Environmental
Sampling Services

June 9, 1998

Ms. Rita Sullins
Don-Sul, Inc.
187 North L Street
Livermore, CA 94550

Subject: Semi-Annual #1 -April 1998 Report

Dear Ms. Sullins,

Please find enclosed the first semi-annual report, generated by Aquifer Sciences and Enviromental Sampling Services, based on the ground water sampling event on April 27, 1998.

If you have any questions regarding this report, please contact Ms. Becky Sterbentz of Aquifer Sciences at (925) 283-9098 and/or me at (925) 372-8108.

Sincerely,

Stephen Penman
Vice President

Enclosure
cc: Eva Chu

CRA

ARROW RENTALS

"We Rent Most Everything"

member ARA american rental association

Dear Eva,

I've enclosed a copy the the latest testing report.

Hope all is well with you.

Sincerely,

Pete

ENVIRONMENTAL PROTECTION
98 JUN 17 PM 3:13

187 NORTH 'L' STREET • LIVERMORE, CALIFORNIA 94550 • **(510) 455-1900**

Environmental
Sampling Services

FIELD ACTIVITY REPORT
FOR SEMI-ANNUAL GROUNDWATER MONITORING EVENT
ARROW RENTALS,
LIVERMORE, CALIFORNIA

ESS Personnel: Jacki Lee and Steve Penman
Duration of Activities: April 27, 1998

Decontamination Procedures

All downhole equipment was cleaned with a solution of Liqui-Nox® laboratory-grade detergent and potable water, rinsed with potable water, followed by a final rinse with distilled water.

Water Level and Total Depth Measurements

A total of four (4) monitoring wells were measured for static water level. All readings were performed with Solinst® electrical water level indicator (Table 1). Water level measurements were referenced to the surveyor's mark (a black mark on the top of well casing).

Field Equipment Calibration

All field measurements were performed in accordance with the instruments' calibration and operating procedures. Field measurements included: pH, specific conductance, turbidity, and temperature.

Field Activities

Monday, April 27, 1998: Well evacuation and monitoring of groundwater quality parameters for three (3) monitoring wells were performed. A minimum removal of three casing volumes and stabilization of water quality parameters were required prior to sampling. All wells were sampled for the following analyses: EPA Method 8015M (TPH (Gasoline)/BTEX, and MTBE) and TPH (Diesel). In addition, W-1s was sampled for Total Lead.

All wells were purged and sampled with disposable bailers. Columbia Analytical Laboratories supplied all sample containers and packing material and performed all required analyses. All samples were properly preserved according to analysis.

QA/QC

Trip blanks for EPA Method 8015M were supplied and remained in the cooler containing all sample containers. No other QA/QC samples were required nor requested.

Environmental Sampling Services

All work was performed under satisfactory workmanship and according to the Alameda County Health and Care Services' directive, dated October 8, 1997.

Jacqueline Lee
President

Attachment
Table 1
Water Sample Log Sheets
Chain of Custody

SEMI-ANNUAL GROUNDWATER MONITORING REPORT FOR ARROW RENTALS LIVERMORE, CALIFORNIA

APRIL 1998

Prepared for: Don-Sul Inc.
187 North L Street
Livermore, California 94607

Date Prepared: June 8, 1998

By: Environmental Sampling Services
and Aquifer Sciences, Inc.

AQUIFER SCIENCES, INC.

3680-A Mt. Diablo Blvd.
Lafayette, CA 94549
(510) 283-9098

June 1, 1998
971275

Ms. Rita Sullins
Don-Sul, Inc.
187 North L Street
Livermore, CA 94550

Subject: Groundwater Monitoring, April 1998
187 North L Street, Livermore, California

Dear Ms. Sullins:

Groundwater monitoring was conducted in April 1998 at the Arrow Rentals site, located at 187 North L Street in Livermore, California. This report presents the groundwater measurement and sampling procedures, evaluation of hydrogeologic data, and the results of laboratory analyses.

MEASUREMENT AND SAMPLING PROCEDURES

On April 27, 1998, groundwater monitoring was performed at the site by Environmental Sampling Services of Martinez, California. The locations of the groundwater monitoring wells are illustrated on Figure 1. The field activity report describing sampling activities is included in Appendix A.

Prior to sampling, the depth of static groundwater was measured in all four wells (W-1s, W-3s, W-Bs, and W-Es) to the nearest 0.01 foot using an electrical water level recorder. The interface probe was washed using a Liqui-Nox detergent solution, rinsed with potable water, and rinsed with distilled water. Groundwater elevation data for each well are listed in Table 1. The potentiometric surface map, corresponding to groundwater elevations measured on April 27, 1998, is shown on Figure 2.

Three of the four wells (W-1s, W-3s, and W-Bs) were purged and sampled after the static water level measurements were recorded. A minimum of three casing volumes of groundwater was removed from each well prior to sampling. Each well was purged using a new disposable bailer and new rope. Purge water from the monitoring wells was collected in labeled 55-gallon drums pending the analytical results.

Water quality parameters (pH, specific conductance, temperature, turbidity, color, and odor) were recorded at regular intervals during well purging. Water quality parameters for the three wells were recorded in the sampling logs. Copies of the well sampling logs are included in Appendix A.

Groundwater samples were collected from each well using the disposable bailers. Groundwater samples were collected in clean bottles supplied by the analytical laboratory, labeled, stored on ice in a cooler, and transported under chain-of-custody protocol within 24 hours of collection to Columbia Analytical Services, a California-certified laboratory located in Santa Clara. A travel blank was prepared by the laboratory and accompanied the groundwater samples for quality assurance purposes.

