

**GROUNDWATER MONITORING REPORT
THOMPSON & THOMPSON FENCE CO.
2584 GRANT AVENUE
SAN LORENZO, CALIFORNIA**

*Alameda County
MAR 20 2006
Environmental Health*

PREPARED FOR:
Thompson & Thompson Fence Co.
2584 Grant Avenue
San Lorenzo, California 94580

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
1956 Webster Street, Suite 400
Oakland, California 94612

October 7, 2005
Project No. 401157001

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Mr. Gary Thompson
Thompson & Thompson Fence Co.
2584 Grant Avenue
San Lorenzo, California 94580

Subject: Groundwater Monitoring Report, Thompson & Thompson Fence Co., 2584 Grant Avenue, San Lorenzo, California.

Dear Mr. Thompson:

Ninyo & Moore is pleased to present this report summarizing groundwater monitoring activities at Thompson & Thompson Fence Co. (site), located in San Lorenzo, California. The purpose of our study was to evaluate groundwater contamination and establish local hydraulic gradient, depth to groundwater, and direction of groundwater flow for the site in efforts to satisfy the Alameda County Department of Health Service (ACDHS) requirements. Conclusions and recommendations regarding the status of site groundwater contamination are discussed in this report.

We appreciate the opportunity to be of service to Thompson & Thompson Fence Co. on this project. If you have any questions or comments regarding this report, please contact the undersigned at your convenience.

Sincerely,
NINYO & MOORE



Laura E. Osteen
Senior Staff Environmental Scientist



Kris M. Larson, PG
Senior Project Environmental Geologist

Distribution: (1) Addressee

TABLE OF CONTENTS

	<u>Page</u>
1. INTRODUCTION AND SCOPE OF SERVICES	1
2. SITE INFORMATION AND BACKGROUND	1
3. GROUNDWATER MONITORING ACTIVITIES	2
3.1. Groundwater Elevation and Hydraulic Gradient	2
3.2. Groundwater Sampling and Observations	2
3.3. Groundwater Monitoring Well Sample Analytical Results	3
4. SUMMARY AND CONCLUSIONS	4
5. RECOMMENDATIONS	6
6. LIMITATIONS	6
7. SELECTED REFERENCES	8

Tables

Table 1 – Groundwater Monitoring Well Elevation Data

Table 2 – Groundwater Sampling Analytical Data

Figures

Figure 1 – Site Location Map

Figure 2 – Shallow Groundwater Constituent Concentration Map

Figure 3 – Shallow Groundwater Gradient Map

Appendices

Appendix A – Site Documents

Appendix B – Field Sheets

Appendix C – Laboratory Analytical Reports

1. INTRODUCTION AND SCOPE OF SERVICES

This report summarizes the results of the groundwater monitoring activities conducted on September 6, 2005, at Thompson & Thompson Fence Company, located in San Lorenzo, California (Figure 1). The work conducted by Ninyo & Moore was in accordance with the ACDHS request for an evaluation of groundwater at the subject site. A copy of the document is presented in Appendix A. Our scope of services includes: 1) preparation of a site safety plan; 2) measurement of the depth to static groundwater at selected wells; 3) purging of a minimum of three well volumes into properly labeled reconditioned 55-gallon drums; 4) collection and chemical analysis of groundwater samples; and 5) preparation of this report documenting our field activities and findings.

2. SITE INFORMATION AND BACKGROUND

One 1,000-gallon underground storage tank (UST) containing gasoline was removed in November 1992 by Paradiso Construction Company (Paradiso, 1993). The UST was located in the center of the property on the north side of the office and shop area (Figure 1). Subsequent to the UST removal, confirmation soil samples were collected at the bottom of each end of the former UST excavation pit at approximately 8.5 feet below ground surface (bgs). Purgeable hydrocarbons were reported in confirmation samples collected, ranging from 960 milligrams per kilograms (mg/kg) to 2,000 mg/kg. Benzene, ranging from 13 mg/kg to 38 mg/kg, toluene between 38 mg/kg and 120 mg/kg, ethylbenzene between 15 mg/kg and 36 mg/kg, and total xylenes between 79 mg/kg and 190 mg/kg were also reported in soil samples. Lead was also reported in these soil samples between 7.4 mg/kg and 11 mg/kg.

Groundwater sampling was performed during the preliminary site assessment in March 1996 (Leyton & Associates, 1996). Three soil borings were drilled to 20 feet bgs and three temporary wells were installed (TW-1, TW-2 and TW-3) in March 1996. Analytical results for groundwater samples collected from TW-1 included: 28,000 milligrams per liter ($\mu\text{g/L}$) total petroleum hydrocarbons as gasoline (TPH-G), 700 $\mu\text{g/L}$ benzene, and 830 $\mu\text{g/L}$ for ethylbenzene. Methyl tert-butyl ether (MTBE) was reported below laboratory reporting limits. Analytical results for TW-2

included: 13,000 µg/L TPH-G, 410 µg/L benzene, and 440 µg/L ethylbenzene. MTBE was reported below laboratory reporting limits. Analytical results for TW-3 were reported below laboratory reporting limits for TPH-G, benzene, ethylbenzene and MTBE. The temporary wells (TW-1, TW-2, and TW-3) were turned into permanent groundwater monitoring wells (MW-1, MW-2, and MW-3) for the May 1996 sampling event. MW-1 is located northwest, MW-2 is located southwest, and MW-3 is located east of the former UST location (Figure 2).

Quarterly groundwater monitoring was performed sporadically between 1996 through 1999. A summary of the groundwater elevations and analytical laboratory results for our September 6th sampling and previous sampling events is provided in Tables 1 and 2. To our knowledge, no groundwater monitoring occurred between May 1999 and our September 6, 2005, sampling event.

3. GROUNDWATER MONITORING ACTIVITIES

3.1. Groundwater Elevation and Hydraulic Gradient

On September 6, 2005, representatives from Ninyo & Moore measured depth to static groundwater in the three on-site groundwater-monitoring wells. Static groundwater levels were measured using a Solinst water level probe. The probe was decontaminated prior to each well using a Liquinox/distilled (DI) water wash and a DI water rinse. Groundwater elevation at MW-1 was calculated at 2.68 feet mean sea level (MSL), MW-2 at 2.53 feet MSL, and MW-3 at 1.89 feet MSL. Based on groundwater data collected during this round of monitoring, the inferred direction of groundwater flow beneath the site is to the south-southeast with a hydraulic gradient of 0.03 feet per foot. A summary of the current and previous depth-to-groundwater measurements is presented in Table 1.

3.2. Groundwater Sampling and Observations

Using an electric pump for each well, a minimum of three well casing volumes of groundwater was purged from each of the three on-site wells prior to the collection of groundwater samples. The wells were allowed to recover to at least 80 percent of their pre-purging static

groundwater levels prior to sampling. Groundwater parameters, including pH, temperature, and electrical conductivity were measured during well purging. Additionally, characteristics of the water (color, turbidity, odor, sheen) were noted on the field data sheets included in Appendix B.

Subsequent to purging, samples were collected using a new disposable PVC bottom-discharging bailer for each monitoring well. The samples were transferred from the bailer to the appropriate sample containers, labeled, and placed in a cooler containing ice at 4 degrees Celsius under chain-of-custody protocol. The samples were transferred for analysis to Curtis and Tompkins (C&T) Ltd., a State of California-certified analytical laboratory, in Berkeley, California. Purged and decontamination water generated during sampling activities were transferred into a properly labeled, reconditioned 55-gallon drum. The drum was left on-site in a secured storage area to be maintained by the site owner. The drum will be used for purge and decontamination water generated from future groundwater monitoring events with eventual proper disposal at a properly permitted facility.

3.3. Groundwater Monitoring Well Sample Analytical Results

Samples were analyzed for TPH-G, using method EPA 8015M, and volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and total xylenes (BTEX) and MTBE, using EPA Method 8260B. Table 1 presents the laboratory results for groundwater monitoring and sampling described herein and results of groundwater samples collected on September 6, 2005. Copies of analytical laboratory results and chain-of-custody documents are included in Appendix C.

Analytical results for groundwater samples collected included concentrations of TPH-G from wells MW-1 and MW-2 reported at 2,300 µg/L and 2,100 µg/L, respectively, and benzene reported in groundwater samples collected from wells MW-1, MW-2 and MW-3 at 470 µg/L, 350 µg/L, and 0.58 µg/L respectively. Toluene was reported in a groundwater sample collected from wells MW-1, MW-2 and MW-3 at 7.4 µg/L, 4.9 µg/L, and 1.6 µg/L. Ethyl benzene was reported in groundwater samples collected from wells MW-1 and MW-2 at

concentrations of 8.7 µg/L and 6.8 µg/L respectively. Total xylenes was reported in groundwater collected from wells MW-1 at 4.6 µg/L, MW-2 at 3.8 µg/L and MW-3 at 0.86 µg/L. MTBE was reported in wells MW-1 at 54 µg/L and MW-2 at 22 µg/L.

