



December 11, 1998

Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Second Floor  
Alameda, California 94502

ATTENTION: Mr. Robert Weston

SUBJECT: **SOIL AND GROUNDWATER ASSESSMENT RESULTS**  
Hutch's Carwash  
17945 Hesperian Boulevard  
San Lorenzo, California

90 DEC 15 AM 10:05  
ENVIRONMENTAL  
PROTECTION

Dear Mr. Weston:

On December 1, 1998 Aqua Science Engineers, Inc. (ASE), drilled soil borings at the subject site to determine the subsurface soil and groundwater conditions in respect to the three gasoline underground storage tanks (USTs) at the subject site, see Figures 1 and 2. Soil borings BH-A and BH-B were drilled adjacent to the dispensers, and only a soil sample was collected. Soil borings BH-C through BH-H were drilled into the groundwater and both soil and groundwater samples were collected. See the boring logs attached in Appendix A.

Each of the soil and groundwater samples were analyzed by Chromalab, Inc. of Pleasanton, California (ELAP # 1094) for total petroleum hydrocarbons as gasoline (TPH-G) by EPA Method 8015M, benzene, toluene, ethylbenzene and total xylenes (BTEX) and methyl-tertiary butyl ether (MTBE) by EPA Method 8020. The soil samples were also analyzed for total lead by EPA Method 7420. The analytical results are tabulated in Table One and Table Two, attached. Analytical results are attached in Appendix B.

As you are aware, Hutch's Carwash is proposing to re-use these USTs for water storage for their carwash operation. A permit for UST closure will follow upon your agency's review of this document.

### **ANALYTICAL RESULTS**

The soil adjacent to the dispensers (BH-A and BH-B) contains no detectable concentrations of TPH-G, BTEX or lead. Only 0.091 parts per million (ppm) MTBE was identified in the sample collected from boring BH-A.

The soil samples collected and analyzed from the soil borings drilled adjacent to the USTs (BH-C through BH-H) contained only minor concentrations of MTBE

ranging from 0.26 ppm to 3.0 ppm. Soil sample BH-E also contained 1.7 ppm TPH-G, 0.011 ppm ethylbenzene, and 0.028 ppm total xylenes.

As shown on Table Two, the groundwater samples contain elevated concentrations of TPH-G as high as 200,000 parts per billion (ppb), benzene as high as 260 ppb, toluene as high as 620 ppb, ethylbenzene as high as 3,000 ppb, total xylenes as high as 7,100 ppb, and MTBE as high as 4,400 ppb.

### **CONCLUSIONS & RECOMMENDATIONS**

Based on the analytical results, it appears that the unsaturated soil surrounding and just beneath the USTs is free of significant concentrations of TPH-G, BTEX, MTBE and lead. It is therefore ASE's opinion that closure-in-place of these USTs for re-use in the carwash operation appears suitable.

Please call me after you've had time to review this document. A UST Closure Application with the appropriate fee will follow upon your approval of the proposed closure-in-place. We look forward to hearing from you in the very near future. If you have any questions or comments, please feel free to give us a call at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



