 <b>McC Campbell Analytical, Inc.</b> "When Quality Counts"		1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mcccampbell.com E-mail: main@mcccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269
Ecoloblue  5702 Marsh Drive, unit K  Pacheco, CA 94553	Client Project ID: Drinking Water Test	Date Sampled: 06/16/10
		Date Received: 06/16/10
	Client Contact: Pablo Cusi	Date Reported: 06/23/10
	Client P.O.:	Date Completed: 06/23/10

**WorkOrder 1006452**

June 23, 2010

Dear Pablo:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **Drinking Water Test**,
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,



Angela Rydelius  
 Laboratory Manager  
 McC Campbell Analytical, Inc.



**McCAMPBELL ANALYTICAL, INC.**

1534 WILLOW PASS ROAD  
PITTSBURG, CA 94565-1701

Website: [www.mccampbell.com](http://www.mccampbell.com) Email: [main@mccampbell.com](mailto:main@mccampbell.com)  
Telephone: (877) 252-9262 Fax: (925) 252-9269

## CHAIN OF CUSTODY RECORD

## TURN AROUND TIME

☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY

GeoTracker EDF  PDF  Excel  Write On (DW) 

☐ Check if sample is effluent and "J" flag is required

**Report To: Pablo Cusi**

**Bill To:**

**Company:** Ecoloblue

5702 Marsh Drive, Unit K

Pacheco, C.A. 94553

E-Mail: Eeoloty@yahoo.com

Tele: ( 925 ) 297-6325

**Fax: ( 925 ) 609-9887**

Project #:

**Project Name:**

**Project Location:**

**Sampler Signature:**

### Analysis Request

Other

Comments

**Filter  
Samples  
for Metals  
analysis:  
Yes / No**

[illegible]

# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1006452

ClientCode: ECOB

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☐ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:

Pablo Cusi  
Ecolobue  
5702 Marsh Drive, unit K  
Pacheco, CA 94553  
(925) 297-6325 FAX 925-609-9887

Email: Pcusi@ecolobue.com  
cc:  
PO:  
ProjectNo: Drinking Water Test

Bill to:

Wayne Ferreira  
Ecolobue  
3911 Happy Valley Road  
Lafayette, CA 94549

Requested TAT: 5 days

*Date Received:* 06/16/2010

*Date Printed:* 06/22/2010

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1006452-001	1	Water	6/16/2010	<input type="checkbox"/>	D	E	F	B	B	C	C	G	A	G		

Test Legend:

1	300_1_W	2	524_2BASIC_W	3	Alka(spe)_W	4	CHLORAMINE_W	5	CHLORINE1_W
6	FEMN_W	7	METALSMS_W	8	PH_W	9	TCEC-Enum_W	10	TDS_W
11		12							

Prepared by: Samantha Arbuckle

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



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## Sample Receipt Checklist

Client Name: **Ecolobue**

Date and Time Received: **6/16/2010 4:35:23 PM**

Project Name: **Drinking Water Test**

Checklist completed and reviewed by: **Samantha Arbuckle**

WorkOrder N°: **1006452** Matrix Water

Carrier: Rob Pringle (MAI Courier)

### Chain of Custody (COC) Information

Chain of custody present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Sampler's name noted on COC?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

### Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp: 1.2°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE )

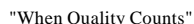
\* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments: COC Relinquished and sent via E-mail from Pablo Cusi 6/22/10



Telephone: 877-252-9262 Fax: 925-252-9269

 Angela Rydelius, Lab Manager



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Ecoloblue  5702 Marsh Drive, unit K  Pacheco, CA 94553	Client Project ID: Drinking Water Test	Date Sampled: 06/16/10
		Date Received: 06/16/10
	Client Contact: Pablo Cusi	Date Extracted: 06/18/10
	Client P.O.:	Date Analyzed: 06/18/10

## Volatile Organics by P&T and GC/MS\*

Extraction Method: E524.2

Analytical Method: E524.2

Work Order: 1006452

Lab ID	1006452-001E
Client ID	1
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	tert-Amyl Methyl Ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	1.0
Bromoform	ND	1.0	1.0	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA)	ND	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon disulfide	ND	1.0	0.5
Carbon tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	Chloroform	ND	1.0	1.0
Chloromethane	ND	1.0	0.5	2-Chlorotoluene	ND	1.0	0.5
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane	ND	1.0	1.0
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)	ND	1.0	0.5
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzene	ND	1.0	0.5
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzene	ND	1.0	0.5
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane	ND	1.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene	ND	1.0	0.5
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroethene	ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane	ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene	ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropropene	ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene	ND	1.0	0.5
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113	ND	1.0	10
Hexachlorobutadiene	ND	1.0	0.5	2-Hexanone	ND	1.0	0.5
Isopropylbenzene	ND	1.0	0.5	4-Isopropyl toluene	ND	1.0	0.5
Methyl-t-butyl ether (MTBE)	ND	1.0	0.5	Methylene chloride	ND	1.0	0.5
4-Methyl-2-pentanone	ND	1.0	0.5	Naphthalene	ND	1.0	0.5
n-Propyl benzene	ND	1.0	0.5	Styrene	ND	1.0	0.5
1,1,1,2-Tetrachloroethane	ND	1.0	0.5	1,1,2,2-Tetrachloroethane	ND	1.0	0.5
Tetrachloroethene	ND	1.0	0.5	Toluene	ND	1.0	0.5
1,2,3-Trichlorobenzene	ND	1.0	0.5	1,2,4-Trichlorobenzene	ND	1.0	0.5
1,1,1-Trichloroethane	ND	1.0	0.5	1,1,2-Trichloroethane	ND	1.0	0.5
Trichloroethene	ND	1.0	0.5	Trichlorofluoromethane	ND	1.0	0.5
1,2,3-Trichloropropane	ND	1.0	0.5	1,2,4-Trimethylbenzene	ND	1.0	0.5
1,3,5-Trimethylbenzene	ND	1.0	0.5	Vinyl chloride	ND	1.0	0.5
Xylenes	ND	1.0	0.5				

### Surrogate Recoveries (%)

%SS1:	87	%SS2:	108
%SS3:	91		

### Comments:

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

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak; &) low surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard

DF = Dilution Factor



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		Date Received: 06/16/10
	Client Contact: Pablo Cusi	Date Extracted: 06/18/10
	Client P.O.:	Date Analyzed: 06/18/10

## Total & Speciated Alkalinity as Calcium Carbonate\*

Extraction method: SM2320B

Analytical methods: SM2320B

Work Order: 1006452

Lab ID	Client ID	Matrix	Total*	Carbonate*	Bicarbonate*	Hydroxide*	DF	Comments
001F	1	W	ND	ND	ND	ND	1	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	1.0	1.0	1.0	1.0	mg CaCO3/L
	S	NA	NA	NA	NA	mg/Kg

\*water samples are reported in mg calcium carbonate/L. Hydroxide, Carbonate & Bicarbonate alkalinity measure @ end-point of pH = 8.3 & 4.5 per SM2320B.

DF = Dilution Factor

DHS ELAP Certification 1644

 Angela Rydelius, Lab Manager



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<p>* water samples are reported in mg/L.</p> <p>According the formal method, this is "field test" with a 15 minute Hold Time. However, as this is unrealistically short for commercial environmental analysis, MAI has designated a 24 hour hold time for aqueous samples.</p> <p>DF = Dilution Factor</p>
--

DHS ELAP Certification 1644

AR Angela Rydelius, Lab Manager





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		Date Received: 06/16/10
	Client Contact: Pablo Cusi	Date Extracted: 06/16/10
	Client P.O.:	Date Analyzed: 06/16/10

## Chlorine, Total Residual\*

Analytical Method: SM4500-Cl DE

Work Order: 1006452

Lab ID	Client ID	Matrix	Chlorine	DF	Comments
1006452-001B	1	W	ND	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.04 mg/L	
	S	NA	

\* water samples are reported in mg/L, soil samples are extracted using DISTLC and rotate for a very short time due to stability of chlorine and reported in mg/kg.

According the formal method, this is "field test" with a 15 minute Hold Time. However, as this is unrealistically short for commercial environmental analysis, MAI has designated a 24 hour hold time for aqueous samples.

DF = Dilution Factor



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[illegible]

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	50	20	µg/L
	S	TOTAL	NA	NA	NA

DF = Dilution Factor

DHS ELAP Certification 1644

 Angela Rydelius, Lab Manager

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		Date Received: 06/16/10
	Client Contact: Pablo Cusi	Date Extracted: 06/16/10
	Client P.O.:	Date Analyzed: 06/18/10

## Metals\*

Extraction method: E200.8

Analytical methods: E200.8

Work Order: 1006452

[illegible]

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	0.5	µg/L
	S	TOTAL	NA	mg/Kg

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

# means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.

TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.

DISS = Dissolved metals by direct analysis of 0.45  $\mu\text{m}$  filtered and acidified sample.

%SS = Percent Recovery of Surrogate Standard

DF = Dilution Factor



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Ecoloblue  5702 Marsh Drive, unit K  Pacheco, CA 94553	Client Project ID: Drinking Water Test	Date Sampled: 06/16/10
		Date Received: 06/16/10
	Client Contact: Pablo Cusi	Date Extracted: 06/16/10
	Client P.O.:	Date Analyzed: 06/16/10

## pH

Analytical Method: SM4500H+B

Work Order: 1006452

Lab ID	Client ID	Matrix	pH	DF	Comments
1006452-001G	1	W	6.98 @ 23.6°C	1	

Method Accuracy and Reporting Units	W	±0.05, pH units @ °C	
	S	NA	

\* According the formal method, this is "field test" with a 15 minute Hold Time. However, as this is unrealistically short for commercial environmental analysis, MAI has designated a 24 hour hold time for aqueous samples.

DF = Dilution Factor



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		Date Received: 06/16/10
	Client Contact: Pablo Cusi	Date Extracted: 06/21/10
	Client P.O.:	Date Analyzed: 06/22/10

## Total Dissolved Solids\*

Analytical Method: SM2540C

Work Order: 1006452

Lab ID	Client ID	Matrix	Total Dissolved Solids	DF	Comments
1006452-001G	1	W	ND	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 mg/L	
	S	NA	

\* water samples reported in mg/L.

DF = Dilution Factor

**QC SUMMARY REPORT FOR E300.1**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 51227

WorkOrder 1006452

EPA Method E300.1		Extraction E300.1							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Fluoride	N/A	1	N/A	N/A	N/A	99.3	100	0.895	N/A	N/A	85 - 115	15
Nitrate as N	N/A	1	N/A	N/A	N/A	93.3	93.4	0.0891	N/A	N/A	85 - 115	15
Nitrate as NO <sub>3</sub> <sup>-</sup>	N/A	4.4	N/A	N/A	N/A	93.3	93.4	0.0891	N/A	N/A	85 - 115	15
%SS:	N/A	0.10	N/A	N/A	N/A	96	96	0	N/A	N/A	90 - 115	10
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE												

**BATCH 51227 SUMMARY**

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1006452-001D	06/16/10	06/16/10	06/16/10 9:38 PM				

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

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

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

N/A = not applicable to this method.

# surrogate diluted out of range or surrogate coelutes with another peak.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

**QC SUMMARY REPORT FOR E524.2**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 51244

WorkOrder 1006452

EPA Method E524.2			Extraction E524.2						Spiked Sample ID: 1006449-033a			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	99.7	96.9	2.87	88.4	88.4	0	70 - 130	30	70 - 130	30
Benzene	ND	10	120	117	1.85	106	111	3.94	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	96.2	93.7	2.71	87.8	87.3	0.605	70 - 130	30	70 - 130	30
Chlorobenzene	ND	10	121	118	2.64	103	105	2.42	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	114	109	4.08	103	102	1.35	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	118	117	0.613	95.6	99	3.46	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	10	108	105	3.27	99.1	105	5.43	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	124	122	1.04	104	108	3.90	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	119	116	2.10	104	105	1.49	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	123	119	2.68	111	111	0	70 - 130	30	70 - 130	30
Toluene	ND	10	109	107	2.14	97	98.2	1.30	70 - 130	30	70 - 130	30
Trichloroethene	ND	10	113	112	0.559	97.6	101	3.79	70 - 130	30	70 - 130	30
%SS1:	118	25	117	118	0.857	116	116	0	70 - 130	30	70 - 130	30
%SS2:	115	25	116	116	0	112	112	0	70 - 130	30	70 - 130	30
%SS3:	113	2.5	109	110	0.798	118	116	1.25	70 - 130	30	70 - 130	30
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE												

**BATCH 51244 SUMMARY**

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1006452-001E	06/16/10	06/18/10	06/18/10 5:37 PM				

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

 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$ 

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

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



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W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 51258

WorkOrder 1006452

EPA Method E200.7			Extraction E200.7						Spiked Sample ID: 1006364-002A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Iron	ND	1000	102	102	0	108	103	5.10	70 - 130	20	85 - 115	20
Manganese	ND	1000	103	103	0	111	103	7.10	70 - 130	20	85 - 115	20
%SS:	103	750	100	100	0	104	103	0.800	70 - 130	30	70 - 130	30
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE												

**BATCH 51258 SUMMARY**

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1006452-001C	06/16/10	06/16/10	06/17/10 6:12 PM				

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

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

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

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

**McC Campbell Analytical, Inc.**

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Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269**QC SUMMARY REPORT FOR E200.8**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 51264

WorkOrder 1006452

EPA Method E200.8			Extraction E200.8						Spiked Sample ID: 1006364-003A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Copper	94	10	NR	NR	NR	103	103	0	70 - 130	20	85 - 115	20
%SS:	107	750	110	107	2.37	105	102	2.64	70 - 130	20	70 - 130	20
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE												

**BATCH 51264 SUMMARY**

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1006452-001C	06/16/10	06/16/10	06/18/10 4:32 PM				

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

 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$ 

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

N/A = not applicable to this method.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269**QC SUMMARY REPORT FOR WET CHEMISTRY TESTS****Test Method: Alkalinity****Matrix: W****WorkOrder: 1006452**

Method Name: SM2320B			Units mg CaCO <sub>3</sub> /L			BatchID: 51275
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1006452-001F	ND	1	ND	1	N/A	<20

**BATCH 51275 SUMMARY**

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1006452-001F	06/16/10	06/18/10	06/18/10 2:58 PM				

**Test Method: pH****Matrix: W****WorkOrder: 1006452**

Method Name: SM4500H+B			Units ±, pH units @ °C			BatchID: 51260
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	Precision	Acceptance Criteria
1006452-001G	6.98 @ 23.6°C	1	6.96 @ 23.5°C	1	0.02	0.05

**BATCH 51260 SUMMARY**

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1006452-001G	06/16/10	06/16/10	06/16/10 8:48 PM				

**Test Method: Total Dissolved Solids****Matrix: W****WorkOrder: 1006452**

Method Name: SM2540C			Units mg/L			BatchID: 51261
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1006452-001G	ND	1	ND<20.0	2	N/A	<20

**BATCH 51261 SUMMARY**

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1006452-001G	06/16/10	06/21/10	06/22/10 1:25 PM				

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

RPD = 100 \* (Sample - Duplicate) / [(Sample + Duplicate) / 2]

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.

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Telephone: 877-252-9262 Fax: 925-252-9269**QC SUMMARY REPORT FOR SM4500-CI F**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 51276

WorkOrder 1006452

EPA Method SM4500-CI F		Extraction SM4500-CI DE							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Chlorine	N/A	0.20	N/A	N/A	N/A	93	96	3.23	N/A	N/A	80 - 120	20
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE												

**BATCH 51276 SUMMARY**

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1006452-001B	06/16/10	06/16/10	06/16/10 7:39 PM				

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

 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$ 

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

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269**QC SUMMARY REPORT FOR SM4500-CI DE**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 51276

WorkOrder 1006452

EPA Method SM4500-CI DE		Extraction SM4500-CI DE							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Chlorine	N/A	0.20	N/A	N/A	N/A	93	96	3.23	N/A	N/A	80 - 120	20
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE												

**BATCH 51276 SUMMARY**

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1006452-001B	06/16/10	06/16/10	06/16/10 7:25 PM				

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

 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$ 

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

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



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## QC SUMMARY REPORT FOR SM9223B

Test Method: Total Coliform / E. Coli, Enumeration by SM9223B

Matrix W

WorkOrder 1006452

EPA Method SM9223B		BatchID: 51236		Duplicated SampleID: 1006452-001A
Analyte	Sample	Dup	%RPD	Blank
	MPN/100ml	MPN/100ml		MPN/100ml
Total Coliform	ND	ND	N/A	ND
E Coli	ND	ND	N/A	ND

### BATCH 51236 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1006452-001A	06/16/10	06/16/10	06/17/10 6:03 PM				

% RPD =  $\text{abs}(\text{Sample} - \text{Dup}) / ((\text{Sample} + \text{Dup}) / 2) * 100$

N/A = Not Applicable

NR = %RPD may fall outside of laboratory acceptance criteria due to sample inconsistency between two containers.

DHS ELAP Certification 1644

 QA/QC Officer