



July 31, 2002

AUG 06 2002

SHD 730 ✓  
Nevins & Masterson  
A/R/02

QUARTERLY GROUNDWATER MONITORING REPORT  
JULY 2002 GROUNDWATER SAMPLING  
ASE JOB NO. 3411  
at  
Hutch's Carwash  
17945 Hesperian Boulevard  
San Lorenzo, California

Submitted by:  
AQUA SCIENCE ENGINEERS, INC.  
208 West El Pintado Road  
Danville, CA 94526  
(925) 820-9391

## **1.0 INTRODUCTION**

The following is a report detailing the results of the July 2002 quarterly groundwater sampling at the Hutch's Carwash property located at 17945 Hesperian Boulevard in San Lorenzo, California (Figures 1 and 2).

## **2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT**

On July 9, 2002, ASE measured the depth to water in each site monitoring well using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating hydrocarbons or sheen. No free-floating hydrocarbons or sheen were observed in any of the monitoring wells. Groundwater elevation data is presented in Table One.

The groundwater flow is to the northwest at a gradient of 0.002-feet/foot. Groundwater elevation (potentiometric surface) contours are plotted on Figure 2.

## **3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS**

On July 9, 2002, ASE collected groundwater samples from monitoring wells MW-1 and MW-2 for analysis. Monitoring well MW-3 is no longer being sampled because hydrocarbons have not been detected since its installation. Prior to sampling, the wells were purged of four well casing volumes of groundwater. The pH, temperature, and conductivity of the purge water were monitored during evacuation, and samples were not collected until these parameters stabilized. Samples were collected from each well using dedicated polyethylene bailers. The groundwater samples were decanted from the bailers into 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, labeled, and stored on ice for transport to Severn Trent Laboratories (STL) San Francisco, Inc. of Pleasanton, California under appropriate chain of custody documentation.

The well sampling purge water was contained in sealed and labeled 55-gallon steel drums. The well sampling field logs are included as Appendix A.

The groundwater samples were analyzed by STL San Francisco for total petroleum hydrocarbons as gasoline (TPH-G) by modified EPA Method 5030/8015 and benzene, toluene, ethyl benzene, and total xylenes (collectively known as BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8020.

The analytical results are tabulated in Table Two, and copies of the certified analytical report and chain of custody form are included in Appendix B.

#### **4.0 CONCLUSIONS**

The groundwater samples collected from monitoring well MW-1 contained 1,500 parts per billion (ppb) TPH-G, 26 ppb benzene, 12 ppb ethyl benzene, 8.6 ppb total xylenes, and 820 ppb MTBE. The groundwater samples collected from monitoring well MW-2 did not contain any of the compounds analyzed above laboratory detection limits. Monitoring well MW-3 was removed from the sampling schedule in January 2001 because hydrocarbons had not been detected since its installation.

The benzene and MTBE concentrations in groundwater samples collected from monitoring well MW-1 exceeded the California Department of Health Services (DHS) maximum contaminant levels (MCLs) for drinking water. However, the benzene and MTBE concentrations did not exceed California Regional Water Quality Control Board, San Francisco Bay Region (CRWQCB) Risk Based Screening Levels (RBSLs) presented in the "Application of Risk-Based Screening Levels and Decision Making to Sites with Impacted Soil and Groundwater" document dated August 2000 where water is not a current or potential source of drinking water. The total xylene concentration detected in the groundwater sample collected from MW-1 exceeded the RBSL, but was below the DHS MCL.

In general, hydrocarbon concentrations detected from monitoring well MW-1 are relatively consistent with previous historical concentrations in that monitoring well. MTBE has historically been the only compound detected in the groundwater samples collected from MW-2. MTBE was not detected above the laboratory detection limit in monitoring well MW-2 this quarter.

#### **5.0 RECOMMENDATIONS**

ASE recommends that an area well survey be conducted to identify water wells within 2,000-feet of the subject site. ASE recommends the case be reviewed for closure if no drinking water wells are located within the site vicinity.

## 6.0 REPORT LIMITATIONS

The results presented in this report represent conditions at the time of groundwater sampling, at the specific locations where the samples were collected, and for the specific parameters analyzed by the laboratory.

