



April 19, 1996

Ms. Cynthia Adkinson
East Bay Municipal Utility District
Source Control Division
P.O. Box 24055
Oakland, California 94623

10-025-10-002

Subject: Groundwater Remediation System Semi-Annual Report - March 1996
BP Oil Company Service Station 11133
2220 98th Avenue
Oakland, California
Wastewater Discharge Permit No. 503-00381

Dear Ms. Adkinson:

On behalf of BP Oil Company, we have enclosed a summary of analytical results for the groundwater remediation system sampling events and quantity discharged for BP Oil Company Service Station No. 11133, 2220 98th Avenue, Oakland, California. This report covers October 1, 1995 to March 31, 1996.

The results of sample analysis indicated that petroleum constituents were not detected above the reported detection limits in the effluent samples in October, November, and December 1995 and January and February 1996. Analytical results for the samples collected in March 1996 indicated hydrocarbon breakthrough in the first and second carbon vessels. Ethylbenzene, toluene, and total xylenes were detected in the effluent water sample at concentrations of 49, 19, and 320 micrograms per liter (ug/l), respectively, which were above the wastewater discharge limits of 5 ug/l.

On discovery of the discharge violation, the remediation system was shut down. Mr. Raymond Maxwell from the Source Control Division of the East Bay Municipal Utility District was notified within 24 hours. A written report was submitted to Mr. Maxwell on April 10, 1996.

The total volume discharged for the period is presented in Table 1. The results of influent, intermediate, and effluent sample analysis are presented in Table 2. The sampling locations are shown in Figure 1. The laboratory reports and chain of custody records are presented in Attachment A.

Ms. Cynthia Adkinson
April 19, 1996
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"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Please call if you have questions regarding this report.

Sincerely,

ALISTO ENGINEERING GROUP



Peter Beaver
Engineering Manager

Enclosures

cc: Mr. Scott Hooton, BP Oil Company
Ms. Eva Chu, Alameda County Health Care Services Agency



April 19, 1995

Ms. Eva Chu
Department of Environmental Health
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-657780

10-025-10-002

Subject: Groundwater Remediation System Semi-Annual Report - March 1996
BP Oil Company Service Station 11133
2220 98th Avenue
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ENVIRONMENTAL
PROTECTION
96 APR 22 PM 2:29

Ms. Eva Chu
April 19, 1996
Page 2

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Please call if you have questions regarding this report.

Sincerely,

ALISTO ENGINEERING GROUP



Peter Beaver
Engineering Manager

Enclosures

cc: Mr. Scott Hooton, BP Oil Company
Ms. Cynthia Adkinson, East Bay Municipal Utility District

TABLE 1 - FLOW DATA FOR GROUNDWATER REMEDIATION SYSTEM
 BP OIL COMPANY SERVICE STATION NO. 11133
 2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

Date	Flowmeter Reading (gallons)	Effluent Discharged (gallons)	Total Effluent Discharged (gallons)	Average Flow Rate (gpd)	Average Flow Rate (gpm)	Influent TPH-G Concentration (ug/l)	Period Hydrocarbon Removed (lb)	Cumulative Hydrocarbon Removed (lb)
03/21/95	0	0	0	---	---	180,000	NC	NC
03/27/95	3,069	3,069	3,069	512	0.71	210,000	5.4	5.4
05/02/95	4,280	1,211	4,280	34	0.05	160,000	1.6	7.0
06/01/95	5,390	1,110	5,390	37	0.05	330,000	3.1	10.1
06/28/95	7,634	2,244	7,634	83	0.12	200,000	3.7	13.8
07/31/95	9,480	1,846	9,480	56	0.08	200,000	3.1	16.9
08/30/95	11,869	2,389	11,869	80	0.11	160,000	3.2	20.1
09/28/95	19,572	7,703	19,572	266	0.37	230,000	14.8	34.9
10/18/95	21,288	1,694	21,266	85	0.12	280,000	4.0	38.8
11/14/95	28,880	7,614	28,880	282	0.39	150,000	9.5	48.3
12/27/95	39,395	10,515	39,395	245	0.34	99,000	8.7	57.0
01/22/96	42,994	3,599	42,994	138	0.19	150,000	4.5	61.5
02/27/96	53,058	10,064	53,058	280	0.39	230,000	19.3	80.8
03/01/96	55,809	2,551	55,809	850	1.18	230,000	4.9	85.7
03/25/96	59,409	3,800	59,409	158	0.22	230,000	7.3	93.0

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline	ug/l	Micrograms per liter
gpd	Gallons per day	lb	Pounds
gpm	Gallons per minute	NC	Not calculated

NOTES:

- * Hydrocarbon removal is calculated by: $(\text{Effluent discharged} \times \text{TPH-G concentration} \times 3.785) / (1E6 \times 453.6)$

TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER REMEDIATION SYSTEM SAMPLE ANALYSIS
 BP OIL COMPANY SERVICE STATION NO. 11133
 2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

Sample ID	Date	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DCA (ug/l)	Lead (mg/l)	Lab
I-1	03/21/95	180,000	32,000	55,000	5,100	27,000	---	---	---	ATI
I-1	04/03/95	210,000	31,000	68,000	6,600	35,000	---	---	---	ATI
I-1	05/23/95	160,000	17,000	38,000	4,400	26,000	---	---	0.006	ATI
I-1	06/20/95	330,000	27,000	55,000	7,600	41,000	---	---	---	ATI
QC-1	06/20/95	200,000	21,000	45,000	5,300	30,000	---	---	---	ATI
I-1	08/29/95	160,000	34,000	54,000	4,700	24,000	7,600	ND<500	---	ATI
I-1	09/19/95	230,000	28,000	40,000	3,800	21,000	---	440	---	ATI
I-1	10/18/95	280,000	38,000	51,000	4,200	23,000	3,000	580	---	ATI
I-1	11/14/95	150,000	32,000	33,000	4,100	19,000	---	560	---	ATI
I-1	12/11/95	99,000	24,000	26,000	2,100	14,000	1,000	420	---	ATI
I-1	01/09/96	150,000	28,000	37,000	3,400	18,000	2,000	720	---	ATI
I-1	02/21/96	230,000	22,000	57,000	10,000	61,000	---	ND<5	---	SPL
I-1	03/13/96	180,000	29,000	35,000	3,300	19,000	---	ND<5	---	SPL
PS-1	03/21/95	47,000	690	4,200	1,400	8,400	---	---	---	ATI
PS-1	04/03/95	150,000	26,000	42,000	3,500	18,000	---	---	---	ATI
PS-1	05/23/95	35,000	1,400	4,900	1,100	6,800	---	---	---	ATI
PS-1	06/20/95	60,000	5,200	11,000	1,400	9,000	---	---	---	ATI
PS-1	08/29/95	25,000	150	1,000	500	3,300	ND<250	---	---	ATI
PS-1	09/19/95	55,000	---	---	---	---	---	---	---	ATI
PS-1	10/18/95	12,000	86	660	190	1,400	---	ND<10	---	ATI
PS-1	11/14/95	630	9	11	3	20	---	ND<1	---	ATI
PS-1	12/11/95	470	34	52	8	81	---	ND<1	---	ATI
PS-1	01/09/96	110	ND<1	ND<2	ND<1	1	---	ND<1	---	ATI
PS-1	02/21/96	75,000	4,100	12,000	3,000	20,000	---	ND<5	---	SPL
PS-1	03/13/96	71,000	1,200	5,700	2,300	14,000	---	ND<5	---	SPL
A-1	03/21/95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
A-1	04/03/95	ND<50	ND<0.50	0.50	ND<0.50	ND<1.0	---	---	---	ATI
A-1	05/23/95	1,200	ND<1.0	2.2	3.4	22	---	---	---	ATI
A-1	06/20/95	88	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
A-1	08/29/95	340	7.1	68	5.3	92	5.2	---	---	ATI
A-1	09/19/95	ND<500	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
A-1	10/18/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
A-1	11/14/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
A-1	12/11/95	1,200	4	5	3	82	---	ND<1	---	ATI

TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER REMEDIATION SYSTEM SAMPLE ANALYSIS
 BP OIL COMPANY SERVICE STATION NO. 11133
 2220 98TH AVENUE, OAKLAND, CALIFORNIA

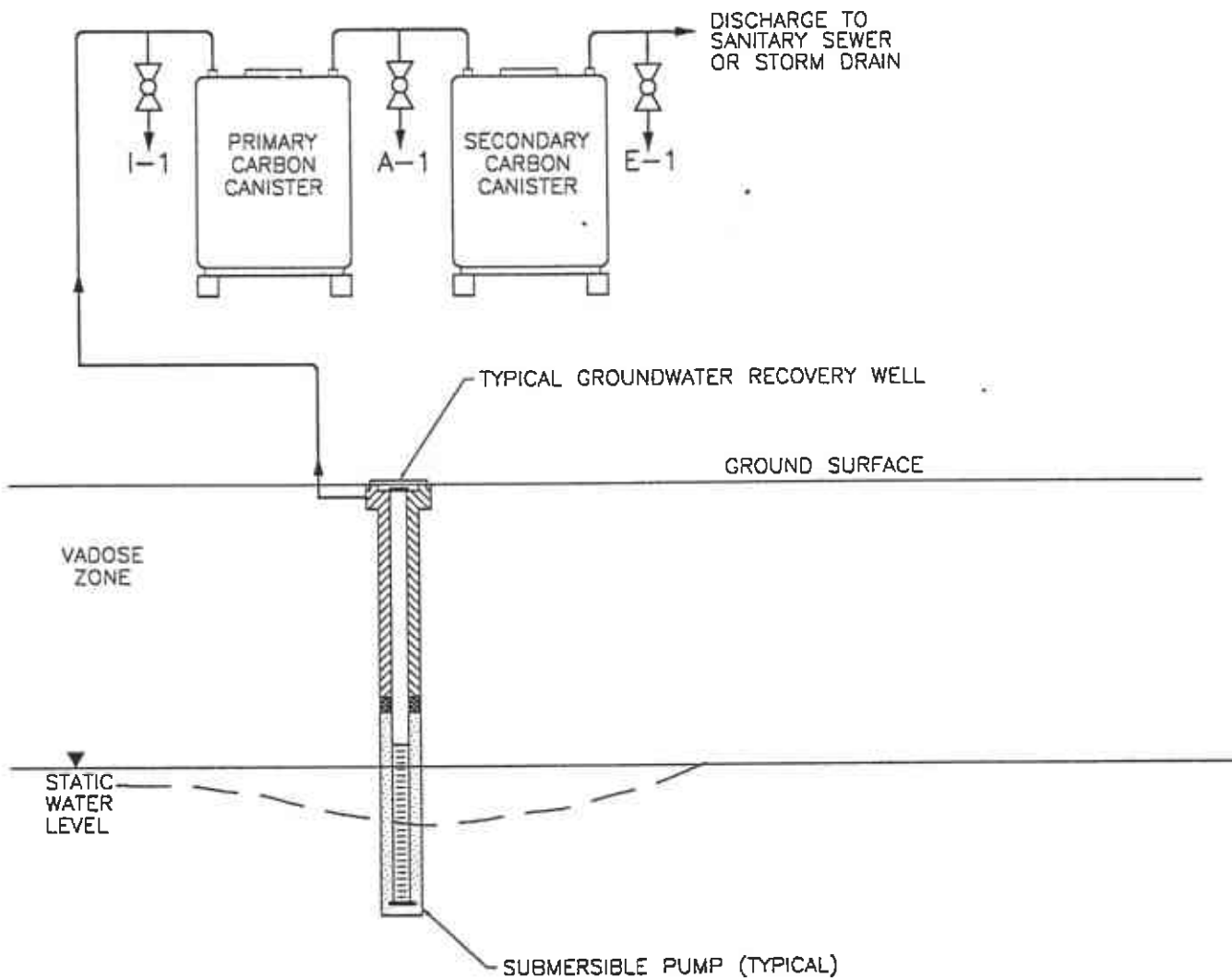
ALISTO PROJECT NO. 10-025

Sample ID	Date	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DCA (ug/l)	Lead (mg/l)	Lab
A-1	01/09/96	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
A-1	02/21/96	4,100	20	90	87	580	---	ND<5	---	SPL
A-1	03/13/96	11,000	50	860	650	4,100	---	ND<5	---	SPL
B-1	03/21/95	88	ND<0.50	2	ND<0.50	2	---	---	---	ATI
B-1	04/03/95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
B-1	05/23/95	240	ND<0.50	0.68	0.93	7.2	---	---	---	ATI
B-1	06/20/95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
B-1	08/29/95	37,000	54	420	600	3500	260	---	---	ATI
B-1	09/19/95	550	ND<1	ND<2	ND<1	9	---	ND<1	---	ATI
B-1	10/18/95	---	---	---	---	---	---	---	---	ATI
B-1	11/14/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
B-1	12/11/95	270	ND<1	ND<2	ND<1	1	---	ND<1	---	ATI
B-1	01/09/96	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
B-1	02/21/96	ND<50	ND<5	ND<5	ND<5	ND<5	---	ND<5	---	SPL
B-1	03/13/96	ND<50	ND<5	ND<5	ND<5	14	---	ND<5	---	SPL
E-1	03/21/95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ND<0.002	ATI
E-1	04/03/95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	0.007	ATI
E-1	05/23/95	140	ND<0.50	ND<0.50	ND<0.50	2.3	---	---	---	ATI
QC-1	05/23/95	250	ND<0.50	ND<0.50	1.0	7.5	---	---	---	ATI
E-1	06/20/95	ND<50	ND<0.50	ND<0.50	ND<0.50	1.1	---	---	---	ATI
E-1	08/29/95	200	ND<1	ND<2	ND<1	ND<1	ND<5	---	---	ATI
E-1	09/19/95	ND<500	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
QC-1	09/19/95	ND<500	---	---	---	---	---	---	---	ATI
E-1	10/18/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
QC-1	10/18/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
E-1	11/14/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
QC-1	11/14/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
E-1	12/11/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
E-1	01/09/96	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
QC-1	01/09/96	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
E-1	02/21/96	ND<50	ND<5	ND<5	ND<5	ND<5	---	ND<5	---	SPL
E-1	03/13/96	2,600	ND<5	19	49	320	---	ND<5	---	SPL

TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER REMEDIATION SYSTEM SAMPLE ANALYSIS
 BP OIL COMPANY SERVICE STATION NO. 11133
 2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

Sample ID	Date	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DCA (ug/l)	Lead (mg/l)	Lab
ABBREVIATIONS:										
TPH-G		Total petroleum hydrocarbons as gasoline			PS-1	Sample collected from post air stripper sampling port				
B		Benzene			A-1	Sample collected from intermediate sampling port				
T		Toluene			B-1	Sample collected from intermediate sampling port				
E		Ethylbenzene			E-1	Sample collected from effluent sampling port				
X		Total xylenes			QC-1	Blind duplicate sample				
MTBE		Methyl tert butyl ether			ND	Not detected above reported detection limit				
DCA		1,2-Dichloroethane			---	Not analyzed				
ug/l		Micrograms per liter			ATI	Analytical Technologies, Inc.				
mg/l		Milligrams per liter			SPL	SPL Environmental Laboratories				
I-1		Sample collected from influent sampling port								



LEGEND


- I = INFLUENT
- A = INTERMEDIATE
- E = EFFLUENT
-  SAMPLE PORT

FIGURE 1

ACTIVATED CARBON TREATMENT SYSTEM SAMPLING LOCATIONS

BP OIL SERVICE STATION NO. 11133
 2220 98TH AVENUE
 OAKLAND, CALIFORNIA

PROJECT NO. 10-025



ALISTO ENGINEERING GROUP
 WALNUT CREEK, CALIFORNIA

ATTACHMENT A

LABORATORY REPORTS AND CHAIN OF CUSTODY RECORDS



Analytical **Technologies, Inc.**

Corporate Offices: 5550 Morehouse Drive San Diego, CA 92121 (619) 458-9141

ATI I.D.: 510234

November 14, 1995

ALISTO ENGINEERING
1575 TREAT BOULEVARD, SUITE 201
WALNUT CREEK, CA 94598

Project Name: BP SITE#11133/2220 98TH AVE. OAKLAND
Project # : G418846/10-025-07-001

Attention: PETER BEAVER

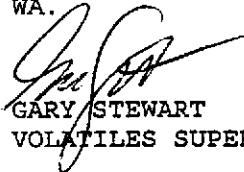
Analytical Technologies, Inc. has received the following sample(s):

<u>Date Received</u>	<u>Quantity</u>	<u>Matrix</u>
October 20, 1995	9	WATER

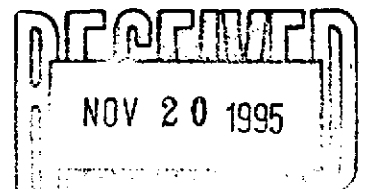
The sample(s) were analyzed with EPA methodology or equivalent methods as specified in the enclosed analytical schedule. The symbol for "less than" indicates a value below the reportable detection limit. If any flags appear next to the analytical data in this report, please see the attached list of flag definitions.

The results of these analyses and the quality control data are enclosed. Please note that the Sample Condition Upon Receipt Checklist is included at the end of this report.

Please note EPA MOD 8015 analyses was performed by Analytical Technologies, Inc. Renton, WA.