David Allen, R.E.A.  
Senior Project Manager



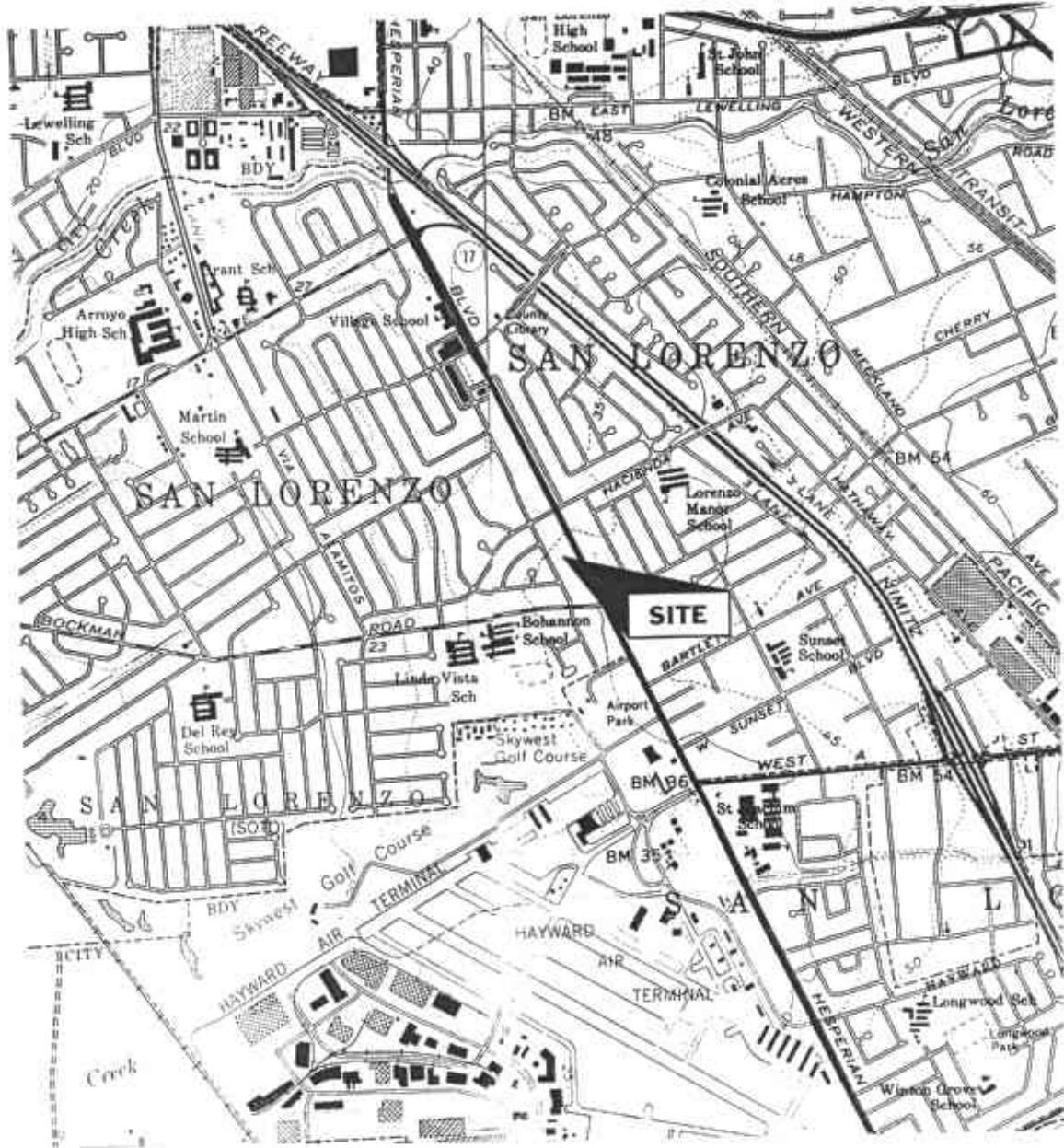
Enclosures

Cc: Mr. Kirk Hutchison, Hutch's Carwash



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

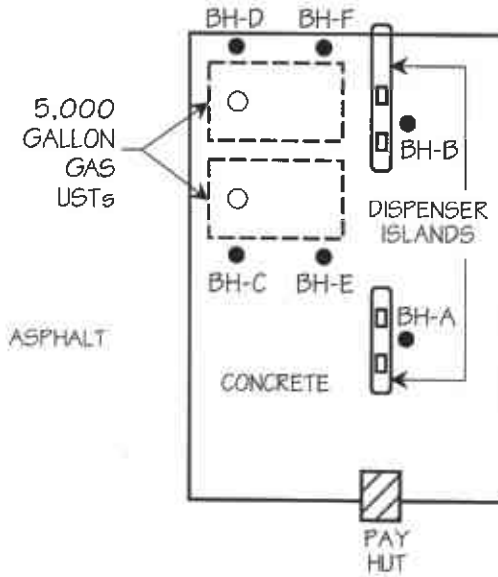
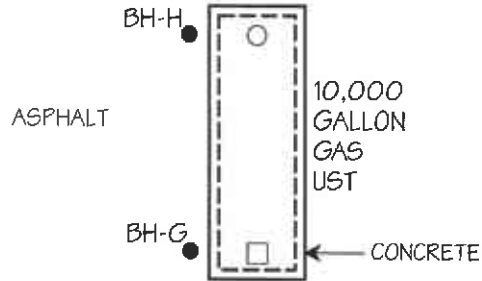
### LEGEND

BH-H



SOIL BORING

ASPHALT



CARWASH BUILDING AND STORE

ASPHALT

ASPHALT

## SOIL BORING LOCATION MAP

HUTCH'S CARWASH  
17945 HESPERIAN BOULEVARD  
SAN LORENZO, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

FIGURE 2

# TABLE ONE

Hutch's Carwash, 17945 Hesperian Boulevard, San Lorenzo, CA  
 Summary of Chemical Analysis of **Soil** Samples

TPH-G, Benzene, Toluene, Ethylbenzene, Total Xylenes, and MTBE

All results are in **parts per million**

SAMPLE NAME, DEPTH	TPH GAS	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	MTBE
BH-A, 4.0'	<1.0	<0.005	<0.005	<0.005	<0.005	<b>0.091</b>
BH-B, 4.0'	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
BH-C, 15.5'	<10	<0.62	<0.62	<0.62	<0.62	<b>3.0</b>
BH-D, 15.5'	<10	<0.62	<0.62	<0.62	<0.62	<b>1.3</b>
BH-E, 15.5'	<b>1.7</b>	<0.005	<0.005	<b>0.011</b>	<b>0.028</b>	<b>0.26</b>
BH-F, 15.5'	<10	<0.62	<0.62	<0.62	<0.62	<b>0.97</b>
BH-G, 15.5'	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
BH-H, 11.5'	<10	<0.62	<0.62	<0.62	<0.62	<0.62
EPA METHOD	8015M	<b>8020</b>	<b>8020</b>	<b>8020</b>	<b>8020</b>	<b>8020</b>

NOTES:

Detectable concentrations are in **bold**.

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

## TABLE TWO

Hutch's Carwash, 17945 Hesperian Boulevard, San Lorenzo, CA  
 Summary of Chemical Analysis of **Grab Groundwater** Samples  
 TPH-G, Benzene, Toluene, Ethylbenzene, Total Xylenes, and MTBE  
 All results are in **parts per billion**

SAMPLE NAME	TPH GAS	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	MTBE
BH-C WATER	< 10,000*	110	260	1,500	2,700	4,400
BH-D WATER	< 5,000*	59	120	210	230	4,200
BH-E WATER	< 25,000*	260	620	3,000	7,100	< 2,500
BH-F WATER	1,100	42	< 10	< 10	< 10	880
BH-G WATER	55	< 0.5	0.64	0.63	1.9	18
BH-H WATER	1,900	15	< 10	< 10	< 10	3,400
EPA METHOD	8015M	8020	8020	8020	8020	8020

**NOTES:**

Detectable concentrations are in **bold**.

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

\* The analytical results for these samples indicate that the hydrocarbon found in the Gasoline Range is uncharacteristic of the Gasoline Profile. If quantified using the Gasoline Response Factor, the concentrations would equal 65,000, 39,000, and 200,000 ug/L for BH-C, BH-D, and BH-E respectively.

**APPENDIX A  
BORING LOGS**

# SOIL BORING LOG AND COMPLETION DETAILS

Boring BH-A

Project Name: Hutch's Carwash

Project Location: 17945 Hesperian Blvd., San Lorenzo, CA

Page 1 of 1

Driller: Gregg Drilling

Type of Rig: Geoprobe

Size of Drill: 2.0" Diameter Direct Push

Logged By: Robert E. Kitay, R.G.

Date Drilled: December 1, 1998

Checked By: Robert E. Kitay, R.G.

## WATER AND WELL DATA

Total Depth of Well Completed: NA

Depth of Water First Encountered: Not encountered



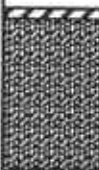
Well Screen Type and Diameter: NA

Static Depth of Water in Boring: Unknown

Well Screen Slot Size: NA

Total Depth of Boring: 4.5'

Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
			Interval	Water Level	OMV (ppmv)	Graphic Log		
0		Class "H" Portland Cement			0		0	Concrete
5							Clayey SILT (ML); yellow brown; medium stiff; damp; 85% silt; 10% clay; 5% fine sand; low plasticity; low estimated K; no odor olive brown below 2.5'	
10							End of boring at 4.5'	
15								
20								
25								
30								



**SOIL BORING LOG AND COMPLETION DETAILS**

Boring BH-B

Project Name: Hutch's Carwash

Project Location: 17945 Hesperian Blvd., San Lorenzo, CA

Page 1 of 1

Driller: Gregg Drilling

Type of Rig: Geoprobe

Size of Drill: 2.0" Diameter Direct Push

Logged By: Robert E. Kitay, R.G.

Date Drilled: December 1, 1998

Checked By: Robert E. Kitay, R.G.

**WATER AND WELL DATA**

Total Depth of Well Completed: NA

Depth of Water First Encountered: Not encountered






Well Screen Type and Diameter: NA

Static Depth of Water in Boring: Unknown

Well Screen Slot Size: NA

Total Depth of Boring: 4.5'

Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
			Interval	Water Level	OMV (ppmv)	Graphic Log		
0		Class "H" Portland Cement					0	Concrete
5					0		5	Clayey SILT (ML); yellow brown; medium stiff; damp; 85% silt; 10% clay; 5% fine sand; low plasticity; low estimated K; no odor
10								End of boring at 4.5'
15								
20								
25								
30								

# SOIL BORING LOG AND COMPLETION DETAILS

Boring BH-C

Project Name: Hutch's Carwash

Project Location: 17945 Hesperian Blvd., San Lorenzo, CA

Page 1 of 1

Driller: Gregg Drilling

Type of Rig: Geoprobe

Size of Drill: 2.0" Diameter Direct Push

Logged By: Robert E. Kitay, R.G.