It does not fully characterize the site for contamination resulting from unknown sources, or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an independent CAL-EPA certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

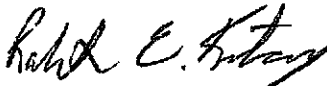
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project. Should you have any questions or comments, please feel free to call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



Erik H. Paddleford  
Associate Geologist

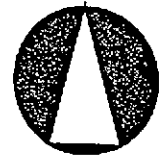


Robert E. Kitay, R.G., R.E.A.  
Senior Geologist



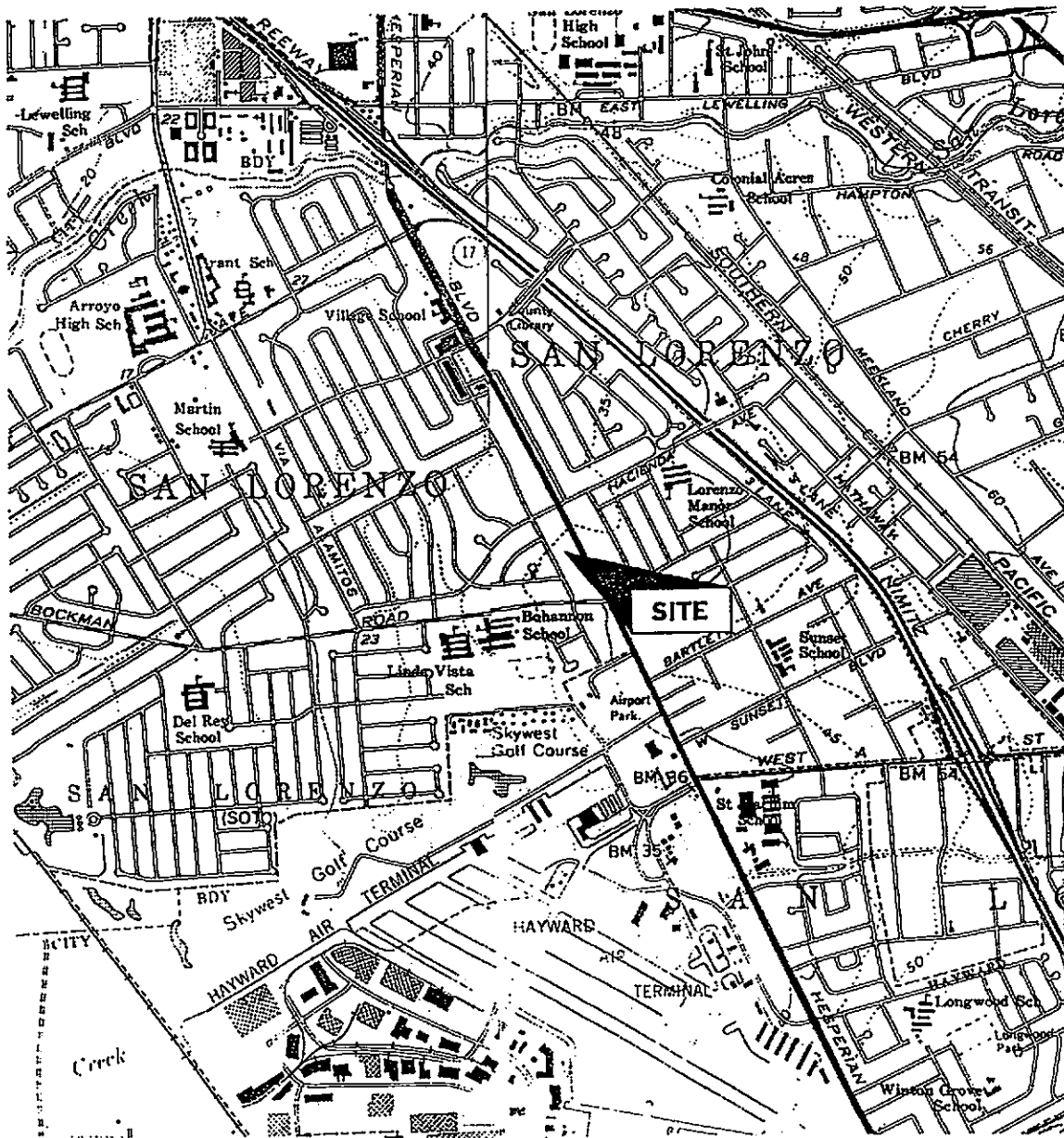
Attachments: Figures 1 and 2  
Appendices A and B

cc: Mr. Kirk Hutchison, Hutch's Car Wash  
Mr. Scott Seery, Alameda County Health Care Services Agency  
Mr. Chuck Headlee, California Regional Water Quality Control Board



