

## **APPENDIX C**

### **Laboratory reports with quality control information and chains of custody**



October 23, 2002

Debie Maggin  
Guadalupe-Blanco River Authority  
933 East Court Street  
Seguin, TX 78155

TEL: (830) 379-5822  
FAX (830) 379-9718

RE: GBRA/UGRA - CRP  
Order No. 0210163

On 10/10/02 4:25:00 PM, LCRA Environmental Laboratory Services (ELS) received 5 samples for analyses under Order No. 0210163.

The following final report provides results related only to the sample(s) as received for the above referenced order number. The results were derived in accordance with the referenced methods unless otherwise stated in the Case Narrative. ELS will not reproduce this report, except in full, and with written authorization from the client.

Thank you for selecting ELS for your analytical needs. If you have questions regarding these results, please contact us at (512) 356-6022. We look forward to assisting you again.

Sincerely,



Jill Curtis  
Project Manager



# Final Analysis Report

## LCRA Environmental Laboratory Services

Date: 23-Oct-02

CLIENT: Guadalupe-Blanco River Authority

Client Sample ID: San Marcos River @ Luling SW  
12626

Lab Order: 0210163 File No: 21977

Project: GBRA/UGRA - CRP

Collection Date: 10/9/02 3:23:00 PM

Lab ID: 0210163-01 Depth (m): 0

Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: JP
Benzene	ND		5	5.0	µg/L	1	R16729	10/21/02 8:43:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R16729	10/21/02 8:43:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R16729	10/21/02 8:43:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R16729	10/21/02 8:43:00 PM
Toluene	ND		5	5.0	µg/L	1	R16729	10/21/02 8:43:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R16729	10/21/02 8:43:00 PM
Surr: 1,2-Dichloroethane-d4	108		0	70-130	%REC	1	R16729	10/21/02 8:43:00 PM
Surr: 4-Bromofluorobenzene	97.2		0	70-130	%REC	1	R16729	10/21/02 8:43:00 PM
Surr: Toluene-d8	102		0	70-130	%REC	1	R16729	10/21/02 8:43:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: KRD
>C12-C28	ND		5	4.4	mg/L	1	R16713	10/21/02 5:03:00 PM
>C28-C35	ND		5	4.4	mg/L	1	R16713	10/21/02 5:03:00 PM
C6-C12	ND		5	4.4	mg/L	1	R16713	10/21/02 5:03:00 PM
C6-C35	ND		5	4.4	mg/L	1	R16713	10/21/02 5:03:00 PM
Surr: a,a a-Trifluorotoluene	114		0	70-130	%REC	1	R16713	10/21/02 5:03:00 PM
Surr: o-Terphenyl	109		0	70-130	%REC	1	R16713	10/21/02 5:03:00 PM

### Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

\* - Value exceeds Ambient Water Reporting Limit

# LCRA Environmental Laboratory Services

Date: 23-Oct-02

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0210163 File No: 21977  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0210163-02 Depth (m): 0

Client Sample ID: Plum Cr @ CR 135 SW  
 12640  
 Collection Date: 10/9/02 3:49:00 PM  
 Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: JP
Benzene	ND		5	5.0	µg/L	1	R16729	10/21/02 9:15:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R16729	10/21/02 9:15:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R16729	10/21/02 9:15:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R16729	10/21/02 9:15:00 PM
Toluene	ND		5	5.0	µg/L	1	R16729	10/21/02 9:15:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R16729	10/21/02 9:15:00 PM
Surr: 1,2-Dichloroethane-d4	109		0	70-130	%REC	1	R16729	10/21/02 9:15:00 PM
Surr: 4-Bromofluorobenzene	97.7		0	70-130	%REC	1	R16729	10/21/02 9:15:00 PM
Surr: Toluene-d8	103		0	70-130	%REC	1	R16729	10/21/02 9:15:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>					Analyst: KRD
>C12-C28	ND		5	4.5	mg/L	1	R16713	10/21/02 6:14:00 PM
>C28-C35	ND		5	4.5	mg/L	1	R16713	10/21/02 6:14:00 PM
C6-C12	ND		5	4.5	mg/L	1	R16713	10/21/02 6:14:00 PM
C6-C35	ND		5	4.5	mg/L	1	R16713	10/21/02 6:14:00 PM
Surr: a,a a-Trifluorotoluene	116		0	70-130	%REC	1	R16713	10/21/02 6:14:00 PM
Surr: o-Terphenyl	107		0	70-130	%REC	1	R16713	10/21/02 6:14:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits  
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank E - Value above quantitation range  
 \* - Value exceeds Ambient Water Reporting Limit

# LCRA Environmental Laboratory Services

Date: 23-Oct-02

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0210163 File No: 21977  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0210163-03 Depth (m): 0

Client Sample ID: Plum Cr @ 135 Duplicate SW  
 12640  
 Collection Date: 10/9/02 3:57:00 PM  
 Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: <b>JP</b>
Benzene	ND		5	5.0	µg/L	1	R16729	10/21/02 9:48:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R16729	10/21/02 9:48:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R16729	10/21/02 9:48:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R16729	10/21/02 9:48:00 PM
Toluene	ND		5	5.0	µg/L	1	R16729	10/21/02 9:48:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R16729	10/21/02 9:48:00 PM
Surr: 1,2-Dichloroethane-d4	104		0	70-130	%REC	1	R16729	10/21/02 9:48:00 PM
Surr: 4-Bromofluorobenzene	94.1		0	70-130	%REC	1	R16729	10/21/02 9:48:00 PM
Surr: Toluene-d8	99.6		0	70-130	%REC	1	R16729	10/21/02 9:48:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: <b>KRD</b>
>C12-C28	ND		5	4.4	mg/L	1	R16713	10/21/02 6:21:00 PM
>C28-C35	ND		5	4.4	mg/L	1	R16713	10/21/02 6:21:00 PM
C6-C12	ND		5	4.4	mg/L	1	R16713	10/21/02 6:21:00 PM
C6-C35	ND		5	4.4	mg/L	1	R16713	10/21/02 6:21:00 PM
Surr: a,a,a-Trifluorotoluene	102		0	70-130	%REC	1	R16713	10/21/02 6:21:00 PM
Surr: o-Terphenyl	97.1		0	70-130	%REC	1	R16713	10/21/02 6:21:00 PM

## Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 23-Oct-02

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0210163 File No: 21977  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0210163-04 Depth (m): 0

Client Sample ID: Plum Cr @ Plum Cr Rd SW  
 17406  
 Collection Date: 10/9/02 4:52:00 PM  
 Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: <b>JP</b>
Benzene	ND		5	5.0	µg/L	1	R16729	10/21/02 10:21:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R16729	10/21/02 10:21:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R16729	10/21/02 10:21:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R16729	10/21/02 10:21:00 PM
Toluene	ND		5	5.0	µg/L	1	R16729	10/21/02 10:21:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R16729	10/21/02 10:21:00 PM
Surr: 1,2-Dichloroethane-d4	96.9		0	70-130	%REC	1	R16729	10/21/02 10:21:00 PM
Surr: 4-Bromofluorobenzene	86.5		0	70-130	%REC	1	R16729	10/21/02 10:21:00 PM
Surr: Toluene-d8	91.7		0	70-130	%REC	1	R16729	10/21/02 10:21:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>					Analyst: <b>KRD</b>
>C12-C28	ND		5	4.5	mg/L	1	R16713	10/21/02 6:44:00 PM
>C28-C35	ND		5	4.5	mg/L	1	R16713	10/21/02 6:44:00 PM
C6-C12	ND		5	4.5	mg/L	1	R16713	10/21/02 6:44:00 PM
C6-C35	ND		5	4.5	mg/L	1	R16713	10/21/02 6:44:00 PM
Surr: a,a,a-Trifluorotoluene	88.3		0	70-130	%REC	1	R16713	10/21/02 6:44:00 PM
Surr: o-Terphenyl	81.8		0	70-130	%REC	1	R16713	10/21/02 6:44:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 23-Oct-02

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0210163 File No: 21977  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0210163-05 Depth (m): 0

Client Sample ID: San Marcos River @ San Mar SW  
 Collection Date: 10/9/02 5:35:00 PM  
 Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: <b>JP</b>
Benzene	ND		5	5.0	µg/L	1	R16729	10/21/02 10:54:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R16729	10/21/02 10:54:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R16729	10/21/02 10:54:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R16729	10/21/02 10:54:00 PM
Toluene	ND		5	5.0	µg/L	1	R16729	10/21/02 10:54:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R16729	10/21/02 10:54:00 PM
Surr: 1,2-Dichloroethane-d4	113		0	70-130	%REC	1	R16729	10/21/02 10:54:00 PM
Surr: 4-Bromofluorobenzene	101		0	70-130	%REC	1	R16729	10/21/02 10:54:00 PM
Surr: Toluene-d8	106		0	70-130	%REC	1	R16729	10/21/02 10:54:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: <b>KRD</b>
>C12-C28	ND		5	4.5	mg/L	1	R16713	10/21/02 6:51:00 PM
>C28-C35	ND		5	4.5	mg/L	1	R16713	10/21/02 6:51:00 PM
C6-C12	ND		5	4.5	mg/L	1	R16713	10/21/02 6:51:00 PM
C6-C35	ND		5	4.5	mg/L	1	R16713	10/21/02 6:51:00 PM
Surr: a,a,a-Trifluorotoluene	99.1		0	70-130	%REC	1	R16713	10/21/02 6:51:00 PM
Surr: o-Terphenyl	80.5		0	70-130	%REC	1	R16713	10/21/02 6:51:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

## LCRA Environmental Laboratory Services

Date: 23-Oct-02

CLIENT: Guadalupe-Blanco River Authority  
Project: GBRA/UGRA - CRP  
Lab Order: 0210163

## CASE NARRATIVE

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PAH's were not performed on any of the samples submitted, due to Non-Detect results for all analyses.

# LCRA Environmental Laboratory Services

Date: 23-Oct-02

CLIENT: Guadalupe-Blanco River Authority  
 Work Order: 0210163  
 Project: GBRA/UGRA - CRP

## ANALYTICAL QC SUMMARY REPORT

TestCode: 624\_W

Sample ID	MB	SampType: MBLK	TestCode: 624_W	Units: µg/L	Prep Date:	Run ID: VOA2_021021B						
Client ID:	ZZZZZ	Batch ID: R16729	TestNo: E624		Analysis Date: 10/21/02	SeqNo: 282529						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	ND	5.00									
Ethylbenzene	ND	5.00									
m,p-Xylene	ND	10.0									
o-Xylene	ND	5.00									
Toluene	ND	5.00									
Xylenes, Total	ND	10.0									

Sample ID	LCS	SampType:	LCS	TestCode:	624_W	Units:	µg/L	Prep Date:	Run ID:	VOA2_021021B	
Client ID:	ZZZZZ	Batch ID:	R16729	TestNo:	E624			Analysis Date:	SeqNo:	282530	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	109.6	5.00	100	0	110	70	130	0	0		
Ethylbenzene	57.71	5.00	50	0	115	70	130	0	0		
m,p-Xylene	106.1	10.0	100	0	106	70	130	0	0		
o-Xylene	59.19	5.00	50	0	118	70	130	0	0		
Toluene	103.5	5.00	100	0	104	70	130	0	0		

Sample ID	LCSD	SampType:	LCSD	TestCode:	624_W	Units:	µg/L	Prep Date:	Run ID:	VOA2_021021B	
Client ID:	ZZZZZ	Batch ID:	R16729	TestNo:	E624			Analysis Date:	SeqNo:	282531	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	109	5.00	100	0	109			109.6	0.6	30	
Ethylbenzene	57.33	5.00	50	0	115			57.71	0.7	30	
m,p-Xylene	104.7	10.0	100	0	105			106.1	1.4	30	
o-Xylene	58.2	5.00	50	0	116			59.19	1.7	30	
Toluene	102.8	5.00	100	0	103			103.5	0.7	30	

### Qualifiers:

ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Guadalupe-Blanco River Authority  
**Work Order:** 0210163  
**Project:** GBRA/UGRA - CRP

# ANALYTICAL QC SUMMARY REPORT

**TestCode:** TX1005\_W

Sample ID	MB-4829	SampType:	MBLK	TestCode:	TX1005_W	Units:	mg/L	Prep Date:	10/16/02	Run ID:	5890FID_021021A		
Client ID:	ZZZZZ	Batch ID:	R16713	TestNo:	TX1005			Analysis Date:	10/21/02	SeqNo:	282214		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	LCS-4829	SampType:	LCS	TestCode:	TX1005_W	Units:	mg/L	Prep Date:	10/16/02	Run ID:	5890FID_021021A		
Client ID:	ZZZZZ	Batch ID:	R16713	TestNo:	TX1005			Analysis Date:	10/21/02	SeqNo:	282215		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	LCSD-4829	SampType:	LCSD	TestCode:	TX1005_W	Units:	mg/L	Prep Date:	10/16/02	Run ID:	5890FID_021021A		
Client ID:	ZZZZZ	Batch ID:	R16713	TestNo:	TX1005			Analysis Date:	10/21/02	SeqNo:	282216		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	0210163-01AMS	SampType:	MS	TestCode:	TX1005_W	Units:	mg/L	Prep Date:	10/16/02	Run ID:	5890FID_021021A		
Client ID:	San Marcos River	Batch ID:	R16713	TestNo:	TX1005			Analysis Date:	10/21/02	SeqNo:	282218		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:**

ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



Sample ID	0210163-01AMSD	SampType: MSD	TestCode: TX1005_W	Units: mg/L	Prep Date: 10/16/02	Run ID: 5890FID_021021A					
Client ID:	San Marcos River	Batch ID: R16713	TestNo: TX1005		Analysis Date: 10/21/02	SeqNo: 282219					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
>C12-C28	65.73	4.54	60.53	1.158	107			58.3	12.0	20	
C6-C12	54.97	4.54	60.53	0.8824	89.4			48.09	13.4	20	
C6-C35	120.7	4.54	121.1	3.458	96.9			106.4	12.6	20	



