9/14/98



July 20, 1998

671D 1330

Ms. Susan Hugo Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, 2nd floor Alameda, CA 94502

Dear Ms. Hugo:

On behalf of our client, the Oliver Rubber Company (Oliver), please accept the attached Aqua Science Engineers, Inc. (ASE) Soil and Groundwater Assessment report detailing the plume definition downgradient of the Together with ASE's previous Soil and former RAFFEX tank vault. Groundwater Assessment report dated April 30, 1998, which details drilling and sampling activities primarily within the facility, it is our opinion that the site has been more than adequately characterized. Furthermore, we believe that the analytical results indicate that there appears to be no significant degree of soil or groundwater contamination at the site that would inhibit the development of the site on an unrestricted basis. ASE's only prerequisite to the site being developed for residential usage would be that the former RAFFEX tank vault and cover remain explained within the report in the conclusions and recommendations section. As requested, all of the subsurface pipes that were observed open during our meeting at the property several weeks ago have been completely filled with cement.

On behalf of Oliver, please accept this report as a formal request for case closure allowing the development of the property on an unrestricted basis which would include residential usage.

We will appreciate your expediting this case as you may recall that, during our meeting with Oliver Rubber, it was emphasized that the property has been sold and both Oliver and the new owner are anxious to proceed pending your letter.

Should you have any questions or comments, please feel free to give us a call at (925) 820-9391.

No. REA-06211

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

David Allen, R.E.A.

Senior Project Manager

cc: Mr. Dave Kuhre, Oliver Rubber Company

Mr. Tom Palmer, The Standard Products Company

July 20, 1998

CANNED SECTION 29

REPORT

of ADDITIONAL SOIL AND GROUNDWATER ASSESSMENT ASE JOB NO. 3231

at
Oliver Rubber Company Plant I
1200 65th Street
Oakland, California

Submitted by:
AQUA SCIENCE ENGINEERS, INC.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583
(925) 820-9391

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#### 1.0 INTRODUCTION

This report outlines the methods and findings of Aqua Science Engineers, Inc. (ASE)'s additional soil and groundwater assessment at the Oliver Rubber Company (Oliver) property located at 1200 65th Street in Oakland, California (Figures 1 and 2). The additional site assessment activities were conducted on behalf of Oliver as required by the Alameda County Health Care Services Agency (ACHCSA) to obtain case closure at the site.

#### 2.0 SITE HISTORY

The site has been used since the 1950's primarily as a rubber tire tread Virgin materials were combined and processed using manufacturing plant. various mixing machines, milling machines, and conveyors. product was then either extruded into strip form or molded into tire treads at Oliver's Plant II across Vallejo Street. The entire floor of the production area is reportedly a minimum of 12-inches thick. In areas surrounding large milling machines, the concrete is reportedly up to 24 to 36-inches thick. The milling machines and conveyor system sat on pedestals above shallow concrete pits. A cooling water system was incorporated within the production to keep machines the operating at temperatures. This cooling water was then recycled and reused. Chemicals were added to the cooling water to reduce the levels of scaling in the cooling tower, to reduce algae, and to control the pH.

The compound of interest used during the production of the rubber for tire treads is a heavy petroleum hydrocarbon, much like liquid tar at elevated The product most commonly used by Oliver was RAFFEX 120. The RAFFEX 120 was stored outside the plant in a subgrade concrete vault, which was heated with steam to maintain the liquid consistency of The RAFFEX was then pumped inside the building to the the product. Zinc Stearate was also used during the extrusion of the process area. rubber product to inhibit the product from adhering to itself as it was stacked onto pallets. Various lubricating oils and greases were used in the milling and mixing machines. Spent lubricating oils and greases were drummed, profiled, and shipped off-site for recycling. cleaning stations were used at the facility during maintenance activities.

Beginning in January 1998 and completed during the week of March 16, 1998, the plant was decommissioned and cleaned by Mid-American Machine, Inc. and DECON Environmental Services, respectively. All plant manufacturing equipment was removed and either shipped to various Oliver plants on the east coast or scrapped as metal salvage. Pressure

washing liquids used to clean the building were collected and disposed of off-site. The scope of work for this plant closure was discussed and agreed upon by members of Oliver staff and Mr. Amir Gholami of the ACHCSA during his visit to the plant on November 20, 1997.

As the decommissioning and cleaning processes were taking place, ASE was on-site to inspect for potential integrity failures in the concrete floor and pits. Pits without obvious cracks were filled with concrete. Pits that had exit pipes or cracks near the edges of the pit were earmarked for future assessment activities to be conducted adjacent to the pits.

In April 1998, nine (9) soil borings were drilled inside the building to depths ranging from 2.5-feet below ground surface (bgs) to 6-feet bgs. Selected soil samples were analyzed for RAFFEX, oil & grease (O&G), and zinc. Low levels of RAFFEX were identified in the soil samples ranging from 3.1 parts per million (ppm) to 40 ppm. 260 ppm O&G was identified in one soil boring; O&G was not detected in the remaining borings at concentrations greater than the detection limit. 18 ppm zinc was identified in the only soil boring for which zinc was analyzed. Three (3) soil borings were drilled outside the building in respect to the former RAFFEX tank One of these borings (BH-10) was drilled to 3-feet bgs near the piping manifold; only 7.5 ppm RAFFEX was identified in this soil sample. The other two borings were drilled outside approximately 8-feet west (downgradient) of the former vault (BH-11 & BH-12), near the railroad tracks/spurs. These borings were drilled to a total depth of approximately 12-feet bgs in order to collect grab groundwater samples. Soil samples collected from these two borings contained 74 ppm and 20 ppm RAFFEX. The grab groundwater samples contained 1.2 ppm and 4.6 ppm RAFFEX in. Analytical results from these previous investigations are tabulated in Tables One through Three. Complete details of the pit inspections and sampling activities conducted in April 1998 can be found in the ASE report titled "Report of Soil and Groundwater Assessment, ASE Job No. 3231," dated April 30, 1998. Due to the elevated concentrations of RAFFEX in the groundwater, Ms. Susan Hugo of the ACHCSA stated in a telephone conversation that the RAFFEX contamination would need to be delineated before closure could be considered. The following scope of work was designed to delineate the extent of RAFFEX in soil and groundwater downgradient of the former RAFFEX tank vault.

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Oliver Rubber Report - July 1998

#### 3.0 SCOPE OF WORK (SOW)

The scope of work conducted during this assessment was presented in ASE's June 25, 1998 Workplan for a Soil and Groundwater Assessment at Oliver Rubber Company Plant I, 1200 65th Street, Oakland, California and was to:

- 1) Prepare a workplan for approval by the ACHCSA.
- 2) Obtain a drilling permit from the Alameda County Public Works Agency (ACPWA).
- 3) Drill five (5) soil borings at the site with a Geoprobe drill rig. Collect soil samples continuously and screen the soil samples for volatile compounds with an organic vapor meter (OVM).
- 4) Collect groundwater samples from each boring.
- 5) Analyze one soil sample from each boring, as well as the groundwater sample collected from each boring, at a CAL-EPA certified analytical laboratory for total petroleum hydrocarbons (TPH) as RAFFEX by modified EPA Method 8015, volatile organic compounds (VOCs) by EPA Method 8240 and semi-volatile organic compounds (SVOCs) by EPA Method 8270.
- 6) Backfill the borings with neat cement.
- 7) Prepare a report outlining the methods and findings of this assessment.

Details of the assessment are presented below.

### 4.0 DRILL SOIL BORINGS AND COLLECT SAMPLES

Prior to drilling, ASE obtained drilling permit #98WR262 from ACPWA. A copy of this permit is presented in Appendix A.

On July 1, 1998, Vironex Environmental Field Services of Hayward, California drilled soil borings BH-13 through BH-17 at the site using a Geoprobe hydraulic sampling rig (Figure 2). These locations were chosen by ASE to delineate the downgradient extent of RAFFEX impacted soil and groundwater. The drilling was directed by ASE senior project manager David Allen and ASE senior geologist Robert E. Kitay, R.G.

Undisturbed soil samples were collected continuously 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 soilsamples were immediately trimmed, sealed with Teflon tape, plastic end caps and duct tape, labeled, sealed in plastic bags and stored on ice for transport to Chromalab, Inc. of Pleasanton, California (ELAP #1094) under chain of custody. Soil from the remaining tubes was described by the site geologist using the Unified Soil Classification System and was screened for volatile compounds using an Organic Vapor Meter (OVM). During the drilling of boring BH-15, an acetate tube was crushed into the sampler and could not be removed. For this reason, soil samples could not be collected during the remainder of the drilling project. Therefore, no soil samples were collected from either borings BH-16 or BH-17. In addition, since borings BH-13, BH-14 and BH-15 had to be advanced deeper than the initial stopping point in these borings in order to obtain the required volume of groundwater for analysis, soil samples could not be collected from the deeper portions of these borings.

A temporary PVC well casing was driven into place in each boring for the collection of groundwater samples. Groundwater samples were removed from the borings using a peristaltic pump. The groundwater samples were contained in 40-ml volatile organic analysis (VOA) vials (pre-preserved with hydrochloric acid) without headspace and unpreserved 1-liter amber The samples were labeled, placed in protective foam glass containers. sleeves, and stored in coolers with wet ice for transport to Chromalab under appropriate chain of custody documentation. A sufficient volume of water could not be collected from borings BH-13 and BH-17 on July 1, 1998 for the required analyses, therefore, ASE senior project manager David Allen returned to the site on July 2, 1998 to complete groundwater sampling from these borings. Upon completion of the soil and groundwater sampling, the borings were backfilled with neat cement to the ground surface.

Drilling equipment was cleaned with a TSP solution between sampling intervals and between borings to prevent potential cross-contamination.

#### 5.0 HYDROGEOLOGY

Boring logs for borings BH-13, BH-14 and BH-15 are presented in Appendix B. As stated in the previous section, only limited soil sampling could be accomplished during this assessment. However, although sediments appeared to be wet at 4-feet bgs in boring BH-13, the sediments

were not sufficiently permeable to produce water until a depth of 20-feet In borings BH-14 and BH-15, groundwater did not bgs was reached. appear to be encountered until 15.5-feet bgs, after which it rose to 5-feet It appears that the groundwater encountered in borings BH-13, BH-14 and BH-15 was under semi-confined conditions. Since soil sampling was not possible in borings BH-16 and BH-17, it is not known whether existed in borings BH-16 and BH-17: conditions groundwater was encountered in borings BH-11 and BH-12 during the April 8, 1998 sampling period at approximately 4 - 6 feet where it essentially stabilized, indicating non-confined conditions. In addition, the lithology of sediments encountered in borings BH-11 and BH-12 were generally more permeable than those encountered in borings BH-13, BH-14 and BH-15. For these reasons, there appears to be a hydrogeologic barrier between the vicinity of borings BH-11 and BH-12 and the vicinity of borings BH-13, BH-14 and BH-15, which is likely impeding groundwater flow to the west downgradient of the site.

#### 6.0 ANALYTICAL RESULTS FOR SOIL

The soil sample collected from what appeared to be the capillary zone in each boring (3.5-feet bgs in boring BH-13, 15.5-feet bgs in boring BH-14 and 15.0-feet bgs in boring BH-15) was analyzed by Chromalab for TPH as RAFFEX by modified EPA Method 8015, VOCs by EPA Method 8240 and SVOCs by EPA Method 8270. The analytical results are tabulated in Table Four, and the certified analytical report and chain of custody documentation are included in Appendix C.

56 ppm and 1.8 ppm TPH RAFFEX were detected in soil samples collected from 3.5-feet bgs in boring BH-13 and 15.0-feet bgs in boring BH-15, respectively. The only VOC detected in any of the soil samples was 0.0076 ppm 1,1-dichloroethene in the soil sample collected from 15.5-feet bgs in boring BH-14. No other VOCs were detected in any of the soil samples analyzed. No SVOCs were detected in any of the soil samples analyzed.

#### 7.0 ANALYTICAL RESULTS FOR GROUNDWATER

The groundwater samples were analyzed by Chromalab for TPH RAFFEX by modified EPA Method 8015, VOCs by EPA Method 8240 and SVOCs by EPA Method 8270. The analytical results are tabulated in Tables Five, Six and Seven, and the certified analytical report and chain of custody documentation are included in Appendix C.

TPH-RAFFEX was detected in groundwater samples collected from borings BH-13 through BH-16 at concentrations ranging from 63 ppb to 270 ppb. The highest of these concentrations were in groundwater samples collected from borings BH-13 and BH-14 at 140 ppb and 270 ppb, respectively. Phenol was detected at 11 ppb and 3.7 ppb in groundwater collected from borings BH-13 and BH-15, respectively. Phenol was not detected in the other groundwater samples, and no other SVOCs were detected in groundwater samples collected from any of the borings. Toluene was detected in groundwater samples collected from borings BH-13, BH-14, BH-16 and BH-17 at concentrations ranging from 0.66 ppb 0.56 ppb benzene was detected in groundwater collected from boring BH-17. 1,1-dichloroethane, 1,1-dichloroethene, and 1,1,1-trichloroethane were detected at groundwater samples collected from boring BH-14 at concentrations ranging from 0.63 ppb to 3.2 ppb. No other VOCs were detected in any of the borings. No VOCs were detected in groundwater samples collected from boring BH-15.

#### 8.0 CONCLUSIONS AND RECOMMENDATIONS

The only VOC concentration detected in the soil during this assessment was 0.0076 ppm 1,1-dichloroethene in the soil sample collected from 15.5-feet bgs in boring BH-14. This concentration is below the United States Environmental Protection Agency (US EPA) preliminary remediation goal (PRG) for residential soil. No other VOCs were detected in any of the soil samples analyzed, and no SVOCs were detected in any of the soil samples analyzed.

Only very low concentrations of VOCs, below California Department of Toxic Substances Control (DTSC) maximum contaminant levels (MCLs) for drinking water, were detected in the groundwater samples collected during this assessment. The highest phenol concentration was 11 ppb which exceeds the DTSC recommended action level of 5 ppb. However, the DTSC MCL is based on an odor and taste threshold in chlorinated tap water systems, not risk to human health. The US EPA health advisory concentration for phenol in drinking water is 4,000 ppb, which is well above the highest concentration of phenol detected during this assessment.

Based on these results, the concentrations of RAFFEX, VOCs, and SVOCs detected during this assessment would not appear to present a threat to human health. In addition, since the TPH-RAFFEX concentrations decreased from 4,600 ppb in groundwater samples collected from boring BH-12 to 270 ppb in groundwater samples collected from boring BH-14 just 30-feet away in the downgradient direction, the extent of RAFFEX in

groundwater appears to be limited and would not be expected to migrate far off-site.

ASE further concludes/recommends the following:

- No further assessment activities are warranted at the site for either plume definition or plant closure activities.
- Based on the analytical results collected during the various assessments at this site both inside the building related to the inspection and assessment of the various pits and outside related to the assessment of the RAFFEX tank vault and underground piping, it appears that the subsurface soil has not been impacted by significant levels of TPH-RAFFEX, VOCs, Semi-VOCs or zinc.
- Elevated concentrations of TPH-RAFFEX were only identified in a small area of the property in the location of the former RAFFEX tank vault; levels of TPH-RAFFEX dropped dramatically downgradient of the vault.
- Should it become necessary to excavate in the area of the former RAFFEX tank vault for development purposes (beneath and including the 40' by 20' concrete cover as shown on Figure 2), ASE recommends the preparation of a risk management prevention plan which will identify safe working procedures for field personnel, and detail material handling procedures. If the concrete vault is disturbed during construction and/or development activities, some form of remediation such as soil excavation and/or groundwater removal may be necessary.

ASE recommends that this case be closed. Provided the integrity of the concrete surfaces of the vault and its cover remain intact, the site appears to be suitable for development without any usage restrictions.

#### 9.0 REPORT LIMITATIONS

The results of this assessment represent conditions at the time of the soil and groundwater sampling, at the specific locations where 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.

and allen

David Allen, R.E.A.