GARY STEWART
VOLATILES SUPERVISOR


ALAN J. KLEINSCHMIDT
LABORATORY MANAGER



SAMPLE CROSS REFERENCE

Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/2220 98TH AVE. OAKLAND

Report Date: November 14, 1995
 ATI I.D. : 510234

ATI #	Client Description	Matrix	Date Collected
1	PS 1535	WATER	18-OCT-95
2	A 1510	WATER	18-OCT-95
3	EFF. 1500	WATER	18-OCT-95
4	A 1515	WATER	18-OCT-95
5	PS 1530	WATER	18-OCT-95
6	INF. 1520	WATER	18-OCT-95
7	EFF. 1505	WATER	18-OCT-95
8	INF. 1525	WATER	18-OCT-95
9	QC-1 1545	WATER	18-OCT-95

---TOTALS---

<u>Matrix</u>	<u># Samples</u>
WATER	9

ATI STANDARD DISPOSAL PRACTICE

The sample(s) from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

ANALYTICAL SCHEDULE

Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name: BP SITE#11133/2220 98TH AVE. OAKLAND

ATI I.D.: 510234

Analysis	Technique/Description
EPA 624 (GC/MS FOR VOLATILE ORGANICS)	GC/MASS SPECTROMETER
MOD EPA 8015-CDOHS (HYDROCARBONS C6-C12)	GC/PURGE & TRAP/FLAME ION. DETECTOR

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY RESULTS

Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/2220 98TH AVE. OAKLAND

ATI I.D. : 510234

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	PS 1535	WATER	18-OCT-95	N/A	24-OCT-95	10.00
4	A 1515	WATER	18-OCT-95	N/A	23-OCT-95	1.00
7	EFF. 1505	WATER	18-OCT-95	N/A	23-OCT-95	1.00

Parameter	Units	1	4	7
CHLOROMETHANE	UG/L	<100	<10	<10
VINYL CHLORIDE	UG/L	<50	<5	<5
BROMOMETHANE	UG/L	<100	<10	<10
CHLOROETHANE	UG/L	<50	<5	<5
ACETONE	UG/L	<100	<10	<10
1,1-DICHLOROETHENE	UG/L	<10	<1	<1
METHYLENE CHLORIDE	UG/L	<50	<5	<5
CARBON DISULFIDE	UG/L	<20	<2	<2
TRANS-1,2-DICHLOROETHENE	UG/L	<10	<1	<1
1,1-DICHLOROETHANE	UG/L	<10	<1	<1
CIS-1,2-DICHLOROETHENE	UG/L	<10	<1	<1
CHLOROFORM	UG/L	<10	<1	<1
2-BUTANONE (MEK)	UG/L	<100	<10	<10
1,1,1-TRICHLOROETHANE	UG/L	<10	<1	<1
CARBON TETRACHLORIDE	UG/L	<10	<1	<1
1,2-DICHLOROETHANE	UG/L	<10	<1	<1
BENZENE	UG/L	86	<1	<1
TRICHLOROETHENE	UG/L	<10	<1	<1
1,2-DICHLOROPROPANE	UG/L	<10	<1	<1
BROMODICHLOROMETHANE	UG/L	<10	<1	<1
4-METHYL-2-PENTANONE (MIBK)	UG/L	<100	<10	<10
CIS-1,3-DICHLOROPROPENE	UG/L	<10	<1	<1
TOLUENE	UG/L	660	<2	<2
TRANS-1,3-DICHLOROPROPENE	UG/L	<10	<1	<1
2-HEXANONE (MBK)	UG/L	<100	<10	<10
1,1,2-TRICHLOROETHANE	UG/L	<10	<1	<1
TETRACHLOROETHENE	UG/L	<10	<1	<1
DIBROMOCHLOROMETHANE	UG/L	<10	<1	<1
CHLOROBENZENE	UG/L	<10	<1	<1
ETHYLBENZENE	UG/L	190	<1	<1
XYLENES (TOTAL)	UG/L	1400	<1	<1
STYRENE	UG/L	<20	<2	<2
BROMOFORM	UG/L	<50	<5	<5
1,1,2,2-TETRACHLOROETHANE	UG/L	<10	<1	<1
DICHLORODIFLUOROMETHANE	UG/L	<100	<10	<10
TRICHLOROFLUOROMETHANE	UG/L	<50	<5	<5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UG/L	<50	<5	<5
1,2-DICHLOROBENZENE	UG/L	<50	<5	<5

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY RESULTS

Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/2220 98TH AVE. OAKLAND

ATI I.D. : 510234

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	PS 1535	WATER	18-OCT-95	N/A	24-OCT-95	10.00
4	A 1515	WATER	18-OCT-95	N/A	23-OCT-95	1.00
7	EFF. 1505	WATER	18-OCT-95	N/A	23-OCT-95	1.00
Parameter		Units	1	4	7	
1,3-DICHLOROBENZENE		UG/L	<50	<5	<5	
1,4-DICHLOROBENZENE		UG/L	<50	<5	<5	
<u>SURROGATES</u>						
1,2-DICHLOROETHANE-D4		%	100	96	97	
TOLUENE-D8		%	100	107	104	
BFB		%	100	98	100	

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

Method : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/2220 98TH AVE. OAKLAND

WATER
 ATI I.D.: 510234

Sample Parameters	Units	Results
1 ALIPHATIC HYDROCARBON C8	UG/L	300
ETHYLMETHYL BENZENE ISOMER	UG/L	900
TRIMETHYL BENZENE ISOMER	UG/L	700
DIMETHYLETHYL BENZENE ISOMER	UG/L	200
TRIMETHYL BENZENE ISOMER	UG/L	200
4 OXYGENATED HYDROCARBON	UG/L	10
7 NONE DETECTED	N/A	N/A

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY RESULTS

Page 6

Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/2220 98TH AVE. OAKLAND

ATI I.D. : 510234

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
8	INF. 1525	WATER	18-OCT-95	N/A	24-OCT-95	500.00
9	QC-1 1545	WATER	18-OCT-95	N/A	24-OCT-95	1.00

Parameter	Units	8	9
CHLOROMETHANE	UG/L	<5000	<10
VINYL CHLORIDE	UG/L	<2500	<5
BROMOMETHANE	UG/L	<5000	<10
CHLOROETHANE	UG/L	<2500	<5
ACETONE	UG/L	<5000	<10
1,1-DICHLOROETHENE	UG/L	<500	<1
METHYLENE CHLORIDE	UG/L	<2500	<5
CARBON DISULFIDE	UG/L	<1000	<2
TRANS-1,2-DICHLOROETHENE	UG/L	<500	<1
1,1-DICHLOROETHANE	UG/L	<500	<1
CIS-1,2-DICHLOROETHENE	UG/L	<500	<1
CHLOROFORM	UG/L	<500	<1
2-BUTANONE (MEK)	UG/L	<5000	<10
1,1,1-TRICHLOROETHANE	UG/L	<500	<1
CARBON TETRACHLORIDE	UG/L	<500	<1
1,2-DICHLOROETHANE	UG/L	580	<1
BENZENE	UG/L	38000	<1
TRICHLOROETHENE	UG/L	<500	<1
1,2-DICHLOROPROPANE	UG/L	<500	<1
BROMODICHLOROMETHANE	UG/L	<500	<1
4-METHYL-2-PENTANONE (MIBK)	UG/L	<5000	<10
CIS-1,3-DICHLOROPROPENE	UG/L	<500	<1
TOLUENE	UG/L	51000	<2
TRANS-1,3-DICHLOROPROPENE	UG/L	<500	<1
2-HEXANONE (MBK)	UG/L	<5000	<10
1,1,2-TRICHLOROETHANE	UG/L	<500	<1
TETRACHLOROETHENE	UG/L	<500	<1
DIBROMOCHLOROMETHANE	UG/L	<500	<1
CHLOROBENZENE	UG/L	<500	<1
ETHYLBENZENE	UG/L	4200	<1
XYLENES (TOTAL)	UG/L	23000	<1
STYRENE	UG/L	<1000	<2
BROMOFORM	UG/L	<2500	<5
1,1,2,2-TETRACHLOROETHANE	UG/L	<500	<1
DICHLORODIFLUOROMETHANE	UG/L	<5000	<10
TRICHLOROFLUOROMETHANE	UG/L	<2500	<5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UG/L	<2500	<5
1,2-DICHLOROBENZENE	UG/L	<2500	<5

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY RESULTS

Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#111133/2220 98TH AVE. OAKLAND

ATI I.D. : 510234

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
8	INF. 1525	WATER	18-OCT-95	N/A	24-OCT-95	500.00
9	QC-1 1545	WATER	18-OCT-95	N/A	24-OCT-95	1.00

Parameter	Units	8	9
1,3-DICHLOROBENZENE	UG/L	<2500	<5
1,4-DICHLOROBENZENE	UG/L	<2500	<5

SURROGATES

1,2-DICHLOROETHANE-D4	%	103	95
TOLUENE-D8	%	100	107
BFB	%	100	88

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

Method : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/2220 98TH AVE. OAKLAND

WATER
 ATI I.D.: 510234

Sample Parameters	Units	Results
8 ALIPHATIC HYDROCARBON C5	UG/L	6000
ALIPHATIC HYDROCARBON C5	UG/L	3000
TRIMETHYL BENZENE ISOMER	UG/L	3000
ALIPHATIC HYDROCARBON C5	UG/L	3000
METHYL TERT-BUTYLETHER	UG/L	3000
9 NONE DETECTED	N/A	N/A

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

REAGENT BLANK

Page 9

Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
 Blank I.D. : 37144
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/2220 98TH AVE. OAKLAND

ATI I.D. : 510234
 Date Extracted: N/A
 Date Analyzed : 23-OCT-95
 Dil. Factor : 1.00

Parameters	Units	Results
CHLOROMETHANE	UG/L	<10
VINYL CHLORIDE	UG/L	<5
BROMOMETHANE	UG/L	<10
CHLOROETHANE	UG/L	<5
ACETONE	UG/L	<10
1,1-DICHLOROETHENE	UG/L	<1
METHYLENE CHLORIDE	UG/L	<5
CARBON DISULFIDE	UG/L	<2
TRANS-1,2-DICHLOROETHENE	UG/L	<1
1,1-DICHLOROETHANE	UG/L	<1
CIS-1,2-DICHLOROETHENE	UG/L	<1
CHLOROFORM	UG/L	<1
2-BUTANONE (MEK)	UG/L	<10
1,1,1-TRICHLOROETHANE	UG/L	<1
CARBON TETRACHLORIDE	UG/L	<1
1,2-DICHLOROETHANE	UG/L	<1
BENZENE	UG/L	<1
TRICHLOROETHENE	UG/L	<1
1,2-DICHLOROPROPANE	UG/L	<1
BROMODICHLOROMETHANE	UG/L	<1
4-METHYL-2-PENTANONE (MIBK)	UG/L	<10
CIS-1,3-DICHLOROPROPENE	UG/L	<1
TOLUENE	UG/L	<2
TRANS-1,3-DICHLOROPROPENE	UG/L	<1
2-HEXANONE (MBK)	UG/L	<10
1,1,2-TRICHLOROETHANE	UG/L	<1
TETRACHLOROETHENE	UG/L	<1
DIBROMOCHLOROMETHANE	UG/L	<1
CHLOROBENZENE	UG/L	<1
ETHYLBENZENE	UG/L	<1
XYLENES (TOTAL)	UG/L	<1
STYRENE	UG/L	<2
BROMOFORM	UG/L	<5
1,1,2,2-TETRACHLOROETHANE	UG/L	<1
DICHLORODIFLUOROMETHANE	UG/L	<10
TRICHLOROFLUOROMETHANE	UG/L	<5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UG/L	<5
1,2-DICHLOROBENZENE	UG/L	<5
1,3-DICHLOROBENZENE	UG/L	<5
1,4-DICHLOROBENZENE	UG/L	<5
<u>SURROGATES</u>		
1,2-DICHLOROETHANE-D4	%	99
TOLUENE-D8	%	103
BFB	%	100

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

REAGENT BLANK
ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
Blank I.D. : 37144
Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name: BP SITE#11133/2220 98TH AVE. OAKLAND

ATI I.D. : 510234

Parameters	Units	Results
NONE DETECTED	N/A	N/A

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

MSMSD

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Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
 MSMSD # : 79421
 Client : ALISTO ENGINEERING

ATI I.D. : 510234
 Date Extracted: N/A
 Date Analyzed : 24-OCT-95
 Sample Matrix : WATER
 REF I.D. : 510234-04

Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/2220 98TH AVE. OAKLAND

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
1,1-DICHLOROETHENE	UG/L	<1	50	45	90	44	88	2
BENZENE	UG/L	<1	50	49	98	50	100	2
TRICHLOROETHENE	UG/L	<1	50	51	102	51	102	0
TOLUENE	UG/L	<2	50	50	100	53	106	6
CHLOROBENZENE	UG/L	<1	50	57	114	58	116	2

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration

RPD (Relative % Difference) = (Spiked Sample Result - Duplicate Spike Result)*100/Average Result

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

BLANK SPIKE

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Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
 Blank Spike #: 59597
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name : BP SITE#11133/2220 98TH AVE. OAKLAND

ATI I.D. : 510234
 Date Extracted: N/A
 Date Analyzed : 23-OCT-95
 Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
1,1-DICHLOROETHENE	UG/L	<1	47	50	94
BENZENE	UG/L	<1	50	50	100
TRICHLOROETHENE	UG/L	<1	51	50	102
TOLUENE	UG/L	<2	51	50	102
CHLOROBENZENE	UG/L	<1	56	50	112

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration

RPD (Relative % Difference) = (Spiked Sample - Blank Result)*100/Average Result



Analytical **Technologies, Inc.**

560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228-8335

John M. Buerger, Laboratory Manager

ATI I.D. # 510128

November 9, 1995

Analytical Technologies, Inc.
5550 Morehouse Drive
San Diego CA 92121

Attention : Gary Stewart

Project Number : 510234

Project Name : BP# 11133

Dear Mr. Stewart:

On October 26, 1995, Analytical Technologies, Inc. (ATI), received five samples for analysis. The samples were analyzed with EPA methodology or equivalent methods as specified in the attached analytical schedule. The results, sample cross reference, and quality control data are enclosed.

Sincerely,

Victoria L. Bayly
Project Manager

VLB/hal/mrj

Enclosure



SAMPLE CROSS REFERENCE SHEET

CLIENT : ANALYTICAL TECHNOLOGIES, INC.
PROJECT # : 510234
PROJECT NAME : BP# 11133

Table with 4 columns: ATI #, CLIENT DESCRIPTION, DATE SAMPLED, MATRIX. Rows include sample IDs 510128-1 through 510128-5 with descriptions like A1510, EFF1500, PS1530, INF1520, QC-1 and dates 10/18/95.

TOTALS

Summary table with 2 columns: MATRIX, # SAMPLES. Row: WATER, 5

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of the report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

ANALYTICAL SCHEDULE

CLIENT : ANALYTICAL TECHNOLOGIES, INC.
PROJECT # : 510234
PROJECT NAME : BP# 11133

ANALYSIS	TECHNIQUE	REFERENCE	LAB
FUEL HYDROCARBONS	GC/FID	EPA 8015 MODIFIED- R CDOHS	

R = ATI - Renton
SD = ATI - San Diego
PHX = ATI - Phoenix
PTL = ATI - Portland
ANC = ATI - Anchorage
PNR = ATI - Pensacola
FC = ATI - Fort Collins
SUB = Subcontract

ATI I.D. # 510128

TOTAL PETROLEUM HYDROCARBONS
DATA SUMMARY

CLIENT	: ANALYTICAL TECHNOLOGIES, INC.	DATE SAMPLED	: N/A
PROJECT #	: 510234	DATE RECEIVED	: N/A
PROJECT NAME	: BP# 11133	DATE EXTRACTED	: N/A
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 10/31/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
EPA METHOD	: 8015 MODIFIED-CDOHS	DILUTION FACTOR	: 1

COMPOUNDSRESULTS
-----FUEL HYDROCARBONS
HYDROCARBON RANGE
HYDROCARBON QUANTITATION USING<50
BENZENE TO DODECANE
GASOLINE

SURROGATE PERCENT RECOVERY

LIMITS

TRIFLUOROTOLUENE

91

50 - 150

ATI I.D. # 510128

TOTAL PETROLEUM HYDROCARBONS
DATA SUMMARY

CLIENT	: ANALYTICAL TECHNOLOGIES, INC.	DATE SAMPLED	: N/A
PROJECT #	: 510234	DATE RECEIVED	: N/A
PROJECT NAME	: BP# 11133	DATE EXTRACTED	: N/A
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 11/01/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
EPA METHOD	: 8015 MODIFIED-CDOHS	DILUTION FACTOR	: 1

COMPOUNDSRESULTS

FUEL HYDROCARBONS	<50
HYDROCARBON RANGE	BENZENE TO DODECANE
HYDROCARBON QUANTITATION USING	GASOLINE

SURROGATE PERCENT RECOVERY	LIMITS
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TRIFLUOROTOLUENE	96	50 - 150
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ATI I.D. # 510128-1

TOTAL PETROLEUM HYDROCARBONS
DATA SUMMARY

CLIENT	: ANALYTICAL TECHNOLOGIES, INC.	DATE SAMPLED	: 10/18/95
PROJECT #	: 510234	DATE RECEIVED	: 10/26/95
PROJECT NAME	: BP# 11133	DATE EXTRACTED	: N/A
CLIENT I.D.	: A1510	DATE ANALYZED	: 10/31/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
EPA METHOD	: 8015 MODIFIED-CDOHS	DILUTION FACTOR	: 1

COMPOUNDSRESULTS

FUEL HYDROCARBONS
HYDROCARBON RANGE
HYDROCARBON QUANTITATION USING

<50
BENZENE TO DODECANE
GASOLINE

SURROGATE PERCENT RECOVERY

LIMITS

TRIFLUOROTOLUENE

93

50 - 150

ATI I.D. # 510128-2

TOTAL PETROLEUM HYDROCARBONS
DATA SUMMARY

CLIENT	: ANALYTICAL TECHNOLOGIES, INC.	DATE SAMPLED	: 10/18/95
PROJECT #	: 510234	DATE RECEIVED	: 10/26/95
PROJECT NAME	: BP# 11133	DATE EXTRACTED	: N/A
CLIENT I.D.	: EFF1500	DATE ANALYZED	: 10/31/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
EPA METHOD	: 8015 MODIFIED-CDOHS	DILUTION FACTOR	: 1

COMPOUNDSRESULTS

FUEL HYDROCARBONS
HYDROCARBON RANGE
HYDROCARBON QUANTITATION USING

<50
BENZENE TO DODECANE
GASOLINE

SURROGATE PERCENT RECOVERY

LIMITS

TRIFLUOROTOLUENE

93

50 - 150



TOTAL PETROLEUM HYDROCARBONS
DATA SUMMARY

CLIENT	: ANALYTICAL TECHNOLOGIES, INC.	DATE SAMPLED	: 10/18/95
PROJECT #	: 510234	DATE RECEIVED	: 10/26/95
PROJECT NAME	: BP# 11133	DATE EXTRACTED	: N/A
CLIENT I.D.	: PS1530	DATE ANALYZED	: 10/31/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
EPA METHOD	: 8015 MODIFIED-CDOHS	DILUTION FACTOR	: 20

COMPOUNDS	RESULTS
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FUEL HYDROCARBONS	12000
HYDROCARBON RANGE	BENZENE TO DODECANE
HYDROCARBON QUANTITATION USING	GASOLINE

	SURROGATE PERCENT RECOVERY	LIMITS
TRIFLUOROTOLUENE	90	50 - 150

ATI I.D. # 510128-4

TOTAL PETROLEUM HYDROCARBONS
DATA SUMMARY

CLIENT	: ANALYTICAL TECHNOLOGIES, INC.	DATE SAMPLED	: 10/18/95
PROJECT #	: 510234	DATE RECEIVED	: 10/26/95
PROJECT NAME	: BP# 11133	DATE EXTRACTED	: N/A
CLIENT I.D.	: INF1520	DATE ANALYZED	: 10/31/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
EPA METHOD	: 8015 MODIFIED-CDOHS	DILUTION FACTOR	: 500

COMPOUNDSRESULTS

FUEL HYDROCARBONS	280000
HYDROCARBON RANGE	BENZENE TO DODECANE
HYDROCARBON QUANTITATION USING	GASOLINE

SURROGATE PERCENT RECOVERY

LIMITS

TRIFLUOROTOLUENE	94	50 - 150
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TOTAL PETROLEUM HYDROCARBONS
DATA SUMMARY

CLIENT	: ANALYTICAL TECHNOLOGIES, INC.	DATE SAMPLED	: 10/18/95
PROJECT #	: 510234	DATE RECEIVED	: 10/26/95
PROJECT NAME	: BP# 11133	DATE EXTRACTED	: N/A
CLIENT I.D.	: QC-1	DATE ANALYZED	: 10/31/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
EPA METHOD	: 8015 MODIFIED-CDOHS	DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
-----------	---------

FUEL HYDROCARBONS	<50
HYDROCARBON RANGE	BENZENE TO DODECANE
HYDROCARBON QUANTITATION USING	GASOLINE

	SURROGATE PERCENT RECOVERY	LIMITS
TRIFLUOROTOLUENE	93	50 - 150

ATI I.D. # 510128

 TOTAL PETROLEUM HYDROCARBONS
 QUALITY CONTROL DATA

CLIENT	: ANALYTICAL TECHNOLOGIES, INC.	SAMPLE I.D. #	: BLANK
PROJECT #	: 510234	DATE EXTRACTED	: N/A
PROJECT NAME	: BP# 11133	DATE ANALYZED	: 10/31/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
EPA METHOD	: 8015 MODIFIED-CDOHS		

COMPOUNDS	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
GASOLINE	<50.0	1000	965	97	N/A	N/A	N/A
CONTROL LIMITS				% REC.			RPD
GASOLINE				78 - 116			20
SURROGATE RECOVERIES		SPIKE		DUP. SPIKE	LIMITS		
TRIFLUOROTOLUENE		92		N/A		50 - 150	

TOTAL PETROLEUM HYDROCARBONS
QUALITY CONTROL DATA

CLIENT : ANALYTICAL TECHNOLOGIES, INC. SAMPLE I.D. # : BLANK
 PROJECT # : 510234 DATE EXTRACTED : N/A
 PROJECT NAME : BP# 11133 DATE ANALYZED : 11/01/95
 SAMPLE MATRIX : WATER UNITS : ug/L
 EPA METHOD : 8015 MODIFIED-CDOHS

COMPOUNDS	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
GASOLINE	<50.0	1000	957	96	N/A	N/A	N/A
CONTROL LIMITS				% REC.			RPD
GASOLINE				78 - 116			20
SURROGATE RECOVERIES		SPIKE		DUP. SPIKE		LIMITS	
TRIFLUOROTOLUENE		96		N/A		50 - 150	

ATI I.D. # 510128

 TOTAL PETROLEUM HYDROCARBONS
 QUALITY CONTROL DATA

CLIENT	: ANALYTICAL TECHNOLOGIES, INC.	SAMPLE I.D. #	: 510130-1
PROJECT #	: 510234	DATE EXTRACTED	: N/A
PROJECT NAME	: BP# 11133	DATE ANALYZED	: 11/01/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
EPA METHOD	: 8015 MODIFIED-CDOHS		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
GASOLINE	<50.0	<50.0	NC	1000	965	97	971	97	1
CONTROL LIMITS						% REC.			RPD
GASOLINE						80 - 113			20
SURROGATE RECOVERIES				SPIKE	DUP. SPIKE		LIMITS		
TRIFLUOROTOLUENE				93	93		50 - 150		



Analytical Technologies, Inc.