The three groundwater samples were analyzed for total petroleum hydrocarbons quantified as gasoline (TPH-gasoline) and diesel (TPH-diesel) by EPA Method 8015 Modified; benzene, toluene, ethylbenzene, xylenes (BTEX) by EPA Method 8020; and methyl tertiary butyl ether (MTBE) by EPA Method 8020 Modified. The groundwater sample collected from well W-1s was also analyzed for lead by EPA Method 7421. The travel blank was analyzed for gasoline by EPA Method 8015 Modified, BTEX by EPA Method 8020, and MTBE by EPA Method 8020 Modified.

HYDROGEOLOGIC DATA EVALUATION

Groundwater elevations in the four monitoring wells ranged from 455.39 feet in well W-Es to 460.48 feet in well W-1s. The groundwater levels measured in April 1998 were more than 17 feet higher than those measured in October 1997. Based upon measurements recorded on April 27, 1998, groundwater generally flows to the southwest under a hydraulic gradient of approximately 0.044 ft/ft (Figure 2).

RESULTS OF LABORATORY ANALYSES

Results of laboratory analyses for groundwater samples collected from wells W-1s, W-3s, and W-Bs in April 1998 are summarized in Table 2. The laboratory report and chain-of-custody record are included in Appendix B.

Gasoline was detected in the groundwater samples collected from well W-1s at 6,700 µg/L and well W-Bs at 63,000 µg/L. TPH-diesel was detected in the groundwater samples collected from well W-1s at 2,200 µg/L and well W-Bs at 17,000 µg/L. However, the laboratory indicated that the hydrocarbons detected in the diesel range did not match a typical diesel pattern. Benzene was detected in the samples collected from well W-1s at 410 µg/L and well W-Bs at 6,100 µg/L. These concentrations exceeded the Maximum Contaminant Level (MCL) of 1 µg/L, established for benzene in drinking water. Toluene was detected in the samples collected from well W-1s at

250 µg/L and well W-Bs at 5,400 µg/L. These concentrations exceeded the MCL of 150 µg/L established for toluene. Ethylbenzene (up to 1,900 µg/L) and xylenes (up to 9,100 µg/L) were detected in the groundwater samples collected from wells W-1s and W-Bs. The levels of ethylbenzene and xylenes in well W-Bs exceeded the MCLs for these chemicals.

MTBE was not detected in the groundwater samples. However, the laboratory detection limits were elevated due to high concentrations of gasoline and BTEX in samples W-1s and W-Bs. Lead was not detected in groundwater sample W-1s. Gasoline, BTEX, and MTBE were not detected in the travel blank.

SUMMARY AND CONCLUSIONS

During the April 1998 monitoring round, a petroleum hydrocarbon odor was evident in groundwater purged from wells W-1s and W-Bs. Gasoline, diesel, and BTEX were detected in wells W-1s, W-3s, and W-Bs. However, the concentrations of gasoline, diesel, and BTEX detected in groundwater samples collected in April 1998 were significantly lower than the levels detected in October 1997. In the past, low levels of petroleum hydrocarbons have also been detected in downgradient well W-Es. Fluctuations in the concentrations of gasoline, diesel, and BTEX in groundwater samples collected from these wells may be related to the seasonal variations in groundwater elevations and the groundwater flow direction.

Please call us if you have any questions concerning this report.