Lettay

Senior Project Manager

No. REA-06211
Expires: 6-99

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

Senior Geologist

-8-

#### TABLE ONE

#### Soil Analytical Results TPH-RAFFEX

Soil Samples Collected March 11 and April 8, 1998 All results are in **parts per million** 

SAMPLE ID.	MATRIX	TPH RAFFEX
GRAB-A @ 3.5'	SOIL	380
TRENCH-A	SOIL	3.8
TRENCH-B	SOIL	3 5
TRENCH-C	SOIL	9.6
EPA METHOD		8015M

Notes:

Detectable concentrations are in bold

#### TABLE TWO

Soil Analytical Results
TPH-RAFFEX, Oil & Grease, Zinc, and VOCs
Soil Borings Drilled April 8, 1998
All results are in parts per million

SAMPLE ID.	TPH RAFFEX	OIL & GREASE	ZINC	All VOCs
BH-1 @ 3'	10	< 50	18	< 5.0 - < 50
BH-2 @ 2.5'	6.4	< 50		< 5.0 - < 50
BH-3 @ 3'	3.1	< 50		< 5.0 - < 50
BH-4 @ 2'	4 0	< 50		< 5.0 - < 50
BH-5 @ 5'	3 6	< 50		< 5.0 - < 50
BH-6 @ 6'	10	< 50		< 5.0 - < 50
BH-7 @ 5.5'	4.7	< 50		< 5.0 - < 50
BH-8 @ 4'	1 4	260		< 5.0 - < 50
BH-9 @ 4'	5.1	< 50		< 5.0 - < 50
BH-10 @ 3'	7.5			< 5.0 - < 50
BH-11 @ 6'	7 4			< 5.0 - < 50
BH-12 @ 5.5'	2 0			< 5.0 - < 50
EPA METHOD	8015M	5520 EF	6010	8010

Notes:

Detectable concentrations are in bold.

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

#### TABLE THREE

# Groundwater Analytical Results TPH-RAFFEX

Soil Borings Drilled April 8, 1998 All results are in parts per million

SAMPLE ID.	LOCATION	TPH RAFFEX
GRAB-A	INSIDE VAULT	8
GRAB-B	INSIDE VAULT	2 8
BH-11	DOWNGRADIENT OF VAULT	1.2
BH-12	DOWNGRADIENT OF VAULT	4.6
EPA METHOD		8015M

Note: Detectable concentrations are in bold

#### TABLE FOUR

Soil Analytical Results
TPH-Raffex, VOCs & Semi-VOCs
Soil Borings Drilled July 1, 1998
All results are in parts per million

SAMPLE ID.	TPH RAFFEX	1,1-DICHLOROETHENE	REMAINING VOLATILE ORGANIC COMPOUNDS	ALL SEMI-VOLATILE ORGANIC COMPOUNDS
BH-13 @ 3.5' BH-14 @ 15.5' BH-15 @ 15.0'	5 6 < 1.0 1.8	< 0.005 0.0076 < 0.005	< 0.005 - < 0.050 < 0.005 - < 0.050 < 0.005 - < 0.050	< 0.10 - < 0.50 < 0.10 - < 0.50 < 0.10 - < 0.50
EPA METHOD	8015M	8240	8240	8270

Notes:

Detectable concentrations are in bold.

Non-detectable concentrations are noted by the less than sign (<) followed

by the laboratory detection limit.

#### TABLE FIVE

Groundwater Analytical Results
TPH-RAFFEX
Soil Borings Drilled July 1, 1998
All results are in parts per billion

SAMPLE ID.	TPH RAFFEX
BH-13 WATER	140
BH-14 WATER	270
BH-15 WATER	96
BH-16 WATER	63
BH-17 WATER	< 50
EPA METHOD	8015M

Note:

Detectable concentrations are in bold.

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

#### TABLE SIX

Groundwater Analytical Results Semi-Volatile Organic Compounds Soil Borings Drilled July 1, 1998 All results are in parts per billion

	•	REMAINING
		SEMI-VOLATILE
SAMPLE		ORGANIC
ID.	PHENOL	COMPOUNDS
BH-13 WATER	11	< 2.0 - < 10.0
BH-14 WATER	< 3.3	< 3.3 - < 17.0
BH-15 WATER	3.7	< 2.0 - < 10.0
BH-16 WATER	< 2.5	< 2.5 - < 12.0
BH-17 WATER	< 2.0	< 2.0 - < 10.0
EPA METHOD	8270	8270

Notes:

Detectable concentrations are in bold.

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

#### TABLE SEVEN

# Groundwater Analytical Results Volatile Organic Compounds Soil Borings Drilled July 1, 1998 All results are in parts per billion

						REMAINING VOLATILE
SAMPLE						ORGANIC
ID.	BENZENE	TOLUENE	1,1-DCA	1,1-DCE	1,1,1-TCA	COMPOUNDS
BH-13 WATER	< 0.5	0.66	< 0.5	< 0.5	< 0.5	< 0.5 - < 50.0
BH-14 WATER	< 0.5	0.68	0.63	3.2	0.90	< 0.5 - < 50.0
BH-15 WATER	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5 - < 50.0
BH-16 WATER	< 0.5	1.3	< 0.5	< 0.5	< 0.5	< 0.5 - < 50.0
BH-17 WATER	0.56	1.0	< 0.5	< 0.5	< 0.5	< 0.5 - < 50.0
EPA METHOD	8240	8240	8240	8240	8240	8240

Notes: Detectable concentrations are in bold.

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

1,1-DCA is 1,1-Dichloroethane.

1,1-DCE is 1,1-Dichloroethene.

1,1,1-TCA is 1,1,1-Trichloroethane.

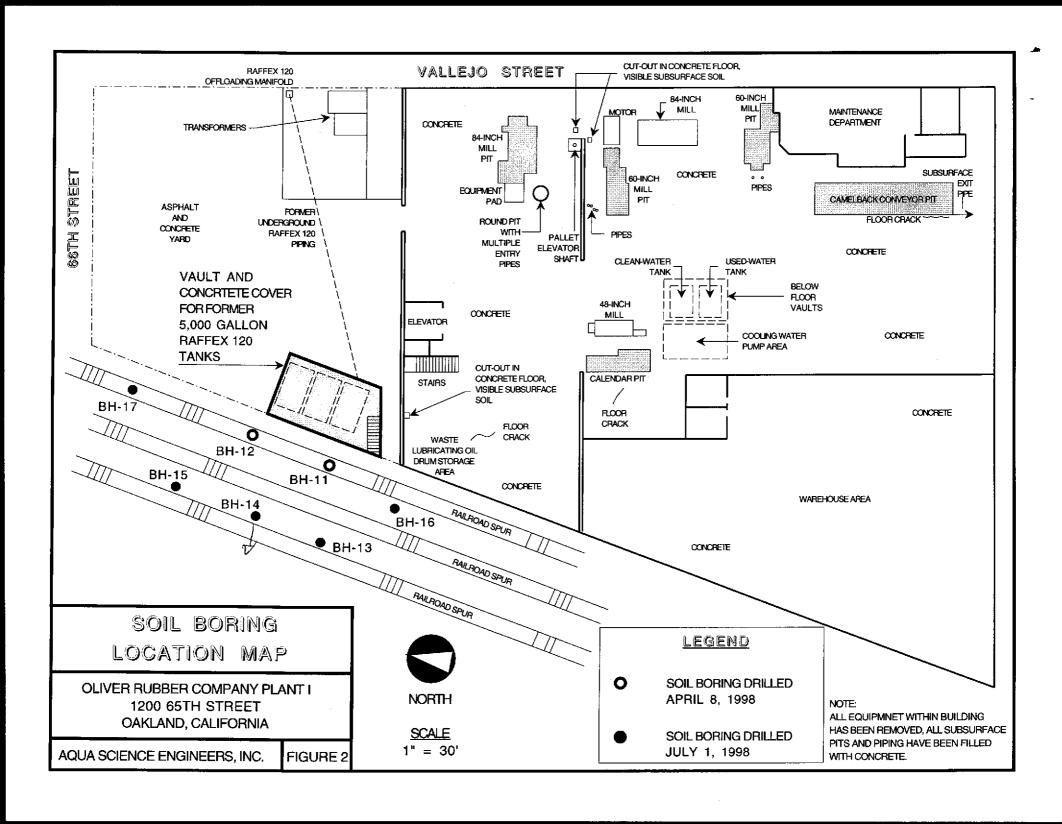


### SITE LOCATION MAP

OLIVER RUBBER COMPANY PLANT I 1200 65TH STREET OAKLAND, CALIFORNIA

Aqua Science Engineers

Figure 1



### APPENDIX A

Drilling Permit



### ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION

251 TURNER COUNT, SUITE 300, HAYWARD, CA 94545-2651

PHONE (\$10) 670-3575 ANDREAS CODEREY FAX (\$10) 670-5262

(\$10) 670-5345 ALYIN KAN

#### DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE	for office use
LUCATION OF PROJECT OLIVER RUBBER CO.	PERMIT NUMBER 98WP. 262 WELL NUMBER
CRELAND CA 9460F	APN
California Coordinates Source ft. Acqueracy # ft. CCN ft. CCE ft. APN	PERMIT CONDITIONS  Citoled Permit Requirements Apply
CLIENT	
NAME OF PARES COMPANY	(A) GENERAL
Action 1200 6513 St. Phone 654-7716	I. A permit application should be submitted so as to arrive at the ACP WA office five days prior to
cia overano sió a acon	proposed starting date.
	2) Submit to ACPWA within 40 days after completion at
APPLICANT	permitted work the original Department of Water
Nette Agua Science Engineers Inc.	Resources Water Well Drillers Report or equivalent for
Address E/11 grd Con compose 60 my Phone 223 820 - 7371	well projects, or drilling logs and location elected for
City An Comp. Co. 7 219 1936)	genechnical projects.  (3) Permit is void if project not begun within 90 days of
	approval date.
Type of Project	B. WATER SUPPLY WELLS
Well Construction George Anical Laurengerian Cathodic Protection George George	1. Minimum surface seal thickness is two inches of
- Camping	coment grout placed by tremb.
Water Supply O Contamination O  Monitoring O Well Describing O	2. Minimum seal depth is 50 feet for municipal and
Monitoring O Well Destruction O	industrial wells or 20 feet for demostic and irrigation
froposed water suffly well use	wells unless a lesser depth is specially approved.
New Domestic C Replacement Domestic U	C. GROUND WATER MONITORING WELLS
Municipal 3 Inteston	INCLUDING PIEZOMETERS
Industrial D Other D	<ol> <li>Minimum surface sea) thickness is two inches of coment grout placed by tremie.</li> </ol>
	2. Minimum soal depth for monitoring wells is the
Drilling method:	maximum depth practicable or 20 feet
Mud Rotary D Air Rotary D Auger D	D. GEOTECHNICAL
Cable D Other & Geographic	Backfill base hale with compacted cuttings or heavy
ORILLER'S LICENSE NO. 6-57 720904	bentonite and upper two feet with compacted material,
	In areas of known or suspected contamination, tremied
WELL PROJECTS	cement grout shall be used in place of compacted cuttings.  E. CATHODIC
Drill Hole Diameter in. Maximum	Fill hale above anode zone with concrete placed by tremie-
Casing Diameter in Depth 1.	F. WELL DESTRUCTION
Surface Seal Depthn. Number	See attached.
GEOTECHNICAL PROJECTS	G. SPECIAL CONDITIONS
Number of Springs 7 Markeys	•
Hele Diamotor 1 in Depth 12 ft.	λ
ESTIMATED STARTING DATE 7-7-78	$\Lambda + 1 \rightarrow$
ESTIMATED COMPLETION DATE	APPROVED
The state of the s	APPROVED DATE 0/21/40
I hereby agree to comply with all requirements of this permit and Alamode County Ordinanco No. 73-68.	
THE CANNEY CHARDOO NO. 73-08.	

14 Mg[b: 20 8661 52 -unf

APPLICANT'S

PHONE NO. : 1 925 837 4853

HTROM : MORTH \*\* TOTAL PAGE.02 \*\*

### APPENDIX B

Boring Logs

Project Name: Oliver Rubber  Driller: Vironex  Type of Rig: Geoprobe  Size of Drill: 2.0" Diameter Direct Push  Logged By: Robert E. Kitay, R.G.  Date Drilled: July 1, 1998  Checked By: Robert E. Kitay, R.G.  WATER AND WELL DATA  Depth of Water First Encountered: 4.0"  Well Screen Type and Diameter: NA  Static Depth of Boring: 24'  Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler  BORING  BORI	SOIL BORING LOG AND COMP	LETION DETA	ILS	Во	ring BH-13
Logged By: Robert E. Kitay, R.G.  WATER AND WELL DATA Depth of Water First Encountered: 4.0"  Static Depth of Water in Boring: 4.0"  Total Depth of Water in Boring: 4.0"  Total Depth of Boring: 24"  Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler  DESCRIPTION OF LITHOLOGY  standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.  O  Gravel surface  Sandy GRAVEL (GW); dark brown; dense; damp; 50% subrounded gravel to 2" diameter; 30-40% fine sand; 10-20% silt; non-plastic; madium estimated K; no odor moist at 3.5" wel at 4"  Silty CLAY (CH); olive brown to black; soft; damp; 60% clay; 40% silt; high plasticity; very low estimated K; no odor  No sample collected at this depth; boring was advanced to these dopin to allow for the collection of groundwater samples; see the report for an explaination	Project Name: Oliver Rubber	Project Location	on: 1200 65th Stre	et, Oakland, CA	Page 1 of 1
WATER AND WELL DATA  Depth of Water First Encountered: 4.0"  Static Depth of Water in Boring: 4.0"  Total Depth of Boring: 24'  Type and Diameter: NA  Well Screen Type and Diameter: NA  Well Screen Stot Size: NA  Total Depth of Boring: 24'  Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler  DESCRIPTION OF LITHCLOGY  standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.  O  Gravel surface  Sandy GRAVEL (GW); dark brown; dense; damp; 50% subrounded gravel to 2" diameter; 30-40% fine sand: 10-20% silt; non-pleastic; medium estimated K; no odor  10  Gravely CLAY (CH); black; hard; wet; 50% clay; 30% angular to subangular pebbles to 2.5" dlameter; 20% silt; high plasticity; very low estimated K; no odor  No sample collected at this depth; boring was advanced to these depth to allow for the collection of groundwater samples; see the report for an explaination	Driller: Vironex	Type of Rig: G	ieoprobe	Size of Drill: 2.0" Dia	ameter Direct Push
Depth of Water First Encountered: 4.0°  Static Depth of Water in Boring: 4.0°  Total Depth of Boring: 24'  Type and Size of Soil Sampler: 2.0° I.D. Macrocore Sampler  Type and Size of Soil Sampler: 2.0° I.D. Macrocore Sampler  DESCRIPTION OF LITHOLOGY  Sandy GRAVEL (GW); dark brown; dense; damp; 50% subrounded gravel to 2° diameter; 30-40% fine sand; 10-20% silt; non-plastic; medium estimated K; no odor  angular to subangular pebbles to 2.5° diameter; 20% silt; high plasticity; very low estimated K; no odor  No sample collected at this depth; boring was advanced to these dopth to allow for the collection of groundwater samples; see the report for an explaination  End of boring at 24'	Logged By: Robert E. Kitay, R.G.	Date Drilled:	July 1, 1998	Checked By: F	Robert E. Kitay, R.G.
Static Depth of Water in Boring: 4.0'  Total Depth of Boring: 24'  BORING DETAIL  OF STATE OF	WATER AND WELL DATA		Total Depth of W	ell Completed: NA	
Total Depth of Boring: 24'  Type and Size of Soil Sampler: 2.0" I.D. Macrocore Sampler  DESCRIPTION OF LITHOLOGY  standard classification, texture, relative moisture, density, sliffness, odor-staining, USCS designation.  O  Gravel surface  Sandy GRAVEL (GW); dark brown; dense; damp; 50% subrounded gravel to 2" diameter; 30-40% fine sand; 10-20% silt; non-plastic; medium estimated K; no odor moist at 3.5" wet at 4'  Silty CLAY (CH); olive brown to black; soft; damp; 60% clay; 40% silt; high plasticity; very low estimated K; no odor  O  Gravely CLAY (CH); black; hard; wet; 50% clay; 30% angular to subangular pebbles to 2.5" diameter; 20% silt; high plasticity; very low estimated K; no odor  O  O  O  O  O  O  O  O  O  O  O  O  O	Depth of Water First Encountered: 4.	0,	Well Screen Type	e and Diameter: NA	
SOIL/ROCK SAMPLE DATA  BORING DETAIL  BORING BORING DETAIL  BORING DETAIL  BORING BORI	Static Depth of Water in Boring: 4.0'		Well Screen Slot	Size: NA	
DESCRIPTION OF LITHOLOGY  standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.  O  Gravel surface Sandy GRAVEL (GW); dark brown; dense; damp; 50% subrounded gravel to 2° diameter; 30-40% fine sand; 10-20% silt; non-plastic; medium estimated K; no odor moist at 3.5° wet at 4°  Silty CLAY (CH); olive brown to black; soft; damp; 60% clay; 40% silt; high plasticity; very low estimated K; no odor  Gravely CLAY (CH); black; hard; wet; 50% clay; 30% angular to subangular pebbles to 2.5′ diameter; 20% silt; high plasticity; very low estimated K; no odor  O  Gravely CLAY (CH); black; hard; wet; 50% clay; 30% angular to subangular pebbles to 2.5′ diameter; 20% silt; high plasticity; very low estimated K; no odor  No sample collected at this depth; boring was advanced to these depth to allow for the collection of groundwater samples; see the report for an explaination  End of boring at 24′  End of boring at 24′	Total Depth of Boring: 24'		Type and Size o	Soil Sampler: 2.0" I.D.	. Macrocore Sampler
Scrain BCRING DETAIL    Section   Se	•   -   <del>    -                           </del>	SAMPLE DATA	eet	DESCRIPTION OF L	THOLOGY
Gravel surface Sandy GRAVEL (GW); dark brown; dense; damp; 50% subrounded gravel to 2" diameter; 30-40% fine sand; 10-20% silt; non-plastic; medium estimated K; no odor moist at 3.5" wet at 4"  Silty CLAY (CH); olive brown to black; soft; damp; 60% clay; 40% silt; high plasticity; very low estimated K; no odor  Gravely CLAY (CH); black; hard; wet; 50% clay; 30% angular to subangular pebbles to 2.5" diameter; 20% silt; high plasticity; very low estimated K; no odor  Ro sample collected at this depth; boring was advanced to these depth to allow for the collection of groundwater samples; see the report for an explaination  End of boring at 24'	Depth in F Descriptio Interval Water Leve	OVM (ppmv) Graphic Log	standa density	rd classification, textury, stiffness, odor-staining	re, relative moisture, ng, USCS designation.
	Class "H" Portland Cemer		Gravel su Sandy GF subrounde 10-20% s moist at wet at 4' Silty CLA' 60% clay estimated  10 Gravely C angular to silt; high No sample to these of samples;	AVEL (GW); dark brown and gravel to 2" diameter distributed by diameter diamet	er; 30-40% fine sand; a estimated K; no odor black; soft; damp; black; very low set; 50% clay; 30% 2.5" diameter; 20% imated K; no odor set; boring was advanced ollection of groundwater explaination