Date Drilled: December 1, 1998

Checked By: Robert E. Kitay, R.G.

## WATER AND WELL DATA

Depth of Water First Encountered: 15.5'

Total Depth of Well Completed: NA

Well Screen Type and Diameter: NA

Static Depth of Water in Boring: Unknown

Well Screen Slot Size: NA

Total Depth of Boring: 20'

Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
			Interval	Water Level	OMV (ppmv)	Graphic Log		
0		Class "H" Portland Cement	0 - 20		79		0	Concrete
5			5				Clayey SILT (ML); yellow brown; medium stiff; damp; 85% silt; 10% clay; 5% fine sand; low plasticity; low estimated K; slight hydrocarbon odor	
10			10				Silty SAND (SP); olive; medium dense; damp; 90% fine sand; 10% silt; non-plastic; medium estimated K; slight hydrocarbon odor	
15					260		15	moderate hydrocarbon odor at 15' wet at 15.5'
20							20	End of boring at 20'
25							25	
30							30	

**SOIL BORING LOG AND COMPLETION DETAILS**

Boring BH-D

Project Name: Hutch's Carwash

Project Location: 17945 Hesperian Blvd., San Lorenzo, CA

Page 1 of 1

Driller: Gregg Drilling

Type of Rig: Geoprobe

Size of Drill: 2.0" Diameter Direct Push

Logged By: Robert E. Kitay, R.G.

Date Drilled: December 1, 1998

Checked By: Robert E. Kitay, R.G.

**WATER AND WELL DATA**

Depth of Water First Encountered: 16'

Total Depth of Well Completed: NA

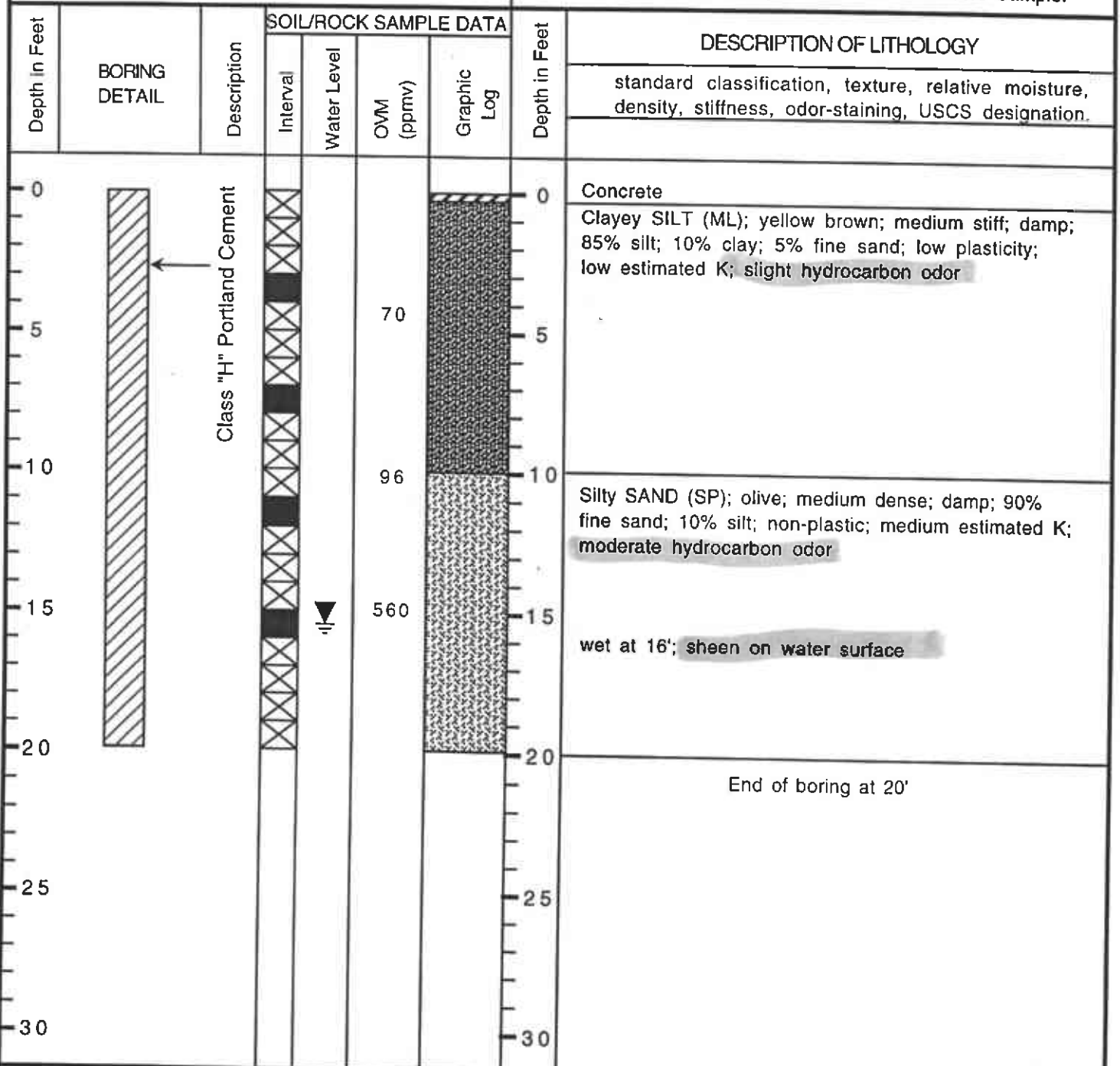
Well Screen Type and Diameter: NA

Static Depth of Water in Boring: Unknown

Well Screen Slot Size: NA

Total Depth of Boring: 20'

Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler



**SOIL BORING LOG AND COMPLETION DETAILS**

Boring BH-E

Project Name: Hutch's Carwash

Project Location: 17945 Hesperian Blvd., San Lorenzo, CA

Page 1 of 1

Driller: Gregg Drilling

Type of Rig: Geoprobe

Size of Drill: 2.0" Diameter Direct Push

Logged By: Robert E. Kitay, R.G.

Date Drilled: December 1, 1998

Checked By: Robert E. Kitay, R.G.