Respectfully yours,

Thomas E. Neely, REA
Hydrogeologist

Rebecca A. Sterbentz, RG, CHG, REA
President

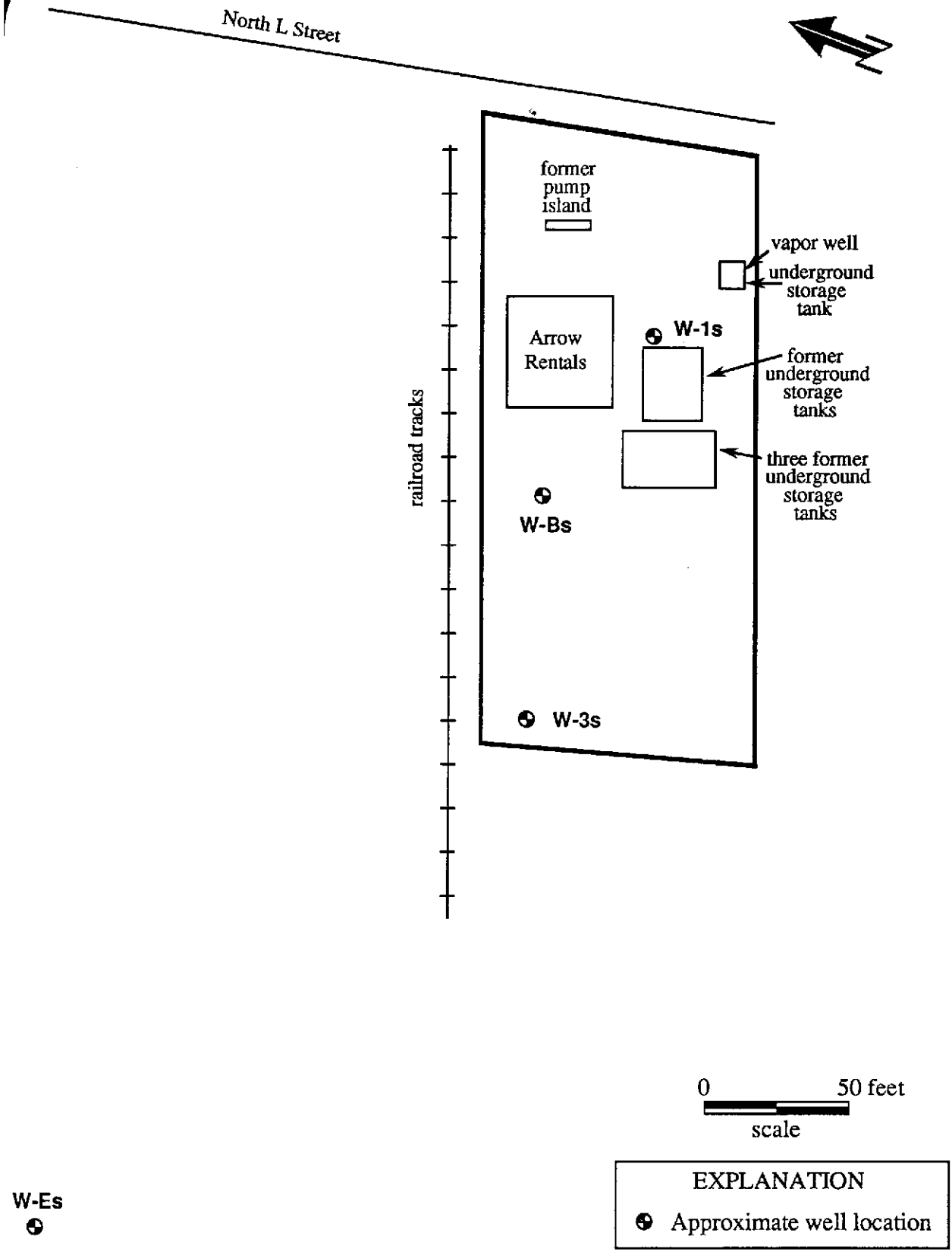

Figure 1. SITE MAP
187 North L Street, Livermore, California

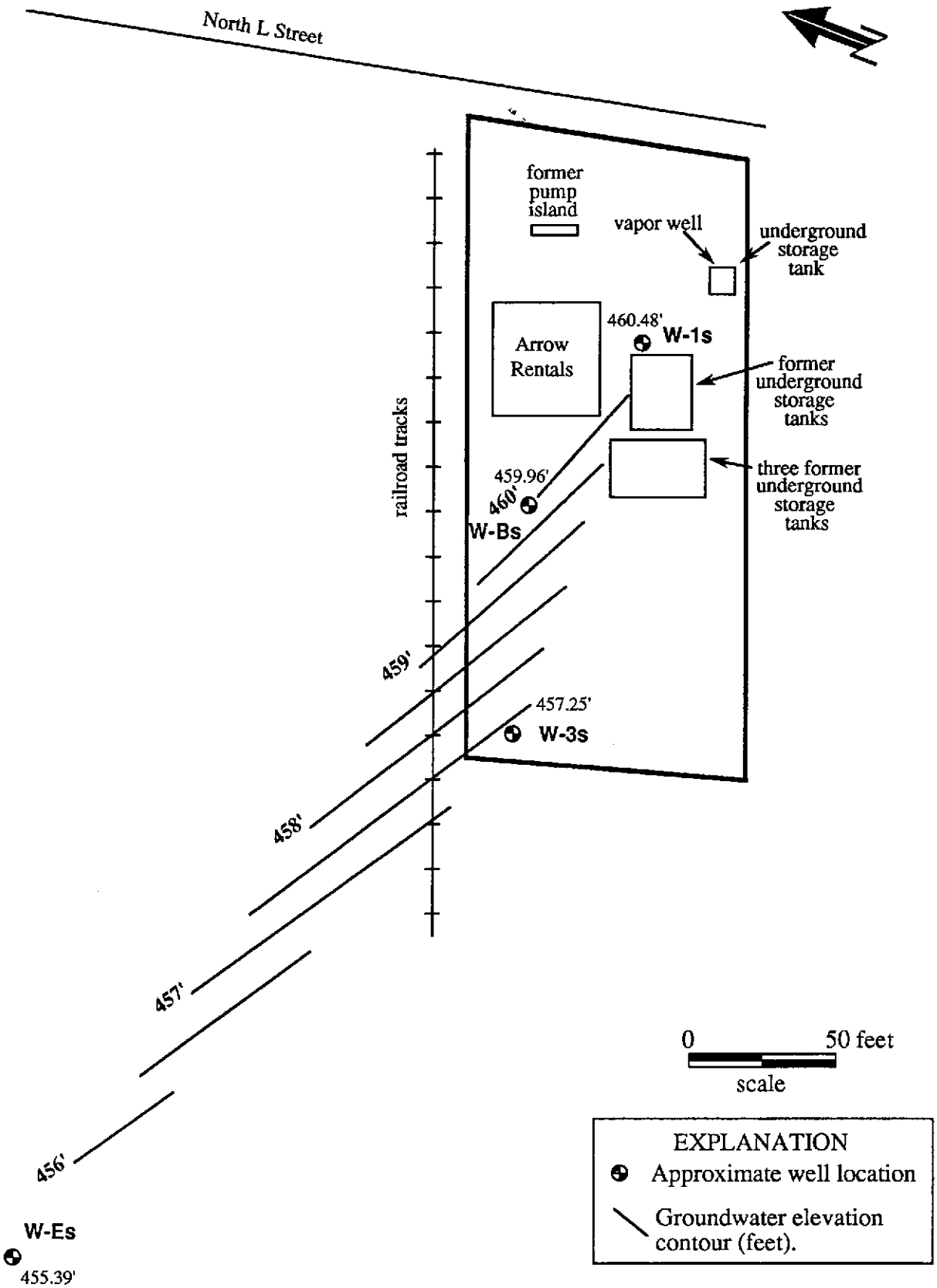

Figure 2. POTENTIOMETRIC SURFACE MAP (4/27/98)
187 North L Street, Livermore, California

Table 1. GROUNDWATER ELEVATION DATA
187 North L Street, Livermore, California
April 27, 1998

Well Number	Top of Casing Elevation (feet above MSL)	Depth to Water (feet below TOC)	Water Elevation (feet above MSL)
W-1s	479.09	18.61	460.48
W-3s	476.98	19.73	457.25
W-Bs	478.82	18.86	459.96
W-Es	474.66	19.27	455.39

TOC = top of PVC casing
MSL = mean sea level (elevations based on City of Livermore datum)