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Project Name: Oliver Rubber			tion: 1200 65th S	treet, Oakland, CA Page 1 of
Driller: Vironex		Type of Rig:	· · · · · · · · · · · · · · · · · · ·	Size of Drill: 2.0" Diameter Direct Pus
	- 450 - 50			· · · · · · · · · · · · · · · · · · ·
Logged By: Robert E		Date Drilled	July 1, 1998	Checked By: Robert E. Kitay, R.
WATER AND WELL			Total Depth of	Well Completed: NA
Depth of Water First I	Encountered:	15.5'	Well Screen Ty	pe and Diameter: NA
Static Depth of Water	in Boring: 4.0	) <sup>'</sup>	Well Screen Si	ot Size: NA
Total Depth of Boring:				of Soil Sampler: 2.0" I.D. Macrocore Samp
Feet	_	CK SAMPLE DAT	A teel	DESCRIPTION OF LITHOLOGY
E BORING 등 DETAIL	Description Interval Water Level	OVM (ppmv) Graphic	stan dens	dard classification, texture, relative mois ity, stiffness, odor-staining, USCS designa
-10 -10 -15 -20 -25	Class "H" Portland Cement	0 ?	25% sill  Sandy Sto coars no odor  Clayey 20% cla (predomestimate)  moist a wet at  No samuto these	AY (CH); dark brown; stiff; damp; 75% cl; high plasticity; very low estimated K; no silt; ML); grey; dense; moist; 50% silt; 40 se sand; 10% clay; non-plastic; low estimates SILT (MH); yellow brown; medium dense; y; 10% angular to subangular coarse sand inately milky quartz); high plasticity; low d K; no odor

.

### APPENDIX C

Certified Analytical Report and Chain of Custody Documentation

Environmental Services (SDB)

July 9, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for TEPH analysis.

Method: EPA 8015M

Client Sample ID: BH-13,3.5

Spl#: 194068

Sampled: July 1, 1998

Matrix: SOIL Run#:13635

Extracted: July 7, 1998

Analyzed: July 8, 1998

REPORTING BLANK BLANK DILUTION
RESULT LIMIT RESULT SPIKE FACTOR
RAFFEY (mg/Kg) (mg/Kg) (mg/Kg) (%)

RAFFEX Note:

Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.

Bruce Havlik

Analyst

Michael Verona

Environmental Services (SDB)

July 9, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for TEPH analysis.

Method: EPA 8015M

Client Sample ID: BH-14,15.5'

Spl#: 194069

 Spl#:
 194069
 Matrix:
 SOIL

 Sampled:
 July 1, 1998
 Run#:13635

Extracted: July 7, 1998

Analyzed: July 8, 1998

		REPORTING	BLANK	BLANK	DILUTIO:
2.22	RESULT	LIMIT	RESULT	SPIKE	FACTOR
ANALYTE	(mg/Kg)	(mg/Kg)	(mg/Kg)	(%)	TACIOR
RAFFEX	N.D.	1.0	N.D.	86.3	<del></del>

Note: Quantitation based on a one point RAFFEX reference standard.

Bruce Havlik

Analyst

Michael Verona

Environmental Services (SDB)

July 9, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for TEPH analysis.

Method: EPA 8015M

Client Sample ID: BH-15,15.0'

Spl#: 194070

*Matrix:* SOIL

Extracted: July 7, 1998

Sampled: July 1, 1998

Run#:13635

Analyzed: July 7, 1998

REPORTING BLANK BLANK DILUTIO RESULT LIMIT RESULT SPIKE FACTOR ANALYTE (mg/Kg) (mg/Kg) (mg/Kg) RAFFEX Note: 1.0

Quatitation based on a one point RAFFEX reference standard. hydrocarbon pattern in this sample matched the RAFFEX reference.

Bruce Havlik

Analyst

Michael Verona

Environmental Services (SDB)

July 7, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO Project#: 3231

Received: July 2, 1998

re: One sample for Volatile Organics by GC/MS analysis.

Method: SW846 METHOD 8240A Nov 1990

Client Sample ID: BH-13,3.5

Spl#: 194068 Matrix: SOIL

Sampled: July 1, 1998 Run#: 13637 Analyzed: July 6, 1998

	RESULT	REPORTING LIMIT	BLANK RESULT	BLANK SPIKE	DILUTION FACTOR
ANALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)	
ACETONE	N.D.	50	N.D.		1
BENZENE	N.D.	5.0	N.D.	106	ī
BROMODICHLOROMETHANE	N.D.	5.0	N.D.		1
BROMOFORM	N.D.	5.0	N.D.		1
BROMOMETHANE	N.D.	10	N.D.		1
2-BUTANONE (MEK)	N.D.	100	N.D.	<del>-</del> -	1 1 1 1 1 1 1 1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.		1
CHLOROBENZENE	N.D.	5.0	N.D.	110	1
CHLOROETHANE	N.D.	5.0	N.D.		1
2-CHLOROETHYLVINYLETHER	N.D.	10	N.D.	- <del>-</del>	1
CHLOROFORM	N.D.	5.0	N.D.	<del>-</del> -	1
CHLOROMETHANE	Ŋ.D.	10	N.D.		1
DIBROMOCHLOROMETHANE 1,1-DICHLOROETHANE	N.D.	5.0	N.D.		1
1,2-DICHLOROETHANE	Ŋ.D.	5.0	N.D.		1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.		1
1,3-DICHLOROBENZENE	N.D. N.D.	5.0	N.D.		1
1,4-DICHLOROBENZENE	N.D. N.D.	5.0	N.D.		Ţ
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	70 7	Ţ
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D. N.D.	79.7	1 1 1 1 1 1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0 5.0	N.D. N.D.		1.
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.		1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D. N.D.		J.
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.		<u> </u>
ETHYLBENZENE	N.D.	5.0	N.D.		±
2-HEXANONE	N.D.	50	N.D.		J.
METHYLENE CHLORIDE	N.D.	5.0	N.D.	<b>-</b> -	
4-METHYL-2-PENTANONE (MIBK)	N.D.	50	N.D.		i
STYRENE	N.D.	5.0	N.D.		i
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	- ···	ำ
TETRACHLOROETHENE	N.D.	5.0	N.D.		1 1 1
TOLUENE	N.D.	5.0	N.D.	109	ī
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.		ī
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.		ī
TRICHLOROETHENE	N.D.	5.0	N.D.	103	<u> 3</u>
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.		
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.		1 1 1 1
VINYL ACETATE	N.D.	50	N.D.		2
VINYL CHLORIDE	${ t N}$ . ${ t D}$ .	5.0	N.D.		
TOTAL XYLENES	N.D.	5.0	N.D.		۔ آ

Mote: Surrogate & Internal Std. were outside VA, . Dimmis due to Matrix interference, Results bias high.

Environmental Services (SDB)

July 7, 1998

Submission #: 9807033

page 2

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Project#: 3231

Received: July 2, 1998

re: One sample for Volatile Organics by GC/MS analysis, continued.

Method: SW846 METHOD 8240A Nov 1990

Client Sample ID: BH-13,3.5'

Spl#: 194068

Matrix: SOIL

Sampled: July 1, 1998

Run#: 13637

Analyzed: July 6, 1998

RESULT

REPORTING LIMIT

BLANK

BLANK DILUTION

RESULT

SPIKE

(ug/Kg)

(ug/Kg) (ug/Kg)

(%)

FACTOR

ANALYTE

June Zhao Analyst

Michael Verona Operations Manager

Environmental Services (SDB)

July 7, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO Project#: 3231

Received: July 2, 1998

re: One sample for Volatile Organics by GC/MS analysis.

Method: SW846 METHOD 8240A Nov 1990

Client Sample ID: BH-14,15.5

Spl#: 194069 Matrix: SOIL

Sampled: July 1, 1998 Run#: 13637 Analyzed: July 6, 1998

<del>-</del>			_	_	
		REPORTING	BLANK		DILUTION
	RESULT	LIMIT	${ t RESULT}$	SPIKE	FACTOR
ANALYTE	(ug/Kg)	(ug/Kg)	(ug/Kg)	(%)	
ACETONE	N.D.	50	N.D.		1
BENZENE	N.D.	5.0	N.D.	106	1
BROMODICHLOROMETHANE	N.D.	5.0	N.D.		1
BROMOFORM	N.D.	5.0	N.D.		1
BROMOMETHANE	N.D.	10	N.D.		1
2-BUTANONE (MEK)	N.D.	100	N.D.	- <b>-</b>	1 1 1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.		1
CHLOROBENZENE	N.D.	5.0	N.D.	110	1
CHLOROETHANE	N.D.	5.0	N.D.		1
2-CHLOROETHYLVINYLETHER	N.D.	10	N.D.		1
CHLOROFORM	N.D.	5.0	N.D.		1 1 1 1
CHLOROMETHANE	N.D.	10	N.D.		1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.		1 1 1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.		
1,2-DICHLOROETHANE	N.D.	5.0	N.D.		1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.		1 1 1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.		
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.		1
1,1-DICHLOROETHENE	7.6	5.0	N.D.	79.7	. 1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.		1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.		1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.		1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.		1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.		1
ETHYLBENZENE	N.D.	5.0	N.D.		<u>7</u>
2-HEXANONE	N.D.	50	N.D.		<u>1</u>
METHYLENE CHLORIDE	N.D.	5.0	N.D.		1
4-METHYL-2-PENTANONE (MIBK)	N.D.	50	N.D.		1
STYRENE	N.D.	5.0	N.D.		1.
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.		1
TETRACHLOROETHENE	N.D.	5.0	N.D.	- <del></del>	1
TOLUENE	N.D.	5.0	N.D.	109	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.		1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.		1
TRICHLOROETHENE	N.D.	5.0	Ŋ.D.	103	<u>.</u>
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.		
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.		
VINYL ACETATE	N.D.	50	и.р.		:
VINYL CHLORIDE	N.D.	5.0	И.Д.		
TOTAL XYLENES	N.D.	5.0	N.D.		

Environmental Services (SDB)

July 7, 1998

Submission #: 9807033

page 2

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Project#:

3231

Received: July 2, 1998

re: One sample for Volatile Organics by GC/MS analysis, continued.

Method: SW846 METHOD 8240A Nov 1990

Client Sample ID: BH-14,15.5'

Spl#: 194069

Matrix: SOIL

Sampled: July 1, 1998

Run#: 13637 Analyzed: July 6, 1998

REPORTING LIMIT

BLANK RESULT BLANK DILUTION

ANALYTE

RESULT (ug/Kg)

(uq/Kq)

(ug/Kg)

SPIKE FACTOR

June Zhao Analyst

Michael Verona

Environmental Services (SDB)

July 7, 1998

Submission #: 9807033

· page 2

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for Volatile Organics by GC/MS analysis, continued. Method: SW846 METHOD 8240A Nov 1990

Client Sample ID: BH-15,15.0'

Spl#: 194070

Matrix: SOIL

Sampled: July 1, 1998

Run#: 13637

Analyzed: July 6, 1998

RESULT

REPORTING LIMIT

BLANK RESULT BLANK DILUTION

SPIKE FACTOR

ANALYTE

(ug/Kg)

(ug/Kg)

(ug/Kg)

June Zhao Analyst

Michael Verona Operations Manager

Environmental Services (SDB)

July 7, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Project#: 3231

Received: July 2, 1998

re: One sample for Volatile Organics by GC/MS analysis.

Method: SW846 METHOD 8240A Nov 1990

Client Sample ID: BH-15,15.0'

*Spl#:* 194070

Matrix: SOIL

Sampled: July 1, 1998

Run#: 13637

Analyzed: July 6, 1998

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
ACETONE	$\frac{\sqrt{uq/\kappa q}}{N.D.}$	( <u>ug/kg/</u>			
BENZENE			N.D.		-
BROMODICHLOROMETHANE	N.D.	5.0	Ŋ.D.	106	3
BROMOFORM	N.D.	5.0	Ŋ.D.		1 1
	N.D.	5.0	N.D.		1
BROMOMETHANE	N.D.	10	N.D.		1
2-BUTANONE (MEK)	N.D.	100	N.D.		1 1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.		1
CHLOROBENZENE	N.D.	5.0	N.D.	110	1
CHLOROETHANE	N.D.	5.0	N.D.		1
2-CHLOROETHYLVINYLETHER	N.D.	10	N.D.		1
CHLOROFORM	N.D.	5.0	N.D.		1
CHLOROMETHANE	N.D.	10	N.D.		1.
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.		1 1 1 1 2 2
1,1-DICHLOROETHANE	N.D.	5.0	N.D.		ī
1,2-DICHLOROETHANE	N.D.	5.0	N.D.		้า
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.		i
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.		า๋
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.		1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	79.7	1 1 1 1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	, , , ,	7
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.		1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.		1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.		
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.		·
ETHYLBENZENE	N.D.	5.0	N.D.		7
2-HEXANONE	N.D.	5.0			<i>≟</i> ••
METHYLENE CHLORIDE	N.D.	5.0	N.D.		<u>]</u> .
4-METHYL-2-PENTANONE (MIBK)	N.D.		N.D.		.l.
STYRENE	N.D.	50	N.D.		1
1,1,2,2-TETRACHLOROETHANE	N.D. N.D.	5.0	N.D.		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
TETRACHLOROETHENE		5.0	Ŋ.D.		با ا
TOLUENE	N.D.	5.0	N.D.		
1,1,1-TRICHLOROETHANE	Ŋ.D.	5.0	N.D.	109	7
1,1,1-IKICHLOKOLIHANE	Ŋ.D.	5.0	N.D.		
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.		j
TRICHLOROETHENE	Ŋ.D.	5.0	N.D.	103	
TRICHLOROFLUOROMETHANE	Ŋ.D.	5.0	N.D.		
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.		Ĵ
VINYL ACETATE	N.D.	50	N.D.		*
VINYL CHLORIDE	$N \cdot D$ .	5.0	N.D.		
TOTAL XYLENES	Ν. D.	5.0	N.D.		J.

