



**STATEMENT OF WORK**  
**for**  
**DATA ASSESSMENT SERVICES**

**AS03-A.1**

September 10, 1998

Approved: \_\_\_\_\_  
Analytical Services

Reviewed For Classification  
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# DATA ASSESSMENT SERVICES

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## **INTRODUCTION**

This document incorporates the use of data assessment guidelines that correlate to the Parameter Specific Analytical Modules (PSA Modules) contained in the SOW for Analytical Measurements. The General Verification and Validation Guideline (DA-GR01) contains instructions for data examination, verification, and validation that are common to all Sample Data Packages generated under PSA Modules. DA-GR01 used in conjunction with PSA Module Verification and Validation Guidelines, comprise the data assessment guidelines for key analytical areas.

## **SCOPE**

The scope of this SOW includes data assessment of current and projected Key Analytical Areas identified in Exhibit A, and technical support relating to the development of new or revised data assessment guidelines, and to the development of new PSA Modules under the SOW for Analytical Measurements.

The scope of this SOW is expected to expand to include data assessment of data generated under new PSA Modules as they are developed.

**EXHIBIT A**  
**SUMMARY OF REQUIREMENTS**

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## **SUMMARY OF REQUIREMENTS**

### **1. GENERAL REQUIREMENTS**

This module contains seven Exhibits that comprise the Data Assessment Services Statement of Work (SOW). Exhibit A provides an overview of this SOW and its general requirements. Exhibit B contains all reporting and deliverables requirements. Exhibit C contains the Line Item Codes (LIC) that associate verification/validation to analysis types. Exhibit D contains module specific data assessment guidelines to be used for data generated under the Statement of Work for Analytical Measurements. Exhibit E contains general and specific Quality Assurance requirements required under this SOW. Exhibit F contains the evidentiary requirements including, document control requirements that the subcontractor must follow in processing sample data packages under this subcontract, and specifies requirements for written Standard Operating Procedures (SOPs). To ensure proper understanding of language utilized in this subcontract, Exhibit G contains a glossary of terms. When a term is used in the text without definition, the glossary meaning shall be applicable.

#### **1.1. SOW Compliance**

Data assessment shall meet all the requirements specified in this SOW. All work performed under this SOW shall be done by the subcontractor under the guidance of the CTR.

#### **1.2. Terms and Acronyms**

AS03 Exhibit G is a glossary of terms and acronyms used in this document, the module specific data assessment guidelines, and the Statement of Work for Analytical Measurements. The subcontractor shall use the glossary meaning when a term is used in the text without definition.

#### **1.3. Timelines**

Timelines given in terms of days are to be interpreted as calendar days throughout this SOW unless otherwise noted.

#### **1.4. Quality Assurance Requirements**

All quality assurance procedures prescribed in Exhibit E of this module shall be strictly adhered to by the subcontractor.

#### **1.5. Subcontractor Technical Audits**

The subcontractor shall be subject to routine technical audits at the subcontractor's facility as described in Exhibit E of this module.

#### **1.6. Information Release**

Communication by the subcontractor staff of analytical results, data qualification, procedures, data, or similar matters shall not be released to a third party without prior written approval of the CTR unless stated otherwise in this SOW.

#### **1.7. Completeness of Deliverables**

Data Quality Assessment (DQA) Reports, Non-Compliance Notifications (NCN), and electronic data deliverables (EDDs) that are not complete or that are improperly formatted are considered noncompliant to subcontract requirements.

## 2. DATA VERIFICATION & VALIDATION

### 2.1. Data Assessment Guidelines

The subcontractor shall perform data verification and validation to Contractor approved guidelines. A list of currently approved guidelines are provide in Exhibit D of this document.

### 2.2. Notification Requirement for Late Deliverables

On a weekly basis, if necessary, the subcontractor shall notify the Contractor Technical Representative (CTR) in writing of problems or conditions that affect delivery schedules for those items contained in Exhibit B, Table B1. The notification shall include an explanation for the missed timelines and shall specify new delivery dates for all items.

### 2.3. Assessment Level

The validation level (partial verification, complete verification or validation) will be provided to the subcontractor at the time of the verification/validation request.

2.3.1. *PARTIAL AND COMPLETE VERIFICATION*: Partial and Complete Verification will be performed by the subcontractor at the Contractor's facility according to the data assessment guidelines listed in Exhibit D of this document.

2.3.1.1. Subcontractor personnel performing verification at the Contractor's site shall meet the minimum technical qualifications for key analytical areas involved in their work scope.

2.3.1.2. The subcontractor is responsible for obtaining the necessary RFETS training for subcontractor personnel performing verification at the Contractor's facility. This would include but not limited to Computer Security Training and Building entry training requirements.

2.3.1.3. The Contractor will provide computers and desk space, at RFETS, for up to three individuals to perform verification.

2.3.2. *PARTIAL VERIFICATION*

2.3.2.1. A *Partial Verification* will not consist of more than 5 verification items within a given Data Review Checklist (see glossary definition, Exhibit G). Verification of more than 5 items will be requested as a *Complete Verification*.

2.3.2.2. When partial verification results indicate a more extensive review is necessary, the subcontractor shall contact the CTR or their representative for directions on how to proceed.

2.3.3. *COMPLETE VERIFICATION*: When complete verification results indicate a more extensive review is necessary, the subcontractor shall contact the CTR or their representative in writing for written directions on how to proceed.

2.3.4. *VALIDATION*: Validation will be performed by the subcontractor according to the data assessment guidelines listed in Exhibit D of this document.

- 2.3.4.1. Validation may be performed at the Contractor's facility provided a Data Quality Assessment (DQA) Report Retention Copy is maintained per the requirements of Exhibit F, Section 3 of this document.
- 2.3.4.2. The subcontractor shall not have more than 3 individuals performing data assessment at the Contractor's facility at any given time unless written approval is obtain from the CTR.

### **3. TECHNICAL SUPPORT**

#### **3.1. Verification/Validation Guidelines and/or Procedures**

Based upon task order requirements, the subcontractor shall develop, modify or review data assessment guidelines/procedures for verification/validation of laboratory analytical data. In addition, subcontractor shall provide technical support to develop new Parameter Specific Analytical (PSA) Modules for the Statement of Work for Analytical Measurements as required by RFETS.

- 3.1.1. All guidelines/procedures and/or modifications to existing guidelines/procedures shall be reviewed and approved by the Contractor prior to use.

#### **3.2. Deliverables**

- 3.2.1. Task orders for the development or modification of data assessment guidelines/procedures or PSA Modules will include delivery schedules.

### **4. ORGANIZATION**

The subcontractor's organization must be clearly structured with well-defined responsibilities for each individual in the management system. This system shall ensure that sufficient resources are maintained to perform the requirements of this SOW. The subcontractor shall maintain a chart or diagram illustrating the subcontractor's organizational structure and its interface with technical positions assigned to key analytical areas.

#### **4.1. Deliverables**

The subcontractor shall provide this chart to the CTR 14 days prior to the preaward audit and within 14 days following an organizational change.

### **5. TECHNICAL QUALIFICATIONS**

Subcontractor personnel performing data assessment or technical support under a task order shall meet all requirements of this section.

#### **5.1. General**

The following are the minimum technical qualifications for subcontractor personnel performing work under this SOW. Key Personnel may have additional requirements.

- 5.1.1. Personnel shall have experience in report and procedure writing.
- 5.1.2. Personnel shall have a BA/BS or MA/MS in chemistry, radiochemistry, geochemistry and/or the physical sciences.

5.1.2.1. Unless otherwise noted, the following technically relevant experience may be substituted for educational requirements, such that:

- A Master's degree equals a Bachelor's degree and four years of experience
- A Bachelor's degree equals:
  - ◊ An Associate's degree and four years of experience, which equals
  - ◊ A High School diploma and eight years of experience.

5.1.3. Personnel shall have a minimum of one year experience as analytical chemists using EPA analytical methods relevant to assigned key analytical area(s), and one year data assessment experience relevant to assigned key analytical area(s).

5.1.4. Personnel shall be knowledgeable in the areas of EPA and Colorado Department of Public Health and Environment regulatory requirements, ASME NQA-1-1989, ANSI/ASQC E4-1994, and DOE Order 5700.6C..

## 5.2. Key Personnel

Key personnel positions shall meet the general technical qualifications except where noted below. Failure to maintain Key Personnel may result in a **Subcontract Termination**.

### 5.2.1. Project Manager

Responsibility: Responsible for all aspects of work performed under this subcontract.

Academic Training: Shall meet or exceed General Technical Requirements.

Experience: A minimum of 1 year experience as an analytical chemist using EPA analytical methods, and at least four years of data assessment experience, with at least two years experience in a supervisor position.

### 5.2.2. Organics Lead

Responsibility: Responsible for all organic data assessments performed under this subcontract.

Academic Training: A BA/BS or MA/MS in chemistry, radiochemistry, geochemistry and/or the physical sciences. Experience may not be substituted for the educational requirement.

Experience: A minimum of two years of laboratory experience using EPA analytical methods for the determination of organic constituents, and at least four years of organic data assessment experience.

### 5.2.3. Inorganics Lead

Responsibility: Responsible for all inorganic (metals, water quality, waste characteristics, etc.) data assessments performed under this subcontract.

Academic Training: A BA/BS or MA/MS in chemistry, radiochemistry, geochemistry and/or the physical sciences. Experience may not be substituted for the educational requirement.

Experience: A minimum of two years of laboratory experience using EPA analytical methods for the determination of inorganic constituents, and at least four years of inorganic data assessment experience.

#### 5.2.4. Radiochemistry Lead

Responsibility: Responsible for all radiochemistry data assessments performed under this subcontract.

Academic Training: A BA/BS or MA/MS in chemistry, radiochemistry, geochemistry and/or the physical sciences. Experience may not be substituted for the educational requirement.

Experience: A minimum of two years of laboratory experience using radiochemical methods that includes alpha spectroscopy for the determination Pu, U, and Am, and at least four years of radiochemical data assessment experience.

### 5.3. **Key Analytical Positions**

A Key Analytical Position occurs when only one individual meets the general technical requirements for a Key Analytical Area. All Key Analytical Areas shall have at least one designated individual (Key Position) that meets the general technical requirements for that area. A qualified individual may meet the Key Analytical Position requirements for multiple Key Analytical Areas. Failure to maintain individuals in current key analytical positions or failure to maintain sufficient staff in key analytical areas may result in a **Subcontract Termination**.

#### 5.3.1. *CURRENT RADIOCHEMISTRY KEY ANALYTICAL AREAS*

5.3.1.1. The Subcontractor shall provide at a minimum, an individual that meets the key position requirements for each of the following Key Analytical Areas:

- Alpha spectrometry
- Gas proportional counting
- Liquid scintillation
- Kinetic Phosphorimetry

#### 5.3.2. *CURRENT NON-RADIOCHEMISTRY KEY ANALYTICAL AREAS*

5.3.2.1. The Subcontractor shall provide at a minimum, an individual that meets the key position requirements for each of the following Key Analytical Areas:

- VOAs
- Semivolatiles
- Pesticides/PCBs
- Inorganics (Metals)
- Water Quality (Wet Chemistry)
- Waste Characteristics

### 5.3.3. *PROJECTED KEY ANALYTICAL AREAS*

5.3.3.1. Subcontractor shall be capable of providing sufficient staff in the following projected key analytical areas as the needs of RFETS warrant:

- Dioxins/Furans
- Herbicides
- Biological and Taxonomic parameters
- EPA Method TO14
- Drinking Water
- Industrial Hygiene
- Gamma Spectroscopy
- Radium-226
- Radium-228
- Geotechnical

### 5.4. **Technical Resumes:**

Resumes shall contain sufficient information to ascertain whether or not an individual meets minimum requirements for Key Personnel and for each person assigned to a Key Analytical Area. At a minimum, resumes shall include:

- Position Description
- Title
- Education (pertinent to assigned key analytical area(s))
- Number of Years of Experience (pertinent to assigned key analytical area(s) )
- Month and Year Hired
- Previous Experience, and Publications
- Professional Registrations or Certifications

5.4.1. *SCHEDULE:* The subcontractor shall provide resumes for Key Personnel and all other personnel performing technical work 14 days prior to the preaward audit and thereafter for new personnel prior to assigning work under this subcontract.