Table 2. GROUNDWATER ANALYTICAL RESULTS
187 North L Street, Livermore, California
April 27, 1998

Well Number	TPH-gasoline (µg/L)	TPH-diesel (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Lead (µg/L)
W-1s	6,700	2,200*	410	250	77	870	ND	ND
W-3s	ND	ND	ND	ND	ND	ND	ND	NA
W-Bs	63,000	17,000*	6,100	5,400	1,900	9,100	ND	NA
Travel Blank	ND	NA	ND	ND	ND	ND	ND	NA
MDL	50-10,000	50-200	0.5-100	0.5-100	0.5-100	0.5-100	3-600	5
MCL	NE	NE	1	150	700	1,750	NE	50
AL	NE	NE	NE	NE	NE	NE	35	15

TPH-gasoline = total petroleum hydrocarbons quantified as gasoline
TPH-diesel = total petroleum hydrocarbons quantified as diesel
MTBE = methyl tertiary butyl ether
µg/L = micrograms per liter [parts per billion (ppb)]
MDL = method detection limit
MCL = Maximum Contaminant Level, November 1996
AL = Action Level, November 1996
NA = not analyzed
ND = not detected
NE = none established

* The sample contains a lower boiling point hydrocarbon mixture quantitated as diesel. The chromatogram does not match the typical diesel fingerprint.

Environmental
Sampling Services

TABLE 1: SUMMARY OF WATER LEVEL MEASUREMENTS ARROW RENTAL LIVERMORE, CALIFORNIA

WELL IDENTIFICATION	DEPTH TO GROUNDWATER (Measured April 27, 1998)	TOTAL WELL DEPTH
W-1s	18.61	44.64
W-Bs	18.86	44.47
W-3s	19.73	44.76
W-Es	19.27	NA

NA = Not Applicable

Environmental Sampling Services

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: W-Bs DATE: 4/27/98

Project Name: Arrow Rentals Livermore, CA — Client Project Number: NA

Well Description: .75" 2" 3" 4" 5" (6") — Well Type: (PVC) Stainless Steel Other: _____

Is Well Secured? Yes / No Bolt Size 15/16" — Type of lock / Lock number: Master Lock

Observations / Comments: Key is @ front office

Purge Method: Teflon / (PVC Disposable Bailer) Peristaltic Pump GrundFos Redi-flow Other: _____

Pump Lines: (NA) New / Cleaned / Dedicated — Bailer Line: NA (New) Cleaned / Dedicated

Method of Cleaning Pump: (NA) Alconox Liqui-Nox Tap Water DI Rinse Other: _____

Method of Cleaning Bailer: (NA) Alconox Liqui-Nox Tap Water DI Rinse Other: _____

Sampling Method: Disp. Teflon Bailer (Disp. PVC Bailer) GrundFos Redi-flow Pump Other: _____

pH Meter Serial No.: 217254 / (330089) — Spec. Cond. Meter Serial No.: (96H0203AB) / AE

Date/Time Calibrated: 4/27 @ 12:00 4/7 (10) @ 25°C — Spec.Cond. Meter Calibration: (Self Test) Other: _____

Method to Measure Water Level: Solinst Serial No.: ESA#1 P.I.D. Reading: NA ppm @ Well Head

Water Level at Start (DTW): 18.86 — Water Level Prior To Sampling: 19.28

TD = 44.87 - 18.86 (DTW) = 25.61 (ft.of water) x "K" = 37.4 (Gals./CV) x 3 (No. of CV) = 112.2 (Gals.)

"K" = .023(.75" well) "K"= 0.163(2" well) "K" = 0.653(4" well) "K" = 1.02(5" well) (K" = 1.46(6" well)

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons)	pH	Temp. (°C)	Specific Conductance mS (uS)	Turbidity	Color	Comments
4/27/98	13:13	20	6.48	21.5	877	9.27	Clear	Petroleum odor
↓	13:43	40	6.50	21.6	873	12.7	"	" "
	14:10	60	6.47	21.3	870	5.39	"	" "
	14:41	80	6.60	22.0	883	3.82	"	" "
	15:08	100	6.51	21.6	885	2.63	"	" "
↓	15:26	113	6.47	21.3	880	2.09	"	" "
		After Sampling						

Total Discharge: 113 gallons — Casing Volumes Removed: 3.02

Method of disposal of discharged water: (55 Gallon Drum(s)) Poly Tank Treatment System Other: _____

Date/Time Sampled: 4/27/98 @ 1530 — Analysis/No. of Bottles: EPA 8015M-TPHg/BTEX, MTBE (3-40ml-VOCs w/Hcl), TPHd (2, 1 Liter Glass Ambers Non-Preserved)

QA/QC: — @ — as an Equipment Blank Blind Duplicate MS/MSD Field Blank

Comments: _____

Sampled By: Jacki Lee / Stephen Penman Signature(s): _____

Environmental Sampling Services
6680 Alhambra Ave., #102, Martinez, CA 94553 Phone/Fax: (510) 372.8108
www.Envsampling.com

Environmental Sampling Services

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: W-1s DATE: 4/27/98

Project Name: Arrow Rentals Livermore, CA Client Project Number: NA

Well Description: .75" 2" 3" 4" 5" (6") Well Type: (PVC) Stainless Steel Other: _____

Is Well Secured? (Yes) No Bolt Size 15/16" Type of lock / Lock number: Master

Observations / Comments: Key is @ Front Office

Purge Method: Teflon / (PVC Disposable Bailer) Peristaltic Pump GrundFos Redi-flow Other: _____

Pump Lines: NA New / Cleaned / Dedicated Bailer Line: NA (New) / Cleaned / Dedicated

Method of Cleaning Pump: (NA) Alconox Liqui-Nox Tap Water DI Rinse Other: _____

Method of Cleaning Bailer: (NA) Alconox Liqui-Nox Tap Water DI Rinse Other: _____

