Hutch's Car Washes

SINCE 1955

DETAILING

January 20, 2011

QUIK LUBE

RECEIVED

9:46 am, Jan 25, 2011 Alameda County Environmental Health

Mark Detterman Alameda County Health Care Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

SUBJECT: RO0000451 Hutch's Car Wash 17945 Hesperian Blvd. San Lorenzo, CA 94580

Dear Mr. Detterman:

Attached please find a copy of the most recent groundwater sampling report for the above referenced site. I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Sincerely, Allen Kirk Hutchison

Attachment



August 12, 2010

SOIL AND GROUNDWATER ASSESSMENT REPORT ASE JOB NO. 4096

at Hutch's Carwash 17945 Hesperian Boulevard San Lorenzo, California

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



1.0 INTRODUCTION

This report presents the methods and findings of Aqua Science Engineers, Inc. (ASE)'s soil and groundwater assessment at the Hutch's Carwash property located at 17945 Hesperian Boulevard in San Lorenzo, California (Figure 1). The site assessment activities were initiated by Mr. Kirk Hutchison, former owner of the property, as required by the Alameda County Health Care Services Agency (ACHCSA) in their letter dated November 28, 2006.

2.0 SITE HISTORY

2.1 Soil and Groundwater Assessment, December 1998

On December 1, 1998, eight soil borings were drilled at the site using a Geoprobe hydraulic sampling rig (Figure 2). Borings BH-A and BH-B were located near the former fuel dispensers. The remaining borings (BH-C through BH-H) were located in areas surrounding the underground storage tanks (USTs).

Soil samples were collected from each of the eight borings and were analyzed 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), and total lead. None of the soil samples contained significant concentrations of any of the compounds analyzed. Groundwater samples collected from the six deeper borings were analyzed for TPH-G, BTEX and MTBE. The water samples contained up to 290 parts per billion (ppb) benzene, 620 ppb toluene, 3,000 ppb ethylbenzene, 7,100 ppb total xylenes, and 4,400 ppb MTBE. For complete details of the afore-mentioned assessment activities, see the ASE Assessment Report dated December 22, 1998.

2.2 UST Closure Activities

On January 21, 1999, ASE provided project management support for the closure-in-place of the two 5,000 gallon USTs and one 10,000 gallon UST at the subject site (Figure 2). Hutch's Carwash plan was to use the former fuel tanks for a water-reclamation system for their car washing operations. This proposed plan for the USTs' closure-in-place and subsequent re-use as water holding tanks was previously approved by the ACHCSA.

Clearwater Environmental Management, Inc. (Clearwater) mobilized to the site on January 21, 1999 with a pressure washing unit and a vacuum truck for UST evacuation. Using the pressure washer, the interior of the piping systems and each UST was rinsed. The rinsate and residual fuel was then removed from each UST using the vacuum truck. The liquid was transported by Clearwater from the site to the Alviso Independent Oil facility in Alviso, California where it was recycled.

Using a remote camera and television screen supplied by Rescue Rooter, the interior of each UST was inspected by ASE and Mr. Weston of the ACHCSA. It was visually obvious that the interior of the USTs had been coated with a sprayed-on coating that appeared shiny in most views. There did not appear to exist any obvious integrity failures, staining or scaling.



Hutch's personnel later filled each of the USTs to capacity with water then sealed all pipe and tank openings with caps and plugs as necessary. For complete details regarding the UST closure activities, see the ASE UST Closure Report dated February 8, 1999.

2.3 Monitoring Well Installation

In September 1999, ASE drilled three soil borings at the site and installed monitoring wells MW-1 through MW-3 in the borings. The only hydrocarbons detected in the soil samples collected during the assessment were 24 parts per million (ppm) TPH-G in the soil sample collected from 15.0-feet below ground surface (bgs) in boring MW-1, 200 ppm MTBE in the soil sample collected from 10.5-feet bgs in boring MW-1, 0.011 ppm MTBE in the soil sample collected from 11.0-feet bgs in boring MW-2 and 0.070 ppm in the soil sample collected from 15.0-feet bgs in boring MW-2 and 0.070 ppm in the soil sample collected from 15.0-feet bgs in boring MW-2. Lead was detected in the soil sample collected from 15.0-feet bgs in boring MW-3 at 5.0 ppm and in the soil sample collected from 15.0-feet bgs in boring MW-3 at 6.0 ppm. No other hydrocarbons or lead were detected in any of the soil samples analyzed.

The groundwater sample collected from monitoring well MW-1 contained 1,500 ppb TPH-G, 3.3 ppb benzene, 2.3 ppb ethyl benzene, 27 ppb toluene, 72 ppb total xylenes and 120 ppb MTBE. The groundwater sample collected from monitoring well MW-2 contained 18 ppb MTBE. No TPH-G or BTEX were detected in groundwater samples collected from monitoring well MW-2. No hydrocarbons were detected in groundwater samples collected from monitoring well MW-3.

2.4 Groundwater Monitoring

The site has been on a quarterly, and then semi-annual sampling program since the well installation. In general, the hydrocarbon concentrations have decreased and currently only groundwater samples are collected from monitoring well MW-1 following periods of non-detectable concentrations in monitoring wells MW-2 and MW-3. Depth to groundwater and analytical results from the groundwater monitoring are presented in Tables One and Two.

2.5 Workplan for Additional Assessment

In May 2008, ASE prepared a workplan to conduct an additional soil and groundwater assessment on the downgradient edge of the site. This workplan was generally approved by the ACHCSA in a letter dated October 23, 2008 with a requested modification of the spacing of the borings. This letter from the ACHCSA also requested that a preferential pathway survey and area well survey be conducted for the site.

2.6 Preferential Pathway Survey and Area Well Survey

In April 2010, ASE prepared a preferential pathway survey and area well survey for the site. The preferential pathway survey consisted of reviewing Underground Service Alert (USA) markings in the site vicinity, making visual inspections of the property and surrounding area, reviewing documents such as as-built drawings supplied by the city and individual utility companies, and contacting individuals that would have knowledge of the individual utility lines.



Based on the location and depth of the underground utility lines in the site vicinity and the depth to groundwater in the site vicinity, no potential preferential pathways for the migration of groundwater contamination that may have originated from the subject site were identified.

The area well survey consisted of reviewing records of wells in the site vicinity from the Alameda County Public Works Agency (ACPWA) and California Department of Water Resources (DWR) for wells located within 1/4-mile of the site. Forty wells were located during this survey. Of these wells, 29 are monitoring wells, two are extraction (remediation) wells, four are destroyed wells, three are irrigation wells, one is a boring, and one is a domestic well. In addition, there are three wells in the southern portion of the study area that could not be located precisely given the data provided that may also be in the study area. These additional wells are listed as a domestic well, a destroyed well and an irrigation well. It is believed that these wells are likely located in John F. Kennedy Park on the southern edge of the study area and in a crossgradient location of the site.

All of the wells listed as irrigation or domestic wells are located either upgradient of the site or crossgradient of the site at a distance of approximately 1,000-feet from the site. Based on this data, none of the domestic and irrigation wells in the site vicinity are at risk of contamination from hydrocarbons that originated from sources on the subject site. All of the downgradient wells are located at least 1/8th of a mile from the site and all are monitoring wells related to the Arco Petroleum Products environmental investigation.

3.0 SCOPE OF WORK (SOW)

The ACHCSA requested that the horizontal and vertical extent of contamination be defined at the site, including off-site drilling. However, in researching drilling locations, ASE determined that the alley west of the tune up bays is actually part of the property. The proposed SOW is as follows:

- 1) Obtain the necessary drilling permit from the ACPWA.
- 2) Notify USA of the drilling project and contract with a private underground utility locating service to clear the drilling locations of underground utility lines.
- 3) Drill four soil borings on the downgradient (western edge) of the site to 40-feet bgs using a Geoprobe with a dual-walled sampler and collect soil samples for analysis.
- 4) Collect groundwater samples from the borings.
- 5) At a minimum, analyze two soil and one groundwater sample from each boring at a CAL-EPA certified analytical laboratory for total petroleum hydrocarbons as diesel (TPH-D), TPH-G, BTEX, five fuel oxygenates including MTBE, and lead scavengers.
- 6) Backfill each boring with neat cement.
- 7) Prepare a report presenting the methods and findings of this assessment.



4.0 DRILL SOIL BORINGS AND COLLECT SAMPLES

4.1 Drilling Permit and Underground Utility Line Clearance

Prior to drilling, ASE obtained drilling permit W2010-0497 from the ACPWA. A copy of this permit is presented in Appendix A.

ASE also notified Underground Service Alert (USA) to have public underground utility lines marked in the site vicinity. A private underground utility line locating service, Subtronic Corporation of Concord, California, was also contracted to clear each boring location of underground utility lines.

4.2 Drilling and Soil Sample Collection

On July 20 and 21, 2010, Vironex, Inc. of Pacheco, California drilled soil borings BH-I through BH-L at the site using a Geoprobe hydraulic sampling rig equipped with a dual-wall sampler. All of these borings were drilled in a straight line at a spacing of 30-feet along the western edge of the property. The boring locations are shown on Figure 3. ASE senior geologist Robert E. Kitay, P.G. directed the drilling.

Undisturbed soil samples were collected continuously as drilling progressed for lithologic and hydrogeologic description and for possible chemical analysis. The samples were collected by driving a sampler lined with acetate tubes using hydraulic direct push methods. Selective soil samples were immediately cut, sealed with Teflon tape and plastic end caps, labeled and chilled in an ice chest with wet ice for transport to Kiff Analytical, LLC. of Davis, California (DHS ELAP certification #2236) under chain of custody documentation.

Soil from the remaining tubes was described by the site geologist using the Unified Soil Classification System (USCS) and was screened for volatile compounds using a photoionization detector (PID). The soil was screened by emptying soil from one of the sample tubes into a plastic bag. The bag was then sealed and placed in the sun for approximately 10 minutes. After the VOCs were allowed to volatilize, the PID measured the vapor in the bag through a small hole punched in the bag. PID readings are used as a screening tool only, since the procedures are not as rigorous as those used in the laboratory. The PID readings are shown on the boring logs presented in Appendix B. There was no evidence of contamination in any of the soil samples based on odors, staining or PID readings.

4.3 Groundwater Sample Collection

Once groundwater was encountered, a temporary PVC well casing was driven into place for the collection of groundwater samples. Groundwater samples were removed from the boring with a pre-cleaned bailer. The groundwater samples were contained in 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, and sealed without headspace. The samples were then labeled and stored in an ice chest with wet ice for transport to the analytical laboratory under chain of custody.



Groundwater samples from deeper water-bearing zones were collected using a Hydropunch in a second boring drilled immediately adjacent to the first. The Hydropunch was driven into the target zone and was then checked to verify that there was no leakage of groundwater into the rods prior to opening. Once the rods were shown to be dry, the Hydropunch screen was then opened and groundwater was allowed to enter the rods. Groundwater samples were then collected from within the rods using a bailer. Groundwater samples were then decanted from the bailer into 40-ml VOA vials, preserved with hydrochloric acid and sealed without headspace. The samples were then labeled with the site location, sample designation, date and time the samples were collected, and the initials of the person collecting the samples. The samples were then sealed in plastic bags and cooled in an ice chest with wet ice for transport to a state-certified analytical laboratory under chain-of-custody.

In some instances, no water was produced during a sampling attempt. The following is a list of all sampling attempts and the results of the sampling attempt:

<u>Boring</u>	Sampling Attempt Depth	Result
BH-I	16-20'	Water sample collected
BH-I	25-29'	Water sample collected (Only 2 VOAs)
BH-J	10-20'	Dry after waiting 1 hour – No sample
BH-J	20-25'	Dry after 15 minute wait – No sample
BH-J	25-30'	Water sample collected
BH-J	31-35'	Water sample collected after 1 hr wait
BH-K	10-20'	Dry after waiting 40 minutes – No sample
BH-K	20-25'	Water sample collected
BH-K	26-28'	Water sample collected
BH-L	10-20'	Dry after waiting 40 minutes – No sample
BH-L	20-24'	Water sample collected
BH-L	25-28'	Water sample collected
BH-L	38-40'	Water sample collected (1 VOA after 30 min wait)

4.4 Decontamination and Borehole Backfilling

Drilling equipment was cleaned with an Alconox solution between sampling intervals and between borings to prevent potential cross-contamination. Following collection of the soil and groundwater samples, each boring was backfilled with neat cement to the ground surface.

4.5 Subsurface Lithology and Hydrogeology

With some variation, sediments encountered during drilling generally consisted of clayey silt and/or silty clay from beneath the asphalt surface to approximately 10-feet bgs, silty sand or



sandy silt from 10-feet bgs to 18-feet bgs, clayey silt from 18 to 20-feet bgs, silty sand from 20 to 22-feet bgs, silty clay from 22 to 25-feet bgs, silty sand from 25 to between 30 and 35-feet bgs, and silty clay and/or clayey silt from between 30 or 35-feet bgs and the total depth explored of 40-feet bgs. Groundwater was encountered at approximately 14 to 16-feet bgs. Boring logs are presented as Appendix B.

5.0 ANALYTICAL RESULTS FOR SOIL

At least two soil samples collected from each boring were analyzed by Kiff Analytical, LLC. of Davis, California (DHS ELAP certification #2236) for TPH-D by modified EPA Method 8015 (with silica gel cleanup), and TPH-G, BTEX, five oxygenates and lead scavengers by EPA Method 8260B. In each boring, a soil sample from the capillary zone (13.5 to 14.5-feet bgs) and the bottom of the boring (34 to 39.5-feet bgs) were selected for analysis. There was no evidence of soil contamination in any sample based on odors, staining or PID readings.

The analytical results are tabulated in Table Three, and the certified analytical report and chain of custody forms are included in Appendix C. No hydrocarbons, oxygenates or lead scavengers were detected in any of the soil samples analyzed.

6.0 ANALYTICAL RESULTS FOR GROUNDWATER

The groundwater samples were analyzed by McCampbell Analytical for TPH-D and TPH-MO by modified EPA Method 8015 (with silica gel cleanup), and TPH-G, BTEX, five oxygenates and lead scavengers by EPA Method 8260B. The analytical results are tabulated in Table Four, and the certified analytical report and chain of custody forms are included in Appendix D.

The groundwater sample collected 25-29-feet bgs in boring BH-I contained 130 ppm TPH-D. No other compounds were detected in this sample, and no hydrocarbons were detected in the sample collected from 16-20-feet bgs from this borings.

The groundwater samples collected from 25-30-feet bgs and 31-35-feet bgs in boring BH-J contained MTBE at 1.6 ppb and 1.4 ppb, respectively. No other compounds were detected in either of these groundwater samples.