Guadalupe-Blanco River Authority-Regional Laboratory  
933 E. Court Street, Seguin, Texas 78155  
(830) 379-5822 (830) 379-9718

## Chain of Custody

Customer Name GBRA-CRP

Sample By Mike McCall

Printed Name

Mike McCall

Signature

Date Collected	Time Collected	Matrix	Sample Name/Description	TNRCC I.D. No.	Grab/Composite	Sample ID	Analysis Requested	Preservation Date
10/9-02	1523	Water	San Marcos River @ Ruling	12626	G		TPH	
							PAH	
							BTEX	

Delivered By: [Signature] Date/Time 10/10/02 Received By: [Signature] Date/Time 10/10/02 1645

Delivered By: [Signature] Date/Time 10/10/02 Received By: [Signature] Date/Time 10/10/02

Condition of Container: dry - no: gels & urbs Ice: 2°C

PAH on H'shest TPH 21477  
for CRP Workorder 0210143



Guadalupe-Blanco River Authority-Regional Laboratory  
933 E. Court Street, Seguin, Texas 78155  
(830) 379-5822 (830) 379-9718

## Chain of Custody

Customer Name GBRA- CRP

Sample By Mike McCall

Printed Name

Mike McCall

Signature

Date Collected	Time Collected	Matrix	Sample Name/Description	TNRCC I.D. No.	Grab/ Composite	Sample ID	Analysis Requested	Preservation Date
10/9-02	1549	Water	Plum Cr @ CR 135	12640	G		TPH	
							PAH	
							BTEX	

Delivered By: [Signature] Date/Time 10/10/02 Received By: SBW Date/Time 10-10-02 1625

Delivered By: [Signature] Date/Time 10/10/02 Received By: [Signature] Date/Time 10/10/02

Condition of Container: Ice: 2°C

21724  
0210163



# Chain of Custody

Sample By Mike McCall

Printed Name

Signature \_\_\_\_\_

[illegible]

Delivered By: APRIL

Date/Time 10/10/02

Received By:

Date/Time

5271

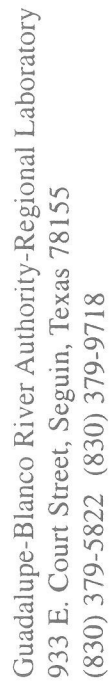
Delivered By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By:

Date/Time

Condition of Container:

Ice:  $2^{\circ}\text{C}$



21977  
0210103

Sample By Nike McCall

Printed Name

Rich McCall

Signature \_\_\_\_\_

[illegible]

Delivered By: [Signature] Date/Time 10/10/02  
Received By: [Signature] Date/Time 10/10/02

Delivered By: \_\_\_\_\_ Date/Time \_\_\_\_\_  
Received By: \_\_\_\_\_ Date/Time \_\_\_\_\_

Condition of Container: \_\_\_\_\_ Ice: \_\_\_\_\_



# Chain of Custody

Guadalupe-Blanco River Authority-Regional Laboratory  
933 E. Court Street, Seguin, Texas 78155  
(830) 379-5822 (830) 379-9718

Mike McCall

Sample By Mike McCall

Printed Name

[illegible]

Delivered By: <u>AKK</u>	Date/Time <u>10/10/02</u>	Received By: <u>SB</u>	Date/Time <u>10-10-02</u>	<u>1625</u>
Delivered By: _____	Date/Time _____	Received By: _____	Date/Time _____	
Condition of Container: _____	Ice: <u>200</u>			

Ice: 20°C



December 02, 2002

Debie Maggin  
Guadalupe-Blanco River Authority  
933 East Court Street  
Seguin, TX 78155

TEL: (830) 379-5822  
FAX (830) 379-9718

RE: GBRA/UGRA - CRP  
Order No. 0211216

On 11/18/02 1:43:00 PM, LCRA Environmental Laboratory Services (ELS) received 5 samples for analyses under Order No. 0211216.

The following final report provides results related only to the sample(s) as received for the above referenced order number. The results were derived in accordance with the referenced methods unless otherwise stated in the Case Narrative. ELS will not reproduce this report, except in full, and with written authorization from the client.

Thank you for selecting ELS for your analytical needs. If you have questions regarding these results, please contact us at (512) 356-6022. We look forward to assisting you again.

Sincerely,



Jill Curtis  
Project Manager

# Final Analysis Report

## LCRA Environmental Laboratory Services

Date: 02-Dec-02

CLIENT: Guadalupe-Blanco River Authority  
Lab Order: 0211216 File No: 22473  
Project: GBRA/UGRA - CRP  
Lab ID: 0211216-01 Depth (m): 0

Client Sample ID: SMR @ Luling  
12626  
Collection Date: 11/18/02 10:00:00 AM  
Matrix: SURFACE WATER

BG

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: JP
Benzene	ND		5	5.0	µg/L	1	R17181	11/19/02 5:45:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R17181	11/19/02 5:45:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R17181	11/19/02 5:45:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R17181	11/19/02 5:45:00 PM
Toluene	ND		5	5.0	µg/L	1	R17181	11/19/02 5:45:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R17181	11/19/02 5:45:00 PM
Surr: 1,2-Dichloroethane-d4	85.8		0	70-130	%REC	1	R17181	11/19/02 5:45:00 PM
Surr: 4-Bromofluorobenzene	83.7		0	70-130	%REC	1	R17181	11/19/02 5:45:00 PM
Surr: Toluene-d8	84.1		0	70-130	%REC	1	R17181	11/19/02 5:45:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: KRD
>C12-C28	ND		5	4.5	mg/L	1	R17258	11/22/02 11:27:00 AM
>C28-C35	ND		5	4.5	mg/L	1	R17258	11/22/02 11:27:00 AM
C6-C12	ND		5	4.5	mg/L	1	R17258	11/22/02 11:27:00 AM
C6-C35	ND		5	4.5	mg/L	1	R17258	11/22/02 11:27:00 AM
Surr: a,a a-Trifluorotoluene	115		0	70-130	%REC	1	R17258	11/22/02 11:27:00 AM
Surr: o-Terphenyl	92.6		0	70-130	%REC	1	R17258	11/22/02 11:27:00 AM

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range



# LCRA Environmental Laboratory Services

Date: 02-Dec-02

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0211216 File No: 22473  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0211216-02 Depth (m): 0

Client Sample ID: SMR @ Luling Dup.  
 12626  
 Collection Date: 11/18/02 10:15:00 AM  
 Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: <b>JP</b>
Benzene	ND		5	5.0	µg/L	1	R17181	11/19/02 6:18:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R17181	11/19/02 6:18:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R17181	11/19/02 6:18:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R17181	11/19/02 6:18:00 PM
Toluene	ND		5	5.0	µg/L	1	R17181	11/19/02 6:18:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R17181	11/19/02 6:18:00 PM
Surr: 1,2-Dichloroethane-d4	98.5		0	70-130	%REC	1	R17181	11/19/02 6:18:00 PM
Surr: 4-Bromofluorobenzene	95.2		0	70-130	%REC	1	R17181	11/19/02 6:18:00 PM
Surr: Toluene-d8	96.0		0	70-130	%REC	1	R17181	11/19/02 6:18:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: <b>KRD</b>
>C12-C28	ND		5	4.5	mg/L	1	R17258	11/22/02 11:34:00 AM
>C28-C35	ND		5	4.5	mg/L	1	R17258	11/22/02 11:34:00 AM
C6-C12	ND		5	4.5	mg/L	1	R17258	11/22/02 11:34:00 AM
C6-C35	ND		5	4.5	mg/L	1	R17258	11/22/02 11:34:00 AM
Surr: a,a,a-Trifluorotoluene	112		0	70-130	%REC	1	R17258	11/22/02 11:34:00 AM
Surr: o-Terphenyl	93.7		0	70-130	%REC	1	R17258	11/22/02 11:34:00 AM

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 02-Dec-02

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0211216 File No: 22473  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0211216-03 Depth (m): 0

Client Sample ID: Plum Cr @ I 35  
 12640  
 Collection Date: 11/18/02 10:45:00 AM  
 Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: <b>JP</b>
Benzene	ND		5	5.0	µg/L	1	R17181	11/19/02 6:51:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R17181	11/19/02 6:51:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R17181	11/19/02 6:51:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R17181	11/19/02 6:51:00 PM
Toluene	ND		5	5.0	µg/L	1	R17181	11/19/02 6:51:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R17181	11/19/02 6:51:00 PM
Surr: 1,2-Dichloroethane-d4	91.8		0	70-130	%REC	1	R17181	11/19/02 6:51:00 PM
Surr: 4-Bromofluorobenzene	87.3		0	70-130	%REC	1	R17181	11/19/02 6:51:00 PM
Surr: Toluene-d8	88.6		0	70-130	%REC	1	R17181	11/19/02 6:51:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: <b>KRD</b>
>C12-C28	ND		5	4.5	mg/L	1	R17258	11/22/02 11:41:00 AM
>C28-C35	ND		5	4.5	mg/L	1	R17258	11/22/02 11:41:00 AM
C6-C12	ND		5	4.5	mg/L	1	R17258	11/22/02 11:41:00 AM
C6-C35	ND		5	4.5	mg/L	1	R17258	11/22/02 11:41:00 AM
Surr: a,a,a-Trifluorotoluene	106		0	70-130	%REC	1	R17258	11/22/02 11:41:00 AM
Surr: o-Terphenyl	75.4		0	70-130	%REC	1	R17258	11/22/02 11:41:00 AM

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits  
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank E - Value above quantitation range  
 \* - Value exceeds Ambient Water Reporting Limit

# LCRA Environmental Laboratory Services

Date: 02-Dec-02

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0211216 File No: 22473  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0211216-04 Depth (m): 0

Client Sample ID: Plum Cr @ PC Rd.  
 17406  
 Collection Date: 11/18/02 11:54:00 AM  
 Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: JP
Benzene	ND		5	5.0	µg/L	1	R17181	11/19/02 7:23:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R17181	11/19/02 7:23:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R17181	11/19/02 7:23:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R17181	11/19/02 7:23:00 PM
Toluene	ND		5	5.0	µg/L	1	R17181	11/19/02 7:23:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R17181	11/19/02 7:23:00 PM
Surr: 1,2-Dichloroethane-d4	93.6		0	70-130	%REC	1	R17181	11/19/02 7:23:00 PM
Surr: 4-Bromofluorobenzene	89.6		0	70-130	%REC	1	R17181	11/19/02 7:23:00 PM
Surr: Toluene-d8	91.4		0	70-130	%REC	1	R17181	11/19/02 7:23:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: KRD
>C12-C28	ND		5	4.4	mg/L	1	R17258	11/22/02 11:48:00 AM
>C28-C35	ND		5	4.4	mg/L	1	R17258	11/22/02 11:48:00 AM
C6-C12	ND		5	4.4	mg/L	1	R17258	11/22/02 11:48:00 AM
C6-C35	ND		5	4.4	mg/L	1	R17258	11/22/02 11:48:00 AM
Surr: a,a a-Trifluorotoluene	108		0	70-130	%REC	1	R17258	11/22/02 11:48:00 AM
Surr: o-Terphenyl	78.5		0	70-130	%REC	1	R17258	11/22/02 11:48:00 AM

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 02-Dec-02

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0211216 File No: 22473  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0211216-05 Depth (m): 0

Client Sample ID: San Marcos @ S.M.  
 12628  
 Collection Date: 11/18/02 12:31:00 PM  
 Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: <b>JP</b>
Benzene	ND		5	5.0	µg/L	1	R17181	11/19/02 7:56:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R17181	11/19/02 7:56:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R17181	11/19/02 7:56:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R17181	11/19/02 7:56:00 PM
Toluene	ND		5	5.0	µg/L	1	R17181	11/19/02 7:56:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R17181	11/19/02 7:56:00 PM
Surr: 1,2-Dichloroethane-d4	93.6		0	70-130	%REC	1	R17181	11/19/02 7:56:00 PM
Surr: 4-Bromofluorobenzene	88.0		0	70-130	%REC	1	R17181	11/19/02 7:56:00 PM
Surr: Toluene-d8	90.9		0	70-130	%REC	1	R17181	11/19/02 7:56:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: <b>KRD</b>
>C12-C28	ND		5	4.4	mg/L	1	R17258	11/22/02 11:55:00 AM
>C28-C35	ND		5	4.4	mg/L	1	R17258	11/22/02 11:55:00 AM
C6-C12	ND		5	4.4	mg/L	1	R17258	11/22/02 11:55:00 AM
C6-C35	ND		5	4.4	mg/L	1	R17258	11/22/02 11:55:00 AM
Surr: a,a,a-Trifluorotoluene	121		0	70-130	%REC	1	R17258	11/22/02 11:55:00 AM
Surr: o-Terphenyl	113		0	70-130	%REC	1	R17258	11/22/02 11:55:00 AM

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

## LCRA Environmental Laboratory Services

Date: 02-Dec-02

CLIENT: Guadalupe-Blanco River Authority

Project: GBRA/UGRA - CRP

Lab Order: 0211216

### CASE NARRATIVE

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PAH's were not performed on any of the samples submitted, due to Non-Detect results for all analyses.

Analytical Comments for METHOD TX1005\_W, SAMPLE 0211134-01EMSD: Batch R17258: One of two surrogate standard recoveries was out of QC limits due to matrix effects. All other QA/QC were within limits.

## LCRA Environmental Laboratory Services

Date: 02-Dec-02

## CLIENT:

Guadalupe-Blanco River Authority

## Work Order:

0211216

## Project:

GBRA/UGRA - CRP

## ANALYTICAL QC SUMMARY REPORT

TestCode: 624\_W

Sample ID	MBLK	SampType: MBLK	TestCode: 624_W	Units: µg/L	Prep Date:	Run ID: VOA2_021119A					
Client ID:	ZZZZZ	Batch ID: R17181	TestNo: E624		Analysis Date: 11/19/02	SeqNo: 290725					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	ND	5.00									
Ethylbenzene	ND	5.00									
m,p-Xylene	ND	10.0									
o-Xylene	ND	5.00									
Toluene	ND	5.00									
Xylenes, Total	ND	10.0									

Sample ID	LCS	SampType: LCS	TestCode: 624_W	Units: µg/L	Prep Date:	Run ID: VOA2_021119A					
Client ID: ZZZZ		Batch ID: R17181	TestNo: E624		Analysis Date: 11/19/02	SeqNo: 290723					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	58.25	5.00	50	0	116	70	130	0	0		
Ethylbenzene	56.85	5.00	50	0	114	70	130	0	0		
m,p-Xylene	104.8	10.0	100	0	105	70	130	0	0		
o-Xylene	60.01	5.00	50	0	120	70	130	0	0		
Toluene	55.95	5.00	50	0	112	70	130	0	0		

Sample ID	LCSD	SampType: LCSD	TestCode: 624_W	Units: µg/L	Prep Date:	Run ID: VOA2_021119A					
Client ID: ZZZZZ		Batch ID: R17181	TestNo: E624		Analysis Date: 11/19/02	SeqNo: 290724					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	60.58	5.00	50	0	121			58.25	3.9	30	
Ethylbenzene	59.03	5.00	50	0	118			56.85	3.8	30	
m,p-Xylene	109.1	10.0	100	0	109			104.8	4.0	30	
o-Xylene	62.69	5.00	50	0	125			60.01	4.4	30	
Toluene	58.07	5.00	50	0	116			55.95	3.7	30	

## Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Guadalupe-Blanco River Authority  
**Work Order:** 0211216  
**Project:** GBRA/UGRA - CRP

# ANALYTICAL QC SUMMARY REPORT

**TestCode:** TX1005\_W

Sample ID	MB-4978	SampType:	MBLK	TestCode:	TX1005_W	Units:	mg/L	Prep Date:	11/20/02	Run ID:	5890FID_021122A	
Client ID:	ZZZZZ	Batch ID:	R17258	TestNo:	TX1005			Analysis Date:	11/22/02	SeqNo:	291984	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

>C12-C28	ND	5.00										
>C28-C35	ND	5.00										
C6-C12	ND	5.00										
C6-C35	ND	5.00										

Sample ID	LCS-4978	SampType:	LCS	TestCode:	TX1005_W	Units:	mg/L	Prep Date:	11/20/02	Run ID:	5890FID_021122A	
Client ID:	ZZZZZ	Batch ID:	R17258	TestNo:	TX1005			Analysis Date:	11/22/02	SeqNo:	291985	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

>C12-C28	66.25	5.00	66.6	0	99.5	75	125	0	0			
C6-C12	59.3	5.00	66.6	0	89	75	125	0	0			
C6-C35	125.6	5.00	133.2	0	94.3	75	125	0	0			

Sample ID	LCSD-4978	SampType:	LCSD	TestCode:	TX1005_W	Units:	mg/L	Prep Date:	11/20/02	Run ID:	5890FID_021122A	
Client ID:	ZZZZZ	Batch ID:	R17258	TestNo:	TX1005			Analysis Date:	11/22/02	SeqNo:	291986	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

>C12-C28	69.85	5.00	66.6	0	105			66.25	5.3	20		
C6-C12	59.68	5.00	66.6	0	89.6			59.3	0.6	20		
C6-C35	129.6	5.00	133.2	0	97.3			125.6	3.1	20		

Sample ID	0211134-01EMS	SampType:	MS	TestCode:	TX1005_W	Units:	mg/L	Prep Date:	11/20/02	Run ID:	5890FID_021122A	
Client ID:	ZZZZZ	Batch ID:	R17258	TestNo:	TX1005			Analysis Date:	11/22/02	SeqNo:	291988	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

>C12-C28	65.89	4.48	59.7	0	110	75	125	0	0			
C6-C12	58.75	4.48	59.7	0	98.4	75	125	0	0			
C6-C35	124.6	4.48	119.4	2.671	102	75	125	0	0			

**Qualifiers:** NID - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Guadalupe-Blanco River Authority  
**Work Order:** 0211216  
**Project:** GBRA/UGRA - CRP

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** TX1005\_W

Sample ID	0211134-01EMSD	SampType:	MSD	TestCode:	TX1005_W	Units:	mg/L	Prep Date:	11/20/02	Run ID:	5890FID_021122A
Client ID:	ZZZZ	Batch ID:	R17258	TestNo:	TX1005			Analysis Date:	11/22/02	SeqNo:	291989
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
>C12-C28	64.55	4.41	58.68	0	110			65.89	2.1	20	
C6-C12	53.57	4.41	58.68	0	91.3			58.75	9.2	20	
C6-C35	118.2	4.41	117.4	2.671	98.4			124.6	5.3	20	

**Qualifiers:**

ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank





Guadalupe-Blanco River Authority-Region  
933 E. Court Street, Seguin, Texas 78155  
(830) 379-5822 (830) 379-9718

# Chain of Custody

69A

Customer Name

Mike McCall

Sample By

Printed Name

Signature \_\_\_\_\_

[illegible]

Auto Detail

Delivered By: Wendy Michael Date/Time 11-18-02 1542 Received By:

Date/Time 11-18-02 1542 Re

Delivered By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Received By: \_\_\_\_\_

Date/Time \_\_\_\_\_ F\_\_\_\_\_

Condition of Container: Ice: 0.0

Ice:

Date/Time 11.18.22 1343

Date/Time

begin new: *July 1908*



December 18, 2002

Debie Maggin  
Guadalupe-Blanco River Authority  
933 East Court Street  
Seguin, TX 78155

TEL: (830) 379-5822  
FAX (830) 379-9718

RE: GBRA/UGRA - CRP  
Order No. 0212074

RECEIVED  
DEC 23 2002

GBRA-SEGUIN OFFICE

On 12/6/02 8:15:00 AM, LCRA Environmental Laboratory Services (ELS) received 5 samples for analyses under Order No. 0212074.

The following final report provides results related only to the sample(s) as received for the above referenced order number. The results were derived in accordance with the referenced methods unless otherwise stated in the Case Narrative. ELS will not reproduce this report, except in full, and with written authorization from the client.

Thank you for selecting ELS for your analytical needs. If you have questions regarding these results, please contact us at (512) 356-6022. We look forward to assisting you again.

Sincerely,

Jill Curtis  
Project Manager

# Final Analysis Report

## LCRA Environmental Laboratory Services

Date: 18-Dec-02

CLIENT: Guadalupe-Blanco River Authority  
Lab Order: 0212074 File No: 22720  
Project: GBRA/UGRA - CRP  
Lab ID: 0212074-01 Depth (m): 0

Client Sample ID: Plum @ I35

Collection Date: 12/3/02 1:30:00 PM SW  
Matrix: AQUEOUS

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: JP
Benzene	ND		5	5.0	µg/L	1	R17432	12/10/02 7:32:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R17432	12/10/02 7:32:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R17432	12/10/02 7:32:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R17432	12/10/02 7:32:00 PM
Toluene	ND		5	5.0	µg/L	1	R17432	12/10/02 7:32:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R17432	12/10/02 7:32:00 PM
Surr: 1,2-Dichloroethane-d4	104		0	70-130	%REC	1	R17432	12/10/02 7:32:00 PM
Surr: 4-Bromofluorobenzene	99.1		0	70-130	%REC	1	R17432	12/10/02 7:32:00 PM
Surr: Toluene-d8	101		0	70-130	%REC	1	R17432	12/10/02 7:32:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: KRD
>C12-C28	ND		5	4.5	mg/L	1	R17506	12/17/02 3:04:00 PM
>C28-C35	ND		5	4.5	mg/L	1	R17506	12/17/02 3:04:00 PM
C6-C12	ND		5	4.5	mg/L	1	R17506	12/17/02 3:04:00 PM
C6-C35	ND		5	4.5	mg/L	1	R17506	12/17/02 3:04:00 PM
Surr: a,a,a-Trifluorotoluene	123		0	70-130	%REC	1	R17506	12/17/02 3:04:00 PM
Surr: o-Terphenyl	114		0	70-130	%REC	1	R17506	12/17/02 3:04:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 18-Dec-02

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0212074 File No: 22720  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0212074-02 Depth (m): 0

Client Sample ID: SM @ Luling

Collection Date: 12/3/02 1:45:00 PM *SW*  
 Matrix: AQUEOUS

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: <b>JP</b>
Benzene	ND		5	5.0	µg/L	1	R17432	12/10/02 7:58:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R17432	12/10/02 7:58:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R17432	12/10/02 7:58:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R17432	12/10/02 7:58:00 PM
Toluene	ND		5	5.0	µg/L	1	R17432	12/10/02 7:58:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R17432	12/10/02 7:58:00 PM
Surr: 1,2-Dichloroethane-d4	109		0	70-130	%REC	1	R17432	12/10/02 7:58:00 PM
Surr: 4-Bromofluorobenzene	105		0	70-130	%REC	1	R17432	12/10/02 7:58:00 PM
Surr: Toluene-d8	106		0	70-130	%REC	1	R17432	12/10/02 7:58:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: <b>KRD</b>
>C12-C28	ND		5	4.5	mg/L	1	R17506	12/17/02 3:26:00 PM
>C28-C35	ND		5	4.5	mg/L	1	R17506	12/17/02 3:26:00 PM
C6-C12	ND		5	4.5	mg/L	1	R17506	12/17/02 3:26:00 PM
C6-C35	ND		5	4.5	mg/L	1	R17506	12/17/02 3:26:00 PM
Surr: a,a,a-Trifluorotoluene	125		0	70-130	%REC	1	R17506	12/17/02 3:26:00 PM
Surr: o-Terphenyl	105		0	70-130	%REC	1	R17506	12/17/02 3:26:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 18-Dec-02

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0212074 File No: 22720  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0212074-03 Depth (m): 0

Client Sample ID: Plum @ Plum

Collection Date: 12/3/02 2:15:00 PM *SW*  
 Matrix: AQUEOUS

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: <b>JP</b>
Benzene	ND		5	5.0	µg/L	1	R17432	12/10/02 8:23:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R17432	12/10/02 8:23:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R17432	12/10/02 8:23:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R17432	12/10/02 8:23:00 PM
Toluene	ND		5	5.0	µg/L	1	R17432	12/10/02 8:23:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R17432	12/10/02 8:23:00 PM
Surr: 1,2-Dichloroethane-d4	102		0	70-130	%REC	1	R17432	12/10/02 8:23:00 PM
Surr: 4-Bromofluorobenzene	95.8		0	70-130	%REC	1	R17432	12/10/02 8:23:00 PM
Surr: Toluene-d8	96.4		0	70-130	%REC	1	R17432	12/10/02 8:23:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: <b>KRD</b>
>C12-C28	ND		5	4.4	mg/L	1	R17506	12/17/02 3:42:00 PM
>C28-C35	ND		5	4.4	mg/L	1	R17506	12/17/02 3:42:00 PM
C6-C12	ND		5	4.4	mg/L	1	R17506	12/17/02 3:42:00 PM
C6-C35	ND		5	4.4	mg/L	1	R17506	12/17/02 3:42:00 PM
Surr: a,a,a-Trifluorotoluene	116		0	70-130	%REC	1	R17506	12/17/02 3:42:00 PM
Surr: o-Terphenyl	107		0	70-130	%REC	1	R17506	12/17/02 3:42:00 PM

**Qualifiers:**  
 ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 18-Dec-02

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0212074 File No: 22720  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0212074-04 Depth (m): 0

Client Sample ID: SM @ SM

Collection Date: 12/3/02 4:30:00 PM  
 Matrix: AQUEOUS

SW

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: JP
Benzene	ND		5	5.0	µg/L	1	R17432	12/10/02 8:50:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R17432	12/10/02 8:50:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R17432	12/10/02 8:50:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R17432	12/10/02 8:50:00 PM
Toluene	ND		5	5.0	µg/L	1	R17432	12/10/02 8:50:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R17432	12/10/02 8:50:00 PM
Surr: 1,2-Dichloroethane-d4	103		0	70-130	%REC	1	R17432	12/10/02 8:50:00 PM
Surr: 4-Bromofluorobenzene	98.7		0	70-130	%REC	1	R17432	12/10/02 8:50:00 PM
Surr: Toluene-d8	99.8		0	70-130	%REC	1	R17432	12/10/02 8:50:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: KRD
>C12-C28	ND		5	4.5	mg/L	1	R17506	12/17/02 3:57:00 PM
>C28-C35	ND		5	4.5	mg/L	1	R17506	12/17/02 3:57:00 PM
C6-C12	ND		5	4.5	mg/L	1	R17506	12/17/02 3:57:00 PM
C6-C35	ND		5	4.5	mg/L	1	R17506	12/17/02 3:57:00 PM
Surr: a,a,a-Trifluorotoluene	106		0	70-130	%REC	1	R17506	12/17/02 3:57:00 PM
Surr: o-Terphenyl	84.7		0	70-130	%REC	1	R17506	12/17/02 3:57:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 18-Dec-02

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0212074 File No: 22720  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0212074-05 Depth (m): 0

Client Sample ID: Plum @ Plum Dup

Collection Date: 12/3/02 2:15:00 PM SW  
 Matrix: AQUEOUS

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: JP
Benzene	ND		5	5.0	µg/L	1	R17432	12/10/02 9:16:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R17432	12/10/02 9:16:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R17432	12/10/02 9:16:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R17432	12/10/02 9:16:00 PM
Toluene	ND		5	5.0	µg/L	1	R17432	12/10/02 9:16:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R17432	12/10/02 9:16:00 PM
Surr: 1,2-Dichloroethane-d4	104		0	70-130	%REC	1	R17432	12/10/02 9:16:00 PM
Surr: 4-Bromofluorobenzene	99.3		0	70-130	%REC	1	R17432	12/10/02 9:16:00 PM
Surr: Toluene-d8	101		0	70-130	%REC	1	R17432	12/10/02 9:16:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: KRD
>C12-C28	ND		5	4.5	mg/L	1	R17506	12/17/02 4:04:00 PM
>C28-C35	ND		5	4.5	mg/L	1	R17506	12/17/02 4:04:00 PM
C6-C12	ND		5	4.5	mg/L	1	R17506	12/17/02 4:04:00 PM
C6-C35	ND		5	4.5	mg/L	1	R17506	12/17/02 4:04:00 PM
Surr: a,a,a-Trifluorotoluene	117		0	70-130	%REC	1	R17506	12/17/02 4:04:00 PM
Surr: o-Terphenyl	97.9		0	70-130	%REC	1	R17506	12/17/02 4:04:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

## LCRA Environmental Laboratory Services

Date: 18-Dec-02

CLIENT: Guadalupe-Blanco River Authority  
Project: GBRA/UGRA - CRP  
Lab Order: 0212074

### CASE NARRATIVE

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PAH's were not performed on any of the samples submitted, due to Non-Detect results for all analyses.



## LCRA Environmental Laboratory Services

Date: 18-Dec-02

CLIENT: Guadalupe-Blanco River Authority

Work Order: 0212074

Project: GBRA/UGRA - CRP

## ANALYTICAL QC SUMMARY REPORT

TestCode: 624\_W

Sample ID	MBLK	SampType: MBLK	TestCode: 624_W	Units: µg/L	Prep Date:	Run ID: VOA2_021210A					
Client ID: ZZZZZ		Batch ID: R17432	TestNo: E624		Analysis Date: 12/10/02	SeqNo: 296143					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	ND	5.00									
Ethylbenzene	ND	5.00									
m,p-Xylene	ND	10.0									
o-Xylene	ND	5.00									
Toluene	ND	5.00									
Xylenes, Total	ND	10.0									

Sample ID	LCS	SampType: LCS	TestCode: 624_W	Units: µg/L	Prep Date:	Run ID: VOA2_021210A					
Client ID: ZZZZZ		Batch ID: R17432	TestNo: E624		Analysis Date: 12/10/02	SeqNo: 296141					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	109.7	5.00	100	0	110	70	130	0	0		
Ethylbenzene	56.7	5.00	50	0	113	70	130	0	0		
m,p-Xylene	112.7	10.0	100	0	113	70	130	0	0		
o-Xylene	59.94	5.00	50	0	120	70	130	0	0		
Toluene	112	5.00	100	0	112	70	130	0	0		

Sample ID	LCSD	SampType: LCSD	TestCode: 624_W	Units: µg/L	Prep Date:	Run ID: VOA2_021210A					
Client ID: ZZZZZ		Batch ID: R17432	TestNo: E624		Analysis Date: 12/10/02	SeqNo: 296142					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	105.1	5.00	100	0	106			109.7	3.3	30	
Ethylbenzene	55.19	5.00	50	0	110			56.7	2.7	30	
m,p-Xylene	109.7	10.0	100	0	110			112.7	2.7	30	
o-Xylene	58.15	5.00	50	0	116			59.94	3.0	30	
Toluene	108.3	5.00	100	0	108			112	3.3	30	

## Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Guadalupe-Blanco River Authority  
**Work Order:** 0212074  
**Project:** GBRA/UGRA - CRP

# ANALYTICAL QC SUMMARY REPORT

**TestCode:** TX1005\_W

Sample ID	MB-5062	SampType:	MBLK	TestCode:	TX1005_W	Units:	mg/L	Prep Date:	12/11/02	Run ID:	5890FID_021217A		
Client ID:	ZZZZZ	Batch ID:	R17506	TestNo:	TX1005			Analysis Date:	12/17/02	SeqNo:	297644		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

>C12-C28  
 >C28-C35  
 C6-C12  
 C6-C35

Sample ID	LCS-5062	SampType:	LCS	TestCode:	TX1005_W	Units:	mg/L	Prep Date:	12/11/02	Run ID:	5890FID_021217A		
Client ID:	ZZZZZ	Batch ID:	R17506	TestNo:	TX1005			Analysis Date:	12/17/02	SeqNo:	297645		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

>C12-C28  
 C6-C12  
 C6-C35

Sample ID	LCSD-5062	SampType:	LCSD	TestCode:	TX1005_W	Units:	mg/L	Prep Date:	12/11/02	Run ID:	5890FID_021217A		
Client ID:	ZZZZZ	Batch ID:	R17506	TestNo:	TX1005			Analysis Date:	12/17/02	SeqNo:	297646		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

>C12-C28  
 C6-C12  
 C6-C35

Sample ID	0212074-01BMS	SampType:	MS	TestCode:	TX1005_W	Units:	mg/L	Prep Date:	12/11/02	Run ID:	5890FID_021217A		
Client ID:	Plum @ I35	Batch ID:	R17506	TestNo:	TX1005			Analysis Date:	12/17/02	SeqNo:	297648		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

>C12-C28  
 C6-C12  
 C6-C35

**Qualifiers:**

ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Guadalupe-Blanco River Authority  
**Work Order:** 0212074  
**Project:** GBRA/UGRA - CRP

# ANALYTICAL QC SUMMARY REPORT

**TestCode:** TX1005\_W

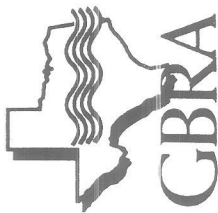
Sample ID	0212074-01BMSD	SampType: MSD	TestCode: TX1005_W	Units: mg/L	Prep Date: 12/11/02	Run ID: 5890FID_021217A					
Client ID:	Plum @ I35	Batch ID: R17506	TestNo: TX1005		Analysis Date: 12/17/02	SeqNo: 297649					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
>C12-C28	69.8	4.45	59.27	1.157	116			68.83	1.4	20	
C6-C12	59.51	4.45	59.27	1.037	98.7			59.03	0.8	20	
C6-C35	129.3	4.45	118.5	3.709	106			127.8	1.2	20	

**Qualifiers:**

ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



Guadalupe-Blanco River Authority-Regional Laboratory  
933 E. Court Street, Seguin, Texas 78155  
(830) 379-5822 (830) 379-9718

## Chain of Custody

Customer Name

GBRA - O-1 Field Study (Runoff)

Sample By

Hopkins Hedden

Printed Name

Signature

Date Collected	Time Collected	Matrix	Sample Name/Description	TNRCC I.D. No.	Grab/Composite	Sample ID	Analysis Requested	Preservation Date
12/3/02	1:30	Water	Plum @ 143135				TPH/BTEX	
	1:45		Sm @ Lohing				TPH/BTEX	
	2:15		Plum @ Plum				TPH/BTEX	
	4:30		Sm @ Sm					
	2:15		Plum @ Plum Dug					
							PA How Higest	
							TPH, If no TPH	
							found, no	
							PAH Required	

Delivered By:

Hopkins Hedden

Date/Time

12/6/02 08:15

Received By:

Hopkins Hedden

Date/Time

12-6-02 08:15

Delivered By:

Hopkins Hedden

Date/Time

Received By:

Date/Time

Condition of Container:

Ice:

12/6/02

22+20

0212074



March 12, 2003

Debbie Magin  
Guadalupe-Blanco River Authority  
933 East Court Street  
Seguin, TX 78155

TEL: (830) 379-5822  
FAX (830) 379-9718

RE: GBRA/UGRA - CRP  
Order No. 0303005

On 3/3/03 11:20:00 AM, LCRA Environmental Laboratory Services (ELS) received 5 samples for analyses under Order No. 0303005.

The following final report provides results related only to the sample(s) as received for the above referenced order number. The results were derived in accordance with the referenced methods unless otherwise stated in the Case Narrative. ELS will not reproduce this report, except in full, and with written authorization from the client.

Thank you for selecting ELS for your analytical needs. If you have questions regarding these results, please contact us at (512) 356-6022. We look forward to assisting you again.

Sincerely,



Jill Curtis  
Project Manager

RECEIVED  
MAR 14 2003

GBRA-SEGUN

# Final Analysis Report

## LCRA Environmental Laboratory Services

Date: 12-Mar-03

CLIENT: Guadalupe-Blanco River Authority  
Lab Order: 0303005 File No: 23709  
Project: GBRA/UGRA - CRP  
Lab ID: 0303005-01 Depth (m): 0

Client Sample ID: San Marcos River @ San Mar  
12628  
Collection Date: 2/28/03 1:40:00 PM BG  
Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: JP
Benzene	ND		5	5.0	µg/L	1	R18669	3/6/03 4:10:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R18669	3/6/03 4:10:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R18669	3/6/03 4:10:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R18669	3/6/03 4:10:00 PM
Toluene	ND		5	5.0	µg/L	1	R18669	3/6/03 4:10:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R18669	3/6/03 4:10:00 PM
Surr: 1,2-Dichloroethane-d4	89.4		0	70-130	%REC	1	R18669	3/6/03 4:10:00 PM
Surr: 4-Bromofluorobenzene	81.6		0	70-130	%REC	1	R18669	3/6/03 4:10:00 PM
Surr: Toluene-d8	86.3		0	70-130	%REC	1	R18669	3/6/03 4:10:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: KRD
>C12-C28	ND		0	4.5	mg/L	1	5430	3/11/03 4:44:00 PM
>C28-C35	ND		0	4.5	mg/L	1	5430	3/11/03 4:44:00 PM
C6-C12	ND		0	4.5	mg/L	1	5430	3/11/03 4:44:00 PM
C6-C35	ND		0	4.5	mg/L	1	5430	3/11/03 4:44:00 PM
Surr: a,a,a-Trifluorotoluene	114		0	70-130	%REC	1	5430	3/11/03 4:44:00 PM
Surr: o-Terphenyl	120		0	70-130	%REC	1	5430	3/11/03 4:44:00 PM

RECEIVED  
MAR 14 2003

GBRA-SEQUIN

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 12-Mar-03

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0303005 File No: 23709  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0303005-02 Depth (m): 0

Client Sample ID: Plum Creek @ Plum Creek R  
 17406

Collection Date: 2/28/03 2:00:00 PM

Matrix: SURFACE WATER

BG

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: JP
Benzene	ND		5	5.0	µg/L	1	R18669	3/6/03 4:36:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R18669	3/6/03 4:36:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R18669	3/6/03 4:36:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R18669	3/6/03 4:36:00 PM
Toluene	ND		5	5.0	µg/L	1	R18669	3/6/03 4:36:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R18669	3/6/03 4:36:00 PM
Surr: 1,2-Dichloroethane-d4	87.7		0	70-130	%REC	1	R18669	3/6/03 4:36:00 PM
Surr: 4-Bromofluorobenzene	78.0		0	70-130	%REC	1	R18669	3/6/03 4:36:00 PM
Surr: Toluene-d8	83.8		0	70-130	%REC	1	R18669	3/6/03 4:36:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>					Analyst: KRD
>C12-C28	ND		0	4.5	mg/L	1	5430	3/11/03 6:04:00 PM
>C28-C35	ND		0	4.5	mg/L	1	5430	3/11/03 6:04:00 PM
C6-C12	ND		0	4.5	mg/L	1	5430	3/11/03 6:04:00 PM
C6-C35	ND		0	4.5	mg/L	1	5430	3/11/03 6:04:00 PM
Surr: a,a,a-Trifluorotoluene	104		0	70-130	%REC	1	5430	3/11/03 6:04:00 PM
Surr: o-Terphenyl	110		0	70-130	%REC	1	5430	3/11/03 6:04:00 PM

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Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 12-Mar-03

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0303005 File No: 23709  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0303005-03 Depth (m): 0

Client Sample ID: Plum Creek @ CR 135  
 12640

Collection Date: 2/28/03 2:45:00 PM  
 Matrix: SURFACE WATER

BG

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: JP
Benzene	ND		5	5.0	µg/L	1	R18669	3/6/03 5:01:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R18669	3/6/03 5:01:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R18669	3/6/03 5:01:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R18669	3/6/03 5:01:00 PM
Toluene	ND		5	5.0	µg/L	1	R18669	3/6/03 5:01:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R18669	3/6/03 5:01:00 PM
Surr: 1,2-Dichloroethane-d4	101		0	70-130	%REC	1	R18669	3/6/03 5:01:00 PM
Surr: 4-Bromofluorobenzene	91.0		0	70-130	%REC	1	R18669	3/6/03 5:01:00 PM
Surr: Toluene-d8	97.4		0	70-130	%REC	1	R18669	3/6/03 5:01:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>					Analyst: KRD
>C12-C28	ND		0	4.5	mg/L	1	5430	3/11/03 6:12:00 PM
>C28-C35	ND		0	4.5	mg/L	1	5430	3/11/03 6:12:00 PM
C6-C12	ND		0	4.5	mg/L	1	5430	3/11/03 6:12:00 PM
C6-C35	ND		0	4.5	mg/L	1	5430	3/11/03 6:12:00 PM
Surr: a,a,a-Trifluorotoluene	110		0	70-130	%REC	1	5430	3/11/03 6:12:00 PM
Surr: o-Terphenyl	109		0	70-130	%REC	1	5430	3/11/03 6:12:00 PM

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GBRA-SEGGIN OFFICE

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



# LCRA Environmental Laboratory Services

Date: 12-Mar-03

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0303005 File No: 23709  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0303005-04 Depth (m): 0

Client Sample ID: San Marcos River @ Luling  
 12626  
 Collection Date: 2/28/03 3:15:00 PM BG  
 Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		E624						Analyst: JP
Benzene	ND		5	5.0	µg/L	1	R18669	3/6/03 5:27:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R18669	3/6/03 5:27:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R18669	3/6/03 5:27:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R18669	3/6/03 5:27:00 PM
Toluene	ND		5	5.0	µg/L	1	R18669	3/6/03 5:27:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R18669	3/6/03 5:27:00 PM
Surr: 1,2-Dichloroethane-d4	100		0	70-130	%REC	1	R18669	3/6/03 5:27:00 PM
Surr: 4-Bromofluorobenzene	88.3		0	70-130	%REC	1	R18669	3/6/03 5:27:00 PM
Surr: Toluene-d8	94.6		0	70-130	%REC	1	R18669	3/6/03 5:27:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		TX1005						Analyst: KRD
>C12-C28	ND		0	4.4	mg/L	1	5430	3/11/03 6:20:00 PM
>C28-C35	ND		0	4.4	mg/L	1	5430	3/11/03 6:20:00 PM
C6-C12	ND		0	4.4	mg/L	1	5430	3/11/03 6:20:00 PM
C6-C35	ND		0	4.4	mg/L	1	5430	3/11/03 6:20:00 PM
Surr: a,a,a-Trifluorotoluene	102		0	70-130	%REC	1	5430	3/11/03 6:20:00 PM
Surr: o-Terphenyl	87.1		0	70-130	%REC	1	5430	3/11/03 6:20:00 PM

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GBRA-SEGUN OFFICE

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 12-Mar-03

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0303005 File No: 23709  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0303005-05 Depth (m): 0

Client Sample ID: San Marcos River @ Luling D  
 12626  
 Collection Date: 2/28/03 3:20:00 PM BG  
 Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: JP
Benzene	ND		5	5.0	µg/L	1	R18669	3/6/03 5:53:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R18669	3/6/03 5:53:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R18669	3/6/03 5:53:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R18669	3/6/03 5:53:00 PM
Toluene	ND		5	5.0	µg/L	1	R18669	3/6/03 5:53:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R18669	3/6/03 5:53:00 PM
Surr: 1,2-Dichloroethane-d4	110		0	70-130	%REC	1	R18669	3/6/03 5:53:00 PM
Surr: 4-Bromofluorobenzene	96.2		0	70-130	%REC	1	R18669	3/6/03 5:53:00 PM
Surr: Toluene-d8	105		0	70-130	%REC	1	R18669	3/6/03 5:53:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>					Analyst: KRD
>C12-C28	ND		0	4.4	mg/L	1	5430	3/11/03 6:29:00 PM
>C28-C35	ND		0	4.4	mg/L	1	5430	3/11/03 6:29:00 PM
C6-C12	ND		0	4.4	mg/L	1	5430	3/11/03 6:29:00 PM
C6-C35	ND		0	4.4	mg/L	1	5430	3/11/03 6:29:00 PM
Surr: a,a,a-Trifluorotoluene	120		0	70-130	%REC	1	5430	3/11/03 6:29:00 PM
Surr: o-Terphenyl	112		0	70-130	%REC	1	5430	3/11/03 6:29:00 PM

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GBRA-SECURITY OFFICE

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 12-Mar-03

CLIENT: Guadalupe-Blanco River Authority  
Project: GBRA/UGRA - CRP  
Lab Order: 0303005

## CASE NARRATIVE

Analytical Comments for METHOD 624\_W, SAMPLE 0303036-01AMSD: Batch R18669: Four of ten RPD's were out of QC limits due to matrix effects. All other QA/QC were within limits. No further corrective action was necessary.

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## LCRA Environmental Laboratory Services

Date: 12-Mar-03

## CLIENT:

Guadalupe-Blanco River Authority

## Work Order:

0303005

## Project:

GBRA/UGRA - CRP

## ANALYTICAL QC SUMMARY REPORT

TestCode: 624\_W

Sample ID	MBLK	SampType: MBLK	TestCode: 624_W	Units: µg/L	Prep Date:	Run ID: VOA2_030306A						
Client ID: ZZZZZ		Batch ID: R18669	TestNo: E624		Analysis Date: 3/6/03	SeqNo: 317934						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	LCS	SampType: LCS	TestCode: 624_W	Units: µg/L	Prep Date:	Run ID: VOA2_030306A					
Client ID: ZZZZZ		Batch ID: R18669	TestNo: E624		Analysis Date: 3/6/03	SeqNo: 317932					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	LCSD	SampType:	LCSD	TestCode:	624_W	Units:	µg/L	Prep Date:	Run ID:	VOA2_030306A	
Client ID:	ZZZZZ	Batch ID:	R18669	TestNo:	E624			Analysis Date:	SeqNo:	317933	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	121.4	5.00	100	0	121			114.6	5.7	30	
Ethylbenzene	59.48	5.00	50	0	119			56.76	4.7	30	
m,p-Xylene	118.1	10.0	100	0	118			112.7	4.6	30	
o-Xylene	60.22	5.00	50	0	120			57.47	4.7	30	
Toluene	118.1	5.00	100	0	118			112.6	4.7	30	

## Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Guadalupe-Blanco River Authority  
Work Order: 0303005  
Project: GBRA/UGRA - CRP

# ANALYTICAL QC SUMMARY REPORT

TestCode: 624\_W

Sample ID	0303036-01AMS	SampType: MS	TestCode: 624_W	Units: µg/L	Prep Date:	Run ID: VOA2_030306A					
Client ID:	ZZZZ	Batch ID: R18669	TestNo: E624		Analysis Date: 3/6/03	SeqNo: 317935					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	78.58	5.00	100	0	78.6	70	130	0	0		
Ethylbenzene	38.65	5.00	50	0	77.3	70	130	0	0		
m,p-Xylene	79.09	10.0	100	0	79.1	70	130	0	0		
o-Xylene	38.02	5.00	50	0	76	70	130	0	0		
Toluene	86.43	5.00	100	10.11	76.3	70	130	0	0		

Sample ID	0303036-01AMS	SampType: MSD	TestCode: 624_W	Units: µg/L	Prep Date:	Run ID: VOA2_030306A					
Client ID:	ZZZZ	Batch ID: R18669	TestNo: E624		Analysis Date: 3/6/03	SeqNo: 317936					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	106.1	5.00	100	0	106			78.58	29.8	30	
Ethylbenzene	53.04	5.00	50	0	106			38.65	31.4	30	R
m,p-Xylene	109	10.0	100	0	109			79.09	31.8	30	R
o-Xylene	51.53	5.00	50	0	103			38.02	30.2	30	R
Toluene	118.7	5.00	100	10.11	109			86.43	31.4	30	R

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GBRA/UGRA - CRP

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Guadalupe-Blanco River Authority  
Work Order: 0303005  
Project: GBRA/UGRA - CRP

## ANALYTICAL QC SUMMARY REPORT

TestCode: TX1005\_W

Sample ID	MB-5430	SampType: MBLK	TestCode: TX1005_W	Units: mg/L	Prep Date: 3/6/03	Run ID: 5890FID_030310A					
Client ID:	ZZZZZ	Batch ID: 5430	TestNo: TX1005		Analysis Date: 3/11/03	SeqNo: 318352					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	LCS-5430	SampType: LCS	TestCode: TX1005_W	Units: mg/L	Prep Date: 3/6/03	Run ID: 5890FID_030310A					
Client ID:	ZZZZZ	Batch ID: 5430	TestNo: TX1005		Analysis Date: 3/11/03	SeqNo: 318353					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
>C12-C28	65.63	5.00	66.6	0	98.5	75	125	0	0		
C6-C12	54.41	5.00	66.6	0	81.7	75	125	0	0		
C6-C35	120	5.00	133.2	0	90.1	75	125	0	0		

Sample ID	LCSD-5430	SampType: LCSD	TestCode: TX1005_W	Units: mg/L	Prep Date: 3/6/03	Run ID: 5890FID_030310A					
Client ID: ZZZZZ		Batch ID: 5430	TestNo: TX1005		Analysis Date: 3/11/03	SeqNo: 318354					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
>C12-C28	70.2	5.00	66.6	0	105			65.63	6.7	20	
C6-C12	51.82	5.00	66.6	0	77.8			54.41	4.9	20	
C6-C35	122	5.00	133.2	0	91.6			120	1.7	20	

Sample ID	0303005-01BMS	SampType: MS	TestCode: TX1005_W	Units: mg/L	Prep Date: 3/6/03	Run ID: 5890FID_030310A					
Client ID:	San Marcos River	Batch ID: 5430	TestNo: TX1005		Analysis Date: 3/11/03	SeqNo: 318356					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
>C12-C28	64.92	4.50	59.96	1.531	106	75	125	0	0		
C6-C12	46.28	4.50	59.96	1.311	75	75	125	0	0		
C6-C35	111.2	4.50	119.9	0	92.7	75	125	0	0		

Qualifiers:

ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Guadalupe-Blanco River Authority  
Work Order: 0303005  
Project: GBRA/UGRA - CRP

# ANALYTICAL QC SUMMARY REPORT

TestCode: TX1005\_W

Sample ID	0303005-01BMSD	SampType: MSD	TestCode: TX1005_W	Units: mg/L	Prep Date: 3/6/03	Run ID: 5890FID_030310A					
Client ID:	San Marcos River	Batch ID: 5430	TestNo: TX1005		Analysis Date: 3/11/03	SeqNo: 318357					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
>C12-C28	62.5	4.48	59.71	1.531	102			64.92	3.8	20	
C6-C12	43.42	4.48	59.71	1.311	70.5			46.28	6.4	20	
C6-C35	105.9	4.48	119.4	6.688	83.1			111.2	4.9	20	

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Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
B - Analyte detected in the associated Method Blank



GBRA-CRP

Customer Name

Sample By Hoppy Haden

Printed Name

Signature \_\_\_\_\_

[illegible]

Delivered By: Nick McCall  
Delivered By: [Signature]

Date/Time 2.28-03 1610

Received By:

Josef Karpman

Date/Time 2-28-03 16:20

Date/Time 3/3/03 1120 Received By:

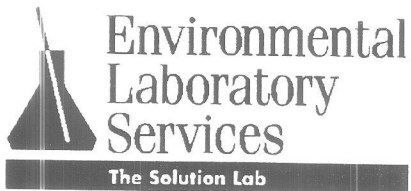
Date/Time 2.3.03 1120

Ice:

Received by:

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May 05, 2003

Debbie Magin  
Guadalupe-Blanco River Authority  
933 East Court Street  
Seguin, TX 78155

TEL: (830) 379-5822  
FAX (830) 379-9718

RE: GBRA/UGRA - CRP  
Order No. 0304375

On 4/30/2003 2:45:00 PM, LCRA Environmental Laboratory Services (ELS) received 5 samples for analyses under Order No. 0304375.

The following final report provides results related only to the sample(s) as received for the above referenced order number. The results were derived in accordance with the referenced methods unless otherwise stated in the Case Narrative. ELS will not reproduce this report, except in full, and with written authorization from the client.

Thank you for selecting ELS for your analytical needs. If you have questions regarding these results, please contact us at (512) 356-6022. We look forward to assisting you again.

Sincerely,



Jill Curtis  
Project Manager

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# Final Analysis Report

## LCRA Environmental Laboratory Services

Date: 05-May-03

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0304375 File No: 24444  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0304375-01 Depth (m): 0

Client Sample ID: Plum Cr @ CR 135

Collection Date: 4/30/2003 11:40:00 AM BG  
 Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: JP
Benzene	ND		5	5.0	µg/L	1	R19525	5/1/2003 5:14:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R19525	5/1/2003 5:14:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R19525	5/1/2003 5:14:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R19525	5/1/2003 5:14:00 PM
Toluene	ND		5	5.0	µg/L	1	R19525	5/1/2003 5:14:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R19525	5/1/2003 5:14:00 PM
Surr: 1,2-Dichloroethane-d4	107		0	70-130	%REC	1	R19525	5/1/2003 5:14:00 PM
Surr: 4-Bromofluorobenzene	88.9		0	70-130	%REC	1	R19525	5/1/2003 5:14:00 PM
Surr: Toluene-d8	96.0		0	70-130	%REC	1	R19525	5/1/2003 5:14:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: KRD
>C12-C28	ND		5	4.5	mg/L	1	5692	5/5/2003 10:27:00 AM
>C28-C35	ND		5	4.5	mg/L	1	5692	5/5/2003 10:27:00 AM
C6-C12	ND		5	4.5	mg/L	1	5692	5/5/2003 10:27:00 AM
C6-C35	ND		5	4.5	mg/L	1	5692	5/5/2003 10:27:00 AM
Surr: a,a,a-Trifluorotoluene	109		0	70-130	%REC	1	5692	5/5/2003 10:27:00 AM
Surr: o-Terphenyl	80.2		0	70-130	%REC	1	5692	5/5/2003 10:27:00 AM

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 05-May-03

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0304375 File No: 24444  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0304375-02 Depth (m): 0

