CHEMWEST
ANALYTICAL LABORATORIES, INC.

November 7, 1988

Harding Lawson Associates
1355 Willow Way, Suite 109
Concord, CA 94520

Attention: Mr. Randy Stone

Subject: Report of Data - Case Number 2562

Dear Mr. Stone:

The technical staff at CHEMWEST is pleased to provide our report for the analysis you requested: BTEX - EPA Method 602.

One water sample for Project Texaco Assessment-Station #8, Project Number 02251,081.03 was received October 31, 1988 in good condition. Results of the analysis, along with the analytical methodology and appropriate reporting limits, are presented on the following pages.

Thank you for choosing CHEMWEST Laboratories. Should you have questions concerning this data report or the analytical methods employed, please do not hesitate to contact Toni Weeks, our Technical Service Representative, or your project manager. We hope that you will consider CHEMWEST Laboratories for your future analytical support and service requirements.

Sincerely,

Jill B. Henes, Ph.D.
Vice President of Technical Services

and

Kirk Pocan
Project Manager

KP:bw

cc: Joel Bird, President
File

ANALYTICAL METHODOLOGY

BTEX (Benzene, Toluene, Ethyl Benzene, and Xylenes) by Purge & Trap and GC-PID

WATER - Method 602 or 8020

A 5 ml sample volume, or 5 ml of a suitable dilution, is purged on a suitable purge and trap system with helium. The purged sample is analyzed on a Gas Chromatograph equipped with a Photoionization Detector (PID). A packed column is used to separate the compounds.

SOIL - Method 8020

A 10 gram, or other appropriate aliquot of soil, is weighed into a clean VOA vial. Soils received in brass core tubes are sampled by discarding 2-5 centimeters of soil from each end of the tubes (this is done to reduce the possibility of analyzing a portion of soil that has been exposed to sampling technique contamination). Equal aliquots of soil are then removed from each end of the tube and combined in the VOA vial. Soil in jars or bags is aliquoted using a similar technique, which discards exposed sample surfaces. A 10 ml, or other appropriate volume of methanol, is added to the soil and the soil is shaken with the solvent. 100 ul of the extract, or a reduced aliquot or volume of a suitable dilution, is injected into 5 ml of laboratory blank water and analyzed by the same technique used for water samples.

CHEMWEST ANALYTICAL LABORATORIES
BENZENE, TOLUENE, ETHYL BENZENE, XYLENES

Client I.D.: MW-8A-1&2 | CHEMWEST I.D.: 2562
Dates Analyzed: 11/2/88 | Matrix : Water

Compound	Amount Detected (ug/L)	RL (ug/L)
Benzene	BRL	0.5
Toluene	BRL	1
Ethyl Benzene	BRL	2
Total-Xylenes (1)	BRL	1

Surrogate	% Recovery	Acceptance Window
ortho-Chlorotoluene	97%	50-150%

BRL: Below Reporting Limit.
RL: Reporting Limit.

(1): Total of P-, M-, and O- Xylenes.

Approved by: KP

REV2.9.88

CHEM WEST ANALYTICAL LABORATORIES, INC.
600 West North Market Blvd.
Sacramento, California 95834
(916) 923-0840 FAX (916) 923-1938

CLIENT

Order No. 2562
Date Rec'd. 10/31/88@1100
Compl. Date
Section H. Rosan

CLIENT: Harding Lawson Assoc.
~~1355 Willow Way~~ @ 11/1/88
1355 Willow Way Suite 109
Concord, CA 94520

Project Name: Texaco Assessment Dist #8
Project No. 02251,081.03
P.O. NO.
Contact
Phone (415) 687-9200

ANALYSIS: One water sample rec'd under chain of custody in 40ml VOA vials (2) to be analyzed for BTEX.

*Note: Seven Day Turnaround !!!

Sample	Date	Time	analysis	Matrix	container
25262	MW-8A&2	10/28	1510 BTEX	water	2-40ml VOA

GC
M.T. MICHELLE TOUVER

Chem West courier

SAMPLE WILL BE HELD 30 DAYS UNLESS LONGER TIME IS ARRANGED

Harding Lawson Associates
1355 Willow Way, Suite 109
Concord, California 94520
415/687-9660
Telecopy: 415/687-9673

CHAIN OF CUSTODY FORM

Lab: Chem West

Samplers: David R. Hose - Glenn S. Young

Job Number: 02251, 081.03

Name/Location: Texaco Assessment - Station #8

Project Manager: A. Karoff

Recorder: David R. Hose (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	VOA(3)	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES
23	X							X	11	W8	A	88	10	28	1510	Note that container read: MW-8A-1 & MW-8A-2

ANALYSIS REQUESTED

EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene + E	Total Petrol. Hydrocarb.
					X	

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						SAMPLES REC'D IN GOOD CONDITION M.T.

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature) David R. Hose	RECEIVED BY: (Signature)	DATE/TIME 10/31/89 1315
RELINQUISHED BY: (Signature) Thomas A. Kroff	RECEIVED BY: (Signature)	DATE/TIME 10/31/89 1630
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) Michelle Bliss	DATE/TIME 10/31 1620
METHOD OF SHIPMENT: Chemwest Courier		

Laboratory Copy White — Project Office Copy Yellow — Field or Office Copy Pink

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