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September 28, 2006
Project No.: *015-01-015*

Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: **Letter Report for Interim Remediation of Groundwater for Fuel Leak Case No. RO0000324, Livermore Gas and Mini Mart, 160 Holmes Street, Livermore, California**

Dear Mr. Wickham:

On behalf of Manwel and Samira Shuwayhat, Allterra Environmental, Inc. (Allterra) has prepared this letter report to document interim remediation of groundwater activities completed at 160 Holmes Street in Livermore, California (Site). This report documents the amount of petroleum hydrocarbon-impacted groundwater extracted, treated, and discharged at the Site and provides contaminant mass removal estimates.

Groundwater Extraction Activities

Between September 8 and 11, 2006, Allterra personnel extracted approximately 5,560 gallons of groundwater from on-site well EW-1. Extracted groundwater was processed through a sediment filter, two 200-pound carbon vessels, and a flow meter prior to being stored in a 6,800-galon holding tank. Field data sheets from extraction activities are included in Appendix A.

Sample Collection and Analyses

On September 8, 2006, sample IN-1 was collected from the influent groundwater flow stream. The sample was labeled, stored in a chilled ice chest, and submitted under chain of custody protocol to McCampbell Analytical, Inc., of Pacheco, California, a state of California certified laboratory (ELAP #1644). Sample IN-1 was tested for total petroleum hydrocarbons as gasoline (TPHg) by EPA method 8015C, for benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tert-butyl ether (MTBE) by EPA Method 8021B.

On September 11, 2006, sample Tank-1 was collected from the water holding tank for treatment verification and wastewater discharge permit purposes. The sample was labeled, stored in a chilled ice chest, and submitted under chain of custody protocol to Test America, Inc. Sample Tank-1 was tested for total toxic organics (TTOs) by EPA Method 624 (as required by the City of Livermore for wastewater discharge).

Wastewater Discharge Activities

Between September 22 and 26, 2006, approximately 5,560 of treated groundwater was discharged to the sanitary sewer under City of Livermore Wastewater Discharge Permit. Field data sheets from discharge activities are included in Appendix A.

Interim Cleanup Results

Sample Analytical Data

Analytical results from sample IN-1, collected from the influent flow stream, indicated elevated concentrations of petroleum hydrocarbons. TPHg was detected at 1,600 micrograms per liter (μg/L), benzene was detected at 110 μg/L, and MTBE was detected at 11,000 μg/L. Analytical results for sample Tank-1 indicated that analytes were not detected at or above laboratory detection limits. Sample data for the influent sample is presented in Table 1 and Tank-1 data is presented in Table 2. Certified analytical reports for the samples are presented in Appendix B.

Groundwater Extraction Volumes and Contaminant Mass Removal Estimates

Between September 8 and 11, 2006, approximately 5,560 gallons of groundwater was extracted from well EW-1 at an estimated flow rate of 10 gallons per minute (gpm). Using groundwater extraction volumes and influent sample data, approximately 0.074 pounds of TPHg, 0.0051 pounds of benzene, and 0.51 pounds of MTBE were removed in the first extraction batch.

Future Reporting

Future interim remediation activities will be documented in quarterly groundwater monitoring reports (beginning with fourth quarter 2006). This letter report was prepared to document interim cleanup activities completed during third quarter 2006 (the Third Quarter 2006 Groundwater Monitoring Report was completed on August 30, 2006, prior to commencement of interim remedial activities).

Limitations

Allterra prepared this report for the use of Mr. and Mrs. Shuwayhat and the Alameda County Environmental Health in evaluating groundwater quality at selected on-site locations at the time of this study. Statements, conclusions, and recommendations in this report are based solely on the field observations and analytical results related to work performed by Allterra and there is no warranty, expressed or implied. Site conditions and data can change over time; therefore, data presented in this report is only applicable to the timeframe of this study. Allterra's services have been performed in accordance with environmental principles generally accepted at this time and location.

Should you have any questions, please contact Allterra at (831) 425-2608.

Sincerely,
Allterra Environmental, Inc.