Environmental Services (SDB)

July 9, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for Semivolatile Organics (B/NAs) analysis.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: BH-13,3.5

Extracted: July 7, 1998

 Spl#:
 194068
 Matrix:
 SOIL

 Sampled:
 July 1, 1998
 Run#:
 13646

Run#: 13646

Analyzed: July 8, 1998

		REPORTING	BLANK	BLANK	DILUTION
3 3 7 3 7 7 POTES	RESULT	LIMIT	RESULT	SPIKE	FACTOR
ANALYTE PHENOL	(mg/Kg)	(mg/Kg)	(mg/Kg)	(%)	-110101
PIC/2 CULODOERUMA ARMAN	N.D.	0.10	N.D.	71.0	1
BIS(2-CHLOROETHYL)ETHER 2-CHLOROPHENOL	N.D.	0.10	N.D.		i
1,3-DICHLOROBENZENE	N.D.	0.10	N.D.	72.5	i
1,4-DICHLOROBENZENE	N.D.	0.10	N.D.		1
BENZYL ALCOHOL	N.D.	0.10	N.D.	84.4	± 1
1,2-DICHLOROBENZENE	N.D.	0.20	N.D.		1 1 1 1 1
2-METHYLPHENOL	N.D.	0.10	N.D.		1
BIS (2-CHLOROISOPROPYL) ETHER	N.D.	0.10	N.D.		1
4-METHYLPHENOL	N.D.	0.10	N.D.	<del>-</del> +	<u>.</u> 1
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.20	N.D.		ì
HEXACHLOROETHANE	N.D.	0.10	N.D.	93.7	1 1
NITROBENZENE	N.D.	0.10	N.D.		1
ISOPHORONE	N.D.	0.10	N.D.		i
2-NITROPHENOL	N.D.	0.10	N.D.		i
2,4-DIMETHYLPHENOL	N.D.	0.10	N.D.		ı 1
BIS (2-CHI ODOETHOWN) METERS	N.D.	0.10	N.D.		1
BIS(2-CHLOROETHOXY)METHANE 2,4-DICHLOROPHENOL	N.D.	0.10	N.D.		i
1,2,4-TRICHLOROBENZENE	N.D.	0.10	N.D.	<del>-</del> -	i
NAPHTHALENE	N.D.	0.10	N.D.	83.9	i
4-CHLOROANILINE	N.D.	0.10	N.D.		1
HEXACHLOROBUTADIENE	N.D.	0.20	N.D.	- <b>-</b>	1 1
4-CHLORO-3-METHYLPHENOL	N.D.	0.10	N.D.		1
2-METHYLNAPHTHALENE	N.D.	0.20	N.D.	78.0	1
HEXACHLOROCYCLOPENTADIENE	Ν.D.	0.10	N.D.	,0.0	1
2,4,6-TRICHLOROPHENOL	N.D.	0.10	N.D.		1
2,4,6-IKICHLOROPHENOL	N.D.	0.10	N.D.		1
2,4,5-TRICHLOROPHENOL	N.D.	0.10	N.D.	_ <u>_</u>	<u> </u>
2-CHLORONAPHTHALENE 2-NITROANILINE	N.D.	0.10	N.D.		1
DIMPERIAL DIMINIANA Z-MIIKOMMILLIME	Ν. D.	0.50	N.D.	71 -	1
DIMETHYL PHTHALATE ACENAPHTHYLENE	N.D.	0.50	N.D.		<u> </u>
3-NITROANILINE	N.D.	0.10	N.D.		1 1 1 1
ACENAPHTHENE	N.D.	0.10	N.D.		⊥ 1
2,4-DINITROPHENOL	${ t N.D.}$	0.10	N.D.	87.0	± 1
4-NITROPHENOL	N.D.	0.50	N.D.		1
DIBENZOFURAN	$N \cdot D$ .	0.50	N.D.	63.5	-2: 1
O 1 DINITEDOROLLEDAD	N.D.	0.10	N.D.	U.J. J.	1.
2,4-DINITROTOLUENE	N.D.	0.10	N.D.	77.8	1
DIETHYL PHTHALATE		٠. ٧٠	N.D.		1
A_CHIODODURNYI DURNIK	N.D.	0.50	N.D.		$\stackrel{\scriptscriptstyle 1}{1}$
4-CHLOROPHENYL PHENYL ETHER	N.D.	0.10	N.D.		1
					Τ

Environmental Services (SDB)

July 9, 1998

Submission #: 9807033

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AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for Semivolatile Organics (B/NAs) analysis, continued.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: BH-13,3.5

Extracted: July 7, 1998

Run#: 13646

Analyzed: July 8, 1998

		REPORTING	BLANK	BLANK	DILUTION
	RESULT	LIMIT	RESULT	SPIKE	FACTOR
ANALYTE	(mg/Kg)	(mg/Kg)	(mg/Kg)	(%)	
FLUORENE	N.D.	0.10	N.D.		1
4-NITROANILINE	N.D.	0.50	N.D.		ī
2-METHYL-4,6-DINITROPHENOL	N.D.	0.50	N.D.		ī
n-NITROSODIPHENYLAMINE	N.D.	0.10	N.D.		ī
4-BROMOPHENYL PHENYL ETHER	N.D.	0.10	N.D.		ĩ
HEXACHLOROBENZENE	N.D.	0.10	N.D.		ī
PENTACHLOROPHENOL	N.D.	0.50	N.D.	71.0	ī
PHENANTHRENE	N.D.	0.10	N.D.		ī
ANTHRACENE	N.D.	0.10	N.D.		ī
DI-N-BUTYL PHTHALATE	N.D.	2.0	N.D.		Ī
FLUORANTHENE	N.D.	0.10	N.D.		ī
PYRENE	N.D.	0.10	N.D.	87.5	1
BUTYL BENZYL PHTHALATE	N.D.	0.50	N.D.		1.
3,3'-DICHLOROBENZIDINE	N.D.	0.20	N.D.		1
BENZO (A) ANTHRACENE	N.D.	0.10	N.D.		1
BIS (2-ETHYLHEXYL) PHTHALATE	N.D.	0.50	N.D.		1
CHRYSENE	N.D.	0.10	N.D.		1
DI-N-OCTYL PHTHALATE	N.D.	0.50	N.D.		1
BENZO(B) FLUORANTHENE	N.D.	0.10	N.D.		1
BENZO(K) FLUORANTHENE	N.D.	0.20	N.D.		1
BENZO (A) PYRENE	N.D.	0.050	N.D.		4
INDENO(1,2,3 C,D) PYRENE	N.D.	0.20	N.D.		1
DIBENZO (A, H) ANTHRACENE	N.D.	0.20	N.D.		1
BENZO (G, H, I) PERYLENE	N.D.	0.20	N.D.		1
BENZOIC ACID	N.D.	0.50	N.D.		1
( Caroline Olice					
			FC c		

Michael Lee Analyst

Michael Verona Operations Manager

Environmental Services (SD8)

July 9, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Project#: 3231

Received: July 2, 1998

re: One sample for Semivolatile Organics (B/NAs) analysis.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: BH-14,15.5

Spl#: 194069 

 Spl#: 194069
 Matrix: SOIL

 Sampled: July 1, 1998
 Run#: 13646

 Extracted: July 7, 1998

Analyzed: July 8, 1998

2002 - 2007	RESULT	REPORTING LIMIT	BLANK RESULT	BLANK DILU SPIKE FAC	
ANALYTE PHENOL	(mg/Kg)	(mg/Kg)	(mg/Kg)	(%)	
BIS(2-CHLOROETHYL)ETHER	N.D.	0.10	N.D.	71.0	1
2-CHLOROPHENOL	N.D.	0.10	N.D.		1
1,3-DICHLOROBENZENE	N.D.	0.10	N.D.	72.5	1 1
1,4-DICHLOROBENZENE	N.D.	0.10	Ŋ.D.	~	1
BENZYL ALCOHOL	N.D.	0.10	N.D.	84.4	1
1,2-DICHLOROBENZENE	N.D.	0.20	Ŋ.D.		1
2-METHYLPHENOL	N.D.	0.10	N.D.		1
BIS (2-CHLOROISOPROPYL) ETHER	N.D.	0.10	N.D.		1
4-METHYLPHENOL	N.D.	0.10	N.D.		1
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.20	N.D.		1
HEXACHLOROETHANE	N.D. N.D.	0.10	N.D.	93.7	1
NITROBENZENE	N.D. N.D.	0.10	N.D.		1
ISOPHORONE		0.10	N.D.		1
2-NITROPHENOL	N.D. N.D.	0.10	N.D.		1
2,4-DIMETHYLPHENOL	N.D.	0.10	N.D.		1
BIS (2-CHLOROETHOXY) METHANE	N.D. N.D.	0.10	N.D.		1111111
2,4-DICHLOROPHENOL	N.D.	0.10	N.D.		1
1,2,4-TRICHLOROBENZENE	N.D. N.D.	0.10	N.D.	02.0	1
NAPHTHALENE	N.D. N.D.	0.10	N.D.	83.9	1.
4-CHLOROANILINE	N.D.	0.10	N.D.		1
HEXACHLOROBUTADIENE	N.D. N.D.	0.20 0.10	N.D.		
4-CHLORO-3-METHYLPHENOL	N.D.	0.10	N.D. N.D.	70 0	1
2-METHYLNAPHTHALENE	N.D.	0.20		78.0	1
HEXACHLOROCYCLOPENTADIENE	N.D.	0.10	N.D. N.D.		1 1
2,4,6-TRICHLOROPHENOL	N.D.	0.10	N.D.		
2,4,5-TRICHLOROPHENOL	N.D.	0.10	N.D.		1
2-CHLORONAPHTHALENE	N.D.	0.10	N.D.	- <del>-</del>	J.
2-NITROANILINE	N.D.	0.50	N.D.	 	1
DIMETHYL PHTHALATE	N.D.	0.50	N.D.		1 1 1 1 1 1 1 1 1
ACENAPHTHYLENE	N.D.	0.10	N.D.		یر 1
3-NITROANILINE	N.D.	0.10	N.D. N.D		7
ACENAPHTHENE	N.D.	0.10	N.D.	87.0	i
2,4-DINITROPHENOL	N.D.	0.50	N.D.	67.U 	1
4-NITROPHENOL	N.D.	0.50	S.E.	63.5	7
DIBENZOFURAN	N.D.	0.10	N.D.		i
2,4-DINITROTOLUENE	и р	0.10	24 - FA *	77.8	2 T
n de la companya de l La companya de la co		in energy One de di	***	I	
DIETHYL PHTHALATE	N.D.	0.50	N.Ď.		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
4-CHLOROPHENYL PHENYL ETHER	N.D.	0.10	N.D.	<del></del> -	1

Environmental Services (SDB)

July 9, 1998

Submission #: 9807033

page 2

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for Semivolatile Organics (B/NAs) analysis, continued.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: BH-14,15.5

 Spl#:
 194069
 Matrix:
 SOIL
 Extracted:
 July 7, 1998

 Sampled:
 July 1, 1998
 Run#:
 13646
 Analyzed:
 July 8, 1998

ANALYTE	RESULT	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
FLUORENE	N.D.	0.10	N.D.		1
4-NITROANILINE	N.D.	0.50	N.D.		1
2-METHYL-4,6-DINITROPHENOL	N.D.	0.50	N.D.		ī
n-NITROSODIPHENYLAMINE	N.D.	0.10	N.D.		ī
4-BROMOPHENYL PHENYL ETHER	N.D.	0.10	N.D.		ī
HEXACHLOROBENZENE	N.D.	0.10	N.D.		ī
PENTACHLOROPHENOL	N.D.	0.50	N.D.	71.0	ī
PHENANTHRENE	N.D.	0.10	N.D.		1
ANTHRACENE	N.D.	0.10	N.D.	<del>-</del> -	1
DI-N-BUTYL PHTHALATE	N.D.	2.0	N.D.	<u>.</u>	1
FLUORANTHENE	N.D.	0.10	N.D.		1
PYRENE	N.D.	0.10	N.D.	87.5	1
BUTYL BENZYL PHTHALATE	Ŋ.D.	0.50	N.D.		1
3,3'-DICHLOROBENZIDINE	N.D.	0.20	N.D.		1
BENZO(A)ANTHRACENE BIS(2-ETHYLHEXYL)PHTHALATE	Ŋ.D.	0.10	N.D.		1
CHRYSENE	N.D.	0.50	N.D.		1
DI-N-OCTYL PHTHALATE	N.D.	0.10	N.D.		1
BENZO(B) FLUORANTHENE	N.D.	0.50	N.D.		1
BENZO(B) FLUORANTHENE BENZO(K) FLUORANTHENE	N.D.	0.10	N.D.		1
BENZO (A) PYRENE	N.D.	0.20	N.D.		1
INDENO(1 2 2 C DADADAD	Ŋ.D.	0.050	Ν.D.		1
INDENO(1,2,3 C,D)PYRENE	Ŋ.D.	0.20	N.D.		1
DIBENZO(A,H)ANTHRACENE BENZO(G,H,I)PERYLENE	N.D.	0.20	N.D.		1
BENZOIG, A, I / PERILENE BENZOIC ACID	N.D.	0.20	N.D.		1
BEIMAOUC ACID	N.D.	0.50	N.D.		1
(Carolles Chi	•			· ·	

Michael Lee Analyst

Michael Verona Operations Manager

Environmental Services (SDB)

July 9, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for Semivolatile Organics (B/NAs) analysis.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: BH-15,15.0

Spl#: 194070 Sampled: July 1, 1998

*Matrix:* SOIL

Extracted: July 7, 1998

Run#: 13646 Analyzed: July 8, 1998

ANALYTE	RESULT	REPORTING LIMIT	BLANK RESULT	SPIKE	DILUTION FACTOR
PHENOL	(mg/Kg)	(mg/Kg)	(mg/Kg)	(왕)	
BIS (2-CHLOROETHYL) ETHER	N.D.	0.10	Ŋ.Ď.	71.0	1
2-CHLOROPHENOL	N.D. N.D.	0.10	N.D.	'	1 1
1,3-DICHLOROBENZENE	N.D.	0.10	N.D.	72.5	1
1,4-DICHLOROBENZENE	N.D.	0.10	N.D.		1 1 1
BENZYL ALCOHOL	N.D.	0.10 0.20	N.D.	84.4	1
1,2-DICHLOROBENZENE	N.D.	0.20	N.D.		1
2-METHYLPHENOL	N.D.		N.D.		1
BIS (2-CHLOROISCPROPYL) ETHER	N.D. N.D.	0.10	N.D.		1 1
4-METHYLPHENOL	N.D. N.D.	0.10	N.D.		1
N-NITROSO-DI-N-PROPYLAMINE	N.D. N.D.	0.20	N.D.		1
HEXACHLOROETHANE	N.D.	0.10	N.D.	93.7	1
NITROBENZENE	N.D.	0.10	N.D.		1
ISOPHORONE	N.D.	0.10 0.10	N.D.		1
2-NITROPHENOL	N.D.	0.10	N.D.		1 1 1
2,4-DIMETHYLPHENOL	N.D.	0.10	N.D.		<u> </u>
BIS (2-CHLOROETHOXY) METHANE	N.D.	0.10	N.D.		1
2,4-DICHLOROPHENOL	N.D.	0.10	N.D. N.D.		1 1
1,2,4-TRICHLOROBENZENE	N.D.	0.10			1
NAPHTHALENE	N.D. N.D.	0.10	N.D.	83.9	1
4-CHLOROANILINE	N.D.	0.10	N.D.		1
HEXACHLOROBUTADIENE	N.D.	0.20	N.D.	- <del>-</del>	
4-CHLORO-3-METHYLPHENOL	N.D.		N.D.		1
2-METHYLNAPHTHALENE	N.D.	0.20	N.D.	78.0	1
HEXACHLOROCYCLOPENTADIENE	N.D.	0.10	N.D.		1
2,4,6-TRICHLOROPHENOL	N.D.	0.10 0.10	N.D.	<del></del>	1
2,4,5-TRICHLOROPHENOL	N.D.	0.10	N.D.	- <b>-</b>	1
2-CHLORONAPHTHALENE	N.D.	0.10	N.D.	- +	4
2-NITROANILINE	N.D.	0.50	N.D. N.D.		1
DIMETHYL PHTHALATE	N.D.	0.50	N.D. N.D.	<b>-</b>	i
ACENAPHTHYLENE	N.D.	0.10	N.D. N.D.		1
3-NITROANILINE	N.D.	0.10	N.D.		3
ACENAPHTHENE	N.D.	0.10			j
2,4-DINITROPHENOL	N.D.	0.10	N.D.	87.0	
4-NITROPHENOL	N.D.		K.D.		<u>:</u>
DIBENZOFURAN	N.D.	0.50 0.10	N.D.	63.5	
2,4 DINITROTOLUENE	N.D.	0.10	N.D.	77	Ĵ.
	18 . 1			77.0	
DIETHYL PHTHALATE	N.D.	0.50			.a.
4-CHLOROPHENYL PHENYL ETHER	N.D.	0.50	N.D.		1
DINEK	14.1.	0.10	N.D.		1

