed: 05/28/96 Reported: 05/31/96

QC Batch Number: GC052896BTEXEXB

Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

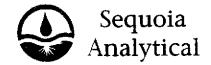
Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	1.0 0.0050 0.0050 0.0050 0.0050	N.Đ. N.D. N.D. N.D. N.D.
Surrogates Trifluorotoluene	Control Limits % 70 130	% Recovery 95

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett

Project Manager



680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063 Walnut Creek, CA 94598

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FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554 Santa Rosa, CA 95405

Attention: Jeff Monroe

Client Proj. ID: Chevron 9-1740 / 1740-4

Sample Descript: TX1-8

Matrix: SOLID

Analysis Method: EPA 8015 Mod Lab Number: 9605G66-01

Sampled: 05/22/96

Received: 05/23/96 Extracted: 05/28/96 Analyzed: 05/29/96

Reported: 05/30/96

QC Batch Number: GC0524960HBPEXA

Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte

Detection Limit mg/Kg

Sample Results mg/Kg

TEPH as Diesel Chromatogram Pattern: 1.0 C9-C24

Unidentified HC

Surrogates n-Pentacosane (C25)

Control Limits % 50

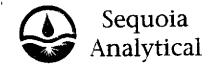
150

% Recovery 88

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

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Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe

Client Proj. ID: Chevron 9-1740 / 1740-4

Sample Descript: TX2-8 Matrix: SOLID

Analysis Method: 8015Mod/8020

Lab Number: 9605G66-02

Sampled: 05/22/96 Received: 05/23/96

Analyzed: 05/28/96 Reported: 05/31/96

QC Batch Number: GC052896BTEXEXB

Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	De	etection Limit mg/Kg	5	Sample Results mg/Kg
TPPH as Gas Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern: Weathered Gas		1.0 0.0050 0.0050 0.0050 0.0050		. 8.1 N.D. N.D. . 0.012 . 0.020
Surrogates Trifluorotoluene	Co 70	ntrol Limits %	130	Recovery 107

Analytes reported as N.D. were not present above the stated limit of detection.

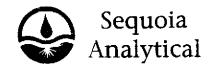
SEQUOIA ANALYTICAL -

ELAP #1210

Kevin Follett Project Manager

Page:

3



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

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Touchstone Developments P.O. Box 2554

Chevron 9-1740 / 1740-4 Client Proj. ID:

Sampled: 05/22/96

Santa Rosa, CA 95405

Sample Descript: TX2-8 Matrix: SOLID

Received: 05/23/96 Extracted: 05/28/96

Analysis Method: EPA 8015 Mod Attention: Jeff Monroe Lab Number: 9605G66-02

Analyzed: 05/29/96 Reported: 05/30/96

QC Batch Number: GC0524960HBPEXA

Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte

Detection Limit mg/Kg

Sample Results mg/Kg

TEPH as Diesel Chromatogram Pattern: 5.0 C9-C24

Unidentified HC

Surrogates n-Pentacosane (C25)

Control Limits % 50

150

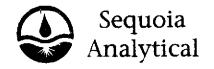
% Recovery 261 Q

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett

Project Manager



680 Chesapeake Drive 404 N. Wiget Lane 319 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063 Walnut Creek, CA 94598 (510) 988-9600

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FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405

Jeff Monroe

Attention:

Client Proj. ID: Chevron 9-1740 / 1740-4

Lab Proj. ID: 9605G66

Received: 05/23/96

Reported: 05/30/96

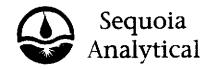
LABORATORY NARRATIVE

ALCARION. CONTINOUS

TEPH note: sample 9605G66-02 was diluted 5 fold.

SEQUOIA ANALYTICAL

Kevin Follett Project Manager



680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8

Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

(415) 364-9600 (510) 988-9600 (916) 921-9600

FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe

Client Project ID:

Chevron 9-1740 / 1740-4

Matrix:

Solid

Work Order #:

9605G66 01,02 Reported:

May 31, 1996

QUALITY CONTROL DATA REPORT

Analyte:

Diesel

QC Batch#: GC0524960HBPEXA Analy. Method: **EPA 8015M** Prep. Method: EPA 3550/DHS

Analyst:

J. Minkel

MS/MSD #:

9605D1808

Sample Conc.: **Prepared Date:** 1.5

Analyzed Date:

5/24/96 5/25/96

Instrument I.D.#: Conc. Spiked:

GCHP4A 25 mg/Kg

Result:

19

MS % Recovery:

70

Dup. Result:

17

MSD % Recov.:

62

RPD:

11

RPD Limit:

0-50

LCS #:

BLK052896

Prepared Date:

5/28/96

Analyzed Date: Instrument I.D.#: 5/28/96 GCHP5B

Conc. Spiked:

25 mg/Kg

LCS Result:

19

LCS % Recov.:

76

MS/MSD LCS

50-150

Control Limits

60-140

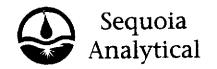
SEQUOIA ANALYTICAL

Kevin Follett Project Manager Piease Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9605G66.TTT < 1 >



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Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe

Client Project ID:

Chevron 9-1740 / 1740-4

Matrix:

Solid

Work Order #:

9605G66 01,02 Reported:

May 31, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl	Xylenes	
00 5-4-5 #. 0			Benzene	GC052896BTEXEXB	ŀ
QC Batch#: G		GC052896BTEXEXB	GC052896BTEXEXB	EPA 8020	ŀ
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 5030	ļ
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EFA 3030	
Analyst:	E. Cunanan	E. Cunanan	E. Cunanan	E. Cunanan	
MS/MSD #:	9605C3801	9605C3801	9605C3801	9605C3801	
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	
Prepared Date:	5/28/96	5/28/96	5/28/96	5/28/96	
Analyzed Date:	5/28/96	5/28/96	5/28/96	5/ 28/96	
nstrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7	
Conc. Spiked:	0.20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg	
Resuit:	0.17	0.17	0.17	0.52	
MS % Recovery:	85	85	85	87	
Dup. Result:	0.16	0.16	0.17	0.50	
MSD % Recov.:	80	80	85	83	
RPD:	6.1	6.1	0.0	3.9	
RPD Limit:	0-25	0-25	0-25	0-25	
LCS #:	BL K05289 6	BLK052896	BLK052896	BLK052896	
Prepared Date:	5/28/96	5/28/96	5/28/96	5/28/96	
Analyzed Date:	5/28/96	5/28/96	5/28/96	5/28/96	
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7	
Conc. Spiked:	0. 20 mg /Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg	
LCS Result:	0.19	0.19	0.20	0.59	
LCS % Recov.:	95	95	100	98	-
MS/MSD	60-140	60-140	60-140	60-140	
ICS	70-130	70.120	70-120	70-130	

LCS 70-130 70-130 70-130 70-130 **Control Limits**

SEQUOIA ANALYTICAL

Kevin Follett Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

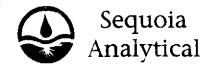
** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9605G66.TTT <2>



☐ Yes Chain-of-Custody-Record Fax copy of Lab Report and COC to Chevron Contact:

No hil Briggs Chevron Contact (Name) Chevron Facility Number Chevron U.S.A. Inc. Laboratory Name. Consultant Project Number. P.O. BOX 5004 Laboratory Release Number Consultant Nome San Ramon, CA 94583 Samples Collected by (Name). FAX (415)842-9591 Callection Date Project Contact (Name) (Phone) 5388878 (Fax Number) 538-8812 Signature Analyses To Se Performed Purgeothie Organic (8240) BIEX + TPH CAS (8020 + 8015) 3 Oil and Greater (5520) Purpeoble Holo (8010) ced (Yes or Purgeoble (8020) FF. (8) (8) Remarks Turn Around Time (Circle Cholce) Date/TimeS / 40 Date/Time Received By (Signature) Organization Organization Relinquished/By (Signature) 24 Hrs. 48 Hrs. Date/Time Organization Received By (Signature) Date/Time Organization Relinquished By (Signature) 5 Days 10 Days Realeved For Laboratory By (Signature) As Controcted Relinguished by (Signature) Date/Time Organizatjen



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Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe

Client Proj. ID: Chevron 9-1740 / 1740-4

Sample Descript: TX3-3'

Matrix: SOLID

Analysis Method: 8015Mod/8020

Lab Number: 9605J65-01

Sampled: 05/24/96

Received: 05/30/96

Analyzed: 06/04/96 Reported: 06/06/96

QC Batch Number: GC060496BTEX07A

Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern: Gas & Unidentified HC	1.0 0.0050 0.0050 0.0050 0.0050	17 0.096 0.075 0.089 0.019 >C10
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 126