James Allen, R.E.A.
Project Manager

Michael Killoran, P.G.
Senior Geologist

Attachments
List of Tables
Table 1, Influent Groundwater Analytical Results
Table 2, EPA Method 624 Analytical Results for Discharge
Table 3, Contaminant Mass Removal Data

List of Appendices
Appendix A, Field Data Sheets
Appendix B, Certified Analytical Reports and Chain of Custody Documentation

cc: Manwell and Samira Shuwaht
GeoTracker

TABLES 1-3

Table 1
Influent Groundwater Analytical Results
Livermore Gas & Mini Mart, 160 Holmes Street, Livermore, California

Sample ID	Sample Date	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
In-1	9/8/06	1,600	110	12	120	93	11,000

Notes and Definitions:
Samples analyzed for TPHg, benzene, toluene, ethylbenzene, xylenes, and MTBE by EPA Method 8015Cm/8021B
µg/L = micrograms per liter
TPHg = Total Petroleum Hydrocarbons as gasoline
MTBE = Methyl tertiary butyl ether

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Table 2
EPA Method 624 Analytical Results for Discharge
Livermore Gas & Mini Mart, 160 Holmes Street, Livermore, California

Analyte	Result
	9/11/06 Sample
Purgeables by EPA Method 624 (results in µg/L)	
Benzene	<0.50
Bromodichloromethane	<0.50
Bromoform	<0.50
Bromomethane	<1.0
Carbon tetrachloride	<0.50
Chlorobezene	<0.50
Chloroethane	<1.0
Chloroform	<0.50
Chloromethane	<0.50
Dibromochloromethane	<0.50
1,2-Dichlorobenzene	<0.50
1,3-Dichlorobenzene	<0.50
1,4-Dichlorobenzene	<0.50
1,2-Dichloroethane	<0.50
1,1-Dichloroethane	<0.50
trans-1,2-Dichloroethene	<0.50
1,2-Dichloropropane	<0.50
cis-1,3-Dichloropropene	<0.50
trans-1,3-Dichloropropene	<0.50
Ethylbenzene	<0.50
Methylene chloride	<0.50
1,1,2,2-Tetrachloroethane	<0.50
Tetrachloroethene	<0.50
Toluene	<0.50
1,1,1-Trichloroethane	<0.50
1,1,2-Trichloroethane	<0.50
Trichloroethene	<0.50
Trichlorofluoromethane	<0.50
Vinyl chloride	<0.50

Notes and Definitions:
Results are for sample Tank-1 are from a sample collected from treated groundwater stored in a holding tank.
Laboratory used EPA Extraction Method 624
µg/L = micrograms per liter

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Table 3
Contaminant Mass Removal Data
Livermore Gas & Mini Mart, 160 Holmes Street, Livermore, California

Extraction Batch Number	Date*	Extraction Well	Influent Concentration			Gallons Processed		Estimated Extraction Flow Rate (gpm)	Mass Removed (pounds)					
									Batch Amount			Cumulative Total		
			TPHg	Benzene	MTBE	Batch Amount	Cumulative Total		TPHg	Benzene	MTBE	TPHg	Benzene	MTBE
1	9/8/06	EW-1	1,600	110	11,000	5,560	5,560	10	0.074	0.0051	0.51	0.074	0.005	0.51

Definitions and Notes:
All concnetrations listed in micrograms per liter (µg/L)
All masses listed in pounds (lb)
* = Date provided is sample date. However, the extraction phase for each batch occurs over several days
gpm = gallons per minute

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APPENDIX A
Field Data Sheets

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Interim remedial clean-up field log

160 Holmes street, Livermore, CA

GWTS OBSERVATIONS AND MEASUREMENTS

DATE:	4-7-06
PERSONNEL:	SIZ, DC
WELL ID :	EW-1
DEPTH TO WATER:	24.88
PUMP DEPTH INITIAL:	30.0
COMPLETED DEPTH:	30.0

FLOW TOTALIZE

INITIAL TOTAL	~~868.396~~
COMPLETED TOTAL	868.200
TOTAL GALLONS PUMPED	—

	GPH
FLOW RATE INITIAL	13.0
1 HOUR	
2 HOUR	
3 HOUR	
4 HOUR	
5 HOUR	
6 HOUR	
7 HOUR	
8 HOUR	

SAMPLES COLLECTED

TANK-1	—	DATE:	
IN-1	—	DATE:	

NOTES: First Day on site equipment set up trouble shooting - ran pump for about 15 min.

