

ANALYTICAL REPORT

Job Number: 280-12296-1

Job Description: Carbamates

For:
Environmental Conservation Laboratories
102 Woodwinds Industrial Ct, Suite A
Cary, NC 27511
Attention: Mr. Bill Scott



Approved for release.
Lori A Parsons
Project Manager I
2/15/2011 4:07 PM

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Project Manager I
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02/15/2011

The test results in this report relate only to the samples in this report and meet all requirements of NELAP, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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CASE NARRATIVE

Client: Environmental Conservation Laboratories

Project: Carbamates

Report Number: 280-12296-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 02/08/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.4 C.

CARBAMATES

Sample W01 (280-12296-1) was analyzed for carbamates in accordance with EPA SW-846 Method 8321A. The samples were prepared on 02/09/2011 and 02/14/2011 and analyzed on 02/10/2011, 02/11/2011, 02/14/2011 and 02/15/2011.

The sample exhibited a surrogate recovery below the control limits for atrazine-d5. No matrix effects were obvious that would explain the failures. Upon re-extraction and reanalysis, surrogate recoveries were 100% in control. Both the original and reanalysis data have been provided, as re-extraction was unavoidably performed outside the recommended sample holding time.

The LCS associated with prep batch 53093 exhibited a percent recovery above the control limits for propoxur. This is an indicator of a possible high bias. As this was the re-extraction and re-analysis batch for this sample and as both analyses were non-detect for this compound the data was reported and has been qualified accordingly.

The Method required MSs/MSDs could not be performed for prep batches 52419 and 53093, due to insufficient sample volume submitted. Method precision and accuracy have been verified by the acceptable LCS/LCSD analysis data.

The Continuing Calibration Verification (CCV) associated with the prep batch 53093 exhibited a percent difference value above the control limits, biased high, for methomyl. The associated samples were non-detect for this compound; therefore the data was reported and has been qualified accordingly.

No other difficulties were encountered during the carbamates analysis.

All other quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
280-12296-1 Carbaryl	W01	1.3	H	0.74	ug/L	8321A

METHOD SUMMARY

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Carbamates (LC/MS)	TAL DEN	SW846 8321A	
Solid-Phase Extraction (SPE)	TAL DEN		SW846 3535

Lab References:

TAL DEN = TestAmerica Denver

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Method	Analyst	Analyst ID
SW846 8321A	Bonnett, Jaqueline C	JCB

SAMPLE SUMMARY

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-12296-1	W01	Water	02/04/2011 1800	02/08/2011 0930

SAMPLE RESULTS

Analytical Data

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Client Sample ID: W01

Lab Sample ID: 280-12296-1

Date Sampled: 02/04/2011 1800

Client Matrix: Water

Date Received: 02/08/2011 0930

8321A Carbamates (LC/MS)

Method:	8321A	Analysis Batch: 280-52869	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch: 280-52419	Lab File ID:	CP31B10014.d
Dilution:	1.0		Initial Weight/Volume:	262.9 mL
Date Analyzed:	02/10/2011 1755	Run Type: RA	Final Weight/Volume:	10 mL
Date Prepared:	02/09/2011 1110		Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chlorpropham	ND		0.27	0.76
Diuron	ND		0.14	0.76
Fluometuron	ND		0.18	0.76
Linuron	ND		0.22	0.76
Monuron	ND		0.13	0.76
Neburon	ND		0.27	0.76
Propham	ND		0.19	0.76
Siduron	ND		0.19	0.76

Analytical Data

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Client Sample ID: W01

Lab Sample ID: 280-12296-1

Date Sampled: 02/04/2011 1800

Client Matrix: Water

Date Received: 02/08/2011 0930

8321A Carbamates (LC/MS)

Method:	8321A	Analysis Batch: 280-53024	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch: 280-52419	Lab File ID:	CP31B11016.d
Dilution:	1.0		Initial Weight/Volume:	262.9 mL
Date Analyzed:	02/11/2011 1610		Final Weight/Volume:	10 mL
Date Prepared:	02/09/2011 1110		Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aldicarb	ND		0.16	0.76
Aminocarb	ND		0.11	0.76
Mexacarbate	ND		0.084	0.76
Carbaryl	0.70	J	0.13	0.76
Carbofuran	ND		0.081	0.76
Fenuron	ND		0.084	0.76
Methiocarb	ND		0.10	0.76
Methomyl	ND		0.12	0.76
Oxamyl	ND		0.091	0.76
Propoxur	ND		0.076	0.76

Surrogate	%Rec	Qualifier	Acceptance Limits
Atrazine-d5	55	X	60 - 142

Analytical Data

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Client Sample ID: W01

Lab Sample ID: 280-12296-1

Date Sampled: 02/04/2011 1800

Client Matrix: Water

Date Received: 02/08/2011 0930

8321A Carbamates (LC/MS)

Method:	8321A	Analysis Batch: 280-53278	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch: 280-53093	Lab File ID:	CP31B14033.d
Dilution:	1.0		Initial Weight/Volume:	269.3 mL
Date Analyzed:	02/14/2011 2123	Run Type: RE	Final Weight/Volume:	10 mL
Date Prepared:	02/14/2011 1050		Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aldicarb	ND	H	0.15	0.74
Aminocarb	ND	H	0.11	0.74
Mexacarbate	ND	H	0.082	0.74
Carbaryl	1.3	H	0.12	0.74
Carbofuran	ND	H	0.079	0.74
Fenuron	ND	H	0.082	0.74
Methiocarb	ND	H	0.10	0.74
Methomyl	ND	H ^	0.12	0.74
Oxamyl	ND	H	0.089	0.74
Propoxur	ND	H *	0.074	0.74

Surrogate	%Rec	Qualifier	Acceptance Limits
Atrazine-d5	88		60 - 142

Analytical Data

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Client Sample ID: W01

Lab Sample ID: 280-12296-1

Date Sampled: 02/04/2011 1800

Client Matrix: Water

Date Received: 02/08/2011 0930

8321A Carbamates (LC/MS)

Method:	8321A	Analysis Batch: 280-53280	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch: 280-53093	Lab File ID:	CP31B14072.d
Dilution:	1.0		Initial Weight/Volume:	269.3 mL
Date Analyzed:	02/15/2011 0441	Run Type: RERA	Final Weight/Volume:	10 mL
Date Prepared:	02/14/2011 1050		Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chlorpropham	ND	H	0.27	0.74
Diuron	ND	H	0.14	0.74
Fluometuron	ND	H	0.18	0.74
Linuron	ND	H	0.21	0.74
Monuron	ND	H	0.13	0.74
Neburon	ND	H	0.26	0.74
Propham	ND	H	0.18	0.74
Siduron	ND	H	0.19	0.74

DATA REPORTING QUALIFIERS

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Lab Section	Qualifier	Description
LCMS	^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	*	LCS or LCSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	H	Sample was prepped or analyzed beyond the specified holding time
	X	Surrogate is outside control limits

QUALITY CONTROL RESULTS

Quality Control Results

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
LCMS					
Prep Batch: 280-52419					
LCS 280-52419/2-A	Lab Control Sample	T	Water	3535	
LCS 280-52419/2-ARA	Lab Control Sample	T	Water	3535	
LCSD 280-52419/3-A	Lab Control Sample Duplicate	T	Water	3535	
LCSD 280-52419/3-ARA	Lab Control Sample Duplicate	T	Water	3535	
MB 280-52419/1-A	Method Blank	T	Water	3535	
MB 280-52419/1-ARA	Method Blank	T	Water	3535	
280-12296-1	W01	T	Water	3535	
280-12296-1RA	W01	T	Water	3535	
Analysis Batch:280-52869					
LCS 280-52419/2-ARA	Lab Control Sample	T	Water	8321A	280-52419
LCSD 280-52419/3-ARA	Lab Control Sample Duplicate	T	Water	8321A	280-52419
MB 280-52419/1-ARA	Method Blank	T	Water	8321A	280-52419
280-12296-1RA	W01	T	Water	8321A	280-52419
Analysis Batch:280-53024					
LCS 280-52419/2-A	Lab Control Sample	T	Water	8321A	280-52419
LCSD 280-52419/3-A	Lab Control Sample Duplicate	T	Water	8321A	280-52419
MB 280-52419/1-A	Method Blank	T	Water	8321A	280-52419
280-12296-1	W01	T	Water	8321A	280-52419
Prep Batch: 280-53093					
LCS 280-53093/2-ARE	Lab Control Sample	T	Water	3535	
LCS 280-53093/2-ARERA	Lab Control Sample	T	Water	3535	
LCSD 280-53093/3-ARE	Lab Control Sample Duplicate	T	Water	3535	
LCSD 280-53093/3-ARERA	Lab Control Sample Duplicate	T	Water	3535	
MB 280-53093/1-ARE	Method Blank	T	Water	3535	
MB 280-53093/1-ARERA	Method Blank	T	Water	3535	
280-12296-1RE	W01	T	Water	3535	
280-12296-1RERA	W01	T	Water	3535	
Analysis Batch:280-53278					
LCS 280-53093/2-ARE	Lab Control Sample	T	Water	8321A	280-53093
LCSD 280-53093/3-ARE	Lab Control Sample Duplicate	T	Water	8321A	280-53093
MB 280-53093/1-ARE	Method Blank	T	Water	8321A	280-53093
280-12296-1RE	W01	T	Water	8321A	280-53093
Analysis Batch:280-53280					
LCS 280-53093/2-ARERA	Lab Control Sample	T	Water	8321A	280-53093
LCSD 280-53093/3-ARERA	Lab Control Sample Duplicate	T	Water	8321A	280-53093
MB 280-53093/1-ARERA	Method Blank	T	Water	8321A	280-53093
280-12296-1RERA	W01	T	Water	8321A	280-53093

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Quality Control Results

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
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Report Basis

T = Total

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Surrogate Recovery Report**8321A Carbamates (LC/MS)****Client Matrix: Water**

Lab Sample ID	Client Sample ID	ATR %Rec
280-12296-1	W01	55X
280-12296-1 RE	W01 RE	88
MB 280-52419/1-A		96
MB 280-53093/1-A RE		107
LCS 280-52419/2-A		72
LCS 280-53093/2-A RE		112
LCSD 280-52419/3-A		102
LCSD 280-53093/3-A RE		97

Surrogate	Acceptance Limits
ATR = Atrazine-d5	60-142

Quality Control Results

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Method Blank - Batch: 280-52419

Lab Sample ID: MB 280-52419/1-ARA
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1806
Date Prepared: 02/09/2011 1110

Analysis Batch: 280-52869
Prep Batch: 280-52419
Units: ug/L
Run Type: RA

Method: 8321A Preparation: 3535

Instrument ID: LC_LCMS3
Lab File ID: CP31B10015.d
Initial Weight/Volume: 250 mL
Final Weight/Volume: 10 mL
Injection Volume: 20 uL

Analyte	Result	Qual	MDL	RL
Chlorpropham	ND		0.29	0.80
Diuron	ND		0.15	0.80
Fluometuron	ND		0.19	0.80
Linuron	ND		0.23	0.80
Monuron	ND		0.14	0.80
Neburon	ND		0.28	0.80
Propham	ND		0.20	0.80
Siduron	ND		0.20	0.80

Method Blank - Batch: 280-52419

Lab Sample ID: MB 280-52419/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/11/2011 1621
Date Prepared: 02/09/2011 1110

Analysis Batch: 280-53024
Prep Batch: 280-52419
Units: ug/L

Method: 8321A Preparation: 3535

Instrument ID: LC_LCMS3
Lab File ID: CP31B11017.d
Initial Weight/Volume: 250 mL
Final Weight/Volume: 10 mL
Injection Volume: 20 uL

Analyte	Result	Qual	MDL	RL
Aldicarb	ND		0.16	0.80
Aminocarb	ND		0.12	0.80
Mexacarbate	ND		0.089	0.80
Carbaryl	ND		0.13	0.80
Carbofuran	ND		0.086	0.80
Fenuron	ND		0.088	0.80
Methiocarb	ND		0.11	0.80
Methomyl	ND		0.13	0.80
Oxamyl	ND		0.096	0.80
Propoxur	ND		0.080	0.80

Surrogate	% Rec	Acceptance Limits
Atrazine-d5	96	60 - 142

Quality Control Results

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 280-52419

Method: 8321A

Preparation: 3535

LCS Lab Sample ID: LCS 280-52419/2-ARA
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1817
Date Prepared: 02/09/2011 1110

Analysis Batch: 280-52869
Prep Batch: 280-52419
Units: ug/L
Run Type: RA

Instrument ID: LC_LCMS3
Lab File ID: CP31B10016.d
Initial Weight/Volume: 250 mL
Final Weight/Volume: 10 mL
Injection Volume: 20 uL

LCSD Lab Sample ID: LCSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1828
Date Prepared: 02/09/2011 1110

Analysis Batch: 280-52869
Prep Batch: 280-52419
Units: ug/L
Run Type: RA

Instrument ID: LC_LCMS3
Lab File ID: CP31B10017.d
Initial Weight/Volume: 250 mL
Final Weight/Volume: 10 mL
Injection Volume: 20 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Diuron	92	104	50 - 150	12	40		

Quality Control Results

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 280-52419

Method: 8321A

Preparation: 3535

LCS Lab Sample ID: LCS 280-52419/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/11/2011 1632
Date Prepared: 02/09/2011 1110

Analysis Batch: 280-53024
Prep Batch: 280-52419
Units: ug/L

Instrument ID: LC_LCMS3
Lab File ID: CP31B11018.d
Initial Weight/Volume: 250 mL
Final Weight/Volume: 10 mL
Injection Volume: 20 uL

LCSD Lab Sample ID: LCSD 280-52419/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/11/2011 1643
Date Prepared: 02/09/2011 1110

Analysis Batch: 280-53024
Prep Batch: 280-52419
Units: ug/L

Instrument ID: LC_LCMS3
Lab File ID: CP31B11019.d
Initial Weight/Volume: 250 mL
Final Weight/Volume: 10 mL
Injection Volume: 20 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Aldicarb	66	87	17 - 133	28	40		
Carbaryl	52	69	17 - 130	27	40		
Carbofuran	66	97	46 - 129	38	40		
Methiocarb	48	61	42 - 118	24	40	J	
Methomyl	84	111	55 - 143	28	40		
Oxamyl	66	83	25 - 131	22	40		
Propoxur	64	93	56 - 109	37	40		

Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Atrazine-d5	72		102		60 - 142		

Quality Control Results

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-52419**

**Method: 8321A
Preparation: 3535**

LCS Lab Sample ID: LCS 280-52419/2-ARA Units: ug/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1817
Date Prepared: 02/09/2011 1110

LCSD Lab Sample ID: LCSD 280-52419/3-ARA
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1828
Date Prepared: 02/09/2011 1110

Run Type: RA

Run Type: RA

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Diuron	1.60	1.60	1.47	1.66

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-52419**

**Method: 8321A
Preparation: 3535**

LCS Lab Sample ID: LCS 280-52419/2-A Units: ug/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/11/2011 1632
Date Prepared: 02/09/2011 1110

LCSD Lab Sample ID: LCSD 280-52419/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/11/2011 1643
Date Prepared: 02/09/2011 1110

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Aldicarb	1.60	1.60	1.05	1.40
Carbaryl	1.60	1.60	0.837	1.10
Carbofuran	1.60	1.60	1.06	1.55
Methiocarb	1.60	1.60	0.762 J	0.975
Methomyl	1.60	1.60	1.34	1.78
Oxamyl	1.60	1.60	1.06	1.32
Propoxur	1.60	1.60	1.02	1.48

Quality Control Results

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Method Blank - Batch: 280-53093

Lab Sample ID: MB 280-53093/1-ARE
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/14/2011 2050
Date Prepared: 02/14/2011 1050

Analysis Batch: 280-53278
Prep Batch: 280-53093
Units: ug/L
Run Type: RE

Method: 8321A Preparation: 3535

Instrument ID: LC_LCMS3
Lab File ID: CP31B14030.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 10 mL
Injection Volume: 20 uL

Analyte	Result	Qual	MDL	RL
Aldicarb	ND		0.20	1.0
Aminocarb	ND		0.15	1.0
Mexacarbate	ND		0.11	1.0
Carbaryl	ND		0.17	1.0
Carbofuran	ND		0.11	1.0
Fenuron	ND		0.11	1.0
Methiocarb	ND		0.14	1.0
Methomyl	ND		0.16	1.0
Oxamyl	ND		0.12	1.0
Propoxur	ND		0.10	1.0
Surrogate	% Rec		Acceptance Limits	
Atrazine-d5	107		60 - 142	

Method Blank - Batch: 280-53093

Lab Sample ID: MB 280-53093/1-ARERA
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/15/2011 0407
Date Prepared: 02/14/2011 1050

Analysis Batch: 280-53280
Prep Batch: 280-53093
Units: ug/L
Run Type: RERA

Method: 8321A Preparation: 3535

Instrument ID: LC_LCMS3
Lab File ID: CP31B14069.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 10 mL
Injection Volume: 20 uL

Analyte	Result	Qual	MDL	RL
Chlorpropham	ND		0.36	1.0
Diuron	ND		0.18	1.0
Fluometuron	ND		0.24	1.0
Linuron	ND		0.29	1.0
Monuron	ND		0.17	1.0
Neburon	ND		0.35	1.0
Propham	ND		0.25	1.0
Siduron	ND		0.25	1.0

Quality Control Results

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 280-53093

Method: 8321A

Preparation: 3535

LCS Lab Sample ID: LCS 280-53093/2-ARE
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/14/2011 2101
Date Prepared: 02/14/2011 1050

Analysis Batch: 280-53278
Prep Batch: 280-53093
Units: ug/L
Run Type: RE

Instrument ID: LC_LCMS3
Lab File ID: CP31B14031.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 10 mL
Injection Volume: 20 uL

LCSD Lab Sample ID: LCSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/14/2011 2112
Date Prepared: 02/14/2011 1050

Analysis Batch: 280-53278
Prep Batch: 280-53093
Units: ug/L
Run Type: RE

Instrument ID: LC_LCMS3
Lab File ID: CP31B14032.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 10 mL
Injection Volume: 20 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Aldicarb	96	81	17 - 133	16	40		
Carbaryl	111	95	17 - 130	15	40		
Carbofuran	121	106	46 - 129	14	40		
Methiocarb	117	97	42 - 118	19	40		
Methomyl	137	132	55 - 143	4	40		
Oxamyl	117	101	25 - 131	15	40		
Propoxur	113	99	56 - 109	13	40	*	

Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Atrazine-d5	112		97		60 - 142		

Quality Control Results

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 280-53093

Method: 8321A

Preparation: 3535

LCS Lab Sample ID: LCS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/15/2011 0418
Date Prepared: 02/14/2011 1050

Analysis Batch: 280-53280
Prep Batch: 280-53093
Units: ug/L
Run Type: RERA

Instrument ID: LC_LCMS3
Lab File ID: CP31B14070.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 10 mL
Injection Volume: 20 uL

LCSD Lab Sample ID: LCSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/15/2011 0429
Date Prepared: 02/14/2011 1050

Analysis Batch: 280-53280
Prep Batch: 280-53093
Units: ug/L
Run Type: RERA

Instrument ID: LC_LCMS3
Lab File ID: CP31B14071.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 10 mL
Injection Volume: 20 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Diuron	112	102	50 - 150	9	40		

Quality Control Results

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-53093**

**Method: 8321A
Preparation: 3535**

LCS Lab Sample ID: LCS 280-53093/2-ARE Units: ug/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/14/2011 2101
Date Prepared: 02/14/2011 1050

LCSD Lab Sample ID: LCSD 280-53093/3-ARE
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/14/2011 2112
Date Prepared: 02/14/2011 1050

Run Type: RE

Run Type: RE

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Aldicarb	2.00	2.00	1.91	1.63
Carbaryl	2.00	2.00	2.21	1.90
Carbofuran	2.00	2.00	2.42	2.11
Methiocarb	2.00	2.00	2.33	1.93
Methomyl	2.00	2.00	2.74	2.63
Oxamyl	2.00	2.00	2.34	2.02
Propoxur	2.00	2.00	2.25 *	1.98

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-53093**

**Method: 8321A
Preparation: 3535**

LCS Lab Sample ID: LCS 280-53093/2-ARERA Units: ug/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/15/2011 0418
Date Prepared: 02/14/2011 1050

LCSD Lab Sample ID: LCSD 280-53093/3-ARER/
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/15/2011 0429
Date Prepared: 02/14/2011 1050

Run Type: RERA

Run Type: RERA

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Diuron	2.00	2.00	2.24	2.04

Quality Control Results

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Laboratory Chronicle

Lab ID: 280-12296-1

Client ID: W01

Sample Date/Time: 02/04/2011 18:00

Received Date/Time: 02/08/2011 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3535	280-12296-B-1-A	RA	280-52869	280-52419	02/09/2011 11:10	1	TAL DEN	ACF
A:8321A	280-12296-B-1-A	RA	280-52869	280-52419	02/10/2011 17:55	1	TAL DEN	JCB
P:3535	280-12296-B-1-A		280-53024	280-52419	02/09/2011 11:10	1	TAL DEN	ACF
A:8321A	280-12296-B-1-A		280-53024	280-52419	02/11/2011 16:10	1	TAL DEN	JCB
P:3535	280-12296-A-1-A	RE	280-53278	280-53093	02/14/2011 10:50	1	TAL DEN	ACF
A:8321A	280-12296-A-1-A	RE	280-53278	280-53093	02/14/2011 21:23	1	TAL DEN	JCB
P:3535	280-12296-A-1-A	RER	280-53280	280-53093	02/14/2011 10:50	1	TAL DEN	ACF
A:8321A	280-12296-A-1-A	RER	280-53280	280-53093	02/15/2011 04:41	1	TAL DEN	JCB

Lab ID: MB

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3535	MB 280-52419/1-A	RA	280-52869	280-52419	02/09/2011 11:10	1	TAL DEN	ACF
A:8321A	MB 280-52419/1-A	RA	280-52869	280-52419	02/10/2011 18:06	1	TAL DEN	JCB
P:3535	MB 280-52419/1-A		280-53024	280-52419	02/09/2011 11:10	1	TAL DEN	ACF
A:8321A	MB 280-52419/1-A		280-53024	280-52419	02/11/2011 16:21	1	TAL DEN	JCB
P:3535	MB 280-53093/1-A	RE	280-53278	280-53093	02/14/2011 10:50	1	TAL DEN	ACF
A:8321A	MB 280-53093/1-A	RE	280-53278	280-53093	02/14/2011 20:50	1	TAL DEN	JCB
P:3535	MB 280-53093/1-A	RER	280-53280	280-53093	02/14/2011 10:50	1	TAL DEN	ACF
A:8321A	MB 280-53093/1-A	RER	280-53280	280-53093	02/15/2011 04:07	1	TAL DEN	JCB

Lab ID: LCS

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3535	LCS 280-52419/2-A	RA	280-52869	280-52419	02/09/2011 11:10	1	TAL DEN	ACF
A:8321A	LCS 280-52419/2-A	RA	280-52869	280-52419	02/10/2011 18:17	1	TAL DEN	JCB
P:3535	LCS 280-52419/2-A		280-53024	280-52419	02/09/2011 11:10	1	TAL DEN	ACF
A:8321A	LCS 280-52419/2-A		280-53024	280-52419	02/11/2011 16:32	1	TAL DEN	JCB
P:3535	LCS 280-53093/2-A	RE	280-53278	280-53093	02/14/2011 10:50	1	TAL DEN	ACF
A:8321A	LCS 280-53093/2-A	RE	280-53278	280-53093	02/14/2011 21:01	1	TAL DEN	JCB
P:3535	LCS 280-53093/2-A	RER	280-53280	280-53093	02/14/2011 10:50	1	TAL DEN	ACF
A:8321A	LCS 280-53093/2-A	RER	280-53280	280-53093	02/15/2011 04:18	1	TAL DEN	JCB

Quality Control Results

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Laboratory Chronicle

Lab ID: LCSD

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3535	LCSD 280-52419/3-A	RA	280-52869	280-52419	02/09/2011 11:10	1	TAL DEN	ACF
A:8321A	LCSD 280-52419/3-A	RA	280-52869	280-52419	02/10/2011 18:28	1	TAL DEN	JCB
P:3535	LCSD 280-52419/3-A		280-53024	280-52419	02/09/2011 11:10	1	TAL DEN	ACF
A:8321A	LCSD 280-52419/3-A		280-53024	280-52419	02/11/2011 16:43	1	TAL DEN	JCB
P:3535	LCSD 280-53093/3-A	RE	280-53278	280-53093	02/14/2011 10:50	1	TAL DEN	ACF
A:8321A	LCSD 280-53093/3-A	RE	280-53278	280-53093	02/14/2011 21:12	1	TAL DEN	JCB
P:3535	LCSD 280-53093/3-A	RER	280-53280	280-53093	02/14/2011 10:50	1	TAL DEN	ACF
A:8321A	LCSD 280-53093/3-A	RER	280-53280	280-53093	02/15/2011 04:29	1	TAL DEN	JCB

Lab References:

TAL DEN = TestAmerica Denver

0.4
PR-1
2/7

SUBCONTRACT ORDER

ENCO Cary

C101348

SENDING LABORATORY:

ENCO Cary
102-A Woodwinds Industrial Court
Cary, NC 27511
Phone: (678)983-6655
Fax: 919.467.3515
Project Manager: Bill Scott

RECEIVING LABORATORY:

TestAmerica (TPA)
518 17th Street, STE 900
Denver, CO 80202
Phone : (813) 885-7427
Fax: (813) 885-7049
Project State of Origin: North Carolina

Sub Lab ID	Originating Lab ID	Client Matrix	Date Sampled	Sample Comments
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W01

Surface Water

04-Feb-11 18:00

Analysis	Due	Expires	Analysis Comments
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Carbamates by 8321B 14-Feb-11 15:00 11-Feb-11 18:00

Containers Supplied:

1LA (E) 1LA (F)

Briana Heagy
Released By

2/7/11
Date

Jim Paul
Received By

2/8/11 0950
Date

Released By

Date

Received By

Date

Login Sample Receipt Check List

Client: Environmental Conservation Laboratories

Job Number: 280-12296-1

Login Number: 12296

List Source: TestAmerica Denver

Creator: Paulsen, Lindsay T

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	