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -ELAP #1210

Kevin Follett Project Manager



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Touchstone Developments P.O. Box 2554

Client Proj. ID: Chevron 9-1740 / 1740-4

Sampled: 05/24/96 Received: 05/30/96

Santa Rosa, CA 95405

Sample Descript: TX3-3' Matrix: SOLID

Extracted: 06/03/96 Analyzed: 06/04/96

Attention: Jeff Monroe

Analysis Method: EPA 8015 Mod Lab Number: 9605J65-01

Reported: 06/06/96

QC Batch Number: GC0530960HBPEXA

Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte

Detection Limit mg/Kg

Sample Results mg/Kg

TEPH as Diesel Chromatogram Pattern:

1.0 C9-C24

5.6 Unidentified HC

Surrogates n-Pentacosane (C25)

Control Limits % 50

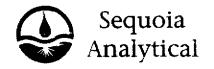
% Recovery

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -

ELAP #1210

Kevin Follett Project Manager



680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8 Sacramento, CA 95834

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Touchstone Developments

Client Proj. ID:

Chevron 9-1740 / 1740-4

Sampled: 05/24/96

P.O. Box 2554 Santa Rosa, CA 95405 Sample Descript: X4-5' Matrix: SOLID

Received: 05/30/96

Analysis Method: 8015Mod/8020

Analyzed: 06/04/96

Attention: Jeff Monroe

Lab Number: 9605J65-02

Reported: 06/06/96

QC Batch Number: GC060496BTEX07A

Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

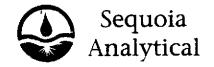
Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern: Gas & Unidentified HC	100 0.50 0.50 0.50 0.50	800 16 5.4 4.2 16 16 >C10
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 108

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett

Project Manager



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FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405

Client Proj. ID: Chevron 9-1740 / 1740-4

Lab Number: 9605J65-02

Analysis Method: EPA 8015 Mod

Sampled: 05/24/96 Received: 05/30/96

Sample Descript: X4-5' Matrix: SOLID

Extracted: 06/03/96 Analyzed: 06/05/96 Reported: 06/06/96

Attention: Jeff Monroe

QC Batch Number: GC0530960HBPEXA Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte

Detection Limit mg/Kg

Sample Results mg/Kg

TEPH as Diesel Chromatogram Pattern: 10 C9-C24

420 **Unidentified HC**

Surrogates n-Pentacosane (C25)

Control Limits % 50

150

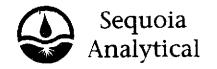
% Recovery 139

Results quantitated against a diesel standard. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

ELAP #1210

Kevin Follett Project Manager



680 Chesapeake Drive 404 N. Wiget Lane 319 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063 Walnut Creek, CA 94598

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Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405 Attention: Jeff Monroe

Client Proj. ID: Chevron 9-1740 / 1740-4

Received: 05/30/96

Lab Proj. ID: 9605J65

Reported: 06/06/96

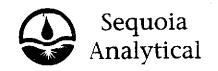
LABORATORY NARRATIVE

TEPH note: sample 9605J65-02 was diluted 10 fold.

TPPH note: sample 9605J65-02 was diluted 100 fold.

SEQUOIA ANALYTICAL

Kevin Follett Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

(415) 364-9600 (510) 988-9600 (916) 921-9600

FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Matrix:

Chevron 9-1740 / 1740-4

Solid

Work Order #:

9605J65 -01, 02 Reported:

Jun 8, 1996

QUALITY CONTROL DATA REPORT

Analyte:

Diesel

QC Batch#: GC0530960HBPEXA Analy. Method: **EPA 8015M**

Prep. Method:

EPA 3550

Analyst: MS/MSD #: N. Herrera

Sample Conc.:

9605H8901 15

Prepared Date: Analyzed Date:

5/30/96 5/31/96 GCHP4

Instrument I.D.#: Conc. Spiked:

25 mg/Kg

Result:

43

MS % Recovery:

112

Dup. Result:

50

MSD % Recov.:

140

RPD:

15

RPD Limit:

0-50

LCS #:

BLK053096

Prepared Date:

5/30/96

Analyzed Date:

5/31/96 GCHP4

Instrument I.D.#: Conc. Spiked:

25 mg/Kg

LCS Result:

25

LCS % Recov.:

100

MS/MSD

50-150

LCS

60-140

Control Limits

SEQUOIA ANALYTICAL

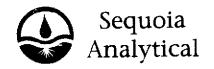
Kevin Follett Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9605J65.TTT <1>





Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Chevron 9-1740 / 1740-4

Matrix:

Solid

Work Order #:

9605J65-01, 02

Reported:

Jun 8, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl	Xylenes	
•			Benzene		
QC Batch#:	GC060496BTEXEXA	GC060496BTEXEXA	GC060496BTEXEXA	GC060496BTEXEXA	
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	
				5 0	
Analyst:	E. Cunanan	E. Cunanan	E. Cunanan	E. Cunanan	
MS/MSD #:	9605G2323	9605G2323	9605G2323	9605G2323	
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	
Prepared Date:	6/4/96	6/4/96	6/4/96	6/4/96	
Analyzed Date:	6/4/96	6/4/96	6/4/96	6/4/96	
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7	
Conc. Spiked:	0. 20 mg/K g	0. 20 mg/Kg	0. 20 mg/Kg	0.60 mg/Kg	
Result:	0.15	0.15	0.16	0.47	
MS % Recovery:	75	75	80	78	
Dup. Result:	0.14	0.15	0.15	0.44	
MSD % Recov.:	70	75	75	73	
RPD:	6.9	0.0	6.5	6.6	•
RPD Limit:	0-25	0-25	0-25	0-25	
LCS #:	BLK060496	BLK060496	BLK060496	BLK060496	
Prepared Date:	6/4/96	6/4/96	6/4/96	6/4/96	
Analyzed Date:		6/4/96	6/4/96	6/4/96	
Instrument I.D.#:		GCHP7	GCHP7	GCHP7	
Conc. Spiked:		0. 20 mg/ Kg	0.20 mg/Kg	0.60 mg/Kg	
LCS Resuit:	0.16	0.16	0.17	0.49	
LCS % Recov.:		80	85	82	*
MS/MSD	60-140	60-140	60-140	60-140	
LCS Control Limits	70-130	70-130	70-130	70-130	

SEQUOIA ANALYTICAL

Kevin Foliett Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9605J65.TTT <2>



Chromatogram

. Sample Name : DS9605J65-2 (20:1*10) RS1

FileName : S:\GHP_04\0609\604A026.raw

: TPH04A Method

Start Time : 0.00 min

End Time : 33.65 min

Plot Offset: 0 mV

Sample #: TX4-5'

Date : 6/6/96 12:08

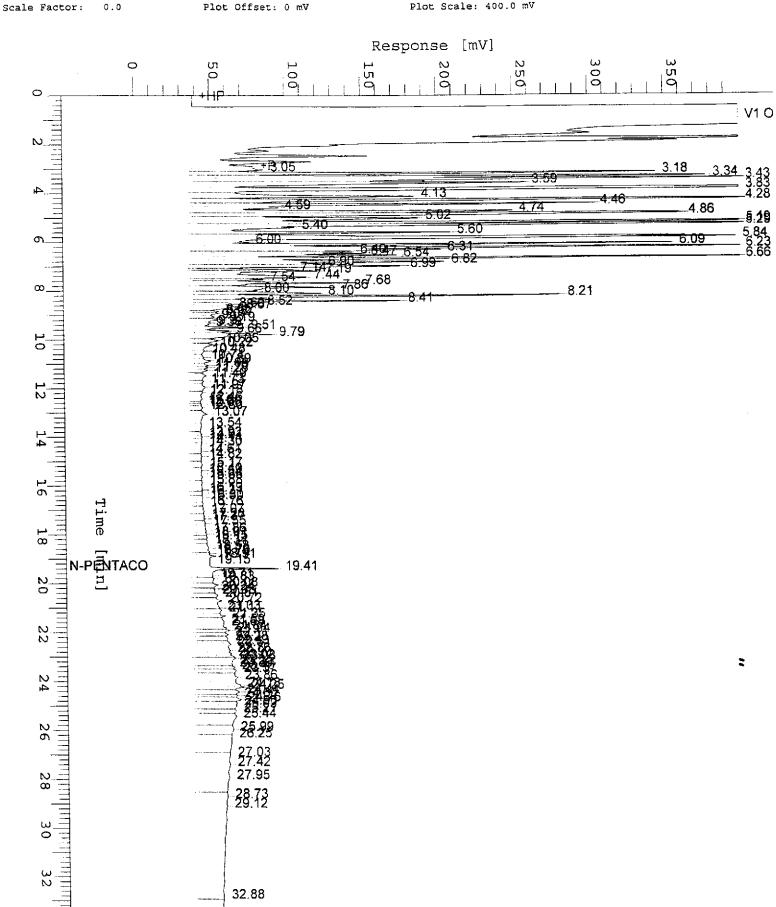
Time of Injection: 6/5/96 21:17

Low Point : 0.00 mV

High Point : 400.00 mV

Page 1 of 1

Plot Scale: 400.0 mV



Chromatogram

Sample Name : DS9605J65-1 (20:1)