Environmental Services (SDB)

July 9, 1998

Submission #: 9807033

page 2

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for Semivolatile Organics (B/NAs) analysis, continued.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: BH-15,15.0'

 Spl#: 194070
 Matrix: SOIL
 Extracted: July 7, 1998

 Sampled: July 1, 1998
 Run#: 13646
 Analyzed: July 8, 1998

		REPORTING	BLANK	BLANK	DILUTION
	RESULT	LIMIT	RESULT	SPIKE	FACTOR
ANALYTE	(mq/Kq)	(mg/Kg)	(mg/Kg)	(%)	
FLUORENE	N.D.	0.10	N.D.		1
4-NITROANILINE	N.D.	0.50	N.D.		ī
2-METHYL-4,6-DINITROPHENOL	N.D.	0.50	N.D.		ī
n-NITROSODIPHENYLAMINE	N.D.	0.10	N.D.		$\bar{1}$
4-BROMOPHENYL PHENYL ETHER	N.D.	0.10	N.D.		$\bar{1}$
HEXACHLOROBENZENE	N.D.	0.10	N.D.		1
PENTACHLOROPHENOL	N.D.	0.50	N.D.	71.0	1
PHENANTHRENE	N.D.	0.10	N.D.		1
ANTHRACENE	N.D.	0.10	N.D.		1
DI-N-BUTYL PHTHALATE	N.D.	2.0	N.D.		1
FLUORANTHENE	N.D.	0.10	N.D.		1
PYRENE	N.D.	0.10	N.D.	87.5	1
BUTYL BENZYL PHTHALATE	N.D.	0.50	N.D.		1
3,3'-DICHLOROBENZIDINE	N.D.	0.20	N.D.	<b></b> -	1
BENZO (A) ANTHRACENE	N.D.	0.10	N.D.		1
BIS (2-ETHYLHEXYL) PHTHALATE	N.D.	0.50	N.D.		1
CHRYSENE	N.D.	0.10	N,D,	~ -	1
DI-N-OCTYL PHTHALATE	N.D.	0.50	N.D.		1
BENZO(B) FLUORANTHENE	N.D.	0.10	N.D.		1
BENZO(K) FLUORANTHENE	N.D.	0.20	N.D.		1
BENZO (A) PYRENE	N.D.	0.050	N.D.		1
INDENO(1,2,3 C,D) PYRENE	N.D.	0.20	N.D.		1
DIBENZO(A, H) ANTHRACENE	N.D.	0.20	N.D.		1
BENZO (G, H, I) PERYLENE	N.D.	0.20	N.D.		1
BENZOIC ACID	N.D.	0.50	N.D.		1
Carola Che			3,5		

Michael Lee Analyst

Fire Michael Verona Operations Manager

Environmental Services (SDB)

July 9, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for TEPH analysis.

Method: EPA 8015M

Client Sample ID: BH-13 WATER

*Spl#:* 194063

Matrix: WATER

Extracted: July 7, 1998

Sampled: July 1, 1998

Run#:13639

Analyzed: July 7, 1998

REPORTING BLANK DILUTION RESULT LIMIT RESULT SPIKE FACTOR (ug/L) (ug/L) (%)

RAFFEX 140 50 N.D. 91.3

Note:

Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.

Carolyn House

Analyst

Bruce Havlik

Environmental Services (SDB)

July 9, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for TEPH analysis.

Method: EPA 8015M

Client Sample ID: BH-14 WATER

Spl#: 194064

Sampled: July 1, 1998

Matrix: WATER

Run#:13639

Extracted: July 7, 1998

Analyzed: July 7, 1998

ANALYTE

RESULT

REPORTING LIMIT

BLANK RESULT BLANK DILUTION

(ug/L)

SPIKE FACTOR

RAFFEX

(ug/L)

(ug/L)

50

Note:

Quantitation based on a one point RAFFEX reference standard. hydrocarbon pattern in this sample matched the RAFFEX reference.

Carolyn House

Analyst

Bruce Havlik

Environmental Services (SDB)

July 9, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re. One sample for TEPH analysis.

Method: EPA 8015M

Client Sample ID: BH-15 WATER

Spl#: 194065

Matrix: WATER

Extracted: July 7, 1998

Sampled: July 1, 1998

Run#:13639

Analyzed: July 7, 1998

ANALYTE

RESULT (ug/L)

REPORTING LIMIT

BLANK RESULT BLANK DILUTIO. SPIKE FACTOR

RAFFEX 96 Note:

(uq/L)50

(ug/L)

91.2 Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.

Carolyn House

Analyst

Bruce Havlik

Environmental Services (SDB)

July 9, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for TEPH analysis.

Method: EPA 8015M

Client Sample ID: BH-16 WATER

*Spl#:* 194066

Matrix: WATER

Extracted: July 7, 1998

Sampled: July 1, 1998

Run#:13639

Analyzed: July 8, 1998

ANALYTE RAFFEX RESULT

REPORTING LIMIT

(ug/L)

BLANK RESULT BLANK DILUTIO

RESULT SPIKE FACTOR

Note:

Quantitation based on a one point RAFFEX reference standard. The hydrocarbon pattern in this sample matched the RAFFEX reference.

Carolyn House

Analyst

Bruce Havlik

**Environmental Services (SDB)** 

July 9, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for TEPH analysis.

Method: EPA 8015M

Client Sample ID: BH-17 WATER

Spl#: 194067

Sampled: July 1, 1998

Matrix: WATER

Run#:13639

Extracted: July 7, 1998

Analyzed: July 7, 1998

REPORTING BLANK BLANK DILUTION RESULT LIMIT RESULT SPIKE FACTOR ANALYTE (ug/L) (ug/L) (uq/L) RAFFEX Note: N.D.

Quantitation based on a one point RAFFEX reference standard.

Carolyn House

Analyst

Bruce Havlik

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Project#: 3231

Received: July 2, 1998

re: One sample for Volatile Organics by GC/MS analysis.

Method: SW846 Method 8260A Sept 1994

Client Sample ID: BH-13 WATER

Spl#: 194063

*Matrix:* WATER

Sampled: July 1, 1998

Run#: 13630

Analyzed: July 6, 1998

<u>ANA</u> LYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
ACETONE	N.D.	50	N.D.		7
BENZENE	N.D.	0.50	N.D.	88.7	1
BROMODICHLOROMETHANE	N.D.	0.50	N.D.		1
BROMOFORM	N.D.	0.50	N.D.		1 1
BROMOMETHANE	N.D.	1.0	N.D.		1
CARBON TETRACHLORIDE	Ñ.D.	0.50	N.D.		
CHLOROBENZENE	N.D.	0.50	N.D.	96.0	1
CHLOROETHANE	N.D.	1.0	N.D.	90.U 	1 1 1 1 1 1 1 1
2-BUTANONE (MEK)	N.D.	50	N.D.		Ţ
2-CHLOROETHYLVINYLETHER	N.D.	0.50	N.D.		<u> </u>
CHLOROFORM	N.D.	0.50	N.D.		1
CHLOROMETHANE	N.D.	1.0	N.D.	<del></del>	<u>+</u>
DIBROMOCHLOROMETHANE	N.D.	0.50	N.D. N.D.		1
1,2-DICHLOROBENZENE	N.D.	0.50			1
1,3-DICHLOROBENZENE	N.D.	0.50	N.D.		1
1,4-DICHLOROBENZENE	N.D.	0.50	N.D.		1
1,2-DIBROMO-3-CHLOROPROPANE	N.D.	5.0	N.D.		1
1,2-DIBROMOETHANE	N.D.	0.50	N.D.		1 1
DIBROMOMETHANE	N.D.	0.50	N.D.		Ţ
DICHLORODIFLUOROMETHANE	N.D.		N.D.		1
1,1-DICHLOROETHANE	N.D.	0.50 0.50	N.D.		1 1 1 1
1,2-DICHLOROETHANE	N.D.		N.D.		1
1,1-DICHLOROETHENE	N.D.	0.50	N.D.	 	1
1,2-DICHLOROETHENE (CIS)	N.D.	0.50	N.D.	76.7	1
1,2-DICHLOROETHENE (TRANS)	N.D.	0.50	Ŋ.D.		1
1,2-DICHLOROPROPANE	N.D.	0.50	N.D.		1
CIS-1,3-DICHLOROPROPENE	N.D. N.D.	0.50	Ŋ.D.		1
TRANS-1,3-DICHLOROPROPENE	N.D. N.D.	0.50	N.D.		1
ETHYLBENZENE		0.50	N.D.		1
2-HEXANONE	N.D.	0.50	N.D.	<del>-</del> -	1
METHYLENE CHLORIDE	N.D. N.D.	50	N.D.		1
4-METHYL-2-PENTANONE (MIBK)	N.D. N.D.	3.0	N.D.		1
NAPHTHALENE		50	N.D.		1 1
STYRENE	N.D.	1.0	N.D.		
1,1,2,2-TETRACHLOROETHANE	N.D.	0.50	N.D.		1
TETRACHLOROETHENE	N.D.	0.50	N.D.		1
TOLUENE	N.D.	0.50	N.D.		1
1,1,1-TRICHLOROETHANE	0.66	0.50	N.D.	86.7	1
1,1,2-TRICHLOROETHANE	И. D.	0.50	N.D.		Ĵ.
TRICHLOROETHENE	N.D.	0.50	N.D.		]
1,1,1,2-TITRATHLORORTHANE	N.D.	0.50	N.D.	79.2	]
VINYL ACETATE	N.D.	( , <u>E</u>	ij.Đ.		
VINYL CHLORIDE	N.D.	5.0	Ν. D.		ĩ
A TIAIT CHINOKIDE	N.D.	0.50	N.D.		1

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

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AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for Volatile Organics by GC/MS analysis, continued.

Method: SW846 Method 8260A Sept 1994

Client Sample ID: BH-13 WATER

Spl#: 194063

Matrix: WATER

Sampled: July 1, 1998

Run#: 13630

Analyzed: July 6, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK : SPIKE (%)	DILUTION FACTOR
TOTAL XYLENES	N.D.	1.0	N.D.		
CARBON DISULFIDE	N.D.	0.50	N.D.		J. 1
ISOPROPYLBENZENE	N.D.	0.50	N.D.		1
BROMOBENZENE	N.D.	0.50	N.D.		า
BROMOCHLOROMETHANE	N.D.	1.0	N.D.	- <del>-</del>	1
TRICHLOROFLUOROMETHANE	N.D.	0.50	N.D.		7
		<del></del>		1 1	

Alex Tam Analyst

Operations Manager

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Project#: 3231

Received: July 2, 1998

re: One sample for Volatile Organics by GC/MS analysis.

Method: SW846 Method 8260A Sept 1994

Client Sample ID: BH-14 WATER

Spl#: 194064

*Matrix:* WATER

Sampled: July 1, 1998

Run#: 13630

Analyzed: July 6, 1998

		REPORTING	BLANK	BLANK	DILUTION
	RESULT	LIMIT	RESULT	SPIKE	FACTOR
ANALYTE	(uq/L)	(ug/L)	(ug/L)	(%)	
ACETONE	N.D.	50	N.D.		1
BENZENE	N.D.	0.50	N.D.	88.7	1
BROMODICHLOROMETHANE	N.D.	0.50	N.D.	<del>-</del>	1 1
BROMOFORM	N.D.	0.50	N.D.		1
BROMOMETHANE	N.D.	1.0	N.D.		1
CARBON TETRACHLORIDE	N.D.	0.50	N.D.	<del>-</del> -	1
CHLOROBENZENE	N.D.	0.50	N.D.	96.0	1
CHLOROETHANE	N.D.	1.0	N.D.		1
2-BUTANONE (MEK)	N.D.	50_	N.D.		$\overline{\mathtt{1}}$
2-CHLOROETHYLVINYLETHER	N.D.	0.50	N.D.		1
CHLOROFORM CHLOROMETHANE	Ŋ.D.	0.50	Ŋ.D.		1
DIBROMOCHLOROMETHANE	N.D.	1.0	N.D.		1
1,2-DICHLOROBENZENE	N.D.	0.50	N.D.		1
1,3-DICHLOROBENZENE	N.D. N.D.	0.50	N.D.		1
1,4-DICHLOROBENZENE	N.D. N.D.	0.50	N.D.		1 1
1,2-DIBROMO-3-CHLOROPROPANE	N.D.	0.50 5.0	N.D.	<del>-</del> -	1
1,2-DIBROMOETHANE	N.D.	0.50	N.D. N.D.		
DIBROMOMETHANE	N.D.	0.50	N.D.		1 1
DICHLORODIFLUOROMETHANE	·N.D.	0.50	N.D.		1
1,1-DICHLOROETHANE	0.63	0.50	N.D.		1
1,2-DICHLOROETHANE	N.D.	0.50	N.D.		1
1,1-DICHLOROETHENE	3.2	0.50	N.D.	76.7	1
1,2-DICHLOROETHENE (CIS)	N.D.	0.50	N.D.	, , , ,	j
1,2-DICHLOROETHENE (TRANS)	N.D.	0.50	N.D.		1
	N.D.	0.50	N.D.		1
1,2-DICHLOROPROPANE CIS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.		1
TRANS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.		1
ETHYLBENZENE	N.D.	0.50	N.D.		1
2-HEXANONE	N.D.	50	N.D.		1
METHYLENE CHLORIDE	N.D.	3.0	N.D.		1
4-METHYL-2-PENTANONE (MIBK)	N.D.	50	N.D.		1
NAPHTHALENE	N.D.	1.0	N.D.		1
STYRENE	N.D.	0.50	N.D.		1
1,1,2,2-TETRACHLOROETHANE	N.D.	0.50	N.D.		]
TETRACHLOROETHENE TOLUENE	N.D.	0.50	N.D.		: .±
1,1,1-TRICHLOROETHANE	0.68	0.50	N . D .	86.7	1
1,1,2-TRICHLOROETHANE	0.90	0.50	N.D.		-
TRICHLOROETHENE	N.D.	0.50	N.D.		
1,1,1,2-TETRACHLORGETHANE	N.D. N.D.	0.50	N.D.	79.2	•
VINYL ACETATE	N.D.	0.50	N.D.		_
VINYL CHLORIDE	N.D.	5.0 0.50	N.D. N.D.		1
	14.17.	0.0	IN.D.	<del></del> -	7

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

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AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Project#: 3231

Received: July 2, 1998

re: One sample for Volatile Organics by GC/MS analysis, continued.

Method: SW846 Method 8260A Sept 1994

Client Sample ID: BH-14 WATER

Spl#: 194064

*Matrix:* WATER

Sampled: July 1, 1998

Run#: 13630

Analyzed: July 6, 1998

ANALYTE	RESULT	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK I SPIKE (%)	DILUTION FACTOR
TOTAL XYLENES	N.D.	1.0	N.D.	~ -	3.
CARBON DISULFIDE	N.D.	0.50	N.D.		-
ISOPROPYLBENZENE	N.D.	0.50	N.D.	- <del>-</del>	7
BROMOBENZENE	N.D.	0.50	N.D.	- <b>-</b>	ī
BROMOCHLOROMETHANE	N.D.	1.0	N.D.		ī
TRICHLOROFLUOROMETHANE	N.D.	0.50	N.D.		1
		,,	_		<del>-</del>

Alex Tam Analyst

Operations Manager

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO Project#: 3231

Received: July 2, 1998

re: One sample for Volatile Organics by GC/MS analysis.

Method: SW846 Method 8260A Sept 1994

Client Sample ID: BH-15 WATER

Spl#: 194065 Matrix: WATER

Sampled: July 1, 1998 Run#: 13630 Analyzed: July 6, 1998

	RESULT	REPORTING LIMIT	BLANK RESULT	SPIKE	DILUTION FACTOR
ANALYTE	(ug/L)	( <u>ug/L</u> )	(ug/L)	(용)	
ACETONE	N.D.	50	N.D.		1
BENZENE	Ņ.D.	0.50	N.D.	88.7	1
BROMODICHLOROMETHANE	Ň.D.	0.50	N.D.		1
BROMOFORM	N.D.	0.50	N.D.		1
BROMOMETHANE	N.D.	1,0	N.D.	·	1 1 1 1 1 1
CARBON TETRACHLORIDE	N.D.	0.50	N.D.		1
CHLOROBENZENE	N.D.	0.50	N.D.	96.0	1
CHLOROETHANE	N.D.	1.0	N.D.		1
2-BUTANONE (MEK)	N.D.	50	N.D.		1
2-CHLOROETHYLVINYLETHER	N.D.	0.50	N.D.		1
CHLOROFORM	N.D.	0.50	N.D.		1
CHLOROMETHANE	N.D.	1.0	N.D.		1
DIBROMOCHLOROMETHANE	N.D.	0.50	N.D.		1
1,2-DICHLOROBENZENE	N.D.	0.50	N.D.		1
1,3-DICHLOROBENZENE	N.D.	0.50	N.D.		1
1,4-DICHLOROBENZENE	N.D. N.D.	0.50	N.D.		1
1,2-DIBROMO-3-CHLOROPROPANE	N.D.	5.0	N.D.		1
1,2-DIBROMOETHANE	N.D.	0.50	N.D.	- <del></del>	1
DÍBROMOMETHANE	N.D.	0.50	N.D.		$\bar{1}$
DICHLORODIFLUOROMETHANE	N.D.	0.50	N.D.		ī
1,1-DICHLOROETHANE	N.D.	0.50	N.D.		
1,2-DICHLOROETHANE	N.D.	0.50	N.D.		ī
1,1-DICHLOROETHENE	N.D.	0.50	N.D.	76.7	ī
1,2-DICHLOROETHENE (CIS)	N.D.	0.50	N.D.	, ,	i
1,2-DICHLOROETHENE (TRANS)	N.D.	0.50	N.D.		1
1,2-DICHLOROPROPANE	N.D.	0.50	N.D.		ָ <u></u>
CIS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.		<u>+</u>
TRANS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.		1
ETHYLBENZENE	N.D.	0.50	N.D.		.⊥ 1
2-HEXANONE	N.D.		N.D.		1
METHYLENE CHLORIDE	N.D. N.D.	50	N.D.		<u>.</u> .
4-METHYL-2-PENTANONE (MIBK)	N.D.	3.0			⊥ 1
NAPHTHALENE		50	N.D.		1 1
STYRENE	N.D.	1.0	N.D.		i i
	N.D.	0.50	Ŋ.D.		1
1,1,2,2-TETRACHLOROETHANE	Ŋ.D.	0.50	N.D.		.l.
TETRACHLOROETHENE	N.D.	0.50	Ŋ.D.		
TOLUENE	N.D.	0.50	N.D.	86.7	1
1,1,1-TRICHLOROETHANE	N.D.	0.50	N.D.		7
1,1,2-TRICHLOROETHANE	N.D.	0.50	N.D.		1 1 1 1 2
TRICHLOROETHENE	Ŋ.D.	0.50	N.D.	79.2	<u>1</u>
1,1,1,2-TETRACHLOROETHANE	N.D.	0.50	Ŋ.D.		_
VINYL ACETATE	N.D.	5.0	N.D.		
VINYL CHLORIDE	N.D.	0.50	N.D.		1

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

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AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Project#: 3

3231

Received: July 2, 1998

re: One sample for Volatile Organics by GC/MS analysis, continued.

Method: SW846 Method 8260A Sept 1994

Client Sample ID: BH-15 WATER

*Spl#:* 194065

Matrix: WATER

Sampled: July 1, 1998

Run#: 13630

Analyzed: July 6, 1998

y Naudson

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
TOTAL XYLENES	N.D.	1.0	N.D.		
CARBON DISULFIDE	N.D.	0.50	N.D.		ī
ISOPROPYLBENZENE	N.D.	0.50	N.D.		1
BROMOBENZENE	N.D.	0.50	N.D.		ī
BROMOCHLOROMETHANE	N.D.	1.0	N.D.		1
TRICHLOROFLUOROMETHANE	N.D.	0.50	N.D.	/7	_ 1

Álex Tam Analyst Micháel Verona

Operations Manager

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO Project#: 3231

Received: July 2, 1998

re: One sample for Volatile Organics by GC/MS analysis.

Method: SW846 Method 8260A Sept 1994

Client Sample ID: BH-16 WATER

Spl#: 194066 Matrix: WATER

Sampled: July 1, 1998 Run#: 13630 Analyzed: July 6, 1998

	RESULT	REPORTING LIMIT	BLANK RESULT	BLANK SPIKE	DILUTION FACTOR
ANALYTE	(ug/L)	(ug/L)	(ug/L)	(왕)	
ACETONE	N.D.	50	N.D.		1
BENZENE	N.D.	0.50	N.D.	88.7	1
BROMODICHLOROMETHANE	N.D.	0.50	N.D.		1
BROMOFORM	N.D.	0.50	N.D.		1
BROMOMETHANE	N.D.	1.0	N.D.		1 1 1
CARBON TETRACHLORIDE	N.D.	0.50	N.D.		1
CHLOROBENZENE	N.D.	0.50	N.D.	96.0	1
CHLOROETHANE	N.D.	1.0	N.D.		1
2-BUTANONE (MEK)	N.D.	50	N.D.	~ -	1
2-CHLOROETHYLVINYLETHER	N.D.	0.50	N.D.		1
CHLOROFORM	N.D.	0.50	N.D.		1
CHLOROMETHANE	N.D.	1.0	N.D.		1
DIBROMOCHLOROMETHANE	N.D.	0.50	N.D.		1
1,2-DICHLOROBENZENE	N.D.	0.50	N.D.		1 1 1 1 1
1,3-DICHLOROBENZENE	N.D.	0.50	N.D.		1
1,4-DICHLOROBENZENE	N.D.	0.50	N.D.		1
1,2-DIBROMO-3-CHLOROPROPANE	N.D.	5.0	N.D.		1
1,2-DIBROMOETHANE	N.D.	0.50	N.D.		1 1
DIBROMOMETHANE	N.D.	0.50	N.D.		1
DICHLORODIFLUOROMETHANE	N.D.	0.50	N.D.		1
1,1-DICHLOROETHANE	N.D.	0.50	N.D.		1
1,2-DICHLOROETHANE	N.D.	0.50	N.D.		1
1,1-DICHLOROETHENE	N.D.	0.50	N.D.	76.7	1
1,2-DICHLOROETHENE (CIS)	N.D.	0.50	N.D.		1
1,2-DICHLOROETHENE (TRANS)	N.D.	0.50	N.D.		1
1,2-DICHLOROPROPANE	N.D.	0.50	N.D.		1
CIS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.		1
TRANS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.		1
ETHYLBENZENE	N.D.	0.50	N.D.		1
2-HEXANONE	N.D.	50	N.D.		1
METHYLENE CHLORIDE	N.D.	3.0	N.D.		
4-METHYL-2-PENTANONE (MIBK)	N.D.	50	N.D.		1
NAPHTHALENE	N.D.	1.0	N.D.		7.1
STYRENE	N.D.	0.50	N.D.		1
1,1,2,2-TETRACHLOROETHANE	N.D.	0.50	N.D.		5 1
TETRACHLOROETHENE	N.D.	0.50	N.D.		Ĩ.
TOLUENE	1.3	0.50	N.D.	86.7	]
1,1,1-TRICHLOROETHANE	N.D.	0.50	N.D.		-
1,1,2-TRICHLOROETHANE	N.D.	0.50	N.D.		
TRICHLOROETHENE	N.D.	0.50	Ν. D.	79.2	)
1,1,1,2-TETRACHLOROETHANE	$N \cdot D$ .	0.50	N.D.		
VINYL ACETATE	N.D.	5.0	N.D.		1
VINYL CHLORIDE	N.D.	0.50	N.D.		1

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

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AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Project#: 3231

Received: July 2, 1998

re: One sample for Volatile Organics by GC/MS analysis, continued.

Method: SW846 Method 8260A Sept 1994

Client Sample ID: BH-16 WATER

*Spl#:* 194066

Matrix: WATER

Sampled: July 1, 1998

Run#: 13630

Analyzed: July 6, 1998

ANALYTE	RESULT	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
TOTAL XYLENES	N.D.	1 0	N.D.		7
CARBON DISULFIDE	N.D.	0.50	N.D.		ñ
ISOPROPYLBENZENE	N.D.	0.50	N.D.		ī
BROMOBENZENE	N.D.	0.50	N.D.		1
BROMOCHLOROMETHANE	N.D.	1.0	N.D.		1
TRICHLOROFLUOROMETHANE	N.D.	0.50	N.D.	<del>-</del> -	n = 1

Alex Tam Analyst Michael Verona Operations Manager

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO Project#: 3231

Received: July 2, 1998

re: One sample for Volatile Organics by GC/MS analysis.

Method: SW846 Method 8260A Sept 1994

Client Sample ID: BH-17 WATER

Spl#: 194067 Matrix: WATER

Sampled: July 1, 1998 Run#: 13630 Analyzed: July 6, 1998

-		REPORTING	BLANK		DILUTION
	RESULT	LIMIT	RESULT	SPIKE	FACTOR
ANALYTE	(ug/L)	(ug/L)	(ug/L)	(%)	
ACETONE	N.D.	50	N.D.		1.
BENZENE	0.56	0.50	N.D.	88.7	1
BROMODICHLOROMETHANE	N.D.	0.50	N.D.		1 1 1 1 1 1 1 1 1
BROMOFORM	N.D.	0.50	N.D.		1
BROMOMETHANE	N.D.	1.0	N.D.		1
CARBON TETRACHLORIDE	N.D.	0.50	N.D.		1
CHLOROBENZENE	N.D.	0.50	N.D.	96.0	1
CHLOROETHANE	N.D.	1.0	N.D.		1
2-BUTANONE (MEK)	N.D.	50	N.D.		1
2-CHLOROETHYLVINYLETHER	N.D.	0.50	N.D.		1
CHLOROFORM	N.D.	0.50	N.D.		1
CHLOROMETHANE	N.D.	1.0	N.D.		1
DIBROMOCHLOROMETHANE	N.D.	0.50	N.D.		1
1,2-DICHLOROBENZENE	N.D.	0.50	N.D.	<del>-</del> -	1
1,3-DICHLOROBENZENE	N.D.	0.50	N.D.		1
1,4-DICHLOROBENZENE	N.D.	0.50	N.D.		1
1,2-DIBROMO-3-CHLOROPROPANE	N.D.	5.0	N.D.		. 1
1,2-DIBROMOETHANE	N.D.	0.50	N.D.	<del>-</del> -	1 1
DIBROMOMETHANE	N.D.	0.50	N.D.		
DICHLORODIFLUOROMETHANE	N.D.	0.50	N.D.		1
1,1-DICHLOROETHANE	N.D.	0.50	N.D.		1 1 1 1 1 1 1 1
1,2-DICHLOROETHANE	N.D.	0.50	N.D.		]
1,1-DICHLOROETHENE	N.D.	0.50	N.D.	76.7	
1,2-DICHLOROETHENE (CIS)	N.D.	0.50	N.D.		
1,2-DICHLOROETHENE (TRANS)	N.D.	0.50	N.D.		;
1,2-DICHLOROPROPANE	N.D.	0.50	N.D.		1
CIS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.		1
TRANS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	<del>-</del> -	i.
ETHYLBENZENE	N.D.	0.50	N.D.		î
2-HEXANONE	N.D.	50	N.D.		
METHYLENE CHLORIDE	N.D.	3.0	N.D.		1
4-METHYL-2-PENTANONE (MIBK)	N.D. N.D.	3.0 50	N.D. N.D.		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	N.D. N.D.		N.D. N.D.		= =
NAPHTHALENE STYRENE	N.D.	1.0	N.D. N.D.		
1,1,2,2-TETRACHLOROETHANE		0.50			-
	N.D.	0.50	N.D.	<b></b> 	••
TETRACHLOROETHENE	N.D.	0.50	N.D.		
TOLUENE	$\frac{1.0}{5}$	0.50	N.D.	86.7	
1,1,1-TRICHLOROETHANE	N.D.	0.50	N.D.		
1,1,2-TRICHLOROETHANE	N.D.	0.50	N.D.	70 0	
TRICHLOROETHENE	N.D.	0.50	N.D.	79.2	
1,1,1,2-TETRACHLOROETHANE	N.D.	0.50	N.D.		
VÍNYL ACETATE	N.D.	5.0	N.D.		-
VINYL CHLORIDE	N.D.	0.50	N.D.		.=

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

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AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Project#:

3231

Received: July 2, 1998

re: One sample for Volatile Organics by GC/MS analysis, continued.

Method: SW846 Method 8260A Sept 1994

Client Sample ID: BH-17 WATER

Spl#: 194067

Matrix: WATER

Sampled: July 1, 1998

D. ... // 1262

Run#: 13630

Analyzed: July 6, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK D SPIKE (%)	ILUTION FACTOR
TOTAL XYLENES	N.D.	1.0	N.D.		j
CARBON DISULFIDE	N.D.	0.50	N.D.		7
ISOPROPYLBENZENE	N.D.	0.50	N.D.		ī
BROMOBENZENE	N.D.	0.50	N.D.		ī
BROMOCHLOROMETHANE	N.D.	1.0	N.D.		. 1
TRICHLOROFLUOROMETHANE	N.D.	0.50	N.D	7-17	/ 1

Alex Tam Analyst Michael Verona

Operations Manager

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for Semivolatile Organics (B/NAs) analysis.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: BH-13 WATER

Spl#: 194063 Matrix: WATER

Extracted: July 7, 1998

Sampled: July 1, 1998 Run#: 13645 Analyzed: July 7, 1998

ANALYTE PHENOL	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	SPIKE (%)	DILUTION FACTOR
BIS (2-CHLOROETHYL) ETHER	11	2.0	N.D.	42.2	1
2-CHLOROPHENOL	N.D.	2.0	N.D.		1
1,3-DICHLOROBENZENE	N.D.	2.0	N.D.	78.3	1
1,4-DICHLOROBENZENE	N.D.	2.0	N.D.		1
BENZYL ALCOHOL	N.D.	2.0	N.D.	83.7	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	<del>-</del> -	1
2-METHYLPHENOL	N.D.	2.0	N.D.		1 1 1 1 1
BIS (2-CHLOROISOPROPYL) ETHER	N.D.	2.0	N.D.		1
4-METHYLPHENOL	N.D.	2.0	N.D.		1
N-NITROSO-DI-N-PROPYLAMINE	N.D.	2.0	N.D.		1
HEXACHLOROETHANE	N.D.	2.0	N.D.	98.0	1
NITROBENZENE	N.D.	2.0	N.D.	- <del>-</del>	ī
ISOPHORONE	N.D.	2.0	N.D.	- <del>-</del>	1
2-NITROPHENOL	N.D.	2.0	N.D.	- <del>-</del>	1 1 1 1 1
2,4-DIMETHYLPHENOL	Ŋ.D.	2.0	N.D.		1
BIS (2-CHLOROETHOXY) METHANE	N.D.	2.0	N.D.		1
2,4-DICHLOROPHENOL	Ŋ.D.	5.0	N.D.		1
1,2,4-TRICHLOROBENZENE	N.D.	2.0	N.D.		1
NAPHTHALENE	N.D.	2.0	N.D.	83.7	1 1 1 1
4-CHLOROANILINE	Ŋ.D.	2.0	N.D.		1
HEXACHLOROBUTADIENE	Ŋ.D.	2.0	N.D.		1 1 1
4-CHLORO-3-METHYLPHENOL	Ŋ.D.	2.0	N.D.		1
2-METHYLNAPHTHALENE	N.D.	5.0	N.D.	81.2	1
HEXACHLOROCYCLOPENTADIENE	N.D.	2.0	N.D.		1
2,4,6-TRICHLOROPHENOL	N.D.	2.0	N.D.		1
2,4,5-TRICHLOROPHENOL	Ŋ.D.	2.0	N.D.		1 1
2-CHLORONAPHTHALENE	N.D.	2.0	N.D.		1
2-NITROANILINE	Ŋ.D.	2.0	N.D.	- ~	1
DIMETHYL PHTHALATE	Ŋ.D.	10	N.D.		1 1
ACENAPHTHYLENE	N.D.	5.0	N.D.		1
3-NITROANILINE	N.D.	2.0	Ν. D.		1
ACENAPHTHENE	N.D.	10	N.D.		1
2,4-DINITROPHENOL	N.D.	2.0	N.D.	97.0	1 1
4-NITROPHENOL	N.D.	10	N.D.		1.
DIBENZOFURAN	N.D.	10	N.D.	24.0	1.
2,4-DINITROTOLUENE	Ŋ.D.	2.0	N.D.		1
2,6-DINITROTOLUENE	N.D.	2.0	$\mathbb{N}$ . $\mathbb{D}$ .	80.3	<u>:</u>
DIETHYL PHTHALATE	N.D.	5.0	N.D.		1
4-CHLOROPHENYL PHENYL ETHER	N.D.	5.0	N.D.		1
- CHECKOTHERTE FRENTE ETHER	N.D.	2.0	N.D.	- <del>-</del>	1

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

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AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for Semivolatile Organics (B/NAs) analysis, continued.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: BH-13 WATER

Spl#: 194063 Matrix: WATER Sampled: July 1, 1998 Run#: 13645

Extracted: July 7, 1998
Analyzed: July 7, 1998

REPORTING BLANK BLANK DILUTION RESULT LIMIT RESULT SPIKE FACTOR ANALYTE (ug/L) (ug/L) (ug/L) FLUORENE N.D. 5.0 N.D. 4-NITROANILINE N.D. 1.0 N.D. \_ \_ 1 2-METHYL-4,6-DINITROPHENOL N.D. 10 N.D. 1 n-NITROSODIPHENYLAMINE N.D. 2.0 N.D. 1 4-BROMOPHENYL PHENYL ETHER N.D. N.D. HEXACHLOROBENZENE N.D. 2.0 N.D. PENTACHLOROPHENOL N.D. N.D. 10 69.0 PHENANTHRENE N.D. 2.0 N.D. ANTHRACENE N.D. N.D. DI-N-BUTYL PHTHALATE N.D. 5.0 1 N.D. FLUORANTHENE 2.0 N.D. N.D. 1 PYRENE N.D. 2.0 N.D. 1 1 103 BUTYL BENZYL PHTHALATE N.D. 5.0 N.D. 3,3'-DICHLOROBENZIDINE N.D. 5.0 N.D. 1 BENZO (A) ANTHRACENE N.D. 2.0 N.D. 1 BIS (2-ETHYLHEXYL) PHTHALATE N.D. 5.0 N.D. CHRYSENE 2.0 N.D. N.D. DI-N-OCTYL PHTHALATE N.D. 5.0 N.D. BENZO (B) FLUORANTHENE N.D. N.D. BENZO (K) FLUORANTHENE N.D. 2.0 N.D. BENZO (A) PYRENE 2.0 N.D. N.D. INDENO(1,2,3 C,D) PYRENE DIBENZO(A,H) ANTHRACENE N.D. N.D. N.D. N.D. BENZO (G, H, I) PERYLENE N.D. 2.0 N.D. BENZOIC ACID 10 N.D.

Michael Lee Analyst

Michael Verona Operations Manager

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Project#: 3231

Received: July 2, 1998

re: One sample for Semivolatile Organics (B/NAs) analysis.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: BH-14 WATER

 Spl#:
 194064
 Matrix:
 WATER
 Extracted:
 July 7, 1998

 Sampled:
 July 1, 1998
 Run#:
 13645
 Analyzed:
 July 7, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT	SPIKE	DILUTION FACTOR
PHENOL	$\frac{\log L}{N.D.}$		(ug/L)	(%)	
BIS (2-CHLOROETHYL) ETHER		3.3	N.D.	42.2	1
2-CHLOROPHENOL	N.D.	3.3 3.3	N.D.		1 1
1,3-DICHLOROBENZENE	N.D.	3.3	N.D.	78.3	1
1,4-DICHLOROBENZENE	N.D.	3.3	N.D.		1 1 1 1 1 1 1 1 1 1
BENZYL ALCOHOL	N.D.	3.3	N.D.	83.7	1
1,2-DICHLOROBENZENE	N.D.	8.3	N.D.		1
2-METHYLPHENOL	Ŋ.D.	3.3	N.D.		1
BIS(2-CHLOROISOPROPYL)ETHER	N.D.	3.3	N.D.		1
4-METHYLPHENOL	N.D.	3.3	N.D.		1
	N.D.	3.3	N.D.		1
N-NITROSO-DI-N-PROPYLAMINE	N.D.	3.3	N.D.	98.0	1
HEXACHLOROETHANE	N.D.	3.3	N.D.		1
NITROBENZENE	N.D.	3.3	N.D.		1
ISOPHORONE	N.D.	3.3	N.D.	<del>-</del> -	1
2-NITROPHENOL	N.D.	3.3	N.D.		1
2,4-DIMETHYLPHENOL	N.D.	3.3	N.D.		1
BIS (2-CHLOROETHOXY) METHANE	N.D.	8.3	N.D.		ī
2,4-DICHLOROPHENOL	N.D.	3.3	N.D.		ī
1,2,4-TRICHLOROBENZENE	N.D.	3.3	N.D.	83.7	ī
NAPHTHALENE	N.D.	3.3	N.D.		ī
4-CHLOROANILINE	N.D.	3.3	N.D.		1
HEXACHLOROBUTADIENE	N.D.	3.3	N.D.		1 1
4-CHLORO-3-METHYLPHENOL	N.D.	8.3	N.D.	81.2	î
2-METHYLNAPHTHALENE	N.D.	3.3	N.D.		1
HEXACHLOROCYCLOPENTADIENE	N.D.	3.3	N.D.		1 1
2,4,6-TRICHLOROPHENOL	N.D.	3.3	N.D.		1
2,4,5-TRICHLOROPHENOL	N.D.	3.3	N.D.		1
2-CHLORONAPHTHALENE	N.D.	3.3	N.D.		ĺ
2-NITROANILINE	N.D.	17	N.D.		1
DIMETHYL PHTHALATE	N.D.	8.3	N.D.	<b>-</b>	i
ACENAPHTHYLENE	N.D.	3.3	N.D.		1
3-NITROANILINE	N.D.	17	N.D.		. 1
ACENAPHTHENE	N.D.	3.3	N.D.	97.0	1
2,4-DINITROPHENOL	N.D.	17	N.D.	37.0	1
4-NITROPHENOL	N.D.	17	N.D.	24.0	1
DIBENZOFURAN	Ñ.D.	3.3	N.D.	24.0	ĺ
2,4-DINITROTOLUENE	N.D.	3.3	N.D.	90.3	1 7
2,6-DINITROTOLUENE	N.D.	8.3	N.D.	30.3	- - 1
DIETHYL PHTHALATE	N.D.	8.3	N.D.	<del></del>	
4-CHLOROPHENYL PHENYL ETHER	N.D.	3.3			1
	14.1.	٠.٥	N.D.		1

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

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AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for Semivolatile Organics (B/NAs) analysis, continued.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: BH-14 WATER

Spl#: 194064 Sampled: July 1, 1998

Matrix: WATER

Extracted: July 7, 1998

Run#: 13645 Analyzed: July 7, 1998

		REPORTING	BLANK	BLANK	DILUTION
	RESULT	LIMIT	RESULT	SPIKE	FACTOR
ANALYTE	(uq/L)	(ug/L)	(ug/L)	(%)	
FLUORENE	N.D.	8.3	N.D.		1
4-NITROANILINE	N.D.	17	N.D.		ī
2-METHYL-4,6-DINITROPHENOL	N.D.	17	N.D.		1
n-NITROSODIPHENYLAMINE	N.D.	3.3	N.D.		า
4-BROMOPHENYL PHENYL ETHER	N.D.	8.3	N.D.		ī
HEXACHLOROBENZENE	N.D.	3.3	N.D.		ī
PENTACHLOROPHENOL	N.D.	17	N.D.	69.0	ī
PHENANTHRENE	Ŋ.D.	3.3	N.D.		1
ANTHRACENE DI-N-BUTYL PHTHALATE	Ŋ.D.	3.3	N.D.		ī
FLUORANTHENE	N.D.	8.3	N.D.	<b>→</b> -	1
PYRENE	N.D.	3.3	N.D.	<del>-</del> -	1
BUTYL BENZYL PHTHALATE	Ŋ.D.	3,3	N.D.	103	1
3,3'-DICHLOROBENZIDINE	N.D.	8.3	N.D.		1
BENZO (A) ANTHRACENE	N.D.	8.3	N.D.		1
BIS(2-ETHYLHEXYL) PHTHALATE	N.D.	3.3	N.D.		1
CHRYSENE	N.D.	8.3	N.D.		1
DI-N-OCTYL PHTHALATE	N.D.	3.3	N.D.		1
BENZO (B) FLUORANTHENE	N.D.	8.3	N.D.	~ -	1
BENZO(K) FLUORANTHENE	N.D.	3.3	N.D.	- <del>-</del>	1
BENZO (A) PYRENE	N.D. N.D.	3.3	N.D.		1
INDENO(1,2,3 C,D) PYRENE	N.D.	3.3	N.D.	- <del>-</del>	1
DIBENZO (A, H) ANTHRACENE	N.D.	3.3 3.3	N.D.		1
BENZO (G, H, I) PERYLENE	N.D.	3.3	N.D.		1
BENZOIC ACID	N.D.	3.3 17	N.D.		1
//	11.12.	<b>1</b> /	N.D.		7

Michael Lee Analyst Whichael Verona
Operations Manager

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for Semivolatile Organics (B/NAs) analysis.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: BH-15 WATER

Spl#: 194065 Sampled: July 1, 1998

*Matrix:* WATER

Run#: 13645

Extracted: July 7, 1998

Analyzed: July 7, 1998

ANALYTE PHENOL	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
BIS (2-CHLOROETHYL) ETHER 2-CHLOROPHENOL	3.7 N.D. N.D.	2.0 2.0 2.0	N.D. N.D.	42.2	1 1
1,3-DI-CHLOROBENZENE 1,4-DICHLOROBENZENE	N.D. N.D.	2.0	N.D. N.D. N.D.	78.3	1
BENZYL ALCOHOL 1,2-DICHLOROBENZENE	N.D. N.D.	5.0 2.0	N.D. N.D. N.D.	83.7 	1
2-METHYLPHENOL BIS(2-CHLOROISOPROPYL)ETHER	N.D. N.D.	2.0	N.D. N.D.		1
4-METHYLPHENOL N-NITROSO-DI-N-PROPYLAMINE	N.D. N.D.	2.0	N.D. N.D.	 98.0	1 1 1 1 1 1
HEXACHLOROETHANE NITROBENZENE ISOPHORONE	N.D. N.D.	2.0 2.0	N.D. N.D.		1 1
2-NITROPHENOL 2,4-DIMETHYLPHENOL	N.D. N.D.	2.0 2.0	N.D. N.D.	<del>-</del> -	1
BIS(2-CHLOROETHOXY)METHANE 2,4-DICHLOROPHENOL	N.D. N.D. N.D.	2.0 5.0	N.D. N.D.	- <del>-</del>	1 1 1
1,2,4-TRICHLOROBENZENE NAPHTHALENE	N.D. N.D. N.D.	2.0 2.0 2.0	N.D. N.D.	83.7	1 1
4-CHLOROANILINE HEXACHLOROBUTADIENE	N.D. N.D.	2.0	N.D. N.D. N.D.		1
4-CHLORO-3-METHYLPHENOL 2-METHYLNAPHTHALENE	N.D. N.D.	5.0 2.0	N.D. N.D.	81.2	1 1 1
HEXACHLOROCYCLOPENTADIENE 2,4,6-TRICHLOROPHENOL 2,4,5-TRICHLOROPHENOL	N.D. N.D.	2.0 2.0	N.D. N.D.	 	1 1 1 1
2-CHLORONAPHTHALENE 2-NITROANILINE	N.D. N.D.	2.0	N.D. N.D.	- <del>-</del> 	ī 1
DIMETHYL PHTHALATE ACENAPHTHYLENE	N.D. N.D. N.D.	10 5.0 2.0	N.D. N.D.	- <del>-</del>	1 1
3-NITROANILINE ACENAPHTHENE	N.D. N.D.	10 2.0	N.D. N.D. N.D.	 	1
2,4-DINITROPHENOL 4-NITROPHENOL	N.D. N.D.	10 10	N.D. N.D. N.D.	97.0  24.0	1 ? ?
DIBENMOFURAN 2,4-DINITROTCLUENE	N.D. N.D.	2.0 2.0	N.D. N.D	80.3	1
DIETHYL PHTHALATE 4-CHLOROPHENYL PHENYL ETHER	N.D. N.D. N.D.	5.0 2.0	N.D. N.D.		1 1 1

Environmental Services (SDB)

July 10, 1998

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for Semivolatile Organics (B/NAs) analysis, continued.

Method: SW846 Method 8270A Nov 1990

- Lacke

Client Sample ID: BH-15 WATER

Spl#: 194065 Sampled: July 1, 1998

Matrix: WATER

Extracted: July 7, 1998

Submission #: 9807033 page 2

Run#: 13645 Analyzed: July 7, 1998

ANALYTE	RESULT	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)		ILUTION FACTOR
FLUORENE	N.D.	5.0	N.D.	- 1.97	<del></del> -
4-NITROANILINE	N.D.	10	N.D.		<u> </u>
2-METHYL-4,6-DINITROPHENOL	N.D.	10	N.D.		1
n-NITROSODIPHENYLAMINE	N.D.	2.0	N.D.		1
4-BROMOPHENYL PHENYL ETHER	N.D.	5.0	N.D.		1
HEXACHLOROBENZENE PENTACHLOROPHENOL	N.D.	2.0	N.D.		1
PHENANTHRENE	N.D.	10	N.D.	69.0	1
ANTHRACENE	N.D.	2.0	N.D.		1
DI-N-BUTYL PHTHALATE	Ŋ.D.	2.0	N.D.		ז י
FLUORANTHENE	N.D.	5.0	N.D.		i
PYRENE	N.D.	2.0	N.D.		1
BUTYL BENZYL PHTHALATE	N.D.	2.0	N.D.	103	ī
3,3'-DICHLOROBENZIDINE	N.D.	5.0	N.D.		ī
BENZO (A) ANTHRACENE	N.D.	5.0	N.D.		ī
BIS (2-ETHYLHEXYL) PHTHALATE	N.D.	2.0	N.D.		l
CHRYSENE	N.D.	5.0	N.D.		1
DI-N-OCTYL PHTHALATE	N.D. N.D.	2.0	N.D.		1
BENZO(B)FLUORANTHENE	N.D.	5.0	N.D.		1
BENZO (K) FLUORANTHENE	N.D.	2.0	N.D.	~ <b>-</b>	1
BENZO(A) PYRENE	N.D.	2.0	N.D.		1
INDENO(1,2,3 C.D) PYRENE	N.D.	2.0	N.D.		1
DIBENZO (A, H) ANTHRACENE	N.D.	2.0 2.0	N.D.		1
BENZO(G, H, I) PERYLENE	N.D.	2.0	N.D.	- <b>-</b>	1
BENZOIC ACID	N.D.	10	N.D.		1
		10	N.D.		1

Michael Lee

Analyst

Michael Verona Operations Manager

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for Semivolatile Organics (B/NAs) analysis.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: BH-16 WATER

*S*pl#: 194066

Extracted: July 7, 1998 *Matrix:* WATER Sampled: July 1, 1998 Run#: 13645 Analyzed: July 7, 1998

ANALYTE PHENOL	RESULT	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
PHENOL PHENOL	N.D.	2.5	N.D.	42.2	
BIS (2-CHLOROETHYL) ETHER	N.D.	2.5	N.D.	44.2	1
2-CHLOROPHENOL	N.D.	2.5	N.D.		1 1 1
1,3-DICHLOROBENZENE	N.D.	2.5	N.D.	78.3	1
1,4-DICHLOROBENZENE	N.D.	2.5			1
BENZYL ALCOHOL	N.D.	6.2	Ŋ.D.	83.7	1
1,2-DICHLOROBENZENE	N.D.	0.2	N.D.		1.
2-METHYLPHENOL	N.D.	2.5	N.D.		1
BIS (2-CHLOROISOPROPYL) ETHER		2.5	N.D.		1
4-METHYLPHENOL	Ŋ.D.	2.5	N.D.		ī
N-NITROSO-DI-N-PROPYLAMINE	N.D.	2.5	N.D.		1
HEXACHLOROETHANE	N.D.	2.5	N.D.	98.0	± 1
NITROBENZENE	N.D.	2.5	N.D.	30.0	⊥ 1
ISOPHORONE	N.D.	2.5	N.D.		1 1 1 1 1 1 1 1 1
120NUCKONE	N.D.	$\frac{1}{2.5}$	N.D.		Ţ
2-NITROPHENOL	N.D.	$\overline{2}.\widetilde{5}$	N.D.		1
2,4-DIMETHYLPHENOL	N.D.	2.5	N.D.		1
BIS (2-CHLOROETHOXY) METHANE	N.D.	6.2	N.D.		1 1
2,4-DICHLOROPHENOT.	N.D.	2.5			1
1,2,4-TRICHLOROBENZENE	N.D.	2.5	N.D.		1
NAPHTHALENE	N.D.	2.3	N.D.	83.7	1
4-CHLOROANILINE	N.D.	2.5	N.D.	<del>-</del> -	1
HEXACHLOROBUTADIENE		2.5 2.5	N.D.		1
4-CHLORO-3-METHYLPHENOL	N.D.	2.5	N.D.		1
2-METHYLNAPHTHALENE	N.D.	6.2	N.D.	81.2	ī
HEXACHLOROCYCLOPENTADIENE	Ŋ.D.	2.5	N.D.		i
2,4,6-TRICHLOROPHENOL	N.D.	2.5	N.D.	<b>-</b> -	1
2,4,5-TRICHLOROPHENOL	N.D.	2.5	N.D.		$\overset{\scriptscriptstyle\perp}{1}$
2-CHLORONAPHTHALENE	N.D.	2.5	N.D.		
2 MITTOANII IND	N.D.	2.5	N.D.		1
2-NITROANILINE	N.D.	12	N.D.	<del></del>	1
DIMETHYL PHTHALATE	N.D.	6.2	N.D.		1.
ACENAPHTHYLENE	N.D.	2.5	N.D.	~ -	1
3-NITROANILINE	N.D.	12		~ -	1
ACENAPHTHENE	N.D.	2.5	<b>N</b> .D.		$\stackrel{-}{\overset{1}{1}}$
2,4-DINITROPHENOL	N.D.		Ŋ.D.	97.0	1
4-NITROPHENOL	IV	12	N.D.		7
TIBENZOFURAN		12	N.E.		
2,4-DINITROTOLUENE	•,- •	2.5	N.D.		
		2 5	M D	1 7	=
DIETHYL PHTHALATE	N: *	5	. V		-
4-CHLOROPHENYL PHENYL ETHER	N.D.	6.2	N.D.		.i. 1
	N.D.	2.5	N.D.		1

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

page 2

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

PEDODUTNO

re: One sample for Semivolatile Organics (B/NAs) analysis, continued.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: BH-16 WATER

Spl#: 194066

*Matrix:* WATER

Extracted: July 7, 1998

Sampled: July 1, 1998 Run#: 13645

Analyzed: July 7, 1998

	<b>~</b> ========	REPORTING	BLANK	BLANK	DILUTION
ANALYTE	RESULT	LIMIT	RESULT	SPIKE	FACTOR
FLUORENE	<u>(ug/L)</u>	(ug/L)	(ug/L)	(%)	
4-NITROANILINE	N.D.	6.2	N.D.		1
2-METHYL-4,6-DINITROPHENOL	N.D.	12	N.D.		ī
n-NITROSODIPHENYLAMINE	N.D.	12	N.D.		1
4-BROMOPHENYL PHENYL ETHER	N.D.	2.5	N.D.		ī
HEXACHLOROBENZENE	Ŋ.D.	6.2	N.D.		1
PENTACHLOROPHENOL	Ŋ.D.	2.5	N.D.	~ -	ī
PHENANTHRENE	Ŋ.D.	12_	N.D.	69.0	ī
ANTHRACENE	N.D.	2.5	N.D.	~ _	1
DI-N-BUTYL PHTHALATE	Ŋ.D.	2.5	N.D.		ī
FLUORANTHENE	N.D.	6.2	N.D.	<del>-</del> -	1
PYRENE	N.D.	2.5	N.D.		ī
BUTYL BENZYL PHTHALATE	N.D.	2.5	N.D.	103	1
3,3'-DICHLOROBENZIDINE	N.D.	6.2	N.D.		ī
BENZO (A) ANTHRACENE	N.D.	6.2	N.D.		ī
BIS(2-ETHYLHEXYL) PHTHALATE	N.D.	2.5	N.D.		ī
CHRYSENE	N.D.	6.2	N.D.		1
DI-N-OCTYL PHTHALATE	N.D.	2.5	N.D.		1
BENZO(B) FLUORANTHENE	N.D.	6.2	N.D.		1
BENZO (K) FLUORANTHENE	N.D.	2.5	N.D.		1
BENZO (A) PYRENE	N.D.	2.5	Ν.D.		<u>1</u>
INDENO(1,2,3 C,D)PYRENE	N.D.	2.5	N.D.		•
DIBENZO (A, H) ANTHRACENE	N.D.	2.5	N.D.	<b>-</b> -	î
BENZO(G, H, I) PERYLENE	N.D.	2.5	N.D.		1
BENZOIC ACID	N.D.	2.5	N.D.		1.
Note: Percent recoveries	N.D. of surrogates	12	N.D.		1

of surrogates were outside of QC limits due to matrix

Michael Lee

Analyst

97 178 1 ---Michael Verona Operations Manager

Environmental Services (SDB)

July 10, 1998

Submission #: 9807033

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for Semivolatile Organics (B/NAs) analysis.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: BH-17 WATER

*Sp1#:* 194067

*Matrix:* WATER

Extracted: July 7, 1998

Sampled: July 1, 1998

Run#: 13645

Analyzed: July 7, 1998

		REPORTING	BLANK	BLANK	DILUTION
3 373 F 21mm	RESULT	LIMIT	RESULT	SPIKE	FACTOR
ANALYTE PHENOL	(ug/L)	(ug/L)	(ug/L)	(왕)	1110101
PIC () CHI ODODENIA A PERSON	N.D.	2.0	N.D.	42.2	1
BIS(2-CHLOROETHYL)ETHER 2-CHLOROPHENOL	N.D.	2.0	N.D.		
2 - CHLOROPHENOL	N.D.	2.0	N.D.	78.3	1
1,3-DICHLOROBENZENE	N.D.	2.0	N.D.		1
1,4-DICHLOROBENZENE BENZYL ALCOHOL	N.D.	2.0	N.D.	83.7	7
1 2-DICHIODODDNEDID	N.D.	5.0	N.D.		1 1
1,2-DICHLOROBENZENE 2-METHYLPHENOL	N.D.	2.0	N.D.	~ -	1
BIG / 2 - CHI ODO I GODDODATI / ********	N.D.	2.0	N.D.		1
BIS (2-CHLOROISOPROPYL) ETHER 4-METHYLPHENOL	N.D.	2.0	N.D.		7
N-MITPOCO DI M DDODMINATIO	N.D.	2.0	N.D.		<u>+</u> 1
N-NITROSO-DI-N-PROPYLAMINE HEXACHLOROETHANE	N.D.	2.0	N.D.	98.0	÷ 1
NITROBENZENE	N.D.	2.0	N.D.		1
ISOPHORONE	N.D.	2.0	N.D.		i
2-NITROPHENOL	N.D.	2.0	N.D.		7
2,4-DIMETHYLPHENOL	N.D.	2.0	N.D.		7
BIS(2-CHLOROETHOXY) METHANE	N.D.	2.0	N.D.		1
2,4-DICHLOROFHENOL	N.D.	5.0	N.D.		1
1,2,4-TRICHLOROBENZENE	Ŋ.D.	2.0	N.D.		1
NAPHTHALENE	N.D.	2.0	N.D.	83.7	
4-CHLOROANILINE	N.D.	2.0	N.D.		1
HEXACHLOROBUTADIENE	N.D.	2.0	N.D.		
4-CHLORO-3-METHYLPHENOL	N.D.	2.0	N.D.		ī
2-METHYLNAPHTHALENE	N.D.	5.0	N.D.	81.2	$\bar{1}$
HEXACHLOROCYCLOPENTADIENE	N.D.	2.0	N.D.		1
2,4,6-TRICHLOROPHENOL	N.D.	2.0	N.D.		ī
2,4,5-TRICHLOROPHENOL	N.D.	2.0	N.D.		1
2-CHLORONAPHTHALENE	N.D.	2.0	N.D.		$\bar{1}$
2-NITROANILINE	N.D.	2.0	N.D.		1
DIMETHYL PHTHALATE	N.D.	10	N.D.	= =	1
ACENAPHTHYLENE	N.D.	5.0	N.D.	<del>-</del> -	<u> </u>
3-NITROANILINE	N.D.	2.0	N.D.	<b>-</b> -	<u> </u>
ACENAPHTHENE	N.D.	10	${ t N}$ . ${ t D}$ .	<b>-</b> -	ī
2,4-DINITROPHENOL	N.D. N.D.	2.0	N.D.	97.0	
The many and a street of the second of the s		1 11	N , $D$ ,		-
DIBENZOFURAN	N.D.	3. c	N . L .	24.0	-
2.4-DINITE THATETHE	M.D. M.D.	& ••			1 - - - - -
				<b>身态,</b> 如	
DIETHYL PHTHALATE	N.J.				
4-CHLOROPHENYL PHENYL ETHER	N.D. N.D.	5.0	N.D.	<b>-</b> -	<u>;</u>
	и	2.0	N.D.		ī

Environmental Services (SDB)

July 10, 1998

AQUA SCIENCE ENGINEERS INC

Atten: Dave Allen

Project: OLIVER RUBBER CO

Received: July 2, 1998

Project#: 3231

re: One sample for Semivolatile Organics (B/NAs) analysis, continued.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: BH-17 WATER

Spl#: 194067 Sampled: July 1, 1998

Matrix: WATER

Extracted: July 7, 1998

Submission #: 9807033 page 2

Analyzed: July 7, 1998 Run#: 13645

ANALYTE	RESULT	REPORTING LIMIT (ug/L)	BLANK RESULT	SPIKE	DILUTION FACTOR
FLUORENE	N.D.	5.0	(ug/L)	(%)	
4-NITROANILINE	N.D.		N.D.		1
2-METHYL-4,6-DINITROPHENOL	N.D.	10	N.D.		· <u>1</u>
n-NITROSODIPHENYLAMINE	N.D.	10	N.D.		1
4-BROMOPHENYL PHENYL ETHER	N.D.	2.0	N.D.		1
HEXACHLOROBENZENE	N.D.	5.0	N.D.		1
PENTACHLOROPHENOL	N.D.	2.0	N.D.		1
PHENANTHRENE	N.D.	10	N.D.	69.0	1
ANTHRACENE	N.D.	2.0	N.D.		1
DI-N-BUTYL PHTHALATE	N.D. N.D.	2.0	N.D.		1
FLUORANTHENE	N.D.	5.0	N.D.		l
PYRENE	N.D. N.D.	2.0	N.D.	<del></del>	1
BUTYL BENZYL PHTHALATE		2.0	N.D.	103	1
3,3'-DICHLOROBENZIDINE	N.D.	5.0	N.D.	<del></del>	1
BENZO (A) ANTHRACENE	N.D.	5.0	N.D.	·	1
BIS(2-ETHYLHEXYL)PHTHALATE	N.D.	2.0	N.D.		1
CHRYSENE	N.D.	5.0	N.D.		1
DI-N-OCTYL PHTHALATE	N.D.	2.0	N.D.		1
BENZO(B) FLUORANTHENE	N.D.	5.0	N.D.		1
BENZO(K) FLUORANTHENE	N.D.	2.0	N.D.		1.
BENZO (A) PYRENE	N.D.	2.0	N.D,		1.
INDENO(1,2,3 C,D)PYRENE	N.D.	2.0	N.D.		1.
DIBENZO (A, H) ANTHRACENE	N.D.	2.0	Ν. D.		<u>1</u>
BENZO(G, H, I) PERYLENE	N.D.	2.0	N.D.		1
BENZOIC ACID	N.D.	2.0	N.D.		1
	N.D.	10	N.D.		1

Se Cac Cla Michael Lee

Analyst

Wall to fill the se Michael Verona Operations Manager 9807033 /194063-70

Aqua Science Engineers, Inc. 2411 Old Crow Canyon Road, #4, San Ramon, CA 94583 (510) 820-9391 - FAX (510) 837-4853 SUBM #: 9807033 REP: PM

CLIENT: ASE

DUE: 07/10/98

REF #:40703

dy

40703

TE 7-2-98 PAGE 1 OF 1

SAMPLERS (SIGNATURE) (PHONE NO.)																					
Odle 820-93				391		ADDRESS OAKLAND, CA									· · · · · ·	· · ·					
ANALYSIS REQUEST						20)	,	Я	3083	s	ACT DS	BkF)						Ĕ		Q	
SPECIAL INSTRUCTIONS:					GASOLI NE . 5030/8015)	TPH-GASOLINE/BTEX. [EPA 5030/8015-8020]	TPH- DIESEL (EPA 3510/8015)	PURGABLE ARCHATICS (EPA 602/CC20)	PURCABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240)	BASE/NUETRALS, AV	OIL & GREASE (EPA 5520 EkF or	LUFT METALS (S) (EPA 6010+7000)	TITLE 22 (CAM 17) (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC- CAM WET ( EPA 1311/1310)	REACTI VI TY CORROSI VI TY I GAI TABILLITY	TPH-RAFFEX	A 8240	EPA 8270	
SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-G (EPA	TPH-C	-H°H- (EPA	PURG (EPA	PURC (EPA	Tigy (43)	BASE ( EF)	of L	LUFT (EPA	11 H	TCLP (EPA	STLC	REAC CORF		EPA		
BH-13 WATER	7/1/98	15:10	WATER	4						<u>.</u>	ļ	<u> </u>					·	X	X	×	
BH-14 WATER		13:20		4		ļ		ļ		ļ	ļ			ļ <u>-</u>	} 	ļ		X	×	X	<del>-   7</del>
BH-15 WATER	1_/	11:40	(-	4			ļ		ļ .	ļ	<u> </u>		<del>                                     </del>	ļ	<u></u>			<u> </u>	×	X	<del>  9</del>
BH-16 WATER.		13:30		4	ļ		ļ	<del> </del>		<del> </del>	ļ	<del> </del>		<del> </del>				λ_	×	X	- 17/
BH-17 WATER		14:34	V	4			ļ	<u> </u>		ļ	<del> </del>		<u> </u>	<u> </u>			<u> </u>	×	X	X X	+7
BH-13, 3.51		7:38	SOIL	1	ļ			<u> </u>	<u> </u>	-	ļ		ļ	<del> </del> -				×	X		
BH-14, 15.5		9:10		(_			<u> </u>	ļ	ļ.	ļ	<del> </del>			_		<u> </u>	ļ	<del> </del>	<u> </u>	X	
BH-15, 15,	V	(2:30	1	1	· ·			<u> </u>	<u> </u>		ļ		ļ	<del> </del>		-	-	X	×	X	
	-	1			<u> </u>		<u> </u>	ļ	-		<u> </u>	1	<u> </u>				-	<u> </u>			
						<u> </u>		<u> </u>	-		<u> </u>			<u> </u>	<u> </u>						
RELINQUISHED BY:  O. O					_ <del></del>	RELINQUISHED BY:					REC	REGERVED BY LABORATORY: COMMENTS: 5-DAY									
			me) (sign	'signature) (tim			c) (signature) (time)				(51g	(signature) / (time) RESULTS									
(printed name)	7/2/2	(printed name)			(date	to) (printed name)				(date	) (pri	(printed namp) (date)									
Company- A	,	Com		\	Company-						Company - 7-2-98										