5550 MOREHOUSE DRIVE
SAN DIEGO, CA 92121-1709
(619) 458-9141

Chain of Custody

510128

DATE 10/25/95 PAGE 1 OF 1

PROJECT MANAGER: Gary Stewart
 COMPANY: ATI-SD
 ADDRESS:

BILL TO:
 COMPANY:
 ADDRESS:

SAMPLERS: (Signature) _____ PHONE NUMBER _____

SAMPLE ID	SAMPLE DATE	TIME	MATRIX	LAB ID
510234-02/A1510	10/18/95		H ₂ O	-1
-03(EFF, 1500)				2
-05(PS1530)				3
-06(LNF, 1520)				4
-09(QC-1)				5

Recommended Quantity and Preservative (Provide triple volume on QC Samples)		Quantity	Preservative	Number of Containers
Petroleum Hydrocarbons 418.1	1L (H ₂ SO ₄)/100g	1L		3
Oil and Grease 413.2	1L (H ₂ SO ₄)/100g	1L		3
Gasoline (MOD 8015/DOHS)	4 oz (HCl)/50g	4 oz		3
Diesel (MOD 8015/DOHS)	4 oz (HCl)/50g	4 oz		3
Gasoline/BTXE (MOD 8015/8020)	2X40ml (HCl)/50g	2X40ml		3
Maximum Contamination Level of Gasoline: 2ppm (water), 50ppm (Soil)				
MOD 8015 (Unknown)	4 oz (HCl)/50g	4 oz		1
BTXE (8020)	2X40ml (HCl)/50g	2X40ml		
Chlorinated Hydrocarbons (8010)	2X40ml (HCl)/50g	2X40ml		
Aromatic Hydrocarbons (8020)	2X40ml (HCl)/50g	2X40ml		
Chlorinated/Aromatic Hydrocarbons (8010/8020)	2X40ml (HCl)/50g	2X40ml		
Organic Pb	500ml/50g	500ml		
Pesticides/PCB (8080)	1L/50g	1L		
Base/Neutral/Acid Cmpds GC/MS (8270)	1L/100g	1L		
Volatile Cmpds GC/MS (8240)	2X40ml (HCl)/100g	2X40ml		
Polynuclear Aromatic (8310)	1L/100g	1L		
CCR Metals	500ml/100g	500ml		
Priority Pollutant Metals	500ml/100g	500ml		
XXXXXXXXXX Fuel GAS only				

PROJECT INFORMATION	SAMPLE RECEIPT
PROJECT NUMBER: BP11133	TOTAL NUMBER OF CONTAINERS: 13
PROJECT NAME: BP11133	CHAIN OF CUSTODY SEALS Y/N/A: N
PURCHASE ORDER NUMBER:	SEALS INTACT? Y/N/A: N
VIA: A F	RECEIVED GOOD COND/COLD: Y
TAT: <input type="checkbox"/> 24HR <input type="checkbox"/> 48HRS <input type="checkbox"/> 72HRS <input type="checkbox"/> 1WK <input type="checkbox"/> 2WK	LAB NUMBER: 510128
SAMPLE DISPOSAL INSTRUCTIONS	
<input type="checkbox"/> ATI Disposal @ \$5.00 each <input type="checkbox"/> Return <input type="checkbox"/> Pickup	
Comments: Hold time = 11/1	

RELINQUISHED BY: 1
 Signature: [Signature] Time: 4:30
 Printed Name: S. Graham Date: 10/25/95
 Company: ATI-SD

RECEIVED BY: 1
 Signature: [Signature] Time: 10:20
 Printed Name: V. [Signature] Date: 10/26/95
 Company: ATI-SD

RELINQUISHED BY: 2
 Signature: _____ Time: _____
 Printed Name: _____ Date: _____
 Company: _____

RECEIVED BY: 2
 Signature: _____ Time: _____
 Printed Name: _____ Date: _____
 Company: _____

RELINQUISHED BY: 3
 Signature: _____ Time: _____
 Printed Name: _____ Date: _____
 Company: _____

RECEIVED BY: (LAB) 3
 Signature: _____ Time: _____
 Printed Name: _____ Date: _____
 Analytical Technologies, Inc.

ATI-San Diego
SAMPLE CONDITION UPON RECEIPT CHECKLIST
(FOR RE-ACCESSIONS, COMPLETE #7 THRU #9)

1	Does this project require special handling according to NFESC Levels C, D, AFCEE or CLP protocols? If yes, complete a) and b) a) pH sample aliquoted: yes / no / na b) Either 1) Record Bottle Lot #'s: Or 2) Attach Sample Kit Request Form(s)	YES	<u>NO</u>
2	Number of Coolers Received If more than one cooler received attach Multiple Cooler Documentation Form (MCD) Indicate "see MCD" on Item 11 below	1 C# 117	
3	Are custody seals required for this project ?	YES	<u>N/A</u>
	a) are Custody Seals present on Cooler(s) ?	YES	<u>NO</u>
	If yes, are seals intact ?	YES	NO
	b) are Custody Seals present on the sample ?	YES	<u>NO</u>
	If yes, are seals intact ?	YES	NO
4	Is there a Chain-Of-Custody (COC)* per cooler ? if not, if a problem is found indicate which samples/test were in the affected cooler on the MCD.	<u>YES</u>	NO
5	Is the COC* complete per cooler ? Relinquished: <u>yes</u> /no Requested analysis: <u>yes</u> /no	<u>YES</u>	NO
6	Is the COC* in agreement with the samples received? # Samples: <u>yes</u> /no Sample ID's: <u>yes</u> /no Date sampled: <u>yes</u> /no Matrix: <u>yes</u> /no # containers: <u>yes</u> /no	<u>YES</u>	NO
7	Are the samples preserved correctly?	<u>YES</u>	NO
8	Is there enough sample for all the requested analyses?	<u>YES</u>	NO
9	Are all samples within holding times for the requested analyses?	<u>YES</u>	NO
10	Record cooler temperature. Contact PM if temperature is not 4°C ± 2°C.	2.4 °C	
	Is ice present in cooler?	<u>YES</u>	NO
11	Were all sample containers received intact (ie. not broken, leaking, etc.)?	<u>YES</u>	NO
12	Are samples requiring no headspace, headspace free? N/A	<u>YES</u>	NO
13	Are VOA 1st stickers required?	YES	<u>NO</u>
14	Are there special comments on the Chain of Custody which require client contact?	YES	<u>N/A</u>
15	If yes, was ATI Project Manager notified?	YES	NO

Describe "no" items: _____

Was client contacted? yes / no
 If yes, Date: _____ Name of Person contacted: _____
 Describe actions taken or client instructions: _____

*Or other representative documents, letters, and/or shipping memos



ATI # 510234

CHAIN OF CUSTODY

No. 066932

Page 1 of 1

CONSULTANT'S NAME: Alisto Engineering Group
 ADDRESS: 1575 Treat Blvd.
 CITY: Walnut Creek
 STATE: Ca.
 ZIP CODE: 94596

BP SITE NUMBER: 11133
 BP CORNER ADDRESS/CITY: 2220 98th Ave. Oakland

CONSULTANT PROJECT NUMBER: 10-025-07-001
 CONSULTANT CONTRACT NUMBER: 6418846

CONSULTANT PROJECT MANAGER: Peter Beaver
 PHONE NUMBER: (510) 295-1650
 FAX NUMBER: (510) 295-1823

BP CONTACT: Scott Hooten
 BP ADDRESS: Renton, Wa
 PHONE NUMBER: _____
 FAX NO.: _____

LAB CONTACT: ATI
 LABORATORY ADDRESS: San Diego, Ca.
 PHONE NUMBER: (619) 458-9141
 FAX NO.: _____

SAMPLED BY (Please Print Name): Clay W. Baggio
 SAMPLED BY (Signature): *Clay W. Baggio*
 SHIPMENT DATE: 12-19-95
 SHIPMENT METHOD: Fed Ex
 AIRBILL NUMBER: 60680236275

TAT: 24 Hours 48 Hours 1 Week Standard 2 Weeks

ANALYSIS REQUIRED

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE		TPH-GAS	624											COMMENTS	
				NO.	TYPE (VOL.)	LAB SAMPLE #															
PS 1535	10/18/95		H2O	3	Voa	01		X													
A 1510					HCL	02		X													
FFt 1500						03		X													
A 1515						04			X												
PS 1530						05		X													
Inf. 1520						06		X													
Eff. 1505						07			X												
Inf. 1525						08			X												
QC-1 1545						09		X	X												

32 lbs

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
<i>Clay W. Baggio</i>	10/18/95	0830	<i>P. Lyette</i>	11/19/95	1202	
<i>P. Lyette</i>	11/19/95	1545	<i>W. J. ... / ATI</i>	12/29/95	0915	Cooler #117 = 2.4°C



Analytical **Technologies, Inc.**

Corporate Offices: 5550 Morehouse Drive San Diego, CA 92121 (619) 458-9141

ATI I.D.: 511263

December 01, 1995

ALISTO ENGINEERING
1575 TREAT BOULEVARD, SUITE 201
WALNUT CREEK, CA 94598

Project Name: BP SITE#111133/OAKLAND, CA
Project # : G418846/10-025-07-001

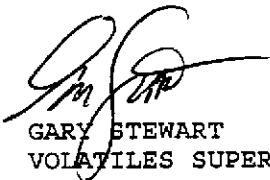
Attention: PETER BEAVER


Analytical Technologies, Inc. has received the following sample(s):

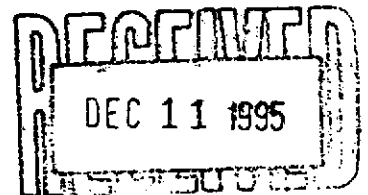
<u>Date Received</u>	<u>Quantity</u>	<u>Matrix</u>
November 16, 1995	6	WATER

The sample(s) were analyzed with EPA methodology or equivalent methods as specified in the enclosed analytical schedule. The symbol for "less than" indicates a value below the reportable detection limit. If any flags appear next to the analytical data in this report, please see the attached list of flag definitions.

The results of these analyses and the quality control data are enclosed. Please note that the Sample Condition Upon Receipt Checklist is included at the end of this report.


GARY STEWART
VOLATILES SUPERVISOR


ALAN J. KLEINSCHMIDT
LABORATORY MANAGER



SAMPLE CROSS REFERENCE

Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/OAKLAND, CA

Report Date: December 01, 1995
 ATI I.D. : 511263

ATI #	Client Description	Matrix	Date Collected
1	STA#11133 INF	WATER	14-NOV-95
2	STA#11133 PS	WATER	14-NOV-95
3	STA#11133 A	WATER	14-NOV-95
4	STA#11133 B	WATER	14-NOV-95
5	STA#11133 EFF	WATER	14-NOV-95
6	STA#11133 Q-C1	WATER	14-NOV-95

---TOTALS---

<u>Matrix</u>	<u># Samples</u>
WATER	6

ATI STANDARD DISPOSAL PRACTICE

The sample(s) from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

ANALYTICAL SCHEDULE

Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name: BP SITE#11133/OAKLAND, CA

ATI I.D.: 511263

Analysis	Technique/Description
EPA 624 (GC/MS FOR VOLATILE ORGANICS)	GC/MASS SPECTROMETER
MOD EPA 8015-CDOHS (HYDROCARBONS C6-C12)	GC/PURGE & TRAP/FLAME ION. DETECTOR

GAS CHROMATOGRAPHY RESULTS

Test : MOD EPA 8015-CDOHS (HYDROCARBONS C6-C12)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	STA#11133 INF	WATER	14-NOV-95	N/A	28-NOV-95	500.00
2	STA#11133 PS	WATER	14-NOV-95	N/A	28-NOV-95	1.00
3	STA#11133 A	WATER	14-NOV-95	N/A	27-NOV-95	1.00

Parameter	Units	1	2	3
FUEL HYDROCARBONS	UG/L	150000	630	<50
HYDROCARBON RANGE		C6-C12	C6-C12	C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE	GASOLINE
<u>SURROGATES</u>				
TRIFLUOROTOLUENE	%	110	126*H	96

GAS CHROMATOGRAPHY RESULTS

Test : MOD EPA 8015-CDOHS (HYDROCARBONS C6-C12)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
4	STA#11133 B	WATER	14-NOV-95	N/A	27-NOV-95	1.00
5	STA#11133 EFF	WATER	14-NOV-95	N/A	27-NOV-95	1.00
6	STA#11133 Q-C1	WATER	14-NOV-95	N/A	27-NOV-95	1.00

Parameter	Units	4	5	6
FUEL HYDROCARBONS	UG/L	<50	<50	<50
HYDROCARBON RANGE		C6-C12	C6-C12	C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE	GASOLINE

<u>SURROGATES</u>				
TRIFLUOROTOLUENE	%	87	94	94

GAS CHROMATOGRAPHY - QUALITY CONTROL

REAGENT BLANK

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS)
 Blank I.D. : 37460
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263
 Date Extracted: N/A
 Date Analyzed : 27-NOV-95
 Dil. Factor : 1.00

Parameters	Units	Results
FUEL HYDROCARBONS	UG/L	<50
HYDROCARBON RANGE		C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE
<u>SURROGATES</u>		
TRIFLUOROTOLUENE	%	99

GAS CHROMATOGRAPHY - QUALITY CONTROL

REAGENT BLANK

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS)
 Blank I.D. : 37461
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263
 Date Extracted: N/A
 Date Analyzed : 28-NOV-95
 Dil. Factor : 1.00

Parameters	Units	Results
FUEL HYDROCARBONS	UG/L	<50
HYDROCARBON RANGE		C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE
<u>SURROGATES</u>		
TRIFLUOROTOLUENE	%	88

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

Page 7

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS)
 MSMSD # : 80262
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263
 Date Extracted: N/A
 Date Analyzed : 28-NOV-95
 Sample Matrix : WATER
 REF I.D. : 511266-04

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
FUEL HYDROCARBONS	UG/L	<50	100	97	97	100	100	3

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration

RPD (Relative % Difference) = (Spiked Sample Result - Duplicate Spike Result)*100/Average Result

GAS CHROMATOGRAPHY - QUALITY CONTROL

BLANK SPIKE

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS)
 Blank Spike #: 60232
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name : BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263
 Date Extracted: N/A
 Date Analyzed : 27-NOV-95
 Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
FUEL HYDROCARBONS	UG/L	<50	100	100	100

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
 RPD (Relative % Difference) = (Spiked Sample - Blank Result)*100/Average Result

GAS CHROMATOGRAPHY - QUALITY CONTROL

BLANK SPIKE

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS)
 Blank Spike #: 60233
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name : BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263
 Date Extracted: N/A
 Date Analyzed : 28-NOV-95
 Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
FUEL HYDROCARBONS	UG/L	<50	110	100	110

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
 RPD (Relative % Difference) = (Spiked Sample - Blank Result)*100/Average Result

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY RESULTS

Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	STA#11133 INF	WATER	14-NOV-95	N/A	27-NOV-95	250.00
2	STA#11133 PS	WATER	14-NOV-95	N/A	27-NOV-95	1.00
3	STA#11133 A	WATER	14-NOV-95	N/A	27-NOV-95	1.00

Parameter	Units	1	2	3
CHLOROMETHANE	UG/L	<2500	<10	<10
VINYL CHLORIDE	UG/L	<1300	<5	<5
BROMOMETHANE	UG/L	<2500	<10	<10
CHLOROETHANE	UG/L	<1300	<5	<5
ACETONE	UG/L	<2500	64	<10
1,1-DICHLOROETHENE	UG/L	<250	<1	<1
METHYLENE CHLORIDE	UG/L	<1300	<5	<5
CARBON DISULFIDE	UG/L	<500	<2	<2
TRANS-1,2-DICHLOROETHENE	UG/L	<250	<1	<1
1,1-DICHLOROETHANE	UG/L	<250	<1	<1
CIS-1,2-DICHLOROETHENE	UG/L	<250	<1	<1
CHLOROFORM	UG/L	<250	<1	<1
2-BUTANONE (MEK)	UG/L	<2500	23	<10
1,1,1-TRICHLOROETHANE	UG/L	<250	<1	<1
CARBON TETRACHLORIDE	UG/L	<250	<1	<1
1,2-DICHLOROETHANE	UG/L	560	<1	<1
BENZENE	UG/L	32000	9	<1
TRICHLOROETHENE	UG/L	<250	<1	<1
1,2-DICHLOROPROPANE	UG/L	<250	<1	<1
BROMODICHLOROMETHANE	UG/L	<250	<1	<1
4-METHYL-2-PENTANONE (MIBK)	UG/L	<2500	<10	<10
CIS-1,3-DICHLOROPROPENE	UG/L	<250	<1	<1
TOLUENE	UG/L	33000	11	<2
TRANS-1,3-DICHLOROPROPENE	UG/L	<250	<1	<1
2-HEXANONE (MBK)	UG/L	<2500	<10	<10
1,1,2-TRICHLOROETHANE	UG/L	<250	<1	<1
TETRACHLOROETHENE	UG/L	<250	<1	<1
DIBROMOCHLOROMETHANE	UG/L	<250	<1	<1
CHLOROBENZENE	UG/L	<250	<1	<1
ETHYLBENZENE	UG/L	4100	3	<1
XYLENES (TOTAL)	UG/L	19000	20	<1
STYRENE	UG/L	<500	<2	<2
BROMOFORM	UG/L	<1300	<5	<5
1,1,2,2-TETRACHLOROETHANE	UG/L	<250	<1	<1
DICHLORODIFLUOROMETHANE	UG/L	<2500	<10	<10
TRICHLOROFLUOROMETHANE	UG/L	<1300	<5	<5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UG/L	<1300	<5	<5
1,2-DICHLOROBENZENE	UG/L	<1300	<5	<5

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY RESULTS

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Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)

Client : ALISTO ENGINEERING

ATI I.D. : 511263

Project # : G418846/10-025-07-001

Project Name: BP SITE#11133/OAKLAND, CA

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	STA#11133 INF	WATER	14-NOV-95	N/A	27-NOV-95	250.00
2	STA#11133 PS	WATER	14-NOV-95	N/A	27-NOV-95	1.00
3	STA#11133 A	WATER	14-NOV-95	N/A	27-NOV-95	1.00

Parameter	Units	1	2	3
1,3-DICHLOROBENZENE	UG/L	<1300	<5	<5
1,4-DICHLOROBENZENE	UG/L	<1300	<5	<5
<u>SURROGATES</u>				
1,2-DICHLOROETHANE-D4	%	95	93	92
TOLUENE-D8	%	96	99	99
BFB	%	96	96	97

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

Method : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/OAKLAND, CA

WATER
 ATI I.D.: 511263

Sample Parameters	Units	Results
1 ALIPHATIC HYDROCARBON C5	UG/L	8
UNKNOWN HYDROCARBON	UG/L	2000
TRIMETHYL BENZENE ISOMER	UG/L	4000
2 OXYGENATED HYDROCARBON	UG/L	30
ALIPHATIC HYDROCARBON C8	UG/L	30
ALIPHATIC HYDROCARBON C8	UG/L	40
TRIMETHYL BENZENE ISOMER	UG/L	40
DIMETHYLETHYL BENZENE ISOMER	UG/L	30
3 METHYL PROPANOL	UG/L	20

