

SKD
3573



12/21/02
Mansour
3/14/02
AMM

MAR 14 2002

March 12, 2002

Mr. Amir K. Gholami, REHS
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: **Site Location - 17771 Meekland Avenue, Hayward, CA**

Dear Amir:

Enclosed please find SOMA's "Well Decommissioning Report" for the subject property.

Thank you for your time in reviewing our report. Please do not hesitate to call me at (925) 244-6600, if you have any questions or comments.

Sincerely,

Mansour Sepéhr, Ph.D., P.E.
Principal

Enclosure

cc: Mr. Mel Jocson w/enclosure

mission folder ?

R021

(AG)



ENVIRONMENTAL ENGINEERING, INC.
2680 Bishop Drive • Suite 203 • San Ramon, CA 94583
TEL (925) 244-6600 • FAX (925) 244-6601

WELL DECOMMISSIONING REPORT

FOR

**17771 Meekland Avenue
Hayward, California**

MAR 14 2002

March 11, 2002

Project 2660

Prepared for

**Mr. Mel Jocson
17771 Meekland Avenue
Hayward, California**

Prepared By

**SOMA Environmental Engineering, Inc.
2680 Bishop Drive, Suite 203
San Ramon, California**

Certification

This report has been prepared by SOMA Environmental Engineering, Inc. on behalf of Mr. Mel Jocson, the property owner at 17771 Meekland Avenue, Hayward, California, to comply with the Alameda County Environmental Health Service's requirements for decommissioning monitoring wells.



Mansour Sepehr, Ph.D., P.E.
Principal Hydrogeologist



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1.0 INTRODUCTION

This report has been prepared by SOMA Environmental Engineering, Inc. (SOMA) on behalf of Mr. Mel Jocson, the property owner at 17771 Meekland Avenue, Hayward, California (the "Site"). Figure 1 shows the Site and the surrounding areas. The purpose of this report is to document the proper destruction of the existing groundwater monitoring wells at the Site, per the Alameda County Environmental Health Service's (ACEHS's) request.

The Site is bound on the north by Meekland Avenue, on the west by Shasta Street, on the south and east by residential properties. The Site is currently a dormant gasoline service station with an automobile maintenance building and is named Jocson Auto Electric. The Site is predominantly covered by asphalt.

Three groundwater monitoring wells (MW-1 through MW-3, see Figure 2) were installed on June 27, 1992 by Augeas Corporation. The wells were drilled to a total depth of 30.5 feet, screened and cased with 2-inch diameter schedule 40 blank PVC pipes.

This report documents the destruction of the existing groundwater monitoring wells based on the Alameda County Environmental Health Service's monitoring well abandonment guidelines.

2.0 FIELD WORK

2.1 Scope of Work

The work included the following tasks:

1. Sample monitoring well MW-3
2. Prepare a site-specific Health and Safety Plan (HASP)
3. Obtain permits for well destruction from Alameda County
4. Decommission three wells

These tasks are described below.

2.1 Sample MW-3

On February 11, 2002, SOMA's field crew visited the Site and purged well MW-3 at least three times the volume of the casing using a submersible DC pump. Then a disposable bailer was used to sample the groundwater. The samples were transferred into four 40 ml VOA vials, stored in an ice chest and immediately delivered to Curtis and Tompkins of Berkeley, California, a certified laboratory, for chemical analyses. Curtis & Tompkins, Ltd. Laboratories analyzed the groundwater samples for total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, and total xylenes (collectively referred to as BTEX), and methyl tertiary butyl ether (MtBE). TPH-g was prepared and measured using EPA Methods 5030B and 8015M/GCFID. BTEX and MtBE were prepared and measured using EPA Methods 5030B and 8021B. MtBE results were confirmed with EPA Method 8260B. The laboratory report is tabulated in Table 1 and is included in Appendix A. The well was impacted with only minor concentrations of TPH-g, BTEX and MTBE.

2.2 Prepare HASP

Before the commencement of field activities, a site-specific health and safety plan (HASP) was prepared by SOMA. The HASP was designed to address

safety provisions during field activities. It provided procedures to protect the field crew from physical and chemical hazards resulting from drilling and groundwater sampling. The HASP established personnel responsibilities, general safe work practices, field procedures, personal protective equipment standards, decontamination procedures, and emergency action plans.

2.3 Obtain Permits

Prior to drilling, the necessary drilling permits were obtained from the Alameda County Public Works Agency (see Appendix A).

2.4 Decommission Wells

On February 27, 2002, SOMA contracted Geo Environmental Services of San Jose, California, to decommission the wells according to the Alameda County Environmental Health Service's published guidelines.

The first step to decommissioning the wells was to dig the well box and top one foot of the cement surrounding the PVC casing, using a Jack hammer. Then the asphalt and cement were removed from around the well boxes, and the box itself was removed, exposing the well casing. The exposed casing was cut to one foot below ground surface. Once the excavated hole was cleaned, the well was pressure grouted. A truck-mounted cement mixer was used to prepare the grout. Then a truck-mounted pump was used to pressure grout the wells to ground level. After the grout settled, a pre-mixed fast setting concrete was used to fill the hole to ground level.