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Interim remedial clean-up field log

160 Holmes street, Livermore, CA

GWTS OBSERVATIONS AND MEASUREMENTS

DATE:	9-8-06
PERSONNEL:	SR. DL
WELL ID :	EW-1
DEPTH TO WATER:	24.00
PUMP DEPTH INITIAL:	30.00
COMPLETED DEPTH:	35.00

FLOW TOTALIZE

INITIAL TOTAL	868.200
COMPLETED TOTAL	869.555
TOTAL GALLONS PUMPED	1,355

	GPH
FLOW RATE INITIAL	13.5
1 HOUR	10.0
2 HOUR	10.0
3 HOUR	
4 HOUR	
5 HOUR	
6 HOUR	
7 HOUR	
8 HOUR	

SAMPLES COLLECTED

TANK-1		**DATE:**	
IN-1	4 Voa	**DATE:**	9-7-06

NOTES: - flow rate slowed from 13.5 to 10 gpm. after 30 min of run time.

- lowered pump 5 feet due to draw down flow rate stayed at 10 GPM.

Tank half full

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Interim remedial clean-up field log

160 Holmes street, Livermore, CA

GWTS OBSERVATIONS AND MEASUREMENTS

DATE:	9-11-06
PERSONNEL:	DL
WELL ID :	EW-1
DEPTH TO WATER:	24.0
PUMP DEPTH INITIAL:	35.0
COMPLETED DEPTH:	35.0

FLOW TOTALIZE	
INITIAL TOTAL	869,555
COMPLETED TOTAL	873 260
TOTAL GALLONS PUMPED	3,705

	GPH
FLOW RATE INITIAL	13.5
1 HOUR	13.5
2 HOUR	13.5
3 HOUR	13.0
4 HOUR	13.5
5 HOUR	
6 HOUR	
7 HOUR	
8 HOUR	

SAMPLES COLLECTED

TANK-1	4 Voa	DATE:	9-11-06
IN-1		DATE:	

NOTES: - on-site at 11.15.

- system running at 25 psi. Troubleshoot found prop problem to be clogged filter. changed filter system back at 13.5 GPM.

TANK FULL

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Interim remedial clean-up field log

160 Holmes street, Livermore, CA

GWTS OBSERVATIONS AND MEASUREMENTS

DATE:	9/22-9/26
PERSONNEL:	D.L.
WELL ID :	
DEPTH TO WATER:	
PUMP DEPTH INITIAL:	
COMPLETED DEPTH:	

FLOW TOTALIZE	
INITIAL TOTAL	873060
COMPLETED TOTAL	878620
TOTAL GALLONS PUMPED	5560

FLOW RATE INITIAL	GPH
1 HOUR	13 gpm
2 HOUR	11 gpm
3 HOUR	10 gpm
4 HOUR	
5 HOUR	
6 HOUR	
7 HOUR	
8 HOUR	

SAMPLES COLLECTED

TANK-1		DATE:	
IN-1		DATE:	

NOTES: Discharged 3 days 9/22 9/25 9/26

late start Day 1 troubleshooting/waiting for go-ahead to

Day 2: fixed overall pump-pipe length problem. discharge.

TANK DISCHARGE:

TOTAL GALLONS DISCHARGED: 5,560

start: 873060

finish: 878620

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Groundwater Sampling Field Log

Site Address 160 Holmes	Date 9-22-06
Project Number	Field Personnel D.L.

Monitoring Well Information

Monitoring Well ID	Monitoring Well Diameter (inches)
Depth to Water (feet)	Water Column (feet)
Total Depth (feet)	80% Recharge Depth (feet)
Depth to Product (feet)	1 Well Volume (gallons)
Comments	

Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conduc-tivity	Temper-ature	pH	Turbidity	Color	Odor
			817 µS	26.0°C	8.05			

Total Purge Volume	Comments

Groundwater Sampling Information

Sample ID	Sample Time
Sample Containers (Number/Type)	
Comments	

Groundwater Sampling Field Log

Site Address	Date
Project Number	Field Personnel

Monitoring Well Information

Monitoring Well ID	Monitoring Well Diameter (inches)
Depth to Water (feet)	Water Column (feet)
Total Depth (feet)	80% Recharge Depth (feet)
Depth to Product (feet)	1 Well Volume (gallons)
Comments	

Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conduc-tivity	Temper-ature	pH	Turbidity	Color	Odor

Total Purge Volume	Comments

Groundwater Sampling Information

Sample ID	Sample Time
Sample Containers (Number/Type)	
Comments	

APPENDIX B
Certified Analytical Reports and Chain of Custody

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #015-01-160; Livermore	Date Sampled: 09/08/06
		Date Received: 09/13/06
	Client Contact: James Allen	Date Reported: 09/20/06
	Client P.O.:	Date Completed: 09/20/06

