ANNEX H
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE

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H.1 A-2 Flow Equalization Basin Lands Hazardous, Toxic and Radioactive Waste Audits

PHASE II
ENVIRONMENTAL SITE ASSESSMENT

For the

A-2 FLOW EQUALIZATION BASIN
PALM BEACH COUNTY, FLORIDA

Prepared for

SOUTH FLORIDA
WATER MANAGEMENT DISTRICT
ENVIRONMENTAL SCIENCE UNIT
MAINTENANCE MANAGEMENT SECTION
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33406

Prepared by

Professional Service Industries, Inc.
5801 Benjamin Center Drive
Tampa, FL 33634
Telephone (813) 886-1075

PSI PROJECT NO. 05521114

March 25, 2013

Information To Build On
Engineering • Consulting • Testing

March 25, 2013

South Florida Water Management District
Environmental Science Unit
Maintenance Management Section
3301 Gun Club Road
West Palm Beach, Florida 33406

Attn: Mr. Robert Kukleski

Re: Phase II Environmental Site Assessment Report
A-2 Flow Equalization Basin
Palm Beach County, Florida
PSI Project No.: 05521114
SFWMD Work Order #8

Dear Mr. Kukleski:

In accordance with our agreement, Professional Service Industries, Inc. (PSI) has performed a Phase II Environmental Site Assessment for the above referenced project. The Phase II ESA Report is attached.

Thank you for choosing PSI as your consultant for this project. If you have any questions, or if we can be of additional service, please call us at (813) 886-1075.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Stephen P. Long, P.E. P.G.
Chief Engineer

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PSI PROJECT NO. 05521114

March 25, 2013

Andrew Cadle
Project Scientist

Steve Long
Chief Engineer

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1. INTRODUCTION

1.1 PROPERTY/PROJECT DESCRIPTION

The proposed A-2 Flow Equalization Basin (FEB) project encompasses approximately 14,408 acres of agricultural land located between US Highway 27 and the Miami Canal, in southern Palm Beach County. A USGS Topographic Map and Site Vicinity Map showing the property boundaries are provided on **Figures 1 and 2**.

The property has been cultivated in sugar cane since the early 1960's. PSI has previously completed a draft Summary Environmental Report for the A-2 FEB, dated September 17, 2012. The report describes the due diligence assessment that was performed by the District when the property was acquired, as well as further assessment and remediation efforts that were performed by PSI, on behalf of Talisman Sugar Corporation. The Summary Environmental Report documents that all known point sources on the property have been addressed and the Florida Department of Environmental Protection (FDEP) has issued Site Rehabilitation Completion Orders (SRCOs) for all known point sources within the project boundary. However, no broad cultivated area sampling was performed on the property at the time the pre-acquisition assessment was completed. Therefore, sampling of the cultivated areas was requested by the United States Fish and Wildlife Service (USFWS) and FDEP.

1.2 AUTHORIZATION

This Phase II ESA was performed in substantive compliance with Work Order #8 under SFWMD Contract No. 4600002399.

1.3 SCOPE OF WORK

The scope of work for this Phase II ESA has been divided into three tasks, as follows:

Task 1 Phase II ESA Field and Laboratory Services
Task 2 SLERA and Geostatistical Analysis
Task 3 Report Preparation

A general description of the services included in these tasks is described below. A more detailed description is provided in Section 3.1 of this report.

Task 1 Soil Sampling

PSI collected soil samples in general accordance with the current *Protocol for Assessment, Remediation and Post-Remediation Monitoring for Environmental Contaminants on Everglades Restoration Projects*. The sampling procedures for composite sampling for large properties of greater than 1,000 acres was utilized, which required the collection of 50-acre composite samples from a representative fraction of

the property. Based upon agreement with SFWMD and USFWS, PSI collected samples from 10% of the property during the initial assessment.

All composite soil samples were analyzed for organochlorine pesticides by EPA method 8081, chlorinated herbicides by EPA method 8321, organophosphorus pesticides by EPA method 8270, total organic carbon (TOC), and RCRA 8 metals plus copper by EPA method 6010/7471.

Task 2 SLERA and Geostatistical Analysis

PSI contracted with Formation Environmental to conduct a geostatistical analysis of the data and to prepare a Screening Level Ecological Risk Assessment (SLERA).

Once the composite soil sampling data was received, Formation performed standard statistical evaluation of the data to evaluate distribution, standard deviation, probability plots, and general statistical parameters.

The soil results were initially compared to human health cleanup target levels (e.g., SCTLs and GCTLs) and ecological screening values (e.g., SQAGs). Formation conducted a screening level ecological risk assessment (SLERA) on any constituents of potential ecological concern (COPECs) within the agricultural areas that exceeded the ecological screening levels. The SLERA was performed to determine whether the contaminant concentrations present a significant ecological concern. The SLERA consisted of the following tasks:

- A statistical evaluation of the sample results was prepared in order to calculate a mean and 95% upper confidence limit (UCL) estimate of the mean.
- 95% UCL values and maximum detected values of each COPEC were input into the USFWS/SFWMD Ecological Food Web Model (aka/ Goodrich model). Hazard quotients were calculated for each COPEC.
- Alternate cleanup target levels were proposed for any COPEC with a hazard quotient above one.
- The SLERA assumed worst-case conditions (i.e., that the property shall be flooded for significant portions of the year).
- The SLERA did not include any biological testing, bioaccumulation testing, desorption testing or other laboratory studies.

Task 3 Report Preparation

Task 3 included the preparation of this written report. The primary objective for the written report is to describe the methodology and results of the Phase II ESA investigation. The report does not include significant discussion of point sources within the project footprint. These point source areas were all discussed in detail in the draft Summary Environmental Report, dated September 17, 2012. All of the point sources have been granted closure by the FDEP.

2. PROPERTY DESCRIPTION AND PHYSICAL SETTING

2.1 PROPERTY DESCRIPTION

The A-2 FEB project lands consist of eight separate parcels. The tract numbers, prior ownership, and acreage are shown in the table below.

A-2 FEB		
Tract No.	**Former Owner**	**Acreage**
D7100-044	TALISMAN SUGAR CORPORATION	2
D7100-047	TALISMAN SUGAR CORPORATION	10
D7100-066	TALISMAN SUGAR CORPORATION	12
D7100-067	TALISMAN SUGAR CORPORATION	1
D7100-104	TALISMAN SUGAR CORPORATION	14,371.53**
D7100-139	TALISMAN SUGAR CORPORATION	1
D7100-141	WEINLEIN, JOAN	10
D7200-005	TALISMAN SUGAR CORPORATION	1
A-2 Total		**14,408.53**

** Note: Acreages shown include only the portion of the tract that is within the proposed limits of construction for the A-2 FEB project. The total acreage of Tract D7100-104 is 20,525 acres, and includes lands outside the current project footprint.

Most of the project area has been historically cultivated in sugar cane, with occasional rotational crops of rice or corn. The property is being leased to New Hope Sugar Corporation for sugar cane cultivation. There are no significant remaining structures on the property with the exception of a few pump stations, and all of the point sources on the property have been addressed and SRCOs have been issued by FDEP for all. A Site Plan is provided as **Figure 2**.

The primary parcel (Tract D7100-104) was acquired from Talisman Sugar Company in 1999 by the District. Several of the smaller parcels listed above were also owned and operated by Talisman Sugar Corporation, but these parcels were deferred from transfer during the original transaction until environmental concerns on these small areas could be addressed. The Weinlan parcel (Tract D7100-141) was leased to Talisman Sugar at the time of the 1999 acquisition and was evaluated with the remainder of Tract D7100-104.

Since the acquisition, the lands have been cultivated in sugar cane, with rotational crops of rice, beans, or corn. At the time of PSI's Phase II ESA, most of the sugar cane had been recently harvested from the fields, and replanting had been conducted. While agrochemical application may occur at any time during the life cycle of sugar cane, the agrochemical application schedule during replanting and early development is most intensive. Agrochemicals were being actively applied in some areas of the property

during the Phase II ESA, and PSI was instructed to refrain from sampling in fields that were marked with placards indicating application within the last two weeks.

The proposed project will consist of the construction of a Flow Equalization Basin (FEB) for water quality pre-treatment and storage. However, the project design is not yet complete and PSI was not provided with design details indicating the exact limits of the FEB or the expected depth to water or hydroperiod for the FEB. For the purposes of this document, PSI has assumed worst-case conditions that the entirety of the property will be inundated for at least a significant portion of each year.

2.2 PHYSICAL SETTING

2.2.1 REGIONAL GEOLOGY

The region is overlain by layers of Peat known locally as "muck". Muck is an organically rich soil that forms when the rate of accumulation of organic matter exceeds the rate of decay. The accumulation rate can vary, but can be as much as 10 centimeters per 100 years. Much of the muck has been subjected to subaerial exposure since the dewatering of large areas of marshland through water drainage canals. This exposure has had the effect of causing the muck volume to steadily decrease through biochemical oxidation, compaction, erosion, and fire. It is estimated that the muck soil in these dewatered areas diminishes by as much as 1 inch per year.

Underlying the muck is the Fort Thompson Formation, which is locally referred to as the "cap rock" and is primarily dense, fossiliferous limestone. The Fort Thompson Formation is considered to be Pleistocene in age.

The Caloosahatchee Formation underlies the Fort Thompson Formation. The Caloosahatchee Formation is a marl that is composed of a sequence of sandy limestone lenses that are interbedded with layers of calcareous clays and sands. The Caloosahatchee Formation appears to straddle the Pliocene/Pleistocene boundary.

Underlying the Caloosahatchee Formation, the Tamiami Formation is a complex Pliocene age unit of sand, clay, and reef facies, all of which contain at least small amounts of phosphate. The Tamiami Formation occurs over much of southern Florida and is unconformably overlain by the Caloosahatchee and Fort Thompson Formations, which consist of highly fossiliferous carbonates and siliclastic sediments.

Underlying the Tamiami Formation is the Miocene-age Hawthorn Group, which is composed of a variety of sediments including carbonates, quartz sands, clay, and phosphate. The Hawthorn Group has been subdivided into two formations; the Peace River Formation forming the upper Hawthorn siliclastic section and the Arcadia Formation, which forms the lower Hawthorn carbonate section.

The Hawthorn Group is underlain by a 3000-feet thick carbonate sequence consisting of Oligocene and Eocene aged sediments. The Suwannee Limestone, the Ocala Limestone,

and the Avon Park Formation comprise the Oligocene sediments. The Eocene sediments are made up of the Oldsmar Formation.

2.2.2 Regional Hydrogeology

The underlying hydrogeologic formations of the area may best be categorized as two aquifers separated by an impermeable confining zone.

The shallow, non-artesian aquifer system extends to a depth of approximately 150 feet BLS and is recognized as the northernmost extension of the Biscayne Aquifer. It consists primarily of the Fort Thompson, Caloosahatchee, and Tamiami Formations. The base of the shallow aquifer is marked by the top of the Hawthorn Group, which is the intermediate confining unit for the underlying Floridan aquifer.

The deep, artesian aquifer is known as the Floridan Aquifer and is the most productive aquifer in the area, with permeable zones as deep as 1,200 feet BLS. The Floridan Aquifer consists of the lower units of the Hawthorn Group, the Suwannee Limestone, the Ocala Group, and the Avon Park Limestone.

Groundwater levels throughout the area vary from one to six feet BLS. Groundwater flow in the surficial aquifer is generally to the south-southeast; however, flow direction is strongly influenced by the system of canals and pumping stations present throughout the area. When the canals are pumped and water levels in the canals are lowered, shallow groundwater tends to flow toward the canals.

3. PHASE II ESA METHODOLOGY

The intent of the Phase II ESA was to conduct sampling and laboratory analysis of representative soil samples from the cultivated areas of the subject property. No point source samples were collected as part of this assessment. PSI understands that data from this Phase II ESA will be used by SFWMD and USACE to evaluate whether residual agrochemicals are present in the surficial soils at concentrations that might pose potential human health and/or ecological risks associated with the use of these soils in the construction of the proposed A-2 Flow Equalization Basin.

3.1 SOIL SAMPLING METHODOLOGY

Field investigation and sampling activities were directed by Mr. Drew Cadle and Mr. Ryan Fetter of PSI during the days of January 22 through 25, 2013. The assessment was performed in general accordance with the authorized scope of work. All field sampling activities was performed in accordance with the FDEP Standard Operating Procedures for Field Investigation Activities (DEP-SOP 001/01).

Additionally, the U.S. Fish and Wildlife (FWS) has established a protocol for evaluation and sampling of historical agricultural properties in South Florida, titled *Protocol for Assessment, Remediation, and Post-Remediation Monitoring for Environmental Contamination on Everglades Restoration Projects (AKA/the ERA Protocol)*, which is an attachment to the Draft Memorandum of Agreement between United States Fish and Wildlife Service (USFWS or the Service) and SFWMD, dated March 13, 2008. PSI typically performs due diligence investigations on behalf of the District in strict accordance with the ERA Protocol. However, a less stringent investigation was agreed upon by SFWMD, FDEP, and USFWS in order to provide a general indication of large scale concerns on the property. The following requirements under the ERA Protocol were not met by this investigation:

- For very large properties (>1,000 acres), the ERA Protocol recommends dividing the property into 50 acre grids and collecting composite samples from a percentage of the grids. The percentage is not defined, but is to be agreed upon by SFWMD, USFWS, and FDEP, and has typically ranged from 25% to 50%. In this case, PSI sampled 10% of the grids. Based on previous experience with sugar cane cultivated areas with no history of row crops, we expected the chemical concentrations to be relatively uniform.

- For sites where composite samples are collected, the ERA Protocol requires analysis of discrete aliquots on a limited number of “clean grids”, as part of a false negative analysis. This false negative sampling was not performed as part of this investigation.

- For sites where composite samples are collected, the ERA Protocol requires analysis of discrete aliquots within sampling grids where composite results

indicate exceedances of the risk thresholds, in order to delineate the extent of impacted soil. This discrete sampling effort was not performed, therefore the entirety of any grids with exceeding results were assumed to be impacted.

The property was divided initially divided into 30 super-grids, each encompassing approximately 500 acres. Each super-grid was further subdivided into ten 50-acre grids. One grid was selected at random from each super-grid for sampling (i.e., 10%). In a few cases, the randomly selected grids were moved to another location within the super-grid due to remaining mature sugar cane or very recent agrochemical application within the selected grid. A composite sample was collected representing each selected 50-acre grid for laboratory analysis as described below:

- The samples were collected from the surficial soils at a depth of 0-6 inches. Samples were collected using a stainless steel hand auger and were composited in the field.
- In order to collect the composite samples, PSI further divided each 50-acre grid into ten, 5-acre sub-grids. PSI collected a close-proximity soil sample from approximately the center of each 5-acre sub-grid cell. Within each sub-grid cell, PSI collected a 5-point close-proximity composite sample by collecting equal aliquots from the center of the sub-grid cell, and five feet away in all four cardinal directions. The aliquots were homogenized in a stainless steel bowl using a stainless steel spatula or spoon. A 4-ounce aliquot of each sub sample was placed into a larger mixing bowl which was utilized to collect the composite samples. Once all ten subsamples were collected in the mixing bowl, the sample was further homogenized and a composite sample representing the entire 50-acre grid was collected in a 4 ounce glass laboratory container. The composite samples were labeled as Comp-1 through Comp-30. The soil sampling locations were recorded on a global positioning system (GPS) receiver with an accuracy of +/- 1 meter. The soil sampling locations are shown on **Figure 3**.
- The collected samples were placed in an iced cooler and shipped to the primary or secondary laboratory (splits) for laboratory analysis under chain of custody protocols. The soil samples were analyzed for organochlorine pesticides by EPA method 8081, chlorinated herbicides by EPA method 8321, organophosphorus pesticides by EPA method 8270, total organic carbon (TOC), and RCRA 8 metals plus copper and selenium by EPA method 6010/7471. The samples were immediately placed on ice and submitted to the analytical laboratory under chain of custody procedures.
- Duplicate and split soil samples and equipment blanks were collected for quality assurance purposes.
    - Duplicate samples were collected at a frequency of 10% of the collected samples by collecting an aliquot from the same mixing bowl as the primary sample. The duplicate samples were collected and analyzed using the

same procedures and methods as the primary sample, and were analyzed by the same laboratory.

- Split samples were collected at a frequency of 10% of the collected samples by collecting an aliquot from the same mixing bowl as the primary sample. The split samples were collected using the same methods as the primary samples, but the split samples were submitted to a different, secondary laboratory for analysis.

- One pre-cleaned equipment blank was collected prior to the initial sample collection event to evaluate the efficacy of the decontamination cleaning procedures used in PSI's office to pre-clean the equipment prior to mobilization. Field cleaned equipment blanks were also collected at a rate of one blank per sampling team per day during the sampling. The pre-cleaned and field cleaned equipment blanks were collected by running analyte free water over the decontaminated sampling equipment and then collecting the water in laboratory provided containers. The equipment blanks were analyzed for the same analytes as the soil samples.

4. PHASE II ESA RESULTS

4.1 REGULATORY GUIDANCE CONCENTRATIONS

Analyte concentrations in all media were compared to applicable or relevant and appropriate requirements, depending upon current and future proposed usage of each tract. These criteria are summarized below.

4.1.1 SOIL

The following human-health based criteria are established by the FDEP in Chapter 62-777 of the Florida Administrative Code (FAC 62-777), for both direct exposure and leachability.

- ***Residential*** – The Soil Cleanup Target Level for direct exposure in a residential setting (SCTL-RDE) is the default standard for site screening purposes in Florida, and assumes potential contact with soils on a regular basis by adults and children.
- ***Industrial*** – The Soil Cleanup Target Level for direct exposure in a non-residential setting (SCTL-IDE) assumes extended contact with soils on a daily basis by adult workers at commercial/industrial sites, or on agricultural properties where farming practices result in frequent site contact. Use of this standard requires that a deed restriction be recorded against the property.
- ***Leaching to Groundwater*** – The Soil Cleanup Target Level for leaching to groundwater (SCTL-LGW) also represents a default standard for site screening purposes in Florida, and is based on soil concentrations which are considered likely to result in an exceedance of the groundwater quality standard for a particular chemical.
- ***Leaching to Surface Water*** – The Soil Cleanup Target Level for leaching to surface water (SCTL-LSW) is applicable where impacted soils may be in contact with a surface water body. These criteria were deemed appropriate for comparison because the entirety of the subject property may become inundated at the time of project construction. However, it should be noted that the SCTL-LSW criteria were developed based on soil proximity to Class III fresh water bodies. In this case, the FEB would not likely be considered as a Class III water body. While the SCTL-LSW are not directly applicable, they were used for comparison screening purposes.

4.1.2 SEDIMENT

The FDEP has previously indicated that soils within proposed wetland or water storage areas should be regulated as sediments, as these soils will ultimately become inundated. For sediments, the Sediment Quality Assessment Guidelines (SQAGs) as defined in *Development and Evaluation of Sediment Quality Assessment Guidelines, Volumes 1-4*, (MacDonald, 2000) have generally been applied for screening purposes. The SQAGs are not a human health-based criteria, but are instead relevant only to the evaluation of ecological risk. The referenced guideline outlines two potential standards which were developed specifically with respect to benthic macroinvertebrate species, which represent the bottom of the food chain, as follows:

- ***No Observed Adverse Effects Level*** – The threshold effects concentration (SQAG-TEC) is the more conservative value and is utilized as a screening tool in evaluating sediments. Contaminant concentrations below the SQAG-TEC generally do not warrant further investigation.
- ***Lowest Observed Adverse Effects Level*** – The probable effects concentration (SQAG-PEC) represents the level above which adverse effects are likely to occur. It should also be noted here that SFWMD and FWS have agreed to an Interim Effects Concentration for copper only, which replaces the SQAG-PEC for copper recommended in MacDonald 2000.

However, it should be noted that SQAGs may not be established for all analytes of interest. FWS protocols for ecological risk assessment (FWS, March 2004) recommend consideration of Ecological Screening Values (ESV) established by EPA Region IV in *Ecological Screening Values or Surface Water, Sediment, and Soil* (WSRC, November 1998) when Florida SQAGs are not available.

In the case of copper, the USFWS utilizes an interim screening value (ISV) of 85 mg/kg, for protection of the endangered Everglades Snail Kite. Measured copper concentrations are compared with both the ISV and the SQAGs.

No SQAGs have been established for selenium. However, an ecological screening criterion of 4.2 mg/kg was negotiated with USFWS for organic soils on the C9/C11 project, and it appears that a similar level would be appropriate on the A-2 FEB project.

4.1.3 Applicable Criteria

All of the above criteria will be considered in evaluating the analytical results obtained during the soil sampling activities described herein. Since some portions of the site may not become inundated, it is appropriate to compare analyte concentrations in the soil to the human health-based SCTLs established in Chapter 62-777, FAC. Therefore, soil data were compared to both the SCTLs for residential direct exposure (SCTL-RDE) and to the SCTLs for leaching to groundwater (SCTL-LGW) and leaching to surface water (SCTL–LSW).

It is likely that most of the site will be inundated; at least for a portion of each year, and that important ecological receptors will utilize the property. Therefore, it is also necessary to compare the site data to the SQAGs. For most analytes of interest (arsenic being the notable exception), the SQAG-TEC criteria are more stringent than the SCTL-RDE criteria. Therefore, in most cases, a cleanup to SQAG-TEC criteria is also protective of human health. It should also be noted that the SQAGs are not standards or deterministic values (i.e., an exceedance does not indicate absolutely that adverse effects will occur); the SQAGs are merely screening values. Data exceeding the SQAG values generally indicate the need for further study. Conversely, chemical concentrations which do not exceed the SQAGs are generally screened out from any further consideration with respect to ecological risk.

Since the soils will also need to be handled by construction workers during project construction and may be relocated off-site or placed in areas of the proposed project that are not inundated and which are accessible to the public, the soil data was also compared to both the SCTLs for residential direct exposure (SCTL-RDE) and to the SCTLs for leaching to groundwater (SCTL-LGW) and leaching to surface water (SCTL–LSW).

4.2 SAMPLING RESULTS

Laboratory analytical results for the soil samples are summarized on **Table 1**. Laboratory reports are provided in **Appendix B**. These results have been evaluated by comparison with the appropriate human-health based SCTLs established in Chapter 62-777, FAC and the ecologically-based SQAG criteria recommendations for sediments.