Laboratory QA/QC samples, including Laboratory Control Samples (LCS), Matrix Spike (MS) and Matrix Spike Duplicates (MSD) and Surrogates were within Recovery Control Limits (RCLs). No laboratory qualifiers were associated with analytical results. A case narrative included in the laboratory analytical report prepared by C & T (Appendix C) indicated that no problems were encountered during constituent analysis.

4. SUMMARY AND CONCLUSIONS

A 1,000-gallon gasoline UST was removed in 1992 and UST pit confirmation soil samples collected were reported to contain moderate concentrations of purgeable hydrocarbons and BTEX constituents. Additional soil samples collected in 1996 from locations where the current groundwater monitoring wells are located were not reported above laboratory limits for TPH-G and BTEX constituents.

Groundwater flow direction was calculated to the southeast with a gradient of 0.03 foot/foot. The flow direction coincides with an apparent tidal influence, which was close to high tide at the time of our groundwater sampling activities. Groundwater flow direction has been reported toward the north and west in previous sampling events, and groundwater contamination reported in wells MW-2 and MW-3, which are located southwest and southeast of the former on site UST, may be attributed to tidal fluctuations on site.

Groundwater samples collected during the September 2005 groundwater monitoring event indicated changes in groundwater chemical constituents' concentrations since the last groundwater-monitoring event in May 1999. TPH-G concentrations decreased from 13,000 µg/L in May 1999 to 2,300 µg/L in September 2005 in monitoring well MW-1. Additionally, benzene concentration decreased from 1,900 µg/L to 470 µg/L, toluene concentration decreased from 48 µg/L to 7.4 µg/L, ethyl benzene concentration decreased from 450 µg/L to 8.7 µg/L and total xylene concen-

tration decreased from 990 µg/L to 4.6 µg/L in MW-1. MTBE concentrations also decreased from 150 µg/L to 54 µg/L in MW-1.

TPH-G concentrations decreased slightly from 2,200 µg/L to 2,100 µg/L in monitoring well MW-2. Toluene concentration decreased from 38 µg/L to 4.9 µg/L, ethyl benzene concentration decreased from 40 µg/L to 6.8 µg/L and total xylene concentration decreased from 147 µg/L to 3.8 µg/L in well MW-2. MTBE concentrations also decreased, from 200 µg/L to 22 µg/L in MW-2. Benzene concentrations increased from 38 µg/L in May 1999 to 350 µg/L in September 2005 in well MW-2.

The groundwater sample collected from MW-3 was reported below laboratory reporting limits for TPH-G and ethyl benzene this sampling event, which was similar to previous sampling events. Benzene, toluene, and total xylenes concentrations increased compared to the 1999 sampling event, from below laboratory reporting limits to 0.58 µg/L, 1.6 µg/L and 0.86 µg/L, respectively. MTBE concentrations decreased from 18 µg/L to below laboratory reporting.

Groundwater samples collected between 1996 and 2005 have shown a magnitude decrease in TPH-G and BTEX concentrations in wells MW-1 and MW-2 for every constituent other than benzene. MTBE concentrations have also decreased in both wells since 1999. TPH-G, benzene, and MTBE concentrations in MW-1 and MW-2 were above California Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for Commercial Use Properties Where Groundwater is Not a Current or Potential Source of Drinking Water (RWQCB, 2005) (Table 2) during this monitoring event. Monitoring well MW-3 has historically shown either no reported constituents or very low constituent concentrations below ESLs for TPH-G, BTEX and MTBE.

The period of time elapsed since the removal of the UST in 1992 has most likely contributed to natural attenuation in the soil and groundwater. Currently TPH-G, benzene, and MTBE concentrations impact groundwater above regulatory ESLs in the wells adjacent to the former UST area.

5. RECOMMENDATIONS

It is our experience with similar UST sites that the RWQCB will require additional site monitoring. In order to expedite the regulatory closure of the site, additional soil and groundwater investigation should be conducted to evaluate the potential for existing source contamination and the lateral migration of groundwater contamination on site. Quarterly groundwater monitoring should also continue at the site.

6. LIMITATIONS

The field investigation, laboratory testing, and groundwater analyses presented in this report have been conducted in general accordance with current engineering practice and the standard of care exercised by reputable environmental consultants performing similar tasks in the area. No other warranty, expressed or implied, is made regarding the summary, conclusions, and recommendations presented in this report. There is no investigation detailed enough to reveal every groundwater condition. Variations may exist and conditions not observed or described in this report may be encountered at a later time. Uncertainties relative to groundwater conditions can be reduced through additional groundwater sampling. Additional groundwater investigation will be performed upon request.

Ninyo & Moore's summary, conclusions, and recommendations regarding environmental considerations, as presented in this report, are based on a limited groundwater assessment and chemical analysis. Further assessment of potential adverse environmental impacts from past on-site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between sampling locations. Variations in soil and groundwater conditions will exist beyond the points explored in this investigation.

The summary, conclusions, and recommendations contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and concentration of certain chemical or physical constituents in samples collected from the subject site. The testing and

analyses have been conducted by an independent laboratory that is accredited by the U.S. Environmental Protection Agency (EPA) or certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

This report is intended for preliminary design purposes only and may not provide sufficient data to prepare an accurate bid by some contractors. This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document.

Our summary, conclusions, and recommendations are based on an available documents and limited groundwater study. It should be understood that the conditions of a site can change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

7. SELECTED REFERENCES

- Alameda County Health Care Services, 2005, Fuel Leak Case #RO0000467, Thompson & Thompson Fence Company, 2584 Grant Ave., San Lorenzo, California: dated May 26;
- Chaney, Walton & McCall, 1999, Groundwater Monitoring Report, Thompson & Thompson Fence Company.: dated May.
- Leyton & Associates, 1996, Preliminary Site Assessment Report, Thompson & Thompson Fence Company: dated May;
- Paradiso Construction Company, 1993 Underground Storage Tank Removal Report, Thompson & Thompson Fence Company: dated December;
- Polymatrix Associates, 1997, Groundwater monitoring report, Thompson & Thompson Fence Company: dated May.
- San Francisco Bay, California Regional Water Quality Control Board, 2005, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater: dated February.

TABLE 1
GROUNDWATER MONITORING WELL ELEVATION DATA
THOMPSON THOMPSON FENCE CO.

Well ID	Date	Depth to Water (feet)	Top of Casing Elevation (feet)	Groundwater Elevation (feet)
MW-1	1/21/1999 ¹	5.14	8.76	3.62
	5/21/1999 ¹	4.86	8.76	3.90
	9/6/2005 ²	6.08	8.76	2.68
MW-2	1/21/1999 ¹	5.28	8.78	3.50
	5/21/1999 ¹	4.62	8.78	4.16
	9/6/2005 ²	6.25	8.78	2.53
MW-3	1/21/1999 ¹	4.50	8.63	4.13
	5/21/1999 ¹	4.63	8.63	4.00
	9/6/2005 ²	6.74	8.63	1.89

NOTES:

¹ Groundwater elevations measured by Chaney, Walton & McCall, LLC

² Groundwater elevations measured by Ninyo & Moore

Groundwater elevation measurements from top of casing (TOC)

**TABLE 2
GROUNDWATER SAMPLE ANALYTICAL DATA
TOTAL PETROLEUM HYDROCARBONS AS GASOLINE, BTEX, AND MTBE
THOMPSON & THOMPSON FENCE CO.**