: S:\GHP_04\0609\603A033.raw

: TPHO4A Method

Start Time : 0.00 min

Plot Offset: 0 mV

End Time : 33.65 min

Sample #: TX3-3'

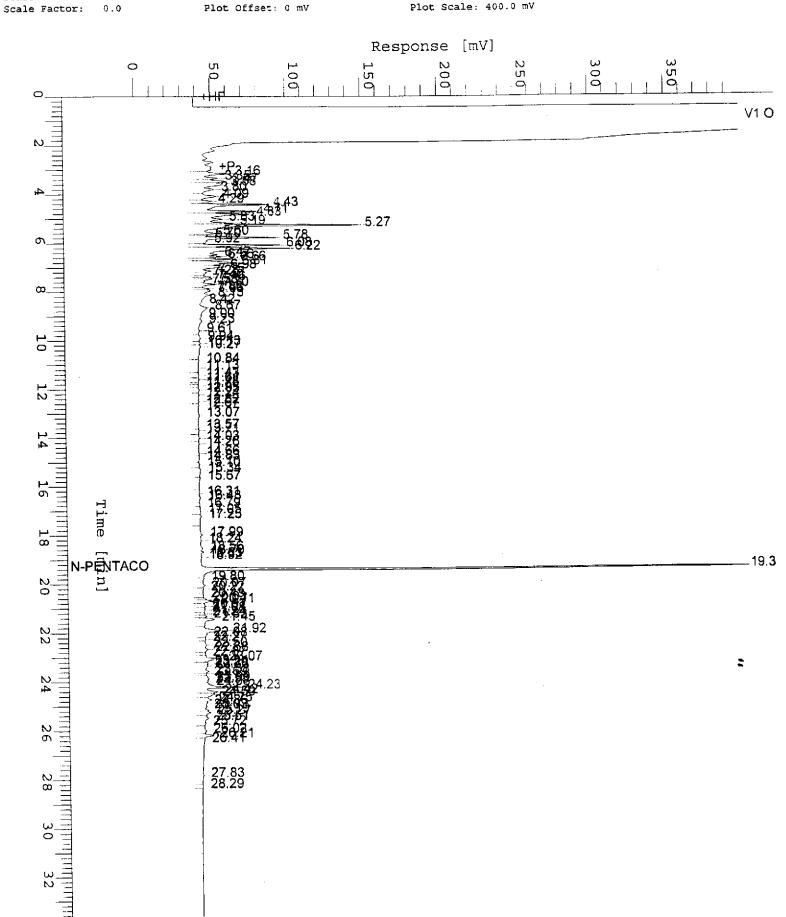
Date : 6/6/96 12:09

Time of Injection: 6/4/96 11:31

Low Point : 0.00 mV Plot Scale: 400.0 mV

High Point : 400.00 mV

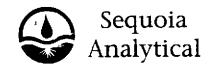
Page 1 of 1



7605565

Chain_ot-Custody-Kecord 🖟 copy of Lab Report and COC to Chevron Contact: 🗀 No Chevron Contact (Hame) Cheston Facility Humber ... Chevron U.S.A. Inc. Consultant Project Number-Laboratory Name P.O. BOX 5004 Consultant Name Laboratory Release Number. San Ramon, CA 94583 Samples Collected by (Name) FAX (415)842-9591 Collection Date. Project Contact (Nome) (Phone) 53888/8 (Fox Number) 53888/12 Signature. Analyses To Be Vetarmed 8020 + 8013) Personalis Hos (8010) Remarks Date/Time/0:02 5/30/96 Turn Around Time (Circle Choloe) Received By Estynological

The Hitte Date/Time/OCA Organization Organization .linquilpilled By (Signature) 5e900111 24 1km. 46 Hra. Date/11me Organization Received By (Signature) Orponization linguistral By Asignoture) 6 Doys 10 Doys Dale/11me 5/30/96 As Contracted Recleved For Auboratory By (Signature) Date/Time Organization