The groundwater sample collected from 20-25-feet bgs in boring BH-K contained 170 ppb TPH-D, 59 ppb MTBE and 28 ppb TAME. The laboratory noted that the hydrocarbons identified as TPH-D were higher-boiling than typical diesel fuel. No other compounds were detected, and no hydrocarbons were detected in the deeper water sample collected from 26-28-feet bgs in this boring.

The only hydrocarbon detected in a water sample from BH-L was 430 ppb TPH-D in the water sample collected from 38-40-feet bgs. The laboratory noted that the hydrocarbons identified as TPH-D were higher-boiling than typical diesel fuel. No other compounds were detected in this sample, and no hydrocarbons were detected in either of the shallower groundwater samples from this boring.



The TPH-D concentrations detected in groundwater samples collected from 25-29-feet bgs in boring BH-I, 20-25-feet bgs in boring BH-K, and 38-40-feet bgs in boring BH-L exceeded Environmental Screening Levels (ESLs) for sites where groundwater is a current or potential source of drinking water as established by the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) in their "Screening for Environmental Concerns at Sites with Contaminated Soil and Drinking Water" document dated May 2008. It should be noted, however, that the laboratory noted that in two of the three samples the hydrocarbons were higher-boiling than typical diesel fuel. In addition, the MTBE concentration in the groundwater sample collected from 20-25-feet bgs in boring BH-K also exceeded the drinking water ESL. Only the TPH-D concentration in the groundwater sample collected from 38-40-feet bgs in boring BH-L exceeded the non-drinking water ESL.

7.0 CONCLUSIONS

ASE concludes the following:

- No hydrocarbons or oxygenates were detected in any of the soil samples analyzed.
- TPH-D concentrations above drinking water ESLs were detected in three of the nine groundwater samples analyzed at concentrations up to 430 ppb. However, only one of these samples contained TPH-D concentrations above non-drinking water ESLs.
- The MTBE concentration of 59 ppb detected in the groundwater sample collected from 20-25-feet bgs in boring BH-K exceeded the drinking water ESL but not the non-drinking water ESL. No MTBE was detected in the deeper 26-28-feet bgs groundwater sample from this boring and none of the other samples from the other borings contained MTBE in excess of any ESL.

8.0 **RECOMMENDATIONS**

ASE recommends that this site be considered for case closure based on the following:

- The source of the hydrocarbons, the USTs, piping and dispensers, no longer exist as a potential source of soil and groundwater pollution as they have been abandoned in-place by permit from the ACHCSA, and can no longer be used to store petroleum products.
- No domestic or irrigation wells are located within 1/4-mile downgradient of the site.
- The hydrocarbons concentrations in on-site groundwater have been decreasing and are limited in extent.
- Other than 430 ppb TPH-D in one of the groundwater samples, none of the hydrocarbon or oxygenate concentrations detected at the site exceed non-drinking water ESLs. ASE recommends using non-drinking water ESLs since no drinking water wells are located within 1/4-mile downgradient of the site.



• No preferential pathways for the movement of groundwater were located on or downgradient of the site.

9.0 **REPORT LIMITATIONS**

The results of this assessment represent conditions at the time of the soil and groundwater sampling, at the specific locations at which the samples were collected, and for the specific parameters analyzed by the laboratory.

This report 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 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.



Pm C. Kitn

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

Attachments: Figures 1 and 2 Tables One through Four Appendices A through D



FIGURES





SITE LOCATION MAP

HUTCH'S CARWASH 17945 HESPERIAN BOULEVARD SAN LORENZO, CA

AQUA SCIENCE ENGINEERS, INC.

Figure 1





TABLES

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

Well	Date of	Top of Casing	Depth to	Groundwater
ID	Measurement	Elevation	Water	Elevation
		(Relative to Mean Sea Level)	(feet)	(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
	4/4/01		15.05	19.95
	7/6/01		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
	7/9/02		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
	5/21/10		15.06	19.94
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
	4/4/01		15.28	19.93
	7/6/01		15 73	19.48
	10/1/01		16.06	19 15
	1/7/02		14.08	21.13
	4/2/02		15.04	2017
	7/9/02		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	1954
	12/8/09		15.85	19 36
	5/21/10		15 29	19 92

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

Well	Date of	Top of Casing	Depth to	Groundwater
ID	Measurement	Elevation	Water	Elevation
		(Relative to Mean Sea Level)	(feet)	(project data)
	10/5/00	R 4 4 7	11.00	10.10
MW-9	1076799	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
	5/21/10		14.44	20.03

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)

WellID						
& Dates				Fthyl-	Total	
Sampled	TPH-G	Benzene	Toluene	benzene	Xvlenes	MTBE
I					5	
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	17 <i>0</i>
12/8/09	17 <i>0</i>	< 0.5	< 0.5	< 0.5	< 0.5	150
5/20/10	69	< 0.5	< 0.5	< 0.5	< 0.5	33

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)

WallID						
8 Datas				Et la d	Total	
Gampled	TPU C	Bauzana	Toluono	Lunyi-	Vulonac	NTRE
Jampied	TI II-O	Derizerie	TOILERIE	Derizerie	∧yierie9	IVITUE
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 sa	ampled				
<u>MW-3</u>						
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 s	ampled				
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

TABLE THREE

Summary of Analytical Results of Soil Samples Petroleum Hydrocarbons, Fuel Oxygenates and Lead Scavengers Hutch's Carwash, 17945 Hesperian Blvd, San Lorenzo, California Results are in parts per million (ppm)

	Sample	TPH	TPH			Ethyl	Total							1,2-
Boring	Depth (ft)	Gasoline	Diesel	Benzene	Toluene	Benzene	Xylenes	MTBE	TAME	DIPE	ETBE	TBA	EDB	DCA
BH-I	14.5	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	39.5	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
BH- I	14 0	<10	<10	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
DITO	34.0	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
BH-K	13.5	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	39.5	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
BH-L	14.5	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
_	39.5	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Notes:

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

Detectable concentrations in **BOLD**

TABLE FOUR

Summary of Analytical Results of Groundwater Samples Petroleum Hydrocarbons, Fuel Oxygenates and Lead Scavengers Hutch's Carwash, 17945 Hesperian Blvd, San Lorenzo, California Results are in parts per billion (ppb)

	Sample	TPH	TPH			Ethyl	Total							1,2-
Boring	Depth (ft)	Gasoline	Diesel	Benzene	Toluene	Benzene	Xylenes	MTBE	TAME	DIPE	ETBE	TBA	EDB	DCA
BH-I	16-20	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	25-29	< 50	13 <i>0</i>	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
BH-, I	25-30	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	16	< 0.50	< 0.50	< 0.50	< 50	< 0.50	< 0.50
DITO	31-35	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	14	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	0100	100	100	10.00	10.00	0.00	(0.00	1. 1	(0.00	(0.00	(0.00	10.0	0.00	(0.00
BH-K	20-25	< 50	17 <i>0</i> *	< 0.50	< 0.50	< 0.50	< 0.50	59	28	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	26-28	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
RUI	20.24	- 50	- 50	< 0.50	< 0 5 0	< 0 5 0	(050	< 0 5 0	< 0 5 0	< 0 5 0	< 0 5 0	- 5 0	< 0.50	< 0 5 0
DHFL	20-24	< 50 x 50	< 50 . EQ	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50 + 0.50	< 0.50
	25-20	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	38-40	< 50	430*	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
			(-		-				10		
ESL (DW)		100	100	1.0	40	30	20	5	NE	NE	NE	12	0.05	0.5
ESL (NDW)		210	210	46.0	130	130	100	1800	NE	NE	NE	18000	150	200

Notes:

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

Detectable concentrations in **BOLD**

* = Hydrocarbons are higher-boiling than typical diesel fuel.

ESL = Environmental Screening Levels presented in the "Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) dated May 2008 for site where groundwater is a current or potential source of drinking water (DW) or not a potential source of drinking water (NDW).



APPENDIX A

Drilling Permit

Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 07/07/2010 By jamesy

Permit Numbers: W2010-0497 Permits Valid from 07/20/2010 to 08/31/2010

Application Id: Site Location: Project Start Date: Assigned Inspector:	1278466352530 C 17945 Hesperian Blvd 07/20/2010 Contact John Shouldice at (510) 670-5424 or johns@a	ity of Project Site:San Lorenzo Completion Date:08/31/2010 acpwa.org
Applicant:	Aqua Science Engineers - Robert Kitay	Phone: 925-820-9391
Property Owner:	Danny Soroudi 9595 Wilchiro Boulovard, Suito 501, Boverly Hills, CA	Phone:
Client:	Kirk Hutchinson 6355 McCarran Blvd, Reno, NV 89509	Phone:

	Total Due:	\$265.00
Receipt Number: WR2010-0239	Total Amount Paid:	\$265.00
Payer Name : Aqua Science Engineers	Paid By: VISA	PAID IN FULL

Works Requesting Permits:

Borehole(s) for Geo Probes-Sampling 24 to 72 hours only - 4 Boreholes Driller: Vironex - Lic #: 705927 - Method: DP

Work Total: \$265.00

Specifications

Permit	Issued Dt	Expire Dt	#	Hole Diam	Max Depth
Number			Boreholes		
W2010-	07/07/2010	10/18/2010	4	2.00 in.	25.00 ft
0497					

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. 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, properly damage, personal injury and wrongful death.

4. Applicant shall contact John Shouldice for an inspection time at 510-670-5424 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

Alameda County Public Works Agency - Water Resources Well Permit

6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

7. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.



APPENDIX B

Boring Logs

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS BORING: BH-I										
Project Name: Hutch's Carwash	Project Locati	on: 17945 Hesperian Blvd, San Lorenzo, CA Page 1 of 2								
Driller: Vironex	Type of Rig: Ge	eoprob	e 6600 Size of Drill: 2.0" Diameter							
Logged By: Robert E. Kitay, P.G.	Date Drilled: Ju	uly 20,	2010 Checked By: Robert E. Kitay, P.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 Well: NA		Well	Screen Slot Size: NA							
Total Depth of Boring: 40'		Туре	and Size of Soil Sampler: 2.0" I.D. Macro Sampler							
	SAMPLE DATA	eet	DESCRIPTION OF LITHOLOGY							
Depth in F Depth in F Descriptio M (ppm, M	ater Leve Graphic Log	Depth in F	standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.							
-0 -0 -5 -5 -10 -10 -15 -20 -25 -25 -25 -25 -25 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20		- 0 - 5 - 10 - 10 - 15 - 20 - 25 - 25 - 30	Asphalt Silty CLAY (CH); black; stiff; dry; 85% clay; 15% silt; high plasticity; very low estimated K; no odor Clayey SILT (ML); dark yellow brown; stiff; dry; 80% silt; 20% clay; moderate plasticity; low estimated K; no odor Silty SAND (SM); yellow brown; medium dense; dry; 70% fine sand; 25% silt; 5% clay; medium estimated K; no odor 90% fine sand; 10% silt at 10' Clayey SILT (ML); yellow brown; stiff; wet; 60% silt; 30% clay; 10% fine sand; high plasticity; low estimated K; no odor Sandy SILT (ML); yellow brown; soft; wet; 75-80% silt; 20-25% fine sand; non-plastic; low estimated K; no odor Sandy CLAY (CH); dark yellow brown; very stiff; dry; 70% clay; 20% fine sand; 10% silt; high plasticity; very low estimated K; no odor Silty SAND (SM); yellow brown; loose; wet; 80-85% fine sand; 15-20% silt; non-plastic; high estimated K; no odor							
-30 °		_ _ 30								
]	AQUA SCIENCE ENGINEERS, INC.							

	SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS								ETION DETAILS	BORING: BH-I	
Proj	ect Name: Hutc	h's Ca	rwasł	۱		Proj	ect Locat	tion: 17	945 Hesperian Blvd, San	Lorenzo, CA	Page 2 of 2
⁻ eet		u	SOI	L/RO رم	CK S	Sampi I _	LE DATA	⁻ eet	DESCRIPT	ion of lithold	DGY
oth in F	BORING DETAIL	criptio	erval	Count	/mqq)	r Leve	aphic og	oth in F	standard classification density, stiffness, oc	on, texture, relativ lor-staining, USCS	ve moisture, 6 designation.
Dep		Des	Inte	Blow	MVO	Wate	Gra	Dep		5 , 7	
 	Portland Cement				0			_ _ _ _ _ _ _ _ _ _	Sandy SILT (ML); yellov 70% silt; 20% fine sand low estimated K; no od	v brown; very stif d; 10% clay; mod or	f; wet; erate plasticity;
-40							******	– 40 –	End of	boring at 40'	
45 45 50 								- - 45 - - - 50 -			
_ - 55 _ _								- - 55 - -			
- - 60								- - 60			
-								_			
- -65								- - 65			
- - -								- -			
–											
									AQUA SCIEN	CE ENGINEERS, IN	С.