TABLES

Table 1
Groundwater Analytical Data, February 11, 2002
17771 Meekland Avenue, Hayward California

Monitoring Well	TPH-g ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethyl- Benzene ($\mu\text{g/L}$)	Total Xylenes ($\mu\text{g/L}$)	MtBE* ($\mu\text{g/L}$)
MW-3	290	10	12	12	59	2
DL	50	0.5	0.5	0.5	0.5	2

*: Confirmed using EPA Method 8260
DL: Minimum laboratory detection limit

FIGURES

★ 17771 Meekland Ave, Hayward, CA 94541-1603

S

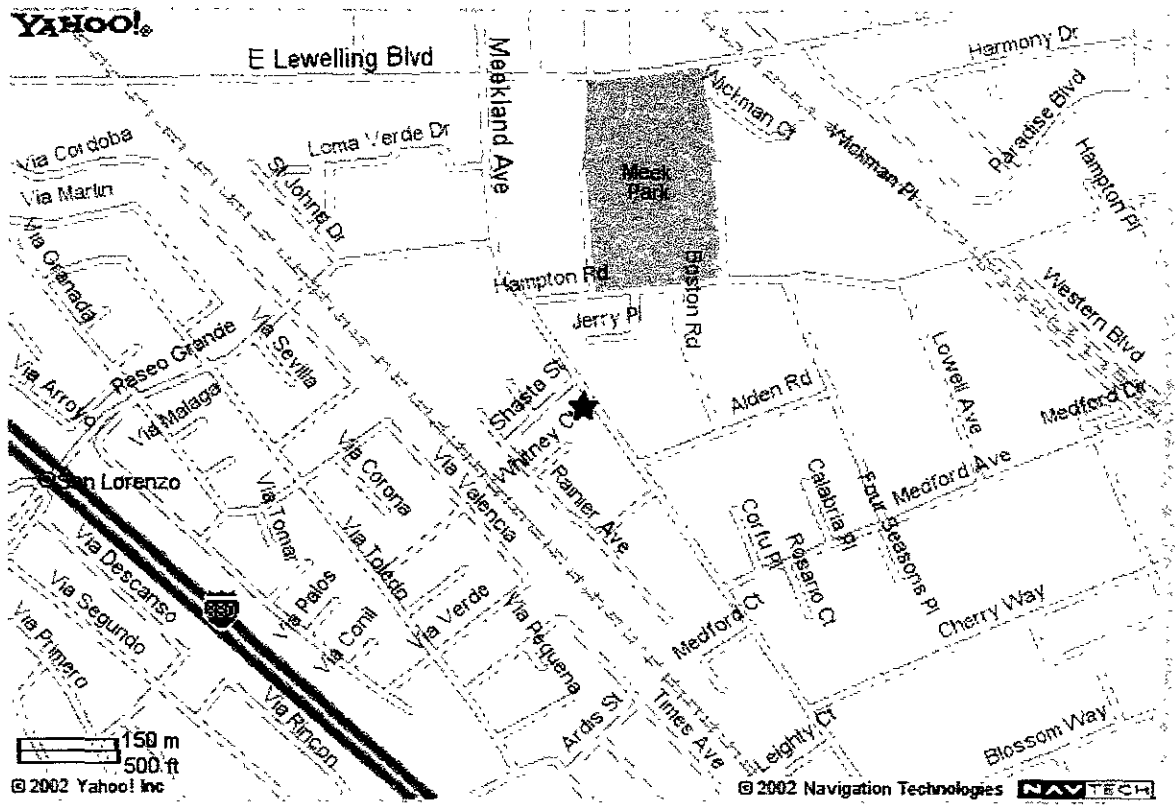


Figure 1: Site Vicinity Map

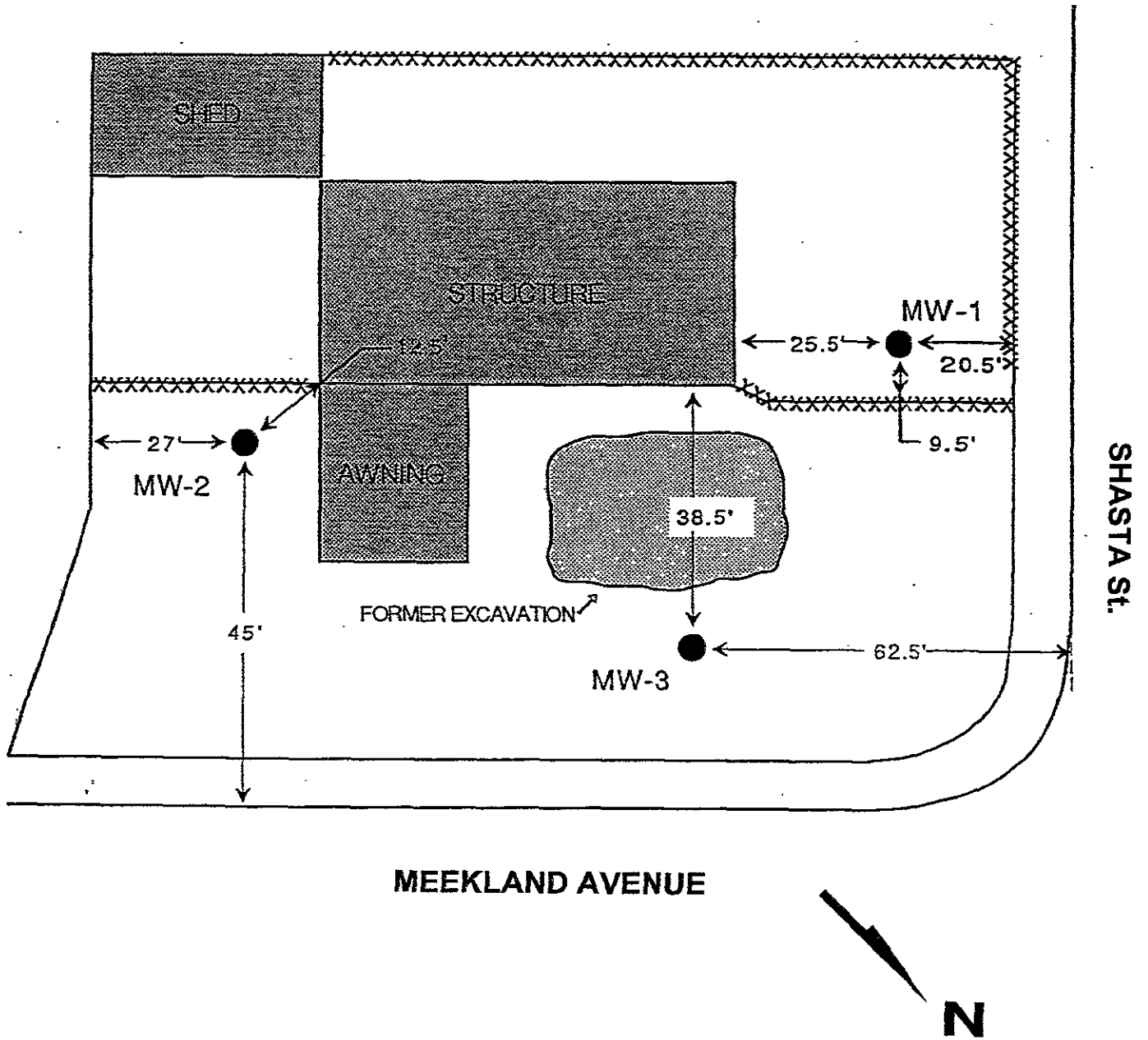
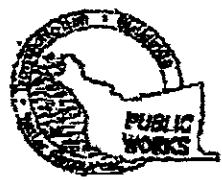