Jeff Monroe

680 Chesapeake Drive 404.N. Wiget Lane 819 Striker Avenue, Suite 8 Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554 Santa Rosa, CA 95405

Attention:

Client Proj. ID: Chevron 9-1740 / 1740-4

Sampled: 05/24/96 Received: 05/30/96

Lab Proj. ID: 9605192

Analyzed: see below

Reported: 05/31/96

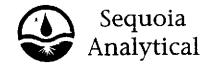
LABORATORY ANALYSIS

Sample Analyte Units Date Detection Results Limit Analyzed Lab No: 9605192-01 Sample Desc : LIQUID, System 2 05/30/96 0.010 0.019 Zinc mg/L

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Developments

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID:

Chevron 9-1740 / 1740-4

01

Matrix:

Liquid

Work Order #:

9605192

Reported:

May 31, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0530966010MDB	ME0530966010MDB	ME0530966010MDB	ME0530966010MDB
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3010	EPA 3010	EPA 3010	EPA 3010
Anaiyst:	S. O'Donneil	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	960510901	960510901	960510901	960510901
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/30/96	5/30/96	5/30/96	5/30/96
Analyzed Date:	5/30/96	5/30/96	5/30/96	5/30/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	1. 0 mg/ L	1.0 mg/L	1.0 mg/L	1.0 mg/L
Result:	0.92	0.91	0.90	0.87
MS % Recovery:	92	91	90	87
Dup. Result:	0.97	0.96	0.95	0.94
MSD % Recov.:	97	96	95	94
RPD:	5.3	5.3	5.4	7.7
RPD Limit:	0-20	0-20	0-20	0-20
LCS#	BLK053096	BLK053096	BLK053096	BLK053096
Prepared Date:	: 5/30/96	5/30/96	5/30/96	5/30/96
Analyzed Date:		5/30/96	5/30/96	5/30/96
Instrument I.D.#		MTJA2	MTJA2	MTJA2
Conc. Spiked	: 1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
LCS Result	. 0.97	0.97	0.95	0.96
LCS % Recov.	97	97	95	96
MS/MSD				

SEQUOIA ANALYTICAL

Kevin'Fóllett' Project Manager

LCS

Control Limits

Please Note:

80-120

80-120

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

80-120

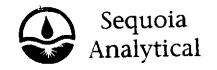
** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9605l92.TTT <1>



80-120

Chevron U.S.A. P.O. BOX 500 San Ramon, CA 9 FAX (415)842-	Inc. c 04 94583	herron f f consultani consultan Addre	recility recility actility at Hom	Humber Address ect Numl	9- 655 	1740	San	a A	los	Job me sa,	elani A	to to So	evron Co boratory boratory imples Collection gnature	Name	(Phone)	- F	igin: 1670 8 1670 8 15-2	115 115 115 115	990	de io	ody-Kecol	rd
TX3-3 TX4-5	D) A	Number of Cents	r C = Charteal	None G = Grab	1.30 1.35	Semple Preservabbn	Ves Ves	(3020 + 3013)	(£100)			Anmades	Purgentle Organica (3240)	Organica	CACPOZAMI (ICAP or AA)					2	Remerks Sday The	
Relinquisted By	(Signoture)	1/4	Or	gonisation gonisation gonisation gonisation	n **	Date/Time/C 5-30-6 Date/Time 5/34/// Date/Time	16	Received Received	By (Sig	jnature)	<u></u>		Organia 5e9	0011	C	30/9(ote/Ilmorete/Il			Turn Ar		Time (Circle Choice) 14 Hrs. 18 Hrs. 5 Daye 0 Daye Contracted	



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Touchstone Development

P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID: Sample Matrix:

Soil

Analysis Method: First Sample #:

Chevron #9-1740

EPA 5030/8015 Mod./8020

606-1788

Sampled: Received:

Jun 26, 1996 Jun 26, 1996

Reported: Jul 3, 1996

QC Batch Number:

SP062696

SP062696

SP062696 SP062696

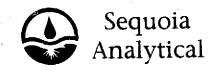
8020EXA 8020EXA 8020EXA 8020EXA TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 606-1788 TX5-4'	Sample 1.D. 606-1789 TX6-3'	Sample I.D. 606-1790 TX7-3'	Sample I.D. 606-1791 TRSP-1 (A-D)	
Purgeable Hydrocarbons	1.0	160	5.9	780	170	
Benzene	0.0050	1.0	0.50	3.9	0.11	
Toluene	0.0050	0.28	0.0059	0.73	0.23	
Ethyl Benzene	0.0050	0.63	0.020	19	N.D.	
Total Xylenes	0.0050	0.71	0.039	6.5	4.2	
Chromatogram Pa	Chromatogram Pattern:		Gasoline	Gasoline	Gasoline & Unidentified Hydrocarbons > C8	
Quality Control D	ata					
Report Limit Multip	Report Limit Multiplication Factor:		1.0	100	20	
Date Analyzed:		6/26/96	6/26/96	6/26/96	6/ 26/96	
Instrument Identification:		HP-5	HP-5	HP-5	HP-5	
Surrogate Recovery, %: (QC Limits = 70-130%)		94	84	82	86	

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard. Analytes reported as N.D. were not detected above the stated reporting limit.

IOIA(ANALYTICAL, #1271

Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

(415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Development P.O. Box 2554

Client Project ID: Sample Matrix:

Chevron #9-1740 Soil

Sampled: Received: Jun 26, 1996 Jun 26, 1996

Santa Rosa, CA 95405 Attention: Jeff Monroe

Analysis Method: First Sample #:

EPA 3550/8015 Mod. 606-1788

Reported:

Jul 3, 1996

QC Batch Number:

SP062696

SP062696

SP062696

SP062696

8015EXA

8015EXA 8015EXA

8015EXA TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit mg/kg	Sample I.D. 606-1788 TX5-4'	Sample I.D. 606-1789 TX6-3'	Sample I.D. 606-1790 TX7-3'	Sample I.D. 606-1791 TRSP-1 (A-D)	
Extractable Hydrocarbons	1.0	130	8.4	200	140	
Chromatogram Pa	ittern:	Diesel & Unidentified Hydrocarbons > C25	Diesel & Unidentified Hydrocarbons > C25	Diesel & Unidentified Hydrocarbons > C25	Diesel	

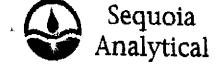
Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	20
Date Extracted:	6/26/96	6/26/96	6/ 26/96	6/26/96
Date Analyzed:	6/27/96	6/27/96	6/27/96	6/ 27/96
Instrument Identification:	НР-3В	HP-3B	нР-зв	HP-3B

Extractable Hydrocarbons are quantitated against a fresh diesel standard. Analytes reported as N.D. were not detected above the stated reporting limit.

ANALYTICAL, #1271

Project\Manager



680 Chesapeake Drive 404 N. Wiget Lane

Redwood City, CA 94063 Walnut Creek, CA 94598 819 Striker Avenue, Suite 8 Sacramento, CA 95834

(415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) \$64-9233i FAX (510) 988-9673: FAX (916) 921-01001

Touchstone Development P.O. Box 2554

Sample Descript:

Client Project ID: Chevron #9-1740 Soll

Sampled: Jun 26, 1996 Received:

Jun 26, 1996

Santa Rosa, CA 95405 Attention: Jeff Monroe

Analysis for: First Sample #:

MTBE (Modified EPA 8020) 606-1786

Analyzed: Reported:

Jun 26, 19963

LABORATORY ANALYSIS FOR:

MTBE (Modified EPA 8020)

				•	,
Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg		QC Batch Number
606-1788	T X5-4 '	2.5	, N.D.		SP0626968020EXA
606-1789	TX6-3'	0.050	0.67		\$P0626958020EXA
606-1790	TX7-3'	5.0	N.D.		SP0626968020EXA

Analytes reported as N.D. were not present above the stated limit of detection.

3EQUOIA ANALYTICAL, #1271

relissa a. Brewer Melissa A. Brewer Client Services Representative

6061788.TQU <5>



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

(415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Development P.O. Box 2554

Santa Rosa, CA 95405 Attention: Jeff Monroe Client Project ID: Chevron #9-1740

Sample Descript: Analysis for:

Soil Lead First Sample #: 606-1788

Sampled: Jun 26, 1996 Jun 26, 1996 Received:

Jun 26, 1996 Digested: Analyzed: Jun 26, 1996

Jul 3, 1996 Reported:

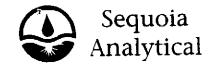
LABORATORY ANALYSIS FOR: Lead

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg	QC Batch Number	instrument ID
606-1788	TX5-4'	2.5	4.6	ME0626966010MDB	MV-1
606-1789	TX6-3'	2.5	5.5	ME0626966010MDB	MV-1
606-1790	TX7-3'	2.5	7.4	ME0626966010MDB	MV-1
606-1791	TRSP-1(A-D)	2.5	13	ME0626966010MDB	MV-1

Analytes reported as N.D. were not present above the stated limit of detection.