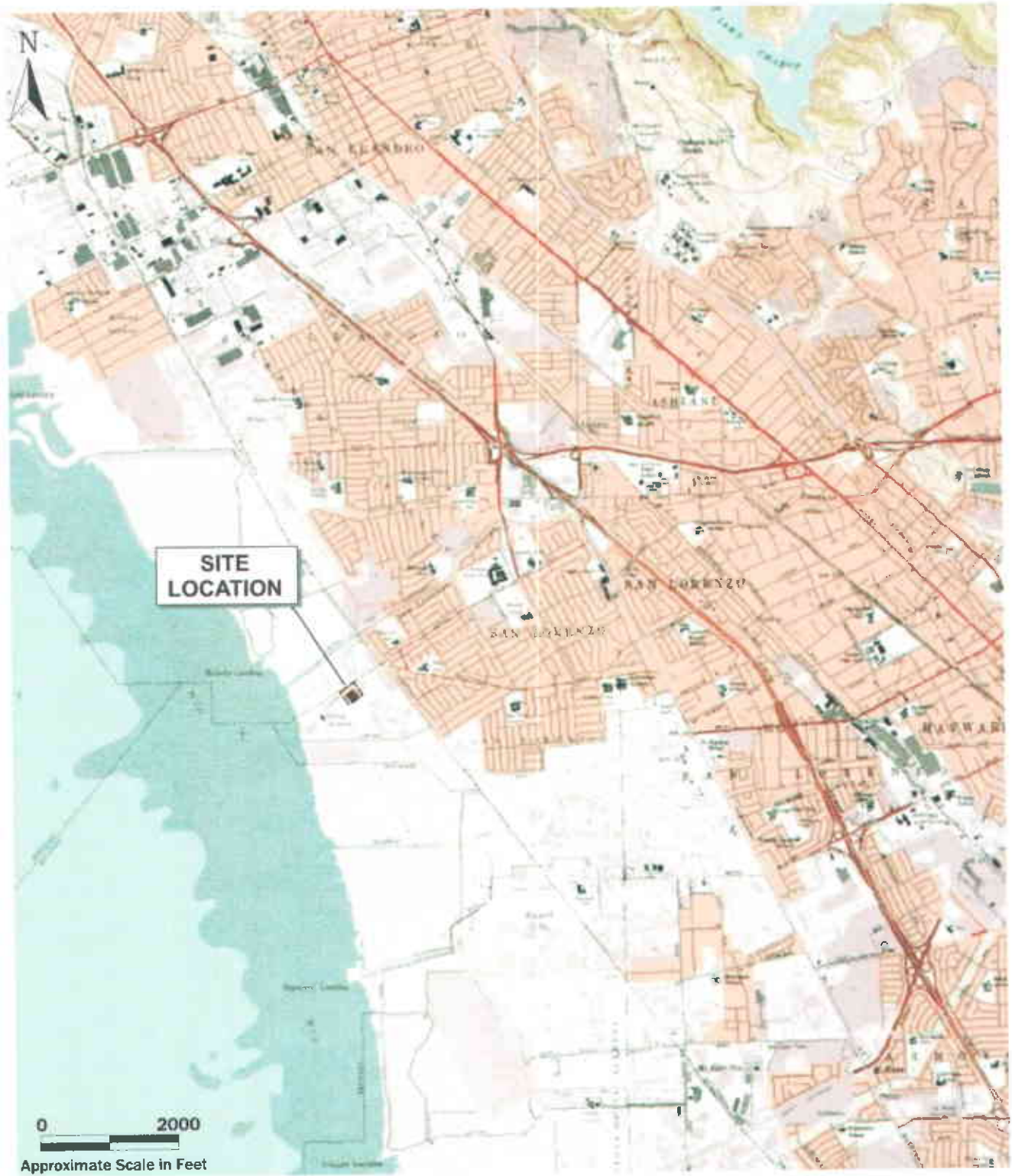
Sample ID	Sample Date	TPH-G (µg/L)	BTEX (µg/L)				OXYGENATE (µg/L)
			Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
MW-1	5/15/1996 ¹	33,000	2,200	770	1,100	6,500	<1,000
	10/4/1996 ²	31,000	4,700	280	2,100	4,700	---
	3/28/1997 ²	17,000	1,400	160	630	2,900	---
	6/30/1997 ²	8,000	880	130	370	130	---
	1/21/1999 ³	24,000	1,800	120	890	1,740	110
	5/21/1999 ³	13,000	1,900	48	450	990	150
	9/6/2005 ⁴	2,300	470	7.4	8.7	4.6	54
TW-2	3/7/1996 ¹	13,000	410	840	440	1,700	<500
MW-2	5/15/1996 ¹	11,000	420	530	390	1,000	<1,000
	10/4/1996 ²	15,000	1,100	70	900	1,300	---
	3/28/1997 ²	1,900	59	19	65	79	---
	6/30/1997 ²	8,000	880	130	370	130	---
	1/21/1999 ³	12,000	1,100	780	540	1,310	300
	5/21/1999 ³	2,200	38	38	40	147	200
	9/6/2005 ⁴	2,100	350	4.9	6.8	3.8	22
TW-3	3/7/1996 ¹	<50	<0.5	<0.5	<0.5	<2	<50
MW-3	5/15/1996 ¹	<50	<0.5	<0.5	<0.5	<2	<50
	10/4/1996 ²	<50	<0.5	<0.5	<0.5	<2	---
	3/28/1997 ²	<50	<0.5	1	<0.5	<2	---
	6/30/1997 ²	<50	<0.5	<0.5	<0.5	<2	---
	1/21/1999 ³	<50	<0.5	<0.5	<0.5	<0.5	<2
	5/21/1999 ³	<50	<0.5	<0.5	<0.5	<0.5	18
	9/6/2005 ⁴	<50	0.58	1.6	<0.5	0.86	<0.5
ESLs		100	1.0	40	30	20	5.0

NOTES

- 1= Monitoring performed by Leyton & Associates
- 2= Monitoring performed by Polymatrix
- 3= Groundwater monitoring performed by Chancy, Walton & McCall
- 4=Groundwater monitoring performed by Ninyo & Moore
- µg/L = micrograms per liter
- TPH-G = total petroleum hydrocarbons as gasoline
- MTBE = Methyl tertiary-butyl ether
- < = less than the laboratory reporting limit

ESLs = California Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for Commercial Use Properties Where Groundwater is Not a Current or Potential Source of Drinking Water.





0 2000
Approximate Scale in Feet

Ninyo & Moore

SITE LOCATION MAP

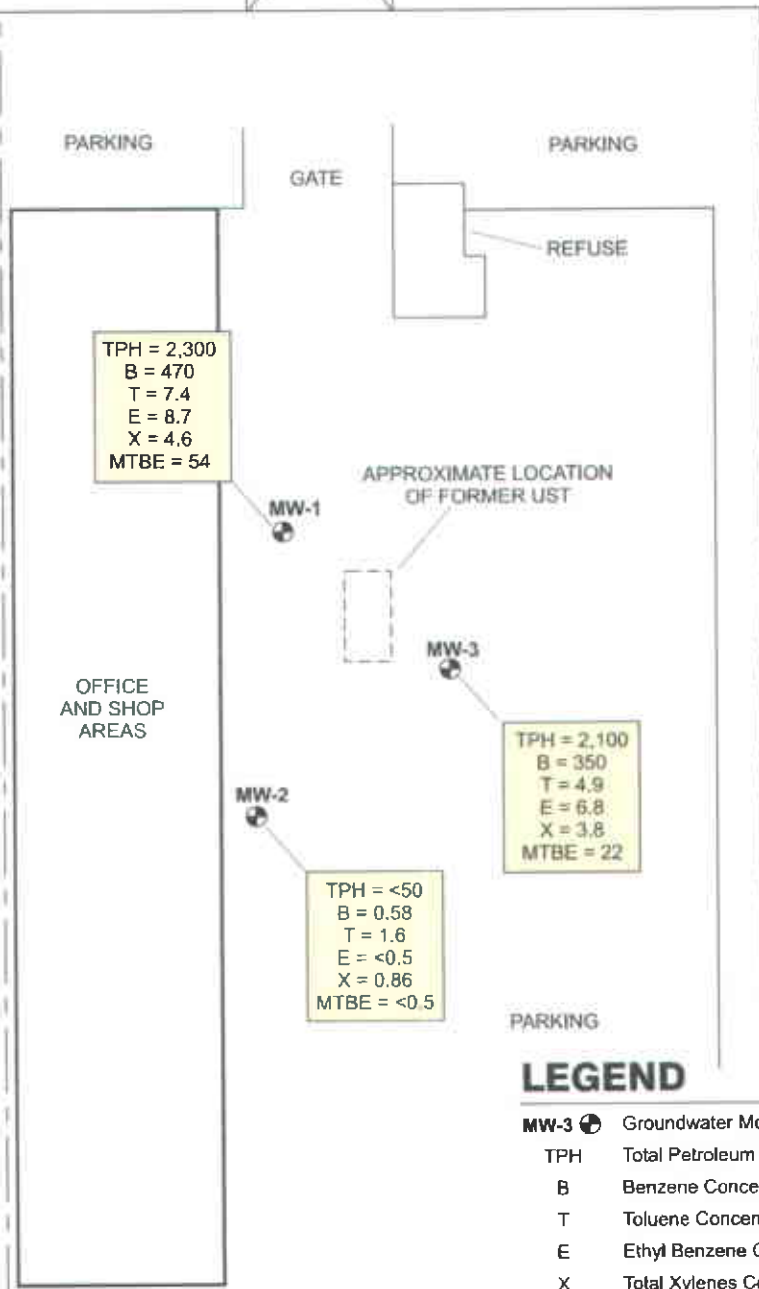
2584 GRANT AVENUE
SAN LORENZO, CALIFORNIA

PROJECT NO.
401157001

DATE
10/05

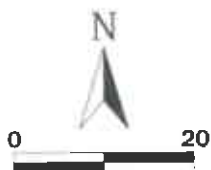
FIGURE
1

GRANT AVENUE



LEGEND

- MW-3** Groundwater Monitoring Well Location.
- TPH** Total Petroleum Hydrocarbons in µg/L.
- B** Benzene Concentration in µg/L.
- T** Toluene Concentration in µg/L.
- E** Ethyl Benzene Concentration in µg/L.
- X** Total Xylenes Concentration in µg/L.
- MTBE** Methyl Tert-Butyl Ether Concentration in µg/L.
- <** Below Laboratory Reporting Limits.
- µg/L** Micrograms per Liter.



NOTE: Basemap modified after Leyton & Associates

Ninyo & Moore

**SHALLOW GROUNDWATER
CONSTITUENT CONCENTRATION MAP**

2584 GRANT AVENUE
SAN LORENZO, CALIFORNIA

PROJECT NO.

401157001

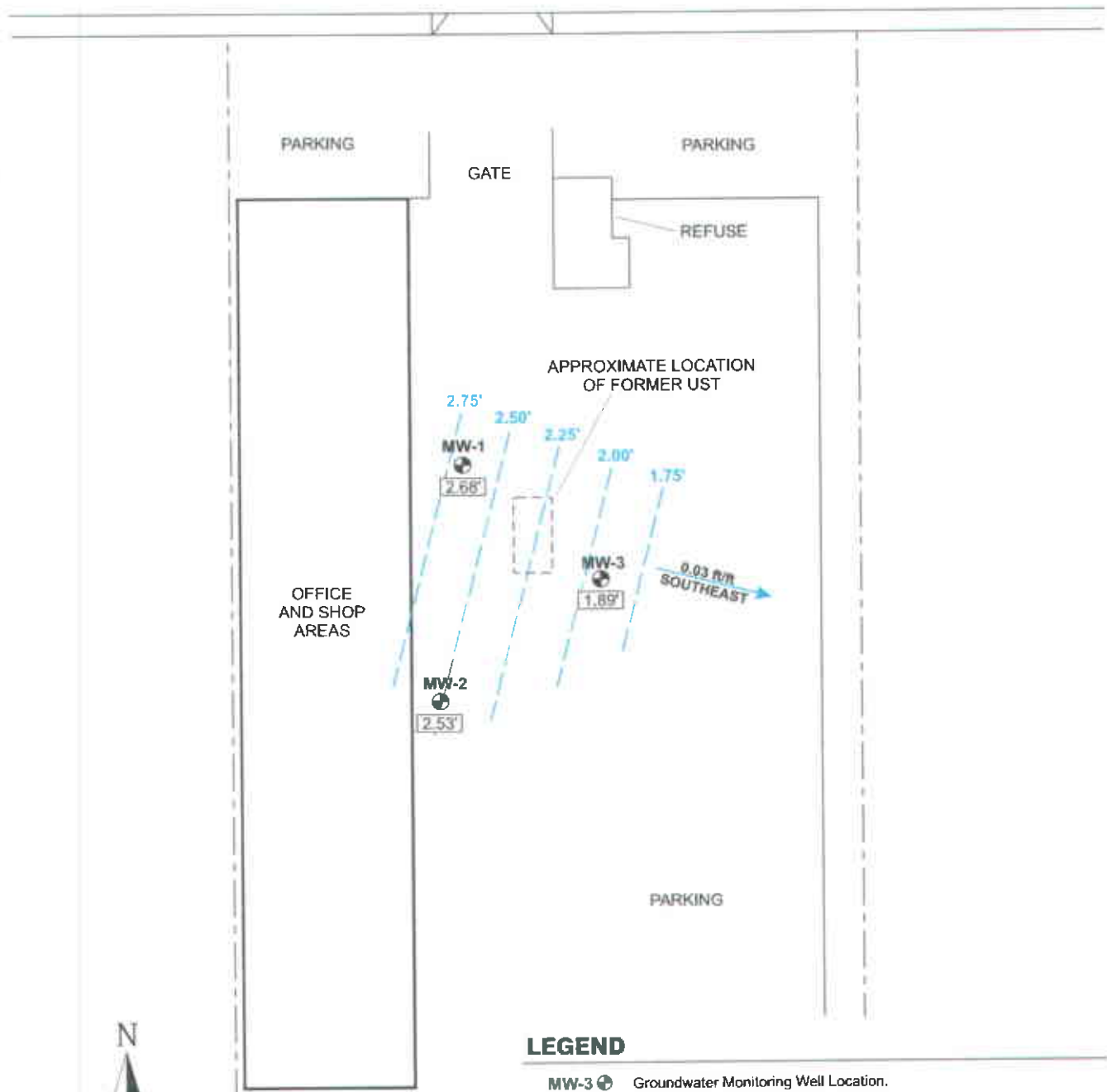
DATE

10/05

FIGURE

2

GRANT AVENUE



NOTE: Basemap modified after Leyton & Associates

LEGEND

- MW-3 Groundwater Monitoring Well Location.
- 2.68' Measured Groundwater Elevation in Feet Above Mean Sea Level.
- 2.75' Groundwater Elevation Contour Interval in Feet Above Mean Sea Level.
- Estimated Groundwater Flow Direction and Gradient (in Feet per Foot).



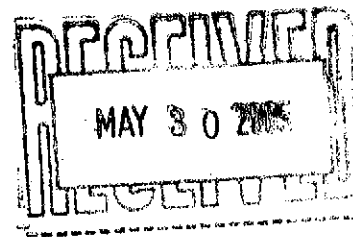
SHALLOW GROUNDWATER GRADIENT MAP
 2584 GRANT AVENUE
 SAN LORENZO, CALIFORNIA

PROJECT NO.	DATE
401157001	10/05

FIGURE
3

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



May 26, 2005

Gary A. Thompson
Thompson & Thompson Fence Co. 2584 Grant Ave.
San Lorenzo, CA 94580

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

**RE: Fuel Leak Case #RO0000467, Thompson & Thompson, 2584 Grant Ave.,
San Lorenzo, CA**

Dear Mr. Thompson:

Alameda County Environmental Health, Local Oversight Program (LOP), has received and reviewed the files regarding the above referenced property. It has come to our attention that you have not submitted any quarterly monitoring report since August 30th, 1999. This is despite the fact that the last report indicated Benzene level at 1,900ppm, MTBE at 150ppb, and TPH-G at 13,000ppb in groundwater. Our office requests that you address the following technical comments when performing the proposed work and provide the technical report(s) requested below.

Technical Comments


- You are required to submit quarterly monitoring report as required unless otherwise directed by this office. The last report provided to this office was on August 30th, 1999 submitted by Mr. Michael Swaney of Chaney, Walton & McCall (LLC).
- In your report please provide explanation regarding the concentrations of the constituents in MW-2 since the groundwater flow gradient indicates and almost northerly direction (August 1999 report) while this well is upgradient from the former UST location. Please provide some explanation for the above scenario in the next quarterly groundwater monitoring report due immediately.

Technical Report Request

- Quarterly monitoring report by July 27th, 2005

Please contact me at (510) 567-6876 if you have any questions.

Sincerely,



Amir K. Gholami
Hazardous Materials Specialist

C: Michael W. Swaney, Chaney, Walton, McCall LLC, 35 Embarcadero Cove,
Oakland, CA 94606-5203
A.Gholami/D.Drogos, files

Project Name: Thompson Fencing
 Site: MW-1 Date: 9/6/2005 Sampler: KML
 Project No.: 401157001 Weather: _____
 Monitoring Well ID: MW-1 Vapor Monitoring Results (ppmv): BZ= WH=

Casing Diameter: 2" 4" 6" Other _____ Casing Material: SCH 40-PVC Other: S. Steel
 Total Depth (ft-TOC): 18.27 Floating Immiscible Layer Observed?: No
 Depth to Water (ft-TOC): 6.08 ft Floating Immiscible Layer Thickness (feet): NA
 Water Column Height (feet): 12.19 x $2" = 0.16$ gal/ft = 195.2 x 3 = 6.0 Min. Purge Volume (gallons)
 $4" = 0.65$
 $6" = 1.47$

Water Level Measurement Equip.: Solinst Water Level Indicator Cleaned: yes
 Purging Method/Equipment: Disp. PVC Bailer / Whale Pump Cleaned: yes
 Pump Lines/Bailer Ropes-New or Cleaned?: New/Cleaned
 Temp./pH Meter: Ultrameter Calibration (date/time): _____
 Conductivity Meter: Ultrameter Calibration (date/time): Factory calibrated

pH STND.	FIELD pH	FIELD TEMP. (°F)
4.0		
7.0		

TIME	Purge Vol.(Gal)	Totalizer Reading (Gal)	TEMP. °C (°F)	pH	COND. (µS/cm)	COMMENTS (color, turbidity, odor, sheen, etc.):
	0		18.8	6.71	7.02 MS	black, no turbidity, strong odor, no sheen
	1.5	18.8	18.8	6.76	6.87 MS	clear, petroleum odor, no sheen
	3.0		18.8	7.3	6.72 MS	clear, no sheen, strong odor
	4.5		18.5	7.86	6.87 MS	black, no turb., strong odor, no sheen
	6.0					

Total Volume Purged (gallon): _____ Time Finished Purging: _____

Sampling Method/Equipment: Disposable PVC Bailer
 Bailer Rope-New or Cleaned?: New
 Sample Time: 3:20
 Sample ID: _____
 Replicate ID (if appl.): None
 Laboratory: Sparger Technologies
 Comments: _____