Project Name: Hutch's Carwash Project Location: 17945 Hesperiar Bird, San Lorenzo, CA Page 1 of 2 Driller: Vironex Type of Rig: Evore 6600 Size of Drill: 2.0" Diameter Checked By: Robert E. Kitay, P.G. Logged By: Robert E. Kitay, P.G. Date Drilled: JUV 20, 2010 Checked By: Robert E. Kitay, P.G. WATER AND WELL DATA Depth of Water First Encountered: 14.5' Total Depth of Well Completed: NA Static Depth of Water in Well: NA Well Screen Type and Diameter: NA Total Depth of Boring: 34.5' Vype and Size of Soil Sampler: 2.0" I.D. Macro Sampler Image: BORING DETALL Image: BORING DETALL Image: BORING DETALL Image: BORING DETALL Image: BORING DETALL	SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS BORING: BH-J												
Driller: Vironex Type of Rig: Geoprobe 6600 Size of Drill: 2.0" Diameter Logged By: Robert E. Kitay, P.G. Date Drilled: July 20, 2010 Checked By: Robert E. Kitay, P.G. WATER AND WELL DATA Depth of Water First Encountered: 14.5' Total Depth of Well Completed: NA Static Depth of Water in Well: NA Well Screen Type and Diameter: NA Total Depth of Boring: 34.5' Type and Size of Soil Sampler: 2.0" LD. Macro Sampler Image: Det All L Image: Det All L Image: Det All L Image: Det All L <td< td=""><td colspan="7">Project Name: Hutch's Carwash Project Location</td><td>ct Locati</td><td>on: 17</td><td colspan="3">7945 Hesperian Blvd, San Lorenzo, CA Page 1 of 2</td></td<>	Project Name: Hutch's Carwash Project Location							ct Locati	on: 17	7945 Hesperian Blvd, San Lorenzo, CA Page 1 of 2			
Logged By: Robert E. Kitay, P.G. Date Drilled: July 20, 2010 Checked By: Robert E. Kitay, P.G. WATER AND WELL DATA Depth of Water First Encountered: 14.5' Total Depth of Well Completed: NA Static Depth of Water in Well: NA Well Screen Type and Diameter: NA Total Depth of Boring: 34.5' Type and Size: NA BORING DETAIL 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Driller: Vironex Type of Rig: Ge							of Rig: Ge	eoprob	oprobe 6600 Size of Drill: 2.0" Diameter			
Total Depth of Water First Encountered: 14.5' Total Depth of Water Sirst Encountered: 14.5' Total Depth of Water In Well: NA Well Screen Type and Diameter: NA Total Depth of Boring: 34.5' Type and Size of Soil Sampler: 2.0" LD. Macro Sampler Total Depth of Boring: 34.5' Type and Size of Soil Sampler: 2.0" LD. Macro Sampler DESCRIPTION OF LITHOLOGY SubJC/ROCK SAMPLE DATA Depth of Water Pixter O SubJC/ROCK SAMPLE DATA Depth of Water Classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. O SubJC/ROCK SAMPLE DATA Depth of Water Sampler: 2.0" LD. Macro Sampler O SubJC/ROCK SAMPLE DATA Depth of Water Sampler: 2.0" LD. Macro Sampler O SubJC/ROCK SAMPLE DATA Depth of Water Sampler: 2.0" LD. Macro Sampler O SubJC/ROCK SAMPLE DATA Depth of Water Sampler: 2.0" LD. Macro Sampler O SubJC/ROCK SAMPLE DATA Depth of Water Sampler: 2.0" LD. Macro Sampler O SubJC/ROCK SAMPLE DATA Depth of Water Sampler: 2.0" LD. Macro Sampler O Colspan="2">O SubJC/ROCK SAMPLE DATA Depth of Water Sampler: 2.0" LD. Macro Sampler O SubJC/ROCK SAMPLE DATA Depth of Water Sampler: 2.0" LD. Macro Sampler O Colspan="2">O SubJC/ROCK Sample Sample: 2.0" LD. Macro Sampler <th col<="" td=""><td colspan="7">Logged By: Robert E. Kitay, P.G. Date Drilled: Ju</td><td>Drilled: Ju</td><td>uly 20,</td><td colspan="3">y 20, 2010 Checked By: Robert E. Kitay, P.G.</td></th>	<td colspan="7">Logged By: Robert E. Kitay, P.G. Date Drilled: Ju</td> <td>Drilled: Ju</td> <td>uly 20,</td> <td colspan="3">y 20, 2010 Checked By: Robert E. Kitay, P.G.</td>	Logged By: Robert E. Kitay, P.G. Date Drilled: Ju							Drilled: Ju	uly 20,	y 20, 2010 Checked By: Robert E. Kitay, P.G.		
Depth of Water First Encountered: 14.5' Well Screen Type and Diameter: NA Static Depth of Water in Well: NA Well Screen Slot Size: NA Total Depth of Boring: 34.5' Type and Size of Soil Sampler: 2.0" LD. Macro Sampler BORING DETAIL Image: Soll_ROCK SAMPLE DATA BESCRIPTION OF LITHOLOGY Image: Soll_ROCK Sample Image: Soll_ROCK SAMPLE DATA BESCRIPTION OF LITHOLOGY Image: Soll_ROCK Soll Image: Soll_ROCK Sample Soll Image: Soll_ROCK Soll Image: Soll_ROCK Soll Image: Soll_ROCK Soll Image: Soll Image: Soll_ROC	WATER AND WELL DATA								Total	Depth of Well Completed: NA			
Static Depth of Water in Well: NA Well Screen Slot Size: NA Total Depth of Boring: 34.5' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler BORING DETAIL ug ug <t< td=""><td colspan="8">Depth of Water First Encountered: 14.5'</td><td>Well S</td><td>Screen Type and Diameter: NA</td></t<>	Depth of Water First Encountered: 14.5'								Well S	Screen Type and Diameter: NA			
Total Depth of Boring: 34.5' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler BORING DETAIL SOIL/ROCK SAMPLE DATA Total Depth of Boring: 34.5' SOIL/ROCK SAMPLE DATA Total Depth of Boring: 34.5' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler BORING DETAIL Total Depth of Boring: 34.5' SOIL/ROCK SAMPLE DATA Total Depth of Boring: 34.5' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler BORING DETAIL Total Depth of Boring: 34.5' SOIL/ROCK SAMPLE DATA Total Depth of Boring: 34.5' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler 0 Total Depth of Boring: 34.5' SOIL/ROCK SAMPLE DATA Total Depth of Boring: 34.5' DESCRIPTION OF LITHOLOGY 0 Total Depth of Boring: 34.5' Aphalt Classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. 0 Total Depth of Boring: 34.5' Total Depth of Boring: 34.5' Aphalt 10 Total Depth of Boring: 34.5' Silty SAND (SM); yellow brown; medium stiff; dry; 80% silt; 20% clay; moderate plastic; low estimated K; no odor 10 Total Depth of Boring: 34.5' Silty SAND (SM); yellow brown; medium stiff; wet; 70-80% silt; 20-30% fine sand; 40% silt; 10% clay at 4' 10 Total Depth of Boring: 34.5' Sandy SILT (ML); yellow brown; medium stiff; wet; 70-80% silt; 20-30% fine sand; 40% silt; 20-30% fine sand; 40% silt; 10% clay; on odor	Static Depth of Water in Well: NA								Well S	Screen Slot Size: NA			
BORING DETAIL SOIL/ROCK SAMPLE DATA Image: Soil (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Total Depth of Boring: 34.5'								Туре	and Size of Soil Sampler: 2.0" I.D. Macro Sampler			
Line BORING DETAIL 0 Line Line Standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. -0 -0 -0 -0 -0 -0 Asphalt -5 -0 -0 -0 -0 -0 -0 -0 -10 -0 -0 -0 -0 -0 -0 -0 -10 -0 -0 -0 -0 -0 -0 -0 -10 -0 -0 -0 -0 -0 -0 -0 -10 -0 -0 -0 -0 -0 -0 -0 -0 -10 -0<	eet		۲	SO	IL/R(၂ ၈	CK S	SAMP	LE DATA	eet	DESCRIPTION OF LITHOLOGY			
0 0 ≤ Asphalt 0 0 Clayey SILT (ML); black; medium stiff; dry; 80% silt; 20% clay; moderate plasticity; low estimated K; no odor -5 0 -5 -10 -5 Silty SAND (SM); yellow brown; medium dense; dry; 60% fine sand; 40% silt; non-plastic; low estimated K; no odor -10 0 ✓ -10 -15 0 ✓ -10 -10 0 ✓ -10 -10 0 ✓ -10 -10 0 ✓ -10 -10 0 ✓ -10 -10 0 ✓ -10 -10 -10 -10 -10 -10 -10 -10 -10 -10 -10 -10 -10 -110 -10 -10 -10 -10 0 -10 -10 -110 -110 -110 -110 -110 -110 -110 -110 -110 -110 -110 -110 -110 -110 -110 <td>Depth in F</td> <td>BORING DETAIL</td> <td>Descriptio</td> <td>Interval</td> <td>low Count</td> <td>vmqq) MV</td> <td>ater Leve</td> <td>Graphic Log</td> <td>Depth in F</td> <td>standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.</td>	Depth in F	BORING DETAIL	Descriptio	Interval	low Count	vmqq) MV	ater Leve	Graphic Log	Depth in F	standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.			
-30 • 30 • 30 • 30 • 50 • 50 • 50 • 50 • 50 • 60 • 6 • 6 • 6 • 6 • 6 • 6 • 6 • 6	- 0 	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				0 0 0 0	<u>∧</u>		 0 5 10 10 115 20 215 225 30 	Asphalt Clayey SILT (ML); black; medium stiff; dry; 80% silt; 20% clay; moderate plasticity; low estimated K; no odor red brown; 90% silt; 10% clay at 4' Silty SAND (SM); yellow brown; medium dense; dry; 60% fine sand; 40% silt; non-plastic; low estimated K; no odor moist at 12.5' wet at 14.5' Sandy SILT (ML); yellow brown; medium stiff; wet; 70-80% silt; 20-30% fine sand; trace clay; non-plastic; low estimated K; no odor < Water sample attempt from 10-20' - No water after 1 hr > Silty SAND (SM); yellow brown; medium dense; wet; 60% fine sand; 40% silt; trace clay; low plasticity; low estimated K; no odor Sandy SILT (ML); yellow brown; stiff; wet; 70% silt; 20% fine sand; 10% clay; low plasticity; low estimated K; no odor			
									AQUA SCIENCE ENGINEERS, INC.				

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS BORING: BH-J								
Project Name: Hutch's Carwash	Project Location: 179	15 Hesperian Blvd, San	Lorenzo, CA	Page 2 of 2				
spth in Feet scription v Counts v Counts v Counts	er Level aphic Level Level aphic Log Epth in Feet	DESCRIPT standard classificatio density, stiffness, or	TION OF LITHOLC on, texture, relativ dor-staining, USCS	DGY ve moisture, 6 designation.				
Blow Courtain Courtai	Mater Lev Mater Lev	standard classification density, stiffness, or Silty SAND (SM); yellow sand; 30-40% silt; non odor Refusual - I	on, texture, relativ dor-staining, USCS w brown; dense; w -plastic; medium e End of boring at 3	ve moisture, 6 designation. vet; 60-70% fine estimated K; no 4.5'				
<u> </u>								
		AQUA SCIEN	ICE ENGINEERS, IN	С.				