NORTH

NOT TO SCALE

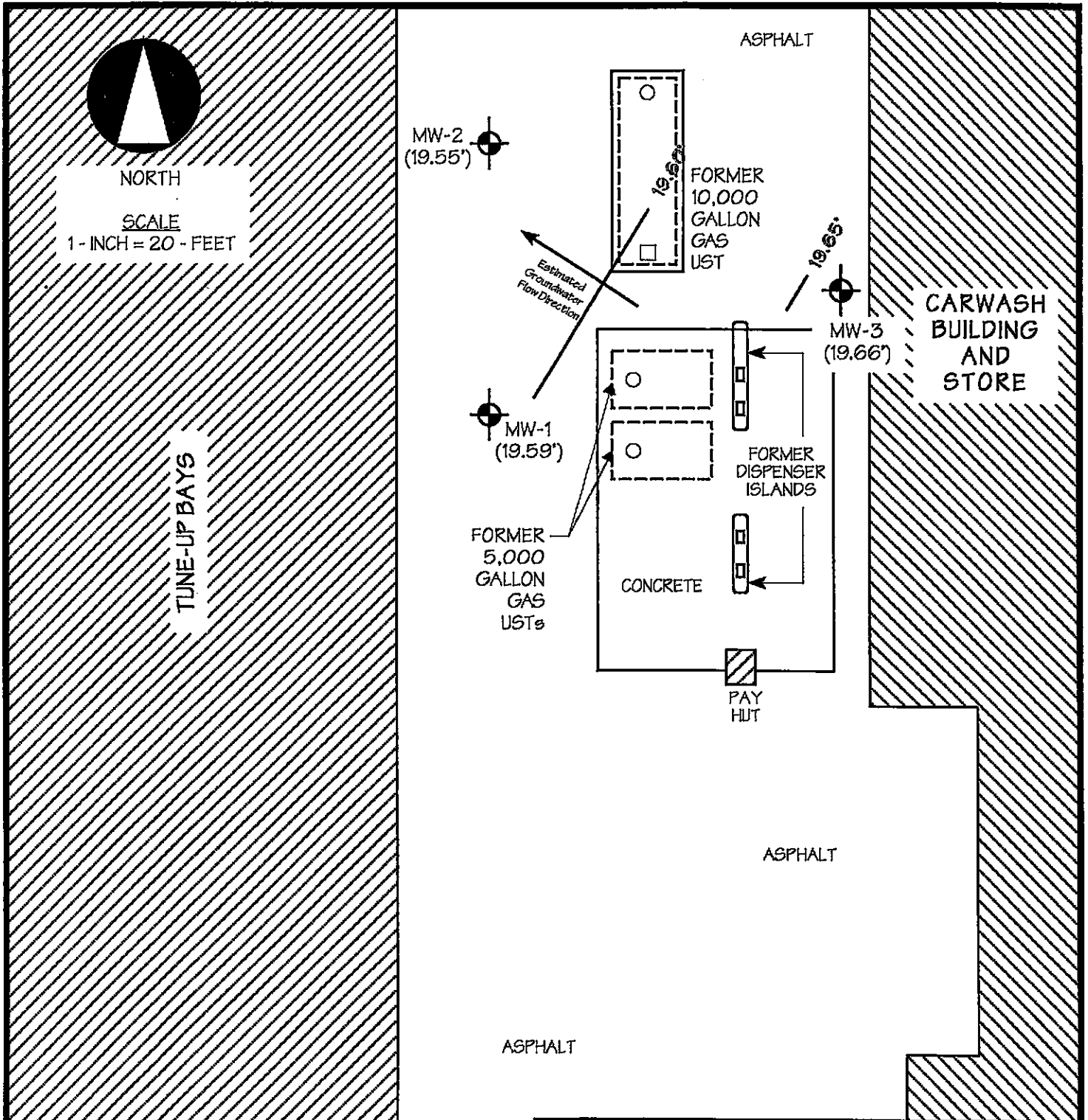


# LOCATION MAP

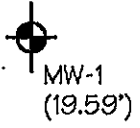
Hutch's Carwash  
17945 Hesperian Boulevard  
San Lorenzo, California

AQUA SCIENCE ENGINEERS, INC.

Figure 1



**LEGEND**



Monitoring well with groundwater elevation



Groundwater elevation contour

**GROUNDWATER ELEVATION  
CONTOUR MAP - 719102**

HUTCH'S CARWASH  
17945 HESPERIAN BOULEVARD  
SAN LORENZO, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

FIGURE 2

**TABLE ONE**  
Groundwater Elevation Data

Well I.D.	Date of Measurement	Top of Casing Elevation (relative to project datum)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-1	10-06-99	35.00	15.58	19.42
	01-13-00		15.58	19.42
	04-12-00		14.75	20.25
	07-19-00		15.29	19.71
	10-25-00		15.56	19.44
	01-16-01		15.22	19.78
	04-04-01		15.05	19.95
	07-06-01		15.49	19.51
	10-01-01		15.78	19.22
	01-07-02		13.83	21.17
	04-02-02		14.83	20.17
	<b>07-09-02</b>		<b>15.41</b>	<b>19.59</b>
	MW-2		10-06-99	35.21
01-13-00		15.78	19.43	
04-12-00		14.94	20.27	
07-19-00		15.54	19.67	
10-25-00		15.81	19.40	
01-16-01		15.50	19.71	
04-04-01		15.28	19.93	
07-06-01		15.73	19.48	
10-01-01		16.06	19.15	
01-07-02		14.08	21.13	
04-02-02		15.04	20.17	
<b>07-09-02</b>		<b>15.66</b>	<b>19.55</b>	
MW-3		10-06-99	34.47	
	01-13-00	14.98		19.49
	04-12-00	14.09		20.38
	07-19-00	14.70		19.77
	10-25-00	14.98		19.49
	01-16-01	14.58		19.89
	04-04-01	14.43		20.04
	07-06-01	14.85		19.62
	10-01-01	15.21		19.26
	01-07-02	13.24		21.23
	04-02-02	14.20		20.27
	<b>07-09-02</b>	<b>14.81</b>		<b>19.66</b>

**TABLE TWO**  
**Certified Analytical Results of GROUNDWATER Samples**  
**All results are in parts per billion**

Well	Date Sampled	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
MW-1	10-06-99	1,500	3.3	2.3	27	72	120
	01-13-00	1,500	15	19	19	33	650
	04-12-00	1,700	18	13	45	79	2,600
	07-19-00	2,200	31	< 5.0	81	100	2,000
	10-25-00	3,300	20	< 5.0	9.8	9.4	3,300
	01-16-01	4,100	34	14	60	120	1,300
	04-04-01	2,900	14	< 0.5	34	32	2,000
	07-06-01	1,300	4.4	< 0.5	12	13	700
	10-01-01	1,100	4.1	< 0.5	18	19	520
	01-07-02	1,400	34	< 0.5	13	15	1,300
	04-02-02	1,900	30	6.7	24	30	1,000
	<b>07-09-02</b>	<b>1,500</b>	<b>26</b>	<b>&lt; 5.0</b>	<b>12</b>	<b>8.6</b>	<b>820</b>
MW-2	10-06-99	< 50	< 0.5	< 0.5	< 0.5	< 0.5	18
	01-13-00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	16
	04-12-00	< 100	< 1.0	< 1.0	< 1.0	< 1.0	240
	07-19-00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	10-25-00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	6.0
	01-16-01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	8.2
	04-04-01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	07-06-01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	5.9
	10-01-01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	21
	01-07-02	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	04-02-02	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	<b>07-09-02</b>	<b>&lt; 50</b>	<b>&lt; 0.5</b>	<b>&lt; 0.5</b>	<b>&lt; 0.5</b>	<b>&lt; 0.5</b>	<b>&lt; 5.0</b>



**TABLE TWO**  
**Certified Analytical Results of GROUNDWATER Samples**  
 All results are in **parts per billion**

Well	Date Sampled	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
MW-3	10-06-99	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	01-13-00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	04-12-00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	07-19-00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	10-25-00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	01-16-01	No	Longer	Sampled			
<b>DHS MCL</b>		NE	1	150	700	1,750	13
<b>RBSL</b>		400	46	130	290	13	1,800

Notes:

- Most recent concentrations are in **bold**.
- Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.
- DHS MCL = California Department of Health Services maximum contaminant level for drinking water
- RBSL = Risk based screening levels presented in the "Application of Risk-Based Screening Levels and Decision Making to Sites With Impacted Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.
- NE = DHS MCL not established

# **APPENDIX A**

Well Sampling Field Logs



# WELL SAMPLING FIELD LOG

Project Name and Address: Hotel's Corvairs  
 Job #: 3411 Date of sampling: 7/9/02  
 Well Name: MW-2 Sampled by: EP  
 Total depth of well (feet): 25.56 Well diameter (inches): 2  
 Depth to water before sampling (feet): 15.66  
 Thickness of floating product if any: -  
 Depth of well casing in water (feet): 9.9  
 Number of gallons per well casing volume (gallons): 1.58  
 Number of well casing volumes to be removed: 3  
 Req'd volume of groundwater to be purged before sampling (gallons): 4.8  
 Equipment used to purge the well: bailer  
 Time Evacuation Began: 945 Time Evacuation Finished: 1000  
 Approximate volume of groundwater purged: 5  
 Did the well go dry?: NO After how many gallons: -  
 Time samples were collected: 1010  
 Depth to water at time of sampling: -  
 Percent recovery at time of sampling: -  
 Samples collected with: bailer  
 Sample color: \_\_\_\_\_ Odor: None  
 Description of sediment in sample: Silt

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>72.0</u>	<u>6.84</u>	<u>847</u>
<u>2</u>	<u>70.4</u>	<u>6.81</u>	<u>849</u>
<u>3</u>	<u>69.9</u>	<u>6.80</u>	<u>851</u>
_____	_____	_____	_____
_____	_____	_____	_____

## SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-2</u>	<u>3</u>	<u>40ml VOA</u>	<u>x</u>	<u>x</u>	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



# WELL SAMPLING FIELD LOG

Project Name and Address: Hutch's Carwash  
 Job #: 3411 Date of sampling: 7/9/02  
 Well Name: MW-1 Sampled by: EP  
 Total depth of well (feet): 26.68 Well diameter (inches): 2  
 Depth to water before sampling (feet): 15.41  
 Thickness of floating product if any: -  
 Depth of well casing in water (feet): 11.27  
 Number of gallons per well casing volume (gallons): 1.8  
 Number of well casing volumes to be removed: 3  
 Req'd volume of groundwater to be purged before sampling (gallons): 5.4  
 Equipment used to purge the well: bailer  
 Time Evacuation Began: 915 Time Evacuation Finished: 930  
 Approximate volume of groundwater purged: 5.5  
 Did the well go dry?: No After how many gallons: -  
 Time samples were collected: 940  
 Depth to water at time of sampling: -  
 Percent recovery at time of sampling: -  
 Samples collected with: bailer  
 Sample color: clear/gray Odor: none  
 Description of sediment in sample: silt

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	71.6	6.72	851
2	69.3	6.71	856
3	69.1	6.71	858

## SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-1</u>	<u>3</u>	<u>40 ml VVA</u>	<u>x</u>	<u>x</u>	



# WELL SAMPLING FIELD LOG

Project Name and Address: Hitch's Carwash  
Job #: 3411 Date of sampling: 7/9/02  
Well Name: 14-3 Sampled by: EP  
Total depth of well (feet): - Well diameter (inches): 2  
Depth to water before sampling (feet): 14.81  
Thickness of floating product if any: \_\_\_\_\_  
Depth of well casing in water (feet): \_\_\_\_\_  
Number of gallons per well casing volume (gallons): \_\_\_\_\_  
Number of well casing volumes to be removed: \_\_\_\_\_  
Req'd volume of groundwater to be purged before sampling (gallons): \_\_\_\_\_  
Equipment used to purge the well: \_\_\_\_\_  
Time Evacuation Began: \_\_\_\_\_ Time Evacuation Finished: \_\_\_\_\_  
Approximate volume of groundwater purged: \_\_\_\_\_  
Did the well go dry? \_\_\_\_\_ After how many gallons: \_\_\_\_\_  
Time samples were collected: \_\_\_\_\_  
Depth to water at time of sampling: \_\_\_\_\_  
Percent recovery at time of sampling: \_\_\_\_\_  
Samples collected with: \_\_\_\_\_  
Sample color: \_\_\_\_\_ Odor: \_\_\_\_\_  
Description of sediment in sample: \_\_\_\_\_