Figure 2: Location of Groundwater Monitoring Wells

APPENDIX A

**Well Destruction Permits, Well Logs,
Chain of Custody Form and Laboratory Report**



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
409 ELWOOD ST. WAYWARD CA 94594-1394
PHONE (916) 879-6554
FAX (916) 879-4190

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 17771 MacLeod Avenue
Hayward, CA

PERMIT NUMBER W02-0247
WELL NUMBER
APP#

CLIENT
Name JOCSON Auto Electric c/o SOB Environmental
Address 2680 Bishop Drive, Phase 925-288-6600
City San Jose Zip 95128

APPLICANT
Name Alpha Geo Services Fax 408-292-2116
Address 1093 Redwood Hwy Phone 408-292-2090
City San Jose Zip 95128

TYPE OF PROJECT
Well Construction Geotechnical Investigation
Culvert Protection Dewatering
Water Supply Contamination
Monitoring Well Drilling

PROPOSED WATER SUPPLY WELL USE
New Domestic Replacement Domestic
Municipal Irrigation
Industrial Other

DILLING METHOD:
Hand Dug Air Rotary
Cable Other

DILLER'S NAME Alpha Geo Services
DILLER'S LICENSE NO CS7 507520

CUL PROTECTS
Casing Diameter 6 7/8 in. Maximum Depth 30.5 ft.
Estimated Well Depth 6 ft. Contractor's Well Number MW-3

GEOTECHNICAL PROJECTS
Number of Borings _____ Minimum Depth _____ ft.
Hole Diameter _____ in.

ESTIMATED STARTING DATE Tentatively 2/22/02
ESTIMATED COMPLETION DATE 2/22/02

only agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-02

APPLICANT'S SIGNATURE Frank Remedi-Ford DATE 2/15/02
PLEASE PRINT NAME Frank Remedi-Ford Nov. 5-13-00

PERMIT CONDITIONS
Cited Permit Requirements Apply

2. GENERAL

1. A permit application should be submitted as set to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Plan Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

E. WATER SUPPLY WELLS

1. Minimum casing and thickness is two inches of cement grout placed by tamping.
2. Minimum well depth is 50 feet for residential and industrial wells; of 25 feet for domestic well irrigation wells where a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum casing and thickness is two inches of cement grout placed by tamping.
2. Minimum well depth for monitoring wells is the maximum depth practicable at 25 feet.

D. GEOTECHNICAL

Backfill bore hole by tamping with cement grout or cement grout and riprap. Upper two-thirds to be replaced with crushed aggregate.

E. CATHODIC

Fill hole under tamping with cement placed by tamping.

F. WELL DESTRUCTION Abandoned with pressure

Seal's top of well with a hydraulic pack is required for wells deeper than 45 feet.

C. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple listings on one application are accepted for geotechnical and contamination investigations.

APPROVED [Signature] DATE 2-20-02



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 BLANCKETT ST. WAYTAND CA. 94598
PHONE (916) 979-6266
FAX (916) 979-1070

DRAINING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 17771 Neekland Avenue
HAYWARD, CA

FOR OFFICE USE:

PERMIT NUMBER W01-0241
WELL NUMBER _____
APN _____

CLIENT
Name ROSSON Auto Electric c/o SONA Environmental
Address 2680 BROADWAY Phone 925-241-5600
City SAN JOSE Zip 94583

APPLICANT
Name Alpha Geo Services
Address 1093 BROADWAY Phone 408-282-2090
City SAN JOSE Zip 95120

TYPE OF PROJECT
Wet Construction Geotechnical Investigation
Creek Protection General
Water Supply Rehabilitation
Monitoring Well Drilling

PROPOSED WATER SUPPLY WELL USE
New Domestic Replacement Domestic
Municipal Irrigation
Industrial Other _____

DRAINING METHOD:
Mud Rotary Air Rotary
Cable Other _____

DRAWER'S NAME Alpha Geo Services
DRAWER'S LICENSE NO C57 507520

WELL PROJECTIONS
Drill Hole Diameter 6 3/4 in. Maximum Depth 30.5 ft.
Casing Diameter _____ in. Owner's Well Number MW-2
Stable Soil Depth 6 ft.

GEOTECHNICAL PROJECTS
Number of Borings _____ Minimum Depth _____ ft.
Hole Diameter _____ in.