ÜĎÍA¦ANALYTICAL, #1271

Project Manager



680 Chesapeake Drive 404 N. Wiget Lane 319 Striker Avenue, Suite 8 Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Touchstone Development P.O. Box 2554

Client Project ID.

Chevron #9-1740

Matrix:

Solid

Santa Rosa, CA 95405 Attention: Jeff Monroe

QC Sample Group: 6061788-791

Reported:

Jul 3, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl	Xylenes	Diesel	Lead	
			Benzene				
QC Batch#:	SP062696	SP062696	SP062696	SP062696	SP062696	ME062696	
	8020EXA	8020EXA	8020EXA	8020EXA	8015EXA	6010MDB	
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015	EPA 7420	
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 3550	EPA 3050	
Analyst:	S. Chullakorn	S. Chullakorn	S. Chullakorn	S. Chullakorn	J. Dinsay	T. Le	
MS/MSD #:	6061786	6061786	6061786	6061786	6061785	6061788	
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	1.2 mg/k g	4.6 mg/kg	
Prepared Date:	6/26/ 9 6	6/26/96	6/26/96	6/26/96	6/2 6/9 6	6/26/96	
Analyzed Date:	6/26/96	6/26/96	6/26/96	6/26/96	6/27/96	6/2 6/9 6	
nstrument I.D.#:	HP-5	HP-5	HP-5	HP-5	HP-3A	MV-1	
Conc. Spiked:	0. 40 mg/k g	0.40 mg/kg	0. 40 m g/kg	1.2 mg/kg	10 m g/k g	50 mg/kg	
Result:	0.32	0.31	0.33	1.0	14	50	
MS % Recovery:	80	78	83	83	130	91	
Dup. Result:	0.33	0.32	0.33	1.0	13	48	
MSD % Recov.:	83	80	83	83	120	87	
RPD:	3.1	3.2	0.0	0.0	7.4	4.1	
RPD Limit:	0-25	0-25	0-25	0-25	0-50	0-20	

LCS #:	5LCS062696	5LCS062696	5LC\$062696	5LCS062696	LCS062696	LCS062696
Prepared Date:	6/26/96	6/26/96	6/26/96	6/26/96	6/ 26/ 96	6/26/96
Analyzed Date:	6/26/96	6/26/96	6/26/96	6/26/96	6/27/96	6/ 26/96
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5	HP-3A	MV-1
Conc. Spiked:	20 μg/L	20 μg /L	20 μg/L	60 µg/L	10 mg/k g	50 mg/kg
LCS Result:	17	18	18	57	14	48
LCS % Recov.:	85	90	90	95	140	96

							······································
MS/MSD	<u> </u>						
LCS	60-140	60-140	60-140	60-140	50-150	80-120	
Control Limits							

SEODOIA ANALYTICAL, #1271

Kennet VI Wimer Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Fax copy of l	_ab Rep	ort and (COC to Ch	evron Co	ntacl: 🗀 No	960645	93 Chain-C	ot-Custody-Record
Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 9458J FAX (415)842-9591	Cherton Focil Facil Consultant Pi Consultant M Address	Ity Humber Ity Addrese roject Humber ome	154 Sans 188818 11	Delle by	sprents in	oboratory flame oboratory Release H amples Collected by ollection Date lignature Analyses To Be P	(Hemo) 10 14	7/150 Monrae:
Relinquiehed By (Signatura)	Number of Container Number of Container Section 2 Section 2 Section 2 Section 3 Sect	1.40 7.40 7.40 7.40	Sample Presention	(S108 + 0208) (S108 + 0208) (Received By (S108)	6061788 6061789 6061790 6061790	Purpadole Organica (8240) Extractable Organica (8270)	Dote/Time Dote/Time	Remarks Slay Jun Around Time (Circle Choice) 24 live. 48 live. 5 Daye 10 Daye
Builthylehed By (Signati		Digonization	Date/Ilme	Recleved For	Laborolary By (Signatur	•)	Delp/11me C/2 (2 103(1)	As Contracted