STATEMENT OF WORK

FOR

Lagoon Sludge Survey, Sampling, and Analysis - Minot Air Force Base, ND

Date: March 7, 2026

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1. SCOPE

1.1 Introduction

This Statement of Work (SOW) defines the requirements for a contractor to perform a comprehensive bathymetric sludge survey, as well as sludge sampling and laboratory analysis, for the East and West lagoon systems located at Minot Air Force Base (AFB), North Dakota.

1.2 Background

Minot AFB operates two, three-cell lagoon systems for treating domestic and industrial wastewater. Both lagoon systems treat domestic and industrial waste. To address existing odor and sludge concerns, the facility requires a detailed sludge survey and analysis. This work will provide critical data on sludge volume, distribution, and composition to support future operational and maintenance decisions.

1.3 Scope of Work

The contractor shall provide all personnel, equipment, materials, and services necessary to conduct a sludge survey, collect representative sludge samples, and perform detailed laboratory analysis on the East and West lagoon systems. The primary objectives are to identify pond volume, sludge infill, sludge characteristics, and to provide a comprehensive report of the findings.

2. ACRONYMS AND DEFINITIONS

- AFB: Air Force Base
- NPDES: National Pollutant Discharge Elimination System
- PCB: Polychlorinated Biphenyls
- PFAS: Per- and Polyfluoroalkyl Substances
- SOW: Statement of Work

3. REQUIREMENTS

3.1 General

The contractor shall provide all supervision, labor, travel, technology, and equipment required to perform the services described in this SOW, in accordance with all applicable federal, state, and local regulations.

3.2 East Lagoon System Survey

3.2.1. The contractor shall perform a bathymetric sludge survey for the three ponds of the East Lagoon system (totaling approximately 137 acres).
3.2.2. The contractor shall utilize appropriate methods and equipment to collect the necessary data.
3.2.3. The contractor shall collect high-resolution bathymetric and sludge depth data sufficient to accurately characterize sludge volumes and distribution throughout the surveyed areas.

3.3 West Lagoon System Survey

3.3.1. The contractor shall perform a bathymetric sludge survey for the three ponds of the West Lagoon system (totaling approximately 174 acres).
3.3.2. The contractor shall utilize appropriate methods and equipment to collect the necessary data.
3.3.3. The contractor shall collect high-resolution bathymetric and sludge depth data sufficient to accurately characterize sludge volumes and distribution throughout the surveyed areas.

3.4 Sludge Sampling and Laboratory Analysis

3.4.1. The contractor shall collect eighteen (18) composite sludge samples from the six (6) lagoon ponds across the East and West systems.
3.4.2. All samples shall be properly preserved and transported to a certified laboratory for analysis as required per North Dakota Administrative Code 33.1-23-02-04.
3.4.3. The laboratory analysis shall include, at a minimum, the following parameters for each of the 18 samples:

Analyte/Parameter
Solids-Total
Fecal Coliform
Total Volatile Solids
Nitrate+Nitrite
Ammonia

Phosphorus
Total Kjeldahl Nitrogen (TKN)
Mercury
Arsenic
Cadmium
Chromium
Copper
Lead
Molybdenum
Nickel
Selenium
Silver
Zinc
pH
Temperature
Total PCBs (Polychlorinated Biphenyls)
PFAS (Per- and Polyfluoroalkyl Substances)

3.5 Data and Deliverables

The contractor shall provide the following deliverables to Minot AFB:

3.5.1. A detailed map and sludge profile for all ponds surveyed in both the East and West lagoon systems.

3.5.2. A comprehensive, professionally bound report detailing the findings of the survey for each lagoon system. This report shall include calculations of sludge volume and distribution.

3.5.3. A Certificate of Analysis from the laboratory detailing the results for all 18 samples, including testing methods, detection limits, and quality control data.

3.5.4. A digital copy of the final survey report, the Certificate of Analysis, and all raw survey data.

3.6 Project Management

3.6.1. The contractor shall identify a single point of contact to act as the Project Manager.

3.6.2. Upon contract award, the contractor shall provide a project schedule outlining key milestones and the final delivery date.