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

## SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

## **APPENDIX B**

Certified Analytical Report  
and  
Chain of Custody Documentation

Submission#: 2002-07-0212

July 16, 2002

SEVERN

TRENT

LABORATORY

**Aqua Science Engineers, Inc.**  
208 West El Pintado  
Danville, CA 94526

STL San Francisco  
1220 Quarry Ln  
Pleasanton CA 94566

Attn.: Erik Paddleford  
Project#: 3411  
Project: Hutch`s Carwash  
Site: 17945 Hesperian Blvd.

Tel.: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP#:2496

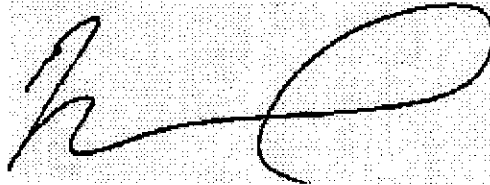
Attached is our report for your samples received on 07/11/2002 16:32  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after  
08/25/2002 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,  
please call me at (925) 484-1919.

You can also contact me via email. My email address is: [vvancil@chromalab.com](mailto:vvancil@chromalab.com)

Sincerely,



Vincent Vancil  
Project Manager

Submission #: 2002-07-0212

Gas/BTEX Compounds by 8015M/8021

Aqua Science Engineers, Inc.

Attn.: Erik Paddleford

208 West El Pintado

Danville, CA 94526

Phone: (925) 820-9391 Fax: (925) 837-4853

Project: 3411

Hutch's Carwash

Received: 07/11/2002 16:32

Site: 17945 Hesperian Blvd.

SEVERN

TRENT

LABORATORY

STL San Francisco  
1220 Quarry Lane  
Pleasanton, CA 94586

Tel: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
MW-1	07/09/2002 09:40	Water	1
MW-2	07/09/2002 10:10	Water	2



Submission #: 2002-07-0212

Gas/BTEX Compounds by 8015M/8021

Aqua Science Engineers, Inc.

Attn.: Erik Paddleford

208 West El Pintado

Danville, CA 94526

Phone: (925) 820-9391 Fax: (925) 837-4853

Project: 3411

Hutch's Carwash

Received: 07/11/2002 16:32

Site: 17945 Hesperian Blvd.

SEVERN

TRENT

LABORATORY

STL San Francisco  
1220 Quarry Lane  
Pleasanton, CA 94566

Tel: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

Prep(s):	5030	Test(s):	8015M
	5030		8021B
Sample ID:	MW-1	Lab ID:	2002-07-0212 - 1
Sampled:	07/09/2002 09:40	Extracted:	7/12/2002 17:50
Matrix:	Water	QC Batch#:	2002/07/12-01.02

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	1500	500	ug/L	10.00	07/12/2002 17:50	
Benzene	26	5.0	ug/L	10.00	07/12/2002 17:50	
Toluene	ND	5.0	ug/L	10.00	07/12/2002 17:50	
Ethyl benzene	12	5.0	ug/L	10.00	07/12/2002 17:50	
Xylene(s)	8.6	5.0	ug/L	10.00	07/12/2002 17:50	
MTBE	820	50	ug/L	10.00	07/12/2002 17:50	
<b>Surrogates(s)</b>						
Trifluorotoluene	97.0	58-124	%	10.00	07/12/2002 17:50	
4-Bromofluorobenzene-FID	94.0	50-150	%	10.00	07/12/2002 17:50	

Submission #: 2002-07-0212

Gas/BTEX Compounds by 8015M/8021

Aqua Science Engineers, Inc.

Attn.: Erik Paddleford

208 West El Pintado

Danville, CA 94526

Phone: (925) 820-9391 Fax: (925) 837-4853

Project: 3411

Hutch's Carwash

Received: 07/11/2002 16:32

Site: 17945 Hesperian Blvd.

SEVERN

TRENT

LABORATORY

STL San Francisco  
1220 Quarry Lane  
Pleasanton, CA 94566

Tel: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

Prep(s):	5030	Test(s):	8015M
	5030		8021B
Sample ID:	MW-2	Lab ID:	2002-07-0212 - 2
Sampled:	07/09/2002 10:10	Extracted:	7/12/2002 18:23
Matrix:	Water	QC Batch#:	2002/07/12-01.02

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	07/12/2002 18:23	
Benzene	ND	0.50	ug/L	1.00	07/12/2002 18:23	
Toluene	ND	0.50	ug/L	1.00	07/12/2002 18:23	
Ethyl benzene	ND	0.50	ug/L	1.00	07/12/2002 18:23	
Xylene(s)	ND	0.50	ug/L	1.00	07/12/2002 18:23	
MTBE	ND	5.0	ug/L	1.00	07/12/2002 18:23	
<b>Surrogates(s)</b>						
Trifluorotoluene	87.7	58-124	%	1.00	07/12/2002 18:23	
4-Bromofluorobenzene-FID	88.9	50-150	%	1.00	07/12/2002 18:23	

Submission #: 2002-07-0212

Gas/BTEX Compounds by 8015M/8021

Aqua Science Engineers, Inc.

Attn.: Erik Paddleford

208 West El Pintado

Danville, CA 94526

Phone: (925) 820-9391 Fax: (925) 837-4853

Project: 3411

Hutch's Carwash

Received: 07/11/2002 16:32

Site: 17945 Hesperian Blvd.

SEVERN

TRENT

LABORATORY

STL San Francisco  
1220 Quarry Lane  
Pleasanton, CA 94566

Tel: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

Batch QC Report					
Prep(s): 5030				Test(s): 8015M	
Method Blank		Water		QC Batch # 2002/07/12-01.02	
MB: 2002/07/12-01.02-005				Date Extracted: 07/12/2002 10:00	
Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	07/12/2002 10:00	
Benzene	ND	0.5	ug/L	07/12/2002 10:00	
Toluene	ND	0.5	ug/L	07/12/2002 10:00	
Ethyl benzene	ND	0.5	ug/L	07/12/2002 10:00	
Xylene(s)	ND	0.5	ug/L	07/12/2002 10:00	
MTBE	ND	5.0	ug/L	07/12/2002 10:00	
<b>Surrogates(s)</b>					
Trifluorotoluene	97.5	58-124	%	07/12/2002 10:00	
4-Bromofluorobenzene-FID	100.0	50-150	%	07/12/2002 10:00	

Submission #: 2002-07-0212

Gas/BTEX Compounds by 8015M/8021

Aqua Science Engineers, Inc.  
Attn.: Erik Paddleford  
208 West El Pintado  
Danville, CA 94526  
Phone: (925) 820-9391 Fax: (925) 837-4853  
Project: 3411  
Hutch's Carwash

Received: 07/11/2002 16:32

Site: 17945 Hesperian Blvd.

**SEVERN**  
**TRENT**  
**LABORATORY**

STL San Francisco  
1220 Quarry Lane  
Pleasanton, CA 94566

Tel: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

Batch QC Report										
Prep(s): 5030					Test(s): 8021B					
Laboratory Control Spike			Water			QC Batch # 2002/07/12-01.02				
LCS	2002/07/12-01.02-006		Extracted: 07/12/2002			Analyzed: 07/12/2002 10:33				
LCSD	2002/07/12-01.02-007		Extracted: 07/12/2002			Analyzed: 07/12/2002 11:06				
Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	103	97.1	100.0	103.0	97.1	5.9	77-123	20		
Toluene	104	96.5	100.0	104.0	96.5	7.5	78-122	20		
Ethyl benzene	112	104	100.0	112.0	104.0	7.4	70-130	20		
Xylene(s)	299	275	300	99.7	91.7	8.4	75-125	20		
<b>Surrogates(s)</b>										
Trifluorotoluene	519	477	500	103.8	95.4		58-124			

Submission #: 2002-07-0212

Gas/BTEX Compounds by 8015M/8021

Aqua Science Engineers, Inc.

Attn.: Erik Paddleford  
208 West El Pintado  
Danville, CA 94526  
Phone: (925) 820-9391 Fax: (925) 837-4853

Project: 3411  
Hutch's Carwash

Received: 07/11/2002 16:32

Site: 17945 Hesperian Blvd.

**SEVERN**  
**TRENT**  
**LABORATORY**

STL San Francisco  
1220 Quarry Lane  
Pleasanton, CA 94566

Tel: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

Batch QC Report									
Prep(s): 5030					Test(s): 8015M				
Laboratory Control Spike			Water			QC Batch # 2002/07/12-01.02			
LCS	2002/07/12-01.02-008		Extracted: 07/12/2002			Analyzed: 07/12/2002 11:39			
LCSD	2002/07/12-01.02-009		Extracted: 07/12/2002			Analyzed: 07/12/2002 12:12			

Compound	Conc. ug/L		Exp. Conc.	Recovery		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	504	524	500	100.8	104.8	3.9	75-125	20		
Surrogates(s)										
4-Bromofluorobenzene-FID	517	526	500	103.4	105.2		50-150			

Submission #: 2002-07-0212

Gas/BTEX Compounds by 8015M/8021

Aqua Science Engineers, Inc.

Attn.: Erik Paddleford

208 West El Pintado

Danville, CA 94526

Phone: (925) 820-9391 Fax: (925) 837-4853

Project: 3411

Hutch's Carwash

Received: 07/11/2002 16:32

Site: 17945 Hesperian Blvd.

SEVERN

TRENT

LABORATORY

STL San Francisco  
1220 Quarry Lane  
Pleasanton, CA 94566

Tel: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

Batch QC Report			
Prep(s): 5030			Test(s): 8021B
Matrix Spike ( MS / MSD )		Water	QC Batch # 2002/07/12-01.02
MW-2 >> MS			Lab ID: 2002-07-0212-002
MS: 2002/07/12-01.02-018		Extracted: 07/12/2002	Analyzed: 07/12/2002 18:57
			Dilution: 1.00
MSD: 2002/07/12-01.02-019		Extracted: 07/12/2002	Analyzed: 07/12/2002 19:31
			Dilution: 1.00

Compound	Conc. ug/L			Spk.Level ug/L	Recovery			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Benzene	90.8	79.0	ND	100.0	90.8	79.0	13.9	65-135	20		
Toluene	89.4	78.3	ND	100.0	89.4	78.3	13.2	65-135	20		
Ethyl benzene	88.6	77.9	ND	100.0	88.6	77.9	12.9	65-135	20		
Xylene(s)	246	218	ND	300	82.0	72.7	12.0	65-135	20		
<b>Surrogate(s)</b>											
Trifluorotoluene	486	433		500	97.1	86.6		58-124			

Submission #: 2002-07-0212

Gas/BTEX Compounds by 8015M/8021

Aqua Science Engineers, Inc.

Attn.: Erik Paddleford

208 West El Pintado

Danville, CA 94526

Phone: (925) 820-9391 Fax: (925) 837-4853

Project: 3411

Hutch's Carwash

Received: 07/11/2002 16:32

Site: 17945 Hesperian Blvd.

SEVERN

TRENT

LABORATORY

STL San Francisco  
1220 Quarry Lane  
Pleasanton, CA 94566

Tel: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

Batch QC Report			
Prep(s):	5030		Test(s): 8015M
<b>Matrix Spike ( MS / MSD )</b>		<b>Water</b>	<b>QC Batch # 2002/07/12-01.02</b>
MW-2 >> MS			Lab ID: 2002-07-0212 - 002
MS: 2002/07/12-01.02-020		Extracted: 07/12/2002	Analyzed: 07/12/2002 20:05
			Dilution: 1.00
MSD: 2002/07/12-01.02-021		Extracted: 07/12/2002	Analyzed: 07/12/2002 20:38
			Dilution: 1.00

Compound	Conc. ug/L			Spk.Level	Recovery			Limits %		Flags	
	MS	MSD	Sample		ug/L	MS	MSD	RPD	Rec.	RPD	MS
Gasoline	493	484	ND	500	98.6	96.8	1.8	65-135	20		
<i>Surrogate(s)</i>											
4-Bromofluorobenzene-FID	524	516		500	104.8	103.2		50-150			