Pesticide Program Quality Assurance Project Plan

Confederated Salish and Kootenai Tribes

Natural Resources Department, Division of Environmental Protection
Circuit Rider Pesticide Program
301 Main Street, Polson, MT 59860
P.O. Box 278, Pablo, MT 59855

Revision 7. November 30, 2021 for operating period 2017-2022

Tribal Resolution Number: _____-00

Revision 7 for Period Covering FY2022

A1. Approval for Implementation

_____
Jasmine Brown, Project Manager
CSKT Program Manager

Date _____

_____
Richard Janssen, Department Head
CSKT Natural Resources Department

Date _____

_____
Shelly Fyant, Tribal Chairwoman
Confederated Salish and Kootenai Tribes

Date _____

_____
Wilhelmina Keenan, Division Manager
Program Quality Assurance Manager
CSKT Natural Resources Department
Date _____

_____
Linda Himmelbauer, QA Manager
Quality Assurance Program
U.S. EPA Region 8
Date _____

_____
David Cobb, Acting Unit Chief
Toxics Enforcement Unit
U.S. EPA Region 8
Date _____

_____
Blake Huff, Project Officer
Quality Assurance Program
U.S. EPA Region 8
Date _____

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The laboratory manager will notify the pesticide program manager/inspector when problems are encountered with the quality of incoming pesticide samples or when laboratory problems arise that could affect the reliability or defensibility of analytical results. Problems encountered in the collection or analysis of samples will be documented by inspectors or laboratory personnel by submitting a corrective action report to the EPA pesticide project officer, MDA laboratory chief chemist and the pesticide program manager. 19

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A2.b. Document Control

Document control will be maintained by the notifying the representatives on the Distribution List at Section A3) below. This quality assurance project plan (QAPP) has been prepared to ensure that environmental and related data collected, and generated for the program are completed, accurate, and of the type, quantity, and quality required for their intended use. Development of the QAPP relied heavily on the format of the approved CSKT pesticides program 2015 QAPP and the Montana Department of Agricultural Analytical Laboratory QAPP (2008), the US EPA Region 8 Laboratory Quality Assurance Manual (2012) and the FIFRA Inspection Manual.

A. Project Management
A3. Distribution List

Sponsoring Organization and Authorized Representative
Shelly Fyant, Chairwoman
Confederated Salish and Kootenai Tribes
Box 278
Pablo, Montana 59855
Phone: (406) 675-2700 ext. 1007
Email: shelly.fyant@cskt.org

Program Contact
Wilhelmina Keenan, Manager
Division of Environmental Protection
Confederated Salish and Kootenai Tribes
Box 278
Pablo, Montana 59855
Phone: (406) 883-2888 ext. 7208
Fax: (406) 883-2896
Email: willie.keenan@cskt.org

U.S. EPA Region 8 Pesticide Program
Blake Huff
EPA Region 8, QA Program
1595 Wynkoop Street
Denver, Colorado 80202-1129
Phone: (303) 312-6718
Email: huff.blake@epa.gov

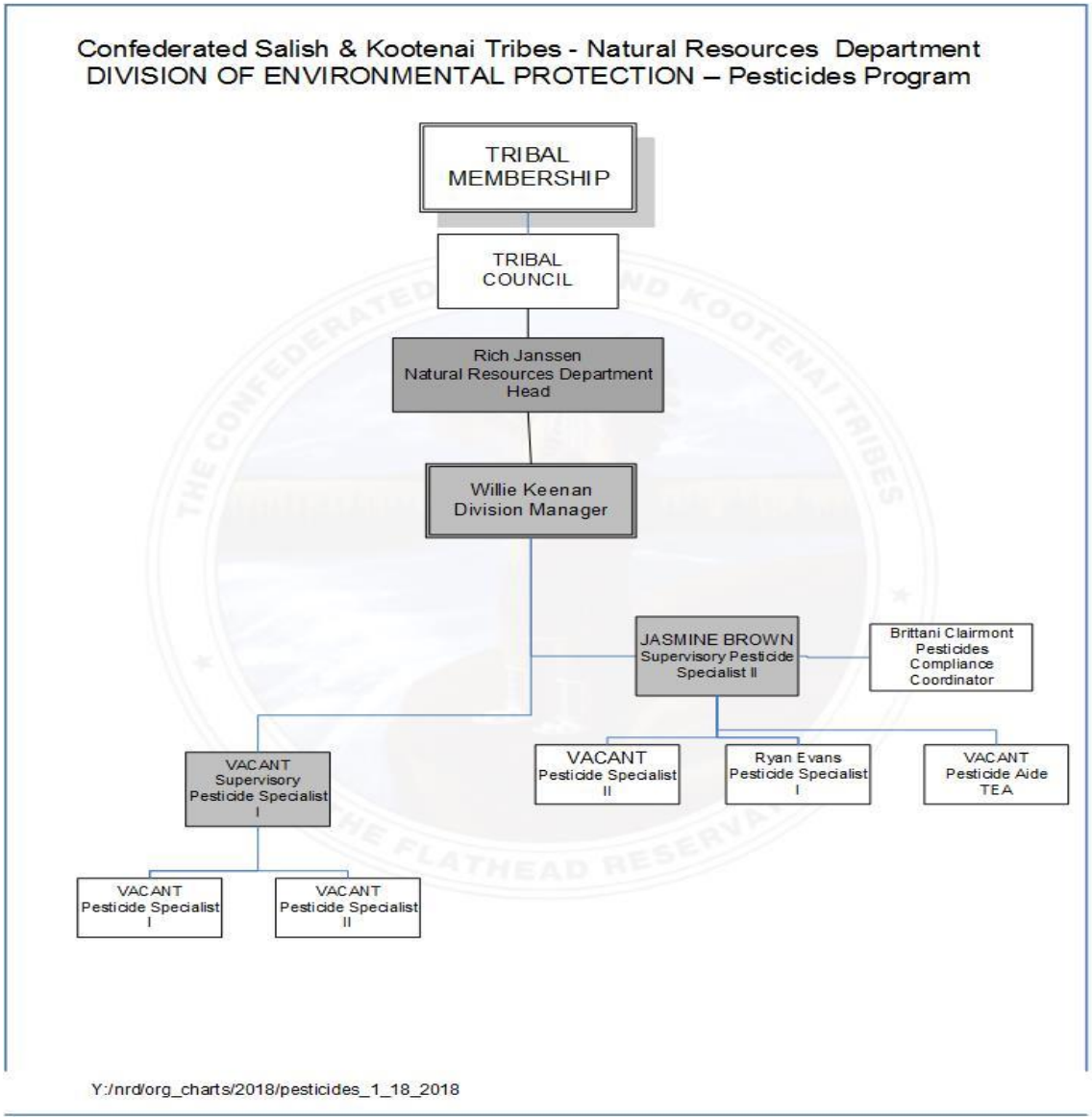
U.S. EPA Region 8 FIFRA Enforcement Program
David Cobb
EPA Region 8, 8ENF-AT
1595 Wynkoop Street
Denver, Colorado 80202-1129
Phone: (303) 312-6334
Email: cobb.david@epa.gov

A4. Project Task and Organization

Table 1 Task Organizational Chart

ORGANIZATIONAL CHART		
Name and Title	**Authorities and Responsibilities**	**Contact Number**
Shelly Fyant CSKT Council Chairwoman	Signs cooperative enforcement agreement; has other tribal decision-making authority along with council members.	Box 278 Pablo, MT 59855 (406) 675-2700 Shelly.fyant@cskt.org
Richard Janssen CSKT Natural Resources Department Head	Supervises the natural resources department.	Box 278 Pablo, MT 59855 (406) 883-2888 Ext. 7260 Richard.janssen@cskt.org
Wilhelmina Keenan CSKT Manager, Natural Resources Department, Division of Environmental Protection	Supervises CSKT pesticide program and credentialed inspectors. Takes responsibility to implement and maintain programs within the division. Serves as the quality assurance manager and is independent from field generating unit.	Box 278 Pablo, MT 59855 (406) 883-2888 Ext. 7227 Willie.Keenan@cskt.org
Jasmine Brown CSKT Pesticide Program Manager, Division of Environmental Protection	Credentialed inspector; provides oversight, reviews final materials, coordinates with other organizations and supervises program staff. Responsible for maintaining program documents and approved QAPP(s) and reporting to the EPA R8 enforcement office. The program manager shall ensure that the QAPP is implemented as approved; and that all personnel involved in the work have direct access to a current version of the QAPP and all other necessary planning, implementation and assessment documents. Although the approved QAPP must be implemented as prescribed, it is not inflexible. Because of the complex and diverse nature of environmental data operations, changes to original plans are often needed. When such changes occur, the EPA Region 8 QA manager shall determine if the change substantively impacts the technical and quality objectives of the project. Please refer to sec. 2.7 on pg. 9 of EPA Requirements for Quality Assurance Project Plans, EPA QA/R-5, EPA/240/B-01/003, March 2001, at http://www.epa.gov/quality/qs-docs/r5-final.pdf. Changes that are not substantive may be made to the QAPP without requiring a revision by instead noting changes on the original or by use of change pages. QAPP updates, change pages, addendums and approved revisions of the QAPP will be sent by the pesticide program personnel to all individuals on the distribution list. If the annual review of a QAPP identifies a substantive change, the QAPP must be revised, submitted to the EPA with a completed crosswalk, and reviewed and approved by the EPA. If the annual review shows that neither the program nor QAPP changes substantively, any minor changes identified must be documented by the Tribe on the QAPP review crosswalk and submitted to the EPA quality assurance manager for review and approval. New signatures are required to document approval and thereby extend the QAPP's effective period. Substantive changes do not include changes in sampling locations or schedule. For changes that are substantive, the QAPP will be revised by pesticide program personnel. A revised QAPP, or addendum, with a completed Region 8 QA document review crosswalk must be submitted to EPA for review and approval. Only after the revision has been received and approved by the EPA, shall the change be implemented.	Box 278 Pablo, MT 59855 (406) 883-2888 Ext. 7208 Jasmine.Brown@cskt.org
CSKT Pesticide Program Staff	Credentialed inspector responsible for conducting inspections and investigations in accordance with FIFRA and this QAPP. Since this program extends beyond one year, the pesticide program personnel will review the QAPP at least annually to ensure the QAPP continues to be appropriate for the project. This will include a comparison to the negotiated work plan. The annual review of the QAPP will reverify and document any laboratory's competency for performing the work for this project. Please refer to the following link for additional information: http://www.epa.gov/fem/pdfs/competency-policy-aaia-new.pdf	Box 278 Pablo, MT 59855 (406) 883-2888 Ext. 7208 (406) 883-2888 Ext. 7209
CSKT Attorney	Provides legal advice to Tribe, takes action against violators when warranted.	Box 278 Pablo, MT 59855 (406) 675-2700
US EPA Region 8 Quality Assurance Program	The EPA R8 provides QAPP review(s) and approval.	Linda Himmelbauer QA Manager EPA Region 8 Quality Assurance Program 1595 Wynkoop St. Denver, CO 80202 (303) 312-7291 Himmelbauer.linda@epa.gov

Fig.1. CSKT Organization Chart



A5. Problem Definition/Background

a. Field operation activities reflect the importance of inspection documentation and review for case development involving human exposure to pesticides, animal health, and other pesticide incident assistance. Measures of precision, accuracy, completeness, sample representativeness, and data comparability ensure that analytical data are reliable, scientifically sound, and legally defensible. Sampling should be planned and performed in a manner to ensure that each analytical result or set of results generated for various enforcement programs is fully defensible in any civil, administrative, judicial and criminal legal actions.

The quality assurance program is an integral and essential part of the overall field operations. The CSKT pesticide program manager and inspectors will contact the EPA's enforcement program to coordinate with the appropriate laboratory facility before submitting samples. Outcomes expected from the laboratory may include the determination of existing standards for analysis of new compounds, specific analyses requested, sample collection procedures, and priority of sample.

b. The Federal Insecticide, Fungicide and Rodenticide Act is the federal law that regulates pesticides and their use nationwide. FIFRA, section 23, authorizes the U.S. Environmental Protection Agency to allow Indian tribes to cooperate in pesticide enforcement. The EPA interprets this provision as allowing federally credentialed inspectors to conduct pesticide inspections on behalf of the EPA. Enforcement actions based on FIFRA inspections conducted by federally credentialed inspectors remain the responsibility of the relevant EPA regional office. Section 23(a) (1) of FIFRA, as amended, authorizes the EPA to enter into cooperative agreements with states, territories, and Indian tribes to provide the EPA assistance in implementing pesticide enforcement programs. Pesticide program implementation grants under section 23(a) (1) of FIFRA are available for "pesticide program development and implementation, including enforcement and compliance activities." A tribe may also have their own tribal pesticide code, which may allow a tribe to conduct their own inspections and enforcement activities. Samples may be collected during the investigation of possible violations of FIFRA or tribal code. In 2006, the Confederated Salish and Kootenai Tribes circuit rider pesticide program was developed as a cooperative effort by EPA Region 8 and CSKT to implement FIFRA in Indian country.

c. In the event of conflict the order of precedence shall be first the FIFRA regulations followed by the FIFRA Inspection Manual, October 2013, upon which this QAPP is based. The standard operating procedures described in this QAPP are updated as needed.

A6. Project/Task Description

a. The Tribe will implement the pesticide enforcement program on the reservation, circuit reservations, and other areas of Indian country upon request by the EPA Region 8. The pesticide enforcement program is managed by the Tribe's environmental department. Work is to be performed by federally credentialed tribal inspectors who will inspect facilities or sites to document compliance with the Code of Federal Regulations, 40 C.F.R. parts 150-189.

Data files to be obtained by the inspector will explain the purpose of the inspection visit and issue a Notice of Inspection (appendix I). Samples collected will be listed on the NOI.

An inspector routinely performs the following types of inspections:

1. Follow-up investigations (FOL)
2. Worker Protection Standard (WPS)
3. Restricted use pesticide dealer inspections (RUP)
4. Marketplace inspections (MPI)
5. Producer establishment inspections (PEI)
6. Agricultural use inspections (USE)
7. Nonagricultural use inspections (USE)
8. In response to a pesticide-related complaint, an inspector will perform a for cause inspection.

b. Work Schedule:
Monday through Thursday from 7:00 a.m. to 5:30 p.m. The work schedule may vary depending on program needs.

Sample Collection Schedule:
Sample initiation and completion dates are scheduled on an as needed basis.

Data File Completion:
The inspector will complete the file and provide data reviews once the analysis and results are received from the laboratory.

c. Geographic Locations:
The inspector performs inspection and sample collection duties on the Flathead Indian Reservation, Blackfeet Indian Reservation, Crow Indian Reservation, and Northern Cheyenne Indian Reservation and on behalf of EPA in Indian country.

d. Resource and Time Constraints:
A variation of response time for sample collection is dependent upon travel and weather conditions, accessibility and unexpected circumstances.

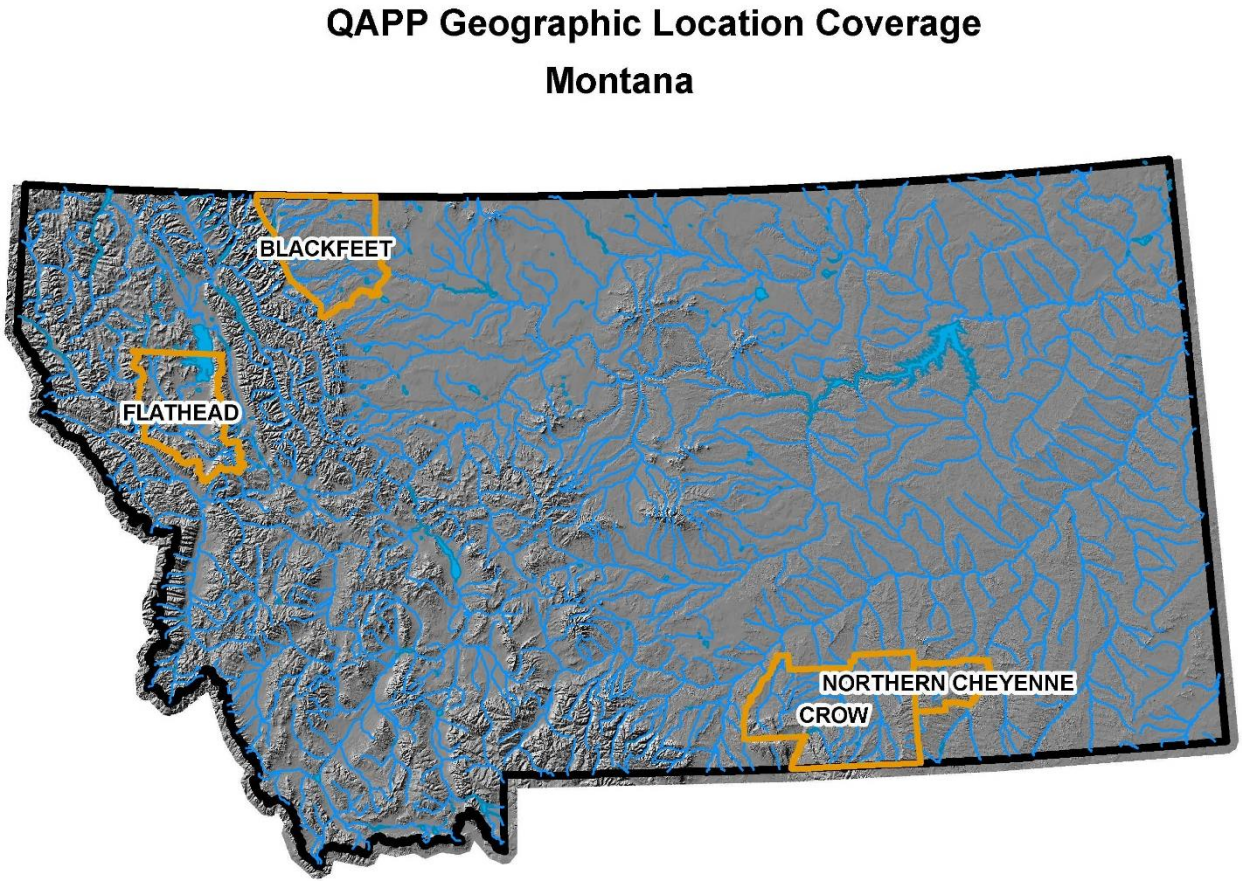


Fig. 2. Geographic Coverage Map

A7. Quality Objectives and Criteria

The inspector and pesticide program personnel utilize policies and standard operation procedures that address the following:

1. Project management
2. Measurement and data acquisition
3. Assessment and oversight
4. Data validation and usability

a. Performance Criteria, Action Limits, Detection Limits and Acceptance Criteria

Performance criteria for all information obtained may be compared to previous collected information pursuant to the EPA's enforcement response policy, see http://www.epa.gov/enforcement/guidance-fifra-enforcement-response-policy.

Samples will be collected in a manner conforming to admissibility of evidence. Sample collection, storage, shipment, and chain of custody will be documented. The laboratory also has authority to contract services with other state and federal governments, Indian tribes, and local government to provide analytical testing for pesticides. The laboratory provides economical and legally defendable results that support pesticide regulations and monitoring programs within the state of Montana. The laboratory shall implement and maintain a plan to assure quality of procedures, activities and data in support of this project (attachment 1).

Laboratory detection limits will be below the EPA's action limit. The EPA sets the maximum contaminant levels for pesticide allowed in food and drinking water. Pesticide residue tolerances can be viewed at https://www.epa.gov/pesticide-tolerances. The EPA has zero-drift action policies (see 79 Fed. Reg. 4691 (2014), accessible at http://www.agri-pulse.com/uploaded/Fed-Register-Jan-29.pdf).

Compliance determinations are made by the EPA enforcement staff members, who implement the enforcement response policy for FIFRA. The policy may be accessed at http://www.epa.gov/enforcement/guidance-fifra-enforcement-response-policy.
The Montana Department of Agriculture laboratory is the laboratory selected by the EPA Region 8 enforcement program:

Montana Department of Agriculture
Analytical Laboratory
McCall Hall
Montana State University
Bozeman, MT 59717-3620
Contact: Mr. Jona Verreth
(406) 994-3383
jverreth@mt.gov

The inspector will contact the laboratory prior to sampling and as needed to discuss:

- analyses
- methods
- QC acceptance criteria with the laboratory and EPA.

The inspection site may be subject to additional federal laws and regulations listed in chapter 1 of the FIFRA Inspection Manual.

The primary performance and acceptance criteria for this program are expressed in terms of data quality indicators. The principal indicators of data quality are precision, bias, accuracy, representativeness, comparability, completeness and sensitivity. Other acceptance criteria may be established on a case-by-case basis as needed. These will be documented in the project file, sampling plan, or inspector's report.

Accuracy is a measure of the overall agreement of a measurement to a known value. Accuracy includes a combination of random error (precision) and systematic error (bias) components that are due to sampling and analytical operations. Accuracy is expressed in terms of precision and bias.

The Tribe will optimize the accuracy of field measurements by using repeatable field practices following standard operating procedures, ensuring that field instruments and equipment are calibrated and maintained according to the manufacturer's instructions and by following the manufacturer's instructions for operation of the equipment.

b. Precision

Precision is a measure of agreement among repeated measurements of the same property under identical, or substantially similar, conditions. Precision of analytical results for field samples can be affected by numerous sources of variability within the field and laboratory environments. Variabilities include sample collection, sample processing, and sample analysis. Precision is normally reported in terms of standard deviation, but since the number of measurements is usually small for this program, it will frequently be reported as relative percent difference.

Field Precision

Precision will be determined in the field by collecting at least one field duplicate sample and duplicating field measurements at the same location per sampling event.

Analytical/Chemical Precision

Precision of analytical results for laboratory replicates will be determined using two independent chemical analyses of aliquots (e.g. subsamples). This sample will be selected from the group of samples constituting each analytical run. A separate analysis of the sample will be made at the beginning and end of each analytical run to provide information on the reproducibility of laboratory analytical results independent of possible variability caused by field sample collection and processing. Laboratory precision is addressed in the methods and laboratory QA plan. The information will be reviewed and evaluated as part of the data review, verification and validation process.

Table 2 Typical Data Quality Objectives for Precision

Sampling Program	**Acceptance Criteria**
Duplicate measurements of field parameters	RPD within 20%
Duplicate measurements of materials submitted for analytical determination	RPD within 20%
Duplicate laboratory measurements	RPD within 20%
$RPD = \frac{(X_1 - X_2) \times 100}{(X_1 + X_2) \div 2}$,	where RPD = relative percent difference, X_1 = larger of the two duplicate values, and X_2 = smaller of the two duplicate values.

c. Bias

Bias is the systematic or persistent distortion of a measurement process that causes error in one direction (i.e., the expected sample measurement is different from the sample's true value). Bias will be estimated using matrix spike analysis, which measures the ability of an analytical method to accurately quantify a known amount of analyte added to a sample. Because some constituents can potentially interfere with the analysis of a sample for a targeted analyte, it is important to determine whether such effects are causing biased (consistently high or low) results. Deionized water blank samples and aliquots (subsamples will be spiked in the laboratory with known amounts of the same trace compound for which project samples will be analyzed. Analysis of spiked blanks verifies if the spiking procedure and analytical method are within control for a water matrix that is presumably free of chemical interference. Analysis of spiked aliquots (subsamples) of project samples verifies if the chemical matrix of the sample interferes with the analytical measurement. It also verifies whether these interferences could contribute substantial bias to reported concentrations.

Recovery efficiency for analysis of constituents is determined by comparison of a sample and a spiked subsample. The data quality objective for acceptable spike recovery of trace compounds in project samples will be method- and analyte-specific. At the laboratory, a spiked deionized water blank sample and a spiked subsample of a project sample will be prepared and analyzed along with the original unspiked sample. The difference between the spiked and unspiked sample concentrations will be determined and used to compute recovery, in percent, according to the following equation:

Percent recovery is calculated using the following equation:

$$\%R = 100 \times (X - B) / T$$, where

X = measured concentration of the spiked sample,

T = theoretical true concentration of the spiked sample, and

B = background concentration of the unspiked sample.

High or low bias is indicated if the 95 percent confidence interval does not include 100 percent recovery, thereby indicating a consistent deviation or bias, either high or low.

Blanks

Deionized water blank samples will be submitted for every field event and analyzed to identify the presence and magnitude of contamination that could potentially bias analytical results. If deionized water is not available, distilled water will be used. The type of blank sample routinely tested will be a field blank. Field blanks are aliquots of deionized water that are certified as trace-element free and are processed in the field through the sampling equipment used to collect samples. These blanks are then subjected to the same processing (sample splitting, filtration, preservation, transportation and laboratory handling) as other samples. Blank samples are analyzed for the same constituents as project samples to identify whether any detectable concentrations exist.

A field blank with constituent concentrations equal to or less than the lower detection limit for the analytical method indicates that the entire process of sample collection, field processing and laboratory analysis is presumably free of contamination. If detectable concentrations of trace elements in field blanks are present, the concentrations will be noted during data review. Analytical results from the field blank collected as part of the subsequent sample set will be evaluated for evidence of a consistent trend that could indicate systematic contamination. Sporadic, infrequent exceedances of less than twice the detection limit probably represent random contamination or instrument calibration error that are not persistent in the process and will be not

likely to cause positive bias in a long-term record of analytical results. **However, if the concentration for a constituent exceeds twice the detection limit in field blanks from two consecutive field events, additional blank samples will be collected from individual components of the processing sequence and will be submitted for analysis to identify the source of contamination.**

d. Representativeness

Representativeness is a qualitative measure of the degree to which data accurately and precisely represents the following:

- a characteristic of a population
- parameter variations at a sampling point
- a process condition, or
- an environmental condition

Representativeness of data will be established and maintained by documenting procedures designed to provide environmentally representative data. The following will be documented:

- sampling design,
- number of measurements,
- sample size or volume,
- sampling time represented by the sampling effort and

Adherence to SOPs for field sampling and laboratory analysis will help to ensure the representativeness of the data. Acceptable performance of the procedures will be verified with quality control samples that will be collected systematically to provide a measure of the accuracy, precision, and bias of the environmental data, and to identify problems associated with sampling, processing, or analysis.

e. Completeness

Completeness is a measure of the amount of valid data obtained from a measurement system. It is calculated as a ratio of the amount of valid or usable data collected to the amounts of valid or usable data planned. The data quality objective for completeness for this QAPP is 85%. This may be changed for specific events. For example, a higher completeness target may be required if fewer samples are collected in a monitoring event. If more samples are collected, the sampling design is more robust and the completeness objective may be lowered. Lesser completeness results will be evaluated for their effect on data and project decision making during data validation.

Percent completeness is calculated using the following equation:

%C = V/T x 100, where
V = number of planned measurements determined valid and
T = total number of measurements.

f. Comparability

Comparability is a qualitative measure of the extent to which data can be compared between sample locations or periods of time within a sampling program, or between discrete sampling programs. Comparability is a critical data quality objective that ties directly to program-specific objectives. Comparability within an inspection is maintained by using the same protocols throughout the program, including those described in this QAPP and the FIFRA Inspection Manual. Documentation of the planning,

implementation and assessment phases of the project also provides additional information to evaluate the comparability of data.

g. Sensitivity
Sensitivity relates to the capability of a method or instrument to discriminate between measurement responses representing different levels of the variable of interest. Methods and instruments used must be sufficiently sensitive so that a comparison to the regulatory or action limit is possible (for example, determine if the measured level of a constituent is above or below a value or if the constituent of concern is present or absent). Additionally, the results obtained must also provide a sufficient degree of certitude that the measurement value is representative of the sample being measured. The laboratory's analytical detection limits are matrix, method, and analyte specific as described in the Montana Department of Agriculture QAPP. The inspector will ensure on a case-by-case basis that the sensitivity of any laboratory or field analytical method and instrument will be sufficient for meeting project objectives. **Laboratory and other project data will be assessed by the Tribe as described in section D.**

The laboratory control sample results are among several elements used to determine the validity of the data. Acceptance criteria are the result of individual batched samples, the percent recovery of the target analyte in the LCS is calculated as percent recovery: %R = observed value / true value X 100. Acceptance criteria for the target analyses and reporting limits are defined by the laboratory methods. The laboratory's pesticide detection limits are matrix and pesticide dependent as described in the Montana Department of Agriculture QAPP (attachment 1).

A8. Special Training and Certifications

a. See Table 3 below.

b. Training is provided by the U.S. EPA enforcement office and available through online and in-person services.

c. The program manager is responsible for assuring that required training and certifications of personnel are obtained and have the authority for justification. The program manager submits training documentation to the EPA Region 8 enforcement officer to maintain Federal credentials.

d. Training information documentation is maintained at the CSKT Environmental Protection Division, personnel office and the EPA, Region 8 enforcement office.

Table 3 Project Personnel and Specialized Training/ Certifications

QUALIFICATIONS AND TRAINING	
Project Personnel Name and Title	**Specialized Training/ Certification Requirements**
CSKT pesticide program manager and FIFRA-credentialed inspector	U.S. EPA Order 3510 Credential issuance and safeguarding U.S. EPA Order 3500.1 Specifies training requirements U.S. EPA Order 1440.2 Health and safety requirements Supervisor training First Aid/AED/CPR certification
FIFRA-credentialed inspector	U.S. EPA Order 3510 Credential issuance and safeguarding U.S. EPA Order 3500.1 Specifies training requirements U.S. EPA Order 1440.2 Health and safety requirements First Aid/AED/CPR certification Knowledge required: FIFRA Inspection Manual, chapter 1
Compliance outreach coordinator	U.S. EPA Order 3510 Credential issuance and safeguarding U.S. EPA Order 1440.2 Health and safety requirements First Aid/AED/CPR certification
Montana Department of Agriculture Analytical Laboratory Bureau also doing business as Montana State University–Montana Agricultural Experiment Station	All samples are sent to the U.S. EPA enforcement program-designated laboratory, which will be responsible for ensuring laboratory competency. Currently the MDA-MSU laboratory is the designated laboratory. The laboratory is accredited by the American Association for Laboratory Accreditation. The letter and certificate of accreditation can be viewed at the following location: http://a2la.org/dirsearchnew/resultscurrentnewformat.cfm Certificate Number: 2694.01 Organization: Montana Department of Agriculture Analytical Laboratory Bureau also doing business as Montana State University–Montana Agricultural Experiment Station Contact: Jona Verreth City, State: Bozeman, Montana Country: United States Telephone: 406.994.3383 Comm Code: C2 Field: Chemical Standard: ISO/IEC 17025:2005 Expiration: 11/30/20

A9. Documentation and Records

a. The inspector prepares case files and quarterly reports that contain an overview of completed and ongoing pesticide inspections and investigations. The procedures found in the FIFRA Inspection Manual and in the attached SOPs are intended to provide the laboratory with sufficient information to establish precision, accuracy, and completeness. The pesticide program supervisor/inspector routinely utilizes the procedures to develop and document the necessary sampling to support field investigations. The specifics of the field observations are to be routinely shared between the sampler and the laboratory using the pesticide sample submission forms. The major issue at this level is for the inspector to provide the laboratory with sufficient sample material. SOPs present the variable nature and objectives specified for each program. The EPA provides technical assistance and oversight that includes case review as well as QA/QC review.

b. The data/inspection package documentation consists EPA Region 8 inspection checklists and/or a narrative report, with several attachments prepared and maintained by the inspector. Reports will be developed in accordance with chapter 16 of the FIFRA Inspection Manual. Report attachments are listed in chapter 1 of the FIFRA Inspection Manual. The following list of attachments is not inclusive (see also exhibit 6-1: Examples of Records, provided in chapter 6 of the FIFRA Inspection Manual).

1. Notice of Inspection
2. Receipt for pesticide use/misuse sample form
3. Complaints
4. Narrative report and/or Inspection Checklist, provided by EPA Region 8, along with a Summary of Findings
5. Photographs
6. Pesticide labels
7. Application records
8. Sample submission form
9. Chain of custody record
10. Laboratory analytical results
11. Maps
12. Weather data
13. U.S. EPA enforcement response

c. Information is provided to the EPA R8 enforcement office on a flash drive, CDROM, and/or EPA Region 8 inspection checklists. A copy of each file is stored at the CSKT pesticide program office for a minimum period of ten years.

d. Documentation is stored electronically on a CDROM at the end of each year, on an external hard drive, in addition to a backup internal network server.

e. Individuals identified in section A3 on the distribution list will receive the most current copy of the approved QAPP from the project manager.

B. Data Generation and Acquisition

B1. Sampling Process Design

Analysis of residue samples frequently involves the detection and measurement of unknown pesticides at unpredictable levels in different matrices. Analysis of residue and formulation samples is conducted by the analytical laboratory. Laboratory services, sensitivity, assistance with sampling design and methods, as well as chain of custody requirements, are provided as part of the service of the laboratory previously identified in this document. The laboratory also provides laboratory QA and data validation.

a. Sample design depends on the type of incident that allegedly occurred. There are four main potential sources of pesticide samples: (1) inspections of facilities that produce pesticides and/or devices that apply pesticides, (2) marketplace inspections, (3) use inspections and (4) import inspections. The type of information collected during an inspection may include physical samples such as photographs, labels, records and devices. Induced samples of pesticides or devices are physical samples that are obtained by mail, telephone or the internet. Documentary samples may be collected in lieu of or in addition to physical samples. Import samples are physical or documentary samples of pesticide formulations or devices imported into the United States. (See chapter 6, FIFRA Inspection Manual.) Residue and environmental sampling may be necessary when there is a suspected pesticide misuse or an adverse effect from a pesticide legal use that involves suspected human, animal, crop or environmental contamination (see chapter 7 of the FIFRA Inspection Manual). The SOP in appendix A of this QAPP, "Sampling Procedures," describes plans for pesticide analysis in a variety of matrices. The SOP also discusses the storage, preservation, and shipping of samples, and coordination with the analytical laboratory.

b. Routine sampling and investigations follow procedures that are found in the FIFRA Inspection Manual. For complex investigations, the investigator develops a field sampling plan that outlines the number of samples to be collected, types of samples to be collected, location of sample sites, any special sampling requirements, as well as most appropriate pesticide for measurement (appendix H). The pesticide program manager/inspector will contact EPA's FIFRA technical enforcement contact to coordinate with the appropriate laboratory facility and determine the correct sampling design, sample preservation, sample packaging, sample submission procedures, and proper documentation procedures. SOPs are included.

c. Additionally, chapters 6, 7 and 8 of EPA's FIFRA Inspection Manual are also utilized to help determine the location where samples should be taken and how sites will be identified. The manual may be accessed at the following address:
https://www.epa.gov/compliance/guidance-federal-insecticide-fungicide-and-rodenticide-act-fifra-inspection-manual.

d. If sites are or become inaccessible, the field sampler will coordinate with the program's project manager to evaluate site conditions and actions to be taken. Additional information is provided and followed in accordance with chapter 5 "Gaining Entry," of the FIFRA Inspection Manual.

e. If samples must be stored temporarily, they will be refrigerated or frozen to prevent deterioration of the sample and degradation of the suspected chemical. The maximum holding times allowed from sample collection to extraction and analysis is three to seven days.

f. Critical information obtained during a routine or for cause inspection will be added to the file to support a pesticide misuse or an adverse effect caused from a legal pesticide use. All files will be stored both electronically and hard copy by the program for a period of ten years.

g. Variability is documented in field notebooks and is addressed throughout the FIFRA Inspection Manual.

B2. Sampling Methods

The laboratory manager will notify the pesticide program manager/inspector when problems are encountered with the quality of incoming pesticide samples or when laboratory problems arise that could affect the reliability or defensibility of analytical results. Problems encountered in the collection or analysis of samples will be documented by inspectors or laboratory personnel by submitting a corrective action report to the EPA pesticide project officer, MDA laboratory chief chemist and the pesticide program manager.

a. Field SOPs are attached in Tribal Guidelines for Pesticide Management Program Sampling Procedures. They include the following:

Sampling Procedures
Rev. 1, 12/10/2014

Collecting, Preparing and Storing Blank and Background Samples
Rev. 1, 12/10/2014

Completing the Pesticide Sample Submission Form and Chain of Custody Form for Pesticide Residue Samples
Rev. 1, 12/10/2014

Personal Protection and Safety Plan for the Agriculture Use Inspector
Rev. 1, 12/10/2014

b. The SOP "Sampling Procedures" in appendix A describes procedures for the following list of matrices.

1. Surface soil
2. Sediment (shallow samples)
3. Vegetation/foliage
4. Air (drift/overspray monitoring)
5. Water from streams, rivers, and lakes
6. Animals
7. Bee incidents
8. Clothing
9. Surfaces
10. Pesticides, fertilizer and feed (dry materials)
11. Pesticides and fertilizer (liquid material)
12. Quality Control Samples
    Procedure for Collecting, Preparing and Storing Blank and Background Samples
13. Storage, Preservation and Shipping
14. Coordinating with the Analytical Laboratory
    Completing Sample Submission and Chain of Custody Forms

Formulation and Use Dilution Samples
The procedures for sampling formulated pesticides from the producer, marketplace, or user, as well as diluted pesticide from the user, are described here and in greater detail in the FIFRA Inspection Manual.

When collecting formulation samples, it is most desirable to collect the entire container that is purchased by an end user. If situations prevent the purchase of the entire container, then collect a sample from the container. The inspector should use a siphoning device for removal of the pesticide from its original container.

Dilution samples are generally extracted using a siphoning device. Sometimes, the sample may be collected directly from an apparatus nozzle, pet cock, or other location that will assure a representative sample of the product being applied is collected.

Pesticide Drift and Residue Collection
During a drift investigation, the investigator may need to collect samples to determine whether drift has occurred. Chapter 13 of the FIFRA Inspection Manual discusses in detail the collection of many types of residue samples. The SOP in appendix A describes collection of the most common residue samples.

c-d. Continuous monitoring is typically not done for FIFRA inspections. An inspector may return to a site and collect additional data as needed.

e. Composite samples may be collected following procedures described in SOP "Sampling Procedures" Appendix A for an appropriate matrix. If split samples are needed, the CSKT program will request the laboratory to conduct a split of the sample.

f. Sample containers and volumes are matrix specific and are described in SOP "Sampling Procedures" in Appendix A.

g. Collecting quality control samples, storage, preservation and shipping of samples, and coordination with the analytical laboratory is also discussed in the SOP "Sampling Procedures" in appendix A.

h. Sterile disposable items for sample collection will be used during sampling activities. Non-disposable items will be decontaminated by triple rinsing equipment with dawn dish soap and water and/or by using isopropyl alcohol following the steps outlined in the SOP "Sampling Procedures" in appendix A.

i. Equipment is described in Section B4, Table 4 Field Supplies and Equipment. Equipment calibration records are maintained in logbooks at the program's office, if/when calibration of equipment is needed. Support facilities include:

1. EPA Region 8 staff and laboratory
2. Montana Department of Agriculture, Montana Extension University Analytical Laboratory staff and services

j. When deviations from the FIFRA Inspection Manual occur in the field, these deviations will be documented in the field logbooks in accordance with chapter 6 of the FIFRA Inspection Manual. If any deficiencies are found, CSKT personnel will contact the equipment supplier to correct the deficiency prior to use in the field.

B3. Sample Handling and Custody

a. Holding times allowed for samples, extraction method, and analyses are both matrix and method dependent. The laboratory assumes custody of the samples upon arrival at the laboratory. Sample custody, security and integrity, in addition to procedures for handling, storage, preservation, retention, disposal and sample failures, are described in the SOPs identified in the laboratory. Disposal of the samples is the responsibility of the laboratory. The laboratory will provide disposal documentation and sample results to the CSKT pesticide program. Disposal documents are archived electronically.

b. The CSKT pesticide program manager/inspector expedites the transfer of pesticide samples. An SOP has been developed and is being utilized relative to sample submission and documentation (see "Completing Sample Submission and Custody Forms" in appendix A, "Sampling Procedures"). In addition, the field sampling SOP describes the sample containers, volumes, preservation, and delivery for the specific samples. Samples will be properly documented, preserved, packaged, maintained under custody, and transferred to the laboratory in a defensible manner.

c. Sample custody procedures listed below are described in detail in chapter 6 of the FI FRA Inspection Manual:

1. As few people as possible should handle the sample or physical evidence.
2. The inspector is responsible for the care and custody of the samples collected until they are properly and formally transferred to another person or facility.
3. Sample labeling, or tags should be completed for each sample and should be written with nonerasable ink.
4. Samples should be sealed with EPA custody seals or in evidence bags immediately upon collection.
5. Any time a custody seal is broken on a sample or bag, that fact should be noted on the chain of custody record and a new seal affixed. This information shall be documented in writing and included in QA reports.
6. A chain of custody should be completed for all samples or physical evidence collected.
7. Sample custody: A sample or other physical evidence is in custody under the following conditions:
   i. When it is in an investigator's actual possession.
   ii. When it is placed in a designated secured area.
   iii. During transportation by public carrier. Samples shall have custody seals in place, be properly placed in a shipping container, and shall be accompanied by sample documentation and a copy of the custody document.

d. Sample Identification

Each sample will be marked with permanent ink on the container with the following information:

- Date
- Inspector credential number
- Inspection sequence number
- Sample or subsample number
- Inspector initials
  For example: 01/09/2015-10245-23-A001-WK

The sample identification number will be identical to the number on the sample submission form (appendix F) accompanying the sample in accordance with chapter 6 of the FIFRA Inspection Manual.

e. Sample Custody

Each sample will be sealed with EPA custody seals or in evidence bags (appendix D) immediately upon collection to ensure sample integrity and tamper resistance. The inspector should contact the EPA program enforcement officer before any sampling occurs to discuss laboratory services availability and sample collection procedures. Valid, defensible results require proper field protocol for sample collection and documentation. For the analysis of a sample to be admissible as evidence, a verifiable chain of custody must be shown between the point that the sample is taken and when analytical results are reported as described in detail in chapter 6 of the FIFRA Inspection Manual.

The chain of custody record (appendix E) identifies and accompanies a sample between the time it is collected and the time it is analyzed. Sample management integrates the SOP, the chain of custody process, the overall requirements of the inspection strategy, and the analyzing laboratory's QA/QC plan. The SOP "Sampling Procedures," as referenced above, is found in appendix A**.** Document control ensures that all documents for a specific inspection are accounted for when the inspection is complete.

Conscientious documentation of sampling protocols and sample handling procedures will be required if samples are later used as evidence, and such documentation will also serve to refresh the memory of the field investigator, perhaps several years later, in an administrative or judicial forum. A pesticide sample submission form (appendix F) will accompany each sample.

B4. Analytical Methods

a. Analytical SOPs

The following analytical laboratory SOPs are identified below in the following document:

Montana Department of Agriculture QAPP
Agricultural Sciences Division Laboratory Bureau
Rev. 11/07/2008

Collecting, Preparing and Storing Blank and Background Samples
Rev. 1, 12/10/2014

Completing the Pesticide Sample Submission Form and Chain of Custody Form for Pesticide Residue Samples
Rev. 1, 12/10/2014

b. Equipment/Instrumentation Needed

The laboratory will determine the appropriate analytical method and QC criteria for the method used. Laboratory analytical methods are described in the Montana Department of Agriculture QAPP (attachment 1), and field procedures are described in the CSKT SOP for pesticide sampling procedures (appendix A). The inspector will contact the laboratory prior to sampling to discuss sampling needs.

Sample łocations will be measured using a Garmin Montana 610/680. GPS data will meet the requirements in U.S. EPA Policy CIO 2131.0 National Geospatial Data Policy and U.S. EPA CIO 2131-P-01-0 National

Geospatial Data Policy Procedure for Geospatial Metadata Management accessed at www.epa.gov/irmpoli8/policies/2131.pdf. The margin of error of the Garmin Montana 610/680 unit to the exact location is accurate to within +/- 12 feet (3.65m). The EPA standard decimal degrees format will be used to record data. Decimal degrees express the latitude and longitude geographic coordinates of a specific location.

c. Performance criteria
Laboratory analytical methods, including SOPs, identification of equipment/instrumentation, and internal corrective actions are described in the MDA laboratory QAPP (attachment 1) or QA manual. Laboratory procedures are controlled and performed by the analytical laboratory. The performance and systems audits are to be performed by the laboratory according to the quality assurance procedures appropriate for that laboratory. The tribal pesticide management program reserves the right to independently review the laboratory's performance and audit systems as needed for QA/QC.

d. Corrective Actions
The laboratory manager will notify CSKT's pesticide program manager/inspector when problems are encountered with the quality of incoming pesticide samples or when laboratory problems arise that could affect the reliability or defensibility of analytical results. Samples will be discarded if their integrity has been jeopardized and then resampled. Problems encountered in the collection or analysis of samples will be documented by inspectors or laboratory personnel by submitting a corrective action report to the EPA pesticide project officer, laboratory chief chemist, pesticide program manager, and other affected project members. Corrective actions are documented and resolved by the program manager.

e. Disposal Procedures
Sample disposal is the responsibility of the laboratory. The laboratory provides disposal documentation and sample results to the CSKT pesticide program. Disposal documents are archived electronically.

f. Laboratory Turnaround Times
The Montana Department of Agriculture, Agricultural Sciences Division Laboratory Bureau strives for a two or three-week turnaround time. CSKT is using only the MDA laboratory.

g. Standard and Nonstandard Methods
The laboratory uses methods classified as standard. Nonstandard methods are minimally validated and are used for nonrecurring requests. See the MDA laboratory QAPP for additional information.

B5. Quality Control

a. Quality control samples are used (1) to verify that samples were not contaminated by equipment, supplies or reagents; (2) to prove or disprove the contamination originated from the suspected sources and (3) to assess the accuracy and precision of analytical methods used for detection. If the sample integrity is compromised, the field sampler will dispose of the sample collected and will resample. All actions will be documented in the field notebook.

Samples will be collected in a sequential order from the least anticipated residue concentration to the greatest anticipated concentration. The least anticipated residue concentration sample will be identified as the background sample and will be collected from an area outside of the incident site to help establish the boundaries of the incident. Control samples are described in chapter 7 of the FIFRA Inspection Manual.

Duplicate samples may be collected as described in chapter 6 of the FIFRA Inspection Manual. Duplicate samples may be collected if requested by a facility or its representative. Duplicate samples of small sized containers (1 gallon or less) will be collected from the same number of units taken from the same shipping containers and bearing the same batch or code numbers, if coded. For large size units (larger than 1 gallon or 20 lbs.) the inspector will collect an equal amount of product in the same manner as the first sample from the same container.

If split samples are needed, the CSKT program will request the laboratory to conduct a split of the sample.

b. Laboratory procedures are performed by the laboratory as described in the analytical method and laboratory QAPP, QA Manual and SOPs. The internal QC checks are to be performed by the laboratory according to the analytical method and laboratory QA/QC procedures appropriate to that laboratory.

c. QC sample procedures are described in detail in appendix A. The inspector is responsible for documenting missing data.

B6. Equipment Testing, Inspection and Maintenance

a-b. Testing, inspection and maintenance of analytical laboratory equipment is conducted by the laboratory as described in the laboratory QAPP, QA Manual and SOPs.

c-d. Field supplies and equipment consist of the items listed in table 4, section B8. Disposable items are used when possible to prevent cross contamination. Equipment is inspected prior to use by the personnel collecting the sample. Replacement items are stored in the CSKT pesticide program office basement.

The Garmin Montana 610/680 unit will be operated, tested, inspected and maintained according to the operation and maintenance manual found at the following address: https://www8.garmin.com/manuals/webhelp/montana610-680/EN-US/GUID-D0EEDA43-7743-4077-B4C4-F5989F1D6DDE-homepage.html a hard copy of this manual is maintained in the project files. The GPS equipment checklist (appendix G) will be referenced.

e. Field equipment is tested and maintained according to the manufacturer's operation and maintenance manual. Equipment is tested and inspected by the Inspector prior to each sampling event.

f. Deficiencies are recorded in field log books. Deficient equipment is resolved by ordering and replacing supplies on an as needed or annual continual basis. Supplies are stored by program office.

B7. Equipment Calibration Procedures and Frequency

a-c. Laboratory equipment calibration procedures are controlled and performed by the analytical laboratory as described in its QAPP, QA Manual and SOPs. Collection of pesticide residue or formulation samples does not typically require instrument calibration. In cases where calibration is necessary, most sampling equipment is sterile and disposable. Non-disposable items are cleaned with Dawn dish soap and deionized water. Calibration of equipment is recorded in logbooks at the program office.

B8. Inspection and Acceptance of Supplies and Consumables

The program manager is responsible for ensuring that all supplies are inspected by CSKT personnel to ensure that materials are delivered intact. Materials not delivered intact are rejected for use in sampling programs. Sample supplies are ordered from VWR International, LLC and or Thermo Scientific, if another supplier is used, it will be noted in a field notebook. Wide-Mouth Amber glass containers are available Certified to meet EPA performance-based specifications for semi-volatile organics, pesticides, PCBs and metals analyses, processed the same way as the certified jars but without certification documentation, or Unprocessed and ready for your own cleaning procedure. The program uses unprocessed containers. Containers will be triple rinsed with distilled water prior to use for sampling by the field sampler. All supplies are to be stored in protective containers and out of direct sunlight. Corrective actions are documented in a corrective action report.

Field supplies and equipment are listed in the table below. Disposable items are used when possible to prevent cross contamination. Supplies are also inspected prior to use by the personnel collecting the sample. Replacement items are stored in the CSKT pesticide program office basement.

Table 4 Field Supplies and Equipment

DOCUMENTATION	EQUIPMENT	DISPOSABLE	SOLVENTS
Computer	Shovel	Disposable plastic scoop	Distilled water
Tablet	Hart hat	Latex nitrile gloves	90% Isopropyl alcohol
Dry erase boards	Amber glass wide mouth jars 2 oz. to 40 mL	Disposal scalpel/knife	5% Chlorine solution
Telephone, cell phone	Stainless steel pails	Aluminum foil	Ice
Garmin Montana 610/680 handheld GPS unit	Standard testing Sieve ¼ in. mesh screen	Disposable sterile tweezers/forceps	Drinking water
Camera	100 ft. Tape measurer 50 ft. Tape measurer	Dawn dish soap	Sunscreen
Flash drive(s)	Metal / stainless steel trowel	Latex foot covers	
CD ROMs	Respirator	Tyvek suit	
Kestrel weather meter	Grain sampler	Latex foot covers	
Bushnell Scout 10000 ARC DX laser range finder (5-1000 Yards)	Safety eyewear	Tyvek or Neoprene apron	
Permanent markers/pens	Scrub brush	Packing Tape	
Forms	5 gal. portable water container	Approved evidence security bags	
	Spill kit	Absorbent pad	
	Bungee cords	3 x 3 Sterile gauze pads	
	ATV, ATV trailer, tie downs	Masking tape	
	Glass tubing/siphon tube	Gallon size plastic “Freezer Ziploc” bags	
	Water-sensitive paper, oil-sensitive paper or other suitable paper	Garbage bags	
	100 ft. and 50 ft. Tape measures	Paper towels	
	Binoculars	Disposable hose	
	Spade/trowels	Insulated shipping container	
	Scissors	Batteries	
	Binoculars		
	Cooler		

	Hard cover ice packs ***Do not use blue ice bags,** they burst and contaminate samples.		
	Flashlight		

B9. Non-Direct Measurements

a. Data sources for collection of existing data may include information contained in the following:

- Previous inspection files.
- Chemical safety data sheets
- Pesticide labels
- Pesticide application records
- Google earth images
- Applicator certification licenses
- Name of company
- Site address and telephone number
- Facility representative identification
- Reason for the inspection
- Maps
- GPS Coordinates

b. Intended Use:

1. FIFRA Inspection Manual, to ensure inspection activities are in accordance with the manual.
2. U.S. EPA federal certification resources accessed at http://www2.epa.gov/pesticide-applicator-certification-indian-country. Information is provided as outreach to the community, and the program utilizes the technical information for its program goals.
3. Montana Department of Agriculture resources can be accessed at http://agr.mt.gov/**.** Information is provided as outreach within the community, and the program utilizes technical support and trainings provided.
4. Previous inspection files may be accessed as needed for the EPA's enforcement response policy.
5. Annual certified pesticide applicator lists provided by the EPA or the Montana Department of Agriculture. This data is used by the CSKT pesticide program to establish a neutral inspection scheme for selecting applicators located within the geographic boundaries described in section A6 for routine inspections.
6. CSKT GIS program develops maps using data acquired from the neutral inspection list(s) and incident reports to determine jurisdictional applicability for the CSKT pesticide program's response. GPS points collected by the field sampler are provided to the CSKT GIS program and sample design maps are generated using those points.
7. 40 C.F.R. parts 150-189 (2012).
8. Technical data.
9. Weather data.

c. Licensing information for an applicator is verified for each inspection by obtaining documentation from the support facility; once verification is documented the data meets the program's acceptance criteria.

d. Key resources and support facilities to obtain data are either updated by the U.S. EPA certification program or the Montana Department of Agriculture Licensing, Registration and Training Program.

e. The program is limited to operating conditions within the geographic program coverage areas.

B10. Data Management

a. Recordkeeping and tracking of field inspection documents are kept in a hardcopy file at the program office. The hardcopy file is scanned and saved electronically on an internal network server. This also serves as backup file storage. The file is saved onto a CD ROM or flash drive and provided to the EPA Region 8 enforcement office by mail.

b. Tracking practices of the type and numbers of inspections are recorded by the CSKT pesticide program staff, who maintain and update the status of each inspection on an Excel spreadsheet. Hard copies of files are maintained at the pesticide program office for a period of ten years.

c. Reliable data transmittal is achieved by mailing each data package to the grant enforcement officer.

d. The inspector is the individual responsible for reliable transmittal and document management.

e. Archival Process

- Each inspector is responsible for archiving the records of the inspections she or he conducted.
- The inspector will update the status of each inspection in the Excel spreadsheet as such status changes occur.
- When an inspection report has been completed, the inspector will scan the entire hard copy file to the electronic program file. A complete copy of this electronic file will be sent to the EPA enforcement officer by mail.
- The electronic files for each inspection are saved to CD-ROM or flash drive. At the close of the fiscal year, the CD-ROMs/ flash drives for that year are filed into the program archive file. The electronic program archive file is a permanent file.
- The inspector will store the original hard copy files in the program basement, where they will remain for a period of ten years. After ten years each file will be destroyed.

Disclosure of official information including confidential business information is described in chapter 1 of the FIFRA Inspection Manual. State and tribal inspectors using federal credentials to conduct FIFRA inspections are not authorized to obtain or access CBI on behalf of the EPA unless the claim of CBI has been waived. Where records claimed as CBI are necessary to complete the inspection, the inspector must request that the CBI be sent directly to the appropriate EPA regional office document control officer using the procedures described below.

1. The inspector shall request that the establishment place any information claimed to be CBI in a double sealed envelope before sending.
2. The inspector shall list the requested information claimed to be CBI on the receipt for samples or statement form.
3. The inspector shall provide the owner/operator with a correct address for the EPA regional document control officer.

4. The inspector shall clearly document the list of requested information claimed to be CBI to be sent to the EPA document control officer in the inspection report.

f. The CSKT information technology department maintains and establishes standards and acceptability for hardware.

g. EPA 5700 forms and a copy of the Excel database are provided to the EPA Region 8 enforcement officer annually by the CSKT pesticide program manager. Inspection reports are provided to the EPA Region 8 enforcement officer within 30 days from the time of inspection unless an excused delay has occurred.

C. Assessment and Oversight

C1. Assessment and Response Actions

a. Assessment of activities conducted during the sampling period will be done by the project manager at least once per year.

b. The pesticide program manager and the QA manager have the authority to stop work orders and any other corrective action in the process as deemed necessary. All purchases must be approved by the project manager and are reviewed on a case-by-case basis. All occurrences will be recorded in the field forms by the sampler.

c. The CSKT pesticide program manager or the EPA project officer may accompany the inspector occasionally during field sampling activities to make sure that the appropriate SOP or the field sampling plan is followed.

d. Corrective actions should be addressed if information in the field logbook or the chain of custody record is incorrect. The sampler must make corrections by drawing a line through the error, entering the correct information, and initialing and dating the correction. The information that is crossed-out must be legible, and all corrections also must be initialed and dated by the project manager who is responsible for implementing corrective actions.

Interagency referrals will be made in accordance with chapter 4, “Federal, State and Tribal Cooperation” of the FIFRA Inspection Manual.

C2. Reports to Management

a. Midyear and end of year reports will be submitted to the EPA Region 8 grant project officer and to the CSKT Contracts and Grants office by the program manager. The pesticide program personnel will complete an annual review and update this QAPP and report changes to the EPA project officer and the EPA QA manager. The annual update will include communications with the Montana laboratory for continued competency to perform the work for this project. Currently the MDA-MSU laboratory is the designated laboratory. The laboratory is accredited by the American Association for Laboratory Accreditation. The letter and certificate of accreditation can be viewed at the following location: http://a2la.org/dirsearchnew/resultscurrentnewformat.cfm

b. Assessment and interpretation reports will be included in the annual end-of-year grant report submitted to the EPA Region 8 grant project officer by the program manager. The division program manager will receive

verbal and written reports from the project manager. All inspection reports for inspections conducted using federal credentials will be submitted to the EPA Region 8 enforcement project officer by the program manager.

D. Validation and Usability

D1. Data Review, Verification and Validation

Chapter 16 “Inspection Reports and Supporting Documentation” of the FIFRA Inspection Manual addresses data review, validation and verification.

D2. Verification and Validation Methods

The Montana laboratory will complete analytical data packages and report the results to the pesticide program inspector. The laboratory returns the chain of custody sample submission forms and data and retains a copy for their files. The inspector will include the analytical data package and results in the case narrative of the inspection report.

D3. Reconciliation with User Requirements

a. The program’s data review, verification and validation process are described in chapter 16 of the FIFRA Inspection Manual. Chapter 16 also addresses reconciliation with user requirements. The project manager (or designee) will have the primary responsibility to verify and validate all program data, including laboratory data, and reconcile these with user requirements.

b. Most of the information and data collected for this program will not be laboratory analytical data. It will be information collected during inspections as identified in the respective chapters of the FIFRA Inspection Manual. For samples sent to a laboratory for analysis, the laboratory will verify analytical data as described in the analytical method and laboratory QAPP and QA Manual and report the results in the case narrative in the laboratory data package. The results of data verification, validation and reconciliation with user requirements will be reported in a briefing summary also known as the sample history report, including their effect on the inspection. Data use limitations are case dependent. Data will be provided to the EPA.

References

1. U.S. EPA Region 8 Environmental Laboratory Quality Assurance Manual, SOP No. QSP-001, Rev. 1.4, June 11, 2016.
2. Montana Department of Agriculture Quality Assurance Project Plan, Agricultural Sciences Division Laboratory Bureau, Rev. 0, Nov. 7, 2008.
3. Federal Insecticide, Fungicide, and Rodenticide Inspection Manual, U.S. Environmental Protection Agency, Oct. 2013.
4. 40 C.F.R. Parts 150-189 Protection of Environment, July 1, 2012.
5. EPA Requirements for Quality Assurance Project Plans, EPA QA/R-5, EPA/240/B-01/003, March 2001

Tribal Guidelines for Pesticide Management Program

Appendix A: Sampling Procedures

Standard Operating Procedure

Sampling Procedures

Signatures and Dates

_____	_____
Author	Date
_____	_____
Program Manager	Date
_____	_____
Quality Assurance Manager	Date

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1. Surface Soil: Collection, Storage and Shipping of Soil Pesticide Residue Samples

1. Authority
The Federal Insecticide, Fungicide and Rodenticide Act, section 9(a).

2. Purpose
To provide a standard method for collecting, storing and shipping soil samples for pesticide residue analysis.

3. Scope
This SOP is to be used in instances that require collecting soil samples for pesticide residue analysis, where excavating by hand is the appropriate method. This SOP covers both surface and subsurface sampling. (Some sampling may be more appropriately conducted with soil probes or drilling equipment. These procedures are not addressed in this SOP.)

4. Specific Procedures

4.1 Tools needed: (These tools should be stored in a manner that reduces or eliminates exposure to contaminants.)
Shovel, disposable plastic scoop or metal trowel
Stainless steel standard testing sieve with 1/4 Inch mesh screen
Stainless steel pail
Pry bar or shovel (for subsurface sampling)
Quart size plastic sampling bags
Approved plastic evidence security bags
Heavy duty, wide aluminum foil
Garbage bags
90% Isopropyl alcohol (sufficient for washing and rinsing equipment)
Distilled water (sufficient for rinsing equipment)
5% Chlorine solution (1 minute of contact time to decontaminate containers used to sample sulfonyl urea pesticide products)
Cooler or insulated shipping container with frozen ice packs or ice
Strapping or shipping tape, permanent marking pen and labels
Suitable safety gear for the products used (refer to safety SOP)

4.2 Procedures

4.2.1 Prepare needed equipment. All equipment used for residue sampling must be free from contamination. Prior to sampling, between and after sampling, all equipment must be (1) washed with 90% isopropyl alcohol or 5% chlorine, (2) rinsed with water and (3) rinsed with distilled water. To avoid cross contamination between samples, change your gloves prior to each sample collected, reduce exposure to wind and prepare the sample on a clean surface. Disposable equipment need not be cleaned prior to initial use. Do not reuse disposable equipment. Samples should be collected from the least contaminated area to the most; the most contaminated is usually the treated site. **Keep in mind the restricted entry interval and label requirements.** Collect a Background or Blank sample first following the procedures below and refer to section 12 “Procedure for Collecting, Preparing and Storing Blank and Background Samples”.

4.2.2 Surface soil sampling technique. The idea of taking a surface sample is to collect soil at the surface, generally 0 to 2 inches. A surface sample always includes the surface.

For off-target damage to plants, sample types may include composites of soil from the area of damage. The investigator may choose to collect a number of samples representing different levels of damage. The investigator should document the sampling method and the representativeness of each sample.

Based on the above information, remove the top layer of soil from the surface to depth affected, using a trowel or scoop. Sift through a sieve that has a quarter-inch mesh screen into a stainless steel pail. Collection should be at

several locations throughout the incident site to provide a good, representative sample. Mix the composite sample with a trowel or scoop and fill a quart plastic bag 2/3 full.

4.2.3 Subsurface soil sampling technique. When a sample is required below the surface, the technique for sampling must be revised. Use a shovel, or pry bar to remove sufficient soil to the desired depth. (The desired depth is based on your observations and background information concerning elapsed time since the application, coarseness of soil, moisture content and other factors.) If collecting soil samples at several depths in the same hole, samples should be taken **from the least contaminated area to the most**. **Keep in mind the restricted entry interval and label requirements.**

Using a scoop or trowel, lightly scrape away the walls of the hole, to reduce the possibility of cross contamination from the various depths. With a new trowel or scoop, take a sample of soil from the scraped wall of the hole. Do not remove soil from the bottom of the hole unless you can assure that it is free of contamination from the surface. Sift soil through sieve that has a quarter-inch mesh screen into a stainless steel pail. Mix sample with a trowel or scoop and collect enough soil into a quart plastic bag to fill it 2/3 full. To ensure safety of staff during sampling, it is crucial that the inspectors do not enter excavations greater than three feet deep. Excavations greater than three feet require contacting your supervisor and compliance with OSHA regulations.

4.2.4 Roll down the top of the plastic bag and fold in the tabs to seal bag. Using a permanent marker, label the plastic sample bag with (1) the date, (2) sample number, (3) collection site, (4) sample description and (5) the collector/inspector's signature.

4.2.5 Place each sample bag in an approved plastic evidence security bag. Label the evidence security bag with a permanent marker stating (1) the date, (2) sample number, (3) inspector's signature and (4) printed name and title of the inspector. Seal the bag.

4.2.6 Samples must always be refrigerated upon collection. If samples will be stored for any length of time (overnight), freeze the samples prior to shipment to the laboratory. When shipping samples or personally delivering them to the laboratory, pack in a shipping container with frozen ice packets. Ship the samples with the pesticide sample submission form and U.S. EPA chain of custody form, when adequate information is available for analytical purposes. Plan to ship for weekday arrival at the laboratory. Do not allow samples to sit over a weekend in shipment.

4.2.7 Refer to Section 14. "Coordination with the Laboratory" and follow procedures to complete forms that accompany the sample for submittal to the laboratory and for defensibility.

2. Sediment (Shallow Samples)

Equipment and Supplies:

1. Stainless steel trowel, spoon or scoop
2. Acetone or 90% isopropyl alcohol
3. Clear or amber glass jars (Teflon-lined lids or Teflon covers should be used whenever possible) with a 16-32 oz. capacity
4. Forceps or large tweezers
5. Clean latex gloves
6. Shipping container (cooler) with ice
7. Field notebook and pen, permanent marker, plastic sampling bags, U.S. EPA seals, and chain of custody forms

Procedure:

Samples should be collected from the least contaminated area to the most. Keep in mind the restricted entry interval and label requirements. Collect a Background or Blank sample first following the procedures below and also refer to section 12 "Procedure for Collecting, Preparing and Storing Blank and Background Samples".

1. Use the stainless steel trowel to collect approximately one pint of sediment (0-6 inch depth).
2. Place the sediment into a clean glass jar.
3. If necessary, use the forceps or tweezers to remove rocks, leaves, and other debris from sediment.
4. Secure the lid and label the jar (use a permanent marker). Place the jar in a plastic bag and seal or tie shut.
5. Clean the stainless steel trowel by rinsing with acetone or isopropyl alcohol. Rinse thoroughly with clean water (use deionized or distilled water if available).
6. Repeat the above procedure until the appropriate number of samples has been collected. Use new or clean gloves when collecting each additional sample.
7. Prepare or collect samples necessary for quality control (see the table in section 12 of this SOP for the recommended QC samples).
8. Place the samples in the shipping container as they are collected. Pack with ice and prepare for shipment.
9. Maintain chain of custody records.
10. Refer to Section 14. "Coordination with the Laboratory" and follow procedures to complete forms that accompany the sample for submittal to the laboratory and for defensibility.

3. Vegetation/Foliage: Collection, Storage and Shipping of Vegetative Foliage Pesticide Residue Samples

1. Authority
   The Federal Insecticide, Fungicide and Rodenticide Act, section 9(a).

2. Purpose
   To provide a standard method for collecting, storing, and shipping vegetation samples for pesticide residue analysis.

3. Scope
   This SOP is to be used in all instances that require vegetation/foliage samples for pesticide residue analysis.

4. Specific Procedures
   Vegetation/foliage sampling for pesticide residues is essential during investigations of drift, off-target damage, or on-target damage.

   4.1 Tools needed: (These tools should be stored in a manner that reduces or eliminates exposure to contaminants.)
   Knife, disposable scalpel or scissors
   Stainless steel pail
   Gallon size plastic sampling bags
   Approved plastic evidence security bags
   Heavy duty, wide aluminum foil
   Garbage bags
   90% Isopropyl alcohol (sufficient for washing and rinsing equipment)
   Distilled water (sufficient for rinsing equipment)
   5% Chlorine solution (1 minute of contact time to decontaminate containers used to sample sulfonyl urea pesticide products)
   Cooler or insulated shipping container with frozen ice packs or ice
   Strapping or shipping tape, permanent marking pen, and labels
   Suitable safety gear for the products used (refer to safety SOP)

   4.2 Procedure:

   4.2.1 Prepare needed equipment. All equipment used for residue sampling must be free from contamination. Prior to sampling, between, and after samples, if necessary, all equipment must be (1) washed with 90% isopropyl alcohol or 5% chlorine, (2) rinsed with water, and (3) rinsed with distilled water. To avoid cross contamination between samples, change your gloves prior to each sample collected, reduce exposure to wind and prepare the sample on a clean surface. Aluminum foil should be used for a clean sample surface. Disposable equipment need not be cleaned prior to initial use. Do not reuse disposable equipment.

   4.2.2 Identify affected vegetation/foliage or vegetation/foliage to be sampled, based on your investigation. Make sure to choose a vegetation/foliage type that will allow for collection of a sufficient quantity to ensure a complete analysis.

   The choice of representative vegetation/foliage will depend upon several factors including the mechanism of action of the pesticide. For translocated pesticides, such as glyphosate, the entire plant may be collected, including roots if they are cleaned of soil. Certain herbicides, such as phenoxys, may concentrate in growing portions of the plant. For contact pesticides that are not translocated and certain insecticides, the plant portion that was exposed to the spray should be collected.

   Where damage is being investigated, an appropriate representative sample would include those plants or portions of plants that are exhibiting damage. For off-target damage to plants, sample types may include composites of damaged plants from the area of damage. The investigator may choose to collect a number of samples

representing different levels of damage or different plant species. The investigator should document the sampling method and the representativeness of each sample.

4.2.3 Measure the sample area and record it. The size of the sample site should be approximately a 25- foot square for field crops and non-crop areas.

4.2.4 Photograph the affected vegetation/foliage, as well as that which is unaffected.

4.2.5 Samples should be collected from the least contaminated area to the most. Collect a Background or Blank sample first following the procedures below. Also refer to section 12 “Procedure for Collecting, Preparing and Storing Blank and Background Samples”. With gloves, use the knife, scissors, scalpel or hands to cut or pull representative vegetation/foliage, without getting soil into the sample. For orchards and ornamentals, collect samples from approximately four mature trees/vines from a rectangular or square area as described in Chapter 7 of the FIFRA manual, “Residue and Environmental Sampling”. Collect approximately three-quarters full of a 2.5-gallon stainless steel pail, or approximately one pound. If requesting multiple analyses, more vegetation may be required.

4.2.6 Vegetation/foliage samples must be wrapped in aluminum foil (pre- rinsed with 90% isopropyl alcohol and air dried).

4.2.7 Place the vegetation/foliage in a gallon size plastic bag. Using a permanent marker, label the plastic bag with (1) date, (2) sample number, (3) collection site, (4) sample description and (5) the collector/inspector’s signature.

4.2.8 Place plastic gallon sample bag in evidence security bag, label with permanent marker the (1) date, (2) sample number, (3) inspector’s signature, and (4) inspector’s printed name and title. Seal the bag.

4.2.9 Because plant parts can rapidly deteriorate, they must be refrigerated in coolers with ice immediately upon collection. If samples can be shipped to reach the laboratory within 24 hours, they can be shipped unfrozen, packed with frozen, ice packs. Samples must be frozen if they cannot reach the laboratory within 24 hours. They can then be shipped in a frozen state. Ship with the pesticide sample submission form and U.S. EPA chain of custody form, when adequate information is available for analytical purposes. Plan to ship for weekday arrival at the laboratory. Do not allow samples to sit over a weekend in shipment.

5.0 Refer to Section 14. “Coordination with the Laboratory” and follow procedures to complete forms that accompany the sample for submittal to the laboratory and for defensibility.

4. Air (Drift/Overspray Monitoring)

Equipment and Supplies:

1. Water-sensitive paper, 76 mm x 52 mm (Spraying Systems Co., North Avenue at Schmale Rd., Wheaton, Illinois 60189) or other suitable paper.
2. Oil-sensitive paper, 76 mm x 52 mm (Spraying Systems Co., North Avenue at Schmale Rd., Wheaton, Illinois 60189) or other suitable paper.
3. Absorbent pad, 10 cm x 10 cm (stock no. 7588; Alltech Associates, Waukegan Dr. Deerfield, Illinois 60015) or other suitable pad.
4. Latex gloves.
5. Clean poster board or cardboard.
6. Stapler (to attach paper to poster board or cardboard).
7. Clean aluminum foil.
8. Shipping container (cooler) with ice.
9. Field notebook and pen, permanent marker, plastic sampling bags, U.S. EPA seals, and chain of custody forms.

Procedure:
Samples should be collected from the least contaminated area to the most. Collect a Background or Blank sample first following the procedures below and also refer to section 12 “Procedure for Collecting, Preparing and Storing Blank and Background Samples”.

1. Assemble paper sheets on poster board by stapling side-by-side one sheet of oil-sensitive paper, one sheet of water-sensitive paper, and an absorbent pad. Duplicate saturation pads may be needed for certain analytical purposes (consult with the laboratory). Use latex gloves when handling indicator and saturation pads.
2. Place the prepared poster board at the designated sampling site before spraying occurs. The poster board should be placed in a horizontal position (indicator and absorbent pads facing upward) above vegetation or the crop canopy.
3. Record the temperature and relative humidity shortly before spraying occurs. Obtain temperature and relative humidity records at a location immediately adjacent to the sampling site.
4. After spraying is completed, examine the indicator pads for stains, record observations in the field notebook.
5. Wrap the poster board (with indicator and absorbent pads still attached) in clean aluminum foil.
6. Place the wrapped poster board into a plastic bag and seal or tie shut. Label the plastic bag.
7. Repeat the above procedure until the appropriate numbers of samples have been collected. Use new or clean gloves when collecting each additional sample.
8. Prepare or collect samples necessary for quality control (see the table in section 12 for the recommended QC samples).
9. Place each sample in the cooler as it is collected. Pack cooler with ice and prepare for shipment.
10. Maintain chain of custody forms.
11. Refer to Section 14. “Coordination with the Laboratory” and follow procedures to complete forms that accompany the sample for submittal to the laboratory and for defensibility.

5. Water from Streams, Rivers, Lakes and other Water Sources

If the suspected pesticide is water soluble, draw sample from a lower depth. If the pesticide is oil-based or oil is part of the tank mix, draw sample from the surface layer.

Equipment and Supplies:

1. Wide-mouthed, amber, glass jars having a minimum capacity of 32 oz (Teflon-lined lids should be used whenever possible). Some laboratories require 1-gallon water samples. Consult with appropriate laboratory before sampling.
2. Clean latex gloves.
3. Masking tape.
4. Shipping container (cooler) with ice.
5. Field notebook and pen, permanent marker, U.S. EPA seals, and chain of custody forms.

Procedures:

Samples should be collected from the least contaminated area to the most. Collect a Background or Blank sample first following the procedures below and also refer to section 12 "Procedure for Collecting, Preparing and Storing Blank and Background Samples".

Water Soluble Pesticides

1. Put on latex gloves.
2. Triple rinse amber glass bottle with distilled water. Replace gloves.
3. Fill first container with distilled water. Label sample as "blank sample". To avoid cross contamination between samples, change your gloves prior to each sample collected
4. Collect water sample from source.
5. Lower a glass jar to the desired depth (at least 18 inches if possible) with the lid on. Remove the lid under water. Fill the jar completely. Avoid collecting disturbed sediment.
6. Replace the lid and lift the bottle out of the water.
7. Dry the jar thoroughly and label (with label or masking tape) and initial.
8. Repeat the above procedure until the appropriate number of samples have been collected. Use new or clean gloves when collecting each additional sample.
9. Prepare or collect samples necessary for quality control (see the table in section 12 for the recommended QC samples).
10. Place the samples in the shipping container as they are collected. Pack with ice and prepare for shipment.
11. Maintain chain of custody forms.

Oil Soluble Pesticides

1. Remove the lid from a jar and collect a surface water sample.
2. Fill the jar completely. Avoid collecting disturbed sediment.
3. Replace the lid and lift the jar out of the water.
4. Dry the jar thoroughly and label.
5. Repeat the above procedure until the appropriate number of samples have been collected. Use new or clean gloves when collecting each additional sample.
6. Prepare or collect samples necessary for quality control (see the table in section 12 for the recommended QC samples).
7. Place the samples in the shipping container as they are collected. Pack with ice and prepare for shipment.
8. Maintain chain of custody forms.
9. Refer to Section 14. "Coordination with the Laboratory" and follow procedures to complete forms that accompany the sample for submittal to the laboratory and for defensibility.

6. Animals

Equipment and Supplies:

1. Dip net, tongs, scalpel or knife
2. Latex gloves
3. Clean aluminum foil
4. Shipping container (cooler) with ice
5. Field book and pen, permanent marker, plastic sampling bags, U.S. EPA seals, and chain of custody forms

Procedure:
Samples should be collected from the least contaminated area to the most. Collect a Background or Blank sample first following the procedures below. Also refer to section 12 "Procedure for Collecting, Preparing and Storing Blank and Background Samples".

1. Collect dead (and not decomposed) animals. If the size of the animal makes collection and shipment impossible or impractical, sample tissue or organs as recommended by laboratory personnel. Advice from a veterinarian may be helpful, or contract with a veterinarian for necropsy.
2. Wrap animal, tissue, or organs in clean aluminum foil, if possible.
3. Place wrapped animal, tissue, or organs in a plastic bag and seal or tie shut. Label the bag.
4. Repeat the above procedure until the appropriate number of samples have been collected. Use new or clean gloves when collecting each additional sample.
5. Prepare or collect samples necessary for quality control (see the table in section 12 for the recommended QC samples).
6. Place the animal, tissue, organs, and quality control samples in the shipping container. Pack with ice and prepare for shipment.
7. Maintain chain of custody forms.
8. Refer to Section 14. "Coordination with the Laboratory" and follow procedures to complete forms that accompany the sample for submittal to the laboratory and for defensibility.

7. Bee Incidents: Collection, Storage and Shipping of Bee Pesticide Residue Samples

1. Authority
The Federal Insecticide, Fungicide and Rodenticide Act, section 9(a).

2. Purpose
To provide a standard method for collecting, storing, and shipping bee samples for pesticide residue analysis.

3. Scope
This SOP is to be used in all instances that require bee samples for pesticide residue analysis. If needed, refer to the complete bee guidance posted on the FIFRA webpage: http://www.epa.gov/sites/production/files/2013-09/documents/bee-inspection-guide.pdf

4. Specific Procedures

4.1 Tools needed: (These tools should be stored in a manner that reduces or eliminates exposure to contaminants.)
Clean latex gloves
60 oz. Amber glass jars (Teflon-lined lids or Teflon covers should be used whenever possible)
Approved plastic evidence security bags
Garbage bags
Tweezers
Liquid detergent and water (sufficient for washing and rinsing equipment)
Distilled water (sufficient for rinsing equipment)
Cooler or insulated shipping container with frozen rigid-puncture resistant ice packs or ice * Blue ice bags rupture and may contaminate the sample.
Strapping or shipping tape, permanent marking pen, and labels
Suitable safety gear for the products used (refer to safety SOP in appendix B)

4.2 Procedures

4.2.1 Prepare needed equipment. All equipment used for residue sampling must be free from contamination. Prior to sampling, between, and after each sample, if necessary, all equipment must be (1) washed with detergent and water, (2) rinsed with water, and (3) rinsed with distilled water. To avoid cross contamination between samples, change your gloves prior to each sample collected, reduce exposure to wind and prepare the sample on a clean surface. Aluminum foil should be used for a clean sample surface. Disposable equipment need not be cleaned prior to initial use. Do not reuse disposable equipment.

Samples should be collected from the least contaminated area to the most. Collect a Background or Blank sample first following the procedures below and also refer to section 12 “Procedure for Collecting, Preparing and Storing Blank and Background Samples”.

If a large number of colonies appear to be affected use a systematic sampling scheme; otherwise, select the colony with the largest number of dead bees either in front of or within the colony. Composite samples from multiple hives may be necessary to achieve the required quantity.

4.2.2 Use new or clean latex gloves when collecting each sample. Remove gloves by turning the glove on the opposite hand inside out to remove the other glove to reduce the possibility of cross contamination. Collect the minimum amounts or more of bees using tweezers based on the following:

- 30-50 dying or newly dead bees may be composted in a 250 ml/ 8 oz. glass jar
- 500-1,000 dead and desiccated bees

- 100 live bees may be collected

4.2.3 Place bees into amber glass jar.

4.2.4. Secure the lid and label the jar (use a permanent marker). Place the jar in a plastic bag and seal.

4.2.5 Use new or clean gloves when collecting each sample. Collect bees using tweezers or forceps.

4.2.6 Place the bees into a clean glass amber jar. Place the jar inside a plastic Ziploc bag and seal.

4.2.7 Use a permanent marker to label the plastic bag with the (1) date, (2) sample number, (3) collection site, (4) sample description, and (5) inspector's initials.

4.2.8 Place the sample container in an approved evidence security bag and seal. With a permanent marker, indicate the (1) date, (2) credential number, (3) inspector's signature and, (4) inspector's printed name and title on the outside of the bag.

4.2.9 Ship the sample in a well-padded shipping container with ice as soon as possible, no later than 48 hours from the sampling time. Plan to ship for weekday arrival at the laboratory. Do not allow samples to sit over a weekend in shipment.

4.2.10 Beekeeper products: If the beekeeper has applied products within the hive within the past year and their applications were in accordance to label directions, the inspector may want to sample the product to determine if that product was formulated properly.

4.3 Drift/Overspray

If drift or direct overspray of pesticides is suspected, collect wipe samples from the exterior surface of the hive. Refer to section 9 of "Sampling Procedures" for surface wipe sample collection procedure.

4.3.1 Identify sites immediately adjacent to the incident location or sites where information provided suggests a pesticide source may be. Potential sources may include areas of flowering plants, roadside drainages, crops and sites where seeds have recently been planted. Collect appropriate physical samples to document off-site movement of pesticides.

4.3.2 Collect vegetation samples if pesticide application is alleged. Vegetation collected from each area should be kept separate. Refer to section 3 of "Sampling Procedures" for a discussion of collecting vegetation samples.

4.3.3 Collect a soil sample if insecticides or treated seed is alleged to have been in the field. Section 1 of "Sampling Procedures" discusses surface soil sample collection procedures.

4.3.4 Collect a water sample if roadside right of way or vector control applications are alleged. Refer to section 5 "Water from Streams, Rivers, Lakes and other Water Sources" for water sample collection procedures.

5. Procedures for Documentation

5.1 Maintain chain of custody records.

5.2 Procedures for Documentation: Refer to Section 14. "Coordination with the Laboratory" and follow procedures to complete forms that accompany the sample for submittal to the laboratory and for defensibility.

See also CSKT QAPP attachment 2: Guidance for Inspecting Alleged Cases of Pesticide Related Bee Incidents.

8. Clothing

Equipment and Supplies:

1. Latex gloves
2. 90% Isopropyl alcohol
3. Polyethylene bag

Procedure:

Collect clothing when contamination is suspected. Inform the person that clothing will not be returned. If items have been washed do not collect.

1. Put on latex gloves.
2. Decontaminate aluminum foil with 90% isopropyl alcohol and allow sheets to air dry.
3. Put on clean latex gloves.
4. Collect footwear and clothing suspected to be contaminated. Wrap each article in aluminum foil and place into polyethylene bag. Double bag items in Freezer gallon sized Ziploc bags to avoid seepage from melting ice entering the bag.
5. Seal each bag and place in cooler with ice for shipping or delivery.
6. Maintain chain of custody forms.
7. Refer to Section 14. "Coordination with the Laboratory" and follow procedures to complete forms that accompany the sample for submittal to the laboratory and for defensibility.

9. Surfaces: Collection, Storage and Shipping of Wipe Samples for Pesticide Residues

1. Authority
   The Federal Insecticide, Fungicide and Rodenticide Act, section 9(a).

2. Purpose
   To provide a standard method for collecting, storing, and shipping wipe samples for pesticide residue analysis and to ensure that samples are defensible and representative.

3. Scope
   This SOP is to be used in all instances that require a wipe sample be taken for pesticide residues.

4. Specific Procedures

   4.1 Tools needed: (These tools should be stored in a manner that reduces or eliminates exposure to contaminants.)
   1. 3 inch X 3 inch sterile gauze pads
   2. Masking tape
   3. Distilled water or other suitable solvent, 90% Isopropyl Alcohol
   4. Quart size plastic sampling bags
   5. Approved plastic evidence security bags
   6. Garbage bags
   7. Cooler or insulated shipping container with frozen rigid puncture resistant ice packs or ice
   8. Strapping or shipping tape, permanent marking pen, and labels
   9. Suitable safety gear for the products used (refer to safety SOP)

   4.2 Procedure

Samples should be collected from the least contaminated area to the most. Collect a Background or Blank sample first following the procedures below and also refer to section 12 "Procedure for Collecting, Preparing and Storing Blank and Background Samples".

4.2.1 Determine what type of pesticide has been used and whether it is soluble in water. The inspector may need to contact the laboratory for proper solvent and handling of sample.

4.2.2 With gloves, dampen sterile gauze pad in the appropriate solvent (90% Isopropyl alcohol) for the compound you are looking for. Do not saturate the gauze as this will cause running and may wash away the compound you are looking for. Place the sterile gauze pad into a clean, quart size plastic bag or 16 oz. amber glass jar. This will be identified as a wipe blank sample.

4.2.3 Change gloves. Mark out a one square foot area or other measured area to be sampled with masking tape.

4.2.4 Carefully wipe a one square foot area or other defined area that has been exposed to pesticides (use caution with certain solvents, such as acetone, since it may destroy or damage the material being wiped).

4.2.5 Place the sterile gauze pad into a clean, quart size plastic bag or 16 oz. amber glass jar.

4.2.6 Use a permanent marker to label the plastic bag with the (1) date, (2) sample number, (3) collection site, (4) sample description, and (5) inspector's initials.

4.2.7 Place the bag in an approved evidence security bag and seal. With a permanent marker, indicate the (1) date, (2) credential number, (3) inspector's signature and, (4) inspector's printed name and title on the outside of the bag.

4.2.8 Ship the sample in a well-padded shipping container with freezer packs, as soon as possible, no later than 48 hours from the sampling time. Plan to ship for weekday arrival at the laboratory. Do not allow samples to sit over a weekend in shipment.

4.2.9 Refer to Section 14. “Coordination with the Laboratory” and follow procedures to complete forms that accompany the sample for submittal to the laboratory and for defensibility.

10. Pesticides, Fertilizer and Feed (Dry Material)

Equipment and Supplies:

1. Clean grain sampler (Fisher Grain Sampler; stock no. 14-208; Fisher Scientific, 711 Forbes Avenue, Pittsburgh, Pennsylvania 15219), disposable plastic tube or tubing, stainless steel sampling probe, or other suitable device.
2. Amber glass jars (1 pint, equivalent to 16 oz. and 500 mL to 1 quart equivalent to 32 oz. or 950 mL in size). Use Teflon-lined lids or Teflon covers whenever possible.
3. Acetone or isopropyl alcohol.
4. Clean latex gloves.
5. Shipping container (cooler) with ice.
6. Field notebook and pen, permanent marker, plastic sampling bags, U.S. EPA seals, and chain of custody forms.

Procedure:

1. Place the bag of pesticide, fertilizer, or feed on its side.
2. Insert closed metal grain sampler, plastic tube, or other appropriate sampling device diagonally into the bag through the seam at one of the top corners.
3. Push the grain sampler or plastic tube to the opposite, bottom corner of the bag. Collect a representative sample.
4. Carefully withdraw the grain sampler, plastic tube, or sampling device.
5. Transfer the sample into the glass jar.
6. Secure the lid and label the jar (use a permanent marker). Place the jar in a plastic bag and seal or tie shut. (For smaller sized bags, it may be easier to pay for and obtain the entire bag. Smaller bags should be placed in a plastic bag that can be sealed or tied shut.)
7. Dispose of the sampling device according to accepted practices or clean by rinsing with acetone or rubbing alcohol. Rinse thoroughly with clean water (use deionized or distilled water if available).
8. Repeat the above procedure until the appropriate number of samples has been collected. Use new or clean gloves when collecting each additional sample.
9. Prepare or collect samples necessary for quality control (see the table in section 12 for recommended QC samples).
10. Place the samples in the shipping container as they are collected. Pack with ice and prepare for shipment.
11. Maintain chain of custody forms.
12. Refer to Section 14. “Coordination with the Laboratory” and follow procedures to complete forms that accompany the sample for submittal to the laboratory and for defensibility.

11. Pesticides and Fertilizer (Liquid Material)

Equipment and Supplies:

1. Clean glass tubing, siphon tube with disposable Tygon hose (hand-operated vacuum pump; stock no. TR-6513-00; Cole-Parmer Instrument Company, 7425 N. Oak Park Ave., Chicago, Illinois 60648), or another suitable device
2. Acetone or 90% isopropyl alcohol
3. Volatile organic analysis 40 ml vials or glass jars (1-pint, equivalent to 16 oz., or 500 mL) with Teflon-lined lids
4. Clean latex gloves
5. Shipping container (cooler) with ice
6. Field notebook and pen, permanent marker, plastic sampling bags, U.S. EPA seals, and chain of custody forms

Procedure:

1. If possible, thoroughly agitate liquid material.
2. Insert siphon tube, glass tubing, or another suitable device through the container's open pour hole.
3. Collect a composite sample from three depths (near bottom, middle, and near top). Collect at least one ounce from concentrated products. Collect four ounces from diluted products if concentration of active ingredient(s) is less than 10%.
4. If solution is adequately mixed to ensure uniformity, a sample can be collected from the drain system at spray boom nozzles. Have the operator loosen boom nozzles and drain pesticide mix into the sample container.
5. Transfer the sample into a clean glass jar.
6. Secure the lid and label the jar (use a permanent marker). Place the jar in a plastic bag and seal or tie shut. For smaller-sized liquid canisters or bottles, it may be easier to pay for and obtain the entire container. Smaller containers should be placed in a plastic bag that can be labeled and sealed or tied shut.
7. Clean the sampling equipment with acetone or rubbing alcohol. Rinse thoroughly with clean water (use deionized or distilled water if available).
8. Repeat the above procedure until the appropriate number of samples has been collected. Use new or clean gloves when collecting each additional sample.
9. Prepare or collect samples necessary for quality control (see the table in section 12 for recommended QC samples).
10. Place the samples in the shipping container as they are collected. Pack with ice and prepare for shipment.
11. Maintain chain of custody forms.
12. Refer to Section 14. "Coordination with the Laboratory" and follow procedures to complete forms that accompany the sample for submittal to the laboratory and for defensibility.

12. Quality Control Samples

This SOP covers the proper method for collection of a blank and/or background sample during the collection of residue samples for investigative purposes. One or the other, or both, must accompany your affected samples to the laboratory. Quality control samples should be collected during each sampling procedure. The analysis of these samples is particularly important if results are likely to be challenged. Results from the analysis of quality control samples are used (1) to verify that samples were not contaminated by equipment, supplies, or reagents used during the sampling procedure, (2) to prove or disprove that contamination originated from the suspected source, and (3) to assess the accuracy and precision of analytical methods used for detection. **A blank should be collected before the first sample is obtained.** Results from the analysis of this blank can be used to determine whether or not sampling equipment or rinse water was contaminated prior to the sampling event.

Recommended Quality Control Samples

Procedure	Field Control	Duplicate	Rinsate Blank
Air			X
Animals		X	
Feed		X	X
Fertilizer			X
Pesticides			
Sediment	X	X	X
Surfaces	X		X
Surface Soil	X		
Vegetation	X		
Water		X	X

Animals - Duplicate of tissue sample only.

Surfaces - Rinsate blank is an absorbent pad saturated with the appropriate solvent.

Rinseate Blanks

A rinseate blank is a sample of the fluid, often water that has been used to rinse sampling equipment. A rinseate blank should be collected before the first sample is obtained. Results from the analysis of this rinseate blank can be used to determine if sampling equipment or rinse water was contaminated prior to the sampling event. One additional rinseate blank should be collected after obtaining the first sample (soil, vegetation, etc.) and analysis of this rinseate blank can be used to assess the likelihood of cross contamination.

Field Controls

Field controls are samples that appear to be, or are believed to be, free from the harmful effects of the contaminant (pesticide) in question. One example is a sample obtained from apparently healthy plants growing outside a zone where pesticide drift is the probable cause of wilting or desiccation of the same plant species. Another example of a field control is a soil (or sediment) sample taken from an area that supports healthy vegetation, in contrast to a soil sample obtained from an adjacent area where vegetation will not grow or has ceased to grow.

Results from the analysis of samples from areas where pesticide poisoning is and is not suspected can be used, along with additional information, to substantiate or refute claims of misuse or harm.

Duplicates

A duplicate is usually a portion or subset of a larger sample. This type of duplicate, often referred to as a split, should have a concentration of pesticide residue that is nearly identical to the sample from which it was obtained. The original sample and duplicate sample should be of approximately the same size (weight or volume). Thorough mixing of the original sample is required prior to collection of the duplicate if pesticide residues in both samples are to be similar. Labeling of bags that contain a duplicate sample should be different from that on the original bag. Laboratory personnel should not know the sample is a duplicate. A comparison of analytical results for an original sample and a duplicate sample can be used by the inspector to make a preliminary assessment of the precision associated with the method of analysis. A more detailed evaluation of precision will require review of analytical results for controls and standard solutions utilized by the laboratory.

Procedure for Collecting, Preparing and Storing Blank and Background Samples

1. Authority
   The Federal Insecticide, Fungicide and Rodenticide Act, section 9(a).

2. Purpose
   Blank samples are collected for the laboratory to conduct quality control analysis and to check for compounds in the sample material that may cause a false reading on the instruments. Background samples are used to check for background levels of pesticides.

3. Scope
   This SOP covers the proper method for collection of a blank and/or background sample during the collection of residue samples for investigative purposes. One or the other, or both, must accompany your affected samples to the laboratory. The blank sample is a better diagnostic tool for the laboratory; however, the background sample can be very informative for an investigation. In cases where you are sure that the background collection site is free of pesticide residue, the background sample can also be utilized as a blank. In the event that you are certain or suspect that there have been other applications in the area, you will need to collect both a background and blank sample. The blank sample must be collected outside the influence zone and in an area free of pesticide residue, but as close as possible to the incident site. Please consult with U.S. EPA, as needed, prior to sampling. Use the same method described in your SOP to collect the type of media you are sampling. Samples should be collected from the least concentration to the most. The most concentration may be the treated site. **Keep in mind the restricted entry interval and label requirements.**

4. Procedures

   4.1 Tools needed
   Tools required for sampling blank or background samples are the same as those needed for the residue samples of the matrix involved. Refer to the specific section of the SOP "Sampling Procedures" for each matrix collected.

   4.2 Prepare needed equipment. All equipment used for residue sampling must be free from contamination. Prior to sampling, between and after samples, all equipment must be (1) washed with detergent and water, (2) rinsed with water, and (3) rinsed with distilled water. To avoid cross contamination between samples, change your gloves prior to each sample collected, reduce exposure to wind and prepare the sample on a clean surface. Disposable equipment need not be cleaned prior to initial use. Do not reuse disposable equipment.

   4.3 Blank samples
   If you suspect or cannot rule out the presence of pesticide residues in the background sample, a blank should be collected for laboratory quality control purposes. Blank samples are a means of checking the analytical methods for error. They should be from an area that is free of the suspected pesticide residues. Blank samples should be collected from an area as close to the incident site as possible and should be the same matrix as the residue samples (same plant species, soil type, etc.). Blank wipe samples should be collected using 3-inch by 3 inch sterile cotton gauze pads with 90% isopropyl alcohol. Wet the gauze pad with alcohol and place in amber glass jar. Place the glass jar inside a freezer Ziploc plastic bag. Place that bag inside the evidence security bags and seal appropriately.

   4.4 Background samples
   Background samples are important evidence used to document existing levels of contaminants in the environment. Background samples should be taken from the same matrix as the residue samples (same plant species, soil type, etc.). The background sample should be taken as close as possible to the incident site, and from an area that you are reasonably sure has not been sprayed, or drifted upon, and is out of the influence of the application you are investigating (upwind for drift cases, and upgradient for groundwater or runoff cases).

   4.5 Try to collect your blank/background sample before collecting the affected sample to avoid cross contaminating the sample by using the same equipment, even though you may have decontaminated it. If this is not an option, thoroughly decontaminate your sampling equipment prior to taking the blank or background sample. Note on the collection report the reason for sampling the background and/or blank after the residue sample.

4.6 Collect, store and ship your blank and background samples in the same manner as your residue samples. (Refer to the appropriate section of the SOP “Sampling Procedures” for each matrix.)

5. Procedures for Documentation
Go to Section 14. “Coordination with the Laboratory” and follow procedures to complete forms that accompany the sample for submittal to the laboratory and for defensibility.

13. Storage, Preservation and Shipping

Samples should be shipped to the laboratory for analysis immediately after they are collected. If prompt shipment is not possible, steps must be taken to preserve the samples during storage. Be sure to notify the laboratory if shipment will be delayed.

Storage and Preservation
If samples must be stored temporarily, **they should be refrigerated or frozen** to prevent deterioration of the sample and degradation of the suspected chemical. Methods for preserving samples during storage and shipment are summarized in the table. The analytical laboratory will be contacted regarding unique preservation requirements and maximum allowable holding times.

Preservation Guidelines for Storage and Shipment of Samples

Sample Type	Storage	Shipment*
Air	Freeze	Wet Ice
Animals/Fish/Bees	Freeze	Wet Ice
Clothing	Refrigerate	Wet Ice
Feed/Fertilizer	Freeze	Wet Ice
Pesticides	Refrigerate	Wet Ice
Sediment	Freeze	Wet Ice
Soil	Freeze	Wet Ice
Surfaces	Freeze	Wet Ice
Vegetation/Foliage	Freeze	Wet Ice
Water	Refrigerate	Wet Ice

*Wet ice should be used for quick shipments only (<12 hours). Samples should be packed in a well-insulated cooler with a generous amount of freezer packing.

Shipping
Contact laboratory personnel prior to shipping to ensure that laboratory staff will be available to receive the samples. Ship samples so they remain intact. Spilled, leaky, or deteriorated samples will not be admissible as evidence during legal proceedings. Also, spilled or leaky samples may be hazardous to exposed individuals. Hazardous substances will be shipped according to U.S. Department of Transportation requirements. Additional requirements of the intended carrier (Federal Express, UPS, etc.) will be determined before any shipment.

The EPA chain of custody seals (see appendix D) must be attached to the front and back of sample-holding containers prior to shipment. Clear, heavy-duty tape should be placed over the seals so that they are not accidentally broken during shipment.

Refer to chapter 7 of the FIFRA Inspection Manual for a discussion of shipping procedures. Samples must be shipped in accordance with DOT regulations.

14. Coordinating with the Analytical Laboratory

Coordination with appropriate laboratory personnel must be conducted before beginning any sampling activities. Sampling procedures, quality control measures, sample preservation, holding times, and shipping methods will be discussed. Any recommended or anticipated and significant change in procedure will be discussed with the EPA project officer and FIFRA technical enforcement contact.

Documentation
The investigator must document the sampling event and activities related to it. Documentation provides a permanent record of who obtained the samples, where the samples came from, the time of sampling, and the time and method of shipment. The chain of custody forms will be used to document sampling activities associated with the Tribe's pesticide program.

Chain of Custody Form
Samples collected during any investigation may be used as evidence. The possession of these samples must be traceable from the time the samples are collected until they are introduced as evidence during a legal proceeding.

When transferring the possession of samples, the individuals relinquishing and receiving will each sign, date, and note the time on the chain of custody form (see appendix E). The information on the form documents sample custody transfer from the sampler to the laboratory. The original chain of custody form will accompany all shipments to the laboratory. A copy of the form will be retained by the tribal pesticide management program.

Corrections to Documentation
If information in a field notebook or on a chain of custody form is incorrect, the sampler must make corrections by drawing a line through the error and entering the correct information. The crossed-out information must be readable. All corrections must be initialed and dated.

Completing Forms

Complete the Pesticide Sample Submission Form and the Chain of Custody Form for Pesticide Samples

1. Authority
The Federal Insecticide, Fungicide and Rodenticide Act, section 9(a).

2. Purpose
Proper completion of the pesticide sample submission form and the U.S. EPA chain of custody form is crucial for defensible samples and laboratory safety and effectiveness. This SOP defines the proper procedure for filling out these two forms.

3. Scope
Completion of the pesticide sample submission form and U.S. EPA chain of custody forms for pesticide program residue samples will adhere to the procedures in this SOP. Both of these documents must accompany the sample to the laboratory.

4. Pesticide Sample Submission Form

4.1 Specific Procedures
Accurate completion of the pesticide sample submission form including as much detail as possible can ensure that the proper analysis is performed. It can also provide for a defensible investigation and maintain laboratory personnel safety. Please remember to write legibly and press hard when faced with multiple copies.

4.1.1 Sample number: This number is always preprinted on the document. It is the number by which the sample is tracked and should be written on all samples and correspondence.

4.1.2 Collection date: This is the date the sample was collected.

4.1.3 Collected by: This is the name of the person who collected the sample.

4.1.4 Ship to: The laboratory address where the sample is shipped for analysis. Overnight shipping must be used. The laboratory will not accept samples on Saturday, Sunday or holidays.

4.1.5 Tribe ID number: The Tribe identification numbers are listed on the reverse side of the sample submission form. The ID should be used for the particular Indian country where the sample was collected.

4.1.6 Submitter name: This is the name, title, address and telephone number of the person submitting the sample. Sample results will be sent to the name and address in this section.

4.1.7 Sample collected from: This is the name and address of the person from whom the sample was collected. This would usually be the same person that authorized entry on the Notice of Inspection. If samples were collected from different properties, a separate pesticide sample collection form is required for each individual from whom samples were collected.

4.1.8 Matrix: This is the type of material collected for analysis. The type of material collected depends on background information and should be coordinated with the U.S. EPA. Collection of water, formulation, or other samples must be discussed with the U.S. EPA regional office. A separate pesticide sample submission form is required for each different matrix collected.

4.1.9 Sample description: Provide a short, detailed description of the matrix and the area where the sample was collected. Include kind of vegetation (e.g., alfalfa, wheat, etc.) or the depth of soil (e.g., 0–2 inches) collected, the location of the sample area, and the degree of damage observed.

4.1.10 Purpose of sample: This describes the purpose of collecting the sample and the intended use of the results. Indicate the most appropriate category for the sample collected: background, off-target (drift), target sample, or spill area. If “other,” please explain.

4.1.11 Analysis requested: List the active ingredients to be analyzed. Include the product’s U.S. EPA registration number, if possible. Please list only the active ingredients of the product to be analyzed. Be specific and try to limit the number of analyses to only those necessary to the investigation. If you have several analyses to request, please prioritize them and explain the need for each analysis.

4.1.12 Front panel of label submitted: Submit a copy of the front panel of the pesticide label of the product(s) used, if possible obtained from US EPA’s Pesticide Product Label System (PPLS) online database accessed at: https://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1

4.1.13 Comments: To assist and protect the laboratory and staff, list any additional information that would be helpful. Any deviation from the SOP should be described. Any other observations or information related to the sample and sampling event should be noted. Indicate date and time of the incident, type of application (ground or aerial), pesticide used, and rate of application. Give a brief summary of the incident including any special precautions. Please make a note of any high levels of pesticides and other physical or chemical descriptions that will aid in safe handling of the samples. If more space is needed, provide an attachment with the necessary information. Maps and photographs may be attached, if available.

4.1.14 Collector's signature and date: Enter collector’s signature and date of signature here. The form must be signed by the person that collected the sample.

4.2 Distribution

4.2.1 Original (white): This copy is included in the case file sent to the U.S. EPA by the Tribe for consideration in case review and for enforcement action.

4.2.2 Second copy (pink): This copy will be sent to the laboratory along with the samples. Place both the original and laboratory copy in a waterproof, plastic bag and enclose in the sample shipping container.

4.2.3 Third copy (blue): This copy is retained by the collecting inspector in the tribal office.

4.2.4 Fourth copy (green): This copy is provided to the person from whom the sample was obtained.

5. Documentation of U.S. EPA Chain of Custody

Chain of custody consists of two components: documentation and actual physical custody of a sample; and two distinct phases: custody in the field and custody in the laboratory. The following principles will apply to all handling of samples from the point of collection through the placing of a sample in permanent abeyance (when all contemplated or legal actions are completed). A sample is considered in someone's custody if (1) it is in one's actual physical possession or view; (2) it is retained in a secured area with restricted access; or (3) it is placed in another container and secured with an official seal or evidence tape so that the sample cannot be reached without breaking the seal or rupturing the outer container.

5.1 Initiation Procedures

The chain of custody process to complete the record will be initiated at the time of sampling by the collector by entering the appropriate information and signing. Each time the sample is relinquished (to the laboratory, to another person for storage or delivery, etc.) the appropriate information and signatures must be obtained to document transfers in custody. The chain of custody record is terminated (for field purposes) at the time the sample is delivered to the laboratory custodian and the appropriate information and signature are entered. Further chain of custody documentation in the laboratory will be completed according to laboratory procedures. If the sample is shipped via common carrier, shipping documents (bill of lading, etc.) must be collected and retained with the chain of custody record. The U.S. EPA chain of custody form must accompany the sample during shipping. The originator (i.e., the collector) should keep the bottom copy. The original and the second copy of the chain of custody will accompany the sample to the receiving laboratory. The laboratory will keep the second copy of the chain of custody and the original will be sent to tribal inspector to include in the case file.

5.2 Elements of the U.S. EPA Chain of Custody Form

5.2.1 Name and address of establishment: Enter the name and address of the person from whom the sample was collected. This is normally the person who authorized entry by signing the NOI. (Do not ship more than one investigation per shipping container, as cross contamination may result).

5.2.2 Sample number: This is the unique sample number from the pesticide sample submission form.

5.2.3 Number of containers: This is the number of individual samples included on the pesticide sample submission form. These samples should be the same matrix from the same property.

5.2.4 Description of sample: Provide a short, detailed description of the sample matrix, purpose of the sample, and location where the sample was collected. The information is similar to the sample description on the pesticides sample submission form.

5.2.5 Relinquished by: The collector's signature is entered here.

5.2.6 Date: Enter the date of shipment or when custody was relinquished to another individual.

5.2.7 Received by: The signature of the shipping company representative or other person taking custody of the samples is entered here.

5.2.8 Date: Enter the date of shipment, or when custody was accepted by another individual.

5.2.9 Page: Enter page number and total number of pages.

5.3 Distribution

5.3.1 Original (white): Sent by the inspector along with the second copy to the laboratory and returned to the inspector for the case file by the laboratory. (Place in a waterproof plastic bag and enclose in the shipping container with the samples.)

5.3.2 Second copy (yellow): Laboratory records copy. (Place in a waterproof plastic bag and enclose in the shipping container with the samples.)

5.3.3 Third copy (pink): Tribal office copy. (This copy must be maintained for ten years.)

Appendix B: Personal Protection and Safety Plan for the Agriculture Use Inspector

Standard Operating Procedure

Personal Protection and Safety Plan for the Agriculture Use Inspector

Signatures and Dates

_____	_____
Author	Date
_____	_____
Program Manager	Date
_____	_____
Quality Assurance Manager	Date

Purpose**:** The purpose of this SOP is to help assure the safety of the inspector while he or she is conducting assigned duties. The highest potential exposure of a chemical nature will be from the pesticides they encounter during the course of their inspections and investigations. However, exposure from other chemicals stored or used in the same general area where inspectors may be conducting their assigned activities must also be considered

Training requirements: All inspectors should receive the baseline medical monitoring prior to initiating any activities where pesticides may be present. The purpose of the baseline physical is to document the individual's health status prior to any potential job-related exposure.

Before independently conducting inspections, the inspector must complete the minimum training requirements identified in *Guidance for Issuing Federal U.S. EPA Inspector Credentials to Authorize Employees of States/Tribal Governments to Conduct Inspections on Behalf of U.S. EPA*, issued on September 30, 2004. This includes the following:

- U.S. EPA's basic inspector training
- 24-hour health and safety training (Safety, Health and Environmental Management Training for Field Activities)
- Basic FIFRA inspection course (FIF901 Inspector Training)
- Mandatory on-the-job training (minimum of three inspections for each applicable type of inspection activity with a lead inspector)

In addition, a circuit rider must undergo annual health and safety and program-specific refresher training as required by his or her supervisor and the U.S. EPA. The inspector shall be limited to non-exposure activities until he or she has received the training listed below.

The 24-hour health and safety training must cover the following areas:

1) Employee rights and responsibilities
2) Nature of anticipated hazards
3) Emergency help and self-rescue
4) Vehicles–mandatory rules and regulations
5) Safe use of field equipment
6) Use, handling, storage, and transportation of hazardous materials
7) Personal protective equipment and clothing, use and care
8) Safe sampling techniques

If a respirator is required, inspectors must be placed in a respirator protection program that includes use, care, and maintenance of respirators; fit testing; and medical monitoring. An annual medical examination shall be specified for all staff that in the course of conducting their assigned duties may be exposed to pesticides or other hazardous materials.

If the inspector might be involved with hazardous waste operations or emergency response activities, Occupational Safety and Health Administration requirements, OSHA § 1910.120, apply and the inspector is required to complete the Hazardous Waste Operations and Emergency Response Standard training and an annual 8-hour refresher. The HAZWOPER training, however, does not fulfill the requirements of U.S. EPA's basic level health and safety training and does not satisfy the 24-hour health and safety training listed above.

If a respirator is required, an annual respirator fit test specific for the brand and type of respirator the inspector will wear must be conducted prior to conducting any activity that requires the use of a respirator.

Fit tests are required annually for each brand and type of respiratory protection equipment the inspector will wear. The exception is the powered air purifying respirator helmet/hood system.

Hazard Assessments

An inspector must try to identify possible hazards prior to conducting his or her duties in the field. Inspectors should identify possible hazards and adopt and modify their procedures in accordance with the training they have received as conditions change. They should consider possible chemical, fire, and physical hazards, task-specific hazards, and the operation of motor vehicles. During the on-the-job training, the lead inspector should address the following issues:

1) What potential pesticide exposures may be encountered and how to avoid them.
2) How to find PPE statements on pesticide labels and what these statements mean.
3) What other chemical hazards, such as anhydrous ammonia, might be encountered during inspections.

Motor Vehicle Operation: Although operation of a tribal assigned vehicle has its own risks, this section refers to other types of motor vehicles the inspector may encounter while performing work assignments. The inspector should always be aware of the presence of motorized equipment and avoid situations that are unnecessarily hazardous. The inspector should always follow company (inspection site) safety procedures unless the inspector believes they are insufficient to protect his safety. In such cases, more protective measures may be followed at the inspector's discretion.

Chemical Hazard: Exposure to chemicals is always a possibility during the course of an inspection. Primary routes of exposure include inhalation, skin absorption, ingestion, and skin or eye contact. Although most pesticide dealers and applicators retain files of material safety data sheets for each product, this information should always be used in conjunction with the labeling on pesticide products since many MSDSs are prepared for the concentrated active ingredient rather than the formulated pesticide product found in the field. The inspector shall, at a minimum, follow the label directions with respect to personal protective equipment when conducting use/misuse inspections or collecting samples. In addition, the inspector should know that other chemical hazards such as corrosives, flammables, or strong oxidizers may found at many of the sites and take appropriate safety measures. The inspector should always follow company (inspection site) safety procedures unless the inspector believes they are insufficient to protect his safety. In such cases, more protective measures may be followed at the inspector's discretion.

Fire Hazard: The inspector should be continuously vigilant about the possibility of fire. Fire may occur if incompatible chemicals are mixed together, if a source of ignition reaches a flammable chemical, or if someone's carelessness causes ignition of a fuel source. The inspector should evaluate potential fire hazards before entering any environment and determine at least two possible egress routes before entering any building or other structure since there may not be much time to escape by the time a fire has been detected. The inspector should always follow company (inspection site) safety procedures unless the inspector believes they are insufficient to protect his safety. In such cases, more protective measures may be followed at the inspector's discretion.

Physical Hazards: Many activities that are casually undertaken can cause serious injury or even death: such things as climbing on equipment, ladders, or stairs, or walking on uneven surfaces. The inspector should pay attention to these types of hazards and not be complacent. Other hazards exist as a direct or indirect result of their duties. When observing handling or mixing operations, the inspector must take care to avoid splashing pesticides. Broken, torn, or corroded containers expose the inspector to dusts or vapors. When taking samples, the inspector must avoid contact with the pesticide. Back strain can occur due improper lifting, head injuries can occur from bumping into equipment in unfamiliar environments, or foot injuries can occur from tripping.

Hazard Prevention

The inspector must use adequate personal protective equipment to minimize exposure to pesticide contamination during inspections (see section on PPE).

Back strain can be prevented by instructing employees in proper lifting techniques and utilizing appropriate equipment as necessary.

The inspector can avoid many physical hazards by wearing a hard hat and safety glasses. He or she should assess the environment for hazards before beginning the inspection and remain alert during it.

Steel toed shoes or boots can prevent injuries to the toes from heavy objects and should be considered.

The inspector should be alert to the location of vehicles and other mobile equipment at all times and pay particular attention to forklifts and similar equipment that may be operating in the vicinity.

Personal Protective Equipment: This section describes the general requirements of the designated levels of protection, and the specific levels of protection required for tasks during specific inspector activities. In general, inspectors must wear protective equipment when vapors, gases, or particulates may be generated during the conduct of their activities, or the conduct of those around them, and when direct contact with skin-affecting substances may occur.

Early Field Reentry: At a minimum, PPE requirements and longest REI found on the label of a product applied to the field should be followed. The label with the highest level of PPE and shortest time interval allowed in the field shall be the limiting label (this may mean parts of two or more labels will dictate the proper procedures). If the material applied is unknown, then level C PPE would be the minimum protection required. Time in a treated field should be limited to the least amount of time possible to accomplish the assigned task.

Pesticide Sampling: The pesticide label of the product to be sampled should determine the minimum PPE for sampling the product. The PPE requirement for a mixer loader of the product should provide adequate protection for the inspector to sample these products. If the label is unreadable or is missing, then a minimum of level C PPE should be utilized. Fumigant products should not be sampled without prior discussion of sampling need with U.S. EPA enforcement staff. If there is any question about the proper PPE, the inspector should contact U.S. EPA safety staff or the environmental toxicologist for assistance.

Pesticide Warehouse: In general, level D PPE should be sufficient for entering a warehouse and conducting routine inspections. The inspector may choose to wear a Tyvek suit or apron to keep his or her clothing free from dirt and dust. If the inspector encounters any situation where possible exposure to a pesticide or other hazardous material may exist, the inspector should immediately evacuate the warehouse and resume duties after the situation has been resolved. If it is imperative for the inspector to reenter the warehouse before the situation has been resolved, the inspector should immediately notify the U.S. EPA enforcement staff and then use the proper PPE as required by the label or MSDS for that material to reenter the establishment.

Commodity Fumigation Inspections: Because of the specialized nature of these products, prior to participating in any commodity fumigation inspection the inspector must receive training in the possible hazards associated with these uses. This training must include instruction on possible sites of exposure to these compounds, recognition of areas where exposure may occur, familiarization with the various products and their respective labeling, cautionary statements that may be used, proper protective measures to be followed for each of these products, and the various practices followed for the use of the products.

Inspectors must follow all labeling requirements on the product that has been, or is about to be used, when conducting any inspection or sampling activities.

Miscellaneous Activities: During any activity where there may be a potential exposure to a hazardous material or pesticide of known identity, the inspector should wear proper PPE as determined by labeling, MSDS, or other source, including the environmental toxicologist. Since the inspector does not have access to SCBA equipment he or she should not enter any environment requiring this level of respiratory protection. The inspector should never borrow equipment for which he or she has not been trained or fit tested. The inspector must remember that she or he has to be fit tested for each respirator brand and type before she or he can use it.

Personal Protective Equipment Protection Levels: The inspector must determine, in conjunction with his or her supervisor, the PPE that must be used to provide the proper level of protection for each situation.

The inspector must select the PPE that will protect him or her from the specific hazards he or she is likely to encounter during an assigned activity. Selection of the appropriate PPE is a complex process that should take into consideration a variety of factors. Key factors involved in this process are identification of the hazards or suspected hazards; the routes of potential hazards to employees (inhalation, skin absorption, ingestion, and eye or skin contact); and the performance of the PPE materials (and seams) in providing a barrier to these hazards. The amount of protection provided by PPE is material-hazard specific. That is, protective equipment materials will protect well against some hazardous substances

and poorly, or not at all, against others. In many instances, protective equipment materials cannot be found that will provide continuous protection from the hazardous substance.

Another factor to be considered in this selection process is matching the PPE to the employee's work requirements and task-specific conditions. The durability of PPE materials, such as tear strength and seam strength, should be considered in relation to the inspector's tasks. The effects of PPE in relation to heat stress and task duration are a factor in selecting and using PPE.

The following are guidelines that an inspector and his or her supervisor can use to begin the selection of the appropriate PPE. As noted above, the site information may suggest the use of combinations of PPE selected from the different protection levels (i.e., A, B, C, or D) as being more suitable to the hazards of the work. It should be cautioned that the listing below does not fully address the performance of the specific PPE material in relation to the specific hazards at the job site, and the PPE selection, evaluation, and reselection is an ongoing process until sufficient information about the hazards and PPE performance is obtained.

Personal protection equipment is divided into four categories based on the degree of protection afforded.

Level A—Selected when the greatest level of skin, respiratory, and eye protection is required. The following items constitute level A equipment; they may be used as appropriate.

1) Positive pressure, full-face piece self-contained breathing apparatus, or positive pressure supplied air respirator with escape SCBA, approved by the National Institute for Occupational Safety and Health
2) Totally encapsulating chemical-protective suit
3) Coveralls (optional, as applicable)
4) Long underwear (optional, as applicable)
5) Gloves, outer, chemical-resistant
6) Gloves, inner, chemical-resistant
7) Boots, chemical-resistant, steel toe and shank
8) Hard hat (under suit) (optional, as applicable)
9) Disposable protective suit, gloves and boots (depending on suit construction, may be worn over totally encapsulating suit)

Level B—The highest level of respiratory protection is necessary, but a lesser level of skin protection is needed. The following items constitute level B equipment; they may be used as appropriate.

1) Positive pressure, full-face piece self-contained breathing apparatus, or positive pressure supplied air respirator with escape SCBA (NIOSH approved)
2) Hooded chemical-resistant clothing (overalls and long-sleeved jacket; coveralls; one- or two-piece chemical-splash suit; disposable chemical-resistant overalls)
3) Coveralls (optional, as applicable)
4) Gloves, outer, chemical-resistant
5) Gloves, inner, chemical-resistant
6) Boots, outer, chemical-resistant, steel toe and shank
7) Boot covers, outer, chemical-resistant (disposable) (optional, as applicable)
8) Hard hat, (optional, as applicable)
9) Face shield. (optional, as applicable)

Level C—The concentration and type of airborne substance is known and the criteria for using air purifying respirators are met. The following items constitute level C equipment; they may be used as appropriate.

1) Full-face or half-mask, air purifying respirators (NIOSH approved)
2) Hooded chemical-resistant clothing (overalls; two-piece chemical-splash suit; disposable chemical-resistant overalls)
3) Coveralls (optional, as applicable)
4) Gloves, outer, chemical-resistant
5) Gloves, inner, chemical-resistant
6) Boots (outer), chemical-resistant, steel toe and shank (optional, as applicable)
7) Boot covers, outer, chemical-resistant (disposable) (optional, as applicable)
8) Hard hat (optional, as applicable)

9) Escape mask (optional, as applicable)
10) Face shield (optional, as applicable)

Level D—A work uniform affording minimal protection is used for nuisance contamination only. The following items constitute level D equipment; they may be used as appropriate.

1) Coveralls
2) Gloves (optional, as applicable)
3) Boots or shoes, chemical-resistant, steel toe and shank
4) Boots, outer, chemical-resistant (disposable) (optional, as applicable)
5) Safety glasses or chemical splash goggles (optional, as applicable)
6) Hard hat (optional, as applicable)
7) Escape mask (optional, as applicable)
8) Face shield .(optional, as applicable)

The types of hazards for which levels A, B, C, and D protection are appropriate are described below.

Level A—Level A protection should be used under each of the following conditions:

1) The hazardous substance has been identified and requires the highest level of protection for skin, eyes, and the respiratory system based on either the measured or potential for high concentration of atmospheric vapors, gases, or particulates; or the site operations and work functions involve a high potential for splash, immersion, or exposure to unexpected vapors, gases, or particulates of materials that are harmful to skin or capable of being absorbed through the skin; or
2) substances with a high degree of hazard to the skin are known or suspected to be present, and skin contact is possible; or
3) operations must be conducted in confined, poorly ventilated areas, and the absence of conditions requiring level A has not yet been determined.

Level B—Level B protection should be used under each of the following conditions:

1) The type and atmospheric concentration of substances have been identified and require a high level of respiratory protection, but less skin protection, or
2) the atmosphere contains less than 19.5 percent oxygen, or
3) the presence of incompletely identified vapors or gases is indicated by a direct-reading organic vapor detection instrument, but vapors and gases are not suspected of containing high levels of chemicals harmful to skin or capable of being absorbed through the skin.

Note: This involves atmospheres with IDLH concentrations of specific substances that present severe inhalation hazards and that do not represent a severe skin hazard; or that do not meet the criteria for use of air-purifying respirators.

Level C—Level C protection should be used under the following conditions:

1) The atmospheric contaminants, liquid splashes, or other direct contact will not adversely affect or be absorbed through any exposed skin; and
2) the types of air contaminants have been identified, concentrations measured, and an air-purifying respirator is available that can remove the contaminants; and
3) all criteria for the use of air-purifying respirators are met.

Level D—Level D protection should be used under the following conditions:

1) The atmosphere contains no known hazard; and
2) work functions preclude splashes, immersion, or the potential for unexpected inhalation of or contact with hazardous levels of any chemicals.

Note: As stated before, combinations of personal protective equipment other than those described for levels A, B, C, and D protection may be more appropriate and may be used to provide the proper levels of protection.

The use of respirators and self-contained breathing apparatuses requires fit testing and a yearly certification of the fit test. None of the CSKT inspectors is certified in the use of an air-purifying respirator and, as a consequence, they will conduct only inspections and investigations requiring level D protection. The inspectors are prohibited from entering an environment requiring level A or B protection under any circumstances.

PPE Policy: Beyond routine nonexposure-type assignments, the inspector is required to confirm or verify the level of protection to be worn for each assigned task with his supervisor.

Appendix C: Copy of EPA Receipt for Pesticide Use/Misuse Samples Form

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

EPA

RECEIPT FOR PESTICIDE USE/MISUSE SAMPLES

ADDRESS (*EPA Regional Office*)

DATE

NAME OF INDIVIDUAL | TITLE

NAME (*Firm, Farmer, Homeowner, etc.*) | ADDRESS (*Number, Street, City, State, and ZIP Code*)

SAMPLE NUMBERS

SAMPLES COLLECTED (*Describe fully, List Registration, Lot, Batch, Model, Serial Numbers, and other postive identification*)

The following pesticide and/or environmental samples were collected by the U.S. Environmental Protection Agency in connection with the administration and enforcement of the Federal Insecticide, Fungicide, and Rodenticide Act and receipt is hereby acknowledged.

SIGNATURE (*Owner, Operator, or Agent*) | TITLE (*Owner, Operator, or Agent*)

☐ DUPLICATE SAMPLES REQUESTED AND PROVIDED ☐ DUPLICATE SAMPLES NOT REQUESTED

SAMPLES WERE ☐ PURCHASED ☐ RECEIVED, NO CHARGE

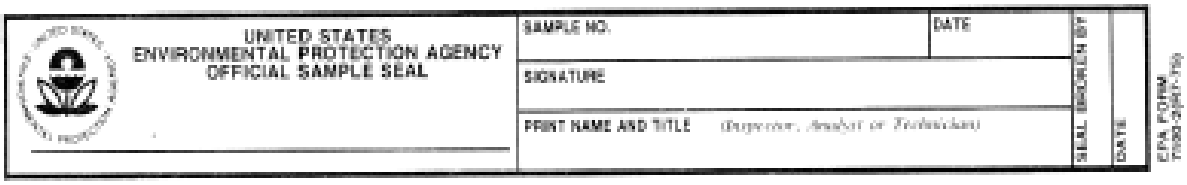
AMOUNT PAID FOR SAMPLES ☐ CASH ☐ VOUCHER ☐ TO BE BILLED

NAME OF COLLECTOR (*Print or Type*) | TITLE OF COLLECTOR | SIGNATURE OF COLLECTOR

EPA FORM 3540-26 (Rev. 01-01)

1. Original - OWNER/AGENT COPY
2. SAMPLE RECORD COPY
3. REGION COPY
4. INSPECTOR'S COPY

Appendix D: Example of Chain of Custody Seal



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
OFFICIAL SAMPLE SEAL

SAMPLE NO.

DATE

SIGNATURE

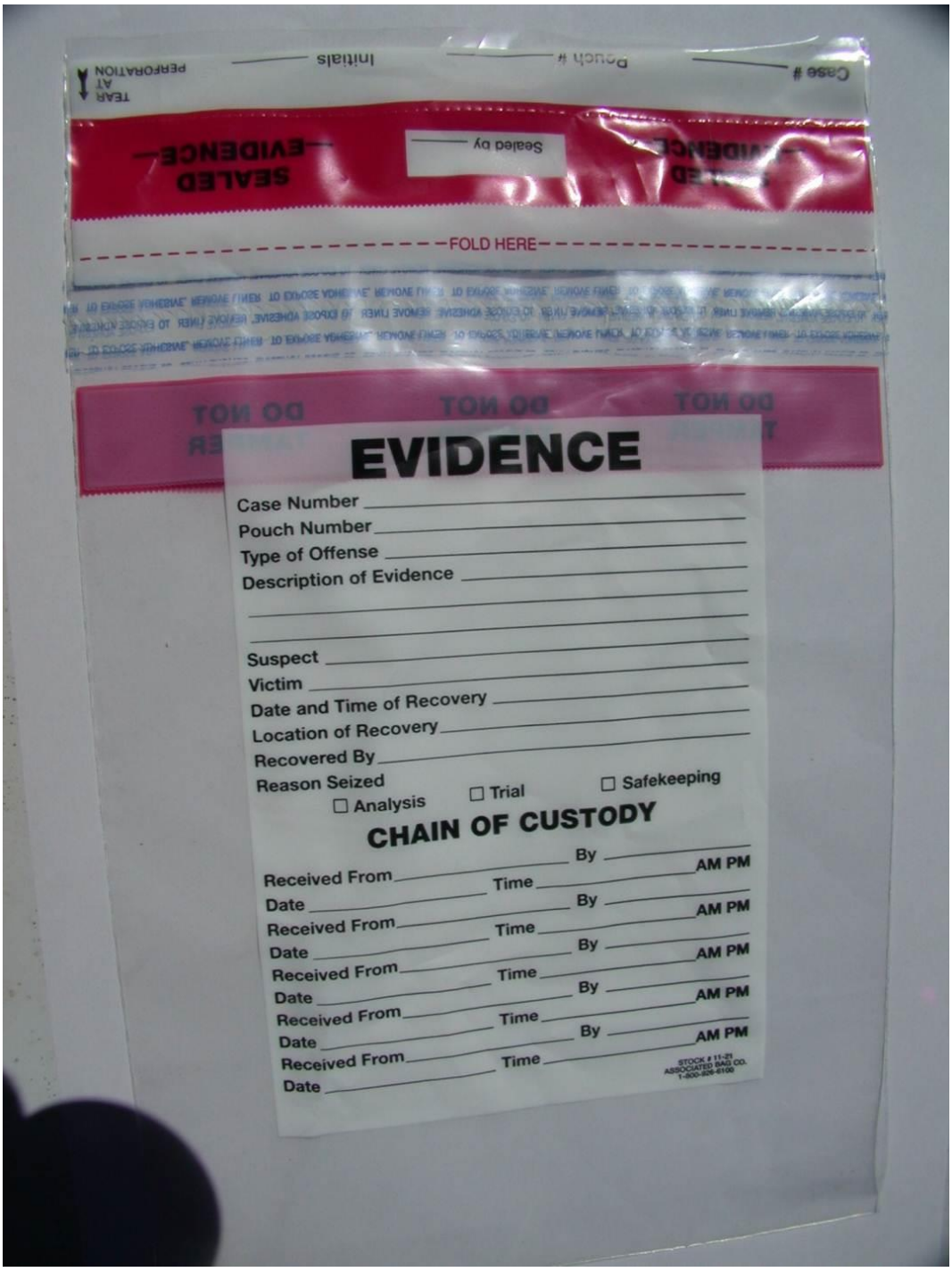
PRINT NAME AND TITLE (Inspector, Analyst or Technician)

SEAL BROKEN BY

DATE

EPA FORM 7530-3(81-Rev)

Appendix E: Examples of U.S. EPA Chain of Custody Record and Form



US ENVIRONMENTAL PROTECTION AGENCY REGION 8 - Chain Of Custody

Region 8 Laboratory
16194 W. 45th Drive
Golden, CO 80403
Fax: 303-312-7800

PROJECT NAME:		LSR #:		MATRIX	PRESERVATIVE	ANALYSIS							NUMBER OF CONTAINERS	Comments	
SAMPLER(S): Name: Signature:		Date:													
Name: Signature:		Date:													
STATION ID.	STATION DESCRIPTION + NOTES	DATE	TIME											BOTTLE ID.	LAB ID.

Appendix F: Example of Pesticide Sample Submission Form

PESTICIDE SAMPLE SUBMISSION FORM

1. Collection Date: _____	**Sample Number** 2552
2. Collected By: _____	**4. Tribe ID #:** _____
3. Ship To: Montana Department of Agriculture MSU Analytical Laboratory McCall Hall RM 10 Bozeman MT 59717-3620	**Lab Use Only:**

5. Submitter Name:

Tribe/Agency:

Address:

City: State: Zip:

6. Phone Number:

7. Sample Collected From:

Address:

City: State: Zip:

8. Matrix

☐ Soil ☐ Vegetation ☐ Water ☐ Wipe ☐ Formulation

☐ Other (stomach contents, fish, etc.) _____

9. Sample Description

A.

B.

C.

D.

10. Purpose of Sample (May be more than one)

☐ Background ☐ Off-Target (Drift) ☐ Target Sample ☐ Spill Area

☐ Other _____

11. Analysis Requested: _____

12. Front panel of label submitted: ☐ **yes** ☐ **no**

13. Additional Information

14. Collector's Signature: _____ Date _____

White copy (Case File) Canary Copy (Lab) Pink Copy (Inspector) Green Copy (Landowner)

Appendix G: GPS Equipment Checklist

GPS Equipment Checklist

1) GPS receiver
2) Battery pack and spare batteries (AA, each unit requires 4)
   Caution: When replacing batteries, do so quickly as the capacitor in the receiver will only protect memory for 15 minutes.
3) Appropriate power adapters
4) Make sure of good connections
5) GPS unit in appropriate numbered case

Do's And Don'ts in the Field

1) Never move the GPS receiver while it is collecting data points.
2) Allow the receiver to collect at least 130 data points at each site.
3) Always save rover file and write down file number on corresponding field data sheet.
4) Always turn off receiver at each site after collection.
5) Always have the GPS receiver hooked up to either a fully charged battery pack or fresh AA batteries.
6) Always keep fresh AA batteries with you in the field.
7) Keep GPS receiver battery power adapter with you in the field.
8) If changing batteries in the field, don't leave unit unconnected from battery source for more than 10 minutes.
9) Don't leave home without the GPS operating manual and quick reference guide.

Appendix H: Field Sampling Plan

Field Sampling Plan

Pesticide Enforcement Program
For the

Name of Tribe

Date: _____

Inspector contact: _____
Information: **Box 278**
Pablo, MT 59855

Case no. or other identifier: _____

Site location: _____

This field sampling plan refers to the pesticide program Quality Assurance Project Plan dated _____.

Approvals:

_____ _____
Inspector signature Date

_____ _____
Pesticide Program Quality Assurance Manager Date
Environmental Protection Division Manager

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A1 - Distribution List

_____ _____
(Name) Project Inspector (Organization)

_____ _____
(Name) Pesticide Program QA Manager

Project Schedule

Task	Target Completion Date
Develop field sampling plan	_____
Receive FSP approval from U.S. EPA	_____
Collect and analyze samples	_____
Analyze laboratory data	_____

A2 – Project Task Organization

The pesticide program manager will prepare the FSP, determine the data quality objectives, and collect samples as described herein.

The pesticide program QA manager will review the sampling analysis plan and provide technical input.

The _____ laboratory will provide sample containers and sample-handling guidelines and will perform analytical testing.

A3 – Problem Definition and Background

_____

_____

A4 – Project Description

The sampling analysis plan will be written and approved as described in the QAPP.
The pesticide inspector will conduct a(n) _____ inspection consisting of _____

_____.

A5 – Quality Objectives and Criteria for Measurement Data

The results of this sampling project will provide a clear picture of _____

_____

_____

To determine the minimum number of samples required for this project, it is necessary to determine the baseline assumptions and the decision rule.

Baseline assumption:
Decision rule: If the true concentration of _____ is less than the _____ levels (as estimated by _____ _____), then _____,
otherwise_____.
Action level: The action level is_____,
as specified in _____ (regulation) (see QAPP).

A6 – Special Training and Certification

Special training required for this project is_____

A7 – Documentation and Records
Refer to the QAPP for this section.

B. Data Generation and Acquisition

B1 – Sampling Process Design

The sampling process consists of *(describe the types of samples that will be collected here such as wipe, soil, clothing, etc.)*

The sample collection process is outlined in the analytical methods employed as described in the QAPP. The sampling design is based upon *(add information, such as professional judgment, simple random, etc.)*

Parameter	Matrix	No. Samples	No. QC Samples	Total No. Samples

The inspector may determine that samples not described herein are required to provide additional data as part of this sampling event. These will be documented in an amendment to the FSP (amendment is after the sampling takes place).

B2 – Sampling Methods

Samples will be collected according to the SOPs listed in the table below. *It is common practice to offer split samples to interested parties.*

SOP Title	SOP Number	SOP Rev/Date		SOP Title	SOP Number	SOP Rev/Date

B3 – Sample Handling and Custody

Sampling activities for the inspection will include appropriately documented sample collection, preservation and handling procedures. Analytical work will include analytical methods as defined in the QAPP. Quality assurance/quality control summary data validation will be as described in the QAPP as it applies to the analytical methods employed.

Samples will be collected by the pesticide inspector. Each sample will be given a sample ID number as described in the QAPP, and sample custody will be recorded. See the sample handling and custody SOP "Sampling Procedures."

B4 – Analytical Methods

Analytical methods are listed in the QAPP. A summary list of the methods used on this sampling event is found in B1 above.

B5 – Quality Control

Quality control sampling will be conducted as described in the QAPP. The number of QC samples is listed in B1 above. The location of the QC samples will be

B6 – Equipment Testing, Inspection, and Maintenance

This information is found in the QAPP.

B7 – Equipment Calibration Procedures and Frequency

Refer to the QAPP. The following specific equipment is used during this sampling event:
(Describe the supplies that you will need to collect your samples and that will be needed for your sampling event.)

B8 – Inspection and Acceptance of Supplies and Consumables

Refer to the QAPP. The inspector will document inspection and acceptance of project supplies and consumables in the project logbook.

B9 – Use of Existing Data

Refer to the QAPP. The following nondirect measurements (described in the QAPP) will be required for this project:

B10 – Data Management
Data management will be conducted as described in the QAPP.

C. Assessment and Oversight
Refer to the QAPP for this section.

C1 – Assessment and Response Actions

C2 – Reports to Management

D. Data Validation and Usability Elements
Refer to the QAPP for this section.

D1 – Data Review, Verification, and Validation

D2 – Verification and Validation Methods

D3 – Reconciliation with User Requirements

Appendix I: Copy of Notice of Inspection

U.S. ENVIRONMENTAL PROTECTION AGENCY (REGION VIII)
1595 Wynkoop Street, Denver, CO 80202

NOTICE OF INSPECTION

____ Resource Conservation and Recovery Act (RCRA) Public Law 94-580, as amended.
____ Toxic Substance Control Act (TSCA) Public Law 94-469, as amended.
____ Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Public Law 92-516, as amended.

Date	Inspector #	Daily Seq.	Hour In: / Out:	Facility name
Fac. Func.	Invest. Type	Reason	RCRA: Gen ( ) Transp. ( ) TSD ( )	Street
Facility Representative(s) Title				City / State / Zip
Phone #				

Reason for Inspection: Entry by Consent: _____ Warrant: ( )
____ To determine the extent of compliance with the above referenced law, which may require the collection of samples, documents, and/or photographs.
____ Other (Specify) _____
Violations of above referenced law are suspected from information or complaint. Yes ( ) No ( )

Samples, Documents, and /or Photos collected (describe below)	Medium	Date to Lab
1.		
2.		
3.		
4.		
5.		
6.		

Samples requested and received by facility: ( ) Yes ( ) No
If yes: ( ) Duplicate. ( ) Split. ( ) Photos (To be received when processed.)

This inspection has revealed the following probably violations of EPA laws or regulations.

The facts established by this inspection will be reviewed by personnel in the EPA Regional Office.
A final determination of your facility's compliance with EPA regulations will be made as a result of this review.
The review may reveal additional violations.

Receipt of the Notice of Inspection is acknowledged.

_____
Signature of facility representative

_____
Signature of Lead Inspector

_____
Assisting Inspectors (EPA/Tribe/State)

R8EPA Form 3540-2(8-07)