**WATER AND WELL DATA**

Depth of Water First Encountered: 16'

Total Depth of Well Completed: NA

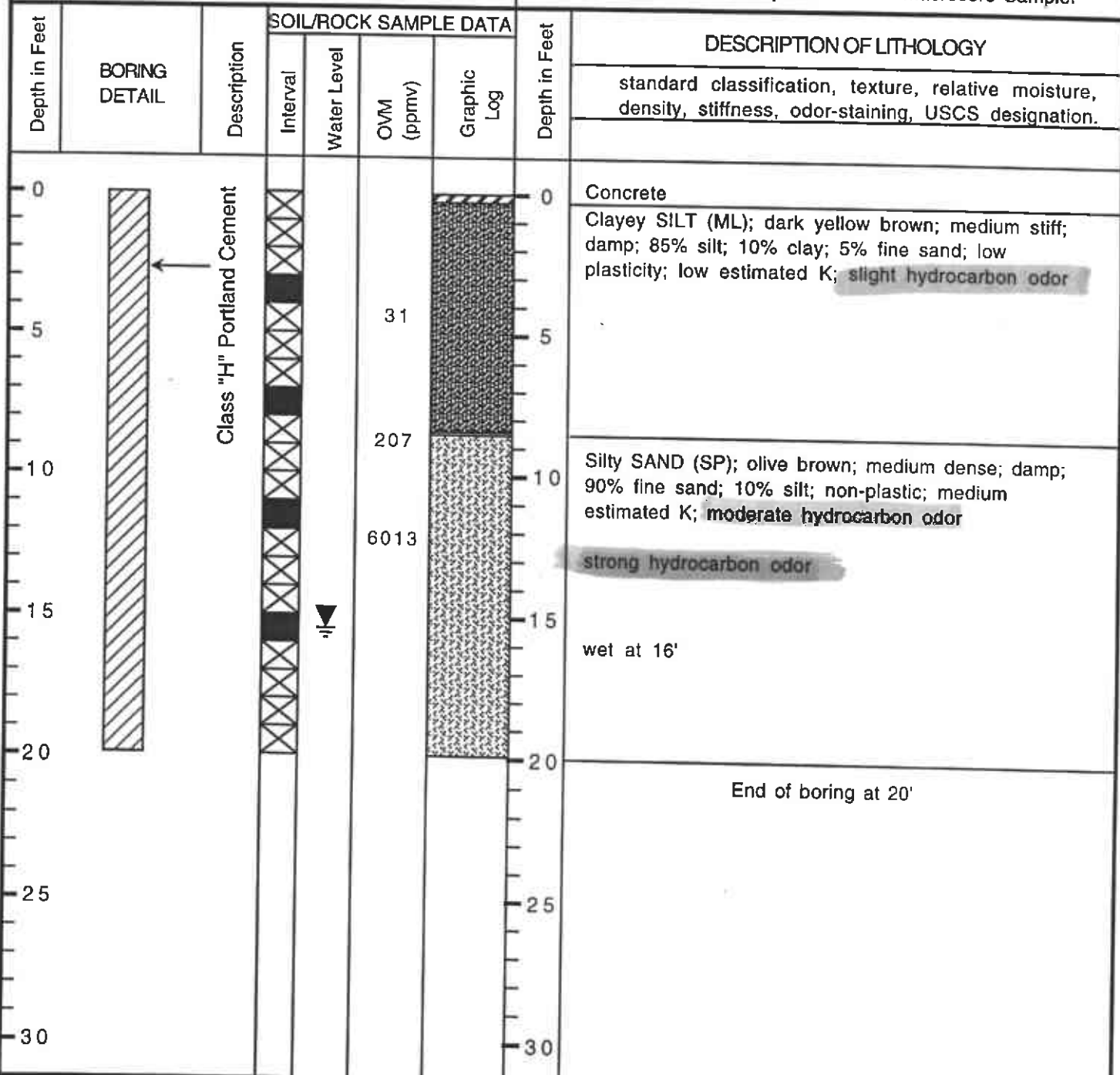
Well Screen Type and Diameter: NA

Static Depth of Water in Boring: Unknown

Well Screen Slot Size: NA

Total Depth of Boring: 20'

Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler



**SOIL BORING LOG AND COMPLETION DETAILS**

Boring BH-F

Project Name: Hutch's Carwash

Project Location: 17945 Hesperian Blvd., San Lorenzo, CA

Page 1 of 1

Driller: Gregg Drilling

Type of Rig: Geoprobe

Size of Drill: 2.0" Diameter Direct Push

Logged By: Robert E. Kitay, R.G.

Date Drilled: December 1, 1998

Checked By: Robert E. Kitay, R.G.

**WATER AND WELL DATA**

Depth of Water First Encountered: 16'

