

SAMPLING AND ANALYSIS

Project Highlights:

- QAPP Preparation
- GPS Location
- Analysis of Special Parameters
- Coordination with Laboratories
- Review of Raw Data and QA/QC parameters
- Data Validation
- Electronic and Hard-Copy Laboratory Report

BACKGROUND ANALYTICAL SAMPLING AND TESTING FOR C-11 IMPOUNDMENT

The C-11 Impoundment is part of the Comprehensive Everglades Restoration Program (CERP). The purpose of the C-11 Impoundment is to direct runoff from the Western C-11 drainage basin into the impoundment instead of pumping untreated runoff into the WCA 3A through the S-9 pump station. International Analytical Group, Inc. (IAG) was contracted by the U.S. Army Corps of Engineers (USACE) to evaluate the source water and evaluate the sediments from the impoundment imprint

IAG prepared a QAPP in accordance with the requirements outlined in the Preparation of Sampling and Analysis Plans, USACE EM 200-1-3, February 1, 2001. The QAPP described the target analytes, required detection limits, analytical methods and holding times and ensured that the laboratory analytical results conformed to the requirements of the QASR. IAG selected the



environmental analytical laboratories to perform all chemical analyses associated with the Scope of Work (SOW). IAG personnel collected a surface water sample and sediment samples from the planned impoundment area. The proposed impoundment area was divided into two operable units and each unit was further subdivided into five areas. Each subdivision

was assigned a unique ID and was delineated in a map. IAG collected sediments from the five subdivisions within each operable unit plus a duplicate sample. At each location, three cores from the 0 to 4cm horizon were collected and composited as a single sample. IAG took pictures of the cores and documented the position of each core with the aid of a hand held GPS.

LABORATORY ANALYSIS, DATA REVIEW AND VALIDATION

The sediment samples were analyzed for metals (As, Ba, Fe, Pb, Hg, Se), polycyclic aromatic hydrocarbons (PAHs) by 8270, methyl mercury, total organic carbon, total sulfur and the pesticide and herbicide compound list of Table 1 of the CERP Guidance

Document No. 42.00. IAG reviewed the analytical data for adherence to the extraction/analytical holding times, laboratory utilized proper method specific quality control procedures, compliance with project DQOs and

project completeness. IAG provided the ACOE with the laboratory data deliverables, plus a written description of any quality control problems identified during the project.