



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
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January 20, 2010

RECEIVED

9:31 am, Jun 17, 2010

Alameda County
Environmental Health

**GROUNDWATER MONITORING REPORT
DECEMBER 2009 GROUNDWATER SAMPLING
ASE JOB NO. 3411**

at

Hutch's Carwash
17945 Hesperian Boulevard
San Lorenzo, California

Submitted by:
AQUA SCIENCE ENGINEERS, INC.
55 Oak Court, Suite 220
Danville, CA 94526
(925) 820-9391



1.0 INTRODUCTION

The following is a report detailing the results of the December 8, 2009 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 December 8, 2009, 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 0.0028-feet/foot. Groundwater elevation (potentiometric surface) contours are plotted on Figure 2.

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

On December 8, 2009, ASE collected a groundwater sample from monitoring well MW-1 for analyses. Monitoring well MW-3 is no longer being sampled because hydrocarbons have not been detected since its installation. Monitoring well MW-2 is also no longer being sampled in accordance with a letter from the Alameda County Health Care Services Agency (ACHCSA) dated August 12, 2002 stating MW-2 may be excluded from further sampling events until further notice. Prior to sampling, monitoring well MW-1 was purged of three well casing volumes of groundwater. Samples were then collected using a disposable polyethylene bailer. The groundwater samples were decanted from the bottom of the bailer using a low-flow emptying device into 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, labeled, and stored on ice for transport to Kiff Analytical, LLC of Davis, California (CA ELAP #2236) under appropriate chain of custody documentation.

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

The groundwater samples were analyzed by Kiff Analytical, LLC for total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethyl benzene, and total xylenes (collectively known as BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8260B.

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.



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4.0 RESULTS AND CONCLUSIONS

The groundwater sample collected from monitoring well MW-1 contained 170 parts per billion (ppb) TPH-G and 150 ppb MTBE. These concentrations are very similar to the concentrations detected during the previous sampling.

Both the TPH-G and MTBE concentrations in the groundwater sample collected from monitoring well MW-1 exceeded California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) Environmental Screening Levels (ESLs) presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater" document dated May 2008 for sites where water is a current or potential source of drinking water. However, both the TPH-G and MTBE concentration did not exceed ESLs for sites where groundwater is not a current or potential source of drinking water.

5.0 RECOMMENDATIONS

ASE recommends continued groundwater monitoring on a semi-annual basis. The next sampling event is scheduled for June 2010.

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-DHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.



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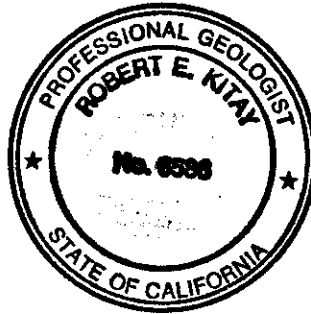
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project. Should you have any questions or comments, please feel free to call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

A handwritten signature in black ink, appearing to read 'Rob E. Kitay', written over the printed name.

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



Attachments: Figures 1 and 2
Appendices A and B

cc: Mr. Kirk Hutchison, Hutch's Car Wash
Mr. Steven Plunkett, Alameda County Health Care Services Agency