Organics Results

- 2-4' D (2-4-Dichlorophenoxyacetic acid) was detected in one composite sample at a concentration of 940 µg/kg, which exceeds the SCTL-LGW criterion of 700 ug/kg and the SCTL-LSW criterion of 900 µg/kg. Another sample was detected at a concentration of 860 µg/kg, which exceeds only the SCTL-LGW criterion. Both concentrations were below the SCTL-RDE criteria and SQAG criteria have not been established. The analyte was detected in three other samples above the laboratory method detection limit (MDL) but below all applicable regulatory criteria. The remaining samples were all below the laboratory MDL.
- Metribuzin was detected in two composite samples at concentrations of 1,700 µg/kg and 1,100 µg/kg, which exceed the SCTL-LSW criteria of 800 µg/kg, but are below all other SCTL criteria. SQAG criteria have not been established for this analyte. The analyte was detected in ten other samples above the laboratory MDL but below all applicable regulatory criteria. The remaining samples were all below the laboratory MDL.
- Phorate was detected in two composite samples at concentrations of 120 µg/kg and 93 µg/kg, which exceed the SCTL-LSW criterion of 1 µg/kg, but are below all other SCTL criteria. SQAG criteria have not been established for this analyte. The analyte was detected in one other sample above the laboratory MDL but below all applicable regulatory criteria. The remaining samples were all below the laboratory MDL.
- Atrazine was detected in 16 composite samples (including 2 split samples and 1 duplicate sample) at concentrations exceeding the SQAG-TEC criterion of 0.30 µg/kg (no SQAG-PEC criterion has been established). The atrazine concentrations in the 16 samples ranged from 27 µg/kg to 3,500 µg/kg. Twelve of the sixteen samples were also detected at concentrations exceeding the SCTL-LSW and SCTL-LGW criteria of 40 µg/kg and 60 µg/kg, respectively. Atrazine was detected in another sample at a concentration of 55 µg/kg which exceeds the SCTL-LSW criteria of 40 µg/kg, but is below all other SCTL criteria. None of the detected atrazine concentrations exceed the SCTL-RDE.

- Dieldrin was detected in four samples at concentrations exceeding the SQAG-TEC criterion of 1.9 µg/kg, but below the SQAG-PEC criteria of 62 µg/kg. The dieldrin concentrations were also above the SCTL-LGW and SCTL-LSW criteria of 2 µg/kg and 0.1 µg/kg, respectively. The concentrations in the four samples ranged from 2.7 µg/kg to 5.1 µg/kg. Dieldrin was not detected in any of the other samples above the laboratory MDL.
- Due to the detection of multiple samples containing atrazine and dieldrin at concentrations significantly exceeding the SCTL-LGW and/or SCTL-LSW, PSI subsequently conducted Synthetic Precipitation Leaching Procedure (SPLP) in order to evaluate the potential for leaching of atrazine and dieldrin from the soils into surface water or groundwater. The SPLP test is intended to simulate the leaching of contaminants from soil into groundwater or surface water under typical acid rainfall conditions. PSI analyzed two soil samples containing the highest atrazine concentrations (Comp-8 and Comp-15) by the SPLP for atrazine and two samples containing the highest dieldrin concentrations (Comp-10 and Comp-15) by the SPLP for OCPs. The SPLP test is conducted by adding an acidic solution to the soil sample and mixing the slurry for an extended period of time, before re-extracting the liquid for analyses. The SPLP extract is subsequently analyzed for the constituents of concern (e.g., OCPs or OPPs) and the results are compared to the surface water and/or groundwater cleanup target levels in Chapters 62-302, FAC and 62-777, FAC, respectively.
    - Atrazine was detected in the SPLP extract at concentrations exceeding the Chapter 62-777, FAC Groundwater Cleanup Target Level (GCTL) and Chapter 62-302, FAC Surface water Cleanup Target Level (SwCTL) in both samples (Comp-8 and Comp-15).
    - Dieldrin was not detected in either sample above the laboratory MDL, which was below the GCTL. However, the laboratory MDL for Dieldrin is 0.0011 µg/L which is above the SwCTL criteria of 0.00014 µg/L.

<u>Metals Results</u>

- Arsenic was detected in all of the composite samples at concentrations exceeding the SCTL-RDE criterion of 2.1 mg/kg, but below all SQAG-TEC criterion of 9.8 mg/kg. The measured arsenic concentrations ranged from 3.1 mg/kg to 6.8 mg/kg. The highest arsenic concentration (6.8 mg/kg) was detected in sample Comp-1.
- Barium was detected in of the composite samples at concentrations exceeding the SQAG-PEC criterion of 60 mg/kg. The measured barium concentrations ranged from 69 mg/kg to 118 mg/kg. The highest barium concentration (118 mg/kg) was detected in sample Comp-11 Split (the barium concentration in the parent sample was 98 mg/kg). All of the barium concentrations are below the SCTL criteria.
- Chromium was detected in all of the samples at concentrations exceeding the SCTL-LSW criterion of 4.2 mg/kg, but below all other applicable criteria. The measured chromium concentrations ranged from 5.6 mg/kg to 29 mg/kg.

- Copper was identified in all of the composite soil samples collected from the property. Copper concentrations in seven of the composite samples exceeded the USFWS Interim Screening Level (ISL) for protection of the Everglades Snail Kite (85 mg/kg). The measured copper concentrations in the samples ranged from 53 mg/kg to 110 mg/kg. The measured copper concentrations in all of the samples exceeded the SQAG-TEC of 32 mg/kg. None of the copper concentrations exceeded the SQAG-PEC or SCTL-RDE criteria of 150 mg/kg. The extent of copper impacted soils exceeding the USFWS ISL is shown on **Figure 4**.
- Cadmium and lead were identified in one or more of the composite soil samples collected on the property but at concentrations which are below the applicable SCTLs and SQAG-TEC criteria.
- Mercury was detected in all of the samples at concentrations exceeding the SCTL-LSW criterion of 0.01 mg/kg, but below all other regulatory criteria. Mercury concentrations ranged from 0.077 mg/kg to 0.14 mg/kg. The measured concentrations in the samples appear to be consistent with regional background conditions from atmospheric deposition.
- Selenium was detected in 27 of the 36 composite samples (including duplicate and split samples) at concentrations exceeding the SCTL-LSW criteria of 0.05 mg/kg. The measured selenium concentrations in the samples ranged from 1.5 mg/kg to 3.7 mg/kg. Selenium concentrations were below the laboratory MDL in all of the other samples; however the laboratory MDLs ranged from 0.47 mg/kg to 0.66 mg/kg which are above the SCTL-LSW criteria, in all cases except one (one sample had an MDL of 0.47 mg/kg the other eight samples had MDLs above the SCTL-LSW criteria of 0.5 mg/kg). No SQAGs have been established for selenium. An action level of 4.2 mg/kg was negotiated with USFWS for organic soils on the C9/C11 project, and it appears that a similar action level would be appropriate on the A-2 FEB. None of the detected selenium concentrations exceeded 4.2 mg/kg.
- Silver was detected in all three split samples at concentrations exceeding the SCTL-LSW criteria of 0.01 mg/kg. The measured silver concentrations in the three split samples were 0.61 mg/kg, 0.61 mg/kg, and 0.64 mg/kg. The silver concentrations in all of the original samples were below the laboratory MDL. Silver was below the laboratory MDL in all of the other samples; however the laboratory MDLs ranged from 0.26 mg/kg to 0.42 mg/kg which are above the SCTL-LSW criteria.
- Total organic carbon measurements ranged from 198,000 mg/kg to 503,000 mg/kg in the samples analyzed by the primary and secondary laboratories.

4.3 DATA VALIDATION

Validation of the laboratory data was performed using the FDEP ADaPT program to ensure that all required quality control targets were met. ADaPT data validation forms are provided with the laboratory reports in **Appendix A**. The data generally met the

quality control requirements for both field and laboratory activities. Some of the data were qualified as noted in the laboratory report and in the summary tables, but none of the data were rejected due to quality control concerns.

- Comparison of the data for original and duplicate samples analyzed by the primary laboratory indicated good precision in measurement by the primary laboratory.

- Comparison of the data between the primary and secondary laboratory indicated good correlation between the laboratory results for the original and split samples.

- No target analytes were detected in the equipment blanks, indicating that laboratory and field decontamination procedures were effective.

- No target analytes were detected in the laboratory method blanks.

- A number of the primary samples had to be diluted for analysis of 4,4-DDT due to unknown matrix interference. The laboratory method detection limits for DDT ranged from about 0.9 ug/kg to 11 ug/kg, and exceeded the SQAG-TEC of 4.2 ug/kg, but were still below all regulatory criteria.

- The laboratory method detection limits for a number of chemicals exceeded the SCTL-LSW criteria. However, a review of the *FDEP Guidance for the Selection of Analytical Methods and for the Evaluation of Practical Quantitation Limits* indicates that the laboratory method detection limits are below the practical quantitation limits recommended in the FDEP guidance and generally represent the best commercially available detection limits for the methods.

- The laboratory method detection limits for dieldrin in the SPLP analysis leachate exceeds the FDEP Chapter 62-302, FAC surface water standard. However, the laboratory method detection limit is lower than the recommended practical quantitation limit in the FDEP guidance referenced above.

4.4 GEOSTATISTICAL EVALUATION

Since the density of sampling within the cultivated areas of the A-2 FEB was lower (10%) than composite sampling typically conducted under the ERA Protocol, the copper data was further evaluated to determine if it was adequate to make risk management decisions for the site.

As previously discussed, copper concentrations in the 30 composite soil samples ranged from 53 to 110 mg/kg, with an average concentration equal to 77.2 + 13.3 mg/kg and the 95% UCL copper concentration was equal to 83.1 mg/kg. In order to have confidence in the calculated 95% UCL, a sufficient number of samples must be collected to meet Type I and Type II error rate requirements for decision making. Type I

error (alpha) is the probability of incorrectly predicting that the average copper concentrations on the site are less than the snail kite benchmark when they are actually higher than the benchmark. In the case of a 95% UCL, the Type I error rate is set at 5%. Type II error (beta) is the probability of predicting that the average copper concentrations are greater than the snail kite benchmark when they are actually less. .

The sample size calculations provided in USEPAs ProUCL tool (ProUCL v 4.1, 2012) use established USPEA guidance for sample size calculations to provide a minimum number of samples necessary to meet Type I and Type II error rates at a given standard deviation and tolerable error margin (delta). The delta value provides a 'grey area' which represents a margin of error attributable to laboratory precision, laboratory reporting accuracy, sampling error, etc.

The ProUCL calculator was used in this case by setting the alpha equal to 0.05 and the beta equal to 0.1. The standard deviation of the copper concentrations in soil was equal to 13.3 mg/kg and the data were normally distributed allowing for the use of parametric statistics. The delta was set equal to 8.5 mg/kg or 10% of the 85 mg/kg benchmark. Using those parameters, the ProUCL calculator indicates that a minimum of 23 samples are required to meet the minimum requirements of a 95% UCL estimate of the mean with a 10% Type II error rate using the data collected at the A-2 FEB. This indicates that an adequate number of samples were collected to calculate a reliable estimate of the 95% UCL of the soil copper concentration.

5. SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT

5.1 SLERA METHODOLOGY

PSI contracted with Formation Environmental, LLC to prepare a screening level ecological risk assessment (SLERA) for the subject property. The SLERA is provided in **Appendix B**. The purpose of the SLERA was to evaluate potential risks to benthic invertebrates and higher trophic species, particularly aquatic wading birds, associated with exposure to the site soils, assuming that a water quality project is implemented and the land is inundated. The SLERA was conducted in accordance with the SFWMD-USFWS-FDEP ERA Protocol.

Once flooded, aquatic organisms such as benthic invertebrates may inhabit the site and could be exposed to residual chemicals. Flooding changes the potential for ecological exposure because many contaminants are more mobile and bioavailable in aqueous environments, and may bio-accumulate more readily in aquatic systems than in terrestrial systems. For the purposes of this analysis, the receptors of greatest concern are aquatic-feeding wildlife, especially Federal or State Trust resources that could be attracted to the newly flooded parcels if an aquatic prey base becomes established. Bioaccumulation of residual chemicals in aquatic prey species could lead to toxic exposure of Trust resources feeding at newly formed aquatic environments. Also considered is the potential for effects to benthic invertebrate communities that could lead to loss of ecosystem function within the newly created aquatic system.

To evaluate potential effects to benthic invertebrates, soil data were compared to the SQAG-TEC and SQAG-PEC values. Risk to aquatic-feeding wildlife was evaluated by estimating the potential exposure of avian receptors to chemicals through the ingestion of aquatic prey species that might accumulate chemicals from soils after they have been flooded. Exposure and risks were calculated for aquatic-feeding wildlife using a model developed for the District specifically for the purposes of this program (Goodrich 2002 and NewFields 2006). The model provides conservative (i.e., protective) exposure estimates for key species of wildlife that are common in central and southern Florida. The model was developed to incorporate potential bioaccumulation of organic and inorganic chemicals into an aquatic food web that could develop at a flooded agricultural site. The model has been approved by the USFWS for use by the District in making decisions regarding property acquisition.

The SLERA was conducted using consistently conservative assumptions about toxicity, bioavailability, and exposure patterns. The combination of conservative assumptions can result in substantial uncertainty and overestimation of risks of adverse ecological effects. In most cases, the District has elected to use SLERA results as a basis for corrective actions, seeking to err on the side of environmental protection. In other cases where very large areas are involved, the District has sought to reduce uncertainty in exposure assessments by performing additional tests outlined in the ERA Protocol.

5.2 SLERA RESULTS

Formation Environmental generated the following conclusions based on the SLERA analysis:

Benthic Invertebrates

- Maximum detected concentrations of copper and dieldrin were greater than the SQAG-TEC only. Risks to the benthic invertebrate community due to exposure to both are predicted to be low but cannot be conclusively dismissed. The 95% UCL of both copper and dieldrin exceeded the SQAG-TEC. The very high levels of organic carbon in the soils likely mitigate the risk to both constituents of potential concern (COPCs) due to decreased bioavailability. Similarly, the mean PEC-HQ was lower than 0.5, indicating that cumulative risk from exposure to copper and dieldrin is expected to be low.
- All detected concentrations of barium, as well as the 95% UCL, exceeded the SQAG-PEC. However, no risk is predicted from exposure to barium because all of the samples collected from the A-2 FEB are within the range of barium concentrations defined by FDEP (Carvalho and Schropp 2002) as clean areas and areas established as a statewide reference for healthy biological communities.
- Concentrations of atrazine, 2,4-D, metribuzin, and phorate were also detected in several samples across the A-2 FEB. While elevated concentrations of each of these herbicides and insecticides were observed, communication with Florida Crystals farm managers indicates that all are actively applied as part of their general farming practice. All of the detected chemicals have relatively short half-lives and are not expected to persist for long periods after farming on the A-2 FEB is ceased. Best management practices should be followed to allow for sufficient time for the COPCs to degrade prior to completion of the A-2 FEB.

Aquatic-Feeding Birds

- Selenium concentrations in A-2 FEB soil samples exceeded the USFWS screening benchmark for effects to aquatic-feeding wildlife at a number of locations. Risks were subsequently evaluated using the SLERA model which resulted in no HQs greater than 1.0 using maximum detections. Risks were also predicted using the TTF model from Presser and Luoma (2010) and the data from the C9/C11 selenium study to estimate bird egg selenium concentrations. At maximum sediment concentrations, bird egg selenium concentrations were not predicted to be greater than the 95% lower confidence limit of the recommended egg tissue effect threshold concentrations. Based on these results and the results of the C9/C11 selenium study completed by the District, no unacceptable risk to aquatic-feeding birds is predicted in the A-2 FEB.
- Copper concentrations exceeded the 85 mg/kg interim benchmark for protection of the Everglade snail kite in just over 25% of the composite samples. However, the 95% UCL copper concentration was less than the benchmark. Given the relationship between organic carbon content in sediments and the bioavailability

of copper, the observed low magnitude exceedances of the benchmark are not expected to result in unacceptable levels of risk to the Everglade snail kite. The District should consider periodic monitoring of copper concentrations in surface water, periphyton, and apple snails following construction to provide data pertinent to the management of risks to the Everglade snail kite.

- All other HQs calculated via the food-web model using maximum detected composite sample concentrations were less than 1 indicating risks from these COIs are de minimus.

Overall, no evidence of elevated agrochemical contamination within the soils was found that would cause concern related to the construction of the A-2 FEB based on risk to the future aquatic community or to USFWS trust species that may utilize the future habitat provided by its construction. Due to the observed copper concentrations greater than the 85 mg/kg benchmark, monitoring of copper in surface water and apple snails following construction is recommended.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

- Very few organic agrochemicals were detected in the site soil at concentrations exceeding ecological or human health risk screening criteria. The majority of the detected chemicals, including 2,4-D, atrazine, metribuzin, and phorate are being actively applied on the property and soil concentrations are likely to dissipate rather quickly once the agricultural use of the property is ceased, given these chemicals relatively low persistence in the soil.
- Dieldrin is the only persistent organic chemical that was detected, but it was only sporadically detected at concentrations exceeding the SQAG-TEC, but below the SQAG-PEC. The hazard quotients for dieldrin that were calculated in the SLERA for a number of aquatic-feeding birds were well below one; thus, potential impacts to Trust species from exposure to residual dieldrin are likely to be very low.
- Copper was the primary constituent of potential ecological concern that was detected in the site soils.
    - Copper was detected in approximately 27% of the composite samples at concentrations exceeding the USFWS ISL of 85 mg/kg. The detected copper concentrations ranged as high as 110 mg/kg and exhibited a normal data distribution with a mean concentration of 77.2 mg/kg and a 95% upper confidence limit (UCL) of 81.3 mg/kg. Spatially, the data present a random pattern, and no discernible areas of higher concentrations could be interpreted from the maps.
    - Based on the copper data from the 10% sampling coverage, it is estimated that on the order of 3,850 acres of the property may contain copper concentrations exceeding the USFWS ISL. However, most of the exceedances are likely to only marginally exceed the ISL, and would be within the 85-95 mg/kg range.
    - The USFWS ISL for copper was developed for protection of the endangered Everglades snail kite and the ISL was derived using a standard bioaccumulation model that is thought to be generally applicable for the sandy soils, containing only small amounts of organic carbon, associated with citrus groves where copper sulfate is liberally applied as a fungicide in south Florida. Organic carbon concentrations in sandy soils are typically less than 1% while the organic carbon content in the A-2 FEB soils ranges from about 20% to about 50%. Metals, including copper are known to bind tightly with organic matter in the soil, and would be less bioavailable in these organic soils than they would be in sandy soils. A review of available published studies relating bioavailability to organic content in the soil was performed as part of the SLERA. These previous studies suggest a strong correlation between increased organic content

and decreased bioavailability; however, no direct numeric correlation could be gained from these studies that would allow us to calculate an alternate ISL for these soils based on the increased carbon content. Qualitatively, copper concentrations that only marginally exceed the ISL of 85 mg/kg in these highly organic soils are not likely to represent a significantly increased risk to the Everglades snail kite. As low as a 10 – 20% reduction in bioavailability would be expected to reduce uptake into the apple snails to levels equal to or less than predicted by the 85 mg/kg benchmark over the large majority of the A-2 FEB footprint.

- The Everglades snail kite could be exposed to copper concentrations in its primary food source, the apple snail, which may accumulate copper in its tissue from direct contact with the soil, or through ingestion of periphyton. The model makes certain assumptions regarding the bioaccumulation of copper up through the food chain and the degree to which ingested copper would be adsorbed by the Everglades snail kite. Apple snail bioaccumulation, Everglades snail kite exposure, and copper bioavailability studies are currently being conducted by both USFWS and SFWMD to evaluate these critical assumptions in the model. These results are not yet available. Bioaccumulation studies currently being performed by SFWMD suggest that copper concentrations in the surface water are likely to peak shortly after initial filling of the A-2 FEB, but would decline rapidly following the completion of the FEB. Since apple snails are not likely to establish a population large enough to support the foraging requirements of one or more snail kites immediately upon filling of the FEB, the snails and therefore, the Everglades snail kite, are not likely to be exposed to the peak concentrations of copper. The initial study data combined with the consideration of copper bioavailability discussed in the previous bullet suggest that the impacts to the Everglades snail kite to copper concentrations only marginally exceeding the ISL are not likely to be significant.
- PSI does not believe that corrective action to address copper impacted soils is warranted based on:
    - the marginal exceedance of the ISL,
    - the fact that the 95% UCL copper concentration across the site is less than 85 mg/kg,
    - the low likelihood of impacts from exposure to these soils given the decreased bioavailability associated with these soils, and
    - the interim study results indicating that the model assumptions used to develop the ISL may be overly conservative,.
- Based on the presumption that no corrective action is warranted for marginally impacted soils, PSI does not believe that further soil sampling for copper is warranted. Given the normal distribution and low standard

deviation of the data set, additional sampling is not likely to result in increased power or increased confidence in the data set.

- Arsenic concentrations across the majority of the A-2 FEB footprint are likely to exceed the FDEP Soil Cleanup Target Level for Residential Direct Exposure, but the detected concentrations are all below the SQAG-TEC criterion. Arsenic concentrations are not likely to represent a human health or ecological risk, as long as the soil is managed on-site and is not disposed off-site at an uncontrolled site.
- A number of chemicals, including 2,4-D, atrazine, metribuzin, phorate, dieldrin, chromium, mercury, selenium, and silver were detected in one of more of the composite soil samples at concentrations exceeding the soil cleanup target levels for leaching to surface water (SCTL-LSW). However, it should be noted that the SCTL-LSW criteria are based on leaching of chemicals from the soil into a Class III surface water body. In this case, the soils will be in direct contact with surface water once the project is constructed; however, the overlying surface water body would be classified as a treatment cell, and not as a Class III surface water. Therefore, the Class III surface water criteria and the SCTL-LSW criteria do not apply to these soils.
- Class III surface water criteria must be met for waters that are discharged from the A-2 FEB and therefore, comparison of the chemical concentrations in the soil with the SCTL-LSW criteria may be beneficial in evaluating whether exceedances of the Class III surface water criteria are likely at the A-2 FEB discharge point. An evaluation of the chemical data indicates that exceedances of the Class III surface water at the discharge of the A-2 FEB are very unlikely due to the following factors:
    - A number of the chemicals such as 2,4-D, atrazine, metribuzin, and phorate are relatively short-lived in the environment and were recently applied during active crop management. These chemicals are not likely to be present in the soil at significant concentrations when the reservoir is constructed.
    - Dieldrin is biologically persistent, but was only detected sporadically in the A-2 FEB footprint. The effect of dilution from incoming surface water and water overlying clean areas of the FEB are likely to dilute any leaching of these chemicals within these limited areas.
    - Chromium, mercury, and selenium were consistently detected and silver was detected at a few locations at concentrations exceeding the SCTL-LSW criteria. However, these metals all sorb strongly to organic matter in the soil and are not likely to leach to a significant degree from the highly organic soils in the A-2 FEB. Default SCTL-LSW criteria are based on soils with a much lower organic content than the soils on the subject property.

Overall, no evidence of elevated agrochemical contamination within the soils was found that would cause concern related to the construction of the A-2 FEB based on risk to the future aquatic community or to USFWS trust species that may utilize the future habitat provided by its construction.