WorkOrder: 0609240

September 20, 2006

Dear James:

Enclosed are:

1). the results of **1** analyzed sample from your **#015-01-160; Livermore project,**

2). a QC report for the above sample

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc	Client Project ID: #015-01-160; Livermore	Date Sampled: 09/08/06
		Date Received: 09/13/06
849 Almar Ave, Ste. C #281	Client Contact: James Allen	Date Extracted: 09/18/06-09/20/06
Santa Cruz, CA 95060	Client P.O.:	Date Analyzed: 09/18/06-09/20/06

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0609240

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	In-1	W	1600,a	11,000	110	12	120	93	10	94
Reporting Limit for DF =1; ND means not detected at or above the reporting limit		W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
		S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0609240

EPA Method: SW8021B/8015Cm **Extraction: SW5030B** **BatchID: 23692** **Spiked Sample ID: 0609231-004A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	98	91.5	6.85	101	100	0.695	70 - 130	30	70 - 130	30
MTBE	150	10	NR	NR	NR	111	113	2.57	70 - 130	30	70 - 130	30
Benzene	ND	10	104	90	14.2	96.8	100	3.28	70 - 130	30	70 - 130	30
Toluene	ND	10	95.3	84	12.5	90.1	92.6	2.76	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	94.2	84.8	10.5	97	99.6	2.58	70 - 130	30	70 - 130	30
Xylenes	ND	30	96	87	9.84	90.3	91	0.735	70 - 130	30	70 - 130	30
%SS:	98	10	98	96	1.50	96	99	3.37	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 23692 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0609240-001A	9/08/06	9/18/06	9/18/06 1:26 AM	0609240-001A	9/08/06	9/20/06	9/20/06 6:14 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

DHS ELAP Certification N° 1644

QA/QC Officer

07RS 0609240

ALLTERRA
849 Almar Avenue, Suite C, #281

Website: www.allterraenv.com
Phone: (831) 425-2608 Facsimile: (831) 425-2609

Chain of Custody Record

Turn Around Time (circle one) RUSH 24HR 48HR 72HR (5 Day)

rt and Bill to: Allterra Environmental, Inc.
ct Number: 015-01-160
ct Location: 160 Holmes
ct Name: Livermore
ler Signature: [signature]

	Sample Collection		Sample Containers		Matrix					Preservation																		
ample ID	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO_3	Other	TPHg, BTEX&MTBE (EPA 8021B)	TPHd (EPA 8015)	MTBE (EPA 8260B)	5 -fuel oxys (EPA 8260)	Ethanol and Methanol (EPA 8260)	Lead Scavengers (8260)	Total HVOCs (EPA 8260)	Hardness/Total dissolved solids	CAM-17 Metals (EPA 6010/6020)	LUFT 5 Metals (EPA 6010/6020)	PAH's/ PNA's (EPA 8270,625/8310)	Fish Toxicity/Bioassay	Lead (EPA 6010/200.9/200.8)	TTO's method 624	EDF required
In-1	9/8/06		4	VOAS		X				X	X			X														X

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ✓
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB
PRESERVATION VOAS ✓ | O&G | METALS | OTHER

	Date	Time	Received By	Comments:
[signature]	9-12-06	Time:	Received By: [signature] 9/13/06	
ived By:	Date:	Time:	Received By:	
ived By:	Date:	Time:	Received By:	

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0609240 **ClientID: ATRS** **EDF: YES**

Report to:
James Allen
Allterra Environmental, Inc
849 Almar Ave, Ste. C #281
Santa Cruz, CA 95060

Email:
TEL: 831-425-2608 FAX: 831-425-2609
ProjectNo: #015-01-160; Livermore
PO:

Bill to:
Accounts Payable
Allterra Environmental
849 Almar Ave, Ste. C #281
Santa Cruz, CA 95060

Requested TAT: 5 days

Date Received: 09/13/2006
Date Printed: 09/13/2006

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0609240-001	In-1	Water	9/8/06	☐	A	A										

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

TestAmerica
ANALYTICAL TESTING CORPORATION

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.testamericainc.com

20 September, 2006

James Allen
AllTerra Environmental, Inc.
312 Lincoln St., Suite B
Santa Cruz, CA 95060