Total Depth of Well Completed: NA

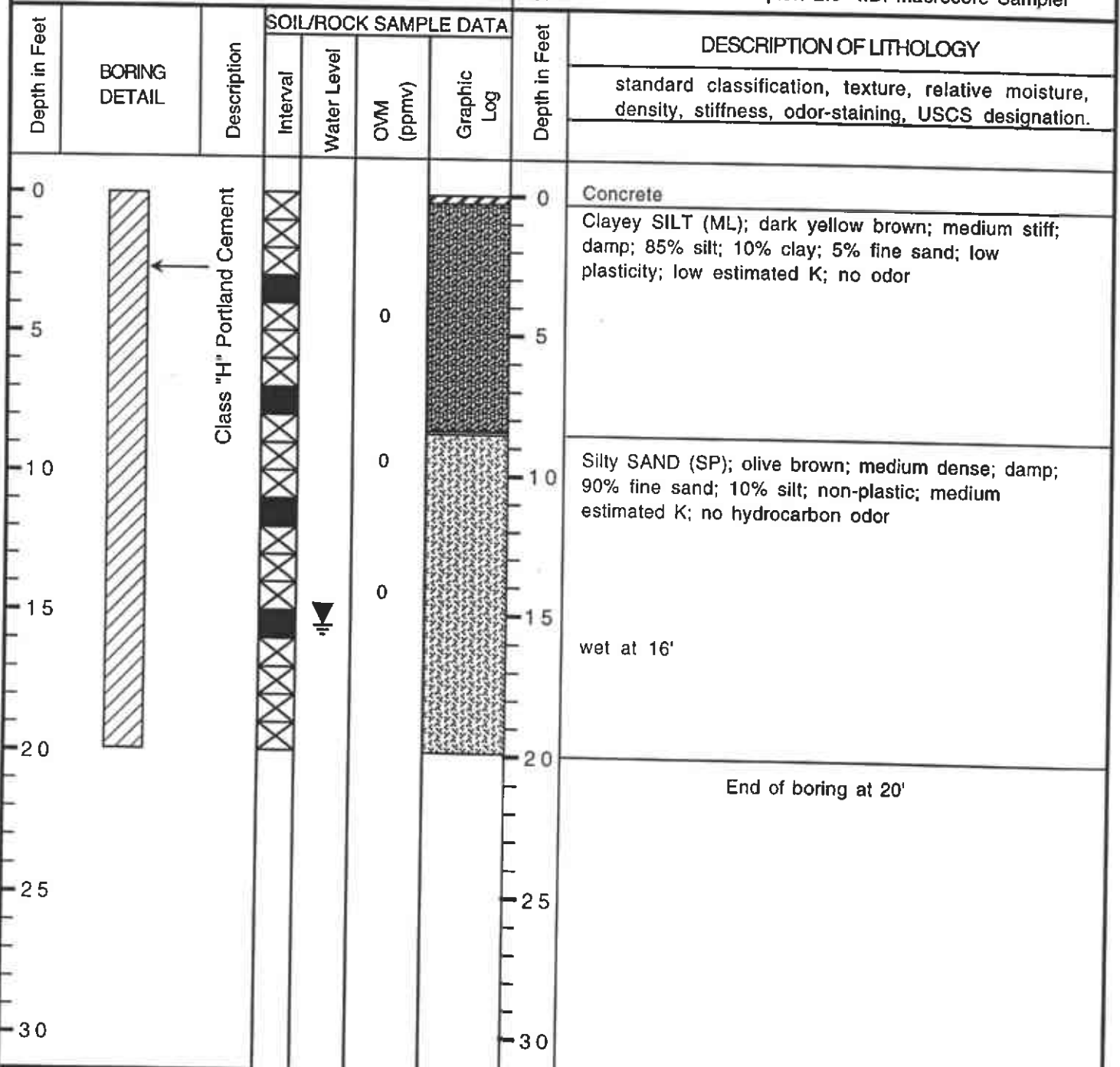
Well Screen Type and Diameter: NA

Static Depth of Water in Boring: Unknown

Well Screen Slot Size: NA

Total Depth of Boring: 20'

Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler



**SOIL BORING LOG AND COMPLETION DETAILS**

Boring BH-G

Project Name: Hutch's Carwash

Project Location: 17945 Hesperian Blvd., San Lorenzo, CA

Page 1 of 1

Driller: Gregg Drilling

Type of Rig: Geoprobe

Size of Drill: 2.0" Diameter Direct Push

Logged By: Robert E. Kitay, R.G.

Date Drilled: December 1, 1998

Checked By: Robert E. Kitay, R.G.

**WATER AND WELL DATA**

Total Depth of Well Completed: NA

Depth of Water First Encountered: 16'

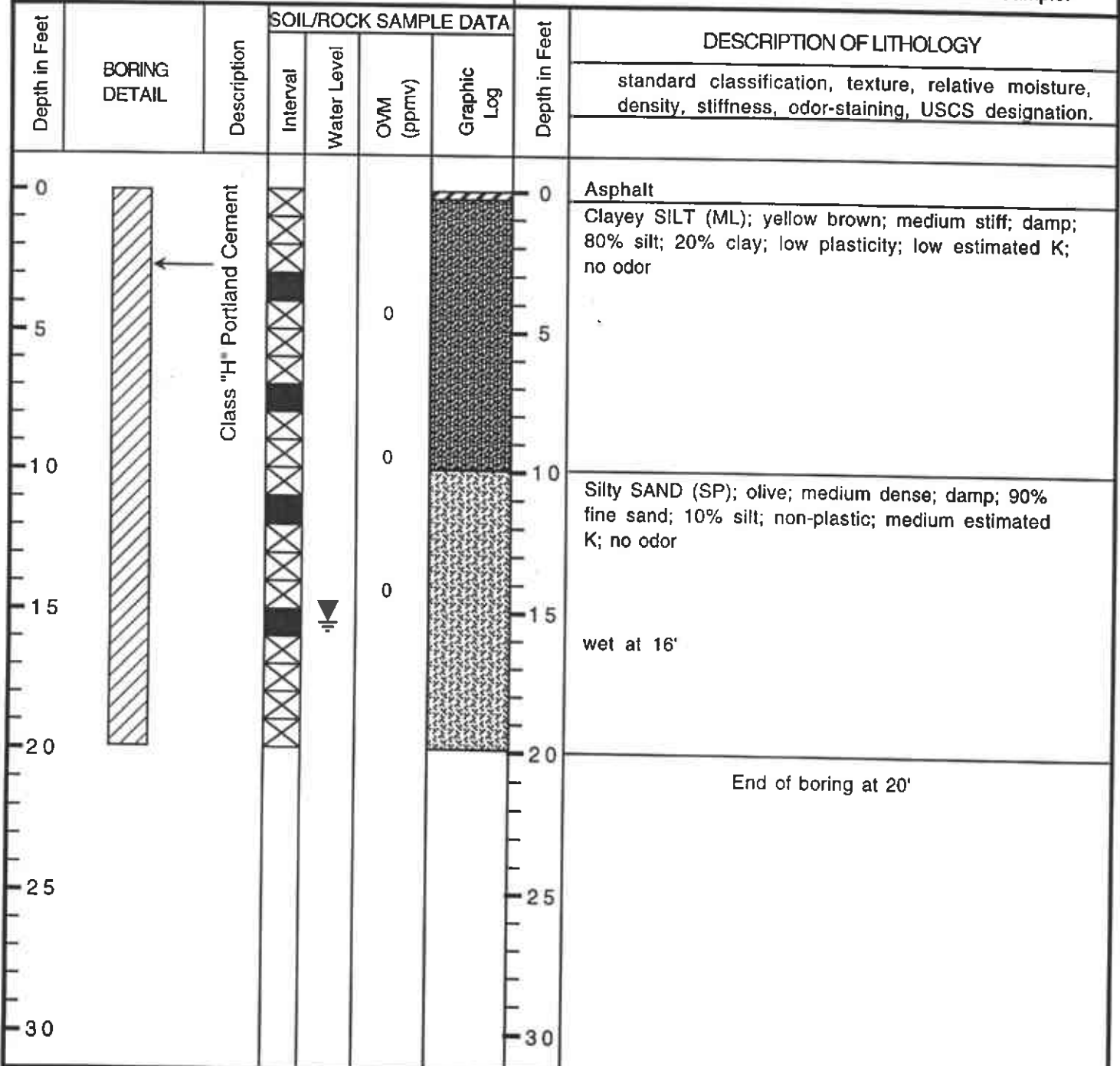
Well Screen Type and Diameter: NA

Static Depth of Water in Boring: Unknown

Well Screen Slot Size: NA

Total Depth of Boring: 20'

Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler



# SOIL BORING LOG AND COMPLETION DETAILS

Boring BH-H

Project Name: Hutch's Carwash

Project Location: 17945 Hesperian Blvd., San Lorenzo, CA

Page 1 of 1

Driller: Gregg Drilling

Type of Rig: Geoprobe

Size of Drill: 2.0" Diameter Direct Push

Logged By: Robert E. Kitay, R.G.

Date Drilled: December 1, 1998

Checked By: Robert E. Kitay, R.G.