ESTIMATED STARTING DATE Tentatively 2/22/02
ESTIMATED COMPLETION DATE 2/22/02

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-69

APPLICANT'S SIGNATURE [Signature] DATE 2/15/02
WITNESS NAME Frank Rashedi-Tajer REC-1-13-00

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL

1. A permit application should be submitted to ACPWA at least 5 business days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of proposed original Department of Water Resources Well Completion Report.
3. Funds in void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS

1. Minimum casing and thickness is two inches of concrete grout placed by trowel.
2. Minimum steel depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lower depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum casing and thickness is two inches of concrete grout placed by trowel.
2. Minimum steel depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL

Soil fill bore holes by trowel with concrete grout or concrete grout and minimum upper two-three feet replaced in kind or with compressed air.

E. CATHODIC

Pin cells made with zinc cathodes placed by trowel.

F. WELL DESTRUCTION - Attached attached permit

Send a copy of work log. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable if geotechnical and construction involved.

APPROVED [Signature] DATE 2/20/02



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
300 ELMBURY ST. HAYWARD CA 94541-1302
PHONE (916) 876-6154
FAX (916) 876-4929

DRILLING PERMITS APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE
PERMIT NUMBER W02-0240
WELL NUMBER
APR

LOCATION OF PROJECT 17771 Meekland Avenue
Hayward, CA

PERMIT CONDITIONS
Cited Permit Requirements Apply

CLIENT
Name: JOCSON Auto Electric c/o SOMA Environmental
Address: 7880 Blaine Drive, Phoe 925-244-8600
City: San Jose Zip: 95120
APPLICANT
Name: Alpha Geo Services
Address: 1093 Piedmont Way Phone: 408-292-2116
City: San Jose Zip: 95120

- A. GENERAL**
1. A permit application should be submitted 60 to 90 days prior to proposed starting date.
 2. Submit to ACTWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
 3. Permit is void if project not begun within 90 days of approval date.

TYPE OF PROJECT

Well Construction	Geotechnical Investigation
Culvert Installation	Drainage
Water Supply	Construction
Maintaining	Well Drilling

- B. WATER SUPPLY WELLS**
1. Minimum surface soil thickness is two inches of coarsest grain placed by machine.
 2. Minimum soil depth is 36 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specifically approved.

PROPOSED WATER SUPPLY WELL USE

New Domestic	Replenishment Domestic
Municipal	Irrigation
Industrial	Other

- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS**
1. Minimum surface soil thickness is two inches of coarsest grain placed by machine.
 2. Minimum soil depth for monitoring wells in the remaining depth provided is 10 feet.

DRILLING METHOD:

Mod Rotary	Air Rotary	Auger
Cable	Other	

- D. GEOTECHNICAL**
- Shank hole made sure with coarsest grain or coarsest specified material. Upper two inches that collapsed in hole or with compacted surface.

DRILLER'S NAME Alpha Geo Services
DRILLER'S LICENSE NO CS7 507520

- E. CATHODIC**
- Per hole made sure with coarsest grain by machine.
- F. WELL INSULATION** - Insulated - 2-20-02
Each step of work must be inspected and recorded in well log. A separate permit is required for wells deeper than 40 feet.

WELL PROJECTS

Drill Hole Diameter	<u>6 7/8</u> in.	Maximum Depth	<u>30.5</u> ft.
Casing Diameter	<u>6</u> in.	Owner's Well Number	<u>MW-1</u>
Surface Soil Depth	<u>6</u> ft.		

NOTE: This application must be submitted for each well or well structure. Multiple borings on one application are acceptable for geotechnical and construction investigations.

GEOTECHNICAL PROJECTS

Number of borings	Maximum Depth
_____	_____ ft.

ESTIMATED STARTING DATE Tentatively 2/22/02
ESTIMATED COMPLETION DATE 2/22/02

APPROVED [Signature] DATE 2-20-02

City agrees to comply with all requirements of this permit and Alameda County Ordinance No. 73-02.

APPLICANT'S SIGNATURE [Signature] DATE 2/13/02
PLEASE PRINT NAME Frank Benedi-Faro Rev. 5-13-88



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD, CA. 94544-1395
PHONE (510) 670-5354 FAX (510) 782-1939

PERMIT NO. W62-0240-0242

WATER RESOURCES SECTION
GROUNDWATER PROTECTION ORDINANCE
Destruction of Monitoring Wells (Less than 45 feet in depth)

Destruction Requirements: PRESSURE GROUTING

1. Remove any casing(s) and annular seal to 3-5 feet below finished grade of original ground, whichever is the lower elevation.
2. Destroy well by grouting neat cement with a tremie pipe or pressure grouting (25 psi for 5min.) to the bottom of the well and by filling with neat cement to three (3-5) feet below surface grade. Allow the sealing material to spill over the top of the casing to fill any annular space between casing and soil.
3. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.
4. Drilling permits are valid from the start date to the completion date. Permits can be extended by a phone call, but drilling permit applications will not be extended beyond 90 days from the approved start date.
5. Compliance with the above well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate state reporting requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days.
6. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

LOG OF BORING MW-1

JOB NO. MJ 0592

CLIENT: JOCSON AUTO ELECTRIC

Date Drilled: 06/27/92

Well Casing Top Elevation: _____

Casing Diameter: 2"

Filter Pack Type: sand

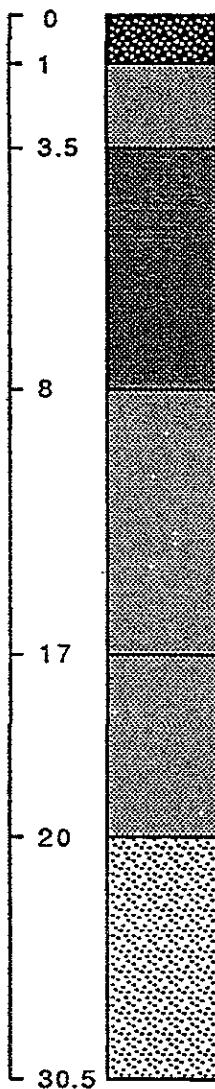
Grout Type: cement/bentonite

Screen Size: 0.020

Boring Diameter: 6 7/8"