PARAMETER	USEPA METHOD	CONTAINERS/VOLUME/TYPE (Voa/Glass/Plastic)	PRES.
TPH-g/ BTEX/MTBE	8015M	4 x 40mL VOA	4 °C, HCl

Project Name: Thompson Fencing

Site: MW-2

Date: 9/6/2005

Sampler: KML

Project No.: 401157001

Weather: _____

Monitoring Well ID: _____

Vapor Monitoring Results (ppmv): BZ= WH=

Casing Diameter: 2" 4" 6" Other _____

Casing Material: SCH 40-PVC Other: S. Steel _____

Total Depth (ft-TOC): 18.3

Floating Immiscible Layer Observed?: No

Depth to Water (ft-TOC): 6.25

Floating Immiscible Layer Thickness (feet): NA

Water Column Height (feet): 12.05 x _____

2" = 0.16 gal/ft = 2.0 x 3 = 6.0 Min. Purge Volume (gallons)
 4" = 0.65
 6" = 1.47

Water Level Measurement Equip.: Solinst Water Level Indicator

Cleaned: yes

Purging Method/Equipment: Disp. PVC Bailer/ Whale Pump

Cleaned: yes

Pump Lines/Bailer Ropes-New or Cleaned?: New/Cleaned

Temp./pH Meter: Ultrameter

Calibration (date/time): _____

Conductivity Meter: Ultrameter

Calibration (date/time): Factory calibrated

Comments: _____

pH STND.	FIELD pH	FIELD TEMP. (°F)
4.0		
7.0		

TIME	Purge Vol.(Gal)	Totalizer Reading (Gal)	TEMP. °C (°F)	pH	COND. (µS/cm)	COMMENTS (color, turbidity, odor, sheen, etc.):
	0		17.9	6.85	18.56ms	blackish odor, not turbid, no sheen
	1.5		19.5	6.89	9.36ms	black, odor, not turbid, no sheen
	3.0		18.5	6.76	18.29ms	black, odor, not turbid, no sheen
	4.5		18.3	6.80	18.47ms	black, odor, not turbid, no sheen
	6.0					

Total Volume Purged (gallon): _____

Time Finished Purging: _____

Sampling Method/Equipment: Disposable PVC Bailer

PARAMETER	USEPA METHOD	CONTAINERS/VOLUME/TYPE (Voa/Glass/Plastic)	PRES.
TPH-g/ BTEX/MTBE	8015M	4 x 40mL VOA	4 °C, HCl

Bailer Rope-New or Cleaned?: New

Sample Time: 3:50

Sample ID: _____

Replicate ID (if appl.): None

Laboratory: Sparger Technologies

Comments: _____

Project Name: Thompson Fencing

Site: MW-3

Date: 9/6/2005

Sampler: KML

Project No.: 401157001

Weather: _____

Monitoring Well ID: _____

Vapor Monitoring Results (ppmv): BZ= _____ WH= _____

Casing Diameter: 2" 4" 6" Other

Casing Material: SCH 40-PVC Other: S. Steel

Total Depth (ft-TOC): 18.26

Floating Immiscible Layer Observed?: No

Depth to Water (ft-TOC): 6.74

Floating Immiscible Layer Thickness (feet): NA

Water Column Height (feet): 11.52 x

2" = 0.16
4" = 0.65 gal/ft = 1.8 x 3 = 5.5 Min. Purge Volume (gallons)

Water Level Measurement Equip.: Solinst Water Level Indicator

Cleaned: yes

Purging Method/Equipment: Disp. PVC Bailer/ Whale Pump

Cleaned: yes

Pump Lines/Bailer Ropes-New or Cleaned?: New/Cleaned

Temp./pH Meter: Ultrameter

Calibration (date/time): _____

Conductivity Meter: Ultrameter

Calibration (date/time): Factory calibrated

Comments: _____

pH STND.	FIELD pH	FIELD TEMP. (°F)
4.0		
7.0		

TIME	Purge Vol. (Gal)	Totalizer Reading (Gal)	TEMP. °C (°F)	pH	COND. (µS/cm)	COMMENTS (color, turbidity, odor, sheen, etc.):
	0		17.9	7.63	5.61 mS	brownish turbid, no odor, no sheen
	1.4		17.9	7.25	6.55 mS	brownish clear, not turbid no odor
	2.9		18.1	7.35	6.92 mS	brownish clear, no odor
	4.2		17.9	7.0	5.16 mS	clear no odor not turbid
	5.6					pump went dry

Total Volume Purged (gallon): _____

Time Finished Purging: _____

Sampling Method/Equipment: Disposable PVC Bailer

PARAMETER	USEPA METHOD	CONTAINERS/VOLUME/TYPE (Voa/Glass/Plastic)	PRES.
TPH-g/ BTEX/MTBE	8015M	4 x 40mL VOA	4 °C, HCl

Bailer Rope-New or Cleaned?: New

Sample Time: 4:10

Sample ID: _____

Replicate ID (if appl.): None

Laboratory: Sparger Technologies

Comments: _____

APPENDIX C
LABORATORY ANALYTICAL REPORTS



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710. Phone (510) 486-0900

ANALYTICAL REPORT

RECEIVED

Prepared for:

SEP 28 2005

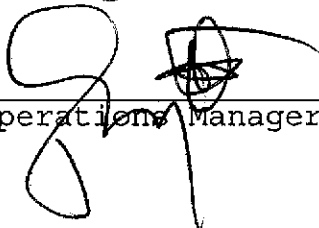
Ninyo & Moore
1956 Webster St.
Suite 400
Oakland, CA 94612

NINYO AND MOORE
OAKLAND OFFICE

Date: 21-SEP-05
Lab Job Number: 181699
Project ID: STANDARD
Location: Thompson Fencing Co.

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by: 
Project Manager

Reviewed by: 
Operations Manager

This package may be reproduced only in its entirety.

CASE NARRATIVE

Laboratory number: 181699
Client: Ninyo & Moore
Location: Thompson Fencing Co.
Request Date: 09/06/05
Samples Received: 09/06/05

This hardcopy data package contains sample and QC results for three water samples, requested for the above referenced project on 09/06/05. The samples were received on ice and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B and EPA 8021B):

No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):

No analytical problems were encountered.

SPARGER TECHNOLOGY, INC. 181699

Analytical Laboratory

3050 Fite Circle, #112 Sacramento, CA 95827

Phone: (916) 362-8947

FAX: (916) 362-0947

Company: Ninyo & Moore

Phone: (510) 633-5040

Project Manager: Kns Larson

FAX: (510) 633-5046

Report Address: Billing Name & Address:

1956 Webster Suite 400
Oakland, CA

Project Name: Thompson Fencing Co.

Project/Job#: 401157001

Project Location: San Lorenzo, CA

P.O.#:

CHAIN OF CUSTODY RECORD

C.O.C. No. 22068

Page 1 of 1

STAL Invoice Number:

ANALYSIS REQUEST

REMARKS:

Sampler's Name:
Kns Larson

		All OK	None OK	Some OK	
Cooler Temp.	°C				WET (STLC)
Sample Condition					TCLP
pH					

NO.	SAMPLE ID	Sampling		Container	Preservative Used			Matrix			TCLP										Total		TAT																
		Date	Time		40 mL VOA	Brass Sleeve	1 L amber bottle	250 mL Plastic	Other:	None	Other:	Waste	Soil	Air	Other:	BTEX (602/8020)/503.1	BTEX/PHgas (602/8020/8015)/MTBE	TPHdiesel/TPHmotor oil/kerosene(8015)	EPA 601/8010/502.2/504/8021	EPA 602/8020	EPA 608/8080 (Pesticides)/505/508	EPA 608/8080 (PCB'S)		EPA 624/8270/525	Total Oil & Grease (5520)	Non-Polar O & G/TRPH (418.1)	Organic Lead	RCI	8260B gasox only	CAM-17 Metals	CAM-5 Metals (Cd, Cr, Pb, Ni, Zn)	Lead	Standard	Rush Services (72hr / 48hr / 24hr / 12hr)	Holiday/Weekend Rush				
1	MW-1	9/6	3:20	X4						X					X																						X		
2	MW-2		3:50	X4						X					X																								
3	MW-3	9/6	4:10	X4						X					X																								
4																																							
5																																							
6																																							
7	* Labels =	4:10																																					
8	** Labels =	3:50																																					
9																																							
10																																							

Relinquished by:

Kns Larson

Date: 9/6

Time: 5:15

Received by:

Lavanna Curtis

Date: 9/6/05

Time: 5:05

Relinquished by:

Received On: On Job
 Ambient Intact

Date:

Time:

Received by:

Date:

Time:

Subject: RE: Thompson Fencing Co. - C&T Login Summary (181699)
From: "Kris Larson" <kl Larson@ninyoandmoore.com>
Date: Wed, 7 Sep 2005 14:27:08 -0700
To: "Lisa Brooker" <lisa@ctberk.com>

Lisa,
I always forget this, but does the TVH analysis include BTEX? If not, then we need to include it.