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY RESULTS

Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	STA#11133 B	WATER	14-NOV-95	N/A	27-NOV-95	1.00
2	STA#11133 EFF	WATER	14-NOV-95	N/A	28-NOV-95	1.00
6	STA#11133 Q-C1	WATER	14-NOV-95	N/A	27-NOV-95	1.00

Parameter	Units	4	5	6
CHLOROMETHANE	UG/L	<10	<10	<10
VINYL CHLORIDE	UG/L	<5	<5	<5
BROMOMETHANE	UG/L	<10	<10	<10
CHLOROETHANE	UG/L	<5	<5	<5
ACETONE	UG/L	<10	<10	<10
1,1-DICHLOROETHENE	UG/L	<1	<1	<1
METHYLENE CHLORIDE	UG/L	<5	<5	<5
CARBON DISULFIDE	UG/L	<2	<2	<2
TRANS-1,2-DICHLOROETHENE	UG/L	<1	<1	<1
1,1-DICHLOROETHANE	UG/L	<1	<1	<1
CIS-1,2-DICHLOROETHENE	UG/L	<1	<1	<1
CHLOROFORM	UG/L	<1	<1	<1
2-BUTANONE (MEK)	UG/L	<10	<10	<10
1,1,1-TRICHLOROETHANE	UG/L	<1	<1	<1
CARBON TETRACHLORIDE	UG/L	<1	<1	<1
1,2-DICHLOROETHANE	UG/L	<1	<1	<1
BENZENE	UG/L	<1	<1	<1
TRICHLOROETHENE	UG/L	<1	<1	<1
1,2-DICHLOROPROPANE	UG/L	<1	<1	<1
BROMODICHLOROMETHANE	UG/L	<1	<1	<1
4-METHYL-2-PENTANONE (MIBK)	UG/L	<10	<10	<10
CIS-1,3-DICHLOROPROPENE	UG/L	<1	<1	<1
TOLUENE	UG/L	<2	<2	<2
TRANS-1,3-DICHLOROPROPENE	UG/L	<1	<1	<1
2-HEXANONE (MBK)	UG/L	<10	<10	<10
1,1,2-TRICHLOROETHANE	UG/L	<1	<1	<1
TETRACHLOROETHENE	UG/L	<1	<1	<1
DIBROMOCHLOROMETHANE	UG/L	<1	<1	<1
CHLOROBENZENE	UG/L	<1	<1	<1
ETHYLBENZENE	UG/L	<1	<1	<1
XYLENES (TOTAL)	UG/L	<1	<1	<1
STYRENE	UG/L	<2	<2	<2
BROMOFORM	UG/L	<5	<5	<5
1,1,2,2-TETRACHLOROETHANE	UG/L	<1	<1	<1
DICHLORODIFLUOROMETHANE	UG/L	<10	<10	<10
TRICHLOROFLUOROMETHANE	UG/L	<5	<5	<5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UG/L	<5	<5	<5
1,2-DICHLOROETHANE	UG/L	<5	<5	<5

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY RESULTS

Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
4	STA#11133 B	WATER	14-NOV-95	N/A	27-NOV-95	1.00
5	STA#11133 EFF	WATER	14-NOV-95	N/A	28-NOV-95	1.00
6	STA#11133 Q-C1	WATER	14-NOV-95	N/A	27-NOV-95	1.00

Parameter	Units	4	5	6
1,3-DICHLOROBENZENE	UG/L	<5	<5	<5
1,4-DICHLOROBENZENE	UG/L	<5	<5	<5

SURROGATES

1,2-DICHLOROETHANE-D4	%	92	91	94
TOLUENE-D8	%	97	98	96
BFB	%	97	99	95

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

Method : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/OAKLAND, CA

WATER
 ATI I.D.: 511263

Sample Parameters	Units	Results
4 METHYL PROPANOL	UG/L	20
5 NONE DETECTED	N/A	N/A
6 NONE DETECTED	N/A	N/A

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

REAGENT BLANK

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Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
 Blank I.D. : 37464
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263
 Date Extracted: N/A
 Date Analyzed : 26-NOV-95
 Dil. Factor : 1.00

Parameters	Units	Results
CHLOROMETHANE	UG/L	<10
VINYL CHLORIDE	UG/L	<5
BROMOMETHANE	UG/L	<10
CHLOROETHANE	UG/L	<5
ACETONE	UG/L	<10
1,1-DICHLOROETHENE	UG/L	<1
METHYLENE CHLORIDE	UG/L	<5
CARBON DISULFIDE	UG/L	<2
TRANS-1,2-DICHLOROETHENE	UG/L	<1
1,1-DICHLOROETHANE	UG/L	<1
CIS-1,2-DICHLOROETHENE	UG/L	<1
CHLOROFORM	UG/L	<1
2-BUTANONE (MEK)	UG/L	<10
1,1,1-TRICHLOROETHANE	UG/L	<1
CARBON TETRACHLORIDE	UG/L	<1
1,2-DICHLOROETHANE	UG/L	<1
BENZENE	UG/L	<1
TRICHLOROETHENE	UG/L	<1
1,2-DICHLOROPROPANE	UG/L	<1
BROMODICHLOROMETHANE	UG/L	<1
4-METHYL-2-PENTANONE (MIBK)	UG/L	<10
CIS-1,3-DICHLOROPROPENE	UG/L	<1
TOLUENE	UG/L	<2
TRANS-1,3-DICHLOROPROPENE	UG/L	<1
2-HEXANONE (MBK)	UG/L	<10
1,1,2-TRICHLOROETHANE	UG/L	<1
TETRACHLOROETHENE	UG/L	<1
DIBROMOCHLOROMETHANE	UG/L	<1
CHLOROBENZENE	UG/L	<1
ETHYLBENZENE	UG/L	<1
XYLENES (TOTAL)	UG/L	<1
STYRENE	UG/L	<2
BROMOFORM	UG/L	<5
1,1,2,2-TETRACHLOROETHANE	UG/L	<1
DICHLORODIFLUOROMETHANE	UG/L	<10
TRICHLOROFLUOROMETHANE	UG/L	<5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UG/L	<5
1,2-DICHLOROBENZENE	UG/L	<5
1,3-DICHLOROBENZENE	UG/L	<5
1,4-DICHLOROBENZENE	UG/L	<5
<u>SURROGATES</u>		
1,2-DICHLOROETHANE-D4	%	89
TOLUENE-D8	%	97
BFB	%	92

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

REAGENT BLANK
ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
Blank I.D. : 37464
Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name: BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263

Parameters	Units	Results
NONE DETECTED	N/A	N/A

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

REAGENT BLANK

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Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
 Blank I.D. : 37465
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263
 Date Extracted: N/A
 Date Analyzed : 27-NOV-95
 Dil. Factor : 1.00

Parameters	Units	Results
CHLOROMETHANE	UG/L	<10
VINYL CHLORIDE	UG/L	<5
BROMOMETHANE	UG/L	<10
CHLOROETHANE	UG/L	<5
ACETONE	UG/L	<10
1,1-DICHLOROETHENE	UG/L	<1
METHYLENE CHLORIDE	UG/L	<5
CARBON DISULFIDE	UG/L	<2
TRANS-1,2-DICHLOROETHENE	UG/L	<1
1,1-DICHLOROETHANE	UG/L	<1
CIS-1,2-DICHLOROETHENE	UG/L	<1
CHLOROFORM	UG/L	<1
2-BUTANONE (MEK)	UG/L	<10
1,1,1-TRICHLOROETHANE	UG/L	<1
CARBON TETRACHLORIDE	UG/L	<1
1,2-DICHLOROETHANE	UG/L	<1
BENZENE	UG/L	<1
TRICHLOROETHENE	UG/L	<1
1,2-DICHLOROPROPANE	UG/L	<1
BROMODICHLOROMETHANE	UG/L	<1
4-METHYL-2-PENTANONE (MIBK)	UG/L	<10
CIS-1,3-DICHLOROPROPENE	UG/L	<1
TOLUENE	UG/L	<2
TRANS-1,3-DICHLOROPROPENE	UG/L	<1
2-HEXANONE (MBK)	UG/L	<10
1,1,2-TRICHLOROETHANE	UG/L	<1
TETRACHLOROETHENE	UG/L	<1
DIBROMOCHLOROMETHANE	UG/L	<1
CHLOROBENZENE	UG/L	<1
ETHYLBENZENE	UG/L	<1
XYLENES (TOTAL)	UG/L	<1
STYRENE	UG/L	<2
BROMOFORM	UG/L	<5
1,1,2,2-TETRACHLOROETHANE	UG/L	<1
DICHLORODIFLUOROMETHANE	UG/L	<10
TRICHLOROFLUOROMETHANE	UG/L	<5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UG/L	<5
1,2-DICHLOROBENZENE	UG/L	<5
1,3-DICHLOROBENZENE	UG/L	<5
1,4-DICHLOROBENZENE	UG/L	<5
<u>SURROGATES</u>		
1,2-DICHLOROETHANE-D4	%	93
TOLUENE-D8	%	97
BFB	%	98

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

REAGENT BLANK
ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

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Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
Blank I.D. : 37465
Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name: BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263

Parameters	Units	Results
NONE DETECTED	N/A	N/A

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

MSMSD

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Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
 MSMSD # : 80268
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263
 Date Extracted: N/A
 Date Analyzed : 28-NOV-95
 Sample Matrix : WATER
 REF I.D. : 511266-04

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
1,1-DICHLOROETHENE	UG/L	<1	50	53	106	48	96	10
BENZENE	UG/L	<1	50	49	98	49	98	0
TRICHLOROETHENE	UG/L	<1	50	47	94	47	94	0
TOLUENE	UG/L	<2	50	51	102	49	98	4
CHLOROBENZENE	UG/L	<1	50	54	108	53	106	2

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
 RPD (Relative % Difference) = (Spiked Sample Result - Duplicate Spike Result)*100/Average Result

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

BLANK SPIKE

Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
 Blank Spike #: 60236
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name : BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263
 Date Extracted: N/A
 Date Analyzed : 26-NOV-95
 Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
1,1-DICHLOROETHENE	UG/L	<1	53	50	106
BENZENE	UG/L	<1	49	50	98
TRICHLOROETHENE	UG/L	<1	49	50	98
TOLUENE	UG/L	<2	51	50	102
CHLOROBENZENE	UG/L	<1	55	50	110

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
 RPD (Relative % Difference) = (Spiked Sample - Blank Result)*100/Average Result

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

BLANK SPIKE

Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
 Blank Spike #: 60240
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name : BP SITE#11133/OAKLAND, CA

ATI I.D. : 511263
 Date Extracted: N/A
 Date Analyzed : 28-NOV-95
 Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
1,1-DICHLOROETHENE	UG/L	<1	53	50	106
BENZENE	UG/L	<1	50	50	100
TRICHLOROETHENE	UG/L	<1	48	50	96
TOLUENE	UG/L	<2	51	50	102
CHLOROBENZENE	UG/L	<1	54	50	108

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
 RPD (Relative % Difference) = (Spiked Sample - Blank Result)*100/Average Result

ANALYTICAL TECHNOLOGIES, INC.
SAN DIEGO
FLAGS

ORGANICS

FLAG MESSAGE DESCRIPTION

A A TIC IS A SUSPECTED ALDOL-CONDENSATION PRODUCT
B ANALYTE FOUND IN THE ASSOCIATED REAGENT BLANK
C PESTICIDE, WHERE THE IDENTIFICATION WAS CONFIRMED BY GC/MS
CO THESE COMPOUNDS CO-ELUTE AND ARE QUANTITATED AS ONE PEAK
D COMPOUND IDENTIFIED IN AN ANALYSIS AT SECONDARY DILUTION
E ANALYTE AMOUNT EXCEEDS THE CALIBRATION RANGE
J ESTIMATED VALUE
H QUANTIFIED AS DIESEL BUT CHROMATOGRAPHIC PATTERN DOES NOT MATCH
THAT OF DIESEL
K QUANTIFIED AS KEROSENE BUT CHROMATOGRAPHIC PATTERN DOES NOT MATCH
THAT OF KEROSENE
L QUANTIFIED AS GASOLINE BUT CHROMATOGRAPHIC PATTERN DOES NOT MATCH
THAT OF GASOLINE
N PRESUMPTIVE EVIDENCE OF A COMPOUND
P PESTICIDE/AROCLOR TARGET ANALYTE, WHERE THERE IS GREATER THAN 25%
DIFFERENCE FOR DETECTED CONCENTRATION BETWEEN 2 GC COLUMNS
TR COMPOUND DETECTED AT AN UNQUANTIFIABLE TRACE LEVEL
U COMPOUND WAS ANALYZED FOR BUT NOT DETECTED
X SEE CASE NARRATIVE
Y SEE CASE NARRATIVE
Z SEE CASE NARRATIVE
* OUTSIDE OF QUALITY CONTROL LIMITS
*D COMPOUND ANALYZED FROM A SECONDARY ANALYSIS
*F RESULT OUTSIDE OF ATI'S QUALITY CONTROL LIMITS
*G RESULT OUTSIDE QUALITY CONTROL LIMITS. INSUFFICIENT SAMPLE FOR RE-
EXTRACTION/ANALYSIS
*H RESULT OUTSIDE OF LIMITS DUE TO SAMPLE MATRIX INTERFERENCE
*I BECAUSE OF NECESSARY SAMPLE DILUTION, VALUE WAS OUTSIDE QC LIMITS
*K DUE TO THE NECESSARY DILUTION OF THE SAMPLE, RESULT WAS NOT ATTAINABLE
*L ANALYTE IS A SUSPECTED LAB CONTAMINANT
*P A STANDARD WAS USED TO QUANTITATE THIS VALUE
*R DATA IS NOT USABLE
*T SURROGATE RECOVERY IS OUTSIDE QC CONTROL LIMITS. NO CORRECTIVE
ACTION INDICATED BY METHOD
*V SAMPLE RESULT IS >4X SPIKED CONCENTRATION, THEREFORE SPIKE IS NOT DETECTABLE
*Y RESULT NOT ATTAINABLE DUE TO SAMPLE MATRIX INTERFERENCE
@A RESULTS OUT OF LIMITS DUE TO SAMPLE NON-HOMOGENEITY
@C *VARIABLE MESSAGE*
@D RESULT COULD NOT BE CONFIRMED DUE TO MATRIX INTERFERENCE ON THE
CONFIRMATION COLUMN
@E RESULT MAY BE FALSELY ELEVATED DUE TO SAMPLE MATRIX INTERFERENCE
@F RESULT OUTSIDE OF CONTRACT SPECIFIED QUALITY CONTROL LIMITS
@G RESULT OUTSIDE OF CONTRACT SPECIFIED ADVISORY LIMITS
@H DETECTION LIMIT ELEVATED DUE TO MATRIX INTERFERENCE
@M RESULT NOT CONFIRMED BY U.V. DUE TO SAMPLE MATRIX INTERFERENCE
@N RESULT NOT CONFIRMED BY FLUORESCENCE DUE TO SAMPLE MATRIX INTERFERENCE
@P RESULT QUANTITATED USING FLUORESCENCE ONLY DUE TO THE LOW CONCENTRATION
@Q DETECTION LIMIT ELEVATED DUE TO LIMITED SAMPLE FOR ANALYSIS
@T RESULT DUE TO TCLP EXTRACTION MATRIX INTERFERENCE. NO QC LIMITS
HAVE BEEN ESTABLISHED
@U SAMPLE CHROMATOGRAM DOES NOT RESEMBLE COMMON FUEL HYDROCARBON
FINGERPRINTS
@Z SAMPLE CHROMATOGRAM DOES NOT RESEMBLE A FUEL HYDROCARBON

ATI-SanDiego
SAMPLE CONDITION UPON RECEIPT CHECKLIST
(FOR RE-ACCESSIONS, COMPLETE #7 THRU #9)

1	Does this project require special handling according to NFESC Levels C, D, AFCEE or CLP protocols? If yes, complete a) and b) a) pH sample aliquoted: yes / no / na b) Either 1) Record Bottle Lot #'s: Or 2) Attach Sample Kit Request Form(s)	YES	NO
2	Number of Coolers Received If more than one cooler received attach Multiple Cooler Documentation Form (MCD) Indicate "see MCD" on Item 11 below	/	
3	Are custody seals required for this project ?	YES	N/A
	a) are Custody Seals present on Cooler(s) ?	YES	NO
	If yes, are seals intact ?	N/A	NO
	b) are Custody Seals present on the sample ?	YES	NO
	If yes, are seals intact ?	N/A	NO
4	Is there a Chain-Of-Custody (COC) per cooler ? if not, if a problem is found indicate which samples/test were in the affected cooler on the MCD.	YES	NO
5	Is the COC complete per cooler ? Relinquished: (yes/no) Requested analysis: (yes/no)	YES	NO
6	Is the COC in agreement with the samples received? # Samples: (yes/no) Sample ID's: (yes/no) Date sampled: (yes/no) Matrix: (yes/no) # containers: (yes/no)	YES	NO
7	Are the samples preserved correctly?	YES	NO
8	Is there enough sample for all the requested analyses?	YES	NO
9	Are all samples within holding times for the requested analyses?	YES	NO
10	Record cooler temperature. Contact PM if temperature is not 4°C ± 2°C.	2.0 °C	
	Is ice present in cooler?	YES	NO
11	Were all sample containers received intact (ie. not broken, leaking, etc.)?	YES	NO
12	Are samples requiring no headspace, headspace free? N/A	YES	NO
13	Are VOA 1st stickers required?	YES	NO
14	Are there special comments on the Chain of Custody which require client contact?	YES	N/A
15	If yes, was ATI Project Manager notified?	YES	NO

Describe "no" items: _____

Was client contacted? yes / no
 If yes, Date: _____ Name of Person contacted: _____
 Describe actions taken or client instructions: _____

*Or other representative documents, letters, and/or shipping memos



ALFA 511263

CHAIN OF CUSTODY

No. 071287

Page 1 of 1

CONSULTANT'S NAME Alisto Engineering Group		ADDRESS 1575 TREAT Blvd. Ste 207 Walnut Creek		CITY CA	STATE CA	ZIP CODE 94596
BP SITE NUMBER 11133	BP CORNER ADDRESS/CITY 2320 98th AVE OAKLAND CA			CONSULTANT PROJECT NUMBER 10-025-07-001		
CONSULTANT PROJECT MANAGER PETER DENVER		PHONE NUMBER 510 295-1650	FAX NUMBER 510 295-1823		CONSULTANT CONTRACT NUMBER G418846	
BP CONTACT SCOTT HOOTON		BP ADDRESS BENTON, WA	PHONE NUMBER		FAX NO.	
LAB CONTACT CARY STEWART		LABORATORY ADDRESS SAN DIEGO, CA	PHONE NUMBER		FAX NO.	
SAMPLED BY (Please Print Name) JOHN BICKING		SAMPLED BY (Signature) John K. Bicking		SHIPMENT DATE 11-15-95	SHIPMENT METHOD Fed Ex	

TAT: 24 Hours 48 Hours 1 Week Standard 2 Weeks

ANALYSIS REQUIRED AIRBILL NUMBER 6680236570

SAMPLE DESCRIPTION	COLLECTION DATE 11/14/95	COLLECTION TIME	MATRIX SOIL/WATER GW	CONTAINERS		PRESERVATIVE	HCL	HCL	COMMENTS
				NO.	TYPE (VOL.)	LAB SAMPLE #	PH 6	624	
01 STA# 11133 INF	1602		GW	6			✓	✓	
02 STA# 11133 PS	1614			6			✓	✓	
03 STA# 11133 A 1	1615			6			✓	✓	
04 STA# 11133 B	1620			6			✓	✓	
05 STA# 11133 EFF	1625			6			✓	✓	
06 STA# 11133 Q-C1	1630			3			✓	✓	

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
John K. Bicking	11/15/95	0800	P. Lye Hon	11/15/95	0810	
P. Lye Hon	11/15/95	1700	John K. Bicking	11/16/95	9:15	511263



Analytical **Technologies, Inc.**

Corporate Offices: 5550 Marehouse Drive San Diego, CA 92121 (619) 458-9141

ATI I.D.: 512154

December 22, 1995

ALISTO ENGINEERING
1575 TREAT BOULEVARD, SUITE 201
WALNUT CREEK, CA 94598

Project Name: BP SITE#11133/2220 98TH AVE OAKLAND, CA
Project # : G418846/10-025-07-007


Attention: PETE BEAVER

Analytical Technologies, Inc. has received the following sample(s):

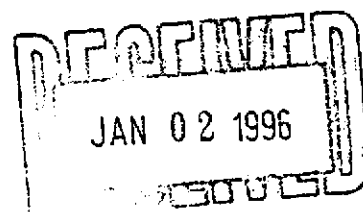
<u>Date Received</u>	<u>Quantity</u>	<u>Matrix</u>
December 13, 1995	5	WATER

The sample(s) were analyzed with EPA methodology or equivalent methods as specified in the enclosed analytical schedule. The symbol for "less than" indicates a value below the reportable detection limit. If any flags appear next to the analytical data in this report, please see the attached list of flag definitions.