## WATER AND WELL DATA

Depth of Water First Encountered: 13.5'

Total Depth of Well Completed: NA

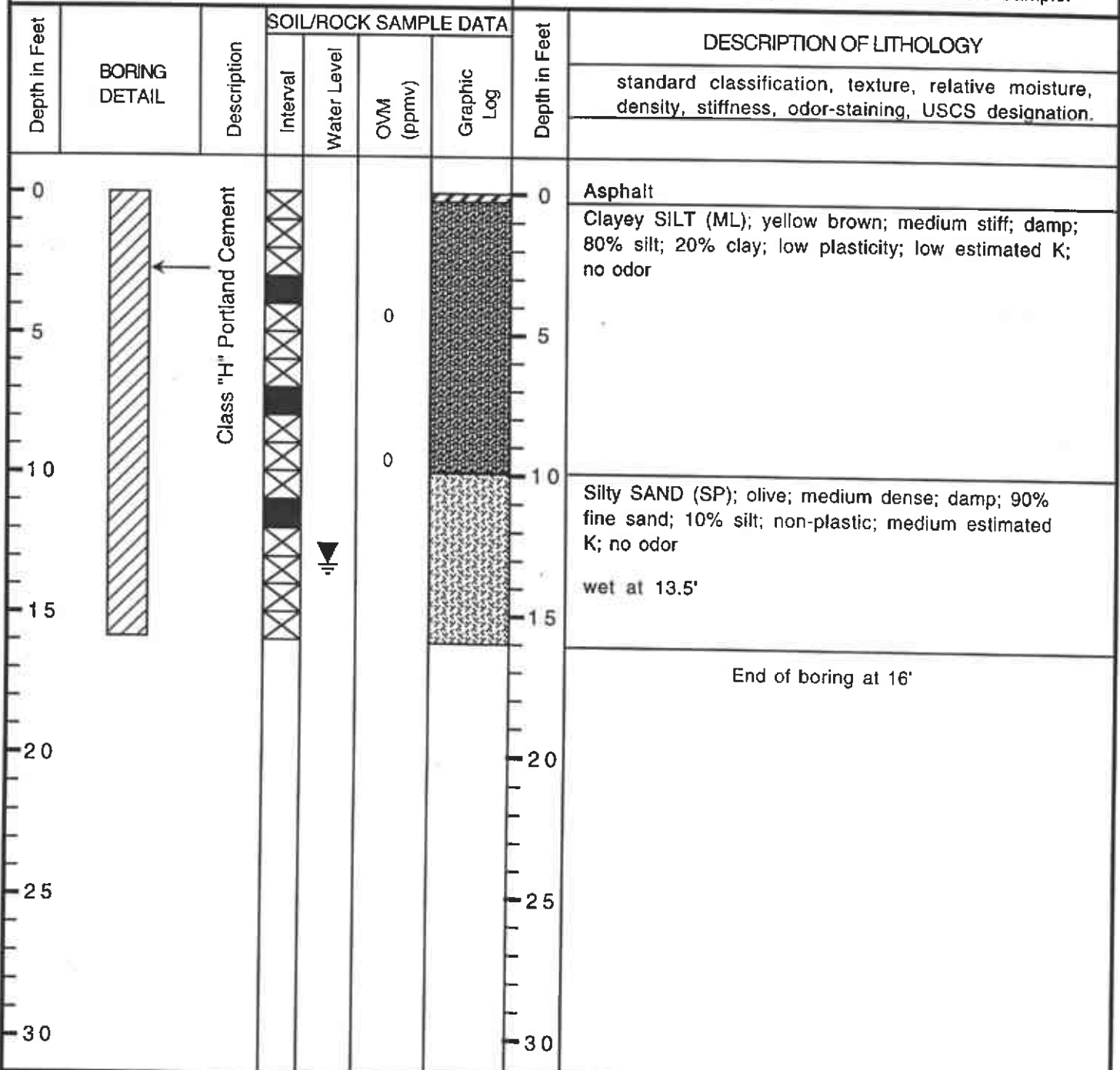
Well Screen Type and Diameter: NA

Static Depth of Water in Boring: Unknown

Well Screen Slot Size: NA

Total Depth of Boring: 16'

Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler



**APPENDIX B**  
**ANALYTICAL REPORT**



# CHROMALAB, INC.

Environmental Services (SDB)

December 9, 1998

Submission #: 9812022

AQUA SCIENCE ENGINEERS INC

Atten: Robert Kitay

Project: HUTCH'S CARWASH  
 Received: December 1, 1998

re: One sample for Gasoline BTEX MTBE analysis.  
 Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: BH-A 4.0'

Spl#: 218637

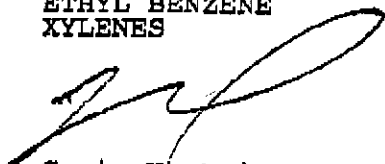
Matrix: SOIL

Sampled: December 1, 1998

Run#:16290

Analyzed: December 2, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	1.0	N.D.	110	1
MTBE	0.091	0.0050	N.D.	110	1
BENZENE	N.D.	0.0050	N.D.	102	1
TOLUENE	N.D.	0.0050	N.D.	100	1
ETHYL BENZENE	N.D.	0.0050	N.D.	99	1
XYLENES	N.D.	0.0050	N.D.	97	1



Craig Huntzinger  
 Analyst

Michael Verona  
 Laboratory Operations Manager

# CHROMALAB, INC.

Environmental Services (SDB)

December 8, 1998

Submission #: 9812022

AQUA SCIENCE ENGINEERS INC

Atten: Robert Kitay

Project: HUTCH'S CARWASH  
 Received: December 1, 1998

re: One sample for Gasoline BTEX MTBE analysis.  
 Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: BH-B 4.0'

Spl#: 218639


Matrix: SOIL

Sampled: December 1, 1998

Run#:16290

Analyzed: December 2, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	1.0	N.D.	110	1
MTBE	N.D.	0.0050	N.D.	110	1
BENZENE	N.D.	0.0050	N.D.	102	1
TOLUENE	N.D.	0.0050	N.D.	100	1
ETHYL BENZENE	N.D.	0.0050	N.D.	99	1
XYLENES	N.D.	0.0050	N.D.	97	1



Craig Huntzinger  
 Analyst

Michael Verona  
 Laboratory Operations Manager

**CHROMALAB, INC.**

Environmental Services (SDB)

December 9, 1998

Submission #: 9812022

AQUA SCIENCE ENGINEERS INC

Atten: Robert Kitay

Project: HUTCH'S CARWASH  
Received: December 1, 1998re: One sample for Gasoline BTEX MTBE analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: BH-C 15.5'