Project Name: Hutch's Carwash Project Location: 17945 Hesperian Bivd, San Lorenzo, CA Page 1 of 2 Driller: Vironex Type of Rig: Geoprobe 6600 Size of Drill: 2.0" Diameter Logged By: Robert E. Kitay, P.G. Date Drilled: July 20, 2010 Checked By: Robert E. Kitay, P.G. WATER AND WELL DATA Total Depth of Water First Encountered: 14' Total Depth of Well Completed: NA Static Depth of Water First Encountered: 14' Well Screen Type and Diameter: NA Total Depth of Boring: 40' Type of Size of Soil Sampler: 2.0" LD. Macro Sampler Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" LD. Macro Sampler BORING DETAIL Understand Understand Understand Understan	Project Name: Hutch's Carwash Project Location: 17945 Hesperian Blvd, San Lorenzo, CA Page 1 of 2 Driller: Vironex Type of Rig: Geoprobe 6600 Size of Drill: 2.0" Diameter Logged By: Robert E. Kitay, P.G. Date Drilled: July 20, 2010 Checked By: Robert E. Kitay, P.G. WATER AND WELL DATA Depth of Water First Encountered: 14' Total Depth of Well Completed: NA Well Screen Type and Diameter: NA Static Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler 10 Use of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler 10 Use of Soil/ROCK SAMPLE DATA OBRING Use of Soil Sampler: 2.0" I.D. Macro Sampler 10 Use of Soil Sampler: 2.0" I.D. Macro Sampler Soil//ROCK SAMPLE DATA Or Soil Soil Soil Sampler: 2.0" I.D. Macro Sampler 10 Use of Soil Sampler: 2.0" I.D. Macro Sampler Soil Sampler: 2.0" I.D. Macro Sampler 10 Use of Soil Sampler: 2.0" I.D. Macro Sampler Soil Carbon Soil Sampler: 2.0" I.D. Macro Sampler 10 Use of Soil Sampler: 2.0" I.D. Macro Sampler Soil Carbon Soil Sampler: 2.0" I.D. Macro Sampler 10 Use of Soil Sampler: 2.0" I.D. Macro Sampler Soil Carbon Soil Sampler: 2.0" I.D. Macro Sampler 10 Use o	SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS BORING: BH-K								
Driller: Vironex Type of Rig: Geoprobe 6600 Size of Drill: 2.0" Diameter Logged By: Robert E. Kitay, P.G. Date Drilled: July 20, 2010 Checked By: Robert E. Kitay, P.G. WATER AND WELL DATA Depth of Water First Encountered: 14' Total Depth of Well Completed: NA Static Depth of Water in Well: NA Well Screen Type and Diameter: NA Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler July E. Ju	Driller: Vironex Type of Rig: Geoprobe 6600 Size of Drill: 2.0" Diameter Logged By: Robert E. Kitay, P.G. Date Drilled: July 20, 2010 Checked By: Robert E. Kitay, P.G. WATER AND WELL DATA Depth of Water First Encountered: 14' Total Depth of Well Completed: NA Static Depth of Water in Well: NA Well Screen Type and Diameter: NA Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler Image: Soil_/ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Total Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40' Image: Soil_ROCK SAMPLE DATA Depth of Boring: 40'	Project Name: Hutch's Carwash	Project Locati	on: 179	945 Hesperian Blvd, San Lorenzo, CA Page 1 of 2					
Logged By: Robert E. Kitay, P.G. Date Drilled: July 20, 2010 Checked By: Robert E. Kitay, P.G. WATER AND WELL DATA Depth of Water First Encountered: 14' Total Depth of Well Completed: NA Static Depth of Water in Well: NA Well Screen Type and Diameter: NA Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler BORING BORING BORING BORING C SOIL/ROCK SAMPLE DATA Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler 0 SOIL/ROCK SAMPLE DATA Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler 0 SOIL/ROCK SAMPLE DATA Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler 0 Soil: Ample Data Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler 0 Soil: Ample Data Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler 0 Soil: Ample Data Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler 0 Soil: Ample Data Total Depth of Boring: 40' Soil: Ample Data Total Depth of Boring: 40' Soil: Ample Data Total Depth of Boring: 40' 0 Soil: Ample Data Total Depth of Boring: 40' Soil: Ample Data Total Depth of Boring: 40' Soil: Ample Data Total Depth of Boring: 40' 10	Logged By: Robert E. Kitay, P.G. Date Drilled: July 20, 2010 Checked By: Robert E. Kitay, P.G. WATER AND WELL DATA Depth of Water First Encountered: 14' Total Depth of Well Completed: NA Static Depth of Water in Well: NA Well Screen Type and Diameter: NA Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler 10 SOIL/ROCK SAMPLE DATA 12 U 12 U	Driller: Vironex	Type of Rig: G	eoprobe	e 6600 Size of Drill: 2.0" Diameter					
Total Depth of Water First Encountered: 14' Total Depth of Well Completed: NA Static Depth of Water in Well: NA Well Screen Type and Diameter: NA Total Depth of Water in Well: NA Well Screen Slot Size: NA Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" LD. Macro Sampler OBRING DETAIL SOIL/ROCK SAMPLE DATA Type and Size of Soil Sampler: 2.0" LD. Macro Sampler DESCRIPTION OF LITHOLOGY Soil / Rock SAMPLE DATA Type and Size of Soil Sampler: 2.0" LD. Macro Sampler DESCRIPTION OF LITHOLOGY Soil / Rock SAMPLE DATA Type and Size of Soil Sampler: 2.0" LD. Macro Sampler OBRING DETAIL OBRING DETAIL Total Depth of Well Completed: NA DESCRIPTION OF LITHOLOGY Soil / Rock Sample: 2.0" LD. Macro Sampler OBRING DETAIL	WATER AND WELL DATA Total Depth of Water First Encountered: 14' Total Depth of Well Completed: NA Bepth of Water First Encountered: 14' Well Screen Type and Diameter: NA Static Depth of Water in Well: NA Well Screen Slot Size: NA Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler Image: Static Depth of Boring: 40' Soil_/ROCK SAMPLE DATA Image: Static Depth of Boring: 40' Image: Static Depth of Boring: 40' Image: Static Depth of Boring: 40' Image: Static Depth of Soil Sampler: 2.0" I.D. Macro Sampler Image: Static Depth of Boring: 40' Image: Static Depth of Soil Sampler: 2.0" I.D. Macro Sampler Image: Static Depth of Completed: NA Image: Static Depth of Boring: 40' Image: Static Depth of Soil Sampler: 2.0" I.D. Macro Sampler Image: Static Depth of Soil Sampler: 2.0" I.D. Macro Sampler Image: Static Depth of Depth of Boring: 40' Image: Static Depth of Boring: 40' Image: Static Depth of Boring: 40' Image: Static Depth of Depth of Boring: 40' Image: Static Depth of Boring: 40' Image: Static Depth of Boring: 40' Image: Static Depth of Boring: 40' Image: Static Depth of Boring: 40' Image: Static Depth of Boring: 40' Image: Static Depth of Boring: 40' Image: Static Depth of Boring: 40' Image: Static Depth of Boring: 40' Image: Static Depth of Boring: 40' <	Logged By: Robert E. Kitay, P.G.	Date Drilled: J	uly 20,	y 20, 2010 Checked By: Robert E. Kitay, P.G.					
Depth of Water First Encountered: 14' Well Screen Type and Diameter: NA Static Depth of Water in Well: NA Well Screen Slot Size: NA Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler BORING DETAIL SOIL/ROCK SAMPLE DATA BORING DETAIL Image: Soil Sample in Soil Sampler: 2.0" I.D. Macro Sampler 0 Image: Soil Sample in Science in Soil Sample: 2.0" I.D. Macro Sampler Image: Soil Sample: 2.0" I.D. Macro Sampler 10 Image: Soil Sample in Soil Sample: 2.0" I.D. Macro Sample: 2.0" I.D. Macro Sampler Image: Soil Sample: 2.0" I.D. Macro Sampler 10 Image: Soil Sample: 2.0" I.D. Macro Sample: 2.0" I.D. Macro Sampler Image: Soil Sample: 2.0" I.D. Macro Sample: 2.0" I.D. Macro Sampler 10 Image: Soil Sample: 2.0" I.D. Macro Sample:	Depth of Water First Encountered: 14' Well Screen Type and Diameter: NA Static Depth of Water in Well: NA Well Screen Slot Size: NA Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler Image: Soll_ROCK SAMPLE DATA Image: Soll_ROCK SAMPLE DATA Image: Soll_Work Sample: 2.0" I.D. Macro Sampler Image: Soll_ROCK SAMPLE DATA Image: Soll_Work Sample: 2.0" I.D. Macro Sampler Image: Soll_Work Sample: 2.0" I.D. Macro Sample: 3.0" I.D. Macro Sa	WATER AND WELL DATA		Total I	Total Depth of Well Completed: NA					
Static Depth of Water in Well: NA Well Screen Slot Size: NA Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler 1 SOIL/ROCK SAMPLE DATA DESCRIPTION OF LITHOLOGY Image: Soil Sampler: 2.0" I.D. Macro Sampler 1 SOIL/ROCK SAMPLE DATA DESCRIPTION OF LITHOLOGY Soil Sampler: 2.0" I.D. Macro Sampler 1 Image: Soil Sampler: 2.0" I.D. Macro Sampler Image: Soil Sampler: 2.0" I.D. Macro Sampler 1 Image: Soil Sample: 2.0" I.D. Macro Sampler Image: Soil Sample: 2.0" I.D. Macro Sampler 1 Image: Soil Sample: 2.0" I.D. Macro Sampler Image: Soil Sample: 2.0" I.D. Macro Sampler 1 Image: Soil Sample: 2.0" I.D. Macro Sampler Image: Soil Sample: 2.0" I.D. Macro Sampler 1 Image: Soil Sample: 2.0" I.D. Macro Sampler Image: Soil Sample: 2.0" I.D. Macro Sampler 1 Image: Soil Sample: 2.0" I.D. Macro Sample: 2.0" I.D.	Static Depth of Water in Well: NA Well Screen Slot Size: NA Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler Image: Soll_record Sample in Soll in State in Soll in State in Soll in	Depth of Water First Encountered: 14'		Well S	Screen Type and Diameter: NA					
Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler BORING DETAIL SOIL/ROCK SAMPLE DATA Teresting Total Depth of Boring: 40' DESCRIPTION OF LITHOLOGY Soll Soll/ROCK SAMPLE DATA Teresting Total Depth of Boring: 40' Asphalt DESCRIPTION OF LITHOLOGY O Standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. Asphalt O O O Asphalt Clayey SILT (ML); black; medium stiff; dry; 80% silt; 20% clay; low plasticity; low estimated K; no odor O Total Depth of Boring: 40' O Silty SAND (SM); yellow brown; medium dense; dry; 90% fine sand; 10% silt; medium estimated K; no odor O Total Depth of Boring: 40' O Total Depth of Boring: 40' Clayey SILT (MH); yellow brown; stiff; wet; 60% silt; 30% clay; 10% fine sand; 10% silt; medium estimated K; no odor	Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler Total Depth of Boring: 40' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler BORING DETAIL SOIL/ROCK SAMPLE DATA Integration Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler BORING DETAIL SOIL/ROCK SAMPLE DATA Integration Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler O Soil Sampler DESCRIPTION OF LITHOLOGY Standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. O Asphalt Asphalt Clayey SILT (ML); black; medium stiff; dry; 80% silt; 20% clay; low plasticity; low estimated K; no odor O O Integration O Silty SAND (SM); yellow brown; medium dense; dry; 90% fine sand; 10% silt; medium estimated K; no odor	Static Depth of Water in Well: NA		Well S	Screen Slot Size: NA					
BORING E E E E E E E E E E E E E E E E E E E	Total Soll-/ROCK SAMPLE DATA DETAIL Total Soll-/ROCK SAMPLE DATA Image: Soll-/ROCK SAMPLE DATA DESCRIPTION OF LITHOLOGY Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock Image: Soll-rock I	Total Depth of Boring: 40'		Туре а	and Size of Soil Sampler: 2.0" I.D. Macro Sampler					
Lie BORING 0 1<	Lie BORING ioin	SOIL/ROCK	SAMPLE DATA	eet	DESCRIPTION OF LITHOLOGY					
0 ∞ 0 × Asphalt 0 0 ✓ Clayey SILT (ML); black; medium stiff; dry; 80% silt; 20% clay; low plasticity; low estimated K; no odor 5 0 ✓ 5 10 0 ✓ ✓ 10 0 ✓ ✓ 10 0 ✓ ✓ 110 0 ✓ ✓ 110 0 ✓ ✓ 110 0 ✓ ✓ 110 0 ✓ ✓ 110 0 ✓ ✓ 110 0 ✓ ✓ 110 0 ✓ ✓ 110 0 ✓ ✓ 110 0 ✓ ✓ 110 0 ✓ ✓ 110 0 ✓ ✓ 110 0 ✓ ✓ 110 0 ✓ ✓ 110 ✓ ✓ ✓ 1110 ✓ ✓ ✓ 1110 ✓	0 0 ≥ Asphalt 0 0 0 0 Asphalt 0 0 0 0 0 Clayey SILT (ML); black; medium stiff; dry; 80% silt; 20% clay; low plasticity; low estimated K; no odor 10 0 0 0 0 0 0 0 10 0 0 0 0 0 0 0 0 10 0 0 0 0 0 0 0 0 0 10 0	Depth in F Descriptio VM (pomv Count: VM (pomv	ater Level Graphic Log	Depth in F	standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.					
Silty CLAY (CH); yellow brown; stiff; wet; 70% clay; 30% silt; high plasticity; very low estimated K; no odor	15 15 20 0 20 20 21 20 22 20 23 21 24 25 25 25 25 25 26 26 27 27 28 28	-0 -5 -5 -10 -10 -15 -20 -25 -30 -0 -30 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0		0 - 5 - 10 - 10 - 15 - 20 - 25 - 25 - 30	Asphalt Clayey SILT (ML); black; medium stiff; dry; 80% silt; 20% clay; low plasticity; low estimated K; no odor Silty SAND (SM); yellow brown; medium dense; dry; 90% fine sand; 10% silt; medium estimated K; no odor wet at 14' Clayey SILT (MH); yellow brown; stiff; wet; 60% silt; 30% clay; 10% fine sand; high plasticity; low estimated K; no odor Silty SAND (SM); yellow brown; soft; wet; 90% fine sand; 10% silt; non-plastic; medium estimated K; no odor Silty CLAY (CH); yellow brown; stiff; wet; 70% clay; 30% silt; high plasticity; very low estimated K; no odor SAND (SP); grey; loose; wet; 100% fine to medium sand; non-plastic; high estimated K; no odor Clayey SILT (MH); yellow brown; stiff;moist; 65% silt; 30% clay; 5% fine sand; high plasticity; low estimated K; no odor					
	$\begin{bmatrix} 23 \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $				SAND (SP); grey; loose; wet; 100% fine to medium sand; non-plastic; high estimated K; no odor					
20 0 0 0 0 0 0 0 0 0 0 0 0 0			T		wet at 14'					
SAND (SP); grey; loose; wet; 100% fine to medium sand;	hereit in the stimated K: no odor	- -30		- - - 30 -	Clayey SILT (MH); yellow brown; stiff;moist; 65% silt; 30% clay; 5% fine sand; high plasticity; low estimated K; no odor					
-23 -23 -30 0					AQUA SCIENCE ENGINEERS, INC.					

	SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS BORING: BH-K										
Proj	ect Name: Huto	h's Ca	rwasl	ı		Proj	ect Locat	ion: 17	7945 Hesperian Blvd, San	Lorenzo, CA	Page 2 of 2
Feet		u	SOI	L/RO ഗ	CK S	SAMPI	LE DATA	Feet	DESCRIPT	ION OF LITHOLO	DGY
Depth in I	BORING DETAIL	Descriptic	Interval	low Count	mqq) MV	/ater Leve	Graphic Log	Depth in I	standard classificatio density, stiffness, od	on, texture, relativ lor-staining, USCS	ve moisture, 6 designation.
 35 40 45 	Portland Cement	De		Blow	0 0	Wat		 35 40 45 	CLAY (CH); yellow brow high plasticity; very low Clayey SILT (MH); yello 25% clay; 5% fine sand estimated K; no odor (n	vn; very stiff; dan v estimated K; no w brown; stiff; da l; high plasticity; minor caliche)	np; 100% clay; odor amp; 70% silt; very low
_ 50 _ _								- 50 - - -			
- 55 								- 55 - - -			
- 60 - - -								<u>-</u> 60 - - -			
- 65 - - - -								- 65 			
									Aqua scient	CE ENGINEERS, IN	С.

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS BORING: BH-L										
Project Name: Hutch's Carwash Project Location							on: 17	945 Hesperian Blvd, San Lorenzo, CA Page 1 of 2		
Driller: Vironex Type of Rig: Ge								e 6600 Size of Drill: 2.0" Diameter		
Logged By: Robert E. Kitay, P.G. Date Drilled: Ju							uly 21,	2010 Checked By: Robert E. Kitay, P.G.		
WATER AND WELL DATA							Total	Depth of Well Completed: NA		
Depth of Water First Encountered: 14'								Screen Type and Diameter: NA		
Static Depth of Water in Well: NA								Screen Slot Size: NA		
Total Depth of Boring: 40'							Туре	and Size of Soil Sampler: 2.0" I.D. Macro Sampler		
-eet	ų	SOI	L/RO م	CK S	SAMP	LE DATA	⁻ eet	DESCRIPTION OF LITHOLOGY		
.⊑ BORING ↓↓ DETAIL	escriptio	nterval	w Count	M (ppm	ter Leve	àraphic Log	epth in F	standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.		
Δ	D	=	Blo	8	Wa					
-0 				0 0 0 0	¥		0 5 10 10 15 20 25 30	Asphalt Clayey SILT (ML); yellow brown; medium stiff; dry; 85% silt; 15% clay; low plasticity; low estimated K; no odor Silty SAND (SM); yellow brown; medium dense; dry; 80% fine sand; 20% silt; non-plastic; medium estimated K; no odor moist at 13' wet at 16' Silty CLAY (CH); dark yellow brown; very stiff; moist; 90% clay; 10% silt; high plast.; very low estimated K; no odor Clayey SILT (MH); yellow brown; medium stiff; wet; 70% silt; 20% clay; 10% fine sand; moderate plasticity; low estimated K; no odor Silty SAND (SM); yellow brown; loose; wet; 70% fine sand; 30% silt; non-plastic; medium estimated K; no odor Silty SAND (SM); yellow brown; loose; wet; 70% fine sand; 30% silt; non-plastic; wery low estimated K; no odor Silty SAND (SM); yellow brown; loose; wet; 70% fine sand; 30% silt; high plasticity; very low estimated K; no odor Silty SAND (SM); yellow brown; loose; wet; 70% fine to medium sand; 20% silt; 10% gravel; non-plastic; medium estimated K; no odor Sandy SILT (ML); yellow brown; medium stiff; wet; 70% silt; 20% fine sand; 10% clay; low plasticity; low estimated K; no odor Sandy SILT (ML); yellow brown; medium stiff; wet; 70% silt; 20% fine sand; 10% clay; low plasticity; low estimated K; no odor		

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS	BORING: BH-L	-	
Project Name: Hutch's Carwash Project Location: 17945 Hesperian Blvd, Sa	n Lorenzo, CA	Page 2 of 2	
bt in BORING DETAIL DET	PTION OF LITHOL tion, texture, relati odor-staining, USC	ON OF LITHOLOGY n, texture, relative moisture, or-staining, USCS designation,	
Deal Lint Deal Deal Deal Deal Deal Deal Deal Deal			
35 Image: Second se	w brown; very stiff ty; very low estima low brown; stiff; da and; moderate plas grey; dense; wet; e to medium sand; of boring at 40'	; damp; 70% clay; ited K; no odor imp; 70% silt; sticity; low 80% gravel to high estimated K;	
AQUA SCI	NCE ENGINEERS, IN	IC.	