Sampling Method: Disp. Teflon Bailer (Disp. PVC Bailer) GrundFos Redi-flow Pump Other: _____

pH Meter Serial No.: 217254 / (330089) Spec. Cond. Meter Serial No.: (96H0203AB) AE

Date/Time Calibrated: 4/27@ 12:30 (4 7 10) @ 25°C Spec.Cond. Meter Calibration: Self Test Other: _____

Method to Measure Water Level: Solinst Serial No.: ESS#2 P.I.D. Reading: NA ppm @ Well Head

Water Level at Start (DTW): 18.61 Water Level Prior To Sampling: _____

TD = 44.64 - 18.61 (DTW) = 26.03 (ft.of water) x "K" = 38.0 (Gals./CV) x 3 (No. of CV) = 114 (Gals.)

"k" = .023(.75" well) "K"= 0.163(2" well) "K" = 0.653(4" well) "K" = 1.02(5" well) ("K" = 1.46(6" well))

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons)	pH	Temp. (°C)	Specific Conductance mS (uS)	Turbidity	Color	Comments
4/27/98	14:28	20	6.61	21.3	955	12	clear	Pet. odor
	14:57	40	6.64	21.4	960	8	"	" "
	15:27	60	6.67	21.1	945	7	"	" "
	16:00	80	6.60	21.8	963	4	"	" "
	16:26	100	6.64	21.9	959	4	"	" "
	16:43	114	6.56	21.5	946	4	"	" "
		After Sampling						

Total Discharge: 114 gallons Casing Volumes Removed: _____

Method of disposal of discharged water: (55 Gallon Drum(s)) Poly Tank Treatment System Other: _____

Date/Time Sampled: 4/27/98 @ 16:45 Analysis/No. of Bottles: EPA 8015M-TPHg/BTEX, MTBE (3-40ml-VOCs w/Hcl), TPHd (2, 1 Liter Glass Ambers Non-Preserved), Total Pb (1, 500ml Poly w/HNO3 ~~H2SO4~~)

QA/QC: ____ @ ____ as an Equipment Blank Blind Duplicate MS/MSD Field Blank

Comments: WE#3: 14:47 ; WE: 19:02

Sampled By: Jacki Lee / Stephen Penman Signature(s): _____

Environmental Sampling Services
6680 Alhambra Ave., #102, Martinez, CA 94553 Phone/Fax: (510) 372.8108
www.Envsampling.com

Environmental Sampling Services

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: W-3s DATE: 4/27/98

Project Name: Arrow Rentals Livermore, CA — Client Project Number: NA

Well Description: .75" 2" 3" (4") 5" 6" — Well Type: (PVC) Stainless Steel Other: _____

Is Well Secured? (Yes) / No Bolt Size 15/16" — Type of lock / Lock number: Master Lock

Observations / Comments: Key is @ Front Office

Purge Method: Teflon / (PVC Disposable Bailer) Peristaltic Pump GrundFos Redi-flow Other: _____

Pump Lines: NA New / Cleaned / Dedicated — Bailer Line: NA (New) Cleaned / Dedicated

Method of Cleaning Pump: (NA) Alconox Liqui-Nox Tap Water DI Rinse Other: _____

Method of Cleaning Bailer: (NA) Alconox Liqui-Nox Tap Water DI Rinse Other: _____

Sampling Method: Disp. Teflon Bailer (Disp. PVC Bailer) GrundFos Redi-flow Pump Other: _____

pH Meter Serial No.: 217254 / (330089) — Spec. Cond. Meter Serial No.: (96H0203AB) / AE

Date/Time Calibrated: 4/27 @ 12:00 (4) (7) (10) @ 25°C — Spec.Cond. Meter Calibration: (Self Test) Other: _____

Method to Measure Water Level: Solinst Serial No.: ESS#1 P.I.D. Reading: NA ppm @ Well Head

Water Level at Start (DTW): 19.73 — Water Level Prior To Sampling: 19.76

TD = 44.76 - 19.73 (DTW) = 25.3 (ft.of water) x "K" = 16.4 (Gals./CV) x 3 (No. of CV) = 49.2 (Gals.)

"K" = .023(.75" well) "K"= 0.163(2" well) ("K" = 0.653(4" well)) "K" = 1.02(5" well) "K" = 1.46(6" well)

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons)	pH	Temp. (°C)	Specific Conductance mS (uS)	Turbidity	Color	Comments
4/27/98	12:27	10	6.69	21.0	930	36	Slightly cloudy w/ brown	
↓	12:39	20	6.62	21.0	932	21.0	clear	
	12:52	30	6.36	21.2	934	24.5	"	
	13:07	40	6.66	21.2	934	21.2	"	
↓	13:29	50	6.66	21.1	937	19.2	"	
		After Sampling						

Total Discharge: 50 gallons — Casing Volumes Removed: 3.04

Method of disposal of discharged water: (55 Gallon Drum(s)) Poly Tank Treatment System Other: _____

Date/Time Sampled: 4/27/98 @ 13:27 — Analysis/No. of Bottles: EPA 8015M-TPHg/BTEX, MTBE (6-40ml-VOCs w/Hcl), TPHd (2, 1 Liter Glass Ambers Non-Preserved)

QA/QC: ___ @ ___ as an Equipment Blank Blind Duplicate MS/MSD Field Blank

Comments: _____

Sampled By: Jacki Lee / Stephen Penman Signature(s): _____

Environmental Sampling Services
6680 Alhambra Ave., #102, Martinez, CA 94553 Phone/Fax: (510) 372.8108
www.Envsampling.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REPORT FORM

Columbia Analytical Services, Inc.
3334 Victor Court • Santa Clara, CA 95054 • (408) 437-2400 • FAX (408) 437-9356