Kristopher M. Larson, P.G.
Senior Project Environmental Geologist
Ninyo & Moore
1956 Webster Street, Suite 400
Oakland, California 94610
Ph: 510-633-5640
Fax: 510-633-5646

-----Original Message-----

From: Lisa Brooker [mailto:lisa@ctberk.com]
Sent: Wednesday, September 07, 2005 12:16 PM
To: Kris Larson
Subject: Thompson Fencing Co. - C&T Login Summary (181699)

C&T Login Summary for 181699

Project: STANDARD	Report To: Ninyo & Moore	Bill To: Ninyo & Moore
Site: Thompson Fencing Co.	1956 Webster St.	1956 Webster St.
Lab Login #: 181699	Suite 400	Suite 400
Report Due: 09/13/05	Oakland, CA 94612	Oakland, CA 94612
PO#:	ATTN: Kris Larson	ATTN: Kris Larson
C&T Proj Mgr: Lisa Brooker	(510) 633-5640	(510) 633-5640

Client ID	Lab ID	Sampled	Received	Matrix	Analyses	COC #	Comments
MW-1	001	09/06	09/06			22068	
				Water	GASOX		Only 4 voas for GASOX & TVH
				Water	TVH		Only 4 voas for GASOX & TVH
MW-2	002	09/06	09/06			22068	
				Water	GASOX		Only 4 voas for GASOX & TVH
				Water	TVH		Only 4 voas for GASOX & TVH
MW-3	003	09/06	09/06			22068	
				Water	GASOX		Only 4 voas for GASOX & TVH
				Water	TVH		Only 4 voas for GASOX & TVH

Curtis & Tompkins Laboratories Analytical Report

Lab #: 181699 Location: Thompson Fencing Co.
 Client: Ninyo & Moore Prep: EPA 5030B
 Project#: STANDARD
 Matrix: Water Sampled: 09/06/05
 Units: uq/L Received: 09/06/05

Field ID: MW-1 Lab ID: 181699-001
 Type: SAMPLE

Analyte	Result	RL	Diln Fac	Batch# Analyzed	Analysis
Gasoline C7-C12	2,300	50	1.000	105503 09/07/05	EPA 8015B
Benzene	470	1.0	2.000	105547 09/08/05	EPA 8021B
Toluene	7.4	1.0	2.000	105547 09/08/05	EPA 8021B
Ethylbenzene	8.7	1.0	2.000	105547 09/08/05	EPA 8021B
m,p-Xylenes	4.6	1.0	2.000	105547 09/08/05	EPA 8021B
o-Xylene	1.4	1.0	2.000	105547 09/08/05	EPA 8021B

Surrogate	%REC	Limits	Diln Fac	Batch# Analyzed	Analysis
Trifluorotoluene (FID)	98	62-141	1.000	105503 09/07/05	EPA 8015B
Bromofluorobenzene (FID)	104	78-134	1.000	105503 09/07/05	EPA 8015B
Trifluorotoluene (PID)	90	67-127	2.000	105547 09/08/05	EPA 8021B
Bromofluorobenzene (PID)	97	80-122	2.000	105547 09/08/05	EPA 8021B

Field ID: MW-2 Lab ID: 181699-002
 Type: SAMPLE

Analyte	Result	RL	Diln Fac	Batch# Analyzed	Analysis
Gasoline C7-C12	2,100	250	5.000	105503 09/07/05	EPA 8015B
Benzene	350	1.0	2.000	105547 09/08/05	EPA 8021B
Toluene	4.9	1.0	2.000	105547 09/08/05	EPA 8021B
Ethylbenzene	6.8 C	1.0	2.000	105547 09/08/05	EPA 8021B
m,p-Xylenes	3.8	1.0	2.000	105547 09/08/05	EPA 8021B
o-Xylene	1.6	1.0	2.000	105547 09/08/05	EPA 8021B

Surrogate	%REC	Limits	Diln Fac	Batch# Analyzed	Analysis
Trifluorotoluene (FID)	89	62-141	5.000	105503 09/07/05	EPA 8015B
Bromofluorobenzene (FID)	102	78-134	5.000	105503 09/07/05	EPA 8015B
Trifluorotoluene (PID)	92	67-127	2.000	105547 09/08/05	EPA 8021B
Bromofluorobenzene (PID)	99	80-122	2.000	105547 09/08/05	EPA 8021B

Field ID: MW-3 Lab ID: 181699-003
 Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL	Batch# Analyzed	Analysis
Gasoline C7-C12	ND	50	105503 09/07/05	EPA 8015B
Benzene	0.58	0.50	105547 09/08/05	EPA 8021B
Toluene	1.6	0.50	105547 09/08/05	EPA 8021B
Ethylbenzene	ND	0.50	105547 09/08/05	EPA 8021B
m,p-Xylenes	0.86	0.50	105547 09/08/05	EPA 8021B
o-Xylene	ND	0.50	105547 09/08/05	EPA 8021B

Surrogate	%REC	Limits	Batch# Analyzed	Analysis
Trifluorotoluene (FID)	98	62-141	105503 09/07/05	EPA 8015B
Bromofluorobenzene (FID)	110	78-134	105503 09/07/05	EPA 8015B
Trifluorotoluene (PID)	73	67-127	105547 09/08/05	EPA 8021B
Bromofluorobenzene (PID)	84	80-122	105547 09/08/05	EPA 8021B

C= Presence confirmed, but RPD between columns exceeds 40%
 NA= Not Analyzed
 ND= Not Detected
 L= Reporting Limit
 Page 1 of 2



Curtis & Tompkins Laboratories Analytical Report

Lab #:	181699	Location:	Thompson Fencing Co.
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD		
Matrix:	Water	Sampled:	09/06/05
Units:	ug/L	Received:	09/06/05

Type:	BLANK	Batch#:	105503
Lab ID:	QC307806	Analyzed:	09/07/05
Diln Fac:	1.000	Analysis:	EPA 8015B

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	Result	%REC	Limits
Trifluorotoluene (PID)		87	62-141
Bromofluorobenzene (FID)		98	78-134
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		

Type:	BLANK	Batch#:	105547
Lab ID:	QC308014	Analyzed:	09/08/05
Diln Fac:	1.000		

Analyte	Result	RL	Analysis
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	101	62-141	EPA 8015B
Bromofluorobenzene (FID)	107	78-134	EPA 8015B
Trifluorotoluene (PID)	79	67-127	EPA 8021B
Bromofluorobenzene (PID)	91	80-122	EPA 8021B

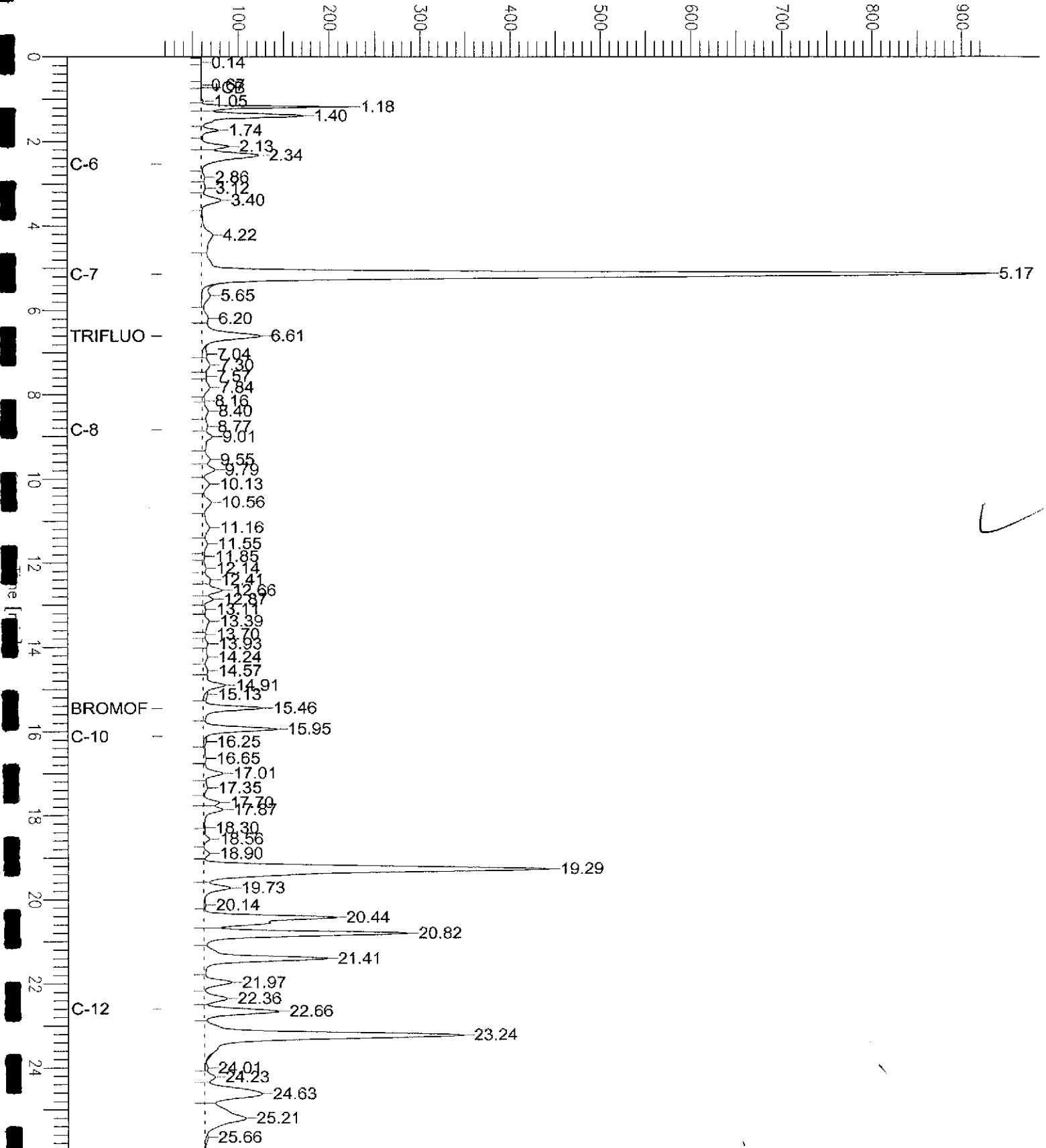
C= Presence confirmed, but RPD between columns exceeds 40%
 NA= Not Analyzed
 ND= Not Detected
 L= Reporting Limit

GC04 TVH 'J' Data File FID

Sample Name : 181699-001,105503,tvh
FileName : G:\GC04\DATA\250J003.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor : 1.0 Plot Offset : 16 mV

Sample #: a7
Date : 9/7/05 11:21 AM
Time of Injection: 9/7/05 10:55 AM
Low Point : 15.56 mV High Point : 929.98 mV
Plot Scale: 914.4 mV

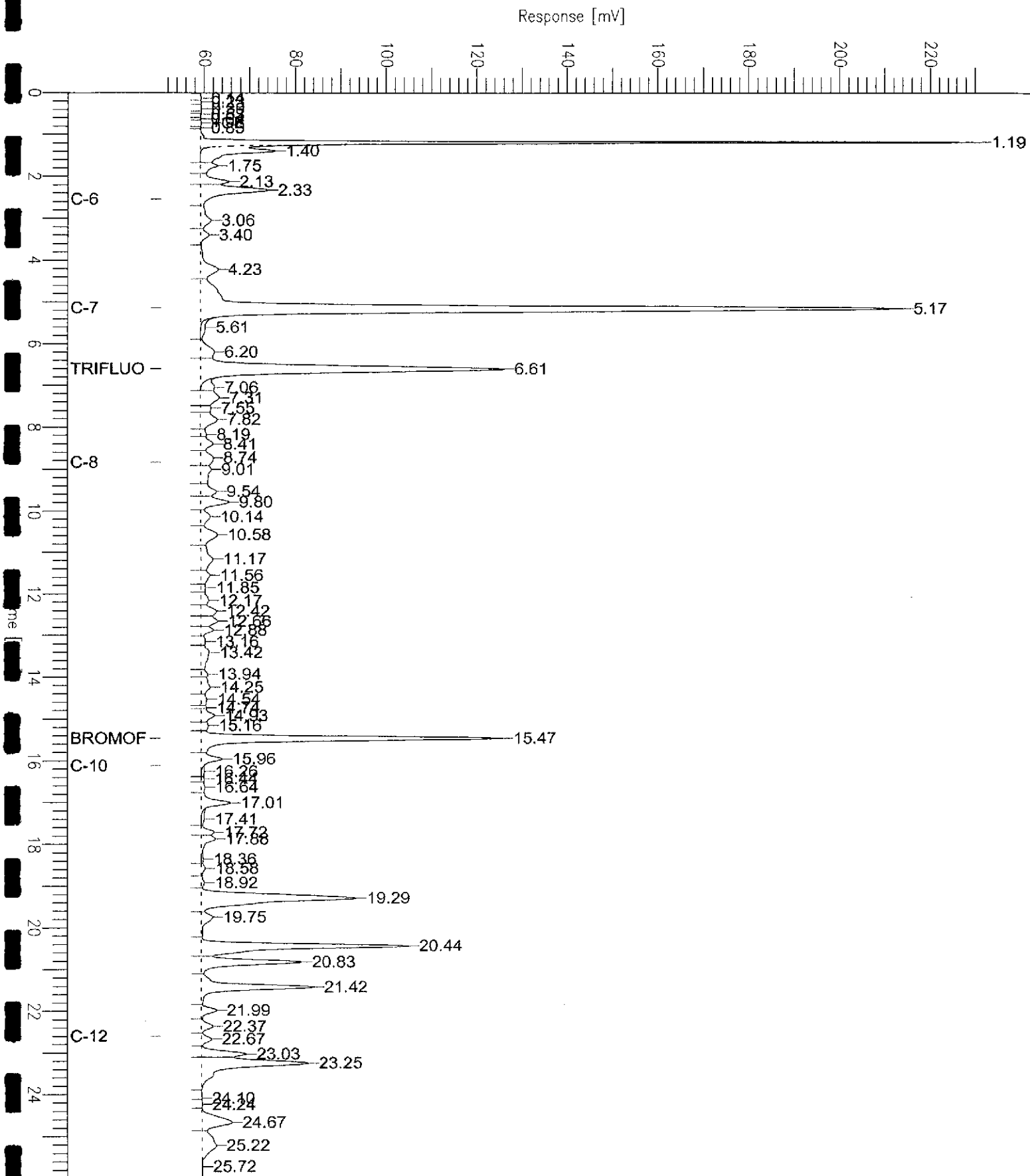
Response [mV]



GC04 TVH 'J' Data File FID

Sample Name : 181699-002,105503,tvh
 File Name : G:\GC04\DATA\250J005.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.00 min
 Scale Factor : 1.0 Plot Offset : 51 mV

Sample #: a7 Page 1 of 1
 Date : 9/7/05 12:32 PM
 Time of Injection: 9/7/05 12:06 PM
 Low Point : 50.50 mV High Point : 231.48 mV
 Plot Scale: 181.0 mV



GC04 TVH 'J' Data File FID

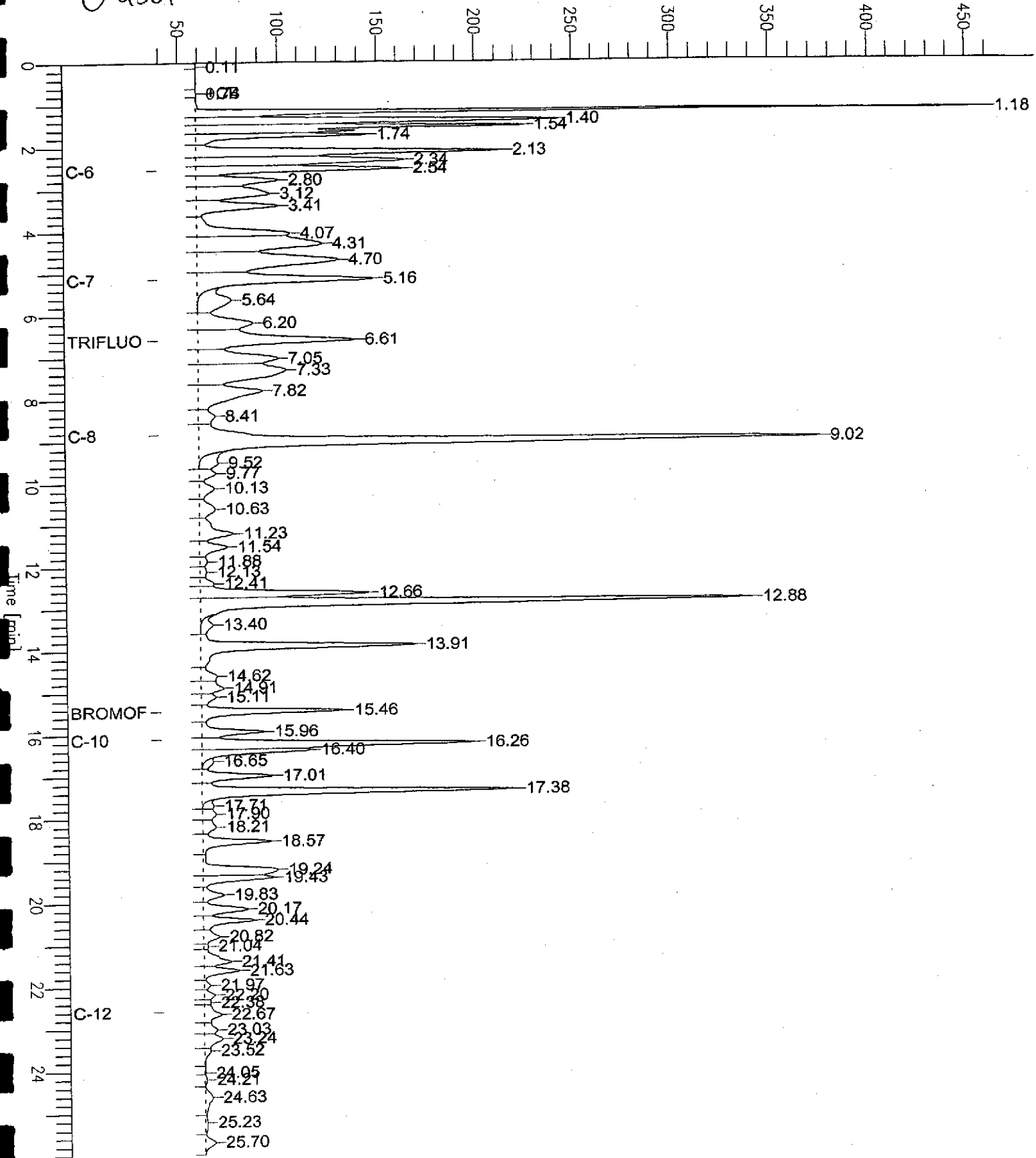
Sample Name : ccv/lcs,qc307807,105503,S1413,5/5000
FileName : G:\GC04\DATA\250J001.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor : 1.0 Plot Offset : 39 mV

Sample # :
Date : 9/7/05 09:02 AM
Time of Injection : 9/7/05 08:36 AM
Low Point : 39.15 mV High Point : 460.08 mV
Plot Scale : 420.9 mV

Page 1 of 1

Gasoline

Response [mV]



Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	181699	Location:	Thompson Fencing Co.
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC307807	Batch#:	105503
Matrix:	Water	Analyzed:	09/07/05
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,948	97	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	133	62-141
Bromofluorobenzene (FID)	111	78-134

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	181699	Location:	Thompson Fencing Co.
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC308015	Batch#:	105547
Matrix:	Water	Analyzed:	09/08/05
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Benzene	20.00	17.90	89	80-120
Toluene	20.00	17.84	89	80-120
Ethylbenzene	20.00	19.23	96	80-120
m,p-Xylenes	20.00	18.07	90	80-120
o-Xylene	20.00	19.27	96	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	84	67-127
Bromofluorobenzene (PID)	95	80-122

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	181699	Location:	Thompson Fencing Co.
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	105503
MSS Lab ID:	181702-002	Sampled:	09/06/05
Matrix:	Water	Received:	09/06/05
Units:	ug/L	Analyzed:	09/07/05
Diln Fac:	1.000		

Type: MS Lab ID: QC307873

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.74	2,000	2,041	102	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	138	62-141
Bromofluorobenzene (FID)	114	78-134

Type: MSD Lab ID: QC307874

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,071	103	80-120	1	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	138	62-141
Bromofluorobenzene (FID)	111	78-134

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	181699	Location:	Thompson Fencing Co.
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	105503
MSS Lab ID:	181716-001	Sampled:	09/06/05
Matrix:	Water	Received:	09/07/05
Units:	ug/L	Analyzed:	09/07/05
Diln Fac:	1.000		

Type: MS Lab ID: QC307937

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	39.26	2,000	1,707	83	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	120	62-141
Bromofluorobenzene (FID)	96	78-134

Type: MSD Lab ID: QC307938

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,749	85	80-120	2	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	119	62-141
Bromofluorobenzene (FID)	100	78-134

Batch QC Report
Curtis & Tompkins Laboratories Analytical Report

Lab #:	181699	Location:	Thompson Fencing Co.
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8021B
Field ID:	ZZZZZZZZZZ	Batch#:	105547
MSS Lab ID:	181736-003	Sampled:	09/07/05
Matrix:	Water	Received:	09/08/05
Units:	ug/L	Analyzed:	09/09/05
Diln Fac:	1.000		

Type: MS Lab ID: QC308093

Analyte	MSS Result	Spiked	Result	%REC	Limits
Benzene	<0.03392	20.00	18.20	91	80-120
Toluene	<0.04781	20.00	18.70	93	79-122
Ethylbenzene	<0.03563	20.00	18.57	93	80-120
m,p-Xylenes	<0.03012	20.00	18.15	91	77-125
o-Xylene	<0.08266	20.00	19.31	97	78-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	80	67-127
Bromofluorobenzene (PID)	94	80-122

Type: MSD Lab ID: QC308094

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	20.00	18.71	94	80-120	3	20
Toluene	20.00	18.10	90	79-122	3	20
Ethylbenzene	20.00	19.55	98	80-120	5	20
m,p-Xylenes	20.00	18.07	90	77-125	0	20
o-Xylene	20.00	20.01	100	78-120	4	20

Surrogate	%REC	Limits
Trifluorotoluene (PID)	82	67-127
Bromofluorobenzene (PID)	97	80-122



Gasoline Oxygenates by GC/MS

Lab #:	181699	Location:	Thompson Fencing Co.
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	09/06/05
Units:	ug/L	Received:	09/06/05
Diln Fac:	1.000		

Field ID: MW-1 Batch#: 105716
 Type: SAMPLE Analyzed: 09/14/05
 Lab ID: 181699-001

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	54	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-121
1,2-Dichloroethane-d4	103	80-125
Toluene-d8	97	80-120
Bromofluorobenzene	92	80-124

Field ID: MW-2 Batch#: 105716
 Type: SAMPLE Analyzed: 09/14/05
 Lab ID: 181699-002

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	22	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-121
1,2-Dichloroethane-d4	93	80-125
Toluene-d8	95	80-120
Bromofluorobenzene	91	80-124

RECEIVED

OCT 06 2005

NINYO AND MOORE
OAKLAND OFFICE



Gasoline Oxygenates by GC/MS

Lab #:	181699	Location:	Thompson Fencing Co.
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	09/06/05
Units:	ug/L	Received:	09/06/05
Diln Fac:	1.000		

Field ID:	MW-3	Batch#:	105752
Type:	SAMPLE	Analyzed:	09/14/05
Lab ID:	181699-003		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	90	80-121
1,2-Dichloroethane-d4	85	80-125
Toluene-d8	95	80-120
Bromofluorobenzene	94	80-124

Type:	BLANK	Batch#:	105716
Lab ID:	QC308717	Analyzed:	09/13/05

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-121
1,2-Dichloroethane-d4	97	80-125
Toluene-d8	101	80-120
Bromofluorobenzene	121	80-124

Gasoline Oxygenates by GC/MS

Lab #:	181699	Location:	Thompson Fencing Co.
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	09/06/05
Units:	ug/L	Received:	09/06/05
Diln Fac:	1.000		

Type:	BLANK	Batch#:	105752
Lab ID:	QC308865	Analyzed:	09/14/05

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5

Surrogate	%RAC	Limits
Dibromofluoromethane	106	80-121
1,2-Dichloroethane-d4	103	80-125
Toluene-d8	99	80-120
Bromofluorobenzene	110	80-124

Batch QC Report

Gasoline Oxygenates by GC/MS

Lab #:	181699	Location:	Thompson Fencing Co.
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	105716
Units:	ug/L	Analyzed:	09/13/05
Diln Fac:	1.000		

Type: BS Lab ID: QC308715

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	123.0	98	66-138
MTBE	25.00	25.33	101	72-120
Isopropyl Ether (DIPE)	25.00	25.74	103	74-121
Ethyl tert-Butyl Ether (ETBE)	25.00	29.44	118	77-123
Methyl tert-Amyl Ether (TAME)	25.00	25.00	100	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-121
1,2-Dichloroethane-d4	95	80-125
Toluene-d8	99	80-120
Bromofluorobenzene	94	80-124

Type: BSD Lab ID: QC308716

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	119.7	96	66-138	3	25
MTBE	25.00	25.64	103	72-120	1	20
Isopropyl Ether (DIPE)	25.00	26.44	106	74-121	3	20
Ethyl tert-Butyl Ether (ETBE)	25.00	29.94	120	77-123	2	20
Methyl tert-Amyl Ether (TAME)	25.00	24.69	99	77-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-121
1,2-Dichloroethane-d4	98	80-125
Toluene-d8	99	80-120
Bromofluorobenzene	96	80-124

Batch QC Report

Gasoline Oxygenates by GC/MS

Lab #:	181699	Location:	Thompson Fencing Co.
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC308902	Batch#:	105752
Matrix:	Water	Analyzed:	09/14/05
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	140.0	112	66-138
MTBE	25.00	26.81	107	72-120
Isopropyl Ether (DIPE)	25.00	27.48	110	74-121
Ethyl tert-Butyl Ether (ETBE)	25.00	30.62	122	77-123
Methyl tert-Amyl Ether (TAME)	25.00	25.92	104	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-121
1,2-Dichloroethane-d4	100	80-125
Toluene-d8	101	80-120
Bromofluorobenzene	94	80-124