APPENDIX C

Certified Analytical Report and Chain of Custody Documentation For Soil Samples



Report Number : 73869 Date : 07/29/2010

Laboratory Results

Robert Kitay Aqua Science Engineers, Inc. 55 Oak Court, Suite 220 Danville, CA 94526

Subject : 8 Soil Samples Project Name : Hutch's Carwash Project Number :

Dear Mr. Kitay,

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. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

bel Kiff



Project Name : Hutch's Carwash

Project Number :

Sample : BH-I 14.5'		Matrix : S	Soil	Lab Number : 73869-03		
Sample Date :07/20/2010						
Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed	
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:45	
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:45	
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:45	
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:45	
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:45	
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:45	
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:45	
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:45	
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:45	
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/24/10 10:45	
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:45	
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:45	
1,2-Dichloroethane-d4 (Surr) Toluene - d8 (Surr)	104 101		% Recovery % Recovery	EPA 8260B EPA 8260B	07/24/10 10:45 07/24/10 10:45	
TPH as Diesel (Silica Gel) TPH as Motor Oil (Silica Gel)	< 1.0 < 10	1.0 10	mg/Kg mg/Kg	M EPA 8015 M EPA 8015	07/27/10 16:35 07/27/10 16:35	
Octacosane (Silica Gel Surr)	104		% Recovery	M EPA 8015	07/27/10 16:35	



Project Name : Hutch's Carwash

Project Number :

Sample : BH-I 39.5'		Matrix : S	Soil	Lab Number : 73869-08		
Sample Date :07/20/2010						
Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed	
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:07	
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:07	
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:07	
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:07	
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:07	
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:07	
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:07	
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:07	
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:07	
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/24/10 10:07	
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:07	
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 10:07	
1,2-Dichloroethane-d4 (Surr)	99.7		% Recovery	EPA 8260B	07/24/10 10:07	
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	07/24/10 10:07	
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	07/27/10 17:11	
TPH as Motor Oil (Silica Gel)	< 10	10	mg/Kg	M EPA 8015	07/27/10 17:11	
Octacosane (Silica Gel Surr)	102		% Recovery	M EPA 8015	07/27/10 17:11	


Sample : BH-J 14.0'		Matrix : S	Soil	Lab Number : 73869-11			
Sample Date :07/20/2010		• • • •					
Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed		
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:54		
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:54		
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:54		
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:54		
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:54		
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:54		
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:54		
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:54		
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:54		
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/24/10 12:54		
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:54		
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:54		
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	07/24/10 12:54		
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	07/24/10 12:54		
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	07/27/10 14:55		
TPH as Motor Oil (Silica Gel)	< 10	10	mg/Kg	M EPA 8015	07/27/10 14:55		
Octacosane (Silica Gel Surr)	99.7		% Recovery	M EPA 8015	07/27/10 14:55		



Sample : BH-J 34.0'		Matrix : S	Soil	Lab Number : 73869-15			
Sample Date :07/20/2010		Method					
Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed		
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 01:53		
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 01:53		
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 01:53		
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 01:53		
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 01:53		
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 01:53		
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 01:53		
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 01:53		
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 01:53		
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/24/10 01:53		
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 01:53		
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 01:53		
1,2-Dichloroethane-d4 (Surr)	99.6		% Recovery	EPA 8260B	07/24/10 01:53		
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	07/24/10 01:53		
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	07/27/10 19:20		
TPH as Motor Oil (Silica Gel)	< 10	10	mg/Kg	M EPA 8015	07/27/10 19:20		
Octacosane (Silica Gel Surr)	89.9		% Recovery	M EPA 8015	07/27/10 19:20		



Sample : BH-K 13.5'		Matrix : S	Soil	Lab Number : 73869-18			
Sample Date :07/20/2010							
Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed		
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:28		
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:28		
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:28		
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:28		
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:28		
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:28		
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:28		
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:28		
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:28		
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/24/10 12:28		
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:28		
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:28		
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	07/24/10 12:28		
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	07/24/10 12:28		
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	07/28/10 15:21		
TPH as Motor Oil (Silica Gel)	< 10	10	mg/Kg	M EPA 8015	07/28/10 15:21		
Octacosane (Silica Gel Surr)	92.6		% Recovery	M EPA 8015	07/28/10 15:21		



Sample : BH-K 39.5'		Matrix : S	Soil	Lab Number : 73869-23			
Sample Date :07/20/2010		Method					
Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed		
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:22		
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:22		
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:22		
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:22		
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:22		
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:22		
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:22		
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:22		
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:22		
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/24/10 12:22		
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:22		
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 12:22		
1,2-Dichloroethane-d4 (Surr)	99.2		% Recovery	EPA 8260B	07/24/10 12:22		
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	07/24/10 12:22		
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	07/28/10 01:13		
TPH as Motor Oil (Silica Gel)	< 10	10	mg/Kg	M EPA 8015	07/28/10 01:13		
Octacosane (Silica Gel Surr)	89.2		% Recovery	M EPA 8015	07/28/10 01:13		



Sample : BH-L 14.5'		Matrix : S	Soil	Lab Number : 73869-26			
Sample Date :07/21/2010							
Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed		
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 11:14		
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 11:14		
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 11:14		
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 11:14		
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 11:14		
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 11:14		
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 11:14		
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 11:14		
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 11:14		
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/24/10 11:14		
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 11:14		
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/10 11:14		
1,2-Dichloroethane-d4 (Surr)	99.0		% Recovery	EPA 8260B	07/24/10 11:14		
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	07/24/10 11:14		
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	07/28/10 09:38		
TPH as Motor Oil (Silica Gel)	< 10	10	mg/Kg	M EPA 8015	07/28/10 09:38		
Octacosane (Silica Gel Surr)	112		% Recovery	M EPA 8015	07/28/10 09:38		



Sample : BH-L 39.5'		Matrix : S	Soil	Lab Number : 73869-31			
Sample Date :07/21/2010		Mathed					
Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed		
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/28/10 00:22		
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/28/10 00:22		
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/28/10 00:22		
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/28/10 00:22		
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/28/10 00:22		
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/28/10 00:22		
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/28/10 00:22		
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/28/10 00:22		
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/28/10 00:22		
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/28/10 00:22		
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/28/10 00:22		
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/28/10 00:22		
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	07/28/10 00:22		
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	07/28/10 00:22		
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	07/27/10 16:01		
TPH as Motor Oil (Silica Gel)	< 10	10	mg/Kg	M EPA 8015	07/27/10 16:01		
Octacosane (Silica Gel Surr)	98.8		% Recovery	M EPA 8015	07/27/10 16:01		

QC Report : Method Blank Data

Project Name : Hutch's Carwash

Project Number :

Parameter	Measured Value	Method Reporting Limit) Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 0.99	0.99	mg/Kg	M EPA 8015	07/27/2010
TPH as Motor Oil (Silica Gel)	< 9.9	9.9	mg/Kg	M EPA 8015	07/27/2010
Octacosane (Silica Gel Surr)	85.8		%	M EPA 8015	07/27/2010
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	07/28/2010
TPH as Motor Oil (Silica Gel)	< 10	10	mg/Kg	M EPA 8015	07/28/2010
Octacosane (Silica Gel Surr)	82.8		%	M EPA 8015	07/28/2010
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/2010
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/2010
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/2010
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/2010
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/2010
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/2010
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/2010
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/2010
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/2010
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/24/2010
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/2010
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/24/2010
1,2-Dichloroethane-d4 (Surr)	101		%	EPA 8260B	07/24/2010
Toluene - d8 (Surr)	100		%	EPA 8260B	07/24/2010

Measured	Method Reporting		Analysis	Date
Value	Limit	Units	Method	Analyzed
< 0.0050	0.0050	mg/Kg	EPA 8260B	07/27/2010
< 0.0050	0.0050	mg/Kg	EPA 8260B	07/27/2010
< 0.0050	0.0050	mg/Kg	EPA 8260B	07/27/2010
< 0.0050	0.0050	mg/Kg	EPA 8260B	07/27/2010
< 0.0050	0.0050	mg/Kg	EPA 8260B	07/27/2010
< 0.0050	0.0050	mg/Kg	EPA 8260B	07/27/2010
< 0.0050	0.0050	mg/Kg	EPA 8260B	07/27/2010
< 0.0050	0.0050	mg/Kg	EPA 8260B	07/27/2010
< 0.0050	0.0050	mg/Kg	EPA 8260B	07/27/2010
< 1.0	1.0	mg/Kg	EPA 8260B	07/27/2010
< 0.0050	0.0050	mg/Kg	EPA 8260B	07/27/2010
< 0.0050	0.0050	mg/Kg	EPA 8260B	07/27/2010
103		%	EPA 8260B	07/27/2010
100		%	EPA 8260B	07/27/2010
	Veasured <u>Value</u> : 0.0050 : 0.005	Method Veasured Reporting 2alue Limit : 0.0050 0.0050 : 0.0050 0.0050 : 0.0050 0.0050 : 0.0050 0.0050 : 0.0050 0.0050 : 0.0050 0.0050 : 0.0050 0.0050 : 0.0050 0.0050 : 0.0050 0.0050 : 0.0050 0.0050 : 0.0050 0.0050 : 1.0 1.0 : 0.0050 0.0050 : 0.0050 0.0050 : 0.0050 0.0050 : 0.0050 0.0050 : 0.0050 0.0050 : 0.0050 0.0050 : 0.0050 0.0050 : 0.0050 0.0050	Method Weasured Reporting Limit Units 0.0050 0.0050 mg/Kg 0.0050 0.0050 mg/Kg	Method Value Reporting Limit Analysis Method 0.0050 0.0050 mg/Kg EPA 8260B 1.0 1.0 mg/Kg EPA 8260B 0.0050 0.0050 mg/Kg EPA 8260B 0.0050

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : Hutch's Carwash

Project Number :

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.	Duplicat Spiked Sample Percent Recov.	e Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH-D (Si Gel)									-					
	73884-02	1.6	19.9	19.8	19.1	19.4	mg/Kg	M EPA 8015	7/27/10	88.3	90.2	2.16	60-140	25
TPH-D (Si Gel)														
	73886-06	<1.0	19.9	19.8	18.4	18.4	mg/Kg	M EPA 8015	7/28/10	92.2	93.1	0.983	60-140	25
1,2-Dibromoethane														
	73869-15	<0.0050	0.0379	0.0382	0.0335	0.0320	mg/Kg	EPA 8260B	7/24/10	88.5	83.6	5.71	67.2-121	25
1,2-Dichloroethane										·				
Benzene	73869-15	<0.0050	0.0379	0.0382	0.0335	0.0322	mg/Kg	EPA 8260B	7/24/10	88.4	84.2	4.93	64.0-124	25
	73869-15	<0.0050	0.0379	0.0382	0.0349	0.0344	mg/Kg	EPA 8260B	7/24/10	92.2	90.0	2.40	67.9-120	25
Diisopropyl ether														
	73869-15	<0.0050	0.0380	0.0383	0.0342	0.0338	mg/Kg	EPA 8260B	7/24/10	90.1	88.1	2.24	65.2-122	25
Ethyl-tert-butyl ethe	er													
Ethylhonzono	73869-15	<0.0050	0.0379	0.0383	0.0327	0.0322	mg/Kg	EPA 8260B	7/24/10	86.2	84.0	2.60	64.6-122	25
Ethylbenzene	73869-15	<0.0050	0 0379	0 0382	0 0352	0 0350	ma/Ka	EPA 8260B	7/24/10	93.0	91.6	1 46	65 5-127	25
Methyl-t-butyl ether	10009-10	-0.0030	0.0019	0.0002	0.0002	0.0000	mg/rxy		1/27/10	55.0	51.0	1.40	00.0-127	20
	73869-15	<0.0050	0.0379	0.0382	0.0317	0.0309	mg/Kg	EPA 8260B	7/24/10	83.8	80.9	3.44	57.0-122	25

Page 11 of 19

KIFF ANALYTICAL, LLC

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	e Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	e Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
P + M Xylene	•													
	73869-15	<0.0050	0.0379	0.0382	0.0348	0.0350	mg/Kg	EPA 8260B	7/24/10	91.8	91.4	0.426	62.5-124	25
Tert-Butanol														
	73869-15	<0.0050	0.189	0.191	0.169	0.178	mg/Kg	EPA 8260B	7/24/10	89.3	93.1	4.14	64.3-122	25
Tert-amyl-methyl et	her													
	73869-15	<0.0050	0.0381	0.0384	0.0334	0.0330	mg/Kg	EPA 8260B	7/24/10	87.8	86.0	2.10	64.9-122	25
Toluene	73869-15	<0.0050	0.0379	0.0382	0.0350	0.0347	mg/Kg	EPA 8260B	7/24/10	92.3	90.7	1.72	65.7-120	25
1,2-Dibromoethane														
	73869-31	<0.0050	0.0400	0.0394	0.0385	0.0405	mg/Kg	EPA 8260B	7/28/10	96.4	103	6.36	67.2-121	25
1,2-Dichloroethane							0 0							
	73869-31	<0.0050	0.0400	0.0394	0.0360	0.0372	mg/Kg	EPA 8260B	7/28/10	90.0	94.4	4.70	64.0-124	25
Benzene														
	73869-31	<0.0050	0.0400	0.0394	0.0368	0.0375	mg/Kg	EPA 8260B	7/28/10	91.9	95.0	3.33	67.9-120	25
Diisopropyl ether														
	73869-31	<0.0050	0.0401	0.0396	0.0390	0.0398	mg/Kg	EPA 8260B	7/28/10	97.3	100	3.27	65.2-122	25
Ethyl-tert-butyl ethe	er													
	73869-31	<0.0050	0.0401	0.0395	0.0408	0.0400	mg/Kg	EPA 8260B	7/28/10	102	101	0.601	64.6-122	25

KIFF ANALYTICAL, LLC

Project Number :

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.	e Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Ethylbenzene														
	73869-31	<0.0050	0.0400	0.0394	0.0380	0.0386	mg/Kg	EPA 8260B	7/28/10	94.9	97.8	3.01	65.5-127	25
Methyl-t-butyl ether														
	73869-31	<0.0050	0.0400	0.0394	0.0380	0.0363	mg/Kg	EPA 8260B	7/28/10	95.1	92.0	3.36	57.0-122	25
P + M Xylene														
	73869-31	<0.0050	0.0400	0.0394	0.0383	0.0382	mg/Kg	EPA 8260B	7/28/10	95.8	96.7	0.920	62.5-124	25
Tert-Butanol														
	73869-31	<0.0050	0.200	0.197	0.192	0.195	mg/Kg	EPA 8260B	7/28/10	96.2	98.7	2.62	64.3-122	25
Tert-amyl-methyl et	her													
	73869-31	<0.0050	0.0402	0.0397	0.0394	0.0397	mg/Kg	EPA 8260B	7/28/10	97.8	100	2.30	64.9-122	25
Toluene														
	73869-31	<0.0050	0.0400	0.0394	0.0380	0.0380	mg/Kg	EPA 8260B	7/28/10	94.9	96.4	1.54	65.7-120	25