SERVICE REQUEST NO. _____ P.O.# _____ PAGE 1 OF 1

PROJECT NAME Arroyo Rentals #
PROJECT MGR. Stephen Penman / Jack Lee
COMPANY Environmental Sampling Services
ADDRESS 6680 Alhambra Avenue #102
Martinez, CA 94553 PHONE (925) 372-8102
FAX (925) 372-8108
SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	NUMBER OF CONTAINERS	ANALYSIS REQUESTED: Volatile Organics GC/MS 624/8240/8260	Halogenated or Aromatic Volatiles 601/8010 ☐ 602/8020 ☐	TPH as Gas/BTEX MTBE ☐ DHS LUFT / 8020	TPH as Diesel/HBHC DHS LUFT	Base/Neu/Acid Organics GC/MS 625/8270	Pesticides / PCBs 608/8080	TRPH - 418.1	Oil and Grease Method	Metals (total or dissolved) List Below	pH, Cond, Cl, SO_4, F, TDS, TSS Alk. NO_3, NO_2 (circle)	NH_3-N, COD, Total-P, TKN, NO_3 / NO_2 (circle)	Total Organic Carbon TOC	Total Phenols	Cyanide				REMARKS
				PRESERVATIVE		HCl	HCl	HCl	NP	NP	NP	HCl	HCl	HNO_3	NP	H_2SO_4	H_2SO_4	H_2SO_4	NaOH				
Trip Blank	4/27/98	11:30		Water	2			2															
W-3S	4/27/98	13:27		↓	4			2	2														
W-BS	4/27/98	15:30			4			2	2														
W-1S	4/27/98	16:45			5			2	2					1									

RELINQUISHED BY:
Signature
Printed Name Jack Lee
Firm Environmental Sampling Svcs.
Date/Time 4/27/98 16:54

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS
___ 1 day ___ 2 day ___ 3 day
___ 5 day ___ Other
X Standard (10 working days)
Results Due _____

REPORT REQUIREMENTS
X I. Routine Report
___ II. Report (includes MS, MSD, as required, may be charged as samples)
___ III. Data Validation Report (includes All Raw Data)
___ MDLs/PQLs/Trace #
___ Electronic Data Deliverables

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time
Shipped Via/Tracking #

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

SAMPLE RECEIPT: Condition _____ Custody Seals _____

SPECIAL INSTRUCTIONS/COMMENTS:
Circle which metals are to be analyzed:
Metals: Al Sb Ba Be B Cd Ca Cr Co Cu Fe Mg Mn Mo Ni K Ag Na Sn V Zn
As (Pb) Se Tl Hg

Storage:

DISTRIBUTION: WHITE - return to originator; YELLOW - lab; PINK - retained by originator

400-5

APPENDIX B

LABORATORY DATA SHEETS

AND

CHAIN-OF-CUSTODY RECORD

Columbia Analytical Services inc.

May 8, 1998 Service Request No.: S9801054

Mr. Stephen Penman
Environmental Sampling Services
6680 Alhambra Avenue, #102
Martinez, CA 94553

RECEIVED
BY:

RE: Arrow Rentals

Dear Mr. Penman:

The following pages contain analytical results for sample(s) received by the laboratory on April 27, 1998. Results of sample analyses are followed by Appendix A which contains sample custody documentation and quality assurance deliverables requested for this project. The work requested has been assigned the Service Request No. listed above. To help expedite our service, please refer to this number when contacting the laboratory.

Analytical results were produced by procedures consistent with Columbia Analytical Services' (CAS) Quality Assurance Manual (with any deviations noted). Signature of this CAS Analytical Report below confirms that pages 2 through 13, following, have been thoroughly reviewed and approved for release in accord with CAS Standard Operating Procedure ADM-DatRev3.

Please feel welcome to contact me should you have questions or further needs.

Sincerely,

Bernadette T. Cox

Bernadette T. Cox
Project Chemist

COLUMBIA ANALYTICAL SERVICES, Inc.
Acronyms

A2LA	American Association for Laboratory Accreditation
ASTM	American Society for Testing and Materials
BOD	Biochemical Oxygen Demand
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CAM	California Assessment Metals
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
COD	Chemical Oxygen Demand
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DLCS	Duplicate Laboratory Control Sample
DMS	Duplicate Matrix Spike
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
IC	Ion Chromatography
ICB	Initial Calibration Blank sample
ICP	Inductively Coupled Plasma atomic emission spectrometry
ICV	Initial Calibration Verification sample
J	Estimated concentration. The value is less than the MRL, but greater than or equal to the MDL. If the value is equal to the MRL, the result is actually <MRL before rounding.
LCS	Laboratory Control Sample
LUFT	Leaking Underground Fuel Tank
M	Modified
MBAS	Methylene Blue Active Substances
MCL	Maximum Contaminant Level. The highest permissible concentration of a substance allowed in drinking water as established by the U. S. EPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
MS	Matrix Spike
MTBE	Methyl tert-Butyl Ether
NA	Not Applicable
NAN	Not Analyzed
NC	Not Calculated
NCASI	National Council of the paper industry for Air and Stream Improvement
ND	Not Detected at or above the method reporting/detection limit (MRL/MDL)
NIOSH	National Institute for Occupational Safety and Health
NTU	Nephelometric Turbidity Units
ppb	Parts Per Billion
ppm	Parts Per Million
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RPD	Relative Percent Difference
SIM	Selected Ion Monitoring
SM	Standard Methods for the Examination of Water and Wastewater, 18th Ed., 1992
STLC	Solubility Threshold Limit Concentration
SW	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Ed., 1986 and as amended by Updates I, II, IIA, and IIB.
TCLP	Toxicity Characteristic Leaching Procedure
TDS	Total Dissolved Solids
TPH	Total Petroleum Hydrocarbons
tr	Trace level. The concentration of an analyte that is less than the PQL but greater than or equal to the MDL. If the value is equal to the PQL, the result is actually <PQL before rounding.
TRPH	Total Recoverable Petroleum Hydrocarbons
TSS	Total Suspended Solids
TTLC	Total Threshold Limit Concentration
VOA	Volatile Organic Analyte(s)