6.2 RECOMMENDATIONS

- Based on the exceedances of the USFWS ISL for copper in a number of the soil samples, PSI recommends that the District conduct a monitoring program at start-up of the FEB to verify copper concentrations in the surface water, periphyton ,and in any apple snails that may occupy the FEB in the early stages of habitat development. This monitoring may be discontinued once it is verified that copper concentrations in the surface water, periphyton, and apple snails are below acceptable risk thresholds for protection of the Everglades snail kite.
- Based on the exceedance of the SCTL-LSW for atrazine, 2,4-D, metribuzin, phorate, dieldrin, chromium, mercury, and selenium in a number of soil samples, one-time surface water sampling for these parameters is recommended during start-up of the FEB to verify that these chemicals are not leaching into the surface water.
- An agrochemical best management practices (BMP) plan is recommended to address the use of agrochemicals on the property in the interim use period prior to project construction, assuming that the property will continue to be used for agricultural purposes in the interim. The intent of the BMP plan is to ensure that further agrochemical application does not result in increased concentrations for the chemicals of concern that were identified in the Phase II ESA. Further application of copper-containing fertilizers will need to be particularly scrutinized. A ramp-down period for some of the readily degradable agrochemicals (e.g., atrazine) may be warranted to ensure that the concentrations of these chemicals are below ecological risk thresholds at the time of project construction.
- Based on the presence of arsenic in the site soils at concentrations exceeding the SCTL-residential criteria, these soils should not be transported off-site for uncontrolled disposal. A soil management plan should be developed for project construction to ensure proper handling and disposal of the soils.

7. WARRANTY

PSI warrants that the findings and conclusions reported herein were conducted in general accordance with good commercial and customary practice for conducting a Phase II Environmental Site Assessment. However, these findings and conclusions contain all of the limitations inherent in these methodologies.

The Phase II Environmental Site Assessment has been developed to provide the client with information regarding apparent indications of chemical impacts to the subject property. It is necessarily limited to the conditions observed and to the information available at the time of the work. The assessment and conclusions presented herein were based upon the subjective evaluation of limited data. They may not represent all conditions at the subject site as they reflect the information gathered from specific locations. PSI warrants that the findings and conclusions contained herein have been promulgated in accordance with generally accepted environmental investigation methodology and only for the site described in this report.

Due to the limited nature of the work, there is a possibility that there may exist conditions which could not be identified within the scope of the assessment or which were not apparent at the time of report preparation. It is also possible that the testing methods employed at the time of the report may later be superseded by other methods. The description, type, and composition of what are commonly referred to as "hazardous materials or conditions" can also change over time. PSI does not accept responsibility for changes in the state of the art, nor for changes in the scope of various lists of hazardous materials or conditions. PSI believes that the findings and conclusions provided in this report are reasonable. However, no other warranties are implied or expressed.

TABLES

TABLE 1: SOIL ANALYTICAL DATA SUMMARY - COMPOSITE SAMPLES (detected constituents only)
PROJECT NAME: A-2 Flow Equalization Basin
PSI PROJECT NO.: 05521114

			Chlorinated Herbicides (ug/kg)	OPPs (ug/kg)			OCPs (ug/kg)	Metals (mg/kg)									TOC (mg/kg)
Sample ID	Date Collected	Sample Interval (ft bls)	D, 2-4'	Atrazine	Metribuzin	Phorate	Dieldrin	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Selenium	Silver	Total Organic Carbon
		SCTL-RDE	770,000	4,300	54,000	16,000	60	2.1	120	82	210	150	400	3	440	410	***
		SCTL-LGW	700	60	2,200	300	2	SPLP	1600	7.5	38	***	SPLP	2.1	5.2	17	***
		SCTL-LSW	900	40	800	1	0.1	SPLP	***	***	4.2	***	***	0.01	0.5	0.01	***
		SQAG-PEC	***	***	***	***	62	33	60	5.0	110	150	130	1.1	***	2.2	***
		SQAG-TEC	***	0.30	***	***	1.9	9.8	20	1.0	43	85*	36	0.18	***	1.0	***
Comp-1 012313	1/23/2013	0-0.5	58 U	99 I	**41 I**	3.6 U	1.7 U	6.8	110	0.11 U	19	110	7.8	0.1	1.7 I	0.33 U	**320,000**
Comp-2 012513	1/25/2013	0-0.5	65 U	29 U	20 U	4.1 U	1.9 U	5.2	93	0.11 U	15	59	6.7	0.098	2.0 I	0.33 U	**383,000**
Comp-3 012313	1/23/2013	0-0.5	65 U	29 U	20 U	4.1 U	1.9 U	4.3	91	0.11 U	16	82	5.4	0.11	2.5	0.33 U	**440,000**
Comp-4 012413	1/24/2013	0-0.5	65 U	29 U	20 U	**9.6 I**	1.9 U	4.7	95	0.12 U	5.6	91	5.9	0.14	2.3 I	0.36 U	**354,000**
Comp-4 DUP 012413	1/24/2013	0-0.5	74 U	33 U	23 U	4.7 U	1.1 U	4.1	93	0.14 U	6.8	80	5.7	0.13	1.8 I	0.42 U	**259,000**
Comp-5 012513	1/25/2013	0-0.5	63 U	27 U	20 U	3.9 U	1.8 U	4.6	94	0.11 U	15	53	5.5	0.12	2.1 I	0.33 U	**423,000**
Comp-6 012513	1/25/2013	0-0.5	70 U	30 U	22 U	4.3 U	0.99 U	4.5	110	0.12 U	18	75	6.1	0.12	0.66 U	0.36 U	**440,000**
Comp-7 012313	1/23/2013	0-0.5	57 U	25 U	18 U	3.6 U	1.6 U	6.4	97	0.10 U	20	75	6.3	0.11	0.55 U	0.30 U	**389,000**
Comp-7 DUP 012313	1/23/2013	0-0.5	58 U	25 U	18 U	3.6 U	1.7 U	5.7	97	0.11 U	19	74	7.1	0.11	2.8	0.33 U	**329,000**
Comp-8 012313	1/23/2013	0-0.5	62 U	1,100	**240**	3.8 U	1.8 U	3.8	96	0.12 U	14	87	6.3	0.13	0.62 U	0.34 U	**358,000**
Comp-9 012213	1/22/2013	0-0.5	**200 I**	380	**280**	3.9 U	1.8 U	3.9	92	0.12 U	13	67	5.3	0.12	2.4 I	0.35 U	**430,000**
Comp-9 DUP 012213	1/22/2013	0-0.5	**170 I**	440	**280**	4.4 U	1.0 U	3.5	110	0.14 U	17	65	5.8	0.12	3	0.40 U	**419,000**
Comp-10 012313	1/23/2013	0-0.5	57 U	25 U	18 U	3.6 U	4.5 I	4.9	95	0.11 U	12	68	5.9	0.13	1.6 I	0.31 U	**384,000**
Comp-11 012413	1/24/2013	0-0.5	63 U	27 U	20 U	3.9 U	1.8 U	3.6	98	0.11 U	15	79	5.6	0.14	0.58 U	0.31 U	**450,000**
Comp-11 SPLIT	1/24/2013	0-0.5	70 U	30 U	NA	4.3 U	10.5 U	6.4	118	0.10 I	14.2	83.5	6.2	0.087	2.4	0.61 I	**461,000**
Comp-12 012513	1/25/2013	0-0.5	63 U	27 U	20 U	3.9 U	1.8 U	3.8	100	0.11 U	13	87	6.8	0.14	3.7	0.32 U	**470,000**
Comp-13 012213	1/22/2013	0-0.5	59 U	110 I	19 U	3.7 U	1.7 U	6.2	100	**0.15 I**	29	90	6.7	0.13	2.3	0.32 U	**400,000**
Comp-14 012213	1/22/2013	0-0.5	60 U	26 U	19 U	3.8 U	1.7 U	5.5	80	**0.18 I**	16	68	6.6	0.11	2.2 I	0.34 U	**374,000**
Comp-15 012213	1/22/2013	0-0.5	**290**	3,500	**730**	4.3 U	4.9 I	3.4	87	**0.12 I**	7.8	75	7	0.11	2.6	0.35 U	**477,000**
Comp-15 SPLIT	1/22/2013	0-0.5	860	1,600	NA	4.1 U	9.91 U	5.46	103	0.02 U	7.36	86.0	7.36	0.077	1.99	0.61 I	**461,000**
Comp-16 012313	1/23/2013	0-0.5	52 U	330	**58 I**	120 I	5.1 I	4	91	0.096 U	23	96	6.1	0.13	2.3	0.29 U	**388,000**
Comp-17 012313	1/23/2013	0-0.5	60 U	160 I	**600**	3.8 U	1.7 U	3.8	99	0.12 U	17	85	6.4	0.13	2.6	0.33 U	**409,000**
Comp-18 012513	1/25/2013	0-0.5	940	3,300	1,100	3.9 U	1.8 U	3.4	97	0.11 U	11	88	4.7	0.15	1.5 I	0.32 U	**450,000**
Comp-19 012413	1/24/2013	0-0.5	55 U	24 U	17 U	3.4 U	1.6 U	5.5	88	0.11 U	17	59	6.5	0.12	0.57 U	0.31 U	**198,000**
Comp-20 012413	1/24/2013	0-0.5	57 U	25 U	**140**	3.6 U	1.6 U	5	90	0.10 U	14	70	6.3	0.11	0.55 U	0.30 U	**361,000**
Comp-21 012213	1/22/2013	0-0.5	52 U	55 I	**200**	93 I	1.5 U	3.5	69	**0.17 I**	9.4	79	8.4	0.099	0.47 U	0.26 U	**308,000**
Comp-22 012313	1/23/2013	0-0.5	63 U	27 U	20 U	3.9 U	1.8 U	4.3	100	**0.16 I**	12	83	6.2	0.14	2.5	0.35 U	**448,000**
Comp-23 012413	1/24/2013	0-0.5	59 U	26 U	19 U	3.7 U	2.7 I	4.2	82	0.11 U	13	59	5.4	0.12	2.6	0.32 U	**384,000**
Comp-24 012413	1/24/2013	0-0.5	64 U	28 U	20 U	4.0 U	1.8 U	4.1	99	**0.14 I**	28	82	6.6	0.14	2.5	0.35 U	**464,000**
Comp-25 012513	1/25/2013	0-0.5	58 U	31 I	**120**	3.6 U	1.7 U	6.4	100	0.11 U	19	67	5.6	0.11	2.5	0.32 U	**392,000**
Comp-26 012413	1/24/2013	0-0.5	57 U	25 U	18 U	3.6 U	1.6 U	5.5	98	0.11 U	17	78	6.4	0.13	0.58 U	0.32 U	**355,000**
Comp-27 012213	1/22/2013	0-0.5	70 U	35 I	22 U	4.3 U	0.99 U	3.5	89	0.12 U	9.1	74	5.9	0.14	2.9	0.36 U	**503,000**
Comp-28 012313	1/23/2013	0-0.5	58 U	190	1,700	3.6 U	1.7 U	3.1	83	**0.14 I**	26	69	5.8	0.13	1.8 I	0.30 U	**415,000**
Comp-28 SPLIT	1/23/2013	0-0.5	60 U	130 I	NA	3.8 U	9.47 U	4.79	98.2	0.02 U	22.6	78.9	6.23	0.085	2.08	0.64 I	**433,000**
Comp-29 012413	1/24/2013	0-0.5	74 U	33 U	23 U	4.7 U	1.1 U	4.3	86	0.14 U	7.2	60	5.2	0.13	2.3 I	0.42 U	**485,000**
Comp-30 012513	1/25/2013	0-0.5	63 U	27 I	20 U	3.9 U	1.8 U	3.2	96	0.12 U	21	100.0	6.9	0.15	0.65 U	0.35 U	**424,000**

Notes:

U = Less than the method detection limit

I = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit

J= Estimated value

Bold type indicates that the compound was detected above the laboratory method detection limits. The font color indicates the highest of the listed regulatory limits that was exceeded. Black **Bold** indicates a detection above the laboratory Method Detection Limit (MDL) but below all regulatory criteria.

* = interim cleanup target level for protection of Everglades Snail Kite

*** = No Standard

TABLE 2: Summary of SPLP Results
PROJECT NAME: A-2 Flow Equalization Basin
PSI PROJECT NO.: 05521114

			OPPs (ug/L)	OCPs (ug/L)
Sample ID	**Date Collected**	**Sample Interval (ft bls)**	**Atrazine**	**Dieldrin**
		GCTL	**3**	**0.002**
		SwCTL	**1.9**	**0.00014**
Comp-8 012313	1/23/2013	0-0.5	**7.2**	NA
Comp-10 012313	1/23/2013	0-0.5	NA	0.0011 U
Comp-15 012213	1/22/2013	0-0.5	**14**	0.0011 U

Notes:

NA = Not Analyzed

*** = No Standard

Bold indicates value exceeds the applicable GCTL or SwCTL. The font color indicates the highest regulatory limit that is exceeded.

FIGURES

REFERENCE: THE "SOUTH OF OKEELANTA, FLA." AND "NORTH OF DEEM CITY, FLA." USGS QUADRANGLES WERE OBTAINED FROM THE LAND BOUNDARY INFORMATION SYSTEM (LABINS)

0 1,500 3,000 6,000 9,000 12,000 Feet

PROJECT NO.	05521114
DRAWN BY	SMD
DATE CREATED	2-15-2013
SCALE:	1 inch = 3,000 feet

psi Information To Build On
Engineering • Consulting • Testing
5801 Benjamin Center Drive Suite 112
Tampa, Florida 33634
(813)886-1075
(813)249-0301 fax

USGS TOPO MAP

A-2 FLOW EQUALIZATION BASIN PROJECT

EVERGLADES AGRICULTURAL AREA (EAA) BASIN

PALM BEACH COUNTY, FLORIDA

FIGURE 1

P:\552-Env\SFWMD\WO#2 (05521112) - A-1, A-2 Reservoir\GIS\Version 9.3

REFERENCE: THE AERIAL WAS OBTAINED FROM THE LAND BOUNDARY INFORMATION SYSTEM (LABINS)

0 2,000 4,000 8,000 12,000 16,000 Feet

PROJECT NO.	05521114
DRAWN BY	SMD
DATE CREATED	2-15-2013
SCALE:	1 inch = 4,000 feet

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5801 Benjamin Center Drive Suite 112
Tampa, Florida 33634
(813)886-1075
(813)249-0301 fax

SITE VICINITY MAP

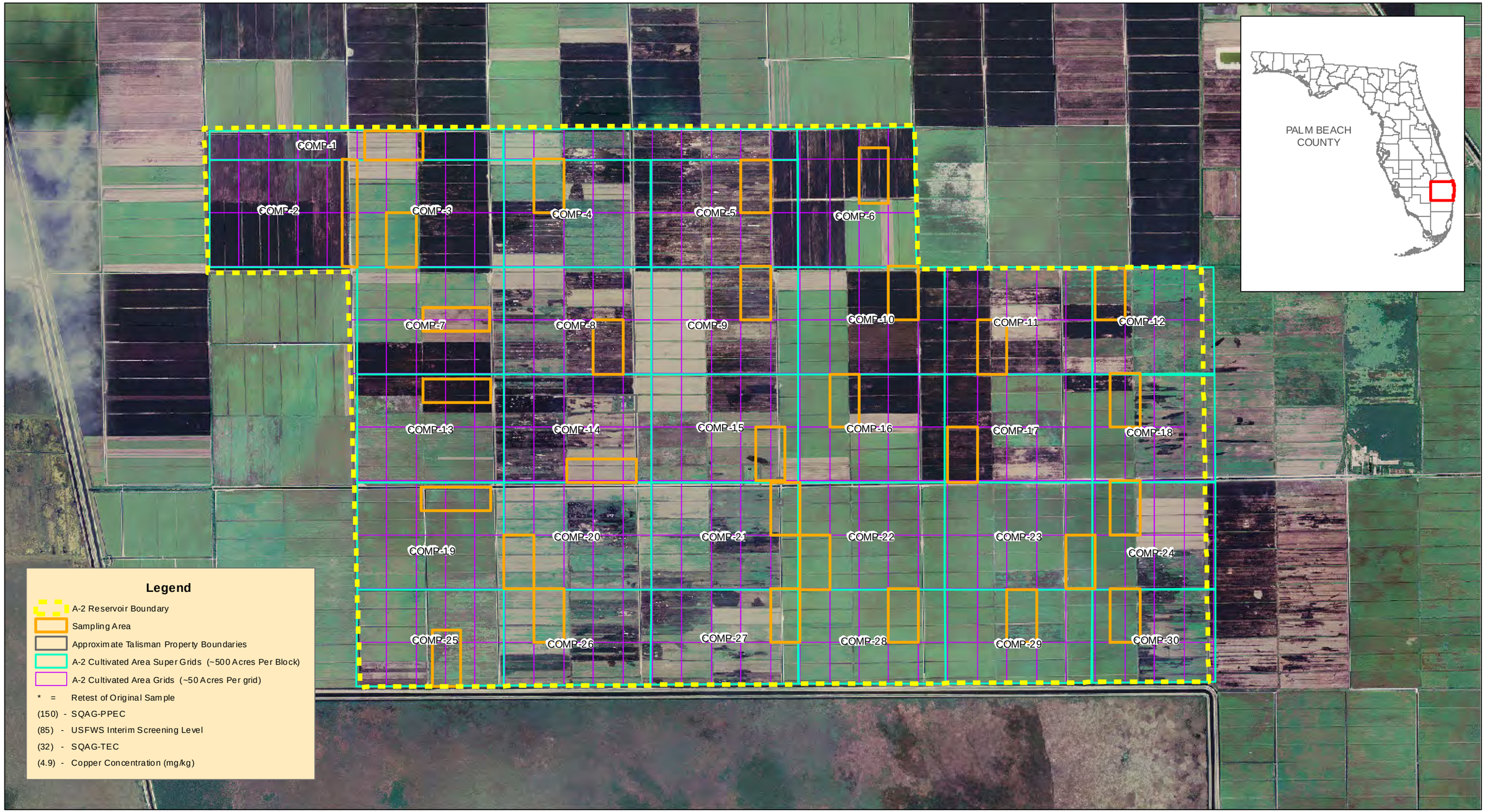
A-2 FLOW EQUALIZATION BASIN PROJECT

EVERGLADES AGRICULTURAL AREA (EAA) BASIN

PALM BEACH COUNTY, FLORIDA

FIGURE 2

P:\552-Env\SFWMD\WO#2 (05521B.2) - A-1,A-2 Reservoir\GIS\Version 9.3



REFERENCE: THE AERIAL WAS OBTAINED FROM THE LAND BOUNDARY INFORMATION SYSTEM (LABINS)

0 2,750 5,500 11,000 Feet

PROJECT NO.	05521114
DRAWN BY	SMD
DATE CREATED	2-22-2013
SCALE:	1 inch = 3,500 feet

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Tampa, Florida 33634
(813)886-1075
(813)249-0301 fax

N

COMPOSITE SOIL SAMPLING LOCATION MAP

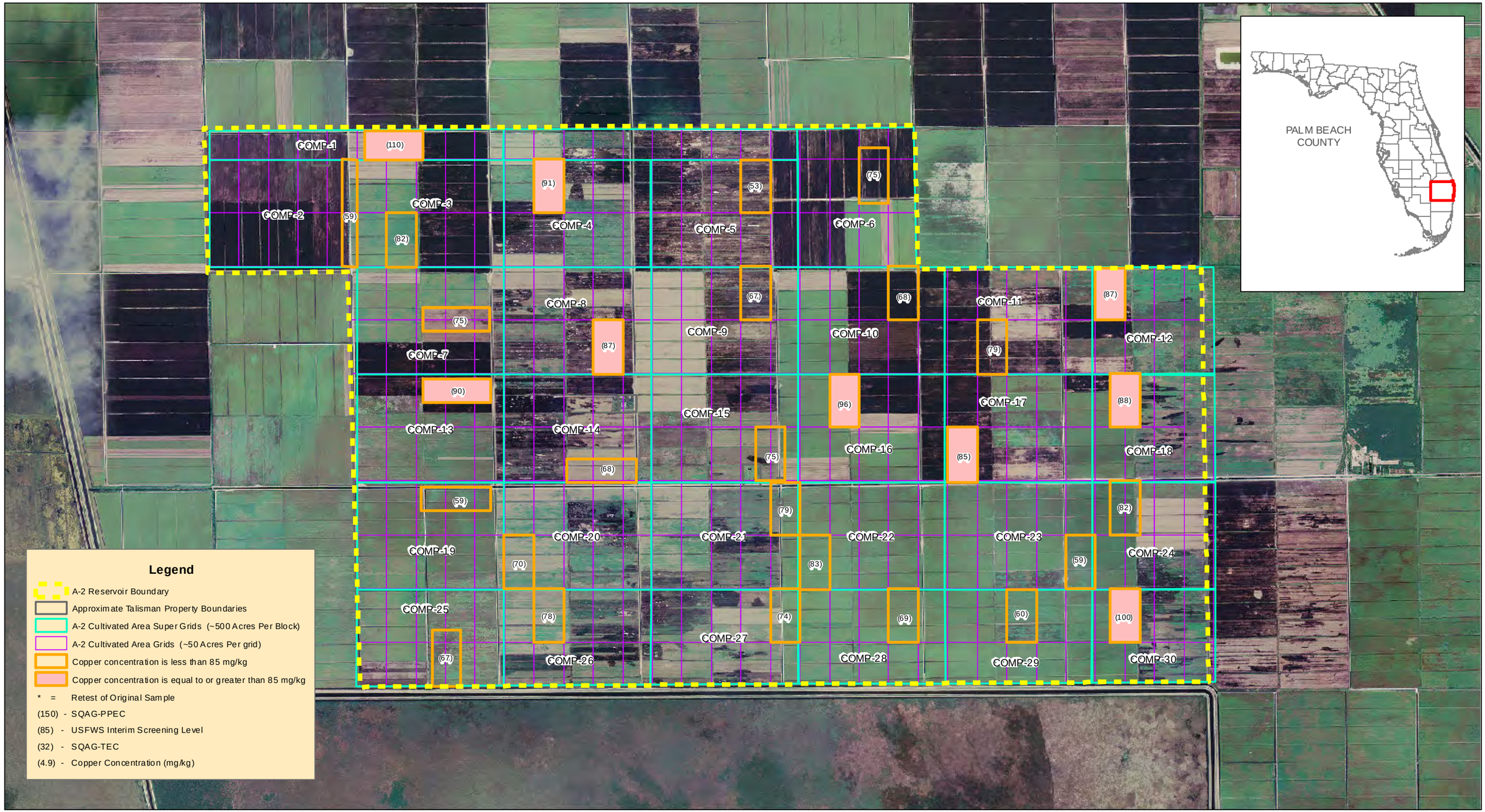
A-2 FLOW EQUALIZATION BASIN PROJECT

EVERGLADES AGRICULTURAL AREA (EAA) BASIN

PALM BEACH COUNTY, FLORIDA

FIGURE 3

P:\5521 Env\SFWMD\WO\F2 (05521 B.2) - A-1, A-2 Reservoir\GIS\Version 9.3



REFERENCE: THE AERIAL WAS OBTAINED FROM THE LAND BOUNDARY INFORMATION SYSTEM (LABINS)

0 2,750 5,500 11,000 Feet

PROJECT NO.	05521114
DRAWN BY	SMD
DATE CREATED	2-22-2013
SCALE:	1 inch = 3,500 feet

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Tampa, Florida 33634
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A-2 COPPER CONCENTRATION MAP

A-2 FLOW EQUALIZATION BASIN PROJECT

EVERGLADES AGRICULTURAL AREA (EAA) BASIN

PALM BEACH COUNTY, FLORIDA

FIGURE 4

P:\552-Env\SFWMD\WO\F2 (05521812) - A-1, A-2 Reserve\GIS\Version 9.3

SUMMARY ENVIRONMENTAL REPORT

For the

CENTRAL EVERGLADES STUDY
A-2 RESERVOIR
PALM BEACH COUNTY, FLORIDA

Prepared for

SOUTH FLORIDA
WATER MANAGEMENT DISTRICT
ENVIRONMENTAL SCIENCE UNIT
MAINTENANCE MANAGEMENT SECTION
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33406

Prepared by

Professional Service Industries, Inc.
5801 Benjamin Center Drive
Tampa, FL 33634
Telephone (813) 886-1075

PSI PROJECT NO. 0552812

August 21, 2012

August 21, 2012

South Florida Water Management District
Environmental Science Unit
Maintenance Management Section
3301 Gun Club Road
West Palm Beach, Florida 33406

Attn: Mr. Robert Kukleski

Re: A-2 Reservoir Summary Environmental Report
Central Everglades Study
Palm Beach County, Florida
PSI Project No.: 0552812

Dear Mr. Kukleski:

In accordance with our agreement, Professional Service Industries, Inc. (PSI) has completed the summary of previous environmental investigations for the above referenced project.