The results of these analyses and the quality control data are enclosed. Please note that the Sample Condition Upon Receipt Checklist is included at the end of this report.


GARY STEWART
VOLATILES SUPERVISOR


ALAN J. KLEINSCHMIDT
LABORATORY MANAGER



SAMPLE CROSS REFERENCE

Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-007
 Project Name: BP SITE#111133/2220 98TH AVE OAKLAND, CA

Report Date: December 22, 1995
 ATI I.D. : 512154

ATI #	Client Description	Matrix	Date Collected
1	STA#111133 INF	WATER	11-DEC-95
2	STA#111133 PS	WATER	11-DEC-95
3	STA#111133 A	WATER	11-DEC-95
4	STA#111133 B	WATER	11-DEC-95
5	STA#111133 EFF	WATER	11-DEC-95

---TOTALS---

<u>Matrix</u>	<u># Samples</u>
WATER	5

ATI STANDARD DISPOSAL PRACTICE

The sample(s) from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

ANALYTICAL SCHEDULE

Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-007
Project Name: BP SITE#11133/2220 98TH AVE OAKLAND, CA

ATI I.D.: 512154

Analysis	Technique/Description
EPA 624 (GC/MS FOR VOLATILE ORGANICS)	GC/MASS SPECTROMETER
MOD EPA 8015-CDOHS (HYDROCARBONS C6-C12)	GC/PURGE & TRAP/FLAME ION. DETECTOR

GAS CHROMATOGRAPHY RESULTS

Test : MOD EPA 8015-CDOHS (HYDROCARBONS C6-C12)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-007
 Project Name: BP SITE#11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 512154

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	STA#11133 INF	WATER	11-DEC-95	N/A	19-DEC-95	500.00
2	STA#11133 PS	WATER	11-DEC-95	N/A	19-DEC-95	1.00
3	STA#11133 A	WATER	11-DEC-95	N/A	19-DEC-95	2.00

Parameter	Units	1	2	3
FUEL HYDROCARBONS	UG/L	99000	470	1200
HYDROCARBON RANGE		C6-C12	C6-C12	C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE	GASOLINE

<u>SURROGATES</u>				
TRIFLUOROTOLUENE	%	98	106	105

GAS CHROMATOGRAPHY RESULTS

Test : MOD EPA 8015-CDOHS (HYDROCARBONS C6-C12)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-007
 Project Name: BP SITE#11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 512154

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
4	STA#11133 B	WATER	11-DEC-95	N/A	19-DEC-95	1.00
5	STA#11133 EFF	WATER	11-DEC-95	N/A	19-DEC-95	1.00

Parameter	Units	4	5
FUEL HYDROCARBONS	UG/L	270	<50
HYDROCARBON RANGE		C6-C12	C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE

<u>SURROGATES</u>			
TRIFLUOROTOLUENE	%	106	99

GAS CHROMATOGRAPHY - QUALITY CONTROL

REAGENT BLANK

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS)
Blank I.D. : 37674
Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-007
Project Name: BP SITE#111133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 512154
Date Extracted: N/A
Date Analyzed : 19-DEC-95
Dil. Factor : 1.00

Parameters	Units	Results
FUEL HYDROCARBONS	UG/L	<50
HYDROCARBON RANGE		C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE
<u>SURROGATES</u>		
TRIFLUOROTOLUENE	%	99

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

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Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS)
 MSMSD # : 80788
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-007
 Project Name: BP SITE#11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 512154
 Date Extracted: N/A
 Date Analyzed : 14-DEC-95
 Sample Matrix : WATER
 REF I.D. : 512135-01

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
FUEL HYDROCARBONS	UG/L	<50	100	97	97	97	97	0

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration

RPD (Relative % Difference) = (Spiked Sample Result - Duplicate Spike Result)*100/Average Result

GAS CHROMATOGRAPHY - QUALITY CONTROL

BLANK SPIKE

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS)
 Blank Spike #: 60655
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-007
 Project Name : BP SITE#11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 512154
 Date Extracted: N/A
 Date Analyzed : 19-DEC-95
 Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
FUEL HYDROCARBONS	UG/L	<50	96	100	96

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
 RPD (Relative % Difference) = (Spiked Sample - Blank Result)*100/Average Result

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY RESULTS

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Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-007
 Project Name: BP SITE#11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 512154

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	STA#11133 INF	WATER	11-DEC-95	N/A	19-DEC-95	200.00
2	STA#11133 PS	WATER	11-DEC-95	N/A	19-DEC-95	1.00
3	STA#11133 A	WATER	11-DEC-95	N/A	19-DEC-95	1.00

Parameter	Units	1	2	3
CHLOROMETHANE	UG/L	<2000	<10	<10
VINYL CHLORIDE	UG/L	<1000	<5	<5
BROMOMETHANE	UG/L	<2000	<10	<10
CHLOROETHANE	UG/L	<1000	<5	<5
ACETONE	UG/L	<2000	24*L	<10
1,1-DICHLOROETHENE	UG/L	<200	<1	<1
METHYLENE CHLORIDE	UG/L	<1000	<5	<5
CARBON DISULFIDE	UG/L	<400	<2	<2
TRANS-1,2-DICHLOROETHENE	UG/L	<200	<1	<1
1,1-DICHLOROETHANE	UG/L	<200	<1	<1
CIS-1,2-DICHLOROETHENE	UG/L	<200	<1	<1
CHLOROFORM	UG/L	<200	<1	<1
2-BUTANONE (MEK)	UG/L	<2000	<10	<10
1,1,1-TRICHLOROETHANE	UG/L	<200	<1	<1
CARBON TETRACHLORIDE	UG/L	<200	<1	<1
1,2-DICHLOROETHANE	UG/L	420	<1	<1
BENZENE	UG/L	24000	34	4
TRICHLOROETHENE	UG/L	<200	<1	<1
1,2-DICHLOROPROPANE	UG/L	<200	<1	<1
BROMODICHLOROMETHANE	UG/L	<200	<1	<1
4-METHYL-2-PENTANONE (MIBK)	UG/L	<2000	<10	<10
CIS-1,3-DICHLOROPROPENE	UG/L	<200	<1	<1
TOLUENE	UG/L	26000	52	5
TRANS-1,3-DICHLOROPROPENE	UG/L	<200	<1	<1
2-HEXANONE (MBK)	UG/L	<2000	<10	<10
1,1,2-TRICHLOROETHANE	UG/L	<200	<1	<1
TETRACHLOROETHENE	UG/L	<200	<1	<1
DIBROMOCHLOROMETHANE	UG/L	<200	<1	<1
CHLOROBENZENE	UG/L	<200	<1	<1
ETHYLBENZENE	UG/L	2100	8	3
KYLENES (TOTAL)	UG/L	14000	81	82
STYRENE	UG/L	<400	<2	<2
BROMOFORM	UG/L	<1000	<5	<5
1,1,2,2-TETRACHLOROETHANE	UG/L	<200	<1	<1
DICHLORODIFLUOROMETHANE	UG/L	<2000	<10	<10
TRICHLORODIFLUOROMETHANE	UG/L	<1000	<5	<5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UG/L	<1000	<5	<5
1,2-DICHLOROETHANE	UG/L	<1000	<5	<5

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY RESULTS

Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-007
 Project Name: BP SITE#11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 512154

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	STA#11133 INF	WATER	11-DEC-95	N/A	19-DEC-95	200.00
2	STA#11133 PS	WATER	11-DEC-95	N/A	19-DEC-95	1.00
3	STA#11133 A	WATER	11-DEC-95	N/A	19-DEC-95	1.00

Parameter	Units	1	2	3
1,3-DICHLOROBENZENE	UG/L	<1000	<5	<5
1,4-DICHLOROBENZENE	UG/L	<1000	<5	<5

SURROGATES

1,2-DICHLOROETHANE-D4	%	96	99	98
TOLUENE-D8	%	94	94	93
BFB	%	95	99	95

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

Method : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-007
 Project Name: BP SITE#11133/2220 98TH AVE OAKLAND, CA

WATER
 ATI I.D.: 512154

Sample Parameters	Units	Results
1 METHYL TERT-BUTYL ETHER	UG/L	1000
SUBSTITUTED BENZENE	UG/L	2000
TRIMETHYL BENZENE ISOMER	UG/L	2000
2 METHYLETHYL BENZENE ISOMER	UG/L	40
METHYLETHYL BENZENE ISOMER	UG/L	10
TRIMETHYL BENZENE ISOMER	UG/L	40
TRIMETHYL BENZENE ISOMER	UG/L	10
DIMETHYLETHYL BENZENE ISOMER	UG/L	20
3 ETHYLMETHYL BENZENE ISOMER	UG/L	200
ETHYLMETHYL BENZENE ISOMER	UG/L	40
TRIMETHYL BENZENE ISOMER	UG/L	100
DIMETHYLETHYL BENZENE ISOMER	UG/L	70
DIMETHYLETHYL BENZENE ISOMER	UG/L	40

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY RESULTS

Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING ATI I.D. : 512154
 Project # : G418846/10-025-07-007
 Project Name: BP SITE#111133/2220 98TH AVE OAKLAND, CA

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
4	STA#111133 B	WATER	11-DEC-95	N/A	19-DEC-95	1.00
5	STA#111133 EFF	WATER	11-DEC-95	N/A	19-DEC-95	1.00

Parameter	Units	4	5
CHLOROMETHANE	UG/L	<10	<10
VINYL CHLORIDE	UG/L	<5	<5
BROMOMETHANE	UG/L	<10	<10
CHLOROETHANE	UG/L	<5	<5
ACETONE	UG/L	<10	<10
1,1-DICHLOROETHENE	UG/L	<1	<1
METHYLENE CHLORIDE	UG/L	<5	<5
CARBON DISULFIDE	UG/L	<2	<2
TRANS-1,2-DICHLOROETHENE	UG/L	<1	<1
1,1-DICHLOROETHANE	UG/L	<1	<1
CIS-1,2-DICHLOROETHENE	UG/L	<1	<1
CHLOROFORM	UG/L	<1	<1
2-BUTANONE (MEK)	UG/L	<10	<10
1,1,1-TRICHLOROETHANE	UG/L	<1	<1
CARBON TETRACHLORIDE	UG/L	<1	<1
1,2-DICHLOROETHANE	UG/L	<1	<1
BENZENE	UG/L	<1	<1
TRICHLOROETHENE	UG/L	<1	<1
1,2-DICHLOROPROPANE	UG/L	<1	<1
BROMODICHLOROMETHANE	UG/L	<1	<1
4-METHYL-2-PENTANONE (MIBK)	UG/L	<10	<10
CIS-1,3-DICHLOROPROPENE	UG/L	<1	<1
TOLUENE	UG/L	<2	<2
TRANS-1,3-DICHLOROPROPENE	UG/L	<1	<1
2-HEXANONE (MBK)	UG/L	<10	<10
1,1,2-TRICHLOROETHANE	UG/L	<1	<1
TETRACHLOROETHENE	UG/L	<1	<1
DIBROMOCHLOROMETHANE	UG/L	<1	<1
CHLOROBENZENE	UG/L	<1	<1
ETHYLBENZENE	UG/L	<1	<1
XYLENES (TOTAL)	UG/L	1	<1
STYRENE	UG/L	<2	<2
BROMOFORM	UG/L	<5	<5
1,1,2,2-TETRACHLOROETHANE	UG/L	<1	<1
DICHLORODIFLUOROMETHANE	UG/L	<10	<10
TRICHLOROFLUOROMETHANE	UG/L	<5	<5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UG/L	<5	<5
1,2-DICHLOROBENZENE	UG/L	<5	<5

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY RESULTS

Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-007
 Project Name: BP SITE#11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 512154

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
4	STA#11133 B	WATER	11-DEC-95	N/A	19-DEC-95	1.00
5	STA#11133 EFF	WATER	11-DEC-95	N/A	19-DEC-95	1.00

Parameter	Units	4	5
1,3-DICHLOROENZENE	UG/L	<5	<5
1,4-DICHLOROENZENE	UG/L	<5	<5

SURROGATES

1,2-DICHLOROETHANE-D4	%	97	99
TOLUENE-D8	%	95	96
BFB	%	93	96

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

Method : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-007
 Project Name: BP SITE#11133/2220 98TH AVE OAKLAND, CA

WATER
 ATI I.D.: 512154

Sample Parameters	Units	Results
4 ALIPHATIC HYDROCARBON C8	UG/L	20
ALIPHATIC HYDROCARBON C8	UG/L	30
ALIPHATIC HYDROCARBON C10	UG/L	30
ALIPHATIC HYDROCARBON C9	UG/L	30
DIMETHYLETHYL BENZENE ISOMER	UG/L	40
5 NONE DETECTED	N/A	N/A

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

REAGENT BLANK

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Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
 Blank I.D. : 37656
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-007
 Project Name: BP SITE#11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 512154
 Date Extracted: N/A
 Date Analyzed : 19-DEC-95
 Dil. Factor : 1.00

Parameters	Units	Results
CHLOROMETHANE	UG/L	<10
VINYL CHLORIDE	UG/L	<5
BROMOMETHANE	UG/L	<10
CHLOROETHANE	UG/L	<5
ACETONE	UG/L	<10
1,1-DICHLOROETHENE	UG/L	<1
METHYLENE CHLORIDE	UG/L	<5
CARBON DISULFIDE	UG/L	<2
TRANS-1,2-DICHLOROETHENE	UG/L	<1
1,1-DICHLOROETHANE	UG/L	<1
CIS-1,2-DICHLOROETHENE	UG/L	<1
CHLOROFORM	UG/L	<1
2-BUTANONE (MEK)	UG/L	<10
1,1,1-TRICHLOROETHANE	UG/L	<1
CARBON TETRACHLORIDE	UG/L	<1
1,2-DICHLOROETHANE	UG/L	<1
BENZENE	UG/L	<1
TRICHLOROETHENE	UG/L	<1
1,2-DICHLOROPROPANE	UG/L	<1
BROMODICHLOROMETHANE	UG/L	<1
4-METHYL-2-PENTANONE (MIBK)	UG/L	<10
CIS-1,3-DICHLOROPROPENE	UG/L	<1
TOLUENE	UG/L	<2
TRANS-1,3-DICHLOROPROPENE	UG/L	<1
2-HEXANONE (MBK)	UG/L	<10
1,1,2-TRICHLOROETHANE	UG/L	<1
TETRACHLOROETHENE	UG/L	<1
DIBROMOCHLOROMETHANE	UG/L	<1
CHLOROBENZENE	UG/L	<1
ETHYLBENZENE	UG/L	<1
XYLENES (TOTAL)	UG/L	<1
STYRENE	UG/L	<2
BROMOFORM	UG/L	<5
1,1,2,2-TETRACHLOROETHANE	UG/L	<1
DICHLORODIFLUOROMETHANE	UG/L	<10
TRICHLOROFLUOROMETHANE	UG/L	<5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UG/L	<5
1,2-DICHLOROBENZENE	UG/L	<5
1,3-DICHLOROBENZENE	UG/L	<5
1,4-DICHLOROBENZENE	UG/L	<5
<u>SURROGATES</u>		
1,2-DICHLOROETHANE-D4	%	96
TOLUENE-D8	%	94
BFB	%	95

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

REAGENT BLANK
ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
Blank I.D. : 37656
Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-007
Project Name: BP SITE#11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 512154

Parameters	Units	Results
NONE DETECTED	N/A	N/A

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

MSMSD

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Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
 MSMSD # : 80810
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-007
 Project Name: BP SITE#11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 512154
 Date Extracted: N/A
 Date Analyzed : 20-DEC-95
 Sample Matrix : WATER
 REF I.D. : 512150-02

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
1,1-DICHLOROETHENE	UG/L	<1	50	40	80	45	90	10
BENZENE	UG/L	<1	50	44	88	47	94	7
TRICHLOROETHENE	UG/L	<1	50	49	98	51	102	4
TOLUENE	UG/L	<2	50	47	94	50	100	6
CHLOROBENZENE	UG/L	<1	50	54	108	58	116	7

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration

RPD (Relative % Difference) = (Spiked Sample Result - Duplicate Spike Result)*100/Average Result

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

BLANK SPIKE

Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
 Blank Spike #: 60623
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-007
 Project Name : BP SITE#11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 512154
 Date Extracted: N/A
 Date Analyzed : 19-DEC-95
 Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
1,1-DICHLOROETHENE	UG/L	<1	47	50	94
BENZENE	UG/L	<1	47	50	94
TRICHLOROETHENE	UG/L	<1	54	50	108
TOLUENE	UG/L	<2	48	50	96
CHLOROBENZENE	UG/L	<1	55	50	110

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
 RPD (Relative % Difference) = (Spiked Sample - Blank Result)*100/Average Result

ANALYTICAL TECHNOLOGIES, INC.
SAN DIEGO
FLAGS

ORGANICS

FLAG MESSAGE DESCRIPTION

A A TIC IS A SUSPECTED ALDOL-CONDENSATION PRODUCT
B ANALYTE FOUND IN THE ASSOCIATED REAGENT BLANK
C PESTICIDE, WHERE THE IDENTIFICATION WAS CONFIRMED BY GC/MS
CO THESE COMPOUNDS CO-ELUTE AND ARE QUANTITATED AS ONE PEAK
D COMPOUND IDENTIFIED IN AN ANALYSIS AT SECONDARY DILUTION
E ANALYTE AMOUNT EXCEEDS THE CALIBRATION RANGE
J ESTIMATED VALUE
H QUANTIFIED AS DIESEL BUT CHROMATOGRAPHIC PATTERN DOES NOT MATCH
THAT OF DIESEL
K QUANTIFIED AS KEROSENE BUT CHROMATOGRAPHIC PATTERN DOES NOT MATCH
THAT OF KEROSENE
L QUANTIFIED AS GASOLINE BUT CHROMATOGRAPHIC PATTERN DOES NOT MATCH
THAT OF GASOLINE
N PRESUMPTIVE EVIDENCE OF A COMPOUND
P PESTICIDE/AROCLOR TARGET ANALYTE, WHERE THERE IS GREATER THAN 25%
DIFFERENCE FOR DETECTED CONCENTRATION BETWEEN 2 GC COLUMNS
TR COMPOUND DETECTED AT AN UNQUANTIFIABLE TRACE LEVEL
U COMPOUND WAS ANALYZED FOR BUT NOT DETECTED
X SEE CASE NARRATIVE
Y SEE CASE NARRATIVE
Z SEE CASE NARRATIVE
* OUTSIDE OF QUALITY CONTROL LIMITS
*D COMPOUND ANALYZED FROM A SECONDARY ANALYSIS
*F RESULT OUTSIDE OF ATI'S QUALITY CONTROL LIMITS
*G RESULT OUTSIDE QUALITY CONTROL LIMITS. INSUFFICIENT SAMPLE FOR RE-
EXTRACTION/ANALYSIS
*H RESULT OUTSIDE OF LIMITS DUE TO SAMPLE MATRIX INTERFERENCE
*I BECAUSE OF NECESSARY SAMPLE DILUTION, VALUE WAS OUTSIDE QC LIMITS
*K DUE TO THE NECESSARY DILUTION OF THE SAMPLE, RESULT WAS NOT ATTAINABLE
*L ANALYTE IS A SUSPECTED LAB CONTAMINANT
*P A STANDARD WAS USED TO QUANTITATE THIS VALUE
*R DATA IS NOT USABLE
*T SURROGATE RECOVERY IS OUTSIDE QC CONTROL LIMITS. NO CORRECTIVE
ACTION INDICATED BY METHOD
*V SAMPLE RESULT IS >4X SPIKED CONCENTRATION, THEREFORE SPIKE IS NOT DETECTABLE
*Y RESULT NOT ATTAINABLE DUE TO SAMPLE MATRIX INTERFERENCE
@A RESULTS OUT OF LIMITS DUE TO SAMPLE NON-HOMOGENEITY
@C *VARIABLE MESSAGE*
@D RESULT COULD NOT BE CONFIRMED DUE TO MATRIX INTERFERENCE ON THE
CONFIRMATION COLUMN
@E RESULT MAY BE FALSELY ELEVATED DUE TO SAMPLE MATRIX INTERFERENCE
@F RESULT OUTSIDE OF CONTRACT SPECIFIED QUALITY CONTROL LIMITS
@G RESULT OUTSIDE OF CONTRACT SPECIFIED ADVISORY LIMITS
@H DETECTION LIMIT ELEVATED DUE TO MATRIX INTERFERENCE
@M RESULT NOT CONFIRMED BY U.V. DUE TO SAMPLE MATRIX INTERFERENCE
@N RESULT NOT CONFIRMED BY FLUORESCENCE DUE TO SAMPLE MATRIX INTERFERENCE
@P RESULT QUANTITATED USING FLUORESCENCE ONLY DUE TO THE LOW CONCENTRATION
@Q DETECTION LIMIT ELEVATED DUE TO LIMITED SAMPLE FOR ANALYSIS
@T RESULT DUE TO TCLP EXTRACTION MATRIX INTERFERENCE. NO QC LIMITS
HAVE BEEN ESTABLISHED
@U SAMPLE CHROMATOGRAM DOES NOT RESEMBLE COMMON FUEL HYDROCARBON
FINGERPRINTS
@Z SAMPLE CHROMATOGRAM DOES NOT RESEMBLE A FUEL HYDROCARBON

