



Guam EPA Laboratory
B-15-6101 Mariner Ave.
Tiyán, Barrigada
Guam 96921

Title:
Number
Date:
Rev. no.

Sample Registration, Acceptance and Log-in
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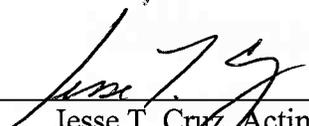
**GUAM ENVIRONMENTAL PROTECTION AGENCY
EMAS ANALYTICAL PROGRAM**

STANDARD OPERATING PROCEDURE

Sample Registration, Acceptance and Log-in

Revised by:  6/28/07
Rodolfo B. Paulino, Chemist II Date

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Reviewed by:  6/28/07
Jesse T. Cruz, Acting EMAS Administrator Date

Approved by  7-11-2007
Lorilee T. Crisostomo Administrator Date



1. SCOPE AND APPLICATION

- 1.1 The Guam EPA laboratory receives samples from or through the other divisions within the agency. This SOP deals with the acceptance and registration of samples for the Guam EPA laboratory.

2. DEFINITIONS

- 2.1. LIMS – Laboratory Information Management System. This is the electronic recording of all samples processed in the laboratory.
- 2.2. SAP- Sampling Analysis Plan.
- 2.3. Sampling – is the collection of water samples for the purpose of analytical testing in the laboratory.
- 2.4. Sample Label – is the label attached or marked on the sampling bottle.
- 2.5. Aspen[®] – is the name of the software through which the LIMS is operated on.
- 2.6. Chain of Custody – (COC) is the most important form for all samples submitted to the laboratory. This form contains all the information on the sample and the conditions in which the sample was taken. It also contains the parameters required for analysis and the handling of the samples (i.e. who had custody of the samples up to the time the laboratory receives the samples).
- 2.7. Flag – a letter indicator that describes a sample or a result of analysis that is not done in a normal manner. For example a sample that was collected and placed in a cooler with no ice when the parameter requires the sample to be chilled, the sample will be flagged with a letter T. For analytical results, a letter J flagged is given to the result if for example the numerical result is between the minimum detection limit and the practical quantitation limit.

3. PROCEDURE

3.1. Sampling Procedures

- 3.1.1. The Guam EPA laboratory receives environmental samples from the other programs within the Agency on a continuous basis based on their Quality Assurance Project Plan (QAPP). These samples are processed and then either analyzed by the GEPA laboratory or sent to other laboratories for analysis, e.g. US EPA laboratory.
- 3.1.2. Samples are also accepted from outside sources on a case by case basis.
- 3.1.3. Prior to acceptance of any samples from the GEPA programs, an approved Sampling Analysis Plan (SAP) shall be submitted to the laboratory, The SAP shall include an



approved sampling procedure, frequency and parameters required and location of sampling sites.

- 3.1.4. Personnel (private contractor or GEPA staff) who collect shall be trained in the proper sampling techniques for all types of samples that they collect. There must be strict adherence to correct sampling procedures, complete identification of samples and prompt transfer of the sample to the laboratory.

3.2. Sample COC, Registration and Acceptance

- 3.2.1. Each sample container shall be identified by affixing a sample label on the container. This label shall contain the date, sample number or Field Sample ID number, source of sample, parameters required for analysis, and the collector's initials
- 3.2.2. Complete identification of sample shall include a chain of custody (COC) and field records. Field records and the COC should be completed at the time the sample is collected and should be signed or initialed, including the date and time by the collectors. The Field records are field information that programs need for their report and may include weather conditions or environmental conditions during sampling. Some information in the Field records is transcribed to the COC.
- 3.2.3. The COC is a laboratory document and is used during the submittal of samples to the laboratory by the collector. The laboratory keeps the white/original copy while the collector/program keeps the pink and the yellow copy is attached to the laboratory report with the analytical results. The COC should at the minimum contain the following information:
 - Sample number or Field Sample ID number
 - Date and Time sample was collected.
 - Source of sample (name of location or sampling point and sample type which may be grab or composite) (See COC form in Appendix A)
 - Preservative used/filtered. (Refer to the US EPA Manual for the Certification of Laboratories Analyzing Drinking Water 5th edition for a list of preservatives by parameters).
 - Parameters required in the analysis. (See Appendix D for a list of GEPA parameters).
 - Name of collector and initials/signature.
 - Other specific info such as free chlorine residual (for drinking water), or remarks regarding the sample.
 - Note any special comments in "Remarks" field of COC. For example, the cooler temperature is recorded for samples that need to be chilled.



- 3.2.3 If the samples' custody is transferred to another person or organization this should be recorded in the COC in the appropriate "Relinquished by – Received by" lines. They should also be properly time and dated.
- 3.2.4 A properly filled up COC is shown in Appendix A.
- 3.2.5 The ultimate recipient of the samples is the laboratory. When the laboratory receives the samples they are registered in the Laboratory Sample Receiving Logbook (see Appendix B).
- 3.2.6 The sample then receives a GEPA laboratory number for tracking in the Aspen[®] LIMS system.
- 3.2.7 Should the samples fail to meet the holding time and other requirements, the samples will be flagged and the program manager from whom the samples were received will be informed. Examples of flagged samples are the following:
- Q - sample held beyond holding time.
 - Y - sample collected in unpreserved or improperly preserved sample.
 - T - sample collected in cooler with too high temperature.
 - C – COC or documentation improperly completed.
- 3.2.8 If samples are flagged, the laboratory recommends re-sampling. If this is not possible and the program manager gives the approval to do the analysis on the samples. The results of the analysis will be reported as estimated with the corresponding letter flag as indicated in the example above.
- 3.2.9 The sample information from the COC will then be recorded in the Aspen[®] LIMS system by opening the Aspen computer program with a password and user name.
- 3.2.10 The information is recorded in a sample log in sheet that is uploaded after clicking log-in new entry options. (See Appendix C for a sample log in sheet).
- 3.2.11 An example of the sample log in print out from the Aspen[®] LIMS system is shown in Appendix C. (Refer to Aspen[®] Laboratory Information Management System, User Manual version 5.5 for the specific instructions in operating the computer program.)
- 3.2.12 The COC is kept in file for at least 5 years. This is in compliance with the US EPA Manual for the Certification of Laboratories Analyzing Drinking Water 5th edition.

4. REFERENCES

- 4.1. Aspen[®] Laboratory Information Management System, User Manual, Version 5.5.
- 4.2. US EPA Manual for the Certification of Laboratories Analyzing Drinking Water 5th edition.

APPENDIX A

Chain of Custody Form

APPENDIX B

Laboratory Sample Receiving Logbook

Guam EPA Laboratory Sample Receiving Log In

Date Received	GEPA Lab Batch No.	Project	No. of Samples	Parameters requested	Rec'd by
11/30/06	01935	RBMP	42	Enterococci	EY
12/6/06	01936	RBMP	42	Enterococci	EY
12/14/06	01937	RBMP	42	Enterococci	MPAP
12/21/06	01938	RBMP	42	Enterococci	EY
12/22/06	01939	RBMP	42	Enterococci	MPAP
1/4/07	01940	RBMP	42	Enterococci	EY
1/4/07	01941	NDS Student Science Project	(Enterococci	EY
1/11/07	01942	RBMP	42	Enterococci	MPAP
1/11/07	01943	IBS Student Science Project	42	"	MPAP
1/18/07	01944	RBMP	42	"	EY
1/18/07	01945	IBS Student Science Project	1	"	MPAP
1/22/07	01946	GW Wadsworth Stream Nadog from GW S105 033	1	E. Coli, NO ₂ , NH ₄ , OPD, TP, TSS pH, Conductivity, Turbidity, Fe	MPAP
1/25/07	01947	RBMP	42	Enterococci	MPAP
1/25/07	01948	IBS Student Science Project	1	"	MPAP
1/29/07	01949	GWSA 05-049	1	11 parameters (Wadsworth Stream)	EY
2/1/07	01950	RBMP	42	Enterococci	MPAP

Rev 11/25/06-tbp
GEPA Sample Rec log

APPENDIX C

Sample Log-in Sheet
LIMS printout

6/28/07 11:02 may.paulino

Use Only Business Days: Received: Cancelled:

Sample Login

Lab#: 01990-046

Sample Ref ID: RW_S14

Project Name: RBMP

Field Sample ID: S14 LD

Collect Date: 6/28/2007

Collect Time: 7:59

Collect By: DN

Station Location: Tagachang Beach (lab d

Sample Type: Water

Sampling Details

Source: Recreational Beach

Client ID: EMAS_Mon

Received Date: 6/28/2007

Received Time: 9:00

Received By: EY

Thermoid: 2

Date Date: 7/2/2007

Storage Location: Refrigerator #1

Final Report Notes:

Requested Analysis

Task Group Library: [] Reference Library: [] Preview Tests In: []

Test Group ID: [] Test Group Name: [] Lab Section: [] Sort No: []

RW9223B Enterolert Micro 1

Buttons: Delete, Edit Group, Modify, Container, Subcontractor, Field Data

Notes: Notes on Final Report

Navigation: New Sample, Replicate, Delete Sample, Browse Samples, View Quotes, Fees Form, Print, Create RefID, User Ext.

Sample Log-in Sheet



- Guam Environmental Protection Agency -

EMAS Laboratory

P.O. Box 22439, GMF

Barrigada, Guam 96921

TEL (671) 475 - 1658, FAX (671) 477 - 9402

Date of Report: 11-Apr-07

To: GEPA - Water Div, SDW Program
Angel Marquez

Project: GPSS Special Sa

Attached are the analytical results for sample(s) listed below.

<u>Lab Sample Number</u>	<u>Field Sample ID</u>	<u>Station Location</u>
01972-001	4/10/07-001	Carbullido Elem School
01972-002	4/10/07-002	JQ San Miguel Elem Sch
01972-003	4/10/07-003	Harry S. Truman Elem School
01972-004	4/10/07-004	J.P. Torres Alt. School
01972-005	4/10/07-005	Marcial Sablan Elem School
01972-006	4/10/07-006	Ocean View Middle School
01972-007	4/10/07-007	Talofoto Elem School
01972-008	4/10/07-008	UPI Elem School
01972-009	4/10/07-009	UPI Elem School (Field Duplicate)
01972-010	4/10/07-010	Field Control

If you have any questions regarding this report, please contact the Guam EPA EMAS Administrator. When making inquiries, please reference the Lab Sample Number which appears in the upper right corner of each report page.



Analyst



EMAS Administrator

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APPENDIX D

GEPA Parameter list

Parameter	Method Name	GEPA number
Coliforms	Colilert Method	MB-01-01
Enterococcus	Enterolert Method	MB-01-02
Nitrates-N/Nitrite-N	Nitrate-N/Nitrite-N in Water by FIA	CH-01-01
Orthophosphates	Orthophosphates in Water by FIA	CH-01-02
Ammonia	Ammonia in Water by FIA	CH-01-03
Chlorides	Chloride in water by FIA	CH-01-04
Conductivity	Conductivity by EPA 120.1	CH-01-05
pH	pH by electrometric method (SM4500-H ⁺)	CH-01-06
Turbidity	Turbidity, NTU by EPA 180.1	CH-01-07
Lead	Metals by Atomic Absorption-Furnace/Platform EPA 200.9	CH-01-08
Copper	Metals by Atomic Absorption-Furnace/Platform EPA 200.9	CH-01-08