Client Sample ID: San Marcos R @ Luling

Collection Date: 4/30/2003 12:03:00 PM  
 Matrix: SURFACE WATER

BG

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: JP
Benzene	ND		5	5.0	µg/L	1	R19525	5/1/2003 3:32:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R19525	5/1/2003 3:32:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R19525	5/1/2003 3:32:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R19525	5/1/2003 3:32:00 PM
Toluene	ND		5	5.0	µg/L	1	R19525	5/1/2003 3:32:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R19525	5/1/2003 3:32:00 PM
Surr: 1,2-Dichloroethane-d4	107		0	70-130	%REC	1	R19525	5/1/2003 3:32:00 PM
Surr: 4-Bromofluorobenzene	95.8		0	70-130	%REC	1	R19525	5/1/2003 3:32:00 PM
Surr: Toluene-d8	103		0	70-130	%REC	1	R19525	5/1/2003 3:32:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>					Analyst: KRD
>C12-C28	ND		5	4.4	mg/L	1	5692	5/5/2003 10:49:00 AM
>C28-C35	ND		5	4.4	mg/L	1	5692	5/5/2003 10:49:00 AM
C6-C12	ND		5	4.4	mg/L	1	5692	5/5/2003 10:49:00 AM
C6-C35	ND		5	4.4	mg/L	1	5692	5/5/2003 10:49:00 AM
Surr: a,a,a-Trifluorotoluene	104		0	70-130	%REC	1	5692	5/5/2003 10:49:00 AM
Surr: o-Terphenyl	104		0	70-130	%REC	1	5692	5/5/2003 10:49:00 AM

**Qualifiers:**  
 ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 05-May-03

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0304375 File No: 24444  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0304375-03 Depth (m): 0

Client Sample ID: Plum Creek @ Plum Cr Rd

Collection Date: 4/30/2003 1:29:00 PM BG

Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: JP
Benzene	ND		5	5.0	µg/L	1	R19525	5/1/2003 3:57:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R19525	5/1/2003 3:57:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R19525	5/1/2003 3:57:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R19525	5/1/2003 3:57:00 PM
Toluene	ND		5	5.0	µg/L	1	R19525	5/1/2003 3:57:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R19525	5/1/2003 3:57:00 PM
Surr: 1,2-Dichloroethane-d4	110		0	70-130	%REC	1	R19525	5/1/2003 3:57:00 PM
Surr: 4-Bromofluorobenzene	99.6		0	70-130	%REC	1	R19525	5/1/2003 3:57:00 PM
Surr: Toluene-d8	104		0	70-130	%REC	1	R19525	5/1/2003 3:57:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>					Analyst: KRD
>C12-C28	ND		5	4.5	mg/L	1	5692	5/5/2003 10:56:00 AM
>C28-C35	ND		5	4.5	mg/L	1	5692	5/5/2003 10:56:00 AM
C6-C12	ND		5	4.5	mg/L	1	5692	5/5/2003 10:56:00 AM
C6-C35	ND		5	4.5	mg/L	1	5692	5/5/2003 10:56:00 AM
Surr: a,a,a-Trifluorotoluene	101		0	70-130	%REC	1	5692	5/5/2003 10:56:00 AM
Surr: o-Terphenyl	81.1		0	70-130	%REC	1	5692	5/5/2003 10:56:00 AM

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 05-May-03

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0304375 File No: 24444  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0304375-04 Depth (m): 0

Client Sample ID: San Marcos River @ San Mar

Collection Date: 4/30/2003 1:51:00 PM BG  
 Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: <b>JP</b>
Benzene	ND		5	5.0	µg/L	1	R19525	5/1/2003 4:23:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R19525	5/1/2003 4:23:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R19525	5/1/2003 4:23:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R19525	5/1/2003 4:23:00 PM
Toluene	ND		5	5.0	µg/L	1	R19525	5/1/2003 4:23:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R19525	5/1/2003 4:23:00 PM
Surr: 1,2-Dichloroethane-d4	113		0	70-130	%REC	1	R19525	5/1/2003 4:23:00 PM
Surr: 4-Bromofluorobenzene	98.4		0	70-130	%REC	1	R19525	5/1/2003 4:23:00 PM
Surr: Toluene-d8	106		0	70-130	%REC	1	R19525	5/1/2003 4:23:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: <b>KRD</b>
>C12-C28	ND		5	4.5	mg/L	1	5692	5/5/2003 11:03:00 AM
>C28-C35	ND		5	4.5	mg/L	1	5692	5/5/2003 11:03:00 AM
C6-C12	ND		5	4.5	mg/L	1	5692	5/5/2003 11:03:00 AM
C6-C35	ND		5	4.5	mg/L	1	5692	5/5/2003 11:03:00 AM
Surr: a,a,a-Trifluorotoluene	107		0	70-130	%REC	1	5692	5/5/2003 11:03:00 AM
Surr: o-Terphenyl	84.5		0	70-130	%REC	1	5692	5/5/2003 11:03:00 AM

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 05-May-03

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0304375 File No: 24444  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0304375-05 Depth (m): 0

Client Sample ID: San Marcos River @ San Mar

Collection Date: 4/30/2003 1:56:00 PM **BG**  
 Matrix: SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	BatchID	Date Analyzed
<b>VOLATILES BY GCMS</b>								
		<b>E624</b>						Analyst: <b>JP</b>
Benzene	ND		5	5.0	µg/L	1	R19525	5/1/2003 4:48:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	R19525	5/1/2003 4:48:00 PM
m,p-Xylene	ND		10	10	µg/L	1	R19525	5/1/2003 4:48:00 PM
o-Xylene	ND		5	5.0	µg/L	1	R19525	5/1/2003 4:48:00 PM
Toluene	ND		5	5.0	µg/L	1	R19525	5/1/2003 4:48:00 PM
Xylenes, Total	ND		10	10	µg/L	1	R19525	5/1/2003 4:48:00 PM
Surr: 1,2-Dichloroethane-d4	112		0	70-130	%REC	1	R19525	5/1/2003 4:48:00 PM
Surr: 4-Bromofluorobenzene	97.4		0	70-130	%REC	1	R19525	5/1/2003 4:48:00 PM
Surr: Toluene-d8	106		0	70-130	%REC	1	R19525	5/1/2003 4:48:00 PM
<b>TNRCC METHOD 1005-TPH</b>								
		<b>TX1005</b>						Analyst: <b>KRD</b>
>C12-C28	ND		5	4.5	mg/L	1	5692	5/5/2003 11:10:00 AM
>C28-C35	ND		5	4.5	mg/L	1	5692	5/5/2003 11:10:00 AM
C6-C12	ND		5	4.5	mg/L	1	5692	5/5/2003 11:10:00 AM
C6-C35	ND		5	4.5	mg/L	1	5692	5/5/2003 11:10:00 AM
Surr: a,a,a-Trifluorotoluene	102		0	70-130	%REC	1	5692	5/5/2003 11:10:00 AM
Surr: o-Terphenyl	71.2		0	70-130	%REC	1	5692	5/5/2003 11:10:00 AM

## Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

## LCRA Environmental Laboratory Services

Date: 05-May-03

**CLIENT:** Guadalupe-Blanco River Authority  
**Project:** GBRA/UGRA - CRP  
**Lab Order:** 0304375

## CASE NARRATIVE

# LCRA Environmental Laboratory Services

Date: 05-May-03

**CLIENT:** Guadalupe-Blanco River Authority  
**Work Order:** 0304375  
**Project:** GBRA/UGRA - CRP

## ANALYTICAL QC SUMMARY REPORT

TestCode: 624\_W

Sample ID	MBLK	SampType: MBLK	TestCode: 624_W	Units: µg/L	Prep Date:	Run ID: VOA2_030501A					
Client ID:	ZZZZZ	Batch ID: R19525	TestNo: E624		Analysis Date: 5/1/2003	SeqNo: 336792					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	LCS	SampType: LCS	TestCode: 624_W	Units: µg/L	Prep Date:	Run ID: VOA2_030501A					
Client ID: ZZZZZ	R19525	Batch ID: R19525	TestNo: E624		Analysis Date: 5/1/2003	SeqNo: 336790					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	LCSD	SampType: LCSD	TestCode: 624_W	Units: µg/L	Prep Date:	Run ID: VOA2_030501A					
Client ID: ZZZZZ		Batch ID: R19525	TestNo: E624		Analysis Date: 5/1/2003	SeqNo: 336791					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	104.7	5.00	100	0	105			98.46	6.1	30	
Ethylbenzene	54.99	5.00	50	0	110			52.26	5.1	30	
m,p-Xylene	104.8	10.0	100	0	105			100.3	4.3	30	
o-Xylene	55.86	5.00	50	0	112			54.15	3.1	30	
Toluene	104.6	5.00	100	0	105			99.28	5.2	30	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



**CLIENT:** Guadalupe-Blanco River Authority  
**Work Order:** 0304375  
**Project:** GBRA/UGRA - CRP

# ANALYTICAL QC SUMMARY REPORT

**TestCode:** TX1005\_W

Sample ID	MB-5692	SampType:	MBLK	TestCode:	TX1005_W	Units:	mg/L	Prep Date:	5/1/2003	Run ID:	5890FID_030505A			
Client ID:	ZZZZZ	Batch ID:	5692	TestNo:	TX1005			Analysis Date:	5/5/2003	SeqNo:	336892			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	LCS-5692	SampType: LCS	TestCode: TX1005_W	Units: mg/L	Prep Date: 5/1/2003	Run ID: 5890FID_030505A					
Client ID:	ZZZZZ	Batch ID: 5692	TestNo: TX1005		Analysis Date: 5/5/2003	SeqNo: 336893					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	LCSD-5692	SampType: LCSD	TestCode: TX1005_W	Units: mg/L	Prep Date: 5/1/2003	Run ID: 5890FID_030505A					
Client ID:	ZZZZZ	Batch ID: 5692	TestNo: TX1005		Analysis Date: 5/5/2003	SeqNo: 336894					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
>C12-C28	70.24	5.00	66.6	0	105			67.48	4.0	20	
C6-C12	78.87	5.00	66.6	0	118			70.16	11.7	20	
C6-C35	149.1	5.00	133.2	0	112			137.7	7.9	20	

Sample ID	0304375-01BMS	SampType: MS	TestCode: TX1005_W	Units: mg/L	Prep Date: 5/1/2003	Run ID: 5890FID_030505A					
Client ID:	Plum Cr @ CR 135	Batch ID: 5692	TestNo: TX1005		Analysis Date: 5/5/2003	SeqNo: 336896					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:**

ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Guadalupe-Blanco River Authority  
**Work Order:** 0304375  
**Project:** GBRA/UGRA - CRP

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** TX1005\_W

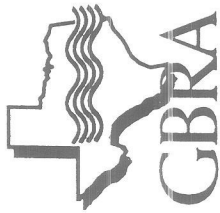
Sample ID	0304375-01BMSD	SampType: MSD	TestCode: TX1005_W	Units: mg/L	Prep Date: 5/1/2003	Run ID: 5890FID_030505A					
Client ID:	Plum Cr @ CR 135	Batch ID: 5692	TestNo: TX1005		Analysis Date: 5/5/2003	SeqNo: 336897					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
>C12-C28	66.14	4.44	59.16	0	112			64.46	2.6	20	
C6-C12	73.57	4.44	59.16	0	124			63.66	14.4	20	
C6-C35	139.7	4.44	118.3	2.874	116			128.2	8.6	20	

**Qualifiers:**

ND - Not Detected at the Reporting Limit  
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S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



Guadalupe-Blanco River Authority-Regional Laboratory  
933 E. Court Street, Seguin, Texas 78155  
(830) 379-5822 (830) 379-9718

## Chain of Custody

Customer Name

DBRA

Sample By

Printed Name

Signature

Date Collected	Time Collected	Matrix	Sample Name/Description	TNRCC I.D. No.	Grab/Composite	Sample ID	Analysis Requested	Preservation Date
4/30/03	1140	Water	Plum Cr @ CR 135		G	-01	TPH, BTEX, PAH	
	1203		San Marcos R @ Ruling			-02		
	1329		Plum Creek @ Plum Cr Rd			-03		
	1351		San Marcos River @			-04		
			San Marcos					
	1356		San Marcos River @			-05		
			San Marcos Dup					
							PAH or Highest TPH	

Delivered By:

Date/Time

Received By:

Date/Time

4/30/03 1445

Delivered By:

Date/Time

Received By:

Date/Time

4/30/03

Condition of Container:

Le C

Ice:

log rec: Jeff Slurbs

4/30/03



August 05, 2003

Debbie Magin  
Guadalupe-Blanco River Authority  
933 East Court Street  
Seguin, TX 78155

TEL: (830) 379-5822  
FAX (830) 379-9718

RE: GBRA/UGRA - CRP  
Order No. 0307068

On 7/7/2003 4:12:00 PM, LCRA Environmental Laboratory Services (ELS) received 5 samples for analyses under Order No. 0307068.

The following final report provides results related only to the sample(s) as received for the above referenced order number. The results were derived in accordance with the referenced methods unless otherwise stated in the Case Narrative. ELS will not reproduce this report, except in full, and with written authorization from the client.

Thank you for selecting ELS for your analytical needs. If you have questions regarding these results, please contact us at (512) 356-6022. We look forward to assisting you again.