ATI-SanDiego
SAMPLE CONDITION UPON RECEIPT CHECKLIST
(FOR RE-ACCESSIONS, COMPLETE #7 THRU #9)

1	Does this project require special handling according to NFESC Levels C, D, AFCEE or CLP protocols? If yes, complete a) and b) a) pH sample aliquoted: yes /no /na b) Either 1) Record Bottle Lot #'s: Or 2) Attach Sample Kit Request Form(s)	YES	<u>NO</u>
2	Number of Coolers Received If more than one cooler received attach Multiple Cooler Documentation Form (MCD) Indicate "see MCD" on Item 11 below		1
3	Are custody seals required for this project ?	YES	<u>N/A</u>
	a) are Custody Seals present on Cooler(s) ?	YES	<u>NO</u>
	If yes, are seals intact ?	<u>N/A</u>	NO
	b) are Custody Seals present on the sample ?	YES	<u>NO</u>
	If yes, are seals intact ?	<u>N/A</u>	NO
4	Is there a Chain-Of-Custody (COC) per cooler ? if not, if a problem is found indicate which samples/test were in the affected cooler on the MCD.	<u>YES</u>	NO
5	Is the COC complete per cooler ? Relinquished: <u>yes</u> /no Requested analysis: <u>yes</u> /no	<u>YES</u>	NO
6	Is the COC in agreement with the samples received? # Samples: yes/no Sample ID's: <u>yes</u> / <u>no</u> Date sampled: yes/no Matrix: yes/no # containers: yes/no	YES	<u>NO</u>
7	Are the samples preserved correctly?	<u>YES</u>	NO
8	Is there enough sample for all the requested analyses?	<u>YES</u>	NO
9	Are all samples within holding times for the requested analyses?	<u>YES</u>	NO
10	Record cooler temperature. Contact EM if temperature is not 4°C ± 2°C.		2.0 °C
	Is ice present in cooler?	<u>YES</u>	NO
11	Were all sample containers received intact (ie. not broken, leaking, etc.)?	<u>YES</u>	NO
12	Are samples requiring no headspace, headspace free? N/A	YES	<u>NO</u>
13	Are VOA 1st stickers required?	YES	<u>NO</u>
14	Are there special comments on the Chain of Custody which require client contact?	YES	<u>N/A</u>
15	If yes, was ATI Project Manager notified?	YES	NO

Describe "no" items: LABEL WAS MISSING FROM ONE UIAL. BY PROCESS OF ELIMINATION THE ID OF THE SAMPLE IS STA # 11133 A FOR 624
ONE UIAL FROM STA # 11133 PS & STA # 11133 A BOTH HAVE 2 REASSED HEADSPACE OF 2/13/85

Was client contacted? yes / no
 If yes, Date: _____ Name of Person contacted:
 Describe actions taken or client instructions: _____

*Or other representative documents, letters, and/or shipping memos



CHAIN OF CUSTODY

No. 075836

Page 1 of 1

CONSULTANT NAME ALIS Engineering		ADDRESS 1575 TREAT Blvd. Ste 201 Walnut Creek, CA 94596		CITY	STATE	ZIP CODE
BP SITE NUMBER 11133	BP CORNER ADDRESS/CITY 2220 98th AVE OAKLAND, CA			CONSULTANT PROJECT NUMBER 10-025-07-007		
CONSULTANT PROJECT MANAGER PETE DEVER	PHONE NUMBER 510 295-1650	FAX NUMBER 510 295-1823		CONSULTANT CONTRACT NUMBER 6418846		
BP CONTACT SCOTT HOOTON	BP ADDRESS Renton, WA	PHONE NUMBER		FAX NO.		
LAB CONTACT CRAY STEWART	LABORATORY ADDRESS San Diego, CA	PHONE NUMBER		FAX NO.		
SAMPLED BY (Please Print Name) JOHN Becking		SAMPLED BY (Signature) <i>John K. Bidley</i>		SHIPMENT DATE		SHIPMENT METHOD

TAT: 24 Hours 48 Hours 1 Week Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER

SAMPLE DESCRIPTION	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	HCL		COMMENTS
			NO.	TYPE (VOL.)		LAB SAMPLE #	PHG	
STA# 11133 INF	1600	GM	6	VDA	01	✓	✓	
STA# 11133 PS	1610		6		02	✓	✓	
STA# 11133 A	1620		6		03	✓	✓	
STA# 11133 B	1630		6		04	✓	✓	
STA# 11133 EFF	1640		6		05	✓	✓	

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
<i>John K. Bidley</i>	12/11/95	09:00	<i>[Signature]</i>	12/13/95	9:30	512154 2.0%



Analytical**Technologies**, Inc.

Corporate Offices: 5550 Morehouse Drive San Diego, CA 92121 (619) 458-9141

ATI I.D.: 601072

January 18, 1996

ALISTO ENGINEERING
1575 TREAT BOULEVARD, SUITE 201
WALNUT CREEK, CA 94598

Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA
Project # : G418846/10-025-07-001

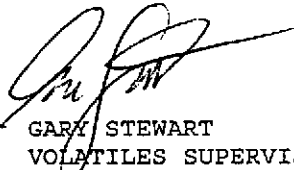
Attention: PETER BEAVER


Analytical Technologies, Inc. has received the following sample(s):

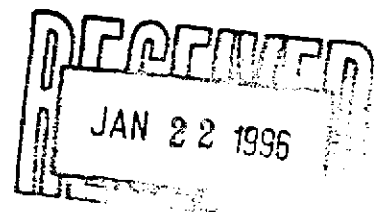
<u>Date Received</u>	<u>Quantity</u>	<u>Matrix</u>
January 11, 1996	6	WATER

The sample(s) were analyzed with EPA methodology or equivalent methods as specified in the enclosed analytical schedule. The symbol for "less than" indicates a value below the reportable detection limit. If any flags appear next to the analytical data in this report, please see the attached list of flag definitions.

The results of these analyses and the quality control data are enclosed. Please note that the Sample Condition Upon Receipt Checklist is included at the end of this report.


GARY STEWART
VOLATILES SUPERVISOR


ALAN J. KLEINSCHMIDT
LABORATORY MANAGER





Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

Report Date: January 18, 1996
 ATI I.D. : 601072

ATI #	Client Description	Matrix	Date Collected
1	STA#11133 INF	WATER	09-JAN-96
2	STA#11133 PS	WATER	09-JAN-96
3	STA#11133 A	WATER	09-JAN-96
4	STA#11133 B	WATER	09-JAN-96
5	STA#11133 EFF	WATER	09-JAN-96
6	STA#11133 Q-C-1	WATER	09-JAN-96

---TOTALS---

<u>Matrix</u>	<u># Samples</u>
WATER	6

ATI STANDARD DISPOSAL PRACTICE

The sample(s) from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

ATI I.D.: 601072

Analysis	Technique/Description
EPA 624 (GC/MS FOR VOLATILE ORGANICS)	GC/MASS SPECTROMETER
MOD EPA 8015-CDOHS (HYDROCARBONS C6-C12)	GC/PURGE & TRAP/FLAME ION. DETECTOR



Test : MOD EPA 8015-CDOHS (HYDROCARBONS C6-C12)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 601072

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	STA#11133 INF	WATER	09-JAN-96	N/A	16-JAN-96	1000.00
2	STA#11133 PS	WATER	09-JAN-96	N/A	15-JAN-96	1.00
3	STA#11133 A	WATER	09-JAN-96	N/A	15-JAN-96	1.00

Parameter	Units	1	2	3
FUEL HYDROCARBONS	UG/L	150000	110	<50
HYDROCARBON RANGE		C6-C12	C6-C12	C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE	GASOLINE

SURROGATES

TRIFLUOROTOLUENE	%	99	106	96
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Test : MOD EPA 8015-CDOHS (HYDROCARBONS C6-C12)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 601072

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
4	STA#11133 B	WATER	09-JAN-96	N/A	15-JAN-96	1.00
5	STA#11133 EFF	WATER	09-JAN-96	N/A	15-JAN-96	1.00
6	STA#11133 Q-C-1	WATER	09-JAN-96	N/A	15-JAN-96	1.00

Parameter	Units	4	5	6
FUEL HYDROCARBONS	UG/L	<50	<50	<50
HYDROCARBON RANGE		C6-C12	C6-C12	C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE	GASOLINE

SURROGATES

TRIFLUOROTOLUENE	%	93	96	92
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REAGENT BLANK

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS)
Blank I.D. : 37853
Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 601072
Date Extracted: N/A
Date Analyzed : 16-JAN-96
Dil. Factor : 1.00

Parameters	Units	Results
FUEL HYDROCARBONS	UG/L	<50
HYDROCARBON RANGE		C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE
<u>SURROGATES</u>		
TRIFLUOROTOLUENE	%	97



REAGENT BLANK

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS)
Blank I.D. : 37855
Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 601072
Date Extracted: N/A
Date Analyzed : 15-JAN-96
Dil. Factor : 1.00

Parameters	Units	Results
FUEL HYDROCARBONS	UG/L	<50
HYDROCARBON RANGE		C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE
<u>SURROGATES</u>		
TRIFLUOROTOLUENE	%	93



MSMSD

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS)
 MSMSD # : 81282
 Client : ALISTO ENGINEERING

ATI I.D. : 601072
 Date Extracted: N/A
 Date Analyzed : 16-JAN-96
 Sample Matrix : WATER
 REF I.D. : 601072-03

Project # : G418846/10-025-07-001
 Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
FUEL HYDROCARBONS	UG/L	<50	100	100	100	85	85	16

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
 RPD (Relative % Difference) = (Spiked Sample Result - Duplicate Spike Result)*100/Average Result



BLANK SPIKE

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS)
Blank Spike #: 61009
Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name : BP SITE #11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 601072
Date Extracted: N/A
Date Analyzed : 16-JAN-96
Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
FUEL HYDROCARBONS	UG/L	<50	120	100	120

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration

RPD (Relative % Difference) = (Spiked Sample - Blank Result)*100/Average Result



BLANK SPIKE

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS)
 Blank Spike #: 61011
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name : BP SITE #11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 601072
 Date Extracted: N/A
 Date Analyzed : 15-JAN-96
 Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
FUEL HYDROCARBONS	UG/L	<50	100	100	100

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
 RPD (Relative % Difference) = (Spiked Sample - Blank Result)*100/Average Result



Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 601072

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	STA#11133 INF	WATER	09-JAN-96	N/A	12-JAN-96	250.00
2	STA#11133 PS	WATER	09-JAN-96	N/A	12-JAN-96	1.00
3	STA#11133 A	WATER	09-JAN-96	N/A	12-JAN-96	1.00

Parameter	Units	1	2	3
CHLOROMETHANE	UG/L	<2500	<10	<10
VINYL CHLORIDE	UG/L	<1300	<5	<5
BROMOMETHANE	UG/L	<2500	<10	<10
CHLOROETHANE	UG/L	<1300	<5	<5
ACETONE	UG/L	<2500	<10	<10
1,1-DICHLOROETHENE	UG/L	<250	<1	<1
METHYLENE CHLORIDE	UG/L	<1300	<5	<5
CARBON DISULFIDE	UG/L	<500	<2	<2
TRANS-1,2-DICHLOROETHENE	UG/L	<250	<1	<1
1,1-DICHLOROETHANE	UG/L	<250	<1	<1
CIS-1,2-DICHLOROETHENE	UG/L	<250	<1	<1
CHLOROFORM	UG/L	<250	<1	<1
2-BUTANONE (MEK)	UG/L	<2500	<10	<10
1,1,1-TRICHLOROETHANE	UG/L	<250	<1	<1
CARBON TETRACHLORIDE	UG/L	<250	<1	<1
1,2-DICHLOROETHANE	UG/L	720	<1	<1
BENZENE	UG/L	28000	<1	<1
TRICHLOROETHENE	UG/L	<250	<1	<1
1,2-DICHLOROPROPANE	UG/L	<250	<1	<1
BROMODICHLOROMETHANE	UG/L	<250	<1	<1
4-METHYL-2-PENTANONE (MIBK)	UG/L	<2500	<10	<10
CIS-1,3-DICHLOROPROPENE	UG/L	<250	<1	<1
TOLUENE	UG/L	37000	<2	<2
TRANS-1,3-DICHLOROPROPENE	UG/L	<250	<1	<1
2-HEXANONE (MBK)	UG/L	<2500	<10	<10
1,1,2-TRICHLOROETHANE	UG/L	<250	<1	<1
TETRACHLOROETHENE	UG/L	<250	<1	<1
DIBROMOCHLOROMETHANE	UG/L	<250	<1	<1
CHLOROBENZENE	UG/L	<250	<1	<1
ETHYLBENZENE	UG/L	3400	<1	<1
XYLENES (TOTAL)	UG/L	18000	1	<1
STYRENE	UG/L	<500	<2	<2
BROMOFORM	UG/L	<1300	<5	<5
1,1,2,2-TETRACHLOROETHANE	UG/L	<250	<1	<1
DICHLORODIFLUOROMETHANE	UG/L	<2500	<10	<10
TRICHLOROFLUOROMETHANE	UG/L	<1300	<5	<5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UG/L	<1300	<5	<5
1,2-DICHLOROETHANE	UG/L	<1300	<5	<5



Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING ATI I.D. : 601072
 Project # : G418846/10-025-07-001
 Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	STA#11133 INF	WATER	09-JAN-96	N/A	12-JAN-96	250.00
2	STA#11133 PS	WATER	09-JAN-96	N/A	12-JAN-96	1.00
3	STA#11133 A	WATER	09-JAN-96	N/A	12-JAN-96	1.00

Parameter	Units	1	2	3
1,3-DICHLOROBENZENE	UG/L	<1300	<5	<5
1,4-DICHLOROBENZENE	UG/L	<1300	<5	<5

SURROGATES

1,2-DICHLOROETHANE-D4	%	102	98	103
TOLUENE-D8	%	102	101	104
BFB	%	103	100	99



Method : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

WATER
ATI I.D.: 601072

Sample Parameters	Units	Results
1 UNKNOWN HYDROCARBON	UG/L	1000
METHYL TERT-BUTYL ETHER	UG/L	2000
TRIMETHYL BENZENE ISOMER	UG/L	3000
2 METHYL PROPANOL	UG/L	10
3 METHYL PROPANOL	UG/L	10



Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 601072

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
4	STA#11133 B	WATER	09-JAN-96	N/A	12-JAN-96	1.00
5	STA#11133 EFF	WATER	09-JAN-96	N/A	12-JAN-96	1.00
6	STA#11133 Q-C-1	WATER	09-JAN-96	N/A	12-JAN-96	1.00

Parameter	Units	4	5	6
CHLOROMETHANE	UG/L	<10	<10	<10
VINYL CHLORIDE	UG/L	<5	<5	<5
BROMOMETHANE	UG/L	<10	<10	<10
CHLOROETHANE	UG/L	<5	<5	<5
ACETONE	UG/L	<10	<10	<10
1,1-DICHLOROETHENE	UG/L	<1	<1	<1
METHYLENE CHLORIDE	UG/L	<5	<5	<5
CARBON DISULFIDE	UG/L	<2	<2	<2
TRANS-1,2-DICHLOROETHENE	UG/L	<1	<1	<1
1,1-DICHLOROETHANE	UG/L	<1	<1	<1
CIS-1,2-DICHLOROETHENE	UG/L	<1	<1	<1
CHLOROFORM	UG/L	<1	<1	<1
2-BUTANONE (MEK)	UG/L	<10	<10	<10
1,1,1-TRICHLOROETHANE	UG/L	<1	<1	<1
CARBON TETRACHLORIDE	UG/L	<1	<1	<1
1,2-DICHLOROETHANE	UG/L	<1	<1	<1
BENZENE	UG/L	<1	<1	<1
TRICHLOROETHENE	UG/L	<1	<1	<1
1,2-DICHLOROPROPANE	UG/L	<1	<1	<1
BROMODICHLOROMETHANE	UG/L	<1	<1	<1
4-METHYL-2-PENTANONE (MIBK)	UG/L	<10	<10	<10
CIS-1,3-DICHLOROPROPENE	UG/L	<1	<1	<1
TOLUENE	UG/L	<2	<2	<2
TRANS-1,3-DICHLOROPROPENE	UG/L	<1	<1	<1
2-HEXANONE (MBK)	UG/L	<10	<10	<10
1,1,2-TRICHLOROETHANE	UG/L	<1	<1	<1
TETRACHLOROETHENE	UG/L	<1	<1	<1
DIBROMOCHLOROMETHANE	UG/L	<1	<1	<1
CHLOROBENZENE	UG/L	<1	<1	<1
ETHYLBENZENE	UG/L	<1	<1	<1
XYLENES (TOTAL)	UG/L	<1	<1	<1
STYRENE	UG/L	<2	<2	<2
BROMOFORM	UG/L	<5	<5	<5
1,1,2,2-TETRACHLOROETHANE	UG/L	<1	<1	<1
DICHLORODIFLUOROMETHANE	UG/L	<10	<10	<10
TRICHLOROFLUOROMETHANE	UG/L	<5	<5	<5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UG/L	<5	<5	<5
1,2-DICHLOROBENZENE	UG/L	<5	<5	<5



Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 601072

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
4	STA#11133 B	WATER	09-JAN-96	N/A	12-JAN-96	1.00
5	STA#11133 EFF	WATER	09-JAN-96	N/A	12-JAN-96	1.00
6	STA#11133 Q-C-1	WATER	09-JAN-96	N/A	12-JAN-96	1.00

Parameter	Units	4	5	6
1,3-DICHLOROBENZENE	UG/L	<5	<5	<5
1,4-DICHLOROBENZENE	UG/L	<5	<5	<5

SURROGATES

1,2-DICHLOROETHANE-D4	%	103	103	99
TOLUENE-D8	%	101	104	103
BFB	%	99	99	102



Method : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

WATER
ATI I.D.: 601072

Sample Parameters	Units	Results
4 METHYL PROPANOL	UG/L	10
5 NONE DETECTED	N/A	N/A
6 NONE DETECTED	N/A	N/A



REAGENT BLANK

Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
 Blank I.D. : 37832
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 601072
 Date Extracted: N/A
 Date Analyzed : 12-JAN-96
 Dil. Factor : 1.00