KIFF ANALYTICAL, LLC

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
TPH-D (Si Gel)	19.6	mg/Kg	M EPA 8015	7/27/10	90.3	70-130
TPH-D (Si Gel)	19.6	mg/Kg	M EPA 8015	7/28/10	91.0	70-130
1,2-Dibromoethane	0.0399	mg/Kg	EPA 8260B	7/24/10	86.5	67.2-121
1,2-Dichloroethane	0.0399	mg/Kg	EPA 8260B	7/24/10	86.7	64.0-124
Benzene	0.0399	mg/Kg	EPA 8260B	7/24/10	90.6	67.9-120
Diisopropyl ether	0.0400	mg/Kg	EPA 8260B	7/24/10	89.6	65.2-122
Ethyl-tert-butyl ether	0.0400	mg/Kg	EPA 8260B	7/24/10	84.6	64.6-122
Ethylbenzene	0.0399	mg/Kg	EPA 8260B	7/24/10	92.9	65.5-127
Methyl-t-butyl ether	0.0399	mg/Kg	EPA 8260B	7/24/10	81.3	57.0-122
P + M Xylene	0.0399	mg/Kg	EPA 8260B	7/24/10	92.7	62.5-124
Tert-Butanol	0.200	mg/Kg	EPA 8260B	7/24/10	91.0	64.3-122
Tert-amyl-methyl ether	0.0402	mg/Kg	EPA 8260B	7/24/10	86.0	64.9-122
Toluene	0.0399	mg/Kg	EPA 8260B	7/24/10	91.8	65.7-120
1,2-Dibromoethane	0.0396	mg/Kg	EPA 8260B	7/27/10	96.5	67.2-121
1,2-Dichloroethane	0.0396	mg/Kg	EPA 8260B	7/27/10	90.1	64.0-124
Benzene	0.0396	mg/Kg	EPA 8260B	7/27/10	88.7	67.9-120
Diisopropyl ether	0.0397	mg/Kg	EPA 8260B	7/27/10	93.7	65.2-122
Ethyl-tert-butyl ether	0.0397	mg/Kg	EPA 8260B	7/27/10	94.6	64.6-122
Ethylbenzene	0.0396	mg/Kg	EPA 8260B	7/27/10	90.8	65.5-127

KIFF ANALYTICAL, LLC

QC Report : Laboratory Control Sample (LCS)

Project Name : Hutch's Carwash

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Methyl-t-butyl ether	0.0396	mg/Kg	EPA 8260B	7/27/10	86.0	57.0-122
P + M Xylene	0.0396	mg/Kg	EPA 8260B	7/27/10	90.8	62.5-124
Tert-Butanol	0.198	mg/Kg	EPA 8260B	7/27/10	86.6	64.3-122
Tert-amyl-methyl ether	0.0398	mg/Kg	EPA 8260B	7/27/10	93.3	64.9-122
Toluene	0.0396	mg/Kg	EPA 8260B	7/27/10	90.5	65.7-120

Aqua Science Engineers, Inc. 55 Oak Court, Suite 220 73869 Chain of Custody Danville, CA 94526 (925) 820-9391 FAX (925) 837-4853 PAGE SAMPLER (SIGNATURE) PROJECT NAME Hutch's Carwash JOB NO. ADDRESS 17945 Blud Hesperian Lorenzo, cA San ANALYSIS REQUEST びょく MULTI-RANGE HYDROCARBONS WITH SILICA GEL CLEANUP (EPA 8015) PURGEABLE HALOCARBONS (EPA 601/8010) C hand SEMI-VOLATILE ORGANICS (EPA 625/8270) Pb (TOTAL or DISSOLVED) (EPA 6010) SPECIAL INSTRUCTIONS: 15.110 TPH-G/BTEX/5 OXYS / / b (EPA METHOD 8260) TPH-DIESEL & MOTOR OIL (EPA 3510/8015) TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020) (EPA 3510/8015) ℓ_{22} VOLATILE ORGANICS (EPA 624/8240/8260) FUEL OXYGENATES (EPA 8260) LUFT METALS (5) (EPA 6010+7000) CAM 17 METALS (EPA 6010+7000) COMPOSITE 4:1 PESTICIDES (EPA 8081) QUANTITY MATRIX DATE TIME Ē SAMPLE ID. 4 -5-830 5 51 7-20-10 102 9.5 1 840 K 14-5-850 03. X 104 9-5 900 05 24.5 924 5 29, 66 ${\mathcal X}$ 940 -11 ---

BH

ŧ	BH-I 34-5	950			
. 5	BH-I 39-5-	1000	X		0
4	BH-J 4.5'	1040		pK.	
ł	BH-J 9.5'	1050		1 Mart	
3	BH-J 14-0-	V 1056 V V			11
•	RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
ugo i	Robert E. Kitary	(signature) (time)	(signature) (time)	(Signature) (time) E Galless 672260	
-	(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)	STANDARD 24Hr 48Hr 72Hr
	Company-ASE, INC.	Company-	Company-	Company- Leal Andytur	

Aqua Science Engineers, Inc. 55 Oak Court, Suite 220 Danville, CA 94526 (925) 820-9391 FAX (925) 837-4853 7386 **Chain of Custody** 2 PAGE SAMPLER (SIGNATURE) PROJECT NAME Hutch's corwash JOB NO. NA E.KT. ADDRESS 17945 Hesperian Blud San Lorunzo SE Bons with Silica UP (EPA 8015) 2 ANALYSIS REQUEST E HALOCARBONS 10) Xe ILE ORGANICS 0) DISSOLVED) X5 OXYS / ℓ b 5 20 8260) SPECIAL INSTRUCTIONS: 3 A MOTOR OIL (5) BE & BTEX 5-8020) Sille RGANICS 0/8260) INATES રે S (5) 000) SOO) 4

SAMPLE ID	ATE	¥	лпіх	ANTITY	H-GAS / M A 5030/801	H-DIESEL A 3510/80	H-DIESEL	AM 17 MET EPA 6010+7	EM-VOLATI PA 625/827	6 (TOTAL o	ESTICIDES PA 8081)	JEL OXYGE PA 8260)	URGEABLI EPA 601/80	PH-G/BTEX EPA METHC	ULTI-RANG YDROCARI EL CLEANI	DLATILE OF PA 624/824	UFT METAL EPA 6010+7	OMPOSITE	DF	Hor
QU-T 19 5'	D .704	F	¥ ۲	5	Ê.	₽ <u>₩</u>	₽ <u>₩</u>	08	S.E.	ΣΨ	ΞŴ	μ	45	<u> </u>	∑ĭ0	2. 	16	0	ш	~
BIL 5 24.5'	1-2010	225			<u> </u>										· · · · ·	<u> </u>				X
BIL 7 29 51		1	┼┼╴	\mathbb{H}											· · ·					\mathbf{X}
BH-J 34,0'		1355		\mathbb{H}		X							<u> </u>	X					X	
BH-K 4,5		1440		┼┼						1							·			X
BH-K 9,5		1455	\square	Ħ						1				L.	1					X
BH-K 13.5'		1500	\square	Ħ		X								X					\times	
BH-K 19.5'		1514																		\times
BH-K 24.5		1610																		$\boldsymbol{\times}$
BH-K 29.51		1700																		\times
BH-K 345	V	1705	\mathbf{V}	\vee																X
RELINQUISHED BY:	RECEIVE	DBY:			18)	REL (sig	-INQUI	SHED E	BY:	ne)	REC C		BY LA	BORAT	roRY: える ne)		OMMEN	TS:		
Robert E. Kity		_	<u> </u>						, .		Ē	Galde	<u>×</u>	077	en d				OUND	TIME Hr 72Hr
(printed name) / (date) Company-ASE, INC.	(printed a Company	ame) /-		(da	(te)	(prii Cor	nted na npany-	me)	. (da	ate)	(prin Cor	nted na npany-	me) K	i H	ato) 1, hu	1º	THER:	<u> </u>		

Aqua Science Engineers, Inc. 55 Oak Court, Suite 220 Danville, CA 94526 (925) 820-9391 FAX (925) 837-4853					C	;h	ai	n	0	f(Cı	JS	stc	bd	У			7	38	69	}]
					·													PAG	E	3		
SAMPLER (SIGNATURE)							PRO ADD	JECT RESS	NAME	<u> </u>	tute Hese	h's Perio	Car n B	was Ivd,	L San	Lor	en 2	JOB	NO]
ANALYSIS REQUEST							7			T	T			<u>8</u>	3	5			Γ			-
SPECIAL INSTRUCTIONS:						/ MTBE & BTEX /8015-8020)	EL W/5/1/20 C2	EL & MOTOR OIL /8015)	METALS 0+7000)	ATILE ORGANICS 8270))) NL or DISSOLVED)))	(GENATES	BLE HALOCARBON /8010)	IEXI5 OXYS / パト グc THOD 8260)	NGE ARBONS WITH SIL) ANUP (EPA 8015)	ORGANICS 3240/8260)	FALS (5))+7000)	TE 4:1		Q Ju	
SAMPLE ID.	DATE		TIME	MATRIX	QUANTITY	TPH-GAS (EPA 5030	TPH-DIES (EPA 3510	TPH-DIES (EPA 3510	CAM 17 1 (EPA 601	SEMI-VOI (EPA 625/	Pb (TOT/ (EPA 6010	PESTICID (EPA 8081	FUEL OX (EPA 8260	PURGEA (EPA 601	TPH-G/B1 (EPA ME1	MULTHRA HYDROC GEL CLE/	VOLATILE (EPA 624 <i>A</i>	LUFT ME (EPA 6010	COMPOSI	EDF	HО	
BH-K 39-5	7-24	1017	125	Ś	1		×								\mathbf{X}					\times		27
BH-L 5.0'	7.2	110 8	:35	1	1																\mathbf{x}	24
BH-L 9.5'	1	g:	40																		X	25.
BH-L 14.5'		8:	44				\times								X					$\mathbf{\Sigma}$	~	26
BH-L 19.5'		8	54				,							1							$\overline{\lambda}$	N
BH-L 24.5		9	13	\prod																	\times	2%
BH-L 29.5'		9	24																		$\overline{\lambda}$	29
BH-1 34.5'		19	40																		X	30
BH-L 39.5'		9	50	\mathbb{V}	$\underline{\mathbb{V}}$		\sim	•							X					\times		- 9 \
			-	_	_				ļ		<u> </u>		<u> </u>	ļ						ļ		_
RELINQUISHED BY;	RECEIN	/ED B	IY:				REL	INQUIS	HED B	Y:		RE RE		BYLA	BORAT	ORY:	co	OMMEN	TS:			-
(signature) (time)	(signato	ire)		1	time	e)	(sigr	lature)		Rifi	le)	(sig	nature)		(tin	ie)						
hob t- Kitry	<u> </u>					- <u></u>	_					Ê	Gald	as	07	221				IOUND	TIME	1
r(printed name) (date)	(printed name) (date) (printed name) (date) (printed name) (date) (STANDARD) 24Hr 48Hr 72Hr					lr 72Hr	-															
Company-ASE, INC.	Compa	ny-					Çón	pany-				Cor	npany-	Ke	(maly)	hid	⁷ ⁰					

KIFF C	RECEIVER
SAMPLE RECEIPT CHECKLIST SRG#: 73869 Date: 07221	Initials
Project ID: Hytch's Carutish	
Method of Receipt: Courier Over-the-counter Shipper	
COC Inspection Is COC present?YesNoCustody seals on shipping container?IntactBrokenIs COC Signed by Relinquisher?YesNoIs sampler name legibly indicated on COC?YesNoIs analysis or hold requested for all samplesYesNoIs the turnaround time indicated on COC?YesNoIs COC free of whiteout and uninitialed cross-outs?YesNo] Not present []N/A eout []No, Cross-outs
Sample InspectionCoolant Present:Ifest Therm. ID#No (includes water)Temperature °CInterventionInitialDate/TimeAre there custody seals on sample containers?InitialInitialBrokenDo containers match COC?Ifest ThermNoNo, COC lists absent sample(s)No, ExtraAre there samples matrices other than soil, water, air or carbon?YesNoNoAre any sample containers broken, leaking or damaged?YesNoAre preservatives indicated?Yes, on sample containersYes, on COCNot indicated?Are preservatives correct for analyses requested?YesNoAre the correct sample containers used for the analyses requested?YesNoAre the correct sample containers used for the analyses requested?YesNoIs there sufficient sample to perform testing?YesNoDoes any sample contain product, have strong odor or are otherwise suspected to be hot?NoReceipt DetailsContainer type# of containers receivedMatrixContainer type# of containers receivedMatrixContainer type# of containers receivedDate and Time Sample Put into Temp Storage Date:OTXUUTime:The sample Put into Temp Storage Date:OTXUUTime:	Yes
Quicklog Are the Sample ID's indicated: On COC On sample container(s) On Both If Sample ID's are listed on both COC and containers, do they all match? Yes No Is the Project ID indicated: On COC On sample container(s) On Both If project ID is listed on both COC and containers, do they all match? Yes No Are the sample collection dates indicated: On COC On sample container(s) On Both If collection dates are listed on both COC and containers, do they all match? Yes No Are the sample collection times indicated: On COC On sample container(s) On Both If collection times are listed on both COC and containers, do they all match? Yes No Are the sample collection times indicated: On COC On sample container(s) On Both If collection times are listed on both COC and containers, do they all match? Yes No	 Not indicated N/A Not indicated N/A Not indicated N/A N/A Not indicated N/A Not indicated
COMMENTS:	·····
	·

O:\old_ed\samprec\Forms\Sample Receipt Checklist rev 051409.doc



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526 (925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

APPENDIX D

Certified Analytical Report and Chain of Custody Documentation For Groundwater Samples



Report Number : 73868 Date : 07/29/2010

Laboratory Results

Robert Kitay Aqua Science Engineers, Inc. 55 Oak Court, Suite 220 Danville, CA 94526

Subject : 9 Water Samples Project Name : Hutch's Carwash Project Number :

Dear Mr. Kitay,

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. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

bel Kiff



Project Number :

Sample : BH-I 16-20' WATER	Matrix : \	Nater	Lab Number : 73868-01			
Sample Date :07/20/2010 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed	
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:10	
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:10	
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:10	
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:10	
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:10	
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:10	
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:10	
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:10	
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/24/10 12:10	
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/24/10 12:10	
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:10	
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:10	
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	07/24/10 12:10	
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	07/24/10 12:10	
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	07/28/10 11:13	
Octacosane (Silica Gel Surr)	97.0		% Recovery	M EPA 8015	07/28/10 11:13	