Thank you for choosing PSI as your consultant for this important project. If you have any questions, or if we can be of additional service, please call us at (813) 886-1075.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Steve Long, P.E., P.G.
Chief Engineer

SUMMARY ENVIRONMENTAL REPORT

For the

CENTRAL EVERGLADES STUDY
A-2 RESERVOIR
PALM BEACH COUNTY, FLORIDA

Prepared for

SOUTH FLORIDA
WATER MANAGEMENT DISTRICT
ENVIRONMENTAL SCIENCE UNIT
MAINTENANCE MANAGEMENT SECTION

Prepared by

Professional Service Industries, Inc.
5801 Benjamin Center Drive
Tampa, FL 33634
Telephone (813) 886-1075

PSI PROJECT NO. 0552812

Stephen P. Long, PE, PG
Chief Engineer

August 21, 2012

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1 INTRODUCTION

1.1 Property Description

The proposed A-2 Reservoir project is located along the west side of US 27 South in unincorporated Palm Beach County and encompasses on the order of 14,408 acres. The project location is shown on **Figure 1-1**. The project lands consist of 8 separate parcels. The tract numbers, prior ownership, and acreage are shown in the table below.

A-2 Reservoir		
D7100-044	TALISMAN SUGAR CORPORATION	2
D7100-047	TALISMAN SUGAR CORPORATION	10
D7100-066	TALISMAN SUGAR CORPORATION	12
D7100-067	TALISMAN SUGAR CORPORATION	1
D7100-104	TALISMAN SUGAR CORPORATION	14,371.53
D7100-139	TALISMAN SUGAR CORPORATION	1
D7100-141	WEINLEIN, JOAN	10
D7200-005	TALISMAN SUGAR CORPORATION	1
A-2 Total		14,408.53

Most of the project area has been historically cultivated in sugar cane, with occasional rotational crops of rice or corn. The property is being leased to New Hope Sugar Corporation for sugar cane cultivation. A Site Plan is provided as **Figure 1-2**.

The primary parcel (Tract D7100-104) was acquired from Talisman Sugar Company in 1999 by the District. Several of the smaller parcels listed above were also owned and operated by Talisman Sugar Corporation, but these parcels were deferred from transfer during the original transaction until environmental concerns on these small areas could be addressed. The Weinlan parcel (Tract D7100-141) was leased to Talisman Sugar at the time of the 1999 acquisition and was evaluated with the remainder of Tract D7100-104. It is acknowledged that the assessment methods and protocols that were utilized at the time of the original acquisition are not entirely consistent with the current protocols for environmental risk assessment that were jointly developed by United States Fish and Wildlife (USFWS), the Florida Department of Environmental Protection (FDEP) and the South Florida Water Management District (SFWMD).

1.2 Authorization

This Summary Report was prepared in substantive compliance with PSI Proposal No. 552-58094 dated November 28, 2011, which was authorized by SFWMD Contract and Work Order No. 4600002399-WO#02.

1.3 Purpose/Objectives

The District requires a summary report for the A-2 Reservoir project, which compiles the results of the previous investigations performed on the properties within the project footprint. The primary purposes of the report are:

- Compile and summarize the results of previous environmental studies within the project area;
- Document and map known point source and non-point source areas of impact which might present increased ecological or human health risk upon construction of the project.

1.4 Proposed Construction

The proposed project will consist of the construction of a large reservoir for water storage. The design has not yet been initiated so details on the use of each parcel are not yet available. However, for the purposes of this document, PSI has assumed worst-case conditions that the entirety of the property will be inundated. If portions of the property are ultimately not flooded, the ecological risks discussed herein for those areas would be overstated.

2. REGULATORY FRAMEWORK

2.1 Regulatory Oversight

The FDEP, FWS, and SFWMD jointly developed a protocol, entitled "*Protocol for Assessment, Remediation, and Post-Remediation Monitoring for Environmental Contaminants on Everglades Restoration Projects* for conducting environmental assessments on agricultural lands proposed for use in water resources projects. This protocol has commonly been referred to as the Ecological Risk Assessment (ERA) Protocol. The ERA Protocol includes separate evaluation of potential point source areas (e.g., underground storage tanks, pesticide mix/load areas, etc.) and residual chemical impacts across agricultural areas associated with routine application of agrochemicals as a normal farming practice. The ERA Protocol is intended to be a dynamic document which is revised as improvements in science or regulatory framework change. The ERA Protocol was initially drafted in 2000 and the most recent revisions are reflected in the August 2008 version of the document.

As previously noted, some of the assessment work conducted on parcels within the project footprint was conducted prior to the initial version of the ERA Protocol or using earlier drafts of the document. Prior to the 2000 ERA Protocol most of the assessments focused solely on evaluation of risks associated with point source areas, and little investigation work was performed to evaluate potential non-point source risks associated with residual chemical concentrations in soil associated with routine application of agrochemicals across widespread cultivated areas.

All of the work conducted by the SFWMD for the Project was performed under the direct supervision of both FDEP (Bureau of Waste Cleanup) and the USFWS and completed in accordance with the ERA Protocol in place at the time of the assessment. Additionally, FDEP applied the following point source contamination specific rules, including:

- Chapter 62-770, FAC (Petroleum Contamination Site Cleanup Criteria)
- Chapter 62-780, F.A.C. (Contaminated Sites Rule)
- Chapter 62-777, FAC (Contaminant Cleanup Levels), F.A.C.

The ERA Protocol acknowledges that the lands are being acquired for conversion to storm water treatment areas, engineered wetlands, reservoirs, and other aquatic features. Both human health concerns and ecological risks are evaluated concurrently as part of the protocol. Human health risks evaluation was performed by comparing contaminant concentrations in all media (e.g., soil, groundwater, surface water, sediment) to human health-based cleanup target levels (CTLs) promulgated by FDEP in Chapter 62-777, F.A.C. Ecological risks were concurrently evaluated by comparing chemical concentrations to the Sediment Quality Assessment Guidelines (SQAGs) developed by FDEP for inland waters and the copper and selenium ecological restoration target established by the USFWS.

While the ERA Protocol evaluates both human health and ecological risks, in most cases the contaminant concentration thresholds for ecological risks are significantly lower than human health risk thresholds for the current and proposed future land use. For example, the USFWS ecological restoration target for copper is 85 mg/kg compared with the CTL for commercial /industrial land use which is 89,000 mg/kg. In many cases, the need for corrective action was solely driven by the need to minimize ecological risks for the aquatic environment being created

by the project. This fact is critical because USACE Regulation ER 1165-2-132 prohibits recommending projects or features implementation that would "… result in treating or otherwise abating pollution problems caused by other parties where those parties have, or are likely to have, a legal responsibility for remediation or other compliance responsibility". Contaminant concentrations in the soils within the project boundary are low enough that the landowner would not be subject to any enforcement by FDEP or Environmental Protection Agency (EPA) as long as the property continues in agricultural use.

It should be noted that site characterization and corrective actions on the Talisman parcels were performed by the property owner, rather than directly by SFWMD. Talisman performed the detailed site assessment and corrective action tasks on all "exclusion areas" which were identified based on the SFWMD Phase II ESA (Dames and Moore, 1998). Talisman's work was conducted under the oversight of both SFWMD and FDEP. However, since the assessment/corrective action work was conducted solely on point source areas, USFWS was not involved in the oversight of this work. EPA Region IV did provide concurrence on the Dames and Moore 1998 Phase II ESA. The end point for all of these exclusion areas was issuance of a No Further Action letter or Site Rehabilitation Completion Order (SRCO) from FDEP. It was previously noted that some of the SRCOs on specific point sources on the Talisman parcels are based upon recording of a deed restriction to prevent residential and other sensitive uses on these parcels.

The format and process for regulatory agency approval and concurrence of the assessment and corrective actions conducted on the site varies between point sources and non-point source issues. FDEP is the lead agency for assessment and corrective action for point sources where contaminant concentrations are high enough to exceed the CTLs for the current and future land use as outlined in Chapter 62-777, F.A.C. In these cases, FDEP issues a No Further Action Letter or Site Rehabilitation Completion Order (SRCO) upon completion of the assessment and/or corrective action process.

For non-point source areas and point source areas where contaminant concentrations exceed ecological thresholds but are below the FDEP CTLs, FDEP rules do not apply. In these situations, FDEP provides review and approval through memoranda or letter responses provided by their Bureau of Waste Cleanup. Although USFWS does not have jurisdiction over point sources with contaminant concentrations exceeding the FDEP CTLs (except to the extent Trust Species are affected), they have generally provided comment on an informal basis with regard to these issues. USFWS has generally concentrated on non-point source issues with the potential to affect Trust Species.

As a final point, neither the FDEP nor FWS review process for the assessment and corrective action work requires public comment. However, both of these agencies were involved in the permitting process for the abandoned EAA Reservoir Project, reviewing the project documents and providing the necessary permit approvals. The permit approvals were subject to public notice and all related environmental cleanup documents and approvals were included in the administrative record.

2.2 ARARs

As part of the assessment process on each parcel, chemical concentrations in all media were compared to applicable or relevant and appropriate requirements (ARARs), depending upon future proposed usage of each tract. It is acknowledged that numeric cleanup criteria have changed over time, and may not have been identical for each parcel that was assessed.

Additionally, in 1999, the FDEP shifted the cleanup target levels for soil and groundwater from individual cleanup rules (e.g., Chapter 62-770, FAC – Petroleum Cleanup Rule, Chapter 62-785, FAC – Brownfields Rule, etc.) into a separate rule, Chapter 62-777, FAC - Contaminant Cleanup Target Levels, which included the numeric cleanup criteria that applied universally to all of the cleanup rules.

For this report, chemical concentrations have been compared to current ARARs. It is acknowledged that some of the Site Rehabilitation Completion Orders (SRCOs) issued by FDEP on parcels or individual point source locations within the project footprint were based on the cleanup target levels in place at the time the SRCOs were issued, and these cleanup target levels may have been higher or lower than the current criteria. For example, all of the point sources on the Talisman property were remediated based on a commercial soil cleanup target level (SCTL) for arsenic of 3.7 mg/kg; however, the current SCTL for arsenic is 12 mg/kg.

The current ARARs for each media are summarized below.

2.2.1 Soil

The following human-health based criteria are established by the FDEP in Chapter 62-777 of the Florida Administrative Code (FAC). Chapter 62-777, FAC includes soil cleanup target levels (SCTLs) for both direct exposure and leaching to groundwater/surface water. Both the direct contact and leaching criteria must be considered to determine the need for corrective action.

- ***Residential*** – The Soil Cleanup Target Level for direct exposure in a residential setting (SCTL-RDE) is the default standard for site screening purposes in Florida, and assumes potential contact with soils on a regular basis by adults and children.

- ***Industrial/Commercial*** – The Soil Cleanup Target Level for direct exposure in a non-residential setting (SCTL-IDE) assumes extended contact with soils on a daily basis by adult workers at commercial/industrial sites, or on agricultural properties where farming practices result in frequent site contact. Use of this standard requires that a deed restriction be recorded against the property. It should be noted that a number of point source locations on the Talisman properties were closed with deed restrictions and these parcels are specifically identified throughout the report. Copies of the deed restrictions for any restricted closure areas are also included in the report appendix.

- ***Leaching to Groundwater*** – The Soil Cleanup Target Levels for leaching to groundwater (SCTL-LGW) represent default criteria for site screening purposes in Florida, and are based on soil concentrations which are considered likely to result in an exceedance of the groundwater quality standard for a particular chemical. In cases where the default SCTL-LGW criterion is exceeded, FDEP cleanup rules allow the responsible party to conduct follow up testing by the Synthetic Precipitation Leaching Procedure (SPLP) to evaluate the leaching potential. The results of the SPLP test are compared to the Chapter 62-777, FAC Groundwater Cleanup Target Levels (GCTL) discussed below. If the SPLP results are below the applicable GCTL, the soils are not considered to present a leaching concern and only the direct contact SCTL needs to be considered.

  Several heavy metals (e.g., arsenic) do not have numeric SCTL-LGW criteria and instead FDEP requires testing by the SPLP method and comparison to the GCTLs.

- ***Leaching to Surface Water*** – The Soil Cleanup Target Levels for leaching to surface water (SCTL-LSW) are applicable where impacted soils may be in contact with a surface water body. Soils within proposed upland areas or outside the area to be inundated by the project do not need to consider the SCTL-LSW criteria. FDEP also allows the responsible party to test any soil samples exceeding the default SCTL-LSW criteria by the SPLP method and the results are compared to the Surface Water Cleanup Target Levels, discussed below.

2.2.2 Sediment Ecological Risk Criteria

The FDEP has previously indicated that soils within proposed wetland or water storage areas should be regulated as sediments, as these soils will ultimately become inundated. For sediments, the Sediment Quality Assessment Guidelines (SQAGs) as defined in *Development and Evaluation of Sediment Quality Assessment Guidelines, Volumes 1-4*, (MacDonald, 2000) have generally been applied for screening purposes. The SQAGs are not a human health-based criteria, but are instead relevant only to the evaluation of ecological risk. The referenced guideline outlines two potential standards which were developed specifically with respect to benthic macro invertebrate species, which represent the bottom of the food chain, as follows:

- ***No Observed Adverse Effects Level*** – The threshold effects concentration (SQAG-TEC) is the more conservative value and is utilized as a screening tool in evaluating sediments. Contaminant concentrations below the SQAG-TEC generally do not warrant further investigation.
- ***Lowest Observed Adverse Effects Level*** – The probable effects concentration (SQAG-PEC) represents the level above which adverse effects are likely to occur. Contaminant concentrations exceeding the SQAG-PEC generally require corrective action, except when exceedences are very limited in areal extent (e.g., point sources).

It should be noted that the SQAGs are predictive of potential adverse effects to benthic invertebrates and may not adequately predict ecological risks to higher trophic level species. USFWS has generally tolerated some predicted risks to benthic invertebrates as long as the perceived risks are not predicted to affect the health of the overall ecosystem that will develop upon project construction. On previous projects, USFWS has agreed that some exceedences of the SQAG-TEC criteria are acceptable, as long as the 95% upper confidence level (UCL) estimate of the mean analyte concentrations across the site do not exceed the SQAG-TEC. USFWS has generally required corrective actions where the chemical concentrations exceed the SQAG-PEC criteria over more than an extremely limited area.

It should also be noted that SQAGs may not be established for all analytes of interest. USFWS protocols for ecological risk assessment (USFWS, March 2008) recommend consideration of Ecological Screening Values (ESV) established by EPA Region IV in *Ecological Screening Values or Surface Water, Sediment, and Soil* (WSRC, November 1998) when Florida SQAGs are not available.

Finally, it should also be noted that SQAGs are not regulatory benchmarks and do not carry the force of law like SCTLs. They are screening benchmarks that may be used in making risk management decisions.

2.2.3 Sediment – Interim Screening Levels for Ecological Risk

USFWS has established specific screening levels for certain chemicals based on specific risks. Screening levels for copper and selenium are discussed below.

For copper, the USFWS utilizes an interim screening value of 85 mg/kg for protection of the endangered Snail Kite, in addition to comparison with the SQAG-TEC.

No SQAG values have been established for selenium. However, selenium has historically been screened for potential ecological effects under the protocol using 2 mg/kg as a benchmark. The potential for effects to aquatic-feeding wildlife and/or benthic invertebrates and fish at this benchmark is uncertain.

2.2.4 Sediment – Site Specific Ecological Risk Based Concentrations

As previously stated, the SQAGs are intended to be protective of benthic invertebrates, but are not necessarily reflective of risks to higher trophic level species, included migratory bird species and wading birds, which are protected as Federal Trust Species. Where contaminant concentrations exceed the SQAGs or where potentially bioaccumulative chemicals are detected, the ERA Protocol typically requires preparation of a Screening Level Ecological Risk Assessment (SLERA) in order to develop site specific ecological Risk-Based Screening Concentrations (RBCs).

To evaluate potential effects to benthic invertebrates, soil data were compared to the SQAG-TEC and SQAG-PEC values. Risk to aquatic-feeding wildlife are typically evaluated by estimating the potential exposure of avian receptors to chemicals through the ingestion of aquatic prey species that might accumulate chemicals from soils after they have been flooded. Exposure and risks are calculated for aquatic-feeding wildlife using a model developed for the District specifically for the purposes of this program (Goodrich 2002 and NewFields 2006).

2.2.5 Groundwater

Groundwater analyte concentrations were compared to the Groundwater Cleanup Target Levels (GCTLs) found in Chapter 62-777, FAC.

2.2.6 Surface water

Surface water analyte concentrations were compared to the Surface Water Cleanup Target Levels (SwCTLs) found in Chapters 62-302 and 62-777, FAC.

2.2.7 Applicable Criteria

All of the above criteria have been considered in evaluating the analytical results obtained during the assessment activities described herein. Since some portions of the site may not become inundated, it is appropriate to compare analyte concentrations in the soil to the human health-based SCTLs established in Chapter 62-777, FAC. Therefore, soil data was compared to both the SCTLs for residential direct exposure (SCTL-RDE) and to the SCTLs for leaching to groundwater (SCTL-LGW) and leaching to surface water (SCTL–LSW).

It is likely that most of the site will be inundated; at least for a portion of each year, and that important ecological receptors will utilize the property. Therefore, it is also necessary to

compare the site data to the SQAGs and the Site-Specific Ecological RBCs generated from the SLERAs. For most analytes of interest (arsenic being the notable exception), the SQAG-TEC criteria are more stringent than the SCTL-RDE criteria. Therefore, in most cases, a cleanup to SQAG-TEC criteria is also protective of human health. It should also be noted that the SQAGs are not standards or deterministic values (i.e., an exceedance does not indicate absolutely that adverse affects will occur); the SQAGs are merely screening values. Data exceeding the SQAG values generally indicate the need for further study. Conversely, chemical concentrations which do not exceed the SQAGs are generally screened out from any further consideration with respect to ecological risk.

The SCTLs for leaching to surface water (SCTL-LSW) have also been considered for soils which are, or may become inundated.

2.2.8 USACE HTRW

Because the project may be completely or partially constructed under the direction of USACE, Engineering Regulation (ER) 1165-2-132 – Hazardous Toxic and Radioactive Wastes (HTRW) was considered to be applicable to project construction. ER 1165-2-132.prohibits USACE Districts from executing construction projects with known HTRW and assigns 100% of the cost and responsibility associated with remediation to the local sponsor.

HTRW is defined to include any material listed as a "hazardous substance" under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601 et seq (CERCLA). (See 42 U.S.C. 9601(14)). Hazardous substances regulated under CERCLA include "hazardous wastes" under Sec. 3001 of the Resource Conservation and Recovery Act, 42 U.S.C. 6921 et seq; "hazardous substances" identified under Section 311 of the Clean Air Act, 33 U.S.C. 1321, "toxic pollutants" designated under Section 307 of the Clean Water Act, 33 U.S.C. 1317, "hazardous air pollutants" designated under Section 112 of the Clean Air Act, 42 U.S.C. 7412; and "imminently hazardous chemical substances or mixtures" on which EPA has taken action under Section 7 of the Toxic Substance Control Act, 15 U.S.C. 2606; these do not include petroleum or natural gas unless already included in the above categories. (See 42 U.S.C. 9601(14).)

The concentration at which the presence of a hazardous substance in the soil or groundwater would render that media as HTRW is not specifically defined in ER 1165-2-132. On a previous project (Indian River Lagoon South – C-44 Component), USACE acknowledged that the presence of hazardous substances at concentrations below all regulatory criteria did not constitute HTRW.

Therefore, for the purposes of this document PSI has considered HTRW soils to be any soils at point source locations exhibiting concentrations of target analytes exceeding any of the following criteria:

- FDEP Soil Cleanup Target Levels
- SQAG-PEC criteria
- USFWS Interim Screening Criteria for Copper (85 mg/kg)
- USFWS Interim Screening Criteria for Selenium (2 mg/kg)

PSI has considered HTRW groundwater to include any groundwater associated with a point source release exhibiting concentrations of target analytes exceeding the FDEP Chapter 62-

777, FAC Groundwater Cleanup Target Levels or Federal Maximum Concentration Levels (MCLs) for drinking water.

It should be noted that it is the District's position that the residual agrochemicals that are not associated with a spill, but are associated with purposeful application of these chemicals. These agrochemicals are not CERCLA regulated substances, and therefore are not subject to the USACE HTRW policy because:

1. Historical evidence shows long-term agricultural production on the site,
2. The chemicals found on site are active ingredients found in commercially available products registered under the 1947 Federal Insecticide, Fungicide and Rodenticide Act (FIFRA),
3. The concentrations of these chemicals found on site are within a range reflecting long-term application of chemicals on the cultivated lands in a customary manner, and
4. The site specific research has revealed no evidence of illegal activities causing the presence of these chemicals on site,

Therefore, it is reasonable to surmise that these chemicals were legally applied as part of farming activities for their intended purpose and that they were not the result of a spill or waste management action.

2.2.9 Hazardous Waste Criteria

While none of the media within the project footprint are considered to be hazardous wastes under the Resource Conservation and Recovery Act (RCRA), the hazardous waste rules under 40 CFR 260-265, and Chapter 62-730, FAC were considered applicable and were considered in our evaluation of the data.