Parameters	Units	Results
CHLOROMETHANE	UG/L	<10
VINYL CHLORIDE	UG/L	<5
BROMOMETHANE	UG/L	<10
CHLOROETHANE	UG/L	<5
ACETONE	UG/L	<10
1,1-DICHLOROETHENE	UG/L	<1
METHYLENE CHLORIDE	UG/L	<5
CARBON DISULFIDE	UG/L	<2
TRANS-1,2-DICHLOROETHENE	UG/L	<1
1,1-DICHLOROETHANE	UG/L	<1
CIS-1,2-DICHLOROETHENE	UG/L	<1
CHLOROFORM	UG/L	<1
2-BUTANONE (MEK)	UG/L	<10
1,1,1-TRICHLOROETHANE	UG/L	<1
CARBON TETRACHLORIDE	UG/L	<1
1,2-DICHLOROETHANE	UG/L	<1
BENZENE	UG/L	<1
TRICHLOROETHENE	UG/L	<1
1,2-DICHLOROPROPANE	UG/L	<1
BROMODICHLOROMETHANE	UG/L	<1
4-METHYL-2-PENTANONE (MIBK)	UG/L	<10
CIS-1,3-DICHLOROPROPENE	UG/L	<1
TOLUENE	UG/L	<2
TRANS-1,3-DICHLOROPROPENE	UG/L	<1
2-HEXANONE (MBK)	UG/L	<10
1,1,2-TRICHLOROETHANE	UG/L	<1
TETRACHLOROETHENE	UG/L	<1
DIBROMOCHLOROMETHANE	UG/L	<1
CHLOROBENZENE	UG/L	<1
ETHYLBENZENE	UG/L	<1
XYLENES (TOTAL)	UG/L	<1
STYRENE	UG/L	<1
BROMOFORM	UG/L	<5
1,1,2,2-TETRACHLOROETHANE	UG/L	<2
DICHLORODIFLUOROMETHANE	UG/L	<10
TRICHLOROFUOROMETHANE	UG/L	<5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UG/L	<5
1,2-DICHLOROBENZENE	UG/L	<5
1,3-DICHLOROBENZENE	UG/L	<5
1,4-DICHLOROBENZENE	UG/L	<5
<u>SURROGATES</u>		
1,2-DICHLOROETHANE-D4	‰	100
TOLUENE-D8	‰	103
BFB	‰	99



REAGENT BLANK
ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

Blank I.D. : 37832

ATI I.D. : 601072

Client : ALISTO ENGINEERING

Project # : G418846/10-025-07-001

Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

Parameters	Units	Results
NONE DETECTED	N/A	N/A



MSMSD

Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
 MSMSD # : 81231
 Client : ALISTO ENGINEERING

ATI I.D. : 601072
 Date Extracted: N/A
 Date Analyzed : 12-JAN-96
 Sample Matrix : WATER
 REF I.D. : 601072-02

Project # : G418846/10-025-07-001
 Project Name: BP SITE #11133/2220 98TH AVE OAKLAND, CA

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
1,1-DICHLOROETHENE	UG/L	<1	50	52	104	54	108	4
BENZENE	UG/L	<1	50	48	96	51	102	6
TRICHLOROETHENE	UG/L	<1	50	55	110	58	116	5
TOLUENE	UG/L	<2	50	50	100	51	102	2
CHLOROBENZENE	UG/L	<1	50	56	112	58	116	4

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration

RPD (Relative % Difference) = (Spiked Sample Result - Duplicate Spike Result)*100/Average Result



BLANK SPIKE

Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
 Blank Spike #: 60951
 Client : ALISTO ENGINEERING
 Project # : G418846/10-025-07-001
 Project Name : BP SITE #11133/2220 98TH AVE OAKLAND, CA

ATI I.D. : 601072
 Date Extracted: N/A
 Date Analyzed : 12-JAN-96
 Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
1,1-DICHLOROETHENE	UG/L	<1	55	50	110
BENZENE	UG/L	<1	50	50	100
TRICHLOROETHENE	UG/L	<1	56	50	112
TOLUENE	UG/L	<2	50	50	100
CHLOROBENZENE	UG/L	<1	56	50	112

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
 RPD (Relative % Difference) = (Spiked Sample - Blank Result)*100/Average Result

ACCESSION #: 601072

INITIALS: L.G.

ATI-SanDiego
SAMPLE CONDITION UPON RECEIPT CHECKLIST
(FOR RE-ACCESSIONS, COMPLETE #7 THRU #9)

1	Does this project require special handling according to NFESC Levels C, D, AFCEE or CLP protocols? If yes, complete a) and b) a) pH sample aliquoted: yes /no /na b) Either 1) Record Bottle Lot #'s: Or 2) Attach Sample Kit Request Form(s)	YES .	NO
2	Number of Coolers Received If more than one cooler received attach Multiple Cooler Documentation Form (MCD) Indicate "see MCD" on Item 11 below		1
3	Are custody seals required for this project ?	YES	N/A
	a) are Custody Seals present on Cooler(s) ?	YES	NO
	If yes, are seals intact ?	YES	NO
	b) are Custody Seals present on the sample ?	YES	NO
	If yes, are seals intact ?	YES	NO
4	Is there a Chain-Of-Custody (COC)* per cooler ? if not, if a problem is found indicate which samples/test were in the affected cooler on the MCD.	YES	NO
5	Is the COC* complete per cooler ? Relinquished: (yes/no) Requested analysis: (yes/no)	YES	NO
6	Is the COC* in agreement with the samples received? # Samples: (yes/no) Sample ID's: (yes/no) Date sampled: (yes/no) Matrix: (yes/no) # containers: (yes/no)	YES	NO
7	Are the samples preserved correctly?	YES	NO
8	Is there enough sample for all the requested analyses?	YES	NO
9	Are all samples within holding times for the requested analyses?	YES	NO
10	Record cooler temperature. Contact PM if temperature is not 4°C ± 2°C.	4.4 °c	
	Is ice present in cooler?	YES	NO
11	Were all sample containers received intact (ie. not broken, leaking, etc.)?	YES	NO
12	Are samples requiring no headspace, headspace free? N/A	YES	NO
13	Are VOA 1st stickers required?	YES	NO
14	Are there special comments on the Chain of Custody which require client contact?	YES	N/A
15	If yes, was ATI Project Manager notified?	YES	NO

Describe "no" items: _____

Was client contacted? yes / no
 If yes, Date: _____ Name of Person contacted: _____

Describe actions taken or client instructions: _____

*Or other representative documents, letters, and/or shipping memos



ATI LAB I.D. 601072

CHAIN OF CUSTODY

No. 071173

Page 1 of 1

CONSULTANT'S NAME: Alisto Engineering Group ADDRESS: 1575 TREAT Blvd. Ste 207 Walnut Creek CA 94598 CITY: Walnut Creek STATE: CA ZIP CODE: 94598

BP SITE NUMBER: 11133 BP CORNER ADDRESS/CITY: 2220 98th AVE OAKLAND, CA CONSULTANT PROJECT NUMBER: 10-025-07-001

CONSULTANT PROJECT MANAGER: Pete Berner PHONE NUMBER: 510 295-1650 FAX NUMBER: 510 295-1623 CONSULTANT CONTRACT NUMBER: 6418846

BP CONTACT: SCOTT HORTON BP ADDRESS: Renton, WA PHONE NUMBER: _____ FAX NO: _____

LAB CONTACT: GRAY STEWART LABORATORY ADDRESS: SAN DIEGO, CA PHONE NUMBER: _____ FAX NO: _____

SAMPLED BY (Please Print Name): JOHN BICKLEY SAMPLED BY (Signature): [Signature] SHIPMENT DATE: 1/10/96 SHIPMENT METHOD: FedEx

TAT: 24 Hours 48 Hours 1 Week Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER

SAMPLE DESCRIPTION	COLLECTION DATE	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	HCL	HCL	COMMENTS
	1/9/96		NO.	TYPE (VOL.)	LAB SAMPLE #	TDH-g	624	
STA# 11133 INF	1405	GW	6	wa	01	✓	✓	
STA# 11133 PS	1410		6		02	✓	✓	
STA# 11133-A	1415		6		03	✓	✓	
STA# 11133 B	1420		6		04	✓	✓	
STA# 11133 EFF	1425		6		05	✓	✓	
STA# 11133 Q-C-1	1430		6		06	✓	✓	

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
<u>John K Bickley</u>	<u>1/9/96</u>	<u>2210</u>	<u>[Signature]</u>	<u>1/10/96</u>	<u>1340</u>	
			<u>[Signature]</u>	<u>1/11/96</u>	<u>9:10 AM</u>	



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

SPL, INC.

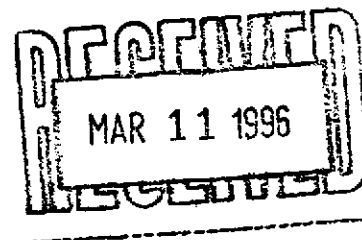
REPORT APPROVAL SHEET

WORK ORDER NUMBER: 96 - 02 - A81

Approved for release by:

M. Scott Sample
M. Scott Sample, Laboratory Director Date: 3/7/96

Ed Fry
Ed Fry, Project Manager Date: 3/7/96





HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9602A81-01

Alisto Engineering
 1575 Treat Blvd.
 Walnut Creek, CA 94598
 ATTN: Pete Beaver

P.O.#
 G418846 , COC#071573
 DATE: 03/06/96

PROJECT: BP Oil #11133
 SITE: 220 98th Ave., Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: STA #11133 INF

PROJECT NO: 10-025-07-001
 MATRIX: WATER
 DATE SAMPLED: 02/21/96 16:00:00
 DATE RECEIVED: 02/23/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	230	50 P	mg/L
Surrogate	% Recovery		
1,4-Difluorobenzene	109		
4-Bromofluorobenzene	113		
CA LUFT - Gasoline			
Analyzed by: fab			
Date: 03/03/96 10:12:00			

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
 SPL California License # 1903



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9602A81-01

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Pete Beaver

P.O.#
G418846 , COC#071573
03/06/96

PROJECT: BP Oil #11133
SITE: 220 98th Ave., Oakland, CA
SAMPLED BY: Alisto EGINEERING
SAMPLE ID: STA #11133 INF

PROJECT NO: 10-025-07-001
MATRIX: WATER
DATE SAMPLED: 02/21/96 16:00:00
DATE RECEIVED: 02/23/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	22000	2500	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	10000	2500	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	57000	2500	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	61000	2500	ug/L

METHOD: 624

(continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9602A81-01

Alisto Engineering

SAMPLE ID: STA #11133 INF

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	100	86	115
1,2-Dichloroethane-d4	50 ug/L	98	76	114
Toluene-d8	50 ug/L	100	88	110

ANALYZED BY: JC

DATE/TIME: 02/24/96 22:46:00

METHOD: 624

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9602A81-02

Alisto Engineering
 1575 Treat Blvd.
 Walnut Creek, CA 94598
 ATTN: Pete Beaver

P.O.#
 G418846 , COC#071573
 DATE: 03/06/96

PROJECT: BP Oil #11133
 SITE: 220 98th Ave., Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: STA #11133 PS

PROJECT NO: 10-025-07-001
 MATRIX: WATER
 DATE SAMPLED: 02/21/96 16:10:00
 DATE RECEIVED: 02/23/96

PARAMETER	ANALYTICAL DATA	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline		75	25 P	mg/L
	Surrogate	% Recovery		
	1,4-Difluorobenzene	106		
	4-Bromofluorobenzene	108		
CA LUFT - Gasoline				
Analyzed by: fab				
Date: 03/03/96 09:45:00				

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
 SPL California License # 1903



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9602A81-02

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Pete Beaver

P.O.#
G418846 , COC#071573
03/06/96

PROJECT: BP Oil #11133
SITE: 220 98th Ave., Oakland, CA
SAMPLED BY: Alisto EGINEERING
SAMPLE ID: STA #11133 PS

PROJECT NO: 10-025-07-001
MATRIX: WATER
DATE SAMPLED: 02/21/96 16:10:00
DATE RECEIVED: 02/23/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	4100	500	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	3000	500	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	12000	500	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	20000	500	ug/L

METHOD: 624

(continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9602A81-02

Alisto Engineering

SAMPLE ID: STA #11133 PS

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	96	86	115
1,2-Dichloroethane-d4	50 ug/L	100	76	114
Toluene-d8	50 ug/L	104	88	110

ANALYZED BY: JC

DATE/TIME: 02/24/96 21:54:00

METHOD: 624

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.
SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 680-0901

Certificate of Analysis No. H9-9602A81-03

Alisto Engineering
 1575 Treat Blvd.
 Walnut Creek, CA 94598
 ATTN: Pete Beaver

P.O.#
 G418846 , COC#071573
 DATE: 03/06/96

PROJECT: BP Oil #11133
 SITE: 220 98th Ave., Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: STA #11133 A

PROJECT NO: 10-025-07-001
 MATRIX: WATER
 DATE SAMPLED: 02/21/96 16:20:00
 DATE RECEIVED: 02/23/96

PARAMETER	ANALYTICAL DATA		DETECTION LIMIT	UNITS
	RESULTS			
Total Petroleum Hydrocarbons-Gasoline	4.1		1 P	mg/L
Surrogate	% Recovery			
1,4-Difluorobenzene		116		
4-Bromofluorobenzene		120		
CA LUFT - Gasoline				
Analyzed by: fab				
Date: 03/03/96 08:52:00				

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9602A81-03

Alisto Engineering
 1575 Treat Blvd.
 Walnut Creek, CA 94598
 ATTN: Pete Beaver

P.O.#
 G418846 , COC#071573
 03/06/96

PROJECT: BP Oil #11133
 SITE: 220 98th Ave., Oakland, CA
 SAMPLED BY: Alisto Engineering . .
 SAMPLE ID: STA #11133 A

PROJECT NO: 10-025-07-001
 MATRIX: WATER
 DATE SAMPLED: 02/21/96 16:20:00
 DATE RECEIVED: 02/23/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	20	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	87	5	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	90	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	580	5	ug/L

METHOD: 624
 (continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9602A81-03

Alisto Engineering

SAMPLE ID: STA #11133 A

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	102	86	115
1,2-Dichloroethane-d4	50 ug/L	100	76	114
Toluene-d8	50 ug/L	100	88	110

ANALYZED BY: JC

DATE/TIME: 02/24/96 21:28:00

METHOD: 624

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9602A81-04

Alisto Engineering
 1575 Treat Blvd.
 Walnut Creek, CA 94598
 ATTN: Pete Beaver

P.O.#
 G418846 , COC#071573
 DATE: 03/06/96

PROJECT: BP Oil #11133
 SITE: 220 98th Ave., Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: STA #11133 B

PROJECT NO: 10-025-07-001
 MATRIX: WATER
 DATE SAMPLED: 02/21/96 16:30:00
 DATE RECEIVED: 02/23/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	ND	0.05 P	mg/L
Surrogate	% Recovery		
1,4-Difluorobenzene	101		
4-Bromofluorobenzene	142		
CA LUFT - Gasoline			
Analyzed by: fab			
Date: 03/03/96 02:33:00			

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
 SPL California License # 1903



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9602A81-04

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Pete Beaver

P.O.#
G418846 , COC#071573
03/06/96

PROJECT: BP Oil #11133
SITE: 220 98th Ave., Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 B

PROJECT NO: 10-025-07-001
MATRIX: WATER
DATE SAMPLED: 02/21/96 16:30:00
DATE RECEIVED: 02/23/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L

METHOD: 624

(continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9602A81-04

Alisto Engineering

SAMPLE ID: STA #11133 B

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	100	86	115
1,2-Dichloroethane-d4	50 ug/L	98	76	114
Toluene-d8	50 ug/L	100	88	110

ANALYZED BY: JC

DATE/TIME: 02/24/96 21:03:00

METHOD: 624

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.
SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 860-0901

Certificate of Analysis No. H9-9602A81-05

Alisto Engineering
 1575 Treat Blvd.
 Walnut Creek, CA 94598
 ATTN: Pete Beaver

P.O.#
 G418846 , COC#071573
 DATE: 03/06/96

PROJECT: BP Oil #11133
 SITE: 220 98th Ave., Oakland, CA
 SAMPLED BY: Alisto Egeineering
 SAMPLE ID: STA #11133 EFF

PROJECT NO: 10-025-07-001
 MATRIX: WATER
 DATE SAMPLED: 02/21/96 16:40:00
 DATE RECEIVED: 02/23/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	ND	0.05 P	mg/L
Surrogate	% Recovery		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	47 «		
CA LUFT - Gasoline			
Analyzed by: fab			
Date: 03/03/96 02:06:00			

ND - Not detected. (P) - Practical Quantitation Limit
 « - Recovery beyond control limits.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9602A81-05

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Pete Beaver

P.O.#
G418846 , COC#071573
03/06/96

PROJECT: BP Oil #11133
SITE: 220 98th Ave., Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 EFF

PROJECT NO: 10-025-07-001
MATRIX: WATER
DATE SAMPLED: 02/21/96 16:40:00
DATE RECEIVED: 02/23/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L

METHOD: 624

(continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 680-0901

Certificate of Analysis No. H9-9602A81-05

Alisto Engineering

SAMPLE ID: STA #11133 EFF

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	96	86	115
1,2-Dichloroethane-d4	50 ug/L	100	76	114
Toluene-d8	50 ug/L	98	88	110

ANALYZED BY: JC

DATE/TIME: 02/24/96 20:36:00

METHOD: 624

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.
SPL California License # 1903

QUALITY CONTROL

DOCUMENTATION

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL

Contract:

Lab Code:

Case No.: 9602095 SAS No.:

SDG No.:

Matrix Spike - EPA Sample No.: BIO-REACTOR

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	20	0	20	100	61-145
Trichloroethene	20	0	19	95	71-120
Benzene	20	0	20	100	76-127
Toluene	20	0	20	100	76-125
Chlorobenzene	20	19	42	115	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
1,1-Dichloroethene	20	21	105	5	14	61-145
Trichloroethene	20	20	100	5	14	71-120
Benzene	20	20	100	0	11	76-127
Toluene	20	20	100	0	13	76-125
Chlorobenzene	20	43	120	4	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits



 QC Officer

FORM III VOA-1

3/90



SPL Blank QC Report

Matrix: Aqueous
Sample ID: VLBLK
Batch: L960224104642

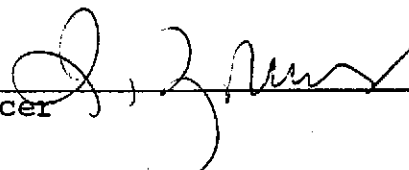
Reported on: 03/01/96 17:13
Analyzed on: 02/24/96 18:26
Analyst: JC

METHOD 624 L055B03

Compound	Result	Detection Limit	Units
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
Chloroform	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
Benzene	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Dibromochloromethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Xylene (Total)	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Bromoform	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L

Notes

ND - Not detected.

QC Officer 



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

SPL Blank QC Report

page 2

Matrix: Aqueous
Sample ID: VLBLK
Batch: L960224104642

Reported on: 03/01/96 17:13
Analyzed on: 02/24/96 18:26
Analyst: JC

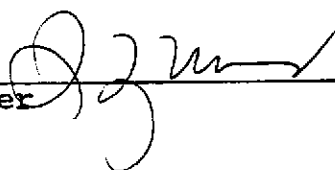
METHOD 624 L055B03

S u r r o g a t e	Result	QC Criteria	Units
1,2-Dichloroethane-d4	100	76-114	% Recovery
Toluene-d8	99	88-110	% Recovery
Bromofluorobenzene	96	86-115	% Recovery

Samples in Batch 9602A81-01 9602A81-02 9602A81-03 9602A81-04
9602A81-05

Notes

ND - Not detected.

QC Officer 



Matrix: Aqueous
Units: mg/L

Batch Id: HP_J960302220900

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) ‡ Recovery Range
			Result <1>	Recovery ‡	
Gasoline Petr. Hydrocarbon	ND	1.0	1.04	104	56 - 130

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative ‡ Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
			GASOLINE PETR. HYDROCARBON	ND	0.9	0.89	98.9	0.89	98.9

Analyst: fab

Sequence Date: 03/02/96

SPL ID of sample spiked: 9602A81-05A

Sample File ID: JJ_240.TX0

Method Blank File ID:

Blank Spike File ID: JJ_231.TX0

Matrix Spike File ID: JJ_235.TX0

Matrix Spike Duplicate File ID: JJ_236.TX0

* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

‡ Recovery = $[(<1> - <2>) / <3>] \times 100$

LCS ‡ Recovery = $(<1> / <3>) \times 100$

Relative Percent Difference = $| (<4> - <5>) / [(<4> + <5>) \times 0.5] \times 100$

(**) = Source: SPL-Houston Historical data (3rd Q '95)

(***) = Source: SPL-Houston Historical Data (3rd Q '95)

SAMPLES IN BATCH(SPL ID):

9602A81-05A 9602A81-04A 9602A97-01A 9602A97-02A
9602A97-03A 9602B00-01A 9602B00-02A 9602A81-03A
9602B05-01A 9602A81-02A 9602A81-01A 9602A97-04A

QC Officer

CHAIN OF CUSTODY
AND
SAMPLE RECEIPT CHECKLIST



CHAIN OF CUSTODY

960281 JSL/2/96

No. 071573

Page 1 of 1

CONSULTANT'S NAME <i>Alista Engineering Group</i>		ADDRESS <i>1515 Walnut Blvd Ste 201</i>		CITY <i>Walnut Creek CA</i>	STATE <i>CA</i>	ZIP CODE <i>94576</i>
BP SITE NUMBER <i>11133</i>	BP CORNER ADDRESS/CITY <i>2220 98th Ave OAKLAND CA</i>		CONSULTANT PROJECT NUMBER <i>10-025-07-001</i>			
CONSULTANT PROJECT MANAGER <i>Pete Beaver</i>		PHONE NUMBER <i>510 295-1650</i>	FAX NUMBER <i>510 915-1823</i>		CONSULTANT CONTRACT NUMBER <i>9418846</i>	
BP CONTACT <i>Scott Horton</i>		BP ADDRESS <i>Denton, TX</i>	PHONE NUMBER <i>-</i>		FAX NO. <i>-</i>	
LAB CONTACT <i>FRED FRY</i>		LABORATORY ADDRESS <i>Houston, TX</i>	PHONE NUMBER <i>-</i>		FAX NO. <i>-</i>	
SAMPLED BY (Please Print Name) <i>John Bickling</i>		SAMPLED BY (Signature) <i>John K. Bickling</i>		SHIPMENT DATE <i>2-22-96</i>		SHIPMENT METHOD <i>Fed ex</i>

TAT: 24 Hours 48 Hours 1 Week Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER

SAMPLE DESCRIPTION	COLLECTION DATE <i>2/22/96</i>	MATRIX SOIL/WATER <i>GW</i>	CONTAINERS		PRESERVATIVE <i>TPH4</i>	HCL <i>624</i>	HCL												COMMENTS	
			NO.	TYPE (VOL.)																LAB SAMPLE #
<i>STA # 11133 INF</i>	<i>1600</i>		<i>6</i>	<i>VDA</i>	<i>✓</i>	<i>✓</i>														
<i>STA # 11133 PS</i>	<i>1610</i>		<i>6</i>		<i>✓</i>	<i>✓</i>														
<i>STA # 11133-A</i>	<i>1620</i>		<i>6</i>		<i>✓</i>	<i>✓</i>														
<i>STA # 11133-B</i>	<i>1630</i>		<i>6</i>		<i>✓</i>	<i>✓</i>														
<i>STA # 11133 EFF</i>	<i>1640</i>		<i>6</i>		<i>✓</i>	<i>✓</i>														

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
<i>John K. Bickling</i>	<i>2/21/96</i>	<i>1230</i>	<i>P. Yeltan</i>	<i>2/21/96</i>	<i>1450</i>	
<i>P. Yeltan</i>	<i>2/22/96</i>	<i>1340</i>	<i>E. Brown</i>	<i>2/23/96</i>	<i>10:00</i>	<i>4°C Intact</i>

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: 2/23/96	Time: 1000
--	---

SPL Sample ID:
9602A81

		<u>Yes</u>	<u>No</u>
1	Chain-of-Custody (COC) form is present.	✓	
2	COC is properly completed.	✓	
3	If no, Non-Conformance Worksheet has been completed.		
4	Custody seals are present on the shipping container.	✓	
5	If yes, custody seals are intact.	✓	
6	All samples are tagged or labeled.	✓	
7	If no, Non-Conformance Worksheet has been completed.		
8	Sample containers arrived intact	✓	
9	Temperature of samples upon arrival:		4° C
10	Method of sample delivery to SPL:	SPL Delivery	
		Client Delivery	
		FedEx Delivery (airbill #)	6660588174
		Other:	
11	Method of sample disposal:	SPL Disposal	✓
		HOLD	
		Return to Client	

Name: S. West	Date: 2/23/96
--	--



HOUSTON LABORATORY

8880 INTERCHANGE DRIVE

HOUSTON, TEXAS 77054

PHONE (713) 660-0901

SPL, INC.

REPORT APPROVAL SHEET

WORK ORDER NUMBER: 96 - 03 - 639

Approved for release by:

M. Scott Sample
M. Scott Sample, Laboratory Director

Date: 3/26/96

Ed Fry
Ed Fry, Project Manager

Date: 3/26/96

RECEIVED
APR 01 1996



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9603639-01

Alisto Engineering
 1575 Treat Blvd.
 Walnut Creek, CA 94598
 ATTN: Pete Beaver

P.O.#
 G418846 , COC# 071200
 DATE: 03/26/96

PROJECT: BP Oil #11133
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: Sta# 11133 Inf

PROJECT NO: 10-025-10-001
 MATRIX: WATER
 DATE SAMPLED: 03/13/96 11:30:00
 DATE RECEIVED: 03/14/96

PARAMETER	ANALYTICAL DATA		DETECTION LIMIT	UNITS
	RESULTS	% Recovery		
Total Petroleum Hydrocarbons-Gasoline	180		25 P	mg/L
Surrogate		% Recovery		
1,4-Difluorobenzene		102		
4-Bromofluorobenzene		115		
CA LUFT - Gasoline				
Analyzed by: YN				
Date: 03/23/96 04:04:00				

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
 SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9603639-01

Alisto Engineering
 1575 Treat Blvd.
 Walnut Creek, CA 94598
 ATTN: Pete Beaver

P.O.#
 G418846 , COC# 071200
 03/26/96

PROJECT: BP Oil #11133
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: Sta# 11133 Inf

PROJECT NO: 10-025-10-001
 MATRIX: WATER
 DATE SAMPLED: 03/13/96 11:30:00
 DATE RECEIVED: 03/14/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	29000	2000	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	3300	2000	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	35000	2000	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	19000	2000	ug/L

METHOD: 624
 (continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9603639-01

Alisto Engineering

SAMPLE ID: Sta# 11133 Inf

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	110	86	115
1,2-Dichloroethane-d4	50 ug/L	96	76	114
Toluene-d8	50 ug/L	106	88	110

ANALYZED BY: GT

DATE/TIME: 03/16/96 01:07:00

METHOD: 624

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9603639-02

Alisto Engineering
 1575 Treat Blvd.
 Walnut Creek, CA 94598
 ATTN: Pete Beaver

P.O.#
 G418846 , COC# 071200
 DATE: 03/26/96

PROJECT: BP Oil #11133
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: Sta# 11133 PS

PROJECT NO: 10-025-10-001
 MATRIX: WATER
 DATE SAMPLED: 03/13/96 11:35:00
 DATE RECEIVED: 03/14/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	71	5 P	mg/L
Surrogate	% Recovery		
1,4-Difluorobenzene	104		
4-Bromofluorobenzene	151 <		
CA LUFT - Gasoline			
Analyzed by: YN			
Date: 03/23/96 04:30:00			

(P) - Practical Quantitation Limit < - Recovery beyond control limits.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9603639-02

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Pete Beaver

P.O.#
G418846 , COC# 071200
03/26/96

PROJECT: BP Oil #11133
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: Sta# 11133 PS

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 03/13/96 11:35:00
DATE RECEIVED: 03/14/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	1200	200	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	2300	200	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	5700	200	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	14000	200	ug/L

METHOD: 624

(continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9603639-02

Alisto Engineering

SAMPLE ID: Sta# 11133 PS

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	96	86	115
1,2-Dichloroethane-d4	50 ug/L	94	76	114
Toluene-d8	50 ug/L	96	88	110

ANALYZED BY: GT

DATE/TIME: 03/16/96 00:13:00

METHOD: 624

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.
SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 680-0901

Certificate of Analysis No. H9-9603639-03

Alisto Engineering
 1575 Treat Blvd.
 Walnut Creek, CA 94598
 ATTN: Pete Beaver

P.O.#
 G418846 , COC# 071200
 DATE: 03/26/96

PROJECT: BP Oil #11133
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: Sta# 11133 A-1

PROJECT NO: 10-025-10-001
 MATRIX: WATER
 DATE SAMPLED: 03/13/96 11:40:00
 DATE RECEIVED: 03/14/96

PARAMETER	ANALYTICAL DATA	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline		11	5 P	mg/L
	Surrogate	% Recovery		
	1,4-Difluorobenzene	93		
	4-Bromofluorobenzene	117		
CA LUFT - Gasoline				
Analyzed by: YN				
Date: 03/23/96 04:57:00				

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9603639-03

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Pete Beaver

P.O.#
G418846 , COC# 071200
03/26/96

PROJECT: BP Oil #11133
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: Sta# 11133 A-1

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 03/13/96 11:40:00
DATE RECEIVED: 03/14/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	50	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	650	40	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	860	40	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	4100	40	ug/L

METHOD: 624

(continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9603639-03

Alisto Engineering

SAMPLE ID: Sta# 11133 A-1

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	98	86	115
1,2-Dichloroethane-d4	50 ug/L	100	76	114
Toluene-d8	50 ug/L	98	88	110

ANALYZED BY: GT

DATE/TIME: 03/14/96 20:09:00

METHOD: 624

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.
SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9603639-04

Alisto Engineering
 1575 Treat Blvd.
 Walnut Creek, CA 94598
 ATTN: Pete Beaver

P.O.#
 G418846 , COC# 071200
 DATE: 03/26/96

PROJECT: BP Oil #11133
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: Sta# 11133 B-1

PROJECT NO: 10-025-10-001
 MATRIX: WATER
 DATE SAMPLED: 03/13/96 11:45:00
 DATE RECEIVED: 03/14/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	ND	0.05 P	mg/L
Surrogate	% Recovery		
1,4-Difluorobenzene	92		
4-Bromofluorobenzene	117		
CA LUFT - Gasoline			
Analyzed by: YN			
Date: 03/23/96 01:26:00			

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
 SPL California License # 1903



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9603639-04

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Pete Beaver

P.O.#
G418846 , COC# 071200
03/26/96

PROJECT: BP Oil #11133
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: Sta# 11133 B-1

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 03/13/96 11:45:00
DATE RECEIVED: 03/14/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	14	5	ug/L

METHOD: 624

(continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9603639-04

Alisto Engineering

SAMPLE ID: Sta# 11133 B-1

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	96	86	115
1,2-Dichloroethane-d4	50 ug/L	104	76	114
Toluene-d8	50 ug/L	100	88	110

ANALYZED BY: GT

DATE/TIME: 03/14/96 19:42:00

METHOD: 624

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.
SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 680-0901

Certificate of Analysis No. H9-9603639-05

Alisto Engineering
 1575 Treat Blvd.
 Walnut Creek, CA 94598
 ATTN: Pete Beaver

P.O.#
 G418846 , COC# 071200
 DATE: 03/26/96

PROJECT: BP Oil #11133
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: Sta# 11133 Eff

PROJECT NO: 10-025-10-001
 MATRIX: WATER
 DATE SAMPLED: 03/13/96 11:50:00
 DATE RECEIVED: 03/14/96

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Total Petroleum Hydrocarbons-Gasoline	2.6	1.2 P	mg/L	
Surrogate	% Recovery			
1,4-Difluorobenzene	93			
4-Bromofluorobenzene	112			
CA LUFT - Gasoline				
Analyzed by: YN				
Date: 03/23/96 03:38:00				

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
 SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9603639-05

Alisto Engineering
 1575 Treat Blvd.
 Walnut Creek, CA 94598
 ATTN: Pete Beaver

P.O.#
 G418846 , COC# 071200
 03/26/96

PROJECT: BP Oil #11133
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: Sta# 11133 Eff

PROJECT NO: 10-025-10-001
 MATRIX: WATER
 DATE SAMPLED: 03/13/96 11:50:00
 DATE RECEIVED: 03/14/96

PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	49	5	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	19	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	320	5	ug/L

METHOD: 624
 (continued on next page)



HOUSTON LABORATORY

8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9603639-05

Alisto Engineering

SAMPLE ID: Sta# 11133 Eff

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	100	86	115
1,2-Dichloroethane-d4	50 ug/L	98	76	114
Toluene-d8	50 ug/L	98	88	110

ANALYZED BY: GT

DATE/TIME: 03/14/96 19:15:00

METHOD: 624

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

QUALITY CONTROL

DOCUMENTATION

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL

Contract:

Lab Code:

Case No.: 9603354 SAS No.:

SDG No.:

Matrix Spike - EPA Sample No.: Effluent 001

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	20	0	21	105	61-145
Trichloroethene	20	0	18	90	71-120
Benzene	20	0	19	95	76-127
Toluene	20	0	17	85	76-125
Chlorobenzene	20	0	18	90	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
1,1-Dichloroethene	20	21	105	0	14	61-145
Trichloroethene	20	19	95	5	14	71-120
Benzene	20	20	100	5	11	76-127
Toluene	20	18	90	6	13	76-125
Chlorobenzene	20	18	90	0	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits


 QC officer



SPL Blank QC Report

Matrix: Aqueous
Sample ID: BLANK
Batch: M960314113701

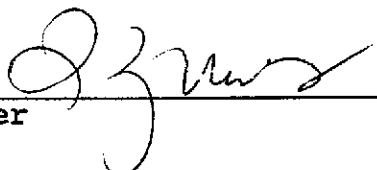
Reported on: 03/21/96 16:06
Analyzed on: 03/14/96 12:53
Analyst: GT

METHOD 624/8240 M074B02

Compound	Result	Detection Limit	Units
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
Chloroform	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
Benzene	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Dibromochloromethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Xylene (Total)	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Bromoform	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L

Notes

ND - Not detected.

QC Officer 



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

SPL Blank QC Report

page 2

Matrix: Aqueous
Sample ID: BLANK
Batch: M960314113701

Reported on: 03/21/96 16:06
Analyzed on: 03/14/96 12:53
Analyst: GT

METHOD 624/8240 M074B02

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	100	76-114	% Recovery
Toluene-d8	98	88-110	% Recovery
Bromofluorobenzene	99	86-115	% Recovery

Samples in Batch 9603639-03 9603639-04 9603639-05

Notes

ND - Not detected.

QC Officer



SPL Blank QC Report

Matrix: Aqueous
Sample ID: BLANK
Batch: M960315113701

Reported on: 03/21/96 16:06
Analyzed on: 03/15/96 13:29
Analyst: GT

METHOD 8240 M075B02

Compound	Result	Detection Limit	Units
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
Chloroform	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
Benzene	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Dibromochloromethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Xylene (Total)	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Bromoform	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L

Notes

ND - Not detected.

QC Officer 



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 680-0901

SPL Blank QC Report

page 4

Matrix: Aqueous
Sample ID: BLANK
Batch: M960315113701

Reported on: 03/21/96 16:06
Analyzed on: 03/15/96 13:29
Analyst: GT

METHOD 8240 M075B02

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	94	76-114	% Recovery
Toluene-d8	97	88-110	% Recovery
Bromofluorobenzene	98	86-115	% Recovery

Samples in Batch 9603639-01 9603639-02

Notes

ND - Not detected.

QC Officer



Matrix: Aqueous
Units: mg/L

Batch Id: HP_J960322231400

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
Gasoline Petr. Hydrocarbon	ND	0.90	1.01	112	56 - 130

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
GASOLINE PETR. HYDROCARBON	ND	0.9	0.90	100	0.90	100	0	22	37 - 169

Analyst: fab

Sequence Date: 03/22/96

SPL ID of sample spiked: 9603798-03A

Sample File ID: JJ_024.TX0

Method Blank File ID:

Blank Spike File ID: JJ_002.TX0

Matrix Spike File ID: JJ_021.TX0

Matrix Spike Duplicate File ID: JJ_022.TX0

* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = | (<4> - <5>) | / [(<4> + <5>) x 0.5] x 100

(**) = Source: SPL-Houston Historical data (3rd Q '95)

(***) = Source: SPL-Houston Historical Data (3rd Q '95)

SAMPLES IN BATCH(SPL ID):

9603633-13A 9603633-16A 9603633-17A 9603639-05A
 9603639-01A 9603639-02A 9603639-03A 9603798-01A
 9603879-04A 9603798-03A 9603798-02A 9603879-01A
 9603879-02A 9603879-03A 9603A12-01A 9603639-04A
 9603633-15A

QC Officer

CHAIN OF CUSTODY
AND
SAMPLE RECEIPT CHECKLIST



9603639

CHAIN OF CUSTODY

No. 071200 Page 1 of 1

CONSULTANT'S NAME Alisto Engineering Group		ADDRESS 1575 TREAT Blvd. Ste 201 Walnut Creek CA		CITY CA	STATE CA	ZIP CODE 94598
BP SITE NUMBER 11133	BP CORNER ADDRESS/CITY 2220 98th AVE OAKLAND CA			CONSULTANT PROJECT NUMBER 10-025-10001		
CONSULTANT PROJECT MANAGER Pete Beamer		PHONE NUMBER 510 295-1650	FAX NUMBER 510 295-1823		CONSULTANT CONTRACT NUMBER G418846	
BP CONTACT SCOTT HOOTON		BP ADDRESS Repton, WA	PHONE NUMBER -		FAX NO. -	
LAB CONTACT ED FRY		LABORATORY ADDRESS San Houston, TX	PHONE NUMBER -		FAX NO. -	
SAMPLED BY (Please Print Name) JOHN BUCKING		SAMPLED BY (Signature) <i>John K. Buling</i>		SHIPMENT DATE 3-13-96	SHIPMENT METHOD Fed Ex	

TAT: 24 Hours 48 Hours 1 Week Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER **9360716455**

SAMPLE DESCRIPTION	COLLECTION	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE		LAB SAMPLE #	PH-G	624										COMMENTS
	COLLECTION		NO.	TYPE (VOL.)	LAB														
STA# 11133 INF	1130	GW	6	VQA	✓	✓													PH=1 4/8/3/1/1/4
STA# 11133 PS	1135	↓	6	↓	✓	✓													PH=1
STA# 11133 A-1	1140	↓	6	↓	✓	✓													PH=1
STA# 11133 B-1	1145	↓	6	↓	✓	✓													PH=1
STA# 11133 EPP	1150	↓	6	↓	✓	✓													PH=1

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
<i>John K. Buling</i>	3/13/96	1410	<i>P. Lytton</i>	3/13/96	1420	
<i>P. Lytton</i>	3/13/96	1400				

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: 3/14/96	Time: 0930
---	--

SPL Sample ID: 9603639
--

		<u>Yes</u>	<u>No</u>
1	Chain-of-Custody (COC) form is present.	✓	
2	COC is properly completed.	✓	
3	If no, Non-Conformance Worksheet has been completed.		
4	Custody seals are present on the shipping container.	✓	
5	If yes, custody seals are intact.	✓	
6	All samples are tagged or labeled.	✓	
7	If no, Non-Conformance Worksheet has been completed.		
8	Sample containers arrived intact	✓	
9	Temperature of samples upon arrival:	4 C	
10	Method of sample delivery to SPL:	SPL Delivery	
		Client Delivery	
		FedEx Delivery (airbill #)	9360716455
		Other:	
11	Method of sample disposal:	SPL Disposal	
		HOLD	
		Return to Client	

Name: Christa Brown	Date: 3/14/96
---	---