Sample : BH-I 25-29' WATER	Matrix : \	Nater	Lab Number : 73868-02			
Sample Date :07/21/2010		Method				
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date/Time Analyzed	
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:03	
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:03	
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:03	
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:03	
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:03	
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:03	
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:03	
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:03	
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/24/10 13:03	
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/24/10 13:03	
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:03	
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:03	
1,2-Dichloroethane-d4 (Surr)	95.6		% Recovery	EPA 8260B	07/24/10 13:03	
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	07/24/10 13:03	
TPH as Diesel (Silica Gel)	130	50	ug/L	M EPA 8015	07/28/10 11:49	
Octacosane (Silica Gel Surr)	112		% Recovery	M EPA 8015	07/28/10 11:49	



Project Number :

Sample : BH-J 25-30' WATER	Matrix : \	Nater	Lab Number : 73868-03			
Sample Date :07/20/2010	Measured	Method Reporting		Analysis	Date/Time	
Parameter	Value	Limit	Units	Method	Analyzed	
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:47	
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:47	
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:47	
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:47	
Methyl-t-butyl ether (MTBE)	1.6	0.50	ug/L	EPA 8260B	07/24/10 12:47	
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:47	
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:47	
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:47	
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/24/10 12:47	
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/24/10 12:47	
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:47	
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:47	
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	07/24/10 12:47	
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	07/24/10 12:47	
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	07/28/10 12:24	
Octacosane (Silica Gel Surr)	102		% Recovery	M EPA 8015	07/28/10 12:24	



Project Number :

Sample : BH-J 31-35' WATER	Matrix : \	Nater	Lab Number : 73868-04			
Sample Date :07/21/2010	Measured	Method Reporting		Analysis	Date/Time	
Parameter	Value	Limit	Units	Method	Analyzed	
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:24	
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:24	
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:24	
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:24	
Methyl-t-butyl ether (MTBE)	1.4	0.50	ug/L	EPA 8260B	07/24/10 13:24	
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:24	
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:24	
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:24	
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/24/10 13:24	
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/24/10 13:24	
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:24	
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 13:24	
1,2-Dichloroethane-d4 (Surr)	97.8		% Recovery	EPA 8260B	07/24/10 13:24	
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	07/24/10 13:24	
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	07/28/10 12:59	
Octacosane (Silica Gel Surr)	99.9		% Recovery	M EPA 8015	07/28/10 12:59	



Project Number :

Sample : BH-K 20-25' WATER	Matrix : \	Nater	Lab Number : 73868-05			
Sample Date :07/20/2010		Mathad				
Parameter	Measured Value	Reporting	Units	Analysis Method	Date/Time Analyzed	
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:01	
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:01	
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:01	
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:01	
Methyl-t-butyl ether (MTBE)	59	0.50	ug/L	EPA 8260B	07/24/10 14:01	
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:01	
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:01	
Tert-amyl methyl ether (TAME)	28	0.50	ug/L	EPA 8260B	07/24/10 14:01	
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/24/10 14:01	
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/24/10 14:01	
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:01	
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:01	
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	07/24/10 14:01	
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	07/24/10 14:01	
TPH as Diesel (Silica Gel) (Note: Hydrocarbons are higher-boilin	170 g than typical Diese	50 el Fuel.)	ug/L	M EPA 8015	07/29/10 02:08	
Octacosane (Silica Gel Surr)	102		% Recovery	M EPA 8015	07/29/10 02:08	



Project Number :

Sample : BH-K 26-28' WATER		Matrix : V	Water	Lab Number : 73868-06			
Sample Date :07/21/2010							
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date/Time Analyzed		
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/28/10 11:56		
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/28/10 11:56		
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/28/10 11:56		
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/28/10 11:56		
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/28/10 11:56		
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/28/10 11:56		
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/28/10 11:56		
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/28/10 11:56		
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/28/10 11:56		
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/28/10 11:56		
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	07/28/10 11:56		
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	07/28/10 11:56		
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	07/28/10 11:56		
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	07/28/10 11:56		
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	07/28/10 13:35		
Octacosane (Silica Gel Surr)	99.0		% Recovery	M EPA 8015	07/28/10 13:35		



Sample : BH-L 20-24' WATER	Matrix : \	Nater	Lab Number : 73868-07			
Sample Date :07/21/2010		Mathad				
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date/Time Analyzed	
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:39	
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:39	
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:39	
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:39	
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:39	
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:39	
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:39	
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:39	
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/24/10 14:39	
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/24/10 14:39	
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:39	
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 14:39	
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	07/24/10 14:39	
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	07/24/10 14:39	
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	07/28/10 14:10	
Octacosane (Silica Gel Surr)	100		% Recovery	M EPA 8015	07/28/10 14:10	



Project Number :

Report Number : 73868 Date : 07/29/2010

Sample : BH-L 25-28' WATER		Matrix : \	Nater	Lab Number : 73868-08		
Sample Date :07/21/2010	Magaurad	Method		Anchrain	Data /Tima	
Parameter	Value	Limit	Units	Method	Analyzed	
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 17:14	
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 17:14	
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 17:14	
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 17:14	
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 17:14	
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 17:14	
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 17:14	
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 17:14	
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/24/10 17:14	
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/24/10 17:14	
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 17:14	
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 17:14	
1,2-Dichloroethane-d4 (Surr)	98.1		% Recovery	EPA 8260B	07/24/10 17:14	
Toluene - d8 (Surr)	97.7		% Recovery	EPA 8260B	07/24/10 17:14	
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	07/28/10 14:45	
Octacosane (Silica Gel Surr)	95.1		% Recovery	M EPA 8015	07/28/10 14:45	



Project Number :

Sample : BH-L 38-40' WATER	Matrix : \	Nater	Lab Number : 73868-09		
Sample Date :07/21/2010 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:59
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:59
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:59
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:59
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:59
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:59
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:59
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:59
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/24/10 12:59
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/24/10 12:59
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:59
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/10 12:59
1,2-Dichloroethane-d4 (Surr)	95.4		% Recovery	EPA 8260B	07/24/10 12:59
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	07/24/10 12:59
TPH as Diesel (Silica Gel) (Note: Hydrocarbons are higher-boili	430 ng than typical Diese	50 el Fuel.)	ug/L	M EPA 8015	07/29/10 02:43
Octacosane (Silica Gel Surr)	110		% Recovery	M EPA 8015	07/29/10 02:43

QC Report : Method Blank Data

Project Name : Hutch's Carwash

Project Number :

		Method			5.
Parameter	Measured Value	Limit	g Units	Analysis Method	Date Analvzed
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	07/28/2010
Octacosane (Silica Gel Surr)	99.8		%	M EPA 8015	07/28/2010
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/24/2010
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/24/2010
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010
1,2-Dichloroethane-d4 (Surr)	100		%	EPA 8260B	07/24/2010
Toluene - d8 (Surr)	100		%	EPA 8260B	07/24/2010
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/28/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/28/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/28/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/28/2010
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/28/2010
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/28/2010
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/28/2010
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/28/2010
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/28/2010
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/28/2010
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	07/28/2010
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	07/28/2010
1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	07/28/2010
Toluene - d8 (Surr)	99.7		%	EPA 8260B	07/28/2010

		Metho	b				
	Measured	Report	ing	Analysis	Date		
Parameter	Value	Limit	Units	Method	Analyzed		
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/24/2010		
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/24/2010		
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
1,2-Dichloroethane-d4 (Surr)	101		%	EPA 8260B	07/24/2010		
Toluene - d8 (Surr)	101		%	EPA 8260B	07/24/2010		
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/24/2010		
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/24/2010		
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	07/24/2010		
1,2-Dichloroethane-d4 (Surr)	100		%	EPA 8260B	07/24/2010		
Toluene - d8 (Surr)	98.9		%	EPA 8260B	07/24/2010		

Page 11 of 21

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	e Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicat Spiked Sample Percent Recov.	e Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH-D (Si Gel)														
	BLANK	<50	1000	1000	1040	1020	ug/L	M EPA 8015	7/28/10	104	102	2.63	70-130	25
1,2-Dibromoethane														
	73876-01	<0.50	39.9	39.9	33.6	33.4	ug/L	EPA 8260B	7/24/10	84.1	83.7	0.554	80-120	25
1,2-Dichloroethane						.					/			
Benzene	73876-01	<0.50	39.9	39.9	35.2	34.4	ug/L	EPA 8260B	7/24/10	88.2	86.1	2.46	75.7-122	25
Denzene	73876-01	<0.50	39.9	39.9	37.3	37.8	ug/L	EPA 8260B	7/24/10	93.5	94.7	1.21	80-120	25
Diisopropyl ether														
	73876-01	<0.50	40.0	40.0	36.9	37.2	ug/L	EPA 8260B	7/24/10	92.1	93.0	0.932	80-120	25
Ethyl-tert-butyl ethe		<0.50	40.0	40.0	24.0	24.6			7/24/40	96.0	00.0	0 407	76 E 400	25
Ethylbenzene	/38/6-01	<0.50	40.0	40.0	34.8	34.0	ug/L	EPA 8260B	//24/10	86.9	80.0	0.407	76.5-120	25
Larybenzene	73876-01	<0.50	39.9	39.9	38.2	38.4	ug/L	EPA 8260B	7/24/10	95.7	96.1	0.466	80-120	25
Methyl-t-butyl ether														
	73876-01	64	39.9	39.9	93.8	93.6	ug/L	EPA 8260B	7/24/10	74.8	74.2	0.791	69.7-121	25
P + M Xylene														
	/3876-01	<0.50	39.9	39.9	37.6	38.5	ug/L	EPA 8260B	7/24/10	94.1	96.5	2.53	76.8-120	25

KIFF ANALYTICAL, LLC

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	e Units	Analysis Method	Date Analvzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov	e Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Tert-Butanol														
	73876-01	310	200	200	505	508	ug/L	EPA 8260B	7/24/10	97.9	99.8	1.95	80-120	25
Tert-amyl-methyl e	ther													
	73876-01	<0.50	40.1	40.1	35.3	35.6	ug/L	EPA 8260B	7/24/10	87.9	88.8	1.02	78.9-120	25
Toluene														
	73876-01	<0.50	39.9	39.9	37.7	38.1	ug/L	EPA 8260B	7/24/10	94.5	95.4	0.922	80-120	25
1,2-Dibromoethane	:													
	73895-01	<0.50	39.7	39.9	39.2	39.2	ug/L	EPA 8260B	7/28/10	98.7	98.1	0.641	80-120	25
1,2-Dichloroethane														
	73895-01	<0.50	39.7	39.9	35.8	35.7	ug/L	EPA 8260B	7/28/10	90.2	89.4	0.894	75.7-122	25
Benzene														
	73895-01	<0.50	39.7	39.9	38.3	38.6	ug/L	EPA 8260B	7/28/10	96.5	96.8	0.275	80-120	25
Diisopropyl ether														
	73895-01	<0.50	39.8	40.0	38.1	38.0	ug/L	EPA 8260B	7/28/10	95.7	94.9	0.863	80-120	25
Ethyl-tert-butyl ethe	er Tooot of		~~ -		<u></u>				= 100 110					
Ethylbonzono	73895-01	<0.50	39.7	40.0	35.4	36.0	ug/L	EPA 8260B	7/28/10	89.0	90.0	1.19	76.5-120	25
Eurybenzene	72005 04	<0.50	20.7	20.0	20.4	20.4			7/20/40	00.4	00 0	0 602	90 100	25
	10-0602	\U.5U	39.1	29.9	39.4	39.4	uy/L	EPA 0200B	1/20/10	99.4	90.0	0.092	00-120	20

KIFF ANALYTICAL, LLC

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	e Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	e Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Methyl-t-butyl ether									-					
	73895-01	<0.50	39.7	39.9	33.5	33.8	ug/L	EPA 8260B	7/28/10	84.5	84.6	0.0949	69.7-121	25
P + M Xylene														
	73895-01	<0.50	39.7	39.9	39.7	39.5	ug/L	EPA 8260B	7/28/10	100	99.0	1.06	76.8-120	25
Tert-Butanol														
	73895-01	<5.0	198	200	195	192	ug/L	EPA 8260B	7/28/10	98.0	96.4	1.64	80-120	25
Tert-amyl-methyl et	her													
	73895-01	<0.50	39.9	40.1	36.9	36.0	ug/L	EPA 8260B	7/28/10	92.5	89.8	2.99	78.9-120	25
Toluene														
	73895-01	<0.50	39.7	39.9	38.6	38.8	ug/L	EPA 8260B	7/28/10	97.4	97.2	0.164	80-120	25
1,2-Dibromoethane														
	73880-02	<0.50	40.0	40.0	36.8	36.7	ug/L	EPA 8260B	7/24/10	91.9	91.8	0.148	80-120	25
1,2-Dichloroethane							0							
	73880-02	<0.50	40.0	40.0	46.2	45.0	ug/L	EPA 8260B	7/24/10	116	113	2.59	75.7-122	25
Benzene							U							
	73880-02	<0.50	40.0	40.0	36.8	36.2	ug/L	EPA 8260B	7/24/10	92.1	90.6	1.72	80-120	25
Diisopropyl ether														
	73880-02	<0.50	40.1	40.1	40.4	39.6	ug/L	EPA 8260B	7/24/10	101	98.8	1.91	80-120	25

Page 14 of 21

KIFF ANALYTICAL, LLC

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	e Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicat Spiked Sample Percent Recov.	e Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Ethyl-tert-butyl ethe	er i								y					
	73880-02	<0.50	40.1	40.1	38.9	38.6	ug/L	EPA 8260B	7/24/10	97.1	96.4	0.749	76.5-120	25
Ethylbenzene														
	73880-02	<0.50	40.0	40.0	38.3	37.9	ug/L	EPA 8260B	7/24/10	95.8	94.8	1.09	80-120	25
Methyl-t-butyl ether														
	73880-02	2.7	40.0	40.0	43.1	42.5	ug/L	EPA 8260B	7/24/10	101	99.5	1.41	69.7-121	25
P + M Xylene														
	73880-02	<0.50	40.0	40.0	37.8	37.2	ug/L	EPA 8260B	7/24/10	94.4	92.9	1.64	76.8-120	25
Tert-Butanol														
Tart amul mathul at	73880-02	320	200	200	558	532	ug/L	EPA 8260B	7/24/10	119	106	11.4	80-120	25
ren-amyi-metnyi et		-0.50	40.0	40.0	40.0	40.0			7/04/40	100	100	0 0000	70.0.400	05
Toluene	73880-02	<0.50	40.2	40.2	40.3	40.3	ug/L	EPA 8260B	7/24/10	100	100	0.0398	78.9-120	25
loidene	73990 02	<0.50	40.0	40.0	30.2	29 A	ua/l		7/24/10	09.1	06.1	2.06	80 120	25
	73000-02	<0.50	40.0	40.0	39.2	30.4	ug/L	EFA 0200B	1/24/10	90.1	90.1	2.00	00-120	25
1,2-Dibromoethane														
	73880-03	<0.50	40.0	40.0	38.0	38.4	ua/L	EPA 8260B	7/24/10	95.1	95.9	0.824	80-120	25
1,2-Dichloroethane							0							
	73880-03	<0.50	40.0	40.0	40.3	39.0	ug/L	EPA 8260B	7/24/10	101	97.4	3.31	75.7-122	25