As discussed below, none of the residual agricultural chemicals on the project site exhibit any of the hazardous waste characteristics even though none of the residual agricultural chemicals on site are considered a solid waste (chemicals were lawfully applied for their intended purpose and not discarded). For soil or groundwater to be considered a RCRA hazardous waste, it would first need to be classified as a solid waste.

Per Subpart C (40 CFR 261.20 et seq.) the four (4) RCRA characteristics of hazardous waste are: ignitability, corrosivity, reactivity, and toxicity. Ignitable wastes readily catch fire, sustain combustion, and when ignited, burn so vigorously and persistently that it creates a hazard. Corrosive wastes are a liquid and are acidic or alkaline wastes that readily corrode or dissolve flesh, metal, or other materials. Reactive wastes are unstable, readily explode or undergo violent reactions.

The fourth characteristic is toxicity. Toxic wastes leach toxic compounds or elements into underlying soils or groundwater supplies. For a toxic constituent in 40 CFR 261, Subpart C, demonstration of the RCRA toxicity characteristics can be determined by utilizing the Toxicity Characteristics Leachate Procedure (TCLP) test or by analyzing for total constituent concentration and applying the "Rule of 20" to infer whether the RCRA Toxicity Characteristics regulatory limits would be exceeded. The "Rule of 20" allows a toxicity determination to be made by comparing the total concentration analysis (dry weight) to the TCLP regulatory concentration (wet weight). The rule is used by multiplying the RCRA TCLP limit (mg/l) by 20 and then comparing this value to the measured total constituent concentration (mg/kg). If the measured total constituent concentration value is less than the TCLP concentration multiplied by 20, the

material cannot be a RCRA characteristic waste based on toxicity as determined by analytical procedures. Additionally, if the constituent is not listed in Table 1 of Subpart C, the material is not a RCRA characteristic waste based on toxicity.

Based on the “Rule of 20” none of the soil or groundwater containing residual agricultural chemicals on the project site are classified as a RCRA toxic hazardous waste. Therefore, the remaining residual agricultural chemical soils on site are not hazardous waste under RCRA.

None of the soils or groundwater within the project boundary exhibit any of the hazardous waste characteristics. The concentrations of the remaining residual agricultural chemicals are not sufficient to render the soil or groundwater toxic, corrosive, ignitable or reactive. Therefore, testing for these characteristics is not necessary.

3. SUMMARY OF PREVIOUS REPORTS

All of the properties within the A-2 Reservoir project area have been previously investigated through a series of environmental investigations. The primary parcel (Tract D7100-104) was initially investigated as a part of the Talisman Ranch, which was acquired by SFWMD in 1999. It should be noted that the Talisman reports include a far greater area than is contained within the current reservoir footprint. Only those portions of the Talisman Ranch within the current A-2 Reservoir project footprint are discussed below.

At the time of the initial investigation, several point source areas of concern were identified, and these areas were deferred from the transfer in 1999. These areas were surveyed and legal descriptions were created. SFWMD has assigned tract numbers D7100-044, D7100-047, D7100-066, D7100-139, and D7200-005 to these deferred parcels. Each of these areas was separately investigated and remediated and closure obtained from FDEP. These parcels were transferred to SFWMD in 2009. It should also be noted that the 10-acre Weinlan property, Tract D7100-141 was also included within the Talisman investigations as this parcel is completely surrounded by the Talisman Ranch, and was being leased by Talisman at the time that the initial investigations were completed. The deferred parcel locations are shown on **Figure 3-1.**

3.1 Former Talisman South Ranch

The Talisman South Ranch property consists of approximately 20,525 acres that has been used for the cultivation of sugar cane since the mid-1960s. Prior to that it was undeveloped wetlands. The property was continually operated by Talisman from the 1960's until 1999 when the property was acquired by SFWMD. Subsequent to the SFWMD acquisition the section of the property within the A-2 Reservoir footprint has been operated under a lease agreement by New Hope Sugar Corporation from 1999 to present. Tract # D7100-104 lies within portions of Sections 4, 5, and 6, Township 45 South Range 37 East, a portion of Section 13, Township 46 South, Range 35 East, Sections 15 – 36, Township 46 South, Range 36 East, Sections 5 – 9, 16 – 22, 26 – 30, and portions of Sections 4, 10, 14, 23 – 25, 31- 36, Township 46 South, Range 37 East, and a portion of Section 31, Township 46 South, Range 38 East.

A summary of assessment and corrective actions performed on the Former Talisman South Ranch is provided in **Table 1**. A summary of previous environmental reports prepared for the subject property is provided in **Table 2**, and each of these reports is further described in the following sections.

3.1.1 Summary of Phase I/II ESA

<u>Environmental Concerns Summary Report, 1996, (Dames & Moore)</u>

Dames & Moore conducted a preliminary site assessment of the Talisman Sugar Corporation farm (Tract D7100-104) and sugar mill (Tract D7100-029) in 1996. The sugar mill parcel is outside the current project footprint and is not discussed herein. Additionally, only the western portion of Tract D7100-104 is within the project footprint and only this section of the parcel is discussed herein.

PSI was unable to obtain a copy of this report; however, the report was summarized in the Phase II Environmental Site Assessment described below, which was also prepared by Dames

and Moore. The scope of work for the Environmental Concerns Summary Report was similar in nature to a Phase I Environmental Site Assessment (ESA) and included site reconnaissance, interviews with the property owner and government officials, review of governmental databases for regulated facilities and spill sites, and a review of available historical resources. The Phase I ESA identified the following areas of concern on Tract D7100-104, which are within the A-2 Reservoir Footprint:

- A solid waste disposal area within a former borrow pit
- Seven point source areas within a former labor camp
- Three diesel powered pump stations
- An electric pump station
- A pesticide mix/load area

The areas of concern are summarized in **Table 1**. Dames and Moore identified each area of concern with a unique identification number, which included the farm name code, followed by a numeric id number. For example, the Talisman Farm labor camp was designated as T-3, and smaller areas of concern within the labor camp were designated as T-3.1-Pesticide Mix-Load Area, T-3.2-Burn Area, etc.

These areas of concern, shown on were all investigated during the Phase II ESA discussed below.

<u>Volume 1 – Acquisition Properties Phase II Environmental Site Assessment Talisman Sugar Corporation Properties, Palm Beach and Hendry Counties, for South Florida Water Management District, November 9, 1998, (Dames & Moore).</u> **(See Appendix A-1)**

Dames & Moore (D&M) conducted a Phase II Environmental Site Assessment (ESA) in 1998 at the Talisman Farm. This assessment included the entirety of Tracts D7100-104 and D7100-029 (sugar mill), as well as multiple tracts that are outside the project footprint. Only results from investigation conducted within Tract D7100-104 are discussed herein.

D&M conducted an extensive Phase II investigation to evaluate all of the areas of concern listed in **Table 1**. These areas included:

- T-2 Borrow Pit Landfill
- T-3 Labor Camp
    - T-3.1 Pesticide mix/load area
    - T-3.2 Aircraft Refueling Area/Runway
    - T-3.3 Burn Pit
    - T-3.4 Drum Storage Area
    - T-3.5 Aircraft Maintenance Building
    - T-3.6 Water Treatment Plant
    - T-3.7 Miscellaneous Area
- T-6 Electric Pump Station
- T-7 Diesel Pump Station
- T-8 Diesel Pump Station
- T-21 Pesticide mix/load area
- T-24 Diesel Pump Station

The Phase II ESA included the collection of soil and groundwater samples from each of the areas of concern. Test trenching was also completed in a number of areas where suspect buried debris was identified. D&M conducted a comprehensive evaluation of current and historical agrochemical use on the property in order to determine the list of chemicals of potential concern. The analytical testing methods varied between locations, depending upon the specific concern. For example, analysis for total petroleum hydrocarbons (TPH) was conducted for pump stations, but more extensive analysis, including RCRA metals, copper, chlorinated pesticides and herbicides, triazine herbicides, and organophosphorus pesticides were conducted at pesticide mix load areas, equipment staging areas, and burn pits. The analyses did not include selenium, as this metal was not yet identified as a potential concern in 1998.

Based on the Phase II investigation, D&M eliminated T-3.5, T-3.6, T-3.7, and T-24 as concerns. The remaining areas where impacts were detected are discussed below.

D&M conducted an electromagnetic survey and test trenching to determine the extent and type of waste disposal in this area. The extent of the former borrow pit was defined, and D&M determined that the pit had been backfilled with agricultural wastes (e.g., bagasse) and agricultural equipment parts. Some oil containing equipment, hydraulic hoses, etc. were identified in the test trenches. Five soil samples and twelve groundwater samples were collected from the solid waste borrow pit area. The soil analytical results reported detectable concentrations of TRPH while the groundwater analytical results detected m&p cresol and phenol above the Groundwater Cleanup Target Levels (GCTLs). D&M recommended further assessment of the groundwater and removal of the solid waste from the pit.

Eighteen soil samples and sixteen groundwater samples were collected from the Talisman labor camp. The soil analytical results indicated elevated levels of TRPH at the burn pit and drum storage area. Elevated levels of atrazine were detected in groundwater samples collected from the pesticide storage / mix & load area and the airplane refueling area / runway. The groundwater analytical results also indicated concentrations of PAHs above the GCTLs. Further investigations were recommended at the pesticide storage / mix & load area and refueling area / runway, burn pit, and the drum storage area.

D&M obtained one soil sample and installed two groundwater monitoring wells at T-21 Pesticide Mix/Load Area. The soil and groundwater results indicated the presence of arsenic at concentrations above the applicable regulatory standards. The arsenic concentration detected in Soil Sample, T-21SC-1 was reported at 100 mg/kg. Monitoring Well T-21-MW-45 had a reported arsenic concentration of 448 micrograms per liter (μg/L), while T-21-MW-52 had a reported arsenic concentration level of 122 μg/L. Both analytical results are above regulatory guidelines. Further site assessment was recommended to delineate the impacted soil and groundwater.

D&M conducted visual observations at T-7 and excavated one test trench on the southwest side of the pump station. The test trench log indicated the presence of stained soils, but no Organic Vapor Analyzer (OVA) measurements were recorded. No laboratory testing of soil or groundwater was performed at this pump station and it was included as an Exclusion Area based on visual evidence only.

D&M conducted visual observation and exploratory trenching around the pump station at T-8. D&M excavated two test trenches along the east and west sides of the AST; no staining or evidence of environmental concerns were noted in the trench log. D&M did not conduct

laboratory analysis of soil or groundwater at this location; however, T-8 was included as an Exclusion Area.

Soil analytical results revealed elevated concentrations of chlorinated pesticides at concentrations exceeding the SQAG-TEC criteria at electric pump station T-6. No groundwater samples were collected from this location. Further site assessment was recommended to determine the extent of pesticide impacts in soil.

Six areas of concern (T-2, T-3, T-6, T-7, T-8, and T-21) were identified as "Exclusion Areas" with known impacts in the D&M Phase II ESA. These exclusion areas are shown on **Figure 3-1**. D&M defined a buffer area around each area of concern, and legal descriptions were created for these areas. The Exclusion Areas were deferred during the land transfer from Talisman to SFWMD until such time as Talisman obtained SRCOs on these Exclusion Areas from FDEP. Talisman was required to assess and remediate these areas to the lower of the SCTL criteria or the SQAG-TEC criteria, whichever was lower. The assessment and remediation activities performed on these Exclusion Areas is described below in Section 3.1.2. Talisman did obtain SRCO's for all of these Exclusion Areas and they were eventually transferred to SFWMD.

Site Inspections/Environmental Assessment Deferred Parcels – Former Talisman Property, Palm Beach County, Florida, dated July 17, 2007 (URS Corporation). **(See Appendix A-2)**

The deferred parcels were conveyed to the District as part of the purchase and exchange agreement between the District and U.S. Sugar Corporation. URS reviewed regulatory files to confirm that the deferred parcels had received regulatory closures from the State and conducted site inspections of each parcel. URS concluded that each parcel had received either a No Further Action or a Site Rehabilitation Completion Order and that no obvious impacts had occurred at the parcels since 1999.

Final Site Inspections/Environmental Assessment Deferred Parcels – Former Talisman Ranch Report, Palm Beach County, Florida, January 21, 2009 (URS Corporation). **(See Appendix A-3)**

Final inspections were conducted of the deferred parcels that were conveyed to the District as part of the purchase and exchange agreement between the District and U.S. Sugar Corporation. URS conducted site inspections of each parcel and concluded that no obvious impacts had occurred at the deferred parcels since 1999.

Everglades Agricultural Area Basin Reservoir – Phase I Environmental Assessment Summary Document, March 18, 2003 (URS Corporation). **(See Appendix A-4)**

URS summarized all of the historical assessments and corrective actions on the Talisman Sugar Corporation Farm conducted as of 2002. This summary report was developed as part of the EAA Basin Reservoir – Phase I for the Project Delivery Team (PDT). One comment was received from the PDT and subsequently addressed.

3.1.2 Summary of Corrective Actions

A Corrective Actions Location Map is included as **Figure 3-2.** A summary of the corrective actions performed is included in **Table 1**. More detailed information regarding the corrective actions performed on this tract is summarized below:

Site Rehabilitation Completion Report – Talisman Sugar Corporation T-2 (Borrow Pit), February 2002 (PSI) **(See Appendix A-5)**

The Talisman Borrow Pit was a former rock quarry that was filled with vegetative matter, debris, tires, and equipment from farm and sugar mill operations. The former Borrow Pit is located within the former Talisman South Ranch property. More specifically it is located six miles west of US Highway 27 and approximately 16 miles south of the City of South Bay. The pit lies within Section 28, Township 46 South, Range 36 East, as referenced on the USGS "Everglades NW, Florida" Topographic Map. The location of the former Borrow Pit is shown of **Figure 3-2**. A summary table of the range of detected concentrations, after any corrective actions, is provided in **Table 3**.

During PSI's initial assessment of the Borrow Pit, twelve soil samples were collected from the Pit and a test pit was excavated on the southern portion of the Pit. Low levels of TPH and various PAHs were detected in all of the samples. Several metals were also detected in the soil samples, but were below their respective regulatory criteria. Metal debris was encountered in the test pit and was hauled off-site.

PSI conducted a source removal to remove the metal debris and petroleum contaminated soil from the pit. Based on an agreement with FDEP, the bagasse was allowed to remain in the pit. Prior to excavation activities, PSI constructed haul roads, soil and debris staging areas, an infiltration pond, a water treatment system, and excavated a de-watering trench. During the excavation of the Pit, debris was separated from the soil using various forms of heavy equipment. The miscellaneous debris was hauled off-site to a land fill or recycling center. The remaining soil was transported to a soil stockpile staging area. Clean soil, which was defined as all contaminants of potential concern (COPCs) were below the soil cleanup target levels for leaching to groundwater (SCTL-LGW) criteria, was set aside to be used as backfill upon completion of the excavation. The SCTL-LGW criteria was used as the determining factor for clean vs. dirty soil, due to the fact that the excavation area was going to be covered with at least 2 ft. of clean fill.

As a result of the excavation activities, approximately 1,009 tons of steel, 473 tons of tires, 3,895 tons of construction and demolition (C&D) debris, and 3,735 tons of soil which did not meet the clean soil criteria was transported off-site to a disposal facility. In addition to the excavation activities, PSI installed a groundwater treatment system. Due to the inability of the system to filter out lead from the groundwater, the treatment system operation was abandoned after several trials.

Once excavation activities were complete, PSI removed the equipment staging areas, the impoundment berm, decommissioned the soil stockpile staging area and backfilled the Borrow Pit. As previously mentioned, almost all of the soil removed from the borrow pit was transported off-site for disposal. Only a small amount of soil met clean soil standards which allowed for use as backfill. This small amount of soil was returned to the southeast corner of the former borrow bit and covered with at least 2 ft. of clean, overburden soils. After completion of the backfilling and grading, two small ponds remained in the south and northwest portions of the Pit.

Surface water samples were collected from varying depths from the two remaining ponds. The samples were analyzed for TPH and total lead, as those were the only analytes detected in the soil or groundwater. Several sampling events occurred from June 2000 to October 2001, and the final results indicated the water in both ponds was below the groundwater and surface water standard for lead.

Lead was identified as the only COPC in the groundwater and surface water at the site. The removal of significant quantities of metal waste and lead-impacted soil has effectively removed the source of this contamination. The most recent surface water sampling results indicate that lead concentrations in the surface water in both the north and south ponds are below the Chapter 62-777, FAC groundwater and surface water criteria for lead.

PSI recommended that FDEP issue a Site Rehabilitation Completion Order (SRCO) with a non-residential use deed restriction for this exclusion area. As part of the deed restriction, the engineered cover over the site must remain in place. The FDEP issued an SCRO with conditions on July 21, 2006. A copy of the SRCO is included in **Appendix B-1**.

Site Rehabilitation Completion Report – Talisman Sugar Corporation T-3 (Labor Camp), March 2003 (PSI) **(See Appendix A-6)**

The former Labor Camp is located within the former Talisman South Ranch property. More specifically it is located approximately seven (7) miles west of US Highway 27 and approximately 16 miles south of the City of South Bay. The camp lies within Section 20, Township 46 South, Range 36 East, as referenced on the USGS "East of Little Cypress, Florida" Topographic Map. The location of the former Labor Camp is shown of **Figure 3-2**. A summary table of the range of detected concentrations, after any corrective actions, is provided in **Table 4**.

The T-3 exclusion area encompasses 10 acres and formerly operated as residential housing for farm workers (aka a labor camp). The labor camp ceased operation in about 1971 and the property was then utilized by a crop-dusting operation until 1999. The exclusion area includes four former concrete buildings used as residential quarters, an aircraft landing strip, and a pesticide mixing/loading area for loading agrichemicals into aircraft. All of the buildings were demolished down to the slab by PSI. Fueling and minor maintenance of single engine aircraft was also performed at the site. Four ASTs were also located within the exclusion area. Other areas of interest on the site included a wastewater treatment plant for domestic wastes associated with the former labor camp and a concrete burn pit for burning of empty agrichemical containers. All of the site features are shown on Figure 2 of the SRCR for the T-3 Labor Camp found in **Appendix A-6**.

All of the structures on the property were demolished in 2000. The fuel ASTs were removed and PSI submitted a Storage Tank Closure Report, dated April 9, 2001, which is discussed separately below. All of the drums and containers were removed from the buildings and disposed off-site under manifest. The concrete sump and trench drain in the pesticide mix/load area were cleaned and demolished. The trailers used for agrichemical storage were demolished or sold for use elsewhere. The concrete buildings were demolished down to the slab and the concrete rubble was crushed and used off-site for road base. Currently the concrete slabs and foundations are the only structures remaining in place.

The Dames and Moore Phase I/II identified seven (7) areas of potential concern. These areas are shown on Figure 2 of the SRCR and listed below:

- Runway Area
- Re-Fueling Area
- Pesticide Mix/Load Area
- Burn Pit Area

- Drum Storage Area
- Aircraft Maintenance Area
- Wastewater Treatment Plant

Dames and Moore conducted Phase II activities at each of these locations. The scope of work varied between each location, but generally consisted of exploratory test pits, soil sampling, and groundwater sampling. Based on the results of these investigations, PSI established the following list of COPC for the former Labor Camp:

- Organophosphorus pesticides (including atrazine)
- Organochlorine pesticides
- RCRA Metals (including arsenic, cadmium, and lead)
- VOCs (Re-Fueling Area only)
- Dioxins and furans (Burn Pit only)

Based on the results from the Dames and Moore investigation only five (5) areas (mix/load, burn pit, drum storage, aircraft maintenance, and wastewater treatment plant) required additional soil investigation and only two (2) areas (re-fueling, and mix/load) required additional groundwater investigation. The additional investigation generally consisted of additional soil samples to delineate soil impacts and the installation of an additional monitoring well to delineate groundwater impacts.

Based on the site characterization data collected by both PSI and D&M, PSI determined that remediation of five areas would be required. These areas are listed below and shown on Figure 5 of the SRCR for the T-3 Labor Camp found in **Appendix A-6**.

Area #1:	Pesticide and metals impacted soils in the pesticide mix/load area centered around soil sample location SS-18;
Area #2:	Atrazine-impacted soils in the pesticide mix/load area centered around SS-17;
Area #3:	Atrazine-impacted soils in the pesticide mix/load area centered around D&M sample T-3.2SC-7.
Area #4:	Pesticide and metals impacted soils in the drum storage area (Building D) centered around SS-5 and SS-27; and,
Area #5:	Lower concentration pesticide and metals impacted soils around the north and east sides of Building C extending east of SB-4.

The extent of excavation for each of these areas is shown on Figures 5 and 6 of the SRCR for the T-3 Labor Camp found in **Appendix A-6**. Soils were excavated using a trackhoe and temporarily stockpiled on plastic sheeting adjacent to the excavation area pending laboratory analysis and disposal facility acceptance. The excavation and post-excavation confirmation soil sampling strategy for each of these areas varied according to the amount of site characterization data available. A total of 1038.5 tons of pesticide and metal impacted soils were excavated and disposed off-site at WMI-Okeechobee. An additional 1,890 cubic yards of impacted soil was excavated and transported to the Talisman Sugar Mill Ash Pit for disposal. Upon completion of the excavations, PSI collected confirmation soil samples from the sidewalls and base of each excavation. The confirmation soil sampling results indicated that no soils exceeding either the SQAG-TEC or applicable SCTL criteria for any COPC remained on site, except for a single soil sample in Area #1 which contained an atrazine concentration (93 μg/kg), which slightly

exceeded the SCTL-LGW criteria of 60 μg/kg. However, PSI did not believe this single detection warranted further excavation given the high organic content of the soils and the fact that the concentration only slightly exceeded the SCTL-LGW criterion in the upper 1 foot of soil column. Atrazine concentrations were shown in the site characterization phase to attenuate rapidly with depth.

The D&M Phase II ESA identified only three monitoring wells on the site which were impacted by petroleum hydrocarbon constituents and/or atrazine. The impacts were defined by the remaining wells installed by D&M and PSI, in which no COPC were detected. PSI conducted several rounds of monitoring at the affected wells and found that both the atrazine and the petroleum constituent concentrations attenuated rapidly over time. The petroleum constituents attenuated to below the GCTLs without the need for any remediation. The atrazine concentrations were significantly reduced, but a source removal was required to further reduce the concentrations to below the GCTL at MW-51. Upon completion of the excavation around MW-51, PSI installed and sampled a replacement well MW-51R and the results indicated that the source removal was sufficient to remediate the atrazine concentrations in the groundwater to below the GCTL.

Based on this information, PSI recommended that FDEP issue a Site Rehabilitation Completion Order (SRCO) with a non-residential use deed restriction for this exclusion area. The FDEP issued an SCRO with conditions on July 21, 2006. A copy of the SRCO is included in **Appendix B-2**.

<u>Tank Closure Report – Talisman Sugar Corporation – Talisman Labor Camp (Abel's Flying Service), April 2001 (PSI)</u> **(See Appendix A-7)**

This report was prepared to document tank closure activities associated with two 4,000-gallon steel aviation gasoline (AV-Gas) aboveground storage tanks (ASTs) located within the former Labor Camp described above. The ASTs were mounted on concrete saddles within secondary containment and located in the northeast quadrant of the Labor Camp.