RE: Livermore, 160 Holmes
Work Order: MPI0319

Enclosed are the results of analyses for samples received by the laboratory on 09/12/06 10:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Theresa Allen

Theresa Allen For Leticia Reyes
Project Manager

CA ELAP Certificate # 1210

TestAmerica
ANALYTICAL TESTING CORPORATION

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.testamericainc.com

AllTerra Environmental, Inc.	Project: Livermore, 160 Holmes	MPI0319
312 Lincoln St., Suite B	Project Number: 015-01-160	**Reported:**
Santa Cruz CA, 95060	Project Manager: James Allen	09/20/06 18:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Tank-1	MPI0319-01	Water	09/11/06 00:00	09/12/06 10:30

TestAmerica
ANALYTICAL TESTING CORPORATION

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.testamericainc.com

AllTerra Environmental, Inc.	Project: Livermore, 160 Holmes	MPI0319
312 Lincoln St., Suite B	Project Number: 015-01-160	**Reported:**
Santa Cruz CA, 95060	Project Manager: James Allen	09/20/06 18:32

Purgeables by EPA Method 624

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Tank-1 (MPI0319-01) Water	**Sampled: 09/11/06 00:00**	**Received: 09/12/06 10:30**							**PH**
Benzene	ND	0.50	ug/l	1	6I19004	09/19/06	09/19/06	EPA 624	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	0.50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*88 %*	*60-145*		"	"	"	"	
Surrogate: 1,4-Difluorobenzene		*92 %*	*70-140*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91 %*	*60-120*		"	"	"	"	

TestAmerica
ANALYTICAL TESTING CORPORATION

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.testamericainc.com

AllTerra Environmental, Inc.	Project: Livermore, 160 Holmes	MPI0319
312 Lincoln St., Suite B	Project Number: 015-01-160	**Reported:**
Santa Cruz CA, 95060	Project Manager: James Allen	09/20/06 18:32

Purgeables by EPA Method 624 - Quality Control
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6I19004 - EPA 5030B P/T / EPA 624										
Blank (6I19004-BLK1)				Prepared & Analyzed: 09/19/06						
Xylenes (total)	ND	0.50	ug/l							
Acrylonitrile	ND	5.0	"							A-01
Acrolein	ND	20	"							A-01
Benzene	ND	0.50	"							
Bromodichloromethane	ND	0.50	"							
Bromoform	ND	0.50	"							
Bromomethane	ND	1.0	"							
Carbon tetrachloride	ND	0.50	"							
Chlorobenzene	ND	0.50	"							
Chloroethane	ND	1.0	"							
Chloroform	ND	0.50	"							
Chloromethane	ND	0.50	"							
Dibromochloromethane	ND	0.50	"							
1,2-Dichlorobenzene	ND	0.50	"							
1,3-Dichlorobenzene	ND	0.50	"							
1,4-Dichlorobenzene	ND	0.50	"							
1,1-Dichloroethane	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,1-Dichloroethene	ND	0.50	"							
trans-1,2-Dichloroethene	ND	0.50	"							
1,2-Dichloropropane	ND	0.50	"							
cis-1,3-Dichloropropene	ND	0.50	"							
trans-1,3-Dichloropropene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methylene chloride	ND	0.50	"							
1,1,2,2-Tetrachloroethane	ND	0.50	"							
Tetrachloroethene	ND	0.50	"							
Toluene	ND	0.50	"							
1,1,1-Trichloroethane	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.50	"							
Trichloroethene	ND	0.50	"							
Trichlorofluoromethane	ND	0.50	"							
Vinyl chloride	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	*2.34*		*"*	*2.50*		*94*	*60-145*			
Surrogate: 1,4-Difluorobenzene	*1.88*		*"*	*2.00*		*94*	*70-140*			

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AllTerra Environmental, Inc.	Project: Livermore, 160 Holmes	MPI0319
312 Lincoln St., Suite B	Project Number: 015-01-160	**Reported:**
Santa Cruz CA, 95060	Project Manager: James Allen	09/20/06 18:32