Spl#: 210638

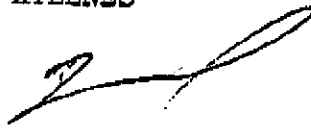
Matrix: SOIL

Sampled: December 1, 1998

Run#: 16336

Analyzed: December 4, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	10	N.D.	95	1
MTBE	3.0	0.62	N.D.	75	1
BENZENE	N.D.	0.62	N.D.	87	1
TOLUENE	N.D.	0.62	N.D.	87	1
ETHYL BENZENE	N.D.	0.62	N.D.	88	1
XYLENES	N.D.	0.62	N.D.	89	1



Vincent Vancil  
Analyst

Michael Verona  
Operations Manager

925-837-4853

1220 Quarry Lane • Pleasanton, California 94566-4756  
(925) 484-1918 • Facsimile (925) 484-1096  
Federal ID #68-0140157

PM V135 C: BTEXOC0220  
YANCE 15-00

**CHROMALAB, INC.**

Environmental Services (SDB)

December 9, 1998

Submission #: 9812022

AQUA SCIENCE ENGINEERS INC

Atten: Robert Kitay

Project: HUTCH'S CARWASH  
Received: December 1, 1998re: One sample for Gasoline BTEX MTBE analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: BH-D 15.5'

Spl#: 218640

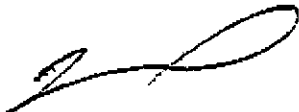
Matrix: SOIL

Sampled: December 1, 1998

Run#:16336

Analyzed: December 4, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	10	N.D.	95	1
MTBE	1.3	0.62	N.D.	75	1
BENZENE	N.D.	0.62	N.D.	87	1
TOLUENE	N.D.	0.62	N.D.	87	1
ETHYL BENZENE	N.D.	0.62	N.D.	88	1
XYLENES	N.D.	0.62	N.D.	89	1

  
 Vincent Vancil  
 Analyst

 Michael Verona  
 Operations Manager

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 (925) 484-1919 • Facsimile (925) 484-1096  
 Federal ID #68-0140157

 FM V136 O: BTEXQC0220  
 VINCE 11-20

# CHROMALAB, INC.

Environmental Services (SDB)

December 9, 1998

Submission #: 9812022

AQUA SCIENCE ENGINEERS INC

Atten: Robert Kitay

Project: HUTCH'S CARWASH  
Received: December 1, 1998

re: One sample for Gasoline BTEX MTBE analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: HH-E 15.5'

Spl#: 218641

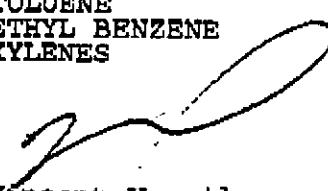
Matrix: SOIL

Sampled: December 1, 1998

Run#:16340

Analyzed: December 3, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	1.7	1.1	N.D.	102	1
MTBE	0.26	0.0050	N.D.	95	1
BENZENE	N.D.	0.0050	N.D.	92	1
TOLUENE	N.D.	0.0050	N.D.	90	1
ETHYL BENZENE	0.011	0.0050	N.D.	90	1
XYLENES	0.028	0.0050	N.D.	89	1

  
Vincent Vancil  
Analyst

Michael Verona  
Operations Manager

# CHROMALAB, INC.

Environmental Services (SDB)

December 9, 1998

Submission #: 9812022

AQUA SCIENCE ENGINEERS INC

Atten: Robert Kitay

Project: HUTCH'S CARWASH  
Received: December 1, 1998

re: One sample for Gasoline BTEX MTBE analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: BH-F 15.5'

Spl#: 218642

Matrix: SOIL

Sampled: December 1, 1998

Run#: 16336

Analyzed: December 4, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIRE (%)	DILUTION FACTOR
GASOLINE	N.D.	10	N.D.	95	1
MTBE	0.97	0.62	N.D.	75	1
BENZENE	N.D.	0.62	N.D.	87	1
TOLUENE	N.D.	0.62	N.D.	87	1
ETHYL BENZENE	N.D.	0.62	N.D.	88	1
XYLENES	N.D.	0.62	N.D.	89	1

Vincent Vancil  
Analyst

Michael Verona  
Operations Manager

925-837-4853

1220 Quarry Lane • Pleasanton, California 94566-4756  
(925) 484-1919 • Facsimile (925) 484-1098  
Federal ID #68-0140157

PM 11:05 0: BTEXQC0220  
VINCE 11:06

# CHROMALAB, INC.

Environmental Services (SDB)

December 8, 1998

Submission #: 9812022

AQUA SCIENCE ENGINEERS INC

Atten: Robert Kitay

Project: HUTCH'S CARWASH  
Received: December 1, 1998

re: One sample for Gasoline BTEX MTBE analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: BH-G 15.5'

Spl#: 218658


Matrix: SOIL

Sampled: December 1, 1998

Run#:16340

Analyzed: December 3, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	1.0	N.D.	102	1
MTBE	N.D.	0.0050	N.D.	95	1
BENZENE	N.D.	0.0050	N.D.	92	1
TOLUENE	N.D.	0.0050	N.D.	90	1
ETHYL BENZENE	N.D.	0.0050	N.D.	90	1
KYLENES	N.D.	0.0050	N.D.	89	1

  
Vincent Vancil  
Analyst

  
Michael Verona  
Operations Manager

**CHROMALAB, INC.**

Environmental Services (SDB)

December 9, 1998

Submission #: 9812022

AQUA SCIENCE ENGINEERS INC

Atten: Robert Kitay

Project: HUTCH'S CARWASH  
Received: December 1, 1998re: One sample for Gasoline BTEX MTBE analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: BH-X 11.5'

Spl#: 218659

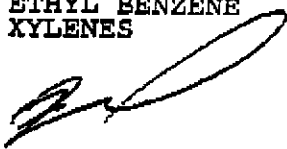
Matrix: SOIL

Sampled: December 1, 1998

Run#:16336

Analyzed: December 4, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	10	N.D.	95	1
MTBE	N.D.	0.62	N.D.	75	1
BENZENE	N.D.	0.62	N.D.	87	1
TOLUENE	N.D.	0.62	N.D.	87	1
ETHYL BENZENE	N.D.	0.62	N.D.	88	1
XYLENES	N.D.	0.62	N.D.	89	1

  
 Vincent Vancil  
 Analyst

 Michael Verona  
 Operations Manager

925-837-4853

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 Federal ID #68-0140157

 PM 9:28 0: BTEXQC0220  
 VINCE 15:00



# CHROMALAB, INC.

Environmental Services (SDB)

December 8, 1998

Submission #: 9812022

AQUA SCIENCE ENGINEERS INC

Atten: Robert Kitay

Project: HUTCH'S CARWASH  
Received: December 1, 1998


re: 6 samples for Lead analysis.  
Method: EPA 3050A/7420A


Sampled: December 1, 1998

Matrix: SOIL  
Run#: 16283

Extracted: December 3, 1998  
Analyzed: December 3, 1998

Spl#	CLIENT SPL ID	LEAD (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
218637	BH-A 4.0'	N.D.	5.0	N.D.	98.0	1
218638	BH-C 15.5'	N.D.	5.0	N.D.	98.0	1
218639	BH-B 4.0'	N.D.	5.0	N.D.	98.0	1
218640	BH-D 15.5'	N.D.	5.0	N.D.	98.0	1
218641	BH-E 15.5'	N.D.	5.0	N.D.	98.0	1
218642	BH-F 15.5'	N.D.	5.0	N.D.	98.0	1

  
Christopher Arndt  
Analyst

  
Michael Verona  
Operations Manager

# CHROMALAB, INC.

Environmental Services (SDB)

December 9, 1998

Submission #: 9812022

AQUA SCIENCE ENGINEERS INC

Atten: Robert Kitay

Project: HUTCH'S CARWASH  
Received: December 1, 1998

re: One sample for Gasoline BTEX MTBE analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: BH-C WATER

Spl#: 218660

Matrix: WATER

Sampled: December 1, 1998

Run#:16370

Analyzed: December 3, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE FACTOR (%)	DILUTION FACTOR
GASOLINE	N.D.	10000	N.D.	96	200
MTBE	<del>4400</del>	1000	N.D.	82	200
BENZENE	110	100	N.D.	93	200
TOLUENE	260	100	N.D.	92	200
ETHYL BENZENE	1500	100	N.D.	93	200
XYLENES	2700	100	N.D.	87	200

Note: Hydrocarbon found in Gasoline Range is uncharacteristic of Gasoline Profile. If quantified using Gasoline's response factor, concentration would equal 65000 ug/L.



Vincent Vancil  
Analyst

Michael Verona  
Operations Manager

# CHROMALAB, INC.

Environmental Services (SOB)

December 9, 1998

Submission #: 9812022

AQUA SCIENCE ENGINEERS INC

Atten: Robert Kitay

Project: HUTCH'S CARWASH  
 Received: December 1, 1998

re: One sample for Gasoline BTEX MTBE analysis.  
 Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: BH-D WATER

Spl#: 218661

Matrix: WATER

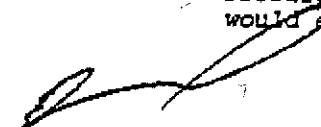
Sampled: December 1, 1998

Run#:16370

Analyzed: December 3, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	5000	N.D.	96	100
MTBE	4200	500	N.D.	82	100
BENZENE	59	50	N.D.	93	100
TOLUENE	120	50	N.D.	92	100
ETHYL BENZENE	210	50	N.D.	93	100
XYLENES	230	50	N.D.	87	100

Note: Hydrocarbon found in Gasoline Range is uncharacteristic of Gasoline Profile. If quantified using Gasoline's response factor, concentration would equal 39000ug/L.

  
 Vincent Vancil  
 Analyst

Michael Verona  
 Operations Manager

# CHROMALAB, INC.

Environmental Services (SDB)

December 9, 1998

Submission #: 9812022

AQUA SCIENCE ENGINEERS INC

Atten: Robert Kitay

Project: HUTCH'S CARWASH  
Received: December 1, 1998

re: One sample for Gasoline BTEX MTBE analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: BH-E WATER

Spl#: 218662

Matrix: WATER


Sampled: December 1, 1998

Run#: 16370

Analyzed: December 4, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	25000	N.D.	96	500
MTBE	N.D.	2500	N.D.	82	500
BENZENE	290	250	N.D.	93	500
TOLUENE	620	250	N.D.	92	500
ETHYL BENZENE	3000	250	N.D.	93	500
XYLENES	7100	250	N.D.	87	500

Note: Hydrocarbon found in Gasoline Range is uncharacteristic of Gasoline Profile. If quantified using Gasoline's response factor, concentration would equal 200000ug/L.

  
Vincent Vancil  
Analyst

Michael Verona  
Operations Manager

**CHROMALAB, INC.**

Environmental Services (SDE)

December 9, 1998

Submission #: 9812022

AQUA SCIENCE ENGINEERS INC

Atten: Robert Kitay

Project: HUTCH'S CARWASH  
Received: December 1, 1998re: One sample for Gasoline BTEX MTBE analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: BH-F WATER

Spl#: 218663

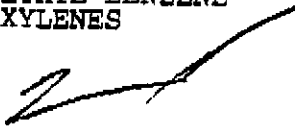
Matrix: WATER

Sampled: December 1, 1998

Run#: 16343

Analyzed: December 3, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	1100	1000	N.D.	97	20
MTBE	880	100	N.D.	85	20
BENZENE	42	10	N.D.	95	20
TOLUENE	N.D.	10	N.D.	94	20
ETHYL BENZENE	N.D.	10	N.D.	95	20
XYLENES	N.D.	10	N.D.	89	20



Vincent Vancil  
Analyst

Michael Verona  
Operations Manager

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Federal ID #68-0140157

PN 1132 0: BTEXQC0220  
VINCE 15-00

**CHROMALAB, INC.**

Environmental Services (SDB)

December 9, 1998

Submission #: 9812022

AQUA SCIENCE ENGINEERS INC

Atten: Robert Kitay

Project: HUTCH'S CARWASH  
Received: December 1, 1998re: One sample for Gasoline BTEX MTBE analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: BH-G WATER

Spl#: 218664

Matrix: WATER

Sampled: December 1, 1998

Run#:16343

Analyzed: December 3, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	55	50	N.D.	97	1
MTBE	18	5.0	N.D.	85	1
BENZENE	N.D.	0.50	N.D.	95	1
TOLUENE	0.64	0.50	N.D.	94	1
ETHYL BENZENE	0.63	0.50	N.D.	95	1
XYLENES	1.9	0.50	N.D.	89	1


Vincent Vancil  
AnalystMichael Verona  
Operations Manager

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Federal ID #68-0140157PW V132 O2 BTEXAC0220  
7/19/98 15:06

# CHROMALAB, INC.

Environmental Services (SDB)

December 9, 1998

Submission #: 9812022

AQUA SCIENCE ENGINEERS INC

Atten: Robert Kitay

Project: HUTCH'S CARWASH  
 Received: December 1, 1998

re: One sample for Gasoline BTEX MTBE analysis.  
 Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: BH-H WATER

Spl#: 218665

Sampled: December 1, 1998

Matrix: WATER

Run#: 16343

Analyzed: December 3, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	1900	1000	N.D.	97	20
MTBE	3400	100	N.D.	85	20
BENZENE	15	10	N.D.	95	20
TOLUENE	N.D.	10	N.D.	94	20
ETHYL BENZENE	N.D.	10	N.D.	95	20
XYLENES	N.D.	10	N.D.	89	20

  
 Vincent Vancil  
 Analyst

Michael Verona  
 Operations Manager

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 Federal ID #68-0140157

PM V132 C: STEX00220  
 JUNE 15/91