ACRONLST.DOC 7/14/95

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Environmental Sampling Services
Project: Arrow Rentals
Sample Matrix: Water

Service Request: S9801054
Date Collected: 4/27/98
Date Received: 4/27/98

Metals
Lead

Prep Method: EPA 3005
Analysis Method: 7421
Test Notes:

Units: mg/L (ppm)
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Prepared	Date Analyzed	Result	Result Notes
W-1s	S9801054-004	0.005	1	5/6/98	5/6/98	ND	
Method Blank	S980506-MB	0.005	1	5/6/98	5/6/98	ND	

1A/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Environmental Sampling Services	**Service Request:**	S9801054
Project:	Arrow Rentals	**Date Collected:**	4/27/98
Sample Matrix:	Water	**Date Received:**	4/27/98

BTEX, MTBE and TPH as Gasoline

Sample Name:	Trip Blank	Units:	ug/L (ppb)
Lab Code:	S9801054-001	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	1	NA	5/3/98	ND	
Benzene	EPA 5030	8020	0.5	1	NA	5/3/98	ND	
Toluene	EPA 5030	8020	0.5	1	NA	5/3/98	ND	
Ethylbenzene	EPA 5030	8020	0.5	1	NA	5/3/98	ND	
Xylenes, Total	EPA 5030	8020	0.5	1	NA	5/3/98	ND	
Methyl *tert*-Butyl Ether	EPA 5030	8020	3	1	NA	5/3/98	ND	

1S22/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Environmental Sampling Services	**Service Request:**	S9801054
Project:	Arrow Rentals	**Date Collected:**	4/27/98
Sample Matrix:	Water	**Date Received:**	4/27/98

BTEX, MTBE and TPH as Gasoline

Sample Name:	W-3s	Units:	ug/L (ppb)
Lab Code:	S9801054-002	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	1	NA	5/3/98	ND	
Benzene	EPA 5030	8020	0.5	1	NA	5/3/98	ND	
Toluene	EPA 5030	8020	0.5	1	NA	5/3/98	ND	
Ethylbenzene	EPA 5030	8020	0.5	1	NA	5/3/98	ND	
Xylenes, Total	EPA 5030	8020	0.5	1	NA	5/3/98	ND	
Methyl *tert*-Butyl Ether	EPA 5030	8020	3	1	NA	5/3/98	ND	

1S22/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Environmental Sampling Services	**Service Request:**	S9801054
Project:	Arrow Rentals	**Date Collected:**	4/27/98
Sample Matrix:	Water	**Date Received:**	4/27/98

BTEX, MTBE and TPH as Gasoline

Sample Name:	W-Bs	Units:	ug/L (ppb)
Lab Code:	S9801054-003	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	200	NA	5/4/98	63000	
Benzene	EPA 5030	8020	0.5	200	NA	5/4/98	6100	
Toluene	EPA 5030	8020	0.5	200	NA	5/4/98	5400	
Ethylbenzene	EPA 5030	8020	0.5	200	NA	5/4/98	1900	
Xylenes, Total	EPA 5030	8020	0.5	200	NA	5/4/98	9100	
Methyl *tert*-Butyl Ether	EPA 5030	8020	3	200	NA	5/4/98	<600	C1

C1 The MRL was elevated due to high analyte concentration requiring sample dilution.

1S22/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Environmental Sampling Services	**Service Request:**	S9801054
Project:	Arrow Rentals	**Date Collected:**	4/27/98
Sample Matrix:	Water	**Date Received:**	4/27/98

BTEX, MTBE and TPH as Gasoline

Sample Name:	W-1s	Units:	ug/L (ppb)
Lab Code:	S9801054-004	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	10	NA	5/2/98	6700	
Benzene	EPA 5030	8020	0.5	10	NA	5/2/98	410	
Toluene	EPA 5030	8020	0.5	10	NA	5/2/98	250	
Ethylbenzene	EPA 5030	8020	0.5	10	NA	5/2/98	77	
Xylenes, Total	EPA 5030	8020	0.5	10	NA	5/2/98	870	
Methyl *tert*-Butyl Ether	EPA 5030	8020	3	10	NA	5/2/98	<30	C1

C1 The MRL was elevated due to high analyte concentration requiring sample dilution.

1S22/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Environmental Sampling Services	**Service Request:**	S9801054
Project:	Arrow Rentals	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

BTEX, MTBE and TPH as Gasoline

Sample Name:	Method Blank	Units:	ug/L (ppb)
Lab Code:	S980502-WB1	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	1	NA	5/2/98	ND	
Benzene	EPA 5030	8020	0.5	1	NA	5/2/98	ND	
Toluene	EPA 5030	8020	0.5	1	NA	5/2/98	ND	
Ethylbenzene	EPA 5030	8020	0.5	1	NA	5/2/98	ND	
Xylenes, Total	EPA 5030	8020	0.5	1	NA	5/2/98	ND	
Methyl *tert*-Butyl Ether	EPA 5030	8020	3	1	NA	5/2/98	ND	

1S22/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Environmental Sampling Services	**Service Request:**	S9801054
Project:	Arrow Rentals	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

BTEX, MTBE and TPH as Gasoline

Sample Name:	Method Blank	Units:	ug/L (ppb)
Lab Code:	S980504-WB1	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	1	NA	5/4/98	ND	
Benzene	EPA 5030	8020	0.5	1	NA	5/4/98	ND	
Toluene	EPA 5030	8020	0.5	1	NA	5/4/98	ND	
Ethylbenzene	EPA 5030	8020	0.5	1	NA	5/4/98	ND	
Xylenes, Total	EPA 5030	8020	0.5	1	NA	5/4/98	ND	
Methyl *tert*-Butyl Ether	EPA 5030	8020	3	1	NA	5/4/98	ND	

1822/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Environmental Sampling Services	**Service Request:**	S9801054
Project:	Arrow Rentals	**Date Collected:**	4/27/98
Sample Matrix:	Water	**Date Received:**	4/27/98

TPH as Diesel

Prep Method:	EPA 3510	Units:	ug/L (ppb)
Analysis Method:	CA/LUFT	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
W-3s	S9801054-002	50	1	5/4/98	5/5/98	ND	
W-Bs	S9801054-003	50	4	5/4/98	5/6/98	17000	LBPT, 1
W-1s	S9801054-004	50	1	5/4/98	5/5/98	2200	LBPT, 2
Method Blank	S980504-MB	50	1	5/4/98	5/5/98	ND	

LBPT, 1 The sample contains a lower boiling point hydrocarbon mixture quantitated as diesel. The chromatogram does not match the typical diesel fingerprint.

LBPT, 2 The sample contains a lower boiling point hydrocarbon mixture quantitated as diesel. The chromatogram does not match the typical diesel fingerprint.

1A/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Environmental Sampling Services
Project: Arrow Rentals
Sample Matrix: Water

Service Request: S9801054
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: NA

Surrogate Recovery Summary
BTEX, MTBE and TPH as Gasoline

Prep Method: EPA 5030
Analysis Method: 8020 CA/LUFT

Units: PERCENT
Basis: NA

Sample Name	Lab Code	Test Notes	Percent Recovery	
			4-Bromofluorobenzene	a,a,a-Trifluorotoluene
Trip Blank	S9801054-001		98	91
W-3s	S9801054-002		101	86
W-Bs	S9801054-003		103	89
W-1s	S9801054-004		101	93
Method Blank	S980502-WB1		100	91
Method Blank	S980504-WB1		104	95
CAS Acceptance Limits:			69-116	69-116

SUR2/020397p

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Environmental Sampling Services	**Service Request:**	S9801054
Project:	Arrow Rentals	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	NA

Surrogate Recovery Summary
TPH as Diesel

Prep Method:	EPA 3510	Units:	PERCENT
Analysis Method:	CA/LUFT	Basis:	NA

Sample Name	Lab Code	Test Notes	Percent Recovery p-Terphenyl
W-3s	S9801054-002		101
W-Bs	S9801054-003		106
W-1s	S9801054-004		92
Method Blank	S980504-MB		85

CAS Acceptance Limits: 41-140

SUR1/020597p

BTEX, MTBE, TPH, PCB's, Pb

CHAIN OF CUSTODY/LABORATORY ANALYSIS REPORT FORM

Columbia Analytical Services, Inc.
3334 Victor Court • Santa Clara, CA 95054 • (408) 437-2400 • FAX (408) 437-9356

SERVICE REQUEST NO. 5980 1054 P.O.# _____ PAGE 1 OF 1

PROJECT NAME Arrow Rentals #_____
PROJECT MGR. Stephen Perron / Jacki Lee
COMPANY Environmental Sampling Services
ADDRESS 6680 Alhambra Avenue #102
Martinez CA 94553 PHONE (925) 372-8108
FAX (925) 372-8108
SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	NUMBER OF CONTAINERS	Volatile Organics GC/MS 624/8240/8260	Halogenated or Aromatic Volatiles 601/8010 / 602/8020	TPH as Gas/BTEX DHS LUFT / 8020 MTBE	TPH as Diesel/HBHC DHS LUFT	Base/Neu/Acid Organics GC/MS 625/8270	Pesticides / PCBs 608/8080	TRPH - 418.1	Oil and Grease Method	Metals (total or dissolved) List Below	pH, Cond. Cl, SO_4, F, TDS, TSS Alk. NO_3, NO_2 (circle)	NH_3-N, COD, Total-P, TKN, NO_3 / NO_2 (circle)	Total Organic Carbon TOC	Total Phenols	Cyanide				REMARKS
PRESERVATIVE							HCl	HCl	HCl	NP	NP	NP	HCl	HCl	HNO_3	NP	H_2SO_4	H_2SO_4	H_2SO_4	NaOH			
Trip Blank	4/27/98	11:30	1	Water	2			2															
W-3S	4/27/98	13:27	2	↓	4			2	2														
W-BS	4/27/98	15:30	3	↓	4			2	2														
W-1S	4/27/98	16:45	4	↓	5			2	2					1									

RELINQUISHED BY:
Signature
Jacki Lee
Printed Name
Environmental Sampling Svcs.
Firm
Date/Time 4/27/98 16:54

RECEIVED BY:
Signature
JOHN CHARLES
Printed Name
CLS
Firm
4/27/98 16:54
Date/Time

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time
Shipped Via/Tracking #

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS
___ 1 day ___ 2 day ___ 3 day
___ 5 day ___ Other
X Standard (10 working days)
Results Due 5/8/98

REPORT REQUIREMENTS
X I. Routine Report
___ II. Report (includes MS, MSD, as required, may be charged as samples)
___ III. Data Validation Report (includes All Raw Data)
___ MDLs/PQLs/Trace #
___ Electronic Data Deliverables

SAMPLE RECEIPT: Condition_____ Custody Seals_____

SPECIAL INSTRUCTIONS/COMMENTS:
Circle which metals are to be analyzed:
Metals: Al Sb Ba Be B Cd Ca Cr Co Cu Fe Mg Mn Mo Ni K Ag Na Sn V Zn
As (Pb) Se Tl Hg

A1103

Storage: R4

DISTRIBUTION: WHITE - return with original; YELLOW: Lab; PINK: Retained by Originator