Purgeables by EPA Method 624 - Quality Control

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6I19004 - EPA 5030B P/T / EPA 624										
Blank (6I19004-BLK1)				Prepared & Analyzed: 09/19/06						
Surrogate: 4-Bromofluorobenzene	*2.24*		*ug/l*	*2.50*		*90*	*60-115*			
Laboratory Control Sample (6I19004-BS1)				Prepared & Analyzed: 09/19/06						
Benzene	9.78	0.50	ug/l	10.0		98	80-140			
Bromodichloromethane	10.6	0.50	"	10.0		106	65-150			
Bromoform	12.0	0.50	"	10.0		120	60-150			
Bromomethane	5.17	1.0	"	10.0		52	15-150			
Carbon tetrachloride	11.1	0.50	"	10.0		111	65-150			
Chlorobenzene	10.7	0.50	"	10.0		107	85-135			
Chloroethane	11.6	1.0	"	10.0		116	45-150			
Chloroform	9.48	0.50	"	10.0		95	75-135			
Chloromethane	11.5	0.50	"	10.0		115	30-150			
Dibromochloromethane	10.8	0.50	"	10.0		108	45-150			
1,2-Dichlorobenzene	10.5	0.50	"	10.0		105	80-130			
1,3-Dichlorobenzene	10.6	0.50	"	10.0		106	85-140			
1,4-Dichlorobenzene	10.4	0.50	"	10.0		104	85-130			
1,1-Dichloroethane	10.1	0.50	"	10.0		101	35-150			
1,2-Dichloroethane	9.81	0.50	"	10.0		98	35-150			
1,1-Dichloroethene	10.5	0.50	"	10.0		105	85-135			
trans-1,2-Dichloroethene	9.92	0.50	"	10.0		99	75-150			
1,2-Dichloropropane	9.92	0.50	"	10.0		99	55-150			
cis-1,3-Dichloropropene	10.7	0.50	"	10.0		107	50-150			
trans-1,3-Dichloropropene	10.6	0.50	"	10.0		106	45-150			
Ethylbenzene	11.1	0.50	"	10.0		111	80-135			
Methylene chloride	9.67	0.50	"	10.0		97	40-150			
1,1,2,2-Tetrachloroethane	9.54	0.50	"	10.0		95	55-150			
Tetrachloroethene	11.3	0.50	"	10.0		113	75-150			
Toluene	10.4	0.50	"	10.0		104	80-140			
1,1,1-Trichloroethane	10.8	0.50	"	10.0		108	70-150			
1,1,2-Trichloroethane	10.2	0.50	"	10.0		102	55-150			
Trichloroethene	10.4	0.50	"	10.0		104	30-150			
Trichlorofluoromethane	11.9	0.50	"	10.0		119	15-150			
Vinyl chloride	12.6	0.50	"	10.0		126	50-150			
Surrogate: 1,2-Dichloroethane-d4	*2.20*		*"*	*2.50*		*88*	*60-145*			
Surrogate: 1,4-Difluorobenzene	*1.83*		*"*	*2.00*		*92*	*70-140*			
Surrogate: 4-Bromofluorobenzene	*2.48*		*"*	*2.50*		*99*	*60-115*			

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AllTerra Environmental, Inc.	Project: Livermore, 160 Holmes	MPI0319
312 Lincoln St., Suite B	Project Number: 015-01-160	**Reported:**
Santa Cruz CA, 95060	Project Manager: James Allen	09/20/06 18:32