Sincerely,

Jill Curtis  
Project Manager

# LCRA Environmental Laboratory Services

Date: 14-Jul-03

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0307068 File No: 25299  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0307068-01

Client Sample ID: San Marcos R @ Luling  
 Collection Date: 7/7/2003 1:44:00 PM  
 Matrix: AQUEOUS

Analyses	Result	Qual	AWRL	PQL	Units	DF	Batch ID	Date Analyzed
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>	<b>(TX1005)</b>				Analyst: <b>KRD</b>
>C12-C28	ND		5	4.5	mg/L	1	20674	7/14/2003 11:47:00 A
>C28-C35	ND		5	4.5	mg/L	1	20674	7/14/2003 11:47:00 A
C6-C12	ND		5	4.5	mg/L	1	20674	7/14/2003 11:47:00 A
C6-C35	ND		5	4.5	mg/L	1	20674	7/14/2003 11:47:00 A
Surr: a,a,a-Trifluorotoluene	114		0	70-130	%REC	1	20674	7/14/2003 11:47:00 A
Surr: o-Terphenyl	126		0	70-130	%REC	1	20674	7/14/2003 11:47:00 A
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: <b>MK</b>
Benzene	ND		5	5.0	µg/L	1	20637	7/9/2003 12:30:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	20637	7/9/2003 12:30:00 PM
m,p-Xylene	ND		10	10	µg/L	1	20637	7/9/2003 12:30:00 PM
o-Xylene	ND		5	5.0	µg/L	1	20637	7/9/2003 12:30:00 PM
Toluene	ND		5	5.0	µg/L	1	20637	7/9/2003 12:30:00 PM
Xylenes, Total	ND		10	10	µg/L	1	20637	7/9/2003 12:30:00 PM
Surr: 1,2-Dichloroethane-d4	85.3		0	70-130	%REC	1	20637	7/9/2003 12:30:00 PM
Surr: 4-Bromofluorobenzene	87.6		0	70-130	%REC	1	20637	7/9/2003 12:30:00 PM
Surr: Toluene-d8	98.3		0	70-130	%REC	1	20637	7/9/2003 12:30:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 14-Jul-03

**CLIENT:** Guadalupe-Blanco River Authority  
**Lab Order:** 0307068 **File No:** 25299  
**Project:** GBRA/UGRA - CRP  
**Lab ID:** 0307068-02

**Client Sample ID:** Plum Creek @ 135  
**Collection Date:** 7/7/2003 2:08:00 PM  
**Matrix:** AQUEOUS

Analyses	Result	Qual	AWRL	PQL	Units	DF	Batch ID	Date Analyzed
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>	<b>(TX1005)</b>				Analyst: <b>KRD</b>
>C12-C28	ND		5	4.4	mg/L	1	20674	7/14/2003 12:10:00 P
>C28-C35	ND		5	4.4	mg/L	1	20674	7/14/2003 12:10:00 P
C6-C12	ND		5	4.4	mg/L	1	20674	7/14/2003 12:10:00 P
C6-C35	ND		5	4.4	mg/L	1	20674	7/14/2003 12:10:00 P
Surr: a,a,a-Trifluorotoluene	103		0	70-130	%REC	1	20674	7/14/2003 12:10:00 P
Surr: o-Terphenyl	109		0	70-130	%REC	1	20674	7/14/2003 12:10:00 P
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: <b>MK</b>
Benzene	ND		5	5.0	µg/L	1	20637	7/9/2003 12:55:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	20637	7/9/2003 12:55:00 PM
m,p-Xylene	ND		10	10	µg/L	1	20637	7/9/2003 12:55:00 PM
o-Xylene	ND		5	5.0	µg/L	1	20637	7/9/2003 12:55:00 PM
Toluene	ND		5	5.0	µg/L	1	20637	7/9/2003 12:55:00 PM
Xylenes, Total	ND		10	10	µg/L	1	20637	7/9/2003 12:55:00 PM
Surr: 1,2-Dichloroethane-d4	90.8		0	70-130	%REC	1	20637	7/9/2003 12:55:00 PM
Surr: 4-Bromofluorobenzene	96.5		0	70-130	%REC	1	20637	7/9/2003 12:55:00 PM
Surr: Toluene-d8	107		0	70-130	%REC	1	20637	7/9/2003 12:55:00 PM

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 14-Jul-03

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0307068 File No: 25299  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0307068-03

Client Sample ID: Plum Creek @ 135 Dup.  
 Collection Date: 7/7/2003 2:08:00 PM  
 Matrix: AQUEOUS

Analyses	Result	Qual	AWRL	PQL	Units	DF	Batch ID	Date Analyzed
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>	<b>(TX1005)</b>				Analyst: <b>KRD</b>
>C12-C28	ND		5	4.4	mg/L	1	20674	7/14/2003 12:18:00 P
>C28-C35	ND		5	4.4	mg/L	1	20674	7/14/2003 12:18:00 P
C6-C12	ND		5	4.4	mg/L	1	20674	7/14/2003 12:18:00 P
C6-C35	ND		5	4.4	mg/L	1	20674	7/14/2003 12:18:00 P
Surr: a,a,a-Trifluorotoluene	105		0	70-130	%REC	1	20674	7/14/2003 12:18:00 P
Surr: o-Terphenyl	92.8		0	70-130	%REC	1	20674	7/14/2003 12:18:00 P
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: <b>MK</b>
Benzene	ND		5	5.0	µg/L	1	20637	7/9/2003 1:21:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	20637	7/9/2003 1:21:00 PM
m,p-Xylene	ND		10	10	µg/L	1	20637	7/9/2003 1:21:00 PM
o-Xylene	ND		5	5.0	µg/L	1	20637	7/9/2003 1:21:00 PM
Toluene	ND		5	5.0	µg/L	1	20637	7/9/2003 1:21:00 PM
Xylenes, Total	ND		10	10	µg/L	1	20637	7/9/2003 1:21:00 PM
Surr: 1,2-Dichloroethane-d4	92.6		0	70-130	%REC	1	20637	7/9/2003 1:21:00 PM
Surr: 4-Bromofluorobenzene	98.9		0	70-130	%REC	1	20637	7/9/2003 1:21:00 PM
Surr: Toluene-d8	110		0	70-130	%REC	1	20637	7/9/2003 1:21:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

# LCRA Environmental Laboratory Services

Date: 14-Jul-03

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0307068 File No: 25299  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0307068-04

Client Sample ID: Plum Creek @ PC Rd.

Collection Date: 7/7/2003 3:07:00 PM

Matrix: AQUEOUS

Analyses	Result	Qual	AWRL	PQL	Units	DF	Batch ID	Date Analyzed
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>	<b>(TX1005)</b>				Analyst: <b>KRD</b>
>C12-C28	ND		5	4.4	mg/L	1	20674	7/14/2003 12:26:00 P
>C28-C35	ND		5	4.4	mg/L	1	20674	7/14/2003 12:26:00 P
C6-C12	ND		5	4.4	mg/L	1	20674	7/14/2003 12:26:00 P
C6-C35	ND		5	4.4	mg/L	1	20674	7/14/2003 12:26:00 P
Surr: a,a,a-Trifluorotoluene	102		0	70-130	%REC	1	20674	7/14/2003 12:26:00 P
Surr: o-Terphenyl	95.9		0	70-130	%REC	1	20674	7/14/2003 12:26:00 P
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: <b>MK</b>
Benzene	ND		5	5.0	µg/L	1	20637	7/9/2003 1:46:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	20637	7/9/2003 1:46:00 PM
m,p-Xylene	ND		10	10	µg/L	1	20637	7/9/2003 1:46:00 PM
o-Xylene	ND		5	5.0	µg/L	1	20637	7/9/2003 1:46:00 PM
Toluene	ND		5	5.0	µg/L	1	20637	7/9/2003 1:46:00 PM
Xylenes, Total	ND		10	10	µg/L	1	20637	7/9/2003 1:46:00 PM
Surr: 1,2-Dichloroethane-d4	93.2		0	70-130	%REC	1	20637	7/9/2003 1:46:00 PM
Surr: 4-Bromofluorobenzene	102		0	70-130	%REC	1	20637	7/9/2003 1:46:00 PM
Surr: Toluene-d8	111		0	70-130	%REC	1	20637	7/9/2003 1:46:00 PM

**Qualifiers:**  
 ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



# LCRA Environmental Laboratory Services

Date: 14-Jul-03

CLIENT: Guadalupe-Blanco River Authority  
 Lab Order: 0307068 File No: 25299  
 Project: GBRA/UGRA - CRP  
 Lab ID: 0307068-05

Client Sample ID: Sam Marcos @ San Marcos  
 Collection Date: 7/7/2003 3:30:00 PM  
 Matrix: AQUEOUS

Analyses	Result	Qual	AWRL	PQL	Units	DF	Batch ID	Date Analyzed
<b>TNRC METHOD 1005-TPH</b>								
				<b>TX1005</b>	<b>(TX1005)</b>			Analyst: <b>KRD</b>
>C12-C28	ND		5	5.0	mg/L	1	20674	7/14/2003 12:33:00 P
>C28-C35	ND		5	5.0	mg/L	1	20674	7/14/2003 12:33:00 P
C6-C12	ND		5	5.0	mg/L	1	20674	7/14/2003 12:33:00 P
C6-C35	ND		5	5.0	mg/L	1	20674	7/14/2003 12:33:00 P
Surr: a,a,a-Trifluorotoluene	105		0	70-130	%REC	1	20674	7/14/2003 12:33:00 P
Surr: o-Terphenyl	98.4		0	70-130	%REC	1	20674	7/14/2003 12:33:00 P
<b>VOLATILES BY GCMS</b>								
				<b>E624</b>				Analyst: <b>MK</b>
Benzene	ND		5	5.0	µg/L	1	20637	7/9/2003 2:12:00 PM
Ethylbenzene	ND		5	5.0	µg/L	1	20637	7/9/2003 2:12:00 PM
m,p-Xylene	ND		10	10	µg/L	1	20637	7/9/2003 2:12:00 PM
o-Xylene	ND		5	5.0	µg/L	1	20637	7/9/2003 2:12:00 PM
Toluene	ND		5	5.0	µg/L	1	20637	7/9/2003 2:12:00 PM
Xylenes, Total	ND		10	10	µg/L	1	20637	7/9/2003 2:12:00 PM
Surr: 1,2-Dichloroethane-d4	93.3		0	70-130	%REC	1	20637	7/9/2003 2:12:00 PM
Surr: 4-Bromofluorobenzene	98.3		0	70-130	%REC	1	20637	7/9/2003 2:12:00 PM
Surr: Toluene-d8	112		0	70-130	%REC	1	20637	7/9/2003 2:12:00 PM

**Qualifiers:**  
 ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

**LCRA Environmental Laboratory Services**

**Date:** 05-Aug-03

**CLIENT:** Guadalupe-Blanco River Authority  
**Project:** GBRA/UGRA - CRP  
**Lab Order:** 0307068

**CASE NARRATIVE**

# LCRA Environmental Laboratory Services

Date: 05-Aug-03

CLIENT: Guadalupe-Blanco River Authority

Work Order: 0307068

Project: GBRA/UGRA - CRP

## ANALYTICAL QC SUMMARY REPORT

BatchID: 6012

Sample ID	MB-6012	SampType:	MBLK	TestCode:	TX1005_W	Units:	mg/L	Prep Date:	7/11/2003	RunNo:	20674			
Client ID:	ZZZZZ	Batch ID:	6012	TestNo:	TX1005		(TX1005)	Analysis Date:	7/14/2003	SeqNo:	365137			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	LCS-6012	SampType: LCS	TestCode: TX1005_W	Units: mg/L	Prep Date: 7/11/2003	RunNo: 20674					
Client ID:	ZZZZZ	Batch ID: 6012	TestNo: TX1005	(TX1005)	Analysis Date: 7/14/2003	SeqNo: 365138					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	LCSD-6012	SampType: LCSD	TestCode: TX1005_W	Units: mg/L	Prep Date: 7/11/2003	RunNo: 20674						
Client ID: ZZZZZ		Batch ID: 6012	TestNo: TX1005	(TX1005)	Analysis Date: 7/14/2003	SeqNo: 365139						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	0307068-01BMS	SampType: MS	TestCode: TX1005_W	Units: mg/L	Prep Date: 7/11/2003	RunNo: 20674					
Client ID:	San Marcos R @ Lu	Batch ID: 6012	TestNo: TX1005	(TX1005)	Analysis Date: 7/14/2003	SeqNo: 365141					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

**CLIENT:** Guadalupe-Blanco River Authority  
**Work Order:** 0307068  
**Project:** GBRA/UGRA - CRP

## ANALYTICAL QC SUMMARY REPORT

**BatchID:** 6012

Sample ID	0307068-01BMSD	SampType: MSD	TestCode: TX1005_W	Units: mg/L	Prep Date: 7/11/2003	RunNo: 20674						
Client ID:	San Marcos R @ Lu	Batch ID: 6012	TestNo: TX1005	(TX1005)	Analysis Date: 7/14/2003	SeqNo: 365142						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
>C12-C28		39.31	4.45	59.22	0	66.4	0	2000	44.71	12.8	20	
C6-C12		61.63	4.45	59.22	0	104	0	2000	70.1	12.9	20	
C6-C35		100.9	4.45	118.4	0	85.2	0	2000	114.8	12.9	20	

<b>Qualifiers:</b>	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

**CLIENT:** Guadalupe-Blanco River Authority  
**Work Order:** 0307068  
**Project:** GBRA/UGRA - CRP

## ANALYTICAL QC SUMMARY REPORT

**BatchID:** R20637

Sample ID	MBLK	SampType:	MBLK	TestCode:	624_W	Units:	µg/L	Prep Date:	RunNo:	20637			
Client ID:	ZZZZZ	Batch ID:	R20637	TestNo:	E624			Analysis Date:	7/9/2003	SeqNo:	364650		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	ND	5.00											
Ethylbenzene	ND	5.00											
m,p-Xylene	ND	10.0											
o-Xylene	ND	5.00											
Toluene	ND	5.00											
Xylenes, Total	ND	10.0											

Sample ID	LCS	SampType:	LCS	TestCode:	624_W	Units:	µg/L	Prep Date:	RunNo:	20637			
Client ID:	ZZZZZ	Batch ID:	R20637	TestNo:	E624			Analysis Date:	7/9/2003	SeqNo:	364648		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	115.0	5.00	100	0	115	70	130						
Ethylbenzene	57.06	5.00	50	0	114	70	130						
m,p-Xylene	109.6	10.0	100	0	110	70	130						
o-Xylene	55.86	5.00	50	0	112	70	130						
Toluene	114.2	5.00	100	0	114	70	130						