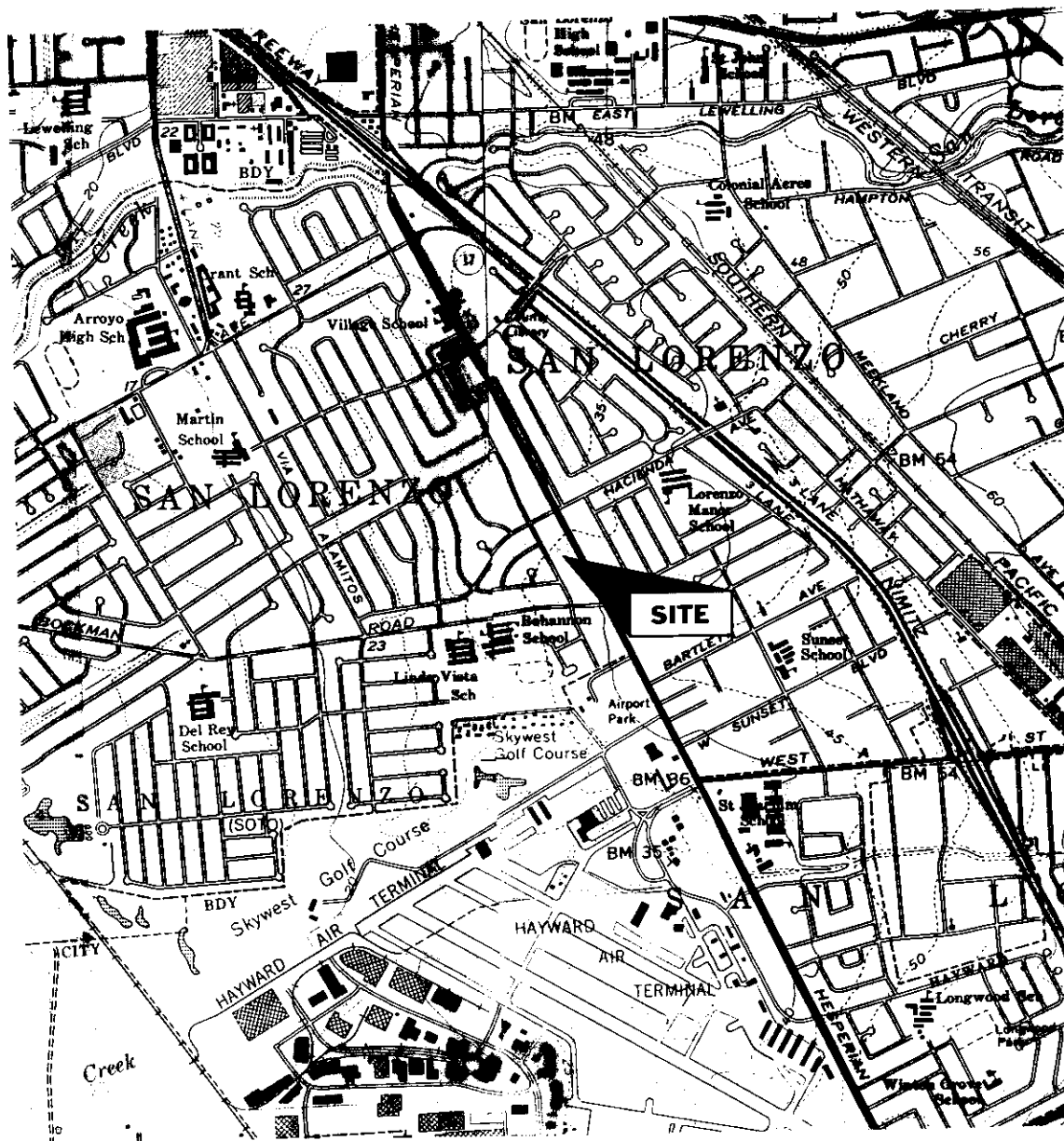
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FIGURES



NORTH

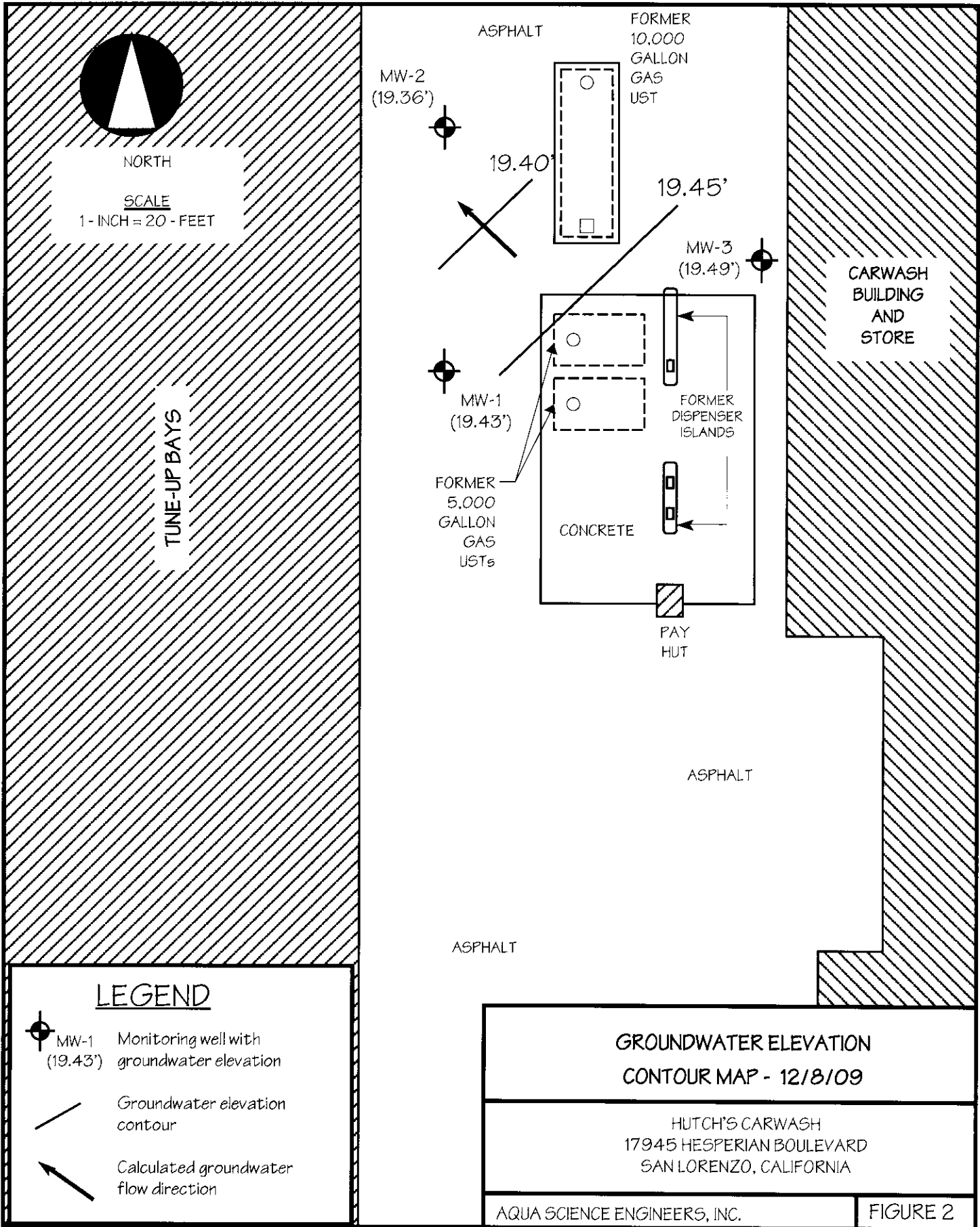
NOT TO SCALE



LOCATION MAP

Hutch's Carwash
17945 Hesperian Boulevard
San Lorenzo, California

AQUA SCIENCE ENGINEERS, INC. Figure 1



NORTH

SCALE
 1 - INCH = 20 - FEET

TUNE-UP BAYS

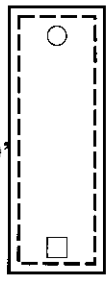
ASPHALT

MW-2
 (19.36')



19.40'

FORMER
 10,000
 GALLON
 GAS
 UST



19.45'

MW-3
 (19.49')



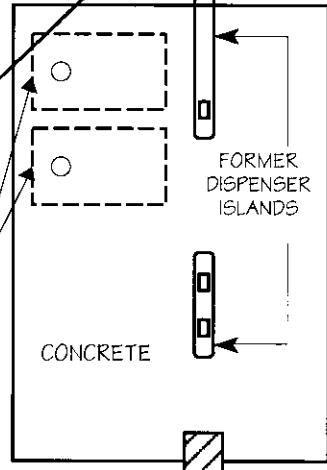
CARWASH
 BUILDING
 AND
 STORE



MW-1
 (19.43')

FORMER
 DISPENSER
 ISLANDS

FORMER
 5,000
 GALLON
 GAS
 USTs



CONCRETE

PAY
 HUT

ASPHALT

ASPHALT



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TABLES

TABLE ONE
Groundwater Elevation Data
Hutch's Carwash
17945 Heeperlan Blvd., San Lorenzo, CA

Well ID	Date of Measurement	Top of Casing Elevation (Relative to Mean Sea Level)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-1	10/6/99	35.00	15.58	19.42
	1/13/00		15.58	19.42
	4/12/00		14.75	20.25
	7/19/00		15.29	19.71
	10/25/00		15.56	19.44
	1/16/01		15.22	19.78
	4/14/01		15.05	19.95
	7/16/01		15.49	19.51
	10/1/01		15.78	19.22
	1/7/02		13.83	21.17
	4/2/02		14.83	20.17
	7/19/02		15.41	19.59
	10/1/02		15.70	19.3
	1/24/03		14.69	20.31
	7/25/03		15.41	19.59
	1/16/04		14.73	20.27
	7/14/04		15.54	19.46
	1/29/05		14.38	20.62
	7/22/05		15.23	19.77
	1/25/06		14.00	21.00
6/10/06	15.13	19.87		
1/26/07	15.30	19.70		
7/5/07	15.46	19.54		
1/30/08	14.32	20.68		
1/27/09	15.43	19.57		
	12/8/09		15.57	19.43
MW-2	10/6/99	35.21	15.84	19.37
	1/13/00		15.78	19.43
	4/12/00		14.94	20.27
	7/19/00		15.54	19.67
	10/25/00		15.81	19.4
	1/16/01		15.50	19.71
	4/14/01		15.28	19.93
	7/16/01		15.73	19.48
	10/1/01		16.06	19.15
	1/7/02		14.08	21.13
	4/2/02		15.04	20.17
	7/19/02		15.66	19.55
	10/1/02		15.96	19.25
	1/24/03		14.90	20.31
	7/25/03		15.68	19.53
	1/16/04		14.93	20.28
	7/14/04		15.81	19.40
	1/29/05		14.90	20.31
	7/22/05		15.46	19.75
	1/25/06		14.16	21.05
6/10/06	15.40	19.81		
1/26/07	15.55	19.66		
7/5/07	15.72	19.49		
1/30/08	14.51	20.70		
1/27/09	15.67	19.54		
	12/8/09		15.85	19.36

TABLE ONE
 Groundwater Elevation Data
 Hutch's Carwash
 17945 Hesperian Blvd., San Lorenzo, CA

Well ID	Date of Measurement	Top of Casing Elevation (Relative to Mean Sea Level)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-3	10/6/99	34.47	14.98	19.49
	1/13/00		14.98	19.49
	4/12/00		14.09	20.38
	7/19/00		14.70	19.77
	10/25/00		14.98	19.49
	1/16/01		14.58	19.89
	4/4/01		14.43	20.04
	7/6/01		14.85	19.62
	10/1/01		15.21	19.26
	1/7/02		13.24	21.23
	4/2/02		14.20	20.27
	7/9/02		14.81	19.66
	10/1/02		15.12	19.35
	1/24/03		14.05	20.42
	7/25/03		14.82	19.65
	1/16/04		14.08	20.39
	7/14/04		14.94	19.53
	1/29/05		14.03	20.44
	7/22/05		14.59	19.88
	1/25/06		13.31	21.16
	6/10/06		14.53	19.94
	1/26/07		14.69	19.78
	7/5/07		14.88	19.59
1/30/08		13.64	20.83	
1/27/09		14.83	19.64	
12/8/09			14.98	19.49

TABLE TWO
Summary of Analytical Results for GROUNDWATER Samples
Hutch's Carwash
17945 Hesperian Blvd., San Lorenzo, CA
All results are in parts per billion (ppb)

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
MW-1						
10/6/99	1,500	3.3	2.3	27	72	120
1/13/00	1,500	15	19	19	33	650
4/12/00	1,700	18	13	45	79	2,600
7/19/00	2,200	31	< 5.0	81	100	2,000
10/25/00	3,300	20	< 5.0	98	9.4	3,300
1/16/01	4,100	34	14	60	120	1,300
4/4/01	2,900	14	< 0.5	34	32	2,000
7/6/01	1,300	4.4	< 0.5	12	13	700
10/1/01	1,100	4.1	< 0.5	18	19	520
1/7/02	1,400	34	< 0.5	13	15	1,300
4/2/02	1,900	30	6.7	24	30	1,000
7/9/02	1,500	26	< 5.0	12	8.6	820
10/1/02	830	3.6	< 2.5	7.4	2.9	520
1/24/03	1,300	6.2	< 5.0	12	< 5.0	680
7/25/03	520	15	< 1.0	11	1.0	250
1/16/04	540	3.9	< 2.5	8.3	3.1	290
7/14/04	220	< 1.0	< 1.0	8.1	< 1.0	140
1/29/05	160	1.0	< 0.5	2.5	< 1.0	60
7/22/05	380	2.5	< 1.0	9.1	< 2.0	210
1/25/06	250	1.2	< 1.0	3.3	< 2.0	220
6/10/06	< 100	< 1.0	< 1.0	1.3	< 2.0	180
1/26/07	< 50	< 0.5	< 0.5	< 0.5	< 1.0	18
7/5/07	< 50	< 0.5	< 0.5	< 0.5	< 1.0	37
1/30/08	< 200	< 2.0	< 2.0	< 2.0	< 4.0	290
1/27/09	140	< 0.5	< 0.5	< 0.5	< 0.5	170
12/8/09	170	< 0.5	< 0.5	< 0.5	< 0.5	150

TABLE TWO
Summary of Analytical Results for GROUNDWATER Samples
Hutch's Carwash
17945 Hesperian Blvd., San Lorenzo, CA
All results are in parts per billion (ppb)

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
MW-2						
10/6/99	< 50	< 0.5	< 0.5	< 0.5	< 0.5	18
1/13/00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	16
4/12/00	< 100	< 1.0	< 1.0	< 1.0	< 1.0	240
7/19/00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
10/25/00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	6
1/16/01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	8
4/4/01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
7/6/01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	6
10/1/01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	21
1/7/02	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
4/2/02	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
7/9/02	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
10/1/02	No longer sampled					
MW-3						
10/6/99	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
1/13/00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
4/12/00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
7/19/00	< 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
1/16/01	No longer sampled					
ESL (DW)	100	1	40	30	20	5
ESL (NDW)	210	46	130	43	100	1,800

Notes:

* EPA Method 8020/EPA Method 8260 (MTBE confirmation)

** Hydrocarbon reported in the gasoline range does not match the laboratory gasoline standard

*** Sample contains a discrete peak in addition to gasoline

ESL = Environmental screening level presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (May 2008)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

DW = Groundwater is considered a current or potential source of drinking water

NDW = Groundwater is not considered a current or potential source of drinking water

Most current data is in **Bold**

Non-detectable concentrations noted by the less than sign (<) followed by the laboratory reporting limit



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APPENDIX A

Well Sampling Field Logs

AQUA SCIENCE ENGINEERS

WELL SAMPLING FIELD LOG

PROJECT NAME HUTCH'S SAN CARLOS

JOB NUMBER _____ DATE OF SAMPLING 12/8

WELL ID. MW-1 SAMPLER DA

TOTAL DEPTH OF WELL 26.0 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 15.57

PRODUCT THICKNESS 0

DEPTH OF WELL CASING IN WATER 10.43

NUMBER OF GALLONS PER WELL CASING VOLUME 1.66

NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 5

EQUIPMENT USED TO PURGE WELL NEW DISPOSABLE BAUER (NDB)

TIME EVACUATION STARTED 1500 TIME EVACUATION COMPLETED 1508

TIME SAMPLES WERE COLLECTED 1510

DID WELL GO DRY NO AFTER HOW MANY GALLONS —

VOLUME OF GROUNDWATER PURGED 5

SAMPLING DEVICE NDB

SAMPLE COLOR CRAN ODOR/SEDIMENT NO/IL

CHEMICAL DATA

MW-2 15.85'

MW-3 14.98'

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	65.9	—	890
2	66.4	—	880
3	66.5	✓	871

SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-1	3	90ml VOA	FLUOR	✓



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APPENDIX B

Certified Analytical Report
and
Chain of Custody Documentation



David Allen
Aqua Science Engineers, Inc.
55 Oak Court, Suite 220
Danville, CA 94526

Subject : 1 Water Sample
Project Name : HUTCH'S SAN LORENZO
Project Number : 3411

Dear Mr. Allen,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Joel Kiff

Project Name : **HUTCH'S SAN LORENZO**

Project Number : **3411**

Sample : **MW-1**

Matrix : Water

Lab Number : 71238-01

Sample Date :12/08/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2009
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2009
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2009
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/17/2009
Methyl-t-butyl ether (MTBE)	150	0.50	ug/L	EPA 8260B	12/17/2009
TPH as Gasoline	170	50	ug/L	EPA 8260B	12/17/2009
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	12/17/2009
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	12/17/2009

Report Number : 71238

Date : 12/18/2009

QC Report : Method Blank Data

Project Name : **HUTCH'S SAN LORENZO**

Project Number : **3411**

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2009
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2009
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2009
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/17/2009
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2009
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/17/2009
1,2-Dichloroethane-d4 (Surr)	101		%	EPA 8260B	12/17/2009
Toluene - d8 (Surr)	102		%	EPA 8260B	12/17/2009

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
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QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : HUTCH'S SAN LORENZO

Project Number : 3411

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	71218-02	<0.50	40.6	40.6	37.9	36.2	ug/L	EPA 8260B	12/17/09	93.4	89.3	4.47	80-120	25
Ethylbenzene	71218-02	<0.50	40.3	40.3	39.1	37.6	ug/L	EPA 8260B	12/17/09	96.9	93.2	3.94	80-120	25
Methyl-t-butyl ether	71218-02	<0.50	40.6	40.6	37.0	36.1	ug/L	EPA 8260B	12/17/09	91.2	88.8	2.58	69.7-121	25
P + M Xylene	71218-02	<0.50	39.2	39.2	37.3	36.4	ug/L	EPA 8260B	12/17/09	95.0	92.9	2.26	76.8-120	25
Tert-Butanol	71218-02	<5.0	202	202	194	187	ug/L	EPA 8260B	12/17/09	96.0	92.6	3.54	80-120	25
Toluene	71218-02	<0.50	40.3	40.3	40.7	38.9	ug/L	EPA 8260B	12/17/09	101	96.5	4.39	80-120	25

QC Report : Laboratory Control Sample (LCS)Project Name : **HUTCH'S SAN LORENZO**Project Number : **3411**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	12/17/09	96.3	80-120
Ethylbenzene	40.0	ug/L	EPA 8260B	12/17/09	98.6	80-120
Methyl-t-butyl ether	40.6	ug/L	EPA 8260B	12/17/09	88.4	69.7-121
P + M Xylene	40.0	ug/L	EPA 8260B	12/17/09	96.0	76.8-120
TPH as Gasoline	512	ug/L	EPA 8260B	12/17/09	106	80-120
Toluene	40.0	ug/L	EPA 8260B	12/17/09	101	80-120

SAMPLE RECEIPT CHECKLIST

RECEIVER
LJR
Initials

SRG#: 71238 Date: 12/6/09
Project ID: HUTCH'S SAN LORENZO

Method of Receipt: Courier Over-the-counter Shipper

COC Inspection

Is COC present? Yes No
Custody seals on shipping container? Intact Broken Not present N/A
Is COC Signed by Relinquisher? Yes No Dated? Yes No
Is sampler name legibly indicated on COC? Yes No
Is analysis or hold requested for all samples? Yes No
Is the turnaround time indicated on COC? Yes No
Is COC free of whiteout and uninitialed cross-outs? Yes No, Whiteout No, Cross-outs

Sample Inspection

Coolant Present: Yes No (includes water)
Temperature °C 3.6 Therm. ID# ER-S Initial LJR Date/Time 12/6/09/1927 N/A
Are there custody seals on sample containers? Intact Broken Not present
Do containers match COC? Yes No No, COC lists absent sample(s) No, Extra sample(s) present
Are there samples matrices other than soil, water, air or carbon? Yes No
Are any sample containers broken, leaking or damaged? Yes No
Are preservatives indicated? Yes, on sample containers Yes, on COC Not indicated N/A
Are preservatives correct for analyses requested? Yes No N/A
Are samples within holding time for analyses requested? Yes No
Are the correct sample containers used for the analyses requested? Yes No
Is there sufficient sample to perform testing? Yes No
Does any sample contain product, have strong odor or are otherwise suspected to be hot? Yes No

Receipt Details

Matrix WA Container type VOA # of containers received 3
Matrix _____ Container type _____ # of containers received _____
Matrix _____ Container type _____ # of containers received _____
Date and Time Sample Put into Temp Storage Date: 12/6/09 Time: 1927

Quicklog

Are the Sample ID's indicated: On COC On sample container(s) On Both Not indicated
If Sample ID's are listed on both COC and containers, do they all match? Yes No N/A
Is the Project ID indicated: On COC On sample container(s) On Both Not indicated
If project ID is listed on both COC and containers, do they all match? Yes No N/A
Are the sample collection dates indicated: On COC On sample container(s) On Both Not indicated
If collection dates are listed on both COC and containers, do they all match? Yes No N/A
Are the sample collection times indicated: On COC On sample container(s) On Both Not indicated
If collection times are listed on both COC and containers, do they all match? Yes No N/A

COMMENTS:

