

ALPHA ANALYTICAL LABORATORIES

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MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: ERM-New England Laboratory Job Number: L0404311
Address: 399 Boylston Street
6th Floor
Boston, MA 02116 Date Received: 27-APR-2004
Attn: Jeremy Picard Date Reported: 04-MAY-2004
Project Number: 13606.06 Delivery Method: Alpha
Site: RAYTHEON

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

- A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES
- B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES
- C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES
- D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? NA

A response to questions E and F is required for "Presumptive Certainty" status

- E. Were all QC performance standards and recommendations for the specified method(s) achieved? YES
- F. Were results for all analyte-list compounds/elements for the specified method(s) reported? NO

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0404311
Date Reported: 04-MAY-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0404311-01	MW-203M	WAYLAND, MA
L0404311-02	DUP-4	WAYLAND, MA
L0404311-03	MW-203D	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0404311

Report Submission

In reference to question F, at the client's request, the samples were analyzed only for the compounds specified on the chain of custody.

Metals

L0404311-01 through -03 required a 5x dilution. Dilution was necessary due to the concentration of sodium in the sample.

Chloride

L0404311-03 has an elevated limit of detection due to the 10x dilutions required for the sample to fall within the calibration curve.

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0404311

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Chloride for sample(s) 01-03 (L0404299-01, WG169287)					
Chloride	12.	11.	mg/l	9	7
Hexavalent Chromium by MCP 7196A for sample(s) 01-03 (L0404311-01, WG169019)					
Chromium, Hexavalent	0.03	0.03	mg/l	11	20

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0404311

Parameter	% Recovery	QC Criteria
Chloride LCS for sample(s) 01-03 (WG169287)		
Chloride	93	84-110
Hexavalent Chromium by MCP 7196A LCS for sample(s) 01-03 (WG169019)		
Chromium, Hexavalent	101	80-120
Dissolved Metals LCS for sample(s) 01-03 (WG169492)		
Chromium, Dissolved	100	80-120
Manganese, Dissolved	98	80-120
Sodium, Dissolved	98	80-120
Chloride SPIKE for sample(s) 01-03 (L0404311-01, WG169287)		
Chloride	85	58-140
Hexavalent Chromium by MCP 7196A SPIKE for sample(s) 01-03 (L0404311-02, WG169019)		
Chromium, Hexavalent	97	75-125

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0404311

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-03 (WG169287-2)							
Chloride	ND	mg/l	1.0	1 9251		0429 22:48	DD
Blank Analysis for sample(s) 01-03 (WG169019-1)							
Hexavalent Chromium by MCP 7196A							
Chromium, Hexavalent	ND	mg/l	0.02	55 7196A		0428 01:25	0428 01:25 HG
Blank Analysis for sample(s) 01-03 (WG169492-1)							
Dissolved Metals							
Chromium, Dissolved	ND	mg/l	0.01	54 6010B		0503 12:26	RW
Manganese, Dissolved	ND	mg/l	0.01	54 6010B		0503 12:26	RW
Sodium, Dissolved	ND	mg/l	2.0	54 6010B		0503 12:26	RW

**ALPHA ANALYTICAL LABORATORIES
ADDENDUM I**

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
54. Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Final Methods. May 2003.
55. Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Final Methods. 30 July 2003.

GLOSSARY OF TERMS AND SYMBOLS

REF Reference number in which test method may be found.
METHOD Method number by which analysis was performed.
ID Initials of the analyst.
ND Not detected in comparison to the reported detection limit.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

ALPHA ANALYTICAL LABORATORIES
LOGIN SPECIFIC INFORMATION

Laboratory Job Number: L0404311

Were project specific reporting limits specified? NO

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0404311-01A	Plastic 120ml HNO3 preserved	A	<2	2.0 C	Y	Absent	CR-SI, MN-SI, NA-SI
L0404311-01B	Plastic 250ml unpreserved	A	7	2.0 C	Y	Absent	CL-9251, MCP-HEXCR-7196
L0404311-02A	Plastic 120ml HNO3 preserved	A	<2	2.0 C	Y	Absent	CR-SI, MN-SI, NA-SI
L0404311-02B	Plastic 250ml unpreserved	A	7	2.0 C	Y	Absent	CL-9251, MCP-HEXCR-7196
L0404311-03A	Plastic 120ml HNO3 preserved	A	<2	2.0 C	Y	Absent	CR-SI, MN-SI, NA-SI
L0404311-03B	Plastic 250ml unpreserved	A	7	2.0 C	Y	Absent	CL-9251, MCP-HEXCR-7196

Container Comments

Container ID	Comments
L0404311-02B	This container has not been properly returned to CUSTODY! It was last assigned to HGROSH for department CUSTODY on 04/28/04 17:14 .



CHAIN OF CUSTODY

Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Client Information

Client: CRM

Address: 399 Baylston St Fl 6

Boston MA 02116

Phone: 617 646 7800

Fax: 617 267 6447

Email: theresa.kennedy@alpha.com

These samples have been previously analyzed by Alpha
Other Project Specific Requirements/Comments/Detection Limits:

Project Information

Project Name: Baylston

Project Location: Woburn, MA

Project #: 13666.06

Project Manager: J Picard

ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved!)

Date Due: 5/4/04 Time:

Report Information - Data Deliverables

FAX EMAIL

ADEx Add'l Deliverables

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

Date Rec'd in Lab: 4/27/04

ALPHA Job #: 10404311

Billing Information

Same as Client Info

PO #:

MCP PRESUMPTIVE CERTAINTY - THESE QUESTIONS MUST BE ANSWERED

Yes No Are MCP Analytical Methods Required?

Yes No Are Drinking Water Samples Submitted?

Yes No Have you met minimum field QC requirements?

ANALYSIS
dis, lead, Cr, Mn, Hex Cr, Cl

SAMPLE HANDLING

- Filtration
 - Done
 - Not needed
 - Lab to do
 - Preservation
 - Lab to do
- (Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Date	Time	Container Type Preservative	Relinquished By:	Date/Time	Received By:	Date/Time	Sample Specific Comments
		Date	Time										
C4311.1	WIN-203M	4/21/04	1330	GW	VZ	1	1	P	<u>[Signature]</u>	4/27/04 1610	<u>[Signature]</u>	4/27/04 1610	*field filtered using 0.45 micron filter
2	DUP-Y	4/22/04	2400	GW	VZ	1	1	P	<u>[Signature]</u>	4/27/04 1610	<u>[Signature]</u>	4/27/04 1610	
3	WIN-203D	4/22/04	1210	GW	VZ	1	1	P	<u>[Signature]</u>	4/27/04 1610	<u>[Signature]</u>	4/27/04 1610	

QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY

IS YOUR PROJECT MCP ?

Container Type Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

[Signature]

4/27/04 1610

[Signature]

4/27/04 1610

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.