Sample ID	LCSD	SampType:	LCSD	TestCode:	624_W	Units:	µg/L	Prep Date:	RunNo:	20637			
Client ID:	ZZZZZ	Batch ID:	R20637	TestNo:	E624			Analysis Date:	7/9/2003	SeqNo:	364649		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	115.0	5.00	100	0	115	0	2000	115	0.03	30			
Ethylbenzene	57.49	5.00	50	0	115	0	2000	57.06	0.75	30			
m,p-Xylene	110.4	10.0	100	0	110	0	2000	109.6	0.72	30			
o-Xylene	56.20	5.00	50	0	112	0	2000	55.86	0.61	30			
Toluene	114.8	5.00	100	0	115	0	2000	114.2	0.54	30			

<b>Qualifiers:</b>	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

**CLIENT:** Guadalupe-Blanco River Authority  
**Work Order:** 0307068  
**Project:** GBRA/UGRA - CRP

## ANALYTICAL QC SUMMARY REPORT

**BatchID:** R20637

Sample ID	0307068-05AMS	SampType:	MS	TestCode:	624_W	Units:	µg/L	Prep Date:	RunNo:	20637	
Client ID:	Sam Marcos @ San	Batch ID:	R20637	TestNo:	E624			Analysis Date:	SeqNo:	364651	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	59.99	5.00	50	0	120	70	130				
Ethylbenzene	59.73	5.00	50	0	119	70	130				
m,p-Xylene	114.8	10.0	100	0	115	70	130				
o-Xylene	57.74	5.00	50	0	115	70	130				
Toluene	58.24	5.00	50	0	116	70	130				

<b>Qualifiers:</b>	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

**LCRA Environmental Laboratory Services**

Date: 18-Aug-03

**CLIENT:** Guadalupe-Blanco River Authority  
**Lab Order:** 0308279 **File No:** 25911  
**Project:** GBRA/UGRA - CRP  
**Lab ID:** 0308279-01

**Client Sample ID:** Plum Cr @ Plum Cr Rd  
**Collection Date:** 8/13/2003 11:25:00 AM  
**Matrix:** SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	Batch ID	Date Analyzed
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>		<b>(TX1005)</b>			Analyst: <b>KRD</b>
>C12-C28	ND		5	4.4	mg/L	1	21240	8/15/2003 4:56:00 PM
>C28-C35	ND		5	4.4	mg/L	1	21240	8/15/2003 4:56:00 PM
C6-C12	ND		5	4.4	mg/L	1	21240	8/15/2003 4:56:00 PM
C6-C35	ND		5	4.4	mg/L	1	21240	8/15/2003 4:56:00 PM
Surr: a,a,a-Trifluorotoluene	115		0	70-130	%REC	1	21240	8/15/2003 4:56:00 PM
Surr: o-Terphenyl	96.1		0	70-130	%REC	1	21240	8/15/2003 4:56:00 PM
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: <b>JP</b>
Benzene	ND		5	5.0	µg/L	1	21234	8/16/2003 12:21:00 A
Ethylbenzene	ND		5	5.0	µg/L	1	21234	8/16/2003 12:21:00 A
m,p-Xylene	ND		10	10	µg/L	1	21234	8/16/2003 12:21:00 A
o-Xylene	ND		5	5.0	µg/L	1	21234	8/16/2003 12:21:00 A
Toluene	ND		5	5.0	µg/L	1	21234	8/16/2003 12:21:00 A
Xylenes, Total	ND		10	10	µg/L	1	21234	8/16/2003 12:21:00 A
Surr: 1,2-Dichloroethane-d4	102		0	70-130	%REC	1	21234	8/16/2003 12:21:00 A
Surr: 4-Bromofluorobenzene	93.4		0	70-130	%REC	1	21234	8/16/2003 12:21:00 A
Surr: Toluene-d8	98.2		0	70-130	%REC	1	21234	8/16/2003 12:21:00 A

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

**LCRA Environmental Laboratory Services**

Date: 18-Aug-03

**CLIENT:** Guadalupe-Blanco River Authority  
**Lab Order:** 0308279 **File No:** 25911  
**Project:** GBRA/UGRA - CRP  
**Lab ID:** 0308279-02

**Client Sample ID:** San Marco R @ San Marcos  
**Collection Date:** 8/13/2003 11:55:00 AM  
**Matrix:** SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	Batch ID	Date Analyzed
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>		<b>(TX1005)</b>			Analyst: <b>KRD</b>
>C12-C28	ND		5	4.4	mg/L	1	21240	8/15/2003 5:04:00 PM
>C28-C35	ND		5	4.4	mg/L	1	21240	8/15/2003 5:04:00 PM
C6-C12	ND		5	4.4	mg/L	1	21240	8/15/2003 5:04:00 PM
C6-C35	ND		5	4.4	mg/L	1	21240	8/15/2003 5:04:00 PM
Surr: a,a,a-Trifluorotoluene	116		0	70-130	%REC	1	21240	8/15/2003 5:04:00 PM
Surr: o-Terphenyl	89.9		0	70-130	%REC	1	21240	8/15/2003 5:04:00 PM
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: <b>JP</b>
Benzene	ND		5	5.0	µg/L	1	21234	8/16/2003 12:47:00 A
Ethylbenzene	ND		5	5.0	µg/L	1	21234	8/16/2003 12:47:00 A
m,p-Xylene	ND		10	10	µg/L	1	21234	8/16/2003 12:47:00 A
o-Xylene	ND		5	5.0	µg/L	1	21234	8/16/2003 12:47:00 A
Toluene	ND		5	5.0	µg/L	1	21234	8/16/2003 12:47:00 A
Xylenes, Total	ND		10	10	µg/L	1	21234	8/16/2003 12:47:00 A
Surr: 1,2-Dichloroethane-d4	102		0	70-130	%REC	1	21234	8/16/2003 12:47:00 A
Surr: 4-Bromofluorobenzene	92.8		0	70-130	%REC	1	21234	8/16/2003 12:47:00 A
Surr: Toluene-d8	97.5		0	70-130	%REC	1	21234	8/16/2003 12:47:00 A

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range



**LCRA Environmental Laboratory Services**

Date: 18-Aug-03

**CLIENT:** Guadalupe-Blanco River Authority  
**Lab Order:** 0308279 **File No:** 25911  
**Project:** GBRA/UGRA - CRP  
**Lab ID:** 0308279-03

**Client Sample ID:** Plum Cr @ CR 135  
**Collection Date:** 8/13/2003 1:30:00 PM  
**Matrix:** SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	Batch ID	Date Analyzed
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>		<b>(TX1005)</b>			Analyst: <b>KRD</b>
>C12-C28	ND		5	4.4	mg/L	1	21240	8/15/2003 5:12:00 PM
>C28-C35	ND		5	4.4	mg/L	1	21240	8/15/2003 5:12:00 PM
C6-C12	ND		5	4.4	mg/L	1	21240	8/15/2003 5:12:00 PM
C6-C35	ND		5	4.4	mg/L	1	21240	8/15/2003 5:12:00 PM
Surr: a,a,a-Trifluorotoluene	144	S	0	70-130	%REC	1	21240	8/15/2003 5:12:00 PM
Surr: o-Terphenyl	120		0	70-130	%REC	1	21240	8/15/2003 5:12:00 PM
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: <b>JP</b>
Benzene	ND		5	5.0	µg/L	1	21234	8/16/2003 1:13:00 AM
Ethylbenzene	ND		5	5.0	µg/L	1	21234	8/16/2003 1:13:00 AM
m,p-Xylene	ND		10	10	µg/L	1	21234	8/16/2003 1:13:00 AM
o-Xylene	ND		5	5.0	µg/L	1	21234	8/16/2003 1:13:00 AM
Toluene	ND		5	5.0	µg/L	1	21234	8/16/2003 1:13:00 AM
Xylenes, Total	ND		10	10	µg/L	1	21234	8/16/2003 1:13:00 AM
Surr: 1,2-Dichloroethane-d4	103		0	70-130	%REC	1	21234	8/16/2003 1:13:00 AM
Surr: 4-Bromofluorobenzene	92.8		0	70-130	%REC	1	21234	8/16/2003 1:13:00 AM
Surr: Toluene-d8	98.0		0	70-130	%REC	1	21234	8/16/2003 1:13:00 AM

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

**LCRA Environmental Laboratory Services**

Date: 18-Aug-03

**CLIENT:** Guadalupe-Blanco River Authority  
**Lab Order:** 0308279 **File No:** 25911  
**Project:** GBRA/UGRA - CRP  
**Lab ID:** 0308279-04

**Client Sample ID:** San Marcos R @ Luling  
**Collection Date:** 8/13/2003 1:58:00 PM  
**Matrix:** SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	Batch ID	Date Analyzed
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>		<b>(TX1005)</b>			Analyst: <b>KRD</b>
>C12-C28	ND		5	4.3	mg/L	1	21240	8/15/2003 5:20:00 PM
>C28-C35	ND		5	4.3	mg/L	1	21240	8/15/2003 5:20:00 PM
C6-C12	ND		5	4.3	mg/L	1	21240	8/15/2003 5:20:00 PM
C6-C35	ND		5	4.3	mg/L	1	21240	8/15/2003 5:20:00 PM
Surr: a,a,a-Trifluorotoluene	128		0	70-130	%REC	1	21240	8/15/2003 5:20:00 PM
Surr: o-Terphenyl	132	S	0	70-130	%REC	1	21240	8/15/2003 5:20:00 PM
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: <b>JP</b>
Benzene	ND		5	5.0	µg/L	1	21234	8/16/2003 1:39:00 AM
Ethylbenzene	ND		5	5.0	µg/L	1	21234	8/16/2003 1:39:00 AM
m,p-Xylene	ND		10	10	µg/L	1	21234	8/16/2003 1:39:00 AM
o-Xylene	ND		5	5.0	µg/L	1	21234	8/16/2003 1:39:00 AM
Toluene	ND		5	5.0	µg/L	1	21234	8/16/2003 1:39:00 AM
Xylenes, Total	ND		10	10	µg/L	1	21234	8/16/2003 1:39:00 AM
Surr: 1,2-Dichloroethane-d4	102		0	70-130	%REC	1	21234	8/16/2003 1:39:00 AM
Surr: 4-Bromofluorobenzene	93.0		0	70-130	%REC	1	21234	8/16/2003 1:39:00 AM
Surr: Toluene-d8	97.4		0	70-130	%REC	1	21234	8/16/2003 1:39:00 AM

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Ambient Water Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

**LCRA Environmental Laboratory Services**

Date: 18-Aug-03

<b>CLIENT:</b>	Guadalupe-Blanco River Authority	<b>Client Sample ID:</b>	San Marcos R @ Luling Duplica
<b>Lab Order:</b>	0308279	<b>File No:</b>	25911
<b>Project:</b>	GBRA/UGRA - CRP	<b>Collection Date:</b>	8/13/2003 1:58:00 PM
<b>Lab ID:</b>	0308279-05	<b>Matrix:</b>	SURFACE WATER

Analyses	Result	Qual	AWRL	PQL	Units	DF	Batch ID	Date Analyzed
<b>TNRCC METHOD 1005-TPH</b>								
			<b>TX1005</b>		<b>(TX1005)</b>			Analyst: <b>KRD</b>
>C12-C28	ND		5	4.3	mg/L	1	21240	8/15/2003 5:28:00 PM
>C28-C35	ND		5	4.3	mg/L	1	21240	8/15/2003 5:28:00 PM
C6-C12	ND		5	4.3	mg/L	1	21240	8/15/2003 5:28:00 PM
C6-C35	ND		5	4.3	mg/L	1	21240	8/15/2003 5:28:00 PM
Surr: a,a,a-Trifluorotoluene	134	S	0	70-130	%REC	1	21240	8/15/2003 5:28:00 PM
Surr: o-Terphenyl	121		0	70-130	%REC	1	21240	8/15/2003 5:28:00 PM
<b>VOLATILES BY GCMS</b>								
			<b>E624</b>					Analyst: <b>JP</b>
Benzene	ND		5	5.0	µg/L	1	21234	8/16/2003 2:04:00 AM
Ethylbenzene	ND		5	5.0	µg/L	1	21234	8/16/2003 2:04:00 AM
m,p-Xylene	ND		10	10	µg/L	1	21234	8/16/2003 2:04:00 AM
o-Xylene	ND		5	5.0	µg/L	1	21234	8/16/2003 2:04:00 AM
Toluene	ND		5	5.0	µg/L	1	21234	8/16/2003 2:04:00 AM
Xylenes, Total	ND		10	10	µg/L	1	21234	8/16/2003 2:04:00 AM
Surr: 1,2-Dichloroethane-d4	95.4		0	70-130	%REC	1	21234	8/16/2003 2:04:00 AM
Surr: 4-Bromofluorobenzene	86.4		0	70-130	%REC	1	21234	8/16/2003 2:04:00 AM
Surr: Toluene-d8	90.7		0	70-130	%REC	1	21234	8/16/2003 2:04:00 AM

<b>Qualifiers:</b>	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Ambient Water Reporting Limit	

**CLIENT:** Guadalupe-Blanco River Authority  
**Project:** GBRA/UGRA - CRP  
**Lab Order:** 0308279

**CASE NARRATIVE**

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Analytical Comments for METHOD TX1005\_W, SAMPLES 0308279-03B, -04B, -05B: One of two surrogate standard recoveries was out of QC limits due to matrix effects.

Analytical Comments for METHOD TX1005\_W, SAMPLES 0308212-01BMS & MSD: Batch 6167: Spike standard recovery for C6-C12 range was out of QC limits due to matrix effects. LCS and LCSD quality control requirements were within limits.