The ASTs and containment basin were inspected and were deemed to be in good condition with no holes, cracks or leaks. PSI excavated two test trenches adjacent to each side of the secondary containment basin. Six soil samples were collected from the sides of the test trenches for field screening using an OVA and no readings were above 10 ppm. PSI collected two confirmation soil samples for laboratory analysis for PAHs and VOAs.

A groundwater monitoring well was previously installed as part of the site wide assessment performed by D&M in 1998. The well was installed approximately 18 feet southeast of the ASTs containment basin and was deemed suitable for the tank closure assessment. The well was sampled in 1999 for OPPs, VOAs, and TPH.

PSI concluded that no contaminated soil was detected within the excavation around the secondary containment basin either visually or by the OVA. Confirmation laboratory analyses indicated no concentrations above detection limits. Groundwater samples were collected from the well located 18 feet southeast of the containment basin and indicated no analytes were detected above GCTLs. Based on this data PSI recommended the FDEP grant No Further Action status for the tank. FDEP accepted the closure report in a letter dated May 23, 2001; a copy of the FDEP letter is provided in **Appendix B-3.**

Limited Contamination Assessment Report/No Further Action Request – Talisman Sugar Corporation – Talisman Sugar Farm – T-6 (Electric Pump Station), August 1999 (PSI) **(See Appendix A-8)**

This Electric Pump Station (T-6) was part of the former Talisman Sugar Corporation property. The site lies within Section 25, Township 46 South, Range 36 East, as referenced on the United States Geological Survey (USGS) "South of Okeelanta", Florida" 7.5 minute quadrangle map. A Site Location Map is included as **Figure 3-2**. This site consists of an electric pump station that includes two electric pumps, two breaker boxes on a concrete slab, a valve platform, valve pipes, and various drainage pipes. A Site Map is included as Figure 2 of the LCAR/NFA Request for the T-6 Pump Station found in **Appendix A-8**. The property was utilized by Talisman as an electric pump station to maintain the water level in the adjacent canal. The pump station is located on fill material which bridges the canal and serves as a canal crossing for vehicles and equipment.

While D&M did not note any potential environmental concerns at this pump station, they did collect a soil sample from the T-6 area for the intended purpose of obtaining background levels for the Talisman Sugar Farm. The sample was analyzed for RCRA Metals, OCPs, OPPs, and chlorinated herbicides. DDE, DDT, and dieldrin were detected at concentrations exceeding the SQAG-TEC criteria. Arsenic was also detected at a concentration slightly exceeding the SCTL-RDE criteria. However, since the site is scheduled for flooding and residential use of the property will not be permitted, PSI determined that the Soil Cleanup Goal for direct residential exposure is not an Applicable or Relevant and Appropriate Requirement (ARAR) for this site. Therefore, arsenic was not further considered as a COC at this site. PSI did not conduct any testing for arsenic at T-6.

In February and May 199, PSI performed a soil investigation at this site consisting of collecting 20 soil samples from various locations and depths. The soil samples were analyzed for organochlorine pesticides by USEPA Method 8081. The initial analytical results were below the laboratory detection limits for all of the constituents included in USEPA Method 8081. However, the laboratory detection limits were above the SQAG-TEC criteria for a number of the COC. A second set of soil samples was collected from approximately the same locations as the original data points. All of the EPA Method 8081 analytes were below the laboratory detection limits. Although the laboratory detection limits were above the SQAG-TEC criteria for a few of the COC, the detection limits represent the best available technology.

Based on the site characterization soil analytical results, it appears that no soils exceeding the SQAG-TEC and/or SCTL-IDE or SCTL-LGW criteria are present at this site. No groundwater sampling was conducted at the site by either D&M or PSI. However, groundwater sampling did not appear warranted at this site given the absence of COC in soil at concentrations exceeding the SCTL-LGW criteria.

PSI believed that the information contained within the report was sufficient to conclude that no further action is required for the subject site. Therefore, on behalf of Talisman, PSI recommended that the FDEP issue a “No Further Action” letter for the subject site. The FDEP issued a No Further Action for this site on December 21, 1999; a copy of the letter is included in **Appendix B-4**.

Limited Contamination Assessment Report/No Further Action Request – Talisman Sugar Corporation – Talisman Farm – T-7 (Pump Station), September 1999 (PSI) **(See Appendix A-9)**

This Pump Station (T-7) was part of the Talisman Sugar Corporation property. This site lies within Section 27, Township 46 South, Range 36 East, as referenced on the United States Geological Survey (USGS) "Everglades 1 NW", Florida" 7.5 minute quadrangle map. A Site Location Map is included as **Figure 3-2**.

This site consists of an agricultural pump station which is used to maintain water levels in an adjacent irrigation canal. The pump station was identified by Talisman personnel as Pump Station PS-4. The pump station includes a 500-gallon capacity diesel fuel AST inside a concrete containment basin, a diesel-powered pump engine, and a vertical shaft turbine pump. The storage capacity of the AST at this pump station is less than 550 gallons and is therefore not regulated under Chapter 62-761, FAC. The pump station is located by the side of the canal and is fully enclosed (AST and motor) in a concrete containment basin with a roof. Fuel is transferred from the tank to the motor via above-ground, one inch diameter steel-mesh rubber coated diesel supply and return lines. An on-demand vacuum system is used to transfer fuel to the pump engine. There was no obvious staining around the outside of the containment basin. However, there were small stains located inside the containment area. Figure 2 of the LCAR/NFA Request for the T-7 Pump Station found in **Appendix A-9** illustrates the site layout.

In April 1999, PSI personnel conducted preliminary site characterization activities at T-7. PSI did not note any evidence of soil staining or petroleum odors during our site investigation. Fourteen surficial soil samples were collected from around the pump station for OVA-FID screening. No OVA-FID readings in excess of 10 ppm were recorded. Therefore, PSI selected four surficial soil samples for laboratory analysis by laboratory method FL-PRO for TPH and EPA Method 8100 for PAHs. No PAHs were detected in these soil samples and the highest measured TPH concentration was 15 mg/kg. This TPH concentration is well below the SCTL-residential direct exposure I and SCTL-leachability criteria. No SQAG-TEC criteria has been established for TPH. Additionally, PAHs were not detected above the LMDLs (5 ug/kg) in the second set of soil samples collected on July 1, 1999.

Based on the soil screening and analytical results, it appears that no soils exceeding the SQAG-TEC criteria or SCTL criteria are present. Based on the lack of COCs in the soil at T-7, PSI did not believe that installation of a monitoring well for the purpose of groundwater sampling was warranted at this location.

PSI recommended that the FDEP issue a “No Further Action” letter for the subject site. The FDEP issued a No Further Action for this site on December 21, 1999; a copy of the letter is included in **Appendix B-5**.

<u>Site Rehabilitation Completion Report – Talisman Sugar Corporation – Talisman Farm – T-8 (Pump Station), September 1999 (PSI)</u> **(See Appendix A-10)**

This Pump Station (T-8) was part of the Talisman Sugar Corporation property. This site lies within Section 27, Township 46 South, Range 36 East, as referenced on the United States Geological Survey (USGS) "South of Okeelanta, Florida" 7.5 minute quadrangle map. A Site Location Map is included as **Figure 3-2**.

This site consists of an agricultural pump station which is used to maintain water levels in an adjacent irrigation canal. The pump station was identified by Talisman personnel as Pump Station PS-5. The pump station includes an approximately 500-gallon capacity, AST inside a steel containment basin, a diesel-powered pump engine, and a vertical shaft turbine pump. The storage capacity of the AST at this pump station is less than 550 gallons and is therefore not

regulated under Chapter 62-761, FAC. The AST and its steel containment structure are located on a concrete slab with the pump engine and turbine pump. Flexible 1" diameter steel-mesh rubber coated diesel supply and return lines run above-grade between the AST and pump engine. An on-demand vacuum system is used to transfer fuel to the pump engine. The containment basin also has a metal corrugated roof structure. The pump engine for the station rests on a concrete slab, which extends over the northeast edge of the canal. The concrete slab was covered by a metal corrugated roof structure, but is not surrounded by a berm to prevent run-off. Figure 2 of the SRCR for the T-8 Pump Station found in **Appendix A-10** illustrates the site layout.

PSI conducted site characterization soil sampling around the concrete pad containing the AST containment and the pump engine. Soil samples collected from all sides of the pump station indicated no OVA-FID readings in excess of 5 PPM and no surficial staining or petroleum odors were noted by PSI. However, laboratory analysis of soil samples collected from a depth of 0-2 feet BLS on all sides of the pump station indicated the presence of several PAH compounds at concentrations exceeding the SQAG-TEL criteria, but significantly below the SCTL-leachability criteria. As stated in the SRA, the SQAG-TEL criteria apply only to the upper 6 inches of soil column within the proposed reservoir area.

In order to remove soils containing PAH concentrations exceeding the SQAG-TEL criteria within the upper six inches of soil column, PSI conducted excavation around the north, east, and west sides of the pump station to a depth of at least 6 inches BLS. A total of 6.36 tons of petroleum impacted soil was removed. Upon completion of the excavation, four soil confirmation samples were collected. The laboratory results did not indicate the presence of any PAH compounds at concentrations exceeding the SQAG-TEL criteria. Based on the lack of soils containing TPH or PAH concentrations exceeding the SCTL-leachability criteria, PSI did not believe investigation of the groundwater was warranted at this location.

PSI recommended that the FDEP issue a SRCO for the subject site. The FDEP issued a SRCO for this site on December 21, 1999; a copy of the SRCO is included in **Appendix B-6**.

<u>Site Rehabilitation Completion Report – Talisman Sugar Corporation – Talisman Farm – T-21 (Pesticide Mix/Load Area), May 2002 (PSI)</u> **(See Appendix A-11)**

This Pesticide Mix/Load area (T-21) was part of the Talisman Sugar Corporation property. This site lies within Section 17, Township 46 South, Range 36 East, as referenced on the United States Geological Survey (USGS) "East of Little Cypress Swamp" 7.5 minute quadrangle map. A Site Location Map is included as **Figure 3-2**. A summary table of the range of detected concentrations, after any corrective actions, is provided in **Table 5**.

This site consists of a pesticide mixing and loading area also utilized for storing and staging of farm equipment. The site is developed with a small corrugated metal shed, approximately 30 feet by 12 feet, with an overhang. The interior of the storage shed was concrete floored. The shed appeared to have been utilized for storing pesticides in the dry granular form. However, it is possible that liquid pesticides may have been stored there as well. A Site Map is included as Figure 2 of the SRCR for the T-21 Pesticide Mix / Load Area in **Appendix A-11**. The property was utilized by Talisman for mixing and loading of pesticides in addition to storing farm equipment. It was also used as a collection point for sugar cane during harvest activities. No significant staining was noted during this fieldwork; however, pesticide odors were detected. The pesticides appeared to have been used in ground application. No water wells, restroom facilities, septic systems or fueling facilities were located on-site.

Potential constituents of concern (COC) at the subject site which were identified in the D&M Phase II ESA, included arsenic in soil and groundwater. At the request of the FDEP, groundwater analytical testing was performed for dioxins.

PSI collected 49 surface soil samples (0-2 feet bls) and nine deep soil samples (two to four feet bls) on a grid basis across the site. The highest arsenic concentration detected was 48.0 mg/kg. Four separate arsenic impacted areas were defined encompassing a total of approximately 13,500 square feet. Soils within these areas were excavated to a depth of six inches below original grade and transported to Magnum Environmental Services, Inc. for thermal treatment and incorporation into asphalt products. A total of 686.25 tons of arsenic-impacted soil was excavated on May 3 through 7, 1999 for treatment by Magnum.

Following excavation activities, 24 confirmation soil samples (T-21SS-50 – T-21SS-73) were collected from the base of the excavation on a grid basis. Based upon the results, concentrations of arsenic above the SCTL-LGW screening criteria of 10 mg/kg were detected in five of the samples. These samples were analyzed by EPA Method 1312/6010 for SPLP arsenic. The results indicated that an SPLP arsenic concentration exceeding the GCTL was detected in one of the samples (T-21-SS-52).

Based on the SPLP arsenic concentration detected in confirmation sample T-21SS-52, PSI excavated an additional 6.35 tons of soil from around this location on July 1, 1999. The excavation was continued vertically to a depth of about 2 feet bls. After completion of the excavation, three additional confirmation soil samples (T-21SS-74 – T-21SS-76) were collected from the base of the excavation for arsenic analysis. The measured arsenic concentrations in these samples were below all regulatory criteria. Following this excavation, the area was backfilled to grade.

PSI also installed five additional monitoring wells and collected groundwater samples for analyses for arsenic. Groundwater samples were also collected from D&M wells T-21-MW-45 and T-21-MW-52 on two separate dates for analysis for arsenic. In addition, groundwater samples from D&M well T-21-MW-45 were analyzed for dioxins/furans, TPH, PAHs and VOAs. The results indicated that arsenic concentrations above GCTLs were detected in T-21MW-45, T-21MW-52, and T-21-MW-3. The highest arsenic concentration detected was 120 μg/L in the groundwater sample collected from T-21-MW-52. All other parameters were either below detection limits or below applicable GCTLs.

Based upon the groundwater analytical results, PSI installed and operated a groundwater pump and treat remediation system in order to reduce the arsenic concentrations in the groundwater. The treatment system consisted of two recovery wells, tray stripper aeration and filtering with granular aluminum oxide. Following treatment, the water was sprayed over the northwestern portion of the site via low flow sprinkler heads mounted on five-feet tall poles. The treatment system was operated for a period of about 3 months and was shut down when arsenic concentrations in the influent were consistently below the GCTL for four consecutive sampling events.

Following system operation, groundwater samples were collected on multiple occasions from previously impacted monitoring wells and analyzed for arsenic. Results of the last sampling event indicate that the groundwater meets the GCTL for arsenic concentrations.

PSI requested a SRCO with non-residential deed restrictions for this site; The FDEP issued a SRCO for this site on July 21, 2006; a copy of the SRCO is included in **Appendix B-7**.

Site Rehabilitation Completion Report – Talisman Sugar Corporation – Talisman Farm – T-24 (Pump Station), October 1999 (PSI) **(See Appendix A-12)**

Pump Station T-24 was part of the Talisman Sugar Corporation property. This site lies within Section 26, Township 46 South, Range 36 East, as referenced on the United States Geological Survey (USGS) "South of Okeelanta, Florida" 7.5 minute quadrangle map. A Site Location Map is included as **Figure 3-2**. A summary table of the range of detected concentrations, after any corrective actions, is provided in **Table 6**.

This site consists of an agricultural pump station which is used to maintain water levels in an adjacent irrigation canal. The pump station was identified by Talisman personnel as Pump Station IPS-3. The pump station includes a 3,000-gallon capacity diesel fuel AST inside a concrete containment basin, a diesel-powered pump engine, and a vertical shaft turbine pump. The storage capacity of the AST at this pump station is greater than 550 gallons and is therefore regulated under Chapter 62-761 FAC. The AST is registered under facility I.D. # 8623252. The pump station is situated on a fill material dike or plug which bridges the main east-west canal on the lower Talisman Farm. The dike is approximately 25 feet wide and includes the pump station and a gravel canal crossing access road. The AST is located on an approximate 8 inch thick concrete slab surrounded with a 2.5 feet high masonry block wall and is covered with a corrugated metal roof. The pump engine is located on an approximate eight (8) inch thick concrete pad. Figure 2 of the SRCR for the T-24 Pump Station found in **Appendix A-12** illustrates the site layout.

During the Phase II ESA investigation activities, D&M conducted visual reconnaissance and soil sampling at T-24. No evidence of soil staining was noted, but one soil sample was collected for laboratory analysis for TPH, which was not detected in the soil sample. Therefore, T-24 was not identified as an Exclusion Area in the Phase II ESA. However, a follow-up investigation performed by D&M and SFWMD in March, 1999 identified stained soil around the west side of the pump station due to a recent discharge. No soil samples were collected during this investigation.

Based upon visual observation and OVA-FID screening, a small amount of soil (0.68 tons) was excavated and removed from the site. A total of eight confirmatory soil samples were collected following excavation activities. The highest reported TPH concentration was 290 mg/kg. While, no SQAG-TEC has been established for TPH, the reported TPH concentration is well below the SCTL-LGW and SCTL-RDE criteria. PAH concentrations within the upper 6 inches of soil (the depth defined as “sediment”) were below laboratory detection limits. PAH concentrations in the soil below 6 inches BLS are below the SCTL-LGW and SCTL-RDE criteria. The SQAG-TEC criteria does not apply to the soils below 6 inches bls.

Based upon the limited impact to the soil at the site no groundwater samples were collected. It does not appear that the referenced petroleum release could have affected groundwater at the subject site.

PSI recommended that the FDEP issue a SRCO for the subject site. The FDEP issued a SRCO for this site on December 24, 1999; a copy of the SRCO is included in **Appendix B-8**.

3.2 Summary of Restrictive Covenants

Restrictive covenants or deed restrictions exist on several of the parcels within the footprint of Talisman South Ranch (D7100-104), as shown on **Figure 3-3.** Tract D7100-066 (Former Borrow Pit – T-3), Tract D7100-047 (Talisman Labor Camp - T-2), and Tract D7100-044 (Pesticide Mix/Load Area – T-21) are all protected by deed restrictions preventing use of the property for residential or other sensitive purposes. Additionally the deed restrictions all include prohibitions on use of groundwater within the restricted areas. The deed restriction for the labor camp also includes provisions preventing excavation or disturbance of a clean soil cap that was placed over portions of the borrow pit.

Copies of all of the deed restrictions are provided in **Appendix C**.

3.3 Summary of Remaining HTRW Areas

The known HTRW soil areas remaining within the project footprint are located within the T-2 (D7100-047), T-3 (D7100-066) and T-21 (D7100-044) exclusion areas. These areas consist of point source areas where cleanup was completed and a conditional SRCO was issued, but contaminant concentrations remain at concentrations exceeding the SCTL-RDE criteria. Arsenic is the predominant COPC which is present at concentrations exceeding the SCTLs in these areas.

4. GEOLOGY/HYDROGEOLOGY

4.1 Regional Geology

The region is overlain by layers of Peat known locally as “muck”. Muck is an organically rich soil that forms when the rate of accumulation of organic matter exceeds the rate of decay. The accumulation rate can vary, but can be as much as 10 centimeters per 100 years. Much of the muck has been subjected to subaerial exposure since the dewatering of large areas of marshland through water drainage canals. This exposure has had the effect of causing the muck volume to steadily decrease through biochemical oxidation, compaction, erosion, and fire. It is estimated that the muck soil in these dewatered areas diminishes by as much as 1 inch per year.

Underlying the muck is the Fort Thompson Formation, which is locally referred to as the “cap rock” and is primarily dense, fossiliferous limestone. The Fort Thompson Formation is considered to be Pleistocene in age.

The Caloosahatchee Formation underlies the Fort Thompson Formation. The Caloosahatchee Formation is a marl that is composed of a sequence of sandy limestone lenses that are interbedded with layers of calcareous clays and sands. The Caloosahatchee Formation appears to straddle the Pliocene/Pleistocene boundary.

Underlying the Caloosahatchee Formation, the Tamiami Formation is a complex Pliocene age unit of sand, clay, and reef facies, all of which contain at least small amounts of phosphate. The Tamiami Formation occurs over much of southern Florida and is unconformably overlain by the Caloosahatchee and Fort Thompson Formations, which consist of highly fossiliferous carbonates and siliclastic sediments.

Underlying the Tamiami Formation is the Miocene-age Hawthorn Group, which is composed of a variety of sediments including carbonates, quartz sands, clay, and phosphate. The Hawthorn Group has been subdivided into two formations; the Peace River Formation forming the upper Hawthorn siliclastic section and the Arcadia Formation, which forms the lower Hawthorn carbonate section.

The Hawthorn Group is underlain by a 3000-feet thick carbonate sequence consisting of Oligocene and Eocene aged sediments. The Suwannee Limestone, the Ocala Limestone, and the Avon Park Formation comprise the Oligocene sediments. The Eocene sediments are made up of the Oldsmar Formation.

4.2 Regional Hydrologeology

The underlying hydrogeologic formations of the area may best be categorized as two aquifers separated by an impermeable confining zone.

The shallow, nonartesian aquifer system extends to a depth of approximately 150 feet BLS and is recognized as the northernmost extension of the Biscayne Aquifer. It consists primarily of the Fort Thompson, Caloosahatchee, and Tamiami Formations. The base of the shallow aquifer is marked by the top of the Hawthorn Group, which is the intermediate confining unit for the underlying Floridan aquifer.

The deep, artesian aquifer is known as the Floridan Aquifer and is the most productive aquifer in the area, with permeable zones as deep as 1,200 feet BLS. The Floridan Aquifer consists of the lower units of the Hawthorn Group, the Suwannee Limestone, the Ocala Group, and the Avon Park Limestone.

Groundwater levels throughout the area vary from one to six feet BLS. Groundwater flow in the surficial aquifer is generally to the south-southeast; however, flow direction is strongly influenced by the system of canals and pumping stations present throughout the area. When the canals are pumped and water levels in the canals are lowered, shallow groundwater tends to flow toward the canals.

4.3 Site Specific Geology

Based on the lithology encountered during installation of monitoring wells and excavation of impacted soils, the soil profile across the project area varies between locations. In general, the near-surface geology consists of a 3-5 foot layer of organic muck soils, overlying a dense sandy limestone (cap rock) of 1-2 feet in thickness. The cap rock is underlain by a light tan limestone unit which extends to a depth of at least 13 feet bls. The near surface geology has been altered significantly in areas that have been developed, such as the Talisman Sugar Mill. In most of the developed areas, the muck layer has been removed and replaced with crushed limerock. Within the cooling canal system, infiltration ponds and waste lake areas at the Talisman Sugar Mill, the muck layer was partially removed to create the berms to contain the water. In these areas a thin muck layer is present overlying the cap rock. The deeper canals across the property were created by blasting away the cap rock and excavating the underlying limestone to the desired depth.

4.4 Site Specific Hydrogeology

Groundwater is encountered across the project area at depths ranging from about 1-6 feet BLS, depending upon the surface elevation. The project area is sub-divided and surrounded by a series of drainage canals, which control the water level within the area to prevent flooding. The groundwater flow direction was not calculated. However, it is likely that groundwater flow in the vicinity of the subject site is largely controlled by the water level in the adjacent canals. During periods of pumping (when the water level in the canals is mechanically lowered), groundwater flow is likely toward the canals.

5. GOVERNMENTAL DATABASE REVIEW

PSI reviewed an environmental database report, provided by Environmental Data Resources, Inc. (EDR) to determine whether any open regulatory enforcement cases (e.g., leaking tanks, spills, etc.) were present on the subject property. The EDR report can be found in **Appendix D**. Some of the sites listed in the EDR report are discussed in previous sections of this report (e.g., Talisman Sugar Corporation – Abel's Flying Service); therefore they are not mentioned in this section. All of the other sites listed in the EDR are outside the boundary of the A-2 Reservoir and will also not be discussed in further detail as they do not represent an environmental concern to the future construction of the reservoir.

