

## GAME ANIMAL SAMPLING

**Purpose** This Meteorology and Air Quality Group (MAQ) procedure describes the methods of collection of samples from game animals.

**Scope** This procedure applies to the the individual assigned to collect meat from game animals as part of the Foodstuffs Monitoring Program.

**In this procedure** This procedure addresses the following major topics:

Topic	See Page
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**Hazard Control Plan** The hazard evaluation associated with this work is documented in Attachment 1: Initial risk = **medium**. Residual risk = **low** Work permits required: none. First authorization review date is one year from group leader signature below; subsequent authorizations are on file in group office.

**Signatures**

Prepared by:  _____ Phil Fresquez, Environmental Surveillance Team Leader	Date:  <u>5/12/04</u>
Approved by:  _____ Terry Morgan, QA Officer	Date:  <u>5/12/04</u>
Work authorized by:  _____ Jean Dewart, MAQ Group Leader	Date:  <u>5/14/04</u>

05/24/04

### CONTROLLED DOCUMENT

This copy is uncontrolled if no red stamp is present on printed copies. Users are responsible for ensuring they work to the latest approved revision.

## General information about this procedure

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**Attachments** This procedure has the following attachments:

Number	Attachment Title	No. of pages
1	Hazard Control Plan	2
2	Chain-of-Custody Record	1

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**History of revision**

This table lists the revision history and effective dates of this procedure.

Revision	Date	Description Of Changes
0	10/4/96	New document.
1	3/99	Reformatted in accordance with LIR300-00-01, Safe Work Practices.
2	4/01	Added new Section 9.0, Training.
3	4/02	Change in directorate.
4	4/03	Team name change to Environmental Surveillance.
5	5/12/04	Updated and reformatted document to conform with MAQ procedures.

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**Who requires training to this procedure?**

The following personnel require training before implementing this procedure:

- MAQ personnel assigned to collect game animal samples

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**Training method**

The training method for this procedure is **on-the-job** training by a previously-trained individual and is documented in accordance with the procedure for training (MAQ-024).

Annual retraining is required and will be by self-study (“reading”) training.

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**Prerequisites**

In addition to training to this procedure, the following training is also required prior to performing this procedure:

- First Aid
- Cardiopulmonary Resuscitation (CPR)
- MAQ-Field, “General Field Safety All Employees”

## General information, continued

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**Definitions specific to this procedure**      Foodstuffs: produce (fruits, vegetables, and grains), fish (surface feeders and bottom feeders), eggs, milk, brewed tea, honey, and game animals.

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**References**      The following documents are referenced in this procedure:

- MAQ-024, “Personnel Training”
- MAQ-026, “Deficiency Reporting and Correcting”
- MAQ-Field, “General Field Safety for All Employees”

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**Note**      Actions specified within this procedure, unless preceded with “should” or “may,” are to be considered mandatory guidance (i.e., “shall”).

## Worker safety

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### Precautions and limitations

This document establishes the basic requirements for collecting game animal samples. Work performed under this procedure by LANL personnel will occur only after required training to applicable documents has been completed and documented.

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### Safe Work Practices requirements

Project Personnel - A minimum of two people is required to go out in the field.

Personal Protective Equipment - For game animal sampling, the following personal protective equipment must be worn: safety glasses, safety/field shoes, rubber gloves, Kevlar safety gloves when using knife, use a face shield when cutting up game samples, and a hat.

Do not perform work under conditions you consider unsafe. Before beginning work described in this procedure, review safety needs and requirements, identify hazards, and develop hazard mitigation measures.

## Collection of samples

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**Sample types** Game animal sampling is done on recently killed deer and elk (usually roadkill) and are collected as deer and elk become available to the Environmental Surveillance Team.

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**Sample locations** Most samples are collected from on-site or perimeter areas of LANL by MAQ personnel. Some samples of elk and deer are collected from regional (background) locations by New Mexico Department of Game and Fish personnel who call the Environmental Surveillance Team. One or more team members then go and pick up the samples from Game and Fish personnel.

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**Number of samples** The following table lists the approximate number of samples to be collected at on-site, perimeter, and regional locations. The actual number depends on the amount of road kill available in any particular year.

	<b>Muscle and/or Organs</b>	<b>Bone</b>
<b>On-site</b>	1 to 5	1
<b>Perimeter</b>	1 to 5	1
<b>Regional</b>	1 to 5	1

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**Equipment needed** Additional specific equipment required for going into the field is given in the operating procedure MAQ-Field, "General Field Safety All Employees". The following equipment is required for game animal sampling:

- disposable plastic bags (e.g., trash bags)
- ice chest with ice
- sharp knife
- meat saw
- cut-resistant (Kevlar) gloves
- face shield
- chain-of-custody forms (Attachment 2)

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**Before leaving for the field** Identify a Point-of-Contact (providing pertinent information of destination, expected time-in, and how to notify field team). When leaving Los Alamos County, notify group office to be placed on travel status. Check condition of vehicle and the fuel level. Ensure that you have a working cell phone and a pager.

## Collection of samples, continued

### Steps for collecting game animal samples

New Mexico Department of Game and Fish reserve conservation officers at LANL generally notify MAQ's Environmental Surveillance Team about road kill. For each game animal sample, perform the following steps.

Step	Action
1	If information about road kill has come from a different source, notify the Laboratory's Department of Game and Fish reserve conservation officer. Currently, that is Manuel L'Esperance (667-6211).
2	Travel to the sampling location to collect meat and bone for analysis. Since reported locations may not be precise, carefully survey the area for the sample when approaching the site. Also, identify a safe place ( <i>e.g.</i> , a turn-out next to the road) to stop the vehicle as close to the animal as possible.
3	With cut-resistant gloves on, remove a sample of meat from the femur and/or shoulder areas with a clean, sharp knife (or meat saw, as required). (Organs are taken from specimens given to us by the Game and Fish Department but not from roadside samples.)
4	Place the sample in a plastic bag and pack on ice for transport back to the laboratory.
5	Complete a chain-of-custody form (Attachment 2) with the appropriate sampling information. Maintain proper chain-of-custody procedures for samples (See Chapter <i>Chain-of-custody for samples</i> ) until submitted to the analytical laboratory for analysis (Paragon Analytics, Inc., Fort Collins, CO).
6	Once at the lab, store the sample on ice or in a freezer until processing (normally within two working days). Follow preparation and processing methods described in MAQ-706 ( <i>Processing and Submitting Samples</i> ).

## Chain-of-custody for samples

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### **Maintaining custody of samples**

A sample is physical evidence collected from a facility or the environment. Chain-of-custody must be documented for all samples used to demonstrate compliance. Verify that the possession and handling of samples is traceable at all times. A sample is considered in custody if it is one of the following:

- In one's physical possession.
- In one's view after being in one's physical possession.
- In one's physical possession and then locked up so that no one can tamper with it.
- Kept in a secure area where access is restricted to authorized and accountable personnel only.

**NOTE:** A secured area is an area that is locked, such as a room, cooler, vehicle, or refrigerator. If the area cannot be secured by locking, use a custody seal to secure the area or the sample container.

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### **Transferring custody of samples**

Whenever samples are transferred into the custody of another person or organization, complete the "relinquished by/received by," "date," and "time" sections of the form (Attachment 2). These sections of the form must provide a complete history of custody of the samples from collection to transfer to the analytical laboratory.

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### **If chain-of-custody is broken**

Whenever there is a break in the chain of custody of a sample, document the failure by initiating a deficiency report in accordance with the procedure for deficiencies (MAQ-026). [The deficiency process will document the occurrence, evaluate the potential impact (if any) on the samples, and propose a fix to prevent recurrence.]

## Records resulting from this procedure

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### Records

The following records generated as a result of this procedure are to be submitted **within one year** as records to the records coordinator:

- Chain-of-Custody Record

### HAZARD CONTROL PLAN

1. The work to be performed is described in this procedure.

#### “Game Animal Sampling”

2. Describe potential hazards associated with the work (use continuation page if needed).

Falls/tripping – uneven terrain, carrying awkward objects or equipment  
Animal Injuries- (snakes, spiders, mountain lions, etc.)  
Weather—Lightning  
Oncoming vehicular traffic  
Use of knives  
Handling heavy objects (loading/unloading/transporting/postioning)  
Blood-borne pathogens

3. For each hazard, list the likelihood and severity, and the resulting initial risk level (before any work controls are applied, as determined according to LIR300-00-01, section 7.2)

Falls/tripping—occasional/moderate = low  
Animal Injuries- (snakes, spiders, mountain lions, etc.)—remote/critical = minimal  
Weather—Lightning—remote/catastrophic = low  
Oncoming vehicular traffic—improbable/catastrophic = medium  
Use of knives—improbable/moderate = minimal  
Handling heavy objects (loading/unloading/transporting/postioning)—improbable/moderate = minimal  
Blood-borne pathogens—improbable/critical = low

Overall *initial* risk:  Minimal  Low  Medium  High

4. Applicable Laboratory, facility, or activity operational requirements directly related to the work:

None  List: Work Permits required?  No  List:

### HAZARD CONTROL PLAN, continued

5. Describe how the hazards listed above will be mitigated (e.g., safety equipment, administrative controls, etc.):

Falls/tripping – Read the "Field Safety for All" document on awareness of trips, slips, and falls.

Animal Injuries – Read the "Field Safety for All" document and use common sense to avoid these types of injuries.

Weather (lightning) -- Read the "Field Safety for All" document and seek shelter when necessary.

Use of knives—Use care when cutting and wear cut-resistant (Kevlar) gloves.

Handling heavy objects (loading/unloading/transporting/postioning)--Use proper lifting techniques.

Oncoming vehicular traffic—If you are collecting a sample from a roadkill on the side of a road, park your vehicle as close to the animal as possible and activate the hazard lights. Be cognizant of the fact that you are next to a road and be aware of oncoming traffic.

Blood-borne pathogens—wear safety glasses and gloves.

6. Knowledge, skills, abilities, and training necessary to safely perform this work (check one or both):



Group-level orientation (per MAQ-032) and training to this procedure.



Other → See training prerequisites on procedure page 3. Any additional describe here:

7. Any wastes and/or residual materials? (check one)  None  List:

8. Considering the administrative and engineering controls to be used, the *residual* risk level (as determined according to LIR300-00-01, section 7.3.3) is (check one):



Minimal



Low



Medium (requires approval by Division Director)

9. Emergency actions to take in event of control failures or abnormal operation (check one):



None



List:

For all injuries, provide first aid and see that injured person is taken to Occupation Medicine (only if immediate medical attention is not required) or the hospital.

Signature of preparer of this HCP: This HCP was prepared by a knowledgeable individual and reviewed in accordance with requirements in LIR 300-00-01 and LIR 300-00-02.

Preparer(s) signature(s)

Name(s) (print)

/Position

Date

Signature by group leader on procedure title page signifies authorization to perform work for personnel properly trained to this procedure. This authorization will be renewed annually and documented in ESH-17 records. Controlled copies are considered authorized. Work will be performed to controlled copies only. This plan and procedure will be revised according to MAQ-022 and distributed according to MAQ-030.

## Environmental Surveillance Team Chain-of-Custody Record

This form is from MAQ-703

<b>Project Contact</b> _____  <b>Contact Phone No.</b> _____ <b>MS</b> _____	<b>Project Name</b> Game Animal Sampling _____ _____	<b>Account Code</b> _____ <b>Cost Center</b> _____ <b>Program Code</b> _____
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Date Collected	Time Collected	Station Name/Number	Number of Samples	Analysis Requested	Remarks

<b>Relinquished by (print and sign)</b>	<b>Date</b>	<b>Relinquished by (print and sign)</b>	<b>Date</b>	<b>Relinquished by (print and sign)</b>	<b>Date</b>
	<b>Time</b>		<b>Time</b>		<b>Time</b>
<b>Received by (print and sign)</b>	<b>Date</b>	<b>Received by (print and sign)</b>	<b>Date</b>	<b>Received by (print and sign)</b>	<b>Date</b>
	<b>Time</b>		<b>Time</b>		<b>Time</b>

**Samplers (print names and initial)** \_\_\_\_\_

**Comments**