KIFF ANALYTICAL, LLC

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	e Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	e Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	-								-					
	73880-03	<0.50	40.0	40.0	40.9	40.2	ug/L	EPA 8260B	7/24/10	102	100	1.78	80-120	25
Diisopropyl ether														
	73880-03	<0.50	40.1	40.1	41.4	43.3	ug/L	EPA 8260B	7/24/10	103	108	4.45	80-120	25
Ethyl-tert-butyl ethe	r													
	73880-03	<0.50	40.1	40.1	40.9	42.0	ug/L	EPA 8260B	7/24/10	102	105	2.69	76.5-120	25
Ethylbenzene		. = .							= 10 4 4 4 0	4.0.0	10.1			
Mothyl t butyl othor	73880-03	<0.50	40.0	40.0	41.1	41.8	ug/L	EPA 8260B	//24/10	103	104	1.71	80-120	25
wearyi-t-butyi etrier	72000 02	<0.50	40.0	40.0	40.6	40.0			7/24/40	100	106	2 02	60 7 101	25
P + M Xvlene	13000-03	<0.50	40.0	40.0	40.0	42.2	ug/L	EFA 0200D	//24/10	102	100	3.03	09.7-121	25
i i i i vi y cylonio	73880-03	<0.50	40.0	40.0	41 2	41 Q	ua/l	EPA 8260B	7/24/10	103	105	1 69	76 8-120	25
Tert-Butanol	10000 00	-0.00	40.0	40.0	71.2	41.0	ug/L		172-1710	100	100	1.00	10.0 120	20
	73880-03	<5.0	200	200	200	200	ua/L	EPA 8260B	7/24/10	100	99.8	0.309	80-120	25
Tert-amyl-methyl et	her						-9-							
	73880-03	<0.50	40.2	40.2	40.8	42.4	ug/L	EPA 8260B	7/24/10	101	105	3.68	78.9-120	25
Toluene							J							
	73880-03	<0.50	40.0	40.0	39.5	40.1	ug/L	EPA 8260B	7/24/10	98.7	100	1.57	80-120	25

KIFF ANALYTICAL, LLC

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
1,2-Dibromoethane	40.0	ug/L	EPA 8260B	7/24/10	81.9	80-120
1,2-Dichloroethane	40.0	ug/L	EPA 8260B	7/24/10	86.3	75.7-122
Benzene	40.0	ug/L	EPA 8260B	7/24/10	92.4	80-120
Diisopropyl ether	40.1	ug/L	EPA 8260B	7/24/10	91.3	80-120
Ethyl-tert-butyl ether	40.1	ug/L	EPA 8260B	7/24/10	86.5	76.5-120
Ethylbenzene	40.0	ug/L	EPA 8260B	7/24/10	94.1	80-120
Methyl-t-butyl ether	40.0	ug/L	EPA 8260B	7/24/10	80.4	69.7-121
P + M Xylene	40.0	ug/L	EPA 8260B	7/24/10	93.2	76.8-120
Tert-Butanol	200	ug/L	EPA 8260B	7/24/10	94.8	80-120
Tert-amyl-methyl ether	40.2	ug/L	EPA 8260B	7/24/10	87.6	78.9-120
Toluene	40.0	ug/L	EPA 8260B	7/24/10	93.4	80-120
1,2-Dibromoethane	40.0	ug/L	EPA 8260B	7/28/10	96.0	80-120
1,2-Dichloroethane	40.0	ug/L	EPA 8260B	7/28/10	90.3	75.7-122
Benzene	40.0	ug/L	EPA 8260B	7/28/10	96.3	80-120
Diisopropyl ether	40.1	ug/L	EPA 8260B	7/28/10	96.3	80-120
Ethyl-tert-butyl ether	40.1	ug/L	EPA 8260B	7/28/10	90.1	76.5-120
Ethylbenzene	40.0	ug/L	EPA 8260B	7/28/10	99.0	80-120
Methyl-t-butyl ether	40.0	ug/L	EPA 8260B	7/28/10	84.6	69.7-121
P + M Xylene	40.0	ug/L	EPA 8260B	7/28/10	98.7	76.8-120
Tert-Butanol	200	ug/L	EPA 8260B	7/28/10	97.2	80-120
Tert-amyl-methyl ether	40.2	ug/L	EPA 8260B	7/28/10	93.4	78.9-120
Toluene	40.0	ug/L	EPA 8260B	7/28/10	97.6	80-120

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit	
1,2-Dibromoethane	40.2	ug/L	EPA 8260B	7/24/10	92.0	80-120	
1,2-Dichloroethane	40.2	ug/L	EPA 8260B	7/24/10	117	75.7-122	
Benzene	40.2	ug/L	EPA 8260B	7/24/10	92.0	80-120	
Diisopropyl ether	40.3	ug/L	EPA 8260B	7/24/10	101	80-120	
Ethyl-tert-butyl ether	40.2	ug/L	EPA 8260B	7/24/10	99.9	76.5-120	
Ethylbenzene	40.2	ug/L	EPA 8260B	7/24/10	95.6	80-120	
Methyl-t-butyl ether	40.2	ug/L	EPA 8260B	7/24/10	102	69.7-121	
P + M Xylene	40.2	ug/L	EPA 8260B	7/24/10	92.6	76.8-120	
TPH as Gasoline	512	ug/L	EPA 8260B	7/24/10	101	70.0-130	
Tert-Butanol	201	ug/L	EPA 8260B	7/24/10	102	80-120	
Tert-amyl-methyl ether	40.4	ug/L	EPA 8260B	7/24/10	99.9	78.9-120	
Toluene	40.2	ug/L	EPA 8260B	7/24/10	96.8	80-120	
1,2-Dibromoethane	40.0	ug/L	EPA 8260B	7/24/10	93.9	80-120	
1,2-Dichloroethane	40.0	ug/L	EPA 8260B	7/24/10	96.4	75.7-122	
Benzene	40.0	ug/L	EPA 8260B	7/24/10	99.1	80-120	
Diisopropyl ether	40.1	ug/L	EPA 8260B	7/24/10	103	80-120	
Ethyl-tert-butyl ether	40.1	ug/L	EPA 8260B	7/24/10	96.6	76.5-120	
Ethylbenzene	40.0	ug/L	EPA 8260B	7/24/10	104	80-120	
Methyl-t-butyl ether	40.0	ug/L	EPA 8260B	7/24/10	94.0	69.7-121	
P + M Xylene	40.0	ug/L	EPA 8260B	7/24/10	105	76.8-120	
TPH as Gasoline	511	ug/L	EPA 8260B	7/24/10	109	70.0-130	

QC Report : Laboratory Control Sample (LCS)

Project Name : Hutch's Carwash

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Tert-Butanol	200	ug/L	EPA 8260B	7/24/10	99.5	80-120
Tert-amyl-methyl ether	40.2	ug/L	EPA 8260B	7/24/10	98.4	78.9-120
Toluene	40.0	ug/L	EPA 8260B	7/24/10	98.8	80-120
Aqua Science Engineers, Inc. 55 Oak Court, Suite 220 73868 Chain of Custody Danville, CA 94526 (925) 820-9391 FAX (925) 837-4853 PAGE / of / SAMPLER (SIGNATURE) PROJECT NAME _ Hutch's Carwash JOB NO. ADDRESS 17945 Hosperian Blud San Lorenzo, CA -E.K. ANALYSIS REQUEST TPH-G/BTEX/5 OXYS / り ゲビッ/ (EPA METHOD 8260) / り ゲビッ/ MULTHRANGE HYDROCARBONS WITH SILICA GEL CLEANUP (EPA 8015) PURGEABLE HALOCARBONS (EPA 601/8010) T 15 lica C SEMI-VOLATILE ORGANICS (EPA 625/8270) Pb (TOTAL or DISSOLVED) (EPA 6010) SPECIAL INSTRUCTIONS: If there is insufficient water for all analyses give priority to TPH-6/BTEX/5 0xys TPH-DIESEL & MOTOR OIL (EPA 3510/8015) TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020) VOLATILE ORGANICS (EPA 624/8240/8260) FUEL OXYGENATES (EPA 8260) LUFT METALS (5) (EPA 6010+7000) CAM 17 METALS (EPA 6010+7000) TPH-DIESEL W/ (EPA 3510/8015) COMPOSITE 4:1 PESTICIDES (EPA 8081) QUANTITY MATRIX DATE TIME Ë SAMPLE ID. 16-20' Water 7.200 908 W ス 01 BH-7 3 2 X 25-29 water 1345 N 7-21-10 03. Х 25-30 Water BHJ 7-20/10 1332 3 $\boldsymbol{\Gamma}$ 64 3 BH-J 31-35' Water 1350 7-21-10 \mathbf{X} 05 BH-K 20-25 Water $\boldsymbol{\times}$ 3 7-20-10 1630 \sim of 26-28' Water 4 $\boldsymbol{\times}$ \mathcal{L} BH-K 7-21-10 1204 61 918 3 ${}^{\times}$ BH-L 20-24' Water $\boldsymbol{\chi}$ 7-21-10 n8 \overline{X} BH-L 25-28' Watu 2 X 1030 09 $\boldsymbol{\chi}$ 38-40 Watch BH-L 1125 Х N COMMENTS: **RELINQUISHED BY:** RECEIVED BY LABORATORY: **RECEIVED BY: RELINQUISHED BY:** 2 E.Filey EA 1332 (signature) (titné) (signature) (time) (time) (signature) EGaddess **FURN AROUND TIME** Robert E.K.tas 072210 STANDARD) 24Hr 48Hr 72Hr (date) (printed name) (printed name) (date) (printed name) . (date) (printed name) 🥆 (date) icit OTHER: Company-ASE, INC. Company-Company-Company-Anoly treal

Artical LC SAMPLE RECEIPT CHECKLIST Initial Mathematical Control (Control (Cont					Bronupp
ahvtical LC SAMPLE RECEIPT CHECKLIST Immit SRG#:					RECEIVER
SRG#: 12260 Project ID: Hdr.L.S.C.C	Nnalytical LLC SAMPLE R	LECEIPT CHI	ECKLIST		Initials
Project ID:	SRG#:	568	Date:	012210	
Method of Receipt: Courier Over-the-counter Shipper COC Inspection Broken Not present No Stock yeals on shipping container? Free No Intact Broken Not present No S COC figued by kelinquisher? Free No Date? Yes No s analysis or hold requested for all samples Free No No No So containers s the turnaround time indicated on COC? Yes No No No So containers s core of whiteout and uninitialed cross-outs? Free No Date/Time Text No No, Cross-outs Sample Inspection So containers match COC? Yes No Date/Time Text No No No Yet there sample storics onter than soll, water, air or cubor? Intact Broken No to present Ocontainers match COC? Yet ary sample containers matches Yet servatives correct for analyses requested? Yes No Yet there sample to indicated Yet servatives correct for analyses requested? Yes No No Yet servatives indicated? Container specifi	Project ID:	h's Car	Wash		
COC Inspection Personn?	Method of Receipt:	Courier Over	the-counter [Shipper	
Are the correct sample containers used for the analyses requested? Yes No s there sufficient sample containers to perform testing? Yes No Does any sample contain product, have strong odor or are otherwise suspected to be hot? Yes No Battix Container type # of containers received # Matrix Container type # of containers received # Matrix Container type # of containers received # Date and Time Sample Put into Temp Storage Date: O 22210 Time:	Netword of Receipt. Netword of Receipt. Netword of Receipt. Construction Source present? Custody seals on shipping container? Is COC Signed by Relinquisher? Is sampler name legibly indicated on COC? Is analysis or hold requested for all samples Is the turnaround time indicated on COC? Is COC free of whiteout and uninitialed cross-out. Sample Inspection Coolant Present: Coloant Present: Yes Temperature °C 4.2 Are there custody seals on sample containers? No Do containers match COC? Yes No Are there samples matrices other than soil, water, Are any sample containers broken, leaking or dam Are preservatives correct for analyses requested? Are preservatives correct for analyses requested? Are samples within holding time for analyses requested?	No Dated? No Dated? No, COC lists all air or carbon? maged? mple containers uested?	Yes Intact Yes Yes	No Broken No No No No No, Whiteout No, Whiteout No, Extra sample No	present N/A No, Cross-outs No, Cross-outs N/A Not present (s) present N/A N/A
Ouicklog 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? If 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? If 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? If Yes No N/A COMMENTS: Image: Solution of Solu	Are the correct sample containers used for the ana Is there sufficient sample to perform testing? Does any sample contain product, have strong ode Receipt Details Matrix (Λ / A) Container type $(\forall \forall d)$ Matrix (Δ / A) Container type $(\forall \forall d)$ Matrix (Δ / A) Container type $(\forall \forall d)$ Matrix (Δ / A) Container type $(\forall \forall d)$ Matrix (Δ / A) Container type $(\forall \forall d)$ Matrix (Δ / A) Container type $(\forall \forall d)$ Date and Time Sample Put into Temp Storage (Δ / A)	alyses requested? or or are otherwise su # of con # of con # of con # of con # of con # of con	Yes Yes uspected to be hot? ntainers received_ ntainers received_ Time:5	$\frac{1}{2}$ No $\frac{1}{2}$ Yes $\frac{2}{3}$	[]No
	Quicklog Are the Sample ID's indicated: O If Sample ID's are listed on both COC and contail Is the Project ID indicated: On COC If project ID is listed on both COC and containers Are the sample collection dates indicated: O If collection dates are listed on both COC and cord Are the sample collection times indicated: O If collection times are listed on both COC and cord Are the sample collection times indicated: O If collection times are listed on both COC and cord	On COC On sa ners, do they all mate On sample con s, do they all match? On COC On sa ntainers, do they all n On COC On sa ntainers, do they all r	mple container(s) tainer(s) Yes tainer(s) On Yes No mple container(s) match? Yes match? Yes	X On Both No No No Not ind NA NA NA NO NO] Not indicated] N/A licated] Not indicated] N/A] Not indicated] N/A
	COMMENTS:				
			1970 18 17 I		
			· · · · ·	<u> </u>	

O:\old_ed\samprec\Forms\Sample Receipt Checklist rev 051409.doc