Purgeables by EPA Method 624 - Quality Control

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6I19004 - EPA 5030B P/T / EPA 624										
Matrix Spike (6I19004-MS1)	**Source: MPI0218-08**			Prepared & Analyzed: 09/19/06						
Benzene	190	5.0	ug/l	100	96	94	80-140			
Bromodichloromethane	103	5.0	"	100	110	0	65-150			QM05
Bromoform	114	5.0	"	100	ND	114	60-150			
Bromomethane	56.8	10	"	100	ND	57	15-150			
Carbon tetrachloride	104	5.0	"	100	ND	104	65-150			
Chlorobenzene	102	5.0	"	100	ND	102	85-135			
Chloroethane	121	10	"	100	ND	121	45-150			
Chloroform	90.8	5.0	"	100	2.6	88	75-135			
Chloromethane	126	5.0	"	100	ND	126	30-150			
Dibromochloromethane	107	5.0	"	100	ND	107	45-150			
1,2-Dichlorobenzene	104	5.0	"	100	ND	104	80-130			
1,3-Dichlorobenzene	104	5.0	"	100	ND	104	85-140			
1,4-Dichlorobenzene	102	5.0	"	100	ND	102	85-130			
1,1-Dichloroethane	93.8	5.0	"	100	ND	94	35-150			
1,2-Dichloroethane	95.2	5.0	"	100	3.1	92	35-150			
1,1-Dichloroethene	107	5.0	"	100	ND	107	85-135			
trans-1,2-Dichloroethene	99.4	5.0	"	100	ND	99	75-150			
1,2-Dichloropropane	95.5	5.0	"	100	ND	96	55-150			
cis-1,3-Dichloropropene	102	5.0	"	100	ND	102	50-150			
trans-1,3-Dichloropropene	101	5.0	"	100	ND	101	45-150			
Ethylbenzene	406	5.0	"	100	310	96	80-145			
Methylene chloride	96.2	5.0	"	100	2.7	94	40-150			
1,1,2,2-Tetrachloroethane	95.0	5.0	"	100	ND	95	55-150			
Tetrachloroethene	114	5.0	"	100	ND	114	75-150			
Toluene	196	5.0	"	100	97	99	80-140			
1,1,1-Trichloroethane	102	5.0	"	100	ND	102	70-150			
1,1,2-Trichloroethane	102	5.0	"	100	ND	102	55-150			
Trichloroethene	106	5.0	"	100	ND	106	30-150			
Trichlorofluoromethane	120	5.0	"	100	ND	120	15-150			
Vinyl chloride	131	5.0	"	100	ND	131	50-150			
Surrogate: 1,2-Dichloroethane-d4	*2.11*		*"*	*2.50*		*84*	*60-145*			
Surrogate: 1,4-Difluorobenzene	*1.83*		*"*	*2.00*		*92*	*70-140*			
Surrogate: 4-Bromofluorobenzene	*2.44*		*"*	*2.50*		*98*	*60-115*			

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AllTerra Environmental, Inc.	Project: Livermore, 160 Holmes	MPI0319
312 Lincoln St., Suite B	Project Number: 015-01-160	**Reported:**
Santa Cruz CA, 95060	Project Manager: James Allen	09/20/06 18:32

Purgeables by EPA Method 624 - Quality Control

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6I19004 - EPA 5030B P/T / EPA 624										
Matrix Spike Dup (6I19004-MSD1)	**Source: MPI0218-08**			Prepared & Analyzed: 09/19/06						
Benzene	188	5.0	ug/l	100	96	92	80-140	1	10	
Bromodichloromethane	104	5.0	"	100	110	0	65-150	1	30	QM05
Bromoform	116	5.0	"	100	ND	116	60-150	2	25	
Bromomethane	73.9	10	"	100	ND	74	15-150	26	35	
Carbon tetrachloride	104	5.0	"	100	ND	104	65-150	0	20	
Chlorobenzene	102	5.0	"	100	ND	102	85-135	0	15	
Chloroethane	120	10	"	100	ND	120	45-150	0.8	45	
Chloroform	90.0	5.0	"	100	2.6	87	75-135	0.9	15	
Chloromethane	128	5.0	"	100	ND	128	30-150	2	35	
Dibromochloromethane	109	5.0	"	100	ND	109	45-150	2	35	
1,2-Dichlorobenzene	104	5.0	"	100	ND	104	80-130	0	25	
1,3-Dichlorobenzene	104	5.0	"	100	ND	104	85-140	0	25	
1,4-Dichlorobenzene	103	5.0	"	100	ND	103	85-130	1	25	
1,1-Dichloroethane	94.7	5.0	"	100	ND	95	35-150	1	35	
1,2-Dichloroethane	93.3	5.0	"	100	3.1	90	35-150	2	35	
1,1-Dichloroethene	108	5.0	"	100	ND	108	85-135	0.9	15	
trans-1,2-Dichloroethene	98.5	5.0	"	100	ND	98	75-150	0.9	20	
1,2-Dichloropropane	94.8	5.0	"	100	ND	95	55-150	0.7	20	
cis-1,3-Dichloropropene	101	5.0	"	100	ND	101	50-150	1	35	
trans-1,3-Dichloropropene	101	5.0	"	100	ND	101	45-150	0	35	
Ethylbenzene	406	5.0	"	100	310	96	80-145	0	30	
Methylene chloride	94.1	5.0	"	100	2.7	91	40-150	2	30	
1,1,2,2-Tetrachloroethane	95.2	5.0	"	100	ND	95	55-150	0.2	35	
Tetrachloroethene	114	5.0	"	100	ND	114	75-150	0	30	
Toluene	197	5.0	"	100	97	100	80-140	0.5	10	
1,1,1-Trichloroethane	100	5.0	"	100	ND	100	70-150	2	15	
1,1,2-Trichloroethane	103	5.0	"	100	ND	103	55-150	1	30	
Trichloroethene	105	5.0	"	100	ND	105	30-150	0.9	10	
Trichlorofluoromethane	118	5.0	"	100	ND	118	15-150	2	25	
Vinyl chloride	128	5.0	"	100	ND	128	50-150	2	35	
Surrogate: 1,2-Dichloroethane-d4	*2.11*		*"*	*2.50*		*84*	*60-145*			
Surrogate: 1,4-Difluorobenzene	*1.86*		*"*	*2.00*		*93*	*70-140*			
Surrogate: 4-Bromofluorobenzene	*2.43*		*"*	*2.50*		*97*	*60-115*			

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AllTerra Environmental, Inc.	Project: Livermore, 160 Holmes	MPI0319
312 Lincoln St., Suite B	Project Number: 015-01-160	**Reported:**
Santa Cruz CA, 95060	Project Manager: James Allen	09/20/06 18:32

Notes and Definitions

QM05	The spike recovery was below control limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
PH	There was insufficient preservative to reduce the sample pH to less than 2. The sample was analyzed within 14 days of sampling, but beyond the 7 days recommended for Benzene, Toluene, and Ethylbenzene.
A-01	TIC result.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Chain of Custody Record

ALLTERRA
849 Almar Avenue, Suite C, #281
Website: www.allterraenv.com
Phone: (831) 425-2608 Facsimile: (831) 425-2609

MPI 0319

Turn Around Time (circle one) RUSH 24HR 48HR 72HR 5 Day

Report and Bill to: Allterra Environmental, Inc.
Project Number: 015-01-160
Project Location: 160 Holmes
Project Name: Livermore
Sampler Signature:

Sample ID	Sample Collection		Sample Containers		Matrix					Preservation				TPHg, BTEX&MTBE (EPA 8021B)	TPHd (EPA 8015)	MTBE (EPA 8260B)	5 -fuel oxys (EPA 8260)	Ethanol and Methanol (EPA 8260)	Lead Scavengers (8260)	Total HVOCs (EPA 8260)	Hardness/Total dissolved solids	CAM-17 Metals (EPA 6010/6020)	LUFT 5 Metals (EPA 6010/6020)	PAH's/ PNA's (EPA 8270,625/8310)	Fish Toxicity/Bioassay	Lead (EPA 6010/200.9/200.8)	TTO's method 624	EDF required
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO_3	Other																
Tank-1	9/11/06		4	VOAS		X				X	X																	X	X

Received By:	9/12/06	Time:	Received By: JWIT NG. (MH) 9.12.06 1030
Received By:	Date:	Time:	Received By:
Received By:	Date:	Time:	Received By:

Comments:

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: AITERRA ENVIRONMENTAL
REC. BY (PRINT) JULIE NG
WORKORDER: M?I 0319 *

DATE REC'D AT LAB: 9.12.06
TIME REC'D AT LAB: (J) 08 1030
DATE LOGGED IN: 9-12-06

For Regulatory Purposes?
DRINKING WATER YES / NO
WASTE WATER YES / NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / Absent; Intact / Broken*									
2. Chain-of-Custody Present / Absent*									
3. Traffic Reports or Packing List: Present / Absent									
4. Airbill: Airbill / Sticker Present / Absent									
5. Airbill #: —									
6. Sample Labels: Present / Absent									
7. Sample IDs: Listed / Not Listed on Chain-of-Custody									
8. Sample Condition: Intact / Broken* / Leaking*									
9. **Does information on chain-of-custody, traffic reports and sample labels agree?** Yes / No*									
10. Sample received within hold time? Yes / No*									
11. Adequate sample volume received? Yes / No*									
12. Proper preservatives used? Yes / No*									
13. Trip Blank / Temp Blank Received? (circle which, if yes) Yes / No*									
14. Read Temp: 5.8; Corrected Temp: ↓; Is corrected temp 4 +/-2°C? Yes / No** (Acceptance range for samples requiring thermal pres.)									
**Exception (if any): METALS / DFF ON ICE or Problem COC									

JULIE 9.12.06
SEE COC

*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.