No sites were listed in the EDR Report within the A-2 Reservoir boundary that have not been previously addressed.

6. OVERVIEW OF ASSESSMENT AND REMEDIATION

The A-2 Reservoir project area is made up of 8 individual tracts of land comprising approximately 14,408 acres, located within the south portion of the Everglades Agricultural Area (EAA). The EAA has a long history of farming dating back to the early 1960's for most of the project area. Most of the property has been in use primarily for the cultivation of sugar cane, and occasional rotational crops such as corn and rice. Phase I-II ESAs have been performed on all of the tracts according to the protocols that were in place that the time that each of the parcels were acquired. Additional investigations have been performed to define the extent of contaminants within point source areas, and corrective actions have been performed to address point sources where necessary. No significant sampling of the cultivated area has been performed to date.

6.1 Point Source Areas

The Phase I ESAs performed on the project parcels identified the presence of seven separate potential source areas, including pump stations, pesticide mix load areas, storage tanks, a former borrow pit, a crop-dusting operation and landing strip. **Table 1** summarizes the disposition of all of the point source areas on the subject property. Based on PSI's review of the reports, all of these point sources have been investigated and corrective actions have been performed as necessary to remediate these areas to the required levels for project construction. In a few areas, deed restrictions were utilized to allow levels exceeding the SCTL-RDE to remain in place. All of the assessment and remediation work for the point sources was conducted under oversight from FDEP and the Department has granted unconditional or conditional SRCOs for all of the point sources.

There are no known point sources on the subject property that remain open with FDEP. PSI also researched governmental records for open enforcement cases, and there are no open cases with FDEP within the project area.

6.2 Regional Evaluation of Cultivated Areas

Since much of the assessment of the project area was performed before the development of the ERA Protocol, the level of assessment of cultivated areas is not consistent with current requirements. No significant sampling of cultivated areas was performed within the A-2 Reservoir Footprint.

6.3 Outstanding Corrective Actions

The following corrective actions have been proposed but not completed:

- None

6.4 Outstanding Regulatory Issues

Since no cultivated area sampling has been performed on the A-2 Reservoir footprint, the USFWS and FDEP have not provided any input on potential residual agrochemicals in cultivated areas.

7. REFERENCES

1. Protocol for Assessment, Remediation and Post-Remediation Monitoring for Environmental Contaminants for Everglades Restoration Projects, 13 March 2008, SFWMD, FWS, and FDEP

2. Phase I and Phase II Environmental Risk Assessment for the Stormwater Treatment Areas Tract Nos. 100-009, 100-020, and 103-108, Palm Beach County, Florida 1995 and 1996 Ayres Associates

3. Phase I – Phase II Environmental Site Assessment, Florida Crystals Corporation, Palm Beach County, March 30, 1999, Dames & Moore

4. Everglades Agricultural Area Basin Reservoir – Phase I Environmental Assessment Summary Document, March 18, 2003, URS Corporation

5. Volume 1 – Acquisition Properties, Phase II Environmental Site Assessment, Talisman Sugar Corporation Properties, Palm Beach and Hendry Counties, for South Florida Water Management District, November 9, 1998, Dames & Moore

6. Site Inspections/Environmental Assessment Deferred Parcels – Former Talisman Property, Palm Beach County, Florida, July 17, 2007, URS Corporation

7. Final Site Inspections/Environmental Assessment 8 Deferred Parcels – Former Talisman Ranch Report, Palm Beach County, Florida, January 21, 2009, URS Corporation

8. Site Rehabilitation Completion Report, Talisman Sugar Corporation T-2 (Borrow Pit), Palm Beach County, Florida, 4 February 2002, PSI

    a. 7-21-06 DEP issued CSRCO

9. Site Rehabilitation Completion Report, Talisman Sugar Corporation T-3 (Labor Camp), Palm Beach County, Florida, 25 March 2003, PSI

    a. 7-21-06 DEP issued CSRCO

10. Tank Closure Report, Talisman Sugar Corporation, Talisman Labor Camp (Abel's Flying Service), Palm Beach County, Florida, 9 April 2001, PSI

11. Limited Contamination Assessment Report / No Further Action Request, Talisman Sugar Corporation, Talisman Sugar Farm, T-6 (Electric Pump Station), Palm Beach County, Florida, 27 August 1999, PSI

    a. 5-30-99 PSI Response to Comments

    b. 12-21-99 DEP issued SRCO

12. Limited Contamination Assessment Report / No Further Action Request, Talisman Sugar Corporation, Talisman Farm – T-7 (Pump Station), Palm Beach County, Florida, 28 September 1999, PSI

    a. 12-21-99 DEP issued SRCO

13. Site Rehabilitation Completion Report, Talisman Sugar Corporation, Talisman Farm – T-8 (Pump Station), Palm Beach County, Florida, 28 September 1999, PSI

    a. 12-21-99 DEP issued SRCO

14. Site Rehabilitation Completion Report, Talisman Sugar Corporation, Talisman Farm – T-21 (Pesticide Mix/Load Area), Palm Beach County, Florida, 20 May 2002, PSI

    a. 7-21-06 DEP issued CSRCO

15. Site Rehabilitation Completion Report, Talisman Sugar Corporation, Talisman Farm – T-24 (Pump Station), Palm Beach County, 15 Florida, October 1999, PSI

    a. 12-29-99 DEP issued SRCO

8. WARRANTY

PSI warrants that the findings and conclusions reported herein were conducted in general accordance with good commercial and customary practice for conducting a Phase II Environmental Site Assessment. However, these findings and conclusions contain all of the limitations inherent in these methodologies.

This summary report has been developed to provide the client with information regarding apparent indications of chemical impacts to the subject property. It is necessarily limited to the conditions observed and to the information available at the time of the work. The assessment and conclusions presented herein were based upon the subjective evaluation of limited data. They may not represent all conditions at the subject site as they reflect the information gathered from specific locations. PSI warrants that the findings and conclusions contained herein have been promulgated in accordance with generally accepted environmental investigation methodology and only for the site described in this report.

Due to the limited nature of the work, there is a possibility that there may exist conditions which could not be identified within the scope of the assessment or which were not apparent at the time of report preparation. It is also possible that the testing methods employed at the time of the report may later be superseded by other methods. The description, type, and composition of what are commonly referred to as "hazardous materials or conditions" can also change over time. PSI does not accept responsibility for changes in the state of the art, nor for changes in the scope of various lists of hazardous materials or conditions. PSI believes that the findings and conclusions provided in this report are reasonable. However, no other warranties are implied or expressed.

TABLES

Table 1 Summary of Assessment and Corrective Actions
A-2 Reservoir Project
Palm Beach County, Florida

Tract Nos.	Previous Name(s)	Acreage	Reports	Phase I Summary	Phase II Summary	Corrective Action Summary	Regulatory Concurrence	HTRW	Restrictive Covenant	Exit Assessment Results	Recent Spills
D7100-104, D7100-044, D7100-047, D7100-066, D7100-067, D7100-139, D7100-141, D7200-005	**Talisman South Ranch**	14,408	See Table 2 for list of Reports performed on these parcels	Point source RECs identified at eight (8) areas within these parcels, listed below:	Soil and / or groundwater exceedances were identified, in the following areas:	Corrective Action Activities, included the following:					
				Borrow Pit (T-2)	Arsenic and petroleum hydrocarbons detected above SCTLs, phenols and m & p cresol detected above GCTLs	Excavated: 1,009 tons of steel, 473 tons of tires, 3,895 tons of C & D debris, 3,735 tons of soil. Also installed GW treatment system (operation was abandoned due to inability to filter out lead)	CSRCO, 7-21-06	Soil above SCTL	Non-residential Deed Restriction	The labor camp, borrow pit, pesticide mix and load area, and four pump stations were visually inspected in 2007 and 2009. No stained soils, stressed vegetation or other environmental impairments were observed. No soil or groundwater samples were collected.	No
				Labor Camp (T-3)	Arsenic and petroleum hydrocarbons detected above SCTLs at burn pit area and drum storage area within labor camp. Petroleum hydrocarbons / solvents and atrazine detected in GW above GCTLs at pesticide mix / load area and refueling area / runway within labor camp.	Excavated approximately 3,590 tons of soil from 5 areas within labor camp. Petroleum impacts in GW naturally attenuated below GCTLs. Source removal reduced atrazine GW concentrations below GCTL.	CSRCO, 7-21-06	Soil above SCTL	Non-residential Deed Restriction		
				Pump Station (T-6)	OCPs detected above SQAGs	20 soil samples collected around pump station; no OCPs detected above SQAGs of SCTLs	SRCO, 12-21-99	No	No		
				Pump Station (T-7)	No soil or groundwater samples collected; Visual evidence of soil staining	14 surficial soil samples collected around pump station; no exceedances above SQAGs or SCTLs	SRCO, 12-21-99	No	No		
				Pump Station (T-8)	No soil or groundwater samples collected; No visual evidence of soil staining; Still included as Exclusion Area	Excavated approximately 6.36 tons of petroleum impacted soil	SRCO, 12-21-99	No	No		
				Pump Station (T-24)	No soil or groundwater samples collected; No visual evidence of soil staining; Still included as Exclusion Area	Excavated approximately 0.68 tons of soil	SRCO, 12-29-99	No	No		
				Pesticide Mix/Load Area (T-21)	Arsenic detected above SCTL and GCTL	Excavated approximately 692 tons of arsenic impacted soil. Installed GW pump and treat system, operated for 3 mths., effectively lowered the arsenic concentrations below the GCTL	CSRCO, 7-21-06	Soil above SCTL	Non-residential Deed Restriction		

Table 2. **Summary of Environmental Reports**
A-2 Reservoir
Palm Beach County, FL

Consultant	Report Type	Report Title	Report Date	Tract Nos.	Previous Name(s)
URS/Dames & Moore	Phase I / II	Talisman Sugar Corp.- Vol. 1 - Acquisition Properties	November-98	100-104*	Talisman South Ranch
PSI	SRCR	Talisman Sugar Corp. - T-2 Borrow Pit	February-02	100-104*	Talisman South Ranch
PSI	Tank Closure Report	Talisman Sugar Corp. - Labor Camp (Abel's Flying Service	April-01	100-104*	Talisman South Ranch
PSI	SRCR	Talisman Sugar Corp. - T-3 (Labor Camp	March-03	100-104*	Talisman South Ranch
PSI	LCAR / NFA Request	Talisman Sugar Corp. - T-6 (Electric Pump Station)	August-99	100-104*	Talisman South Ranch
PSI	LCAR / NFA Request	Talisman Sugar Corp. - T-7 (Pump Station)	September-99	100-104*	Talisman South Ranch
PSI	SRCR	Talisman Sugar Corp. - T-8 (Pump Station)	September-99	100-104*	Talisman South Ranch
PSI	SRCR	Talisman Sugar Corp. - T-24 (Pump Station)	October-99	100-104*	Talisman South Ranch
PSI	SRCR	Talisman Sugar Corp. - T-21 Pesticide Mix/Load Area	May-02	100-104*	Talisman South Ranch
URS	Site Inspections/Environmental Assessment	Deferred Parcels - Former Talisman Property	July-07	100-104*	Talisman South Ranch
URS	Final Site Inspections/Environmental Assessment	Eight Deferred Parcels - Former Talisman Ranch Property	January-09	100-104*	Talisman South Ranch
URS	Environmental Assessment Summary Document	Everglades Agricultural Area Basin Reservoir Project	March-03	--	Talisman South Ranch

SRCR = Site Rehabilitation Completion Report
LCAR = Limited Contamination Assessment Report
* = Tract Nos. 100-149, 100-044, 100-047, 100-066, 100-067, 100-139, 100-141, 200-005, 100-143

Table 3. **Range of Concentrations Measured vs. Regulatory Requirements**
T-2 Exclusion Area (Former Borrow Pit)
Former Talisman South Ranch
Tract No. D7100-066
A-2 Reservoir
Palm Beach County, FL

					State Regulatory Limits (mg/Kg)			
Parameter	**CAS #'s[1]**	**CERCLA[2] Regulated (Y/N)**	**Range[3] Observed (mg/Kg)**	**EPA Regulatory Limits[4] (mg/Kg)**	**SCTL-CDE[5]**	**SCTL-RDE[6]**	**SQAG-PEC[7]**	**SQAG-TEC[8]**
Arsenic	7440-38-2	Y	<0.5 - 5.3	1.6	12	2.1	33	9.8
Barium	7440-39-3	Y	24 - 37	190,000	130,000	120	60	20
Cadmium	7440-43-9	Y	0.83 - 6.2	800	1,700	82	5.0	1.0
Chromium	7440-47-3	Y	1.1 - 24.0	NG	470	210	110	43
Lead	7439-92-1	Y	1.3 - 93	800	1,400	400	130	36
Mercury	7439-97-6	Y	0.011 - 0.034	43	17	3	1.1	0.18
Benzo(a)anthracene	56-55-3	Y	0.028 - 0.042	2.1	#	#	1.1	0.11
Benzo(ghi)perylene	191-24-2	Y	0.032 - 0.050	NG	52,000	2,500	NG	NG
Chrysene	218-01-9	Y	0.032 -0.064	210	#	#	1.3	0.17
Dibenzofuran	132-64-9	Y	0.033 - 0.097	1,000	6,300	320	NG	NG
Fluoranthene	206-44-0	Y	0.065 - 1.250	22,000	59,000	3,200	2.2	0.42
Naphthalene	91-20-3	Y	0.065 - 3.0	18	300	55	0.56	0.18
Phenanthrene	85-01-8	Y	0.066 - 1.6	NG	36,000	2,200	1.2	0.2
Pyrene	129-00-0	Y	0.050 - 1.160	17,000	45,000	2,400	1.5	0.2
TPH	NO CAS	N	43.0 - 305	NG	2,700	460	NG	NG

Notes:
mg/Kg - milligrams per Kilogram
NG - No guideline
- Site concentrations for carcinogenic polycyclic aromatic hydrocarbons must be converted to Benzo(a)pyrene equivalents before comparison with the appropriate direct exposure SCTL for Benzo(a)pyrene using the approach described in the February 2005 'Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, F.A.C.'
[1]CAS Registry Number (CAS#'s) - unique numeric identifier which designates one substance and has no chemical significance
[2]40 Code of Federal Regulations (CFR) 302.4, Designation of Hazardous Substances - Comprehensive Environmental Response, Compensation, Liability Act
[3]Range of chemical concentrations observed in all the samples collected within the T-2 Exclusion Area (Former Borrow Pit)
[4]USEPA - Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites - Industrial Soil
[5]Chapter 62-777, FAC, Table 2 - Technical Background Document, SCTLs, Direct Exposure - Commercial / Industrial
[6]Chapter 62-777, FAC, Table 2 - Technical Background Document, SCTLs, Direct Exposure - Residential
[7]Development and Evaluation of Sediment Quality Assessment Guidelines, Volumes 1-4 (MacDonald, 2000), Sediment Quality Assessment Guidelines-Probable Effects Concentration
[8]Development and Evaluation of Sediment Quality Assessment Guidelines, Volumes 1-4 (MacDonald, 2000), Sediment Quality Assessment Guidelines-Threshold Effects Concentration

Table 4. **Range of Concentrations Measured vs. Regulatory Requirements**
T-3 Exclusion Area (Former Labor Camp)
Former Talisman South Ranch
Tract No. D7100-047
A-2 Reservoir
Palm Beach County, FL

					State Regulatory Limits (mg/Kg)			
Parameter	**CAS #'s[1]**	**CERCLA[2] Regulated (Y/N)**	**Range[3] Observed (mg/Kg)**	**EPA Regulatory Limits[4] (mg/Kg)**	**SCTL-CDE[5]**	**SCTL-RDE[6]**	**SQAG-PEC[7]**	**SQAG-TEC[8]**
Arsenic	7440-38-2	Y	0.95 - 18.5	1.6	12	2.1	33	9.8
Barium	7440-39-3	Y	13.9 - 66.9	190,000	130,000	120	60	20
Chromium	7440-47-3	Y	1.5 - 22.3	NG	470	210	110	43
Lead	7439-92-1	Y	0.76 - 82.0	800	1,400	400	130	36
Mercury	7439-97-6	Y	<0.010 - 0.032	43	17	3	1.1	0.18
Selenium	7782-49-2	Y	<0.030 - 1.2	5,100	11,000	440	N/A	N/A
4,4-DDE	72-55-9	Y	<0.00025 - 0.0021	5.1	15	2.9	0.031	0.0032
Atrazine	1912-24-9	Y	<0.017 - 0.093	7.5	19	4	NG	0.0003
Dieldrin	60-57-1	Y	<0.00036 - 0.0016	0.11	0.3	0.06	0.062	0.0019
Endrin	72-20-8	Y	<0.00050 - 0.017	180	510	25	0.210	0.0022
Endrin Aldehyde	7421-93-4	Y	<0.00037 - 0.00220	NG	NG	NG	NG	NG

Notes:
mg/Kg - milligrams per Kilogram
NG - No guideline
[1]CAS Registry Number (CAS#'s) - unique numeric identifier which designates one substance and has no chemical significance
[2]40 Code of Federal Regulations (CFR) 302.4, Designation of Hazardous Substances - Comprehensive Environmental Response, Compensation, Liability Act
[3]Range of chemical concentrations observed in all the samples collected within the T-3 Exclusion Area (Former Labor Camp)
[4]USEPA - Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites - Industrial Soil
[5]Chapter 62-777, FAC, Table 2 - Technical Background Document, SCTLs, Direct Exposure - Commercial / Industrial
[6]Chapter 62-777, FAC, Table 2 - Technical Background Document, SCTLs, Direct Exposure - Residential
[7]Development and Evaluation of Sediment Quality Assessment Guidelines, Volumes 1-4 (MacDonald, 2000), Sediment Quality Assessment Guidelines-Probable Effects Concentration
[8]Development and Evaluation of Sediment Quality Assessment Guidelines, Volumes 1-4 (MacDonald, 2000), Sediment Quality Assessment Guidelines-Threshold Effects Concentration

Table 5. **Range of Concentrations Measured vs. Regulatory Requirements**
T-21 Exclusion Area (Mix/Load Area)
Former Talisman South Ranch
Tract No. D7100-044
A-2 Reservoir
Palm Beach County, FL

					State Regulatory Limits (mg/Kg)			
Parameter	**CAS #'s[1]**	**CERCLA[2] Regulated (Y/N)**	**Range[3] Observed (mg/Kg)**	**EPA Regulatory Limits[4] (mg/Kg)**	**SCTL-CDE[5]**	**SCTL-RDE[6]**	**SQAG-PEC[7]**	**SQAG-TEC[8]**
Arsenic	7440-38-2	Y	<0.5 - 7.0	1.6	12	2.1	33	9.8

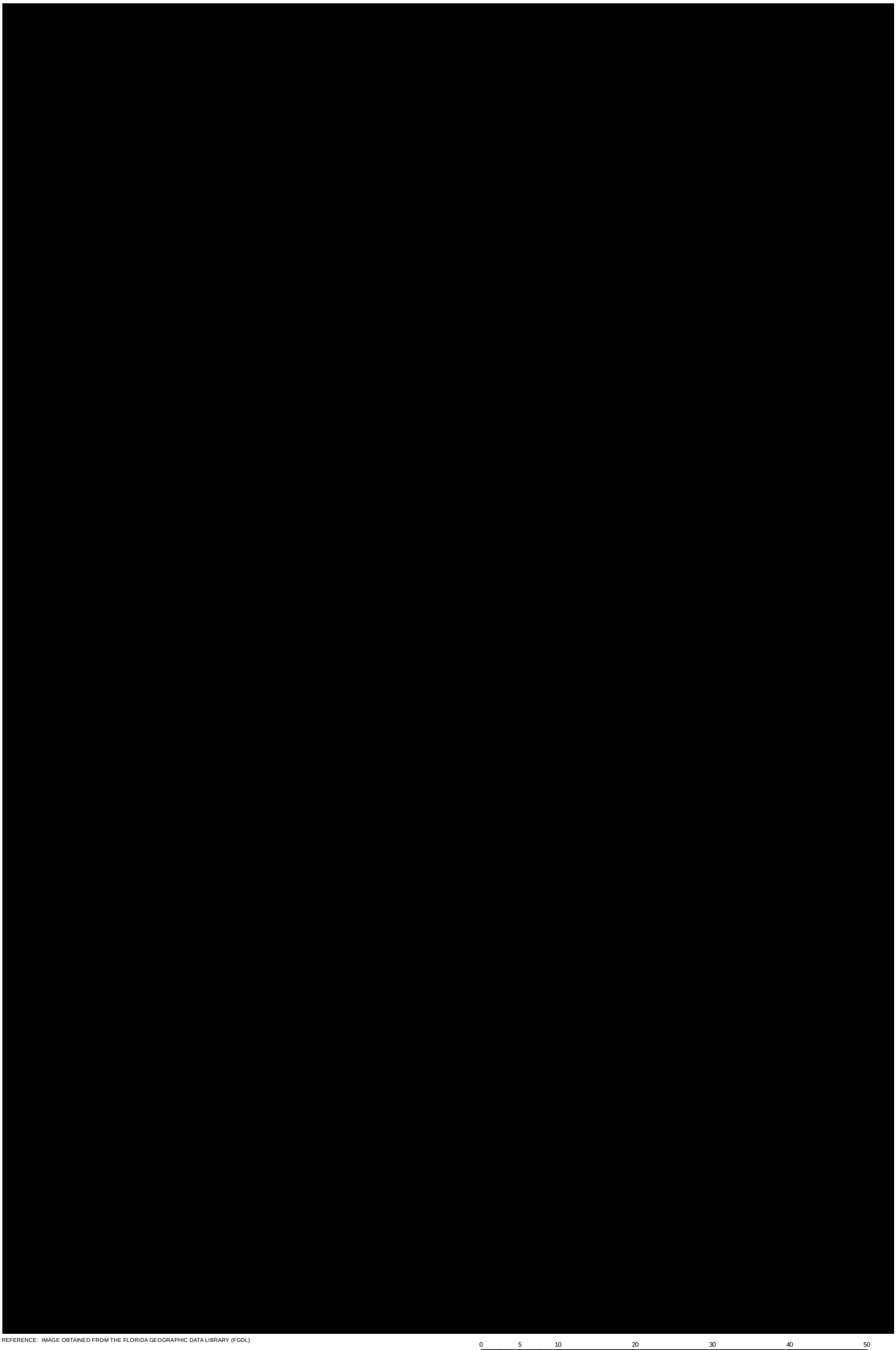
Notes:
mg/Kg - milligrams per Kilogram
NG - No guideline
[1]CAS Registry Number (CAS#'s) - unique numeric identifier which designates one substance and has no chemical significance
[2]40 Code of Federal Regulations (CFR) 302.4, Designation of Hazardous Substances - Comprehensive Environmental Response, Compensation, Liability Act
[3]Range of chemical concentrations observed in all the samples collected within the T-21 Exclusion Area (Mix/Load Area)
[4]USEPA - Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites - Industrial Soil
[5]Chapter 62-777, FAC, Table 2 - Technical Background Document, SCTLs, Direct Exposure - Commercial / Industrial
[6]Chapter 62-777, FAC, Table 2 - Technical Background Document, SCTLs, Direct Exposure - Residential
[7]Development and Evaluation of Sediment Quality Assessment Guidelines, Volumes 1-4 (MacDonald, 2000), Sediment Quality Assessment Guidelines-Probable Effects Concentration
[8]Development and Evaluation of Sediment Quality Assessment Guidelines, Volumes 1-4 (MacDonald, 2000), Sediment Quality Assessment Guidelines-Threshold Effects Concentration