SAMPLER TYPE	SAMPLING RESISTANCE BLOWS/FT.	SAMPLE DEPTH	SOIL CLASSIFICATION
SS	2/5/6	5'	ML
SS	5/10/17	10'	CL
SS	4/4/4	15'	CL
SS	2/4/6	20'	ML
SS	1/3/6	25'	CL
SS	1/2/3	30'	CL

DEPTH IN FEET



SOIL DESCRIPTION

Asphalt and base rock

Light brown clayey silt. Dry with no odor

Dark grey clayey SILT. Dry with no odor

Orange brown SILT with dark grey CLAY layers. Dry with no odor.

Light brown sandy SILT. Moist and soft. No odor.

Light grey-brown silty CLAY. Layers of brown silt. Damp with no odor.

Total depth 30.5'

BORING LOGGED BY: F.M.

AUGEAS CORPORATION		
TITLE: MW-1 Boring Log		
DRAWN BY: JF	DATE: 07/02/92	PROJECT NO. MJ0592

LOG OF BORING MW-2

JOB NO. MJ 0592

CLIENT: JOCSON AUTO ELECTRIC

Date Drilled: 06/27/92

Well Casing Top Elevation:

Casing Diameter: 2"

Filter Pack Type: sand

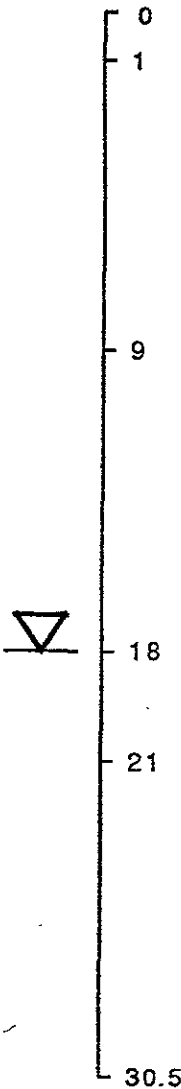
Grout Type: cement/bentonite

Screen Size: 0.020

Boring Diameter: 6 7/8"

SAMPLER TYPE	SAMPLING RESISTANCE BLOWS/FT.	SAMPLE DEPTH	SOIL CLASSIFICATION
SS	2/4/6	5'	ML
SS	3/12/15	10'	ML
SS	2/3/4	15'	ML
SS	1/2/3	20'	SM
SS	2/2/4	25'	ML
SS	3/3/4	30'	ML

DEPTH IN FEET



SOIL DESCRIPTION

Asphalt and road base gravel.

Dark grey clayey SILT. Dry with no odor.

Orange brown clayey SILT. Dry with no odor. Pebbles. Layers of dark grey silty clay up to 8" thick.

Moist at approximately 14'
Sandy silt beginning at approximately 15'

Light brown clayey SAND. Wet with no odor.

Light grey-brown clayey SILT. Damp to moist. Thin 6" layers of sandy silt: light brown and wet.

Total depth 30.5'

BORING LOGGED BY: F.M.

AUGEAS CORPORATION		
TITLE: MW-2 Boring Log		
DRAWN BY: JF	DATE: 07/02/92	PROJECT NO. MJ0592

LOG OF BORING MW-3

JOB NO. MJ 0592

CLIENT: JOCSON AUTO ELECTRIC

Date Drilled: 06/27/92

Well Casing Top Elevation: _____

Casing Diameter: 2"

Filter Pack Type: sand

Grout Type: cement/bentonite

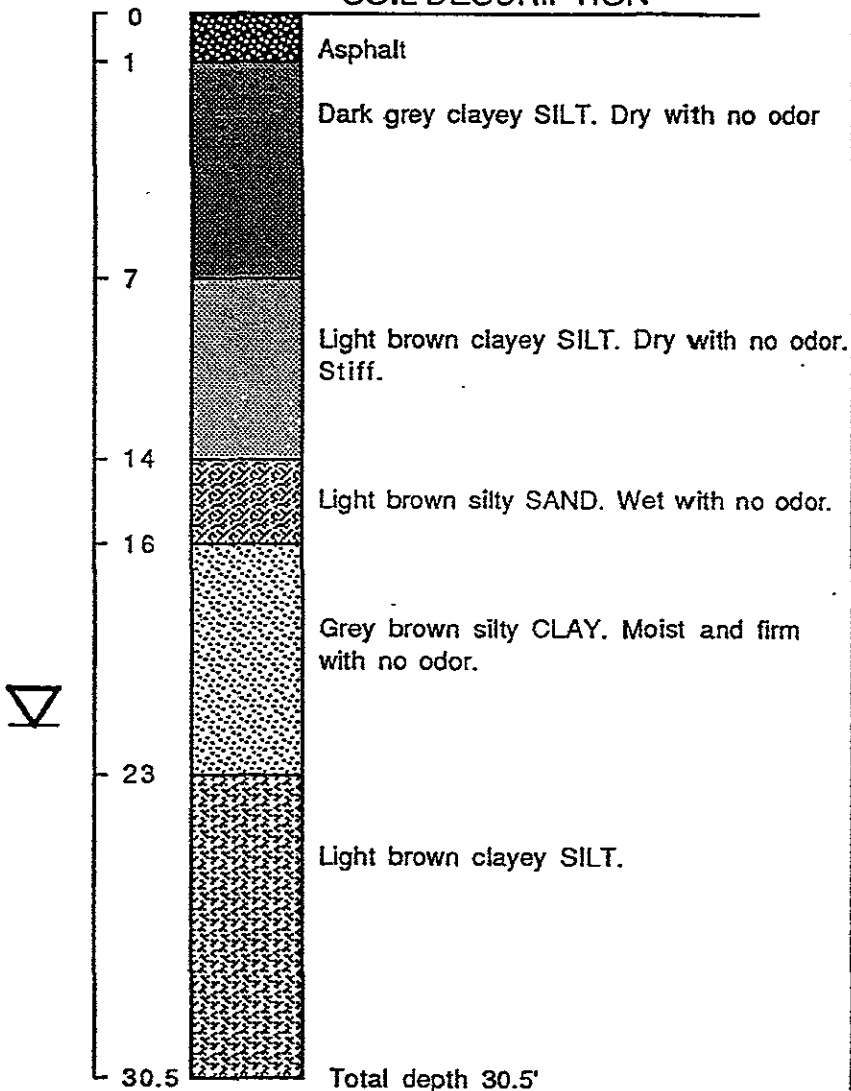
Screen Size: 0.020

Boring Diameter: 6 7/8"

SAMPLER TYPE	SAMPLING RESISTANCE BLOWS/FT.	SAMPLE DEPTH	SOIL CLASSIFICATION
SS	2/5/6	5'	ML
SS	7/11/12	10'	ML
SS	3/5/6	15'	SM
SS	2/4/5	20'	CL
SS	2/3/3	25'	ML
SS	4/2/6	30'	ML

DEPTH IN FEET

SOIL DESCRIPTION



BORING LOGGED BY: F.M.

AUGEAS CORPORATION

TITLE:

MW-3 Boring Log

DRAWN BY:

JF

DATE:

07/02/92

PROJECT NO.

MJ0592



A N A L Y T I C A L R E P O R T

Prepared for:

SOMA Environmental Engineering Inc.
2680 Bishop Dr.
Suite 203
San Ramon, CA 94583

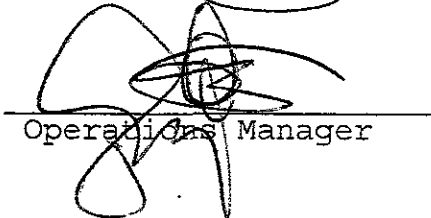
Date: 07-MAR-02
Lab Job Number: 156950
Project ID: 2660
Location: Hayward

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.

Laboratory Number: **156950**
Client: **Soma Environmental Engineering, Inc.**
Project Name: **17771 Meekland Avenue, Hayward**
Project #: **2660**
Receipt Date: **02/11/02**

CASE NARRATIVE

This hardcopy data package contains sample results and batch QC results for one water sample received from the above referenced project on February 11th, 2002. The sample was received cold and intact.

Gasoline by GC/FID CA LUFT (EPA 8015B(M)):

The recovery for the trifluorotoluene surrogate was over the acceptable QC limits for the sample spike duplicate (C&T ID 156947-003) for batch number 70048. This sample was not submitted by the client but was in the same batch. The recovery for this surrogate in the sample spike and the laboratory control sample was acceptable so the quality of the sample data should not be affected. No other analytical problems were encountered.

BTEX (EPA 8021B):

No analytical problems were encountered.

Purgeable Aromatics by GC/MS (EPA 8260B):

No analytical problems were encountered.

Gasoline by GC/FID CA LUFT

Lab #:	156950	Location:	Hayward
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2660	Analysis:	8015B(M)
Field ID:	MW-3	Batch#:	70048
Matrix:	Water	Sampled:	02/11/02
Units:	ug/L	Received:	02/11/02
Diln Fac:	1.000		

Type: SAMPLE Analyzed: 02/13/02
 Lab ID: 156950-001

Analyte	Result	RL
Gasoline C7-C12	290	50
Surrogate	SPEC	Limits
Trifluorotoluene (FID)	106	59-135
Bromofluorobenzene (FID)	108	60-140

Type: BLANK Analyzed: 02/12/02
 Lab ID: QC170042

Analyte	Result	RL
Gasoline C7-C12	ND	50
Surrogate	SPEC	Limits
Trifluorotoluene (FID)	100	59-135
Bromofluorobenzene (FID)	110	60-140

GC07 TVH 'A' Data File RTX 502

Sample Name : 156950-001,70048,+ MTBE

Sample #: A1

Page 1 of 1

FileName : G:\GC07\DATA\043A028.raw

Date : 2/13/02 03:56 AM

Method : TVHBTXE

Time of Injection: 2/13/02 03:29 AM

Start Time : 0.00 min

End Time : 26.00 min

Low Point : 17.00 mV

High Point : 182.20 mV

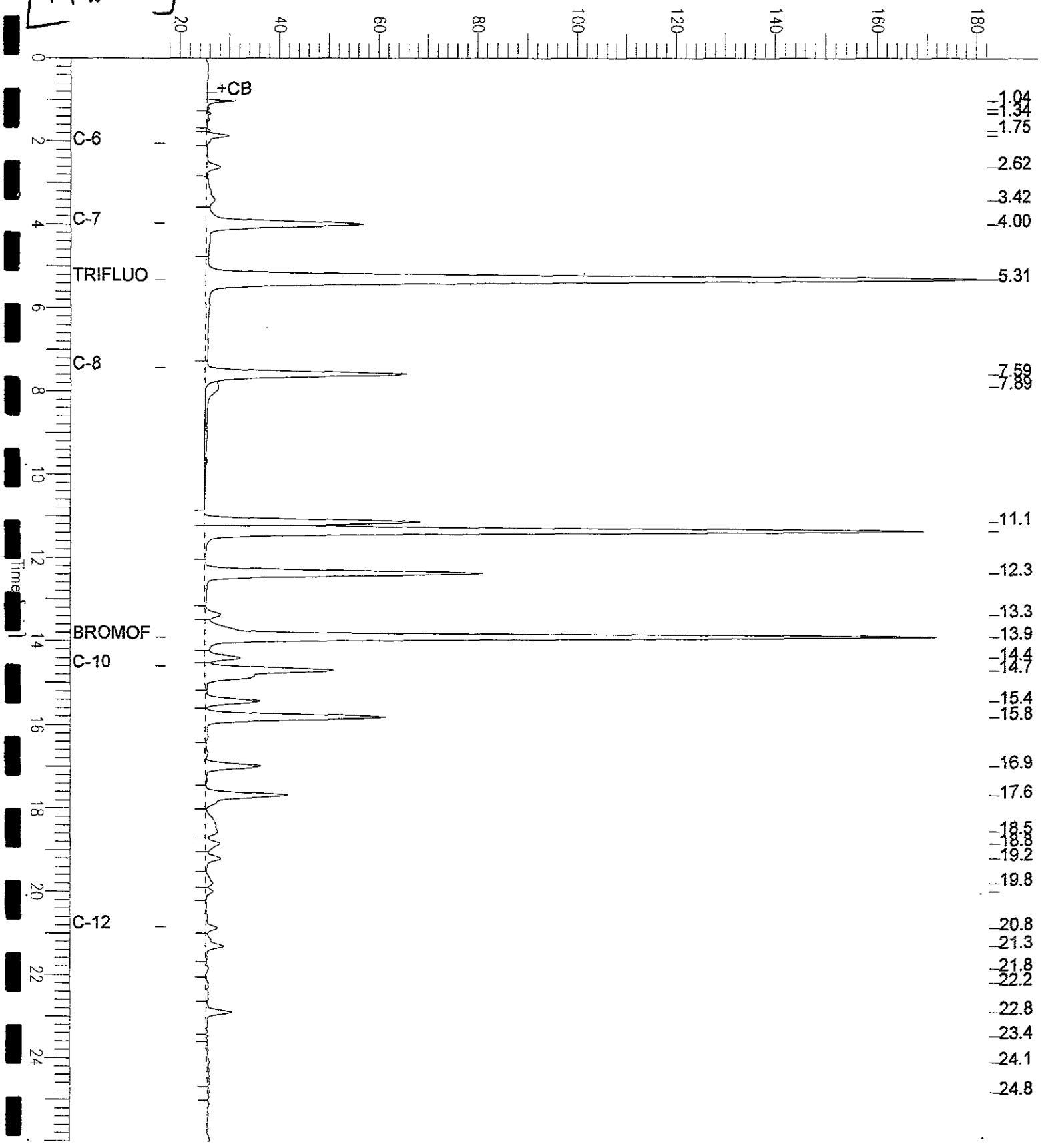
Scale Factor: 1.0

Plot Offset: 17 mV

Plot Scale: 165.2 mV

MW-3

Response [mV]

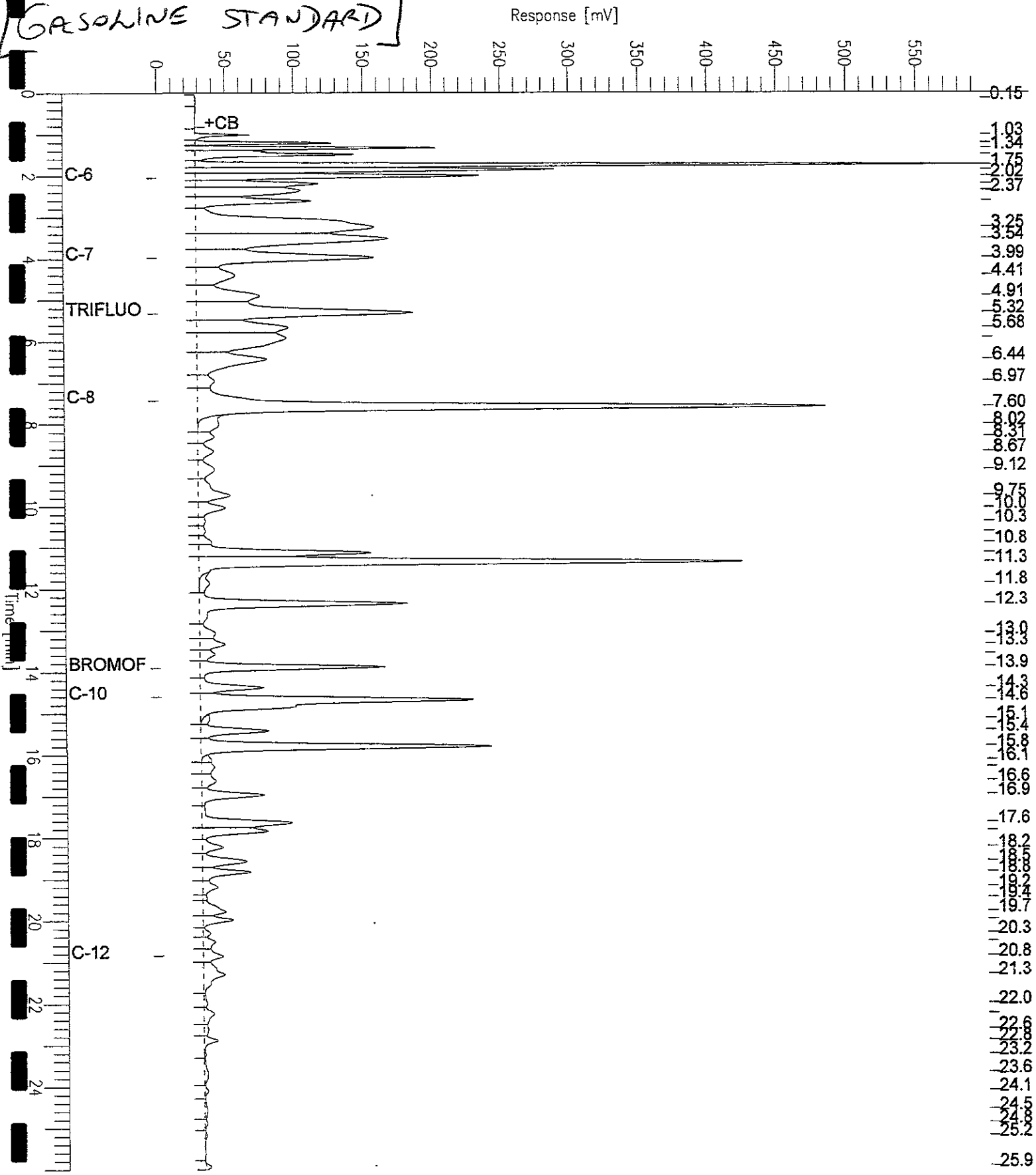


GC07 TVH 'A' Data File RTX 502

Sample Name : CCV/LCS, QC170039, 70048, 02WS0226, 5/5000
 FileName : G:\GC07\DATA\043A002.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.00 min
 Scale Factor : 1.0 Plot Offset : -0 mV

Sample # :
 Date : 2/12/02 11:35 AM Page 1 of 1
 Time of Injection: 2/12/02 11:08 AM
 Low Point : -0.23 mV High Point : 596.71 mV
 Plot Scale : 596.9 mV

GASOLINE STANDARD



Gasoline by GC/FID CA LUFT

Lab #:	156950	Location:	Hayward
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2660	Analysis:	8015B(M)
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC170039	Batch#:	70048
Matrix:	Water	Analyzed:	02/12/02
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,003	100	73-121

Surrogate	%REC	Limits
Trifluorotoluene (FID)	129	59-135
Bromofluorobenzene (FID)	96	60-140

Gasoline by GC/FID CA LUFT

Lab #:	156950	Location:	Hayward
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2660	Analysis:	8015B(M)
Field ID:	ZZZZZZZZZZ	Batch#:	70048
MSS Lab ID:	156947-003	Sampled:	02/08/02
Matrix:	Water	Received:	02/11/02
Units:	ug/L	Analyzed:	02/13/02
Diln Fac:	1.000		

Type: MS Lab ID: QC170043

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<17.00	2,000	2,020	101	65-131
Surrogate	%REC	Limits			
Trifluorotoluene (FID)	133	59-135			
Bromofluorobenzene (FID)	110	60-140			

Type: MSD Lab ID: QC170044

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,076	104	65-131	3	20
Surrogate	%REC	Limits				
Trifluorotoluene (FID)	136 *	59-135				
Bromofluorobenzene (FID)	109	60-140				

*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	156950	Location:	Hayward
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2660	Analysis:	EPA 8021B
Field ID:	MW-3	Batch#:	70048
Matrix:	Water	Sampled:	02/11/02
Units:	ug/L	Received:	02/11/02
Diln Fac:	1.000		

Type: SAMPLE Analyzed: 02/13/02
 Lab ID: 156950-001

Analyte	Result	RL
MTBE	2.0	2.0
Benzene	9.5	0.50
Toluene	12	0.50
Ethylbenzene	12	0.50
m,p-Xylenes	42	0.50
o-Xylene	17	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	118	56-142
Bromofluorobenzene (PID)	131	55-149

Type: BLANK Analyzed: 02/12/02
 Lab ID: QC170042

Analyte	Result	RL
MTBE	ND	2.0
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	109	56-142
Bromofluorobenzene (PID)	107	55-149

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	156950	Location:	Hayward
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2660	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	70048
Units:	ug/L	Analyzed:	02/12/02
Diln Fac:	1.000		

Type: BS Lab ID: QC170040

Analyte	Spiked	Result	%REC	Limits
MTBE	20.00	20.93	105	51-125
Benzene	20.00	16.14	81	67-117
Toluene	20.00	16.21	81	69-117
Ethylbenzene	20.00	16.17	81	68-124
m,p-Xylenes	40.00	33.94	85	70-125
o-Xylene	20.00	17.42	87	65-129

Surrogate	%REC	Limits
Trifluorotoluene (PID)	115	56-142
Bromofluorobenzene (PID)	112	55-149

Type: BSD Lab ID: QC170041

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	20.00	19.61	98	51-125	6	20
Benzene	20.00	15.87	79	67-117	2	20
Toluene	20.00	15.74	79	69-117	3	20
Ethylbenzene	20.00	16.11	81	68-124	0	20
m,p-Xylenes	40.00	33.54	84	70-125	1	20
o-Xylene	20.00	17.22	86	65-129	1	20

Surrogate	%REC	Limits
Trifluorotoluene (PID)	114	56-142
Bromofluorobenzene (PID)	111	55-149

Purgeable Aromatics by GC/MS

Lab #:	156950	Location:	Hayward
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2660	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	70198
Lab ID:	156950-001	Sampled:	02/11/02
Matrix:	Water	Received:	02/11/02
Units:	ug/L	Analyzed:	02/18/02
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	2.0	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	94	77-130
Toluene-d8	95	80-120
Bromofluorobenzene	105	80-120

Purgeable Aromatics by GC/MS

Lab #:	156950	Location:	Hayward
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2660	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC170570	Batch#:	70198
Matrix:	Water	Analyzed:	02/18/02
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	82	78-123
Toluene-d8	97	80-110
Bromofluorobenzene	103	80-115