Table 6. **Range of Concentrations Measured vs. Regulatory Requirements**
T-24 Exclusion Area (Pump Station)
Former Talisman South Ranch
Tract No. 100-104
A-2 Reservoir
Palm Beach County, FL

					State Regulatory Limits (mg/Kg)			
Parameter	**CAS #'s[1]**	**CERCLA[2] Regulated (Y/N)**	**Range[3] Observed (mg/Kg)**	**EPA Regulatory Limits[4] (mg/Kg)**	**SCTL-CDE[5]**	**SCTL-RDE[6]**	**SQAG-PEC[7]**	**SQAG-TEC[8]**
Acenaphthene	83-32-9	Y	<0.0050 - 0.155	33,000	20,000	2,400	0.089	0.0067
Acenaphthylene	208-96-8	Y	<0.0050 - 0.048	NG	20,000	1,800	0.130	0.0059
Benzo(a)anthracene	56-55-3	Y	<0.0050 - 1.650	2.1	#	#	1.1	0.11
Benzo(a)pyrene	50-32-8	Y	<0.0050 - 0.250	0.21	0.7	0.1	1.5	0.15
Benzo(ghi)perylene	191-24-2	Y	<0.0050 - 1.430	NG	52,000	2,500	NG	NG
Chrysene	218-01-9	Y	<0.0050 - 1.480	210	#	#	1.3	0.17
Fluoranthene	206-44-0	Y	<0.0050 - 0.086	22,000	59,000	3,200	2.2	0.42
Fluorene	86-73-7	Y	<0.0050 - 0.320	22,000	33,000	2,600	0.54	0.077
Indeno(123-cd)pyrene	193-39-5	Y	<0.0050 - 0.830	2.1	#	#	NG	NG
Phenanthrene	85-01-8	Y	<0.0050 - 0.185	NG	36,000	2,200	1.2	0.2
TPH	NO CAS	N	<15.3 - 290	NG	2,700	460	NG	NG

Notes:
mg/Kg - milligrams per Kilogram
NG - No guidline
- Site concentrations for carcinogenic polycyclic aromatic hydrocarbons must be converted to Benzo(a)pyrene equivalents before comparison with the appropriate direct exposure SCTL for Benzo(a)pyrene using the approach described in the February 2005 'Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, F.A.C.'
[1]CAS Registry Number (CAS#'s) - unique numeric identifier which designates one substance and has no chemical significance
[2]40 Code of Federal Regulations (CFR) 302.4, Designation of Hazardous Substances - Comprehensive Environmental Response, Compensation, Liability Act
[3]Range of chemical concentrations observed in all the samples collected within the T-24 Exclusion Area (Pump Station)
[4]USEPA - Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites - Industrial Soil
[5]Chapter 62-777, FAC, Table 2 - Technical Background Document, SCTLs, Direct Exposure - Commercial / Industrial
[6]Chapter 62-777, FAC, Table 2 - Technical Background Document, SCTLs, Direct Exposure - Residential
[7]Development and Evaluation of Sediment Quality Assessment Guidelines, Volumes 1-4 (MacDonald, 2000), Sediment Quality Assessment Guidelines-Probable Effects Concentration
[8]Development and Evaluation of Sediment Quality Assessment Guidelines, Volumes 1-4 (MacDonald, 2000), Sediment Quality Assessment Guidelines-Threshold Effects Concentration

FIGURES

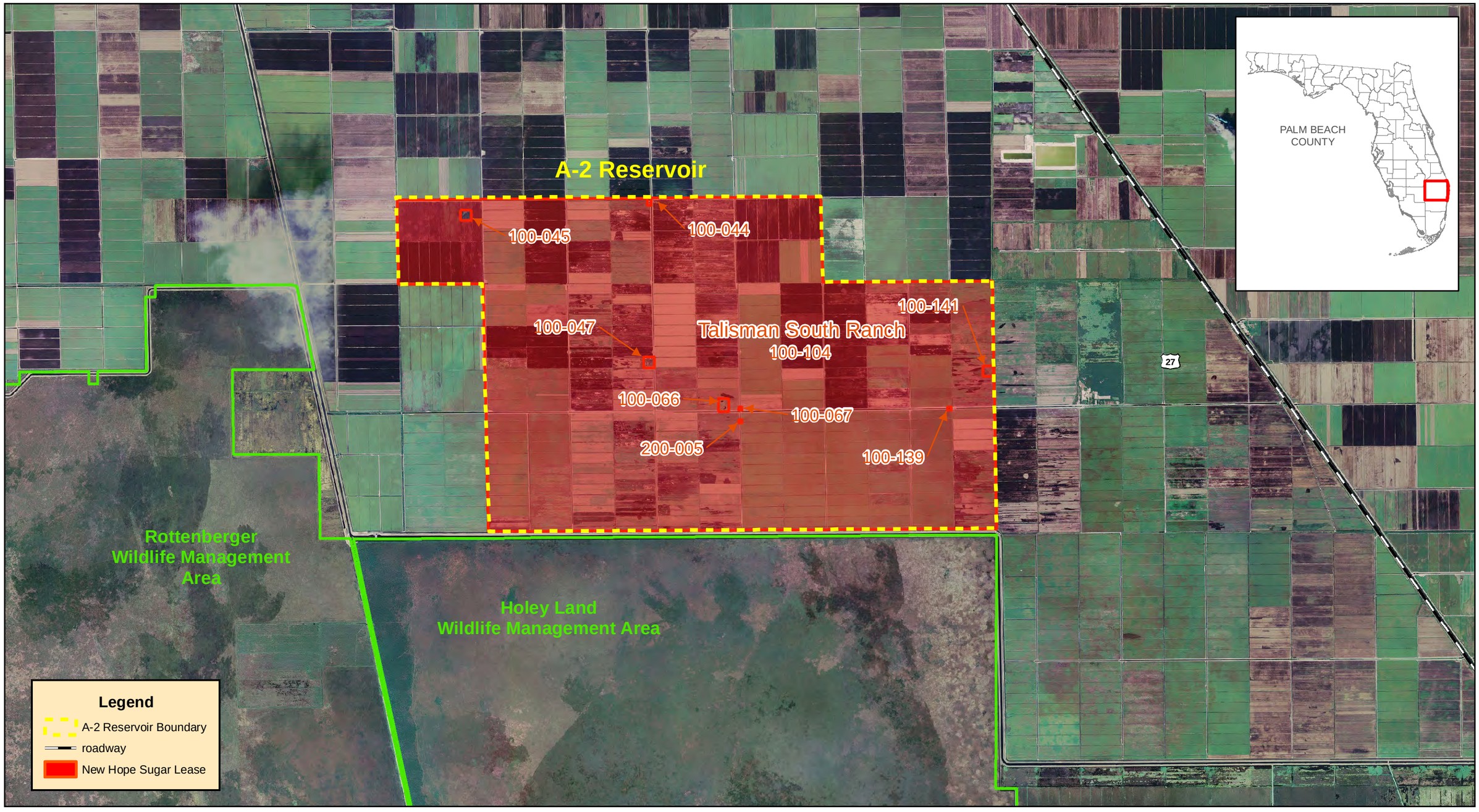


REFERENCE: IMAGE OBTAINED FROM THE FLORIDA GEOGRAPHIC DATA LIBRARY (FGDL)

0 5 10 20 30 40 50 Miles

PROJECT NO. 0552812	Information To Build On Engineering • Consulting • Testing 5801 Benjamin Center Drive Suite 112 Tampa, Florida 33634 (813)886-1075 (813)249-0301 fax	SITE LOCATION MAP A-2 RESERVOIR PROJECT EVERGLADES AGRICULTURAL AREA (EAA) BASIN PALM BEACH COUNTY, FLORIDA
DRAWN BY: KAB		
DATE CREATED: 02-28-2012 SCALE: 1 : 750,000		FIGURE 1-1

E:\PSI\Everglades STA Project\Final Maps\Fig 1 - Site Location Map (9.3)



REFERENCE: THE AERIAL WAS OBTAINED FROM THE LAND BOUNDARY INFORMATION SYSTEM (LABINS)

0 0.5 1 2 3 4 Miles

PROJECT NO.	0552812
DRAWN BY	KAB
DATE CREATED	8/17/2012
SCALE: 1 : 70,000	

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Tampa, Florida 33634
(813)886-1075
(813)249-0301 fax

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SITE PLAN - AERIAL PHOTOGRAPH

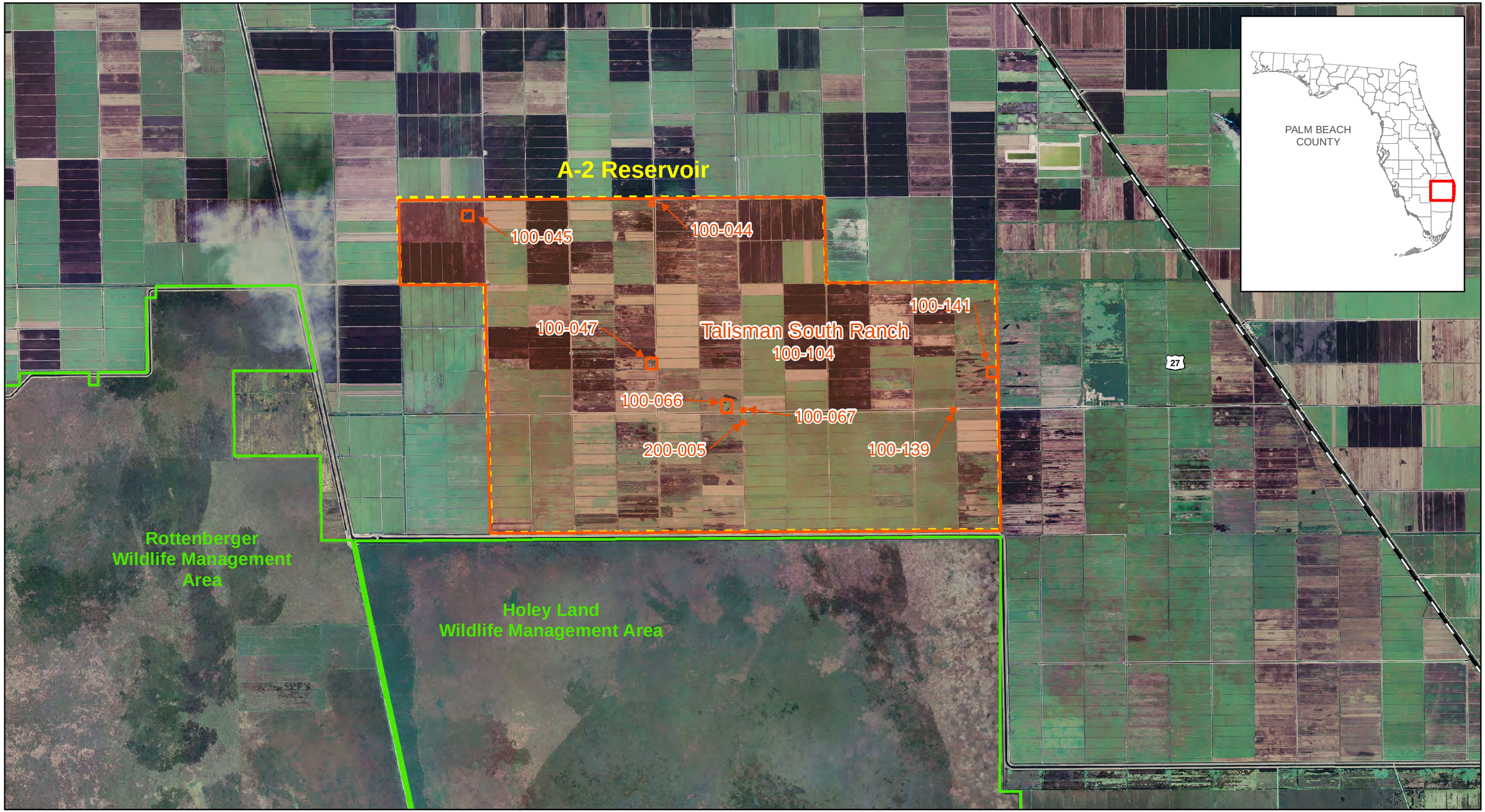
A-2 RESERVOIR PROJECT

EVERGLADES AGRICULTURAL AREA (EAA) BASIN

PALM BEACH COUNTY, FLORIDA

FIGURE 1-2

P:\552-Env\SFWMD\WO#2 (0552812) - A-1, A-2 Reservoir\GIS\Version 9.3



REFERENCE: THE AERIAL WAS OBTAINED FROM THE LAND BOUNDARY INFORMATION SYSTEM (LABINS)

0 0.5 1 2 3 4 Miles

PROJECT NO.	0552812
DRAWN BY	KAB
DATE CREATED	8/17/2012
SCALE: 1 : 70,000	

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(813)249-0301 fax

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DEFERRED PARCEL MAP

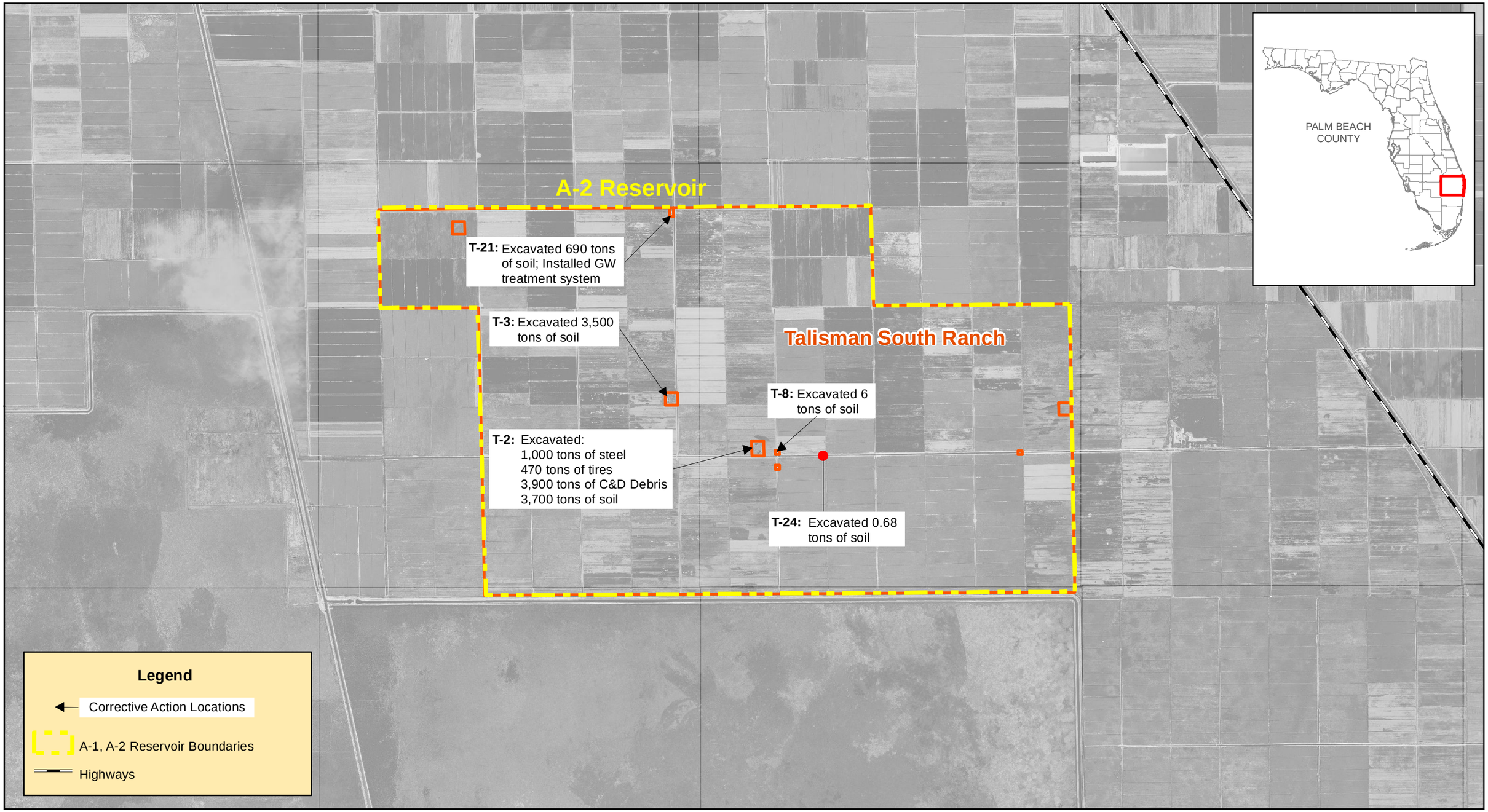
A-2 RESERVOIR PROJECT

EVERGLADES AGRICULTURAL AREA (EAA) BASIN

PALM BEACH COUNTY, FLORIDA

FIGURE 3-1

P:\552-Env\SFWMD\WO#2 (0552812) - A-1, A-2 Reservoir\GIS\Version 9.3



REFERENCE: THE AERIAL WAS OBTAINED FROM THE LAND BOUNDARY INFORMATION SYSTEM (LABINS)

0 0.5 1 2 3 4 Miles

PROJECT NO.	0552812
DRAWN BY	KAB
DATE CREATED	02-28-2012
SCALE: 1 : 60,000	

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CORRECTIVE ACTIONS LOCATION MAP

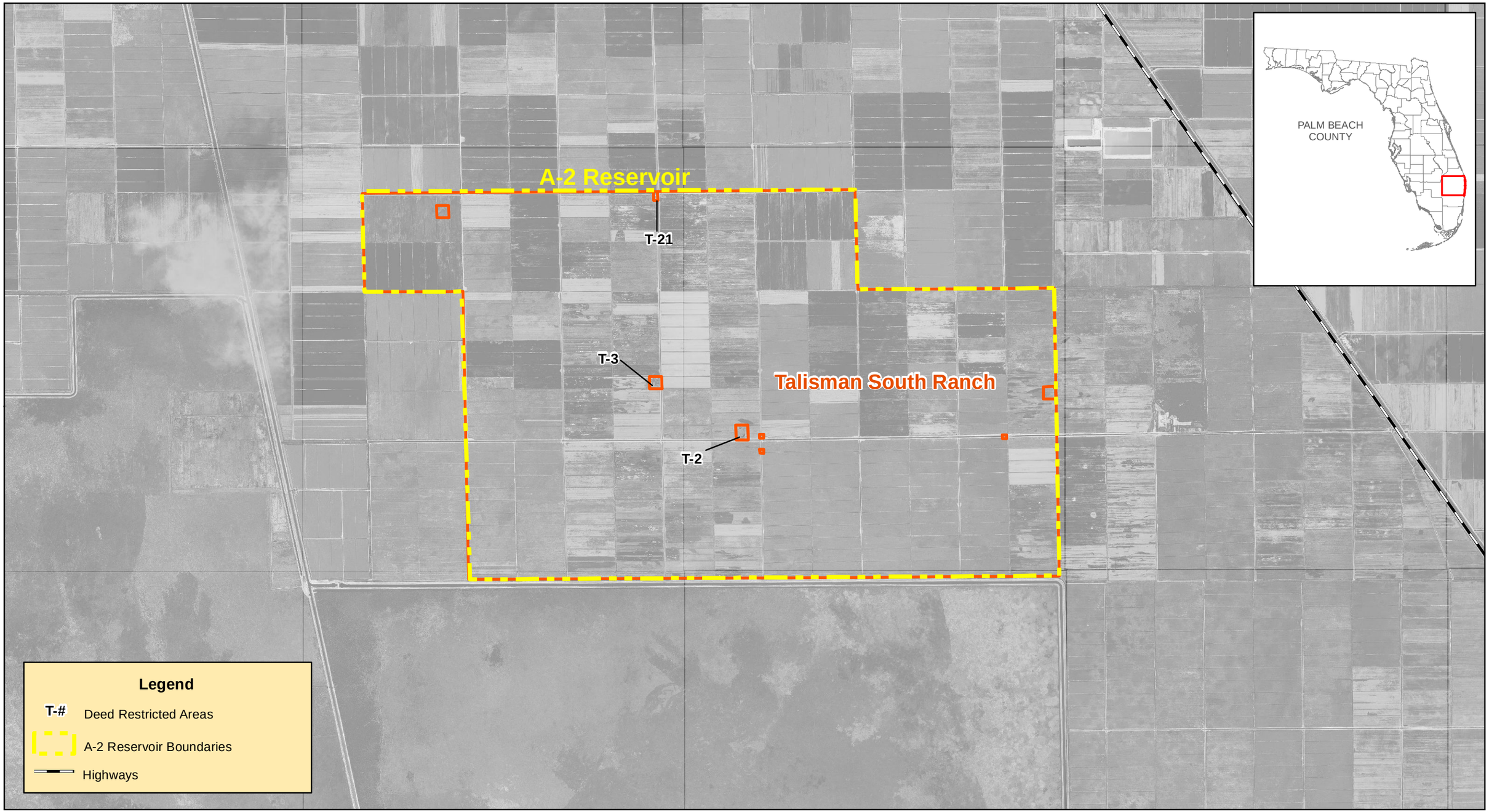
A-2 RESERVOIR PROJECT

EVERGLADES AGRICULTURAL AREA (EAA) BASIN

PALM BEACH COUNTY, FLORIDA

FIGURE 3-2

P:\552-Env\SF\WMD\WO#2 (0552812) - A-1, A-2 Reservoir\GIS\Version 9.3\Fig 7 - Corrective Actions Location Map BW - 11by17 (9.3)



REFERENCE: THE AERIAL WAS OBTAINED FROM THE LAND BOUNDARY INFORMATION SYSTEM (LABINS)

0 0.5 1 2 3 4 Miles

PROJECT NO.	0552812
DRAWN BY	KAB
DATE CREATED	02-28-2012
SCALE:	1 : 60,000

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DEED RESTRICTIONS MAP

A-2 RESERVOIR PROJECT

EVERGLADES AGRICULTURAL AREA (EAA) BASIN

PALM BEACH COUNTY, FLORIDA

FIGURE 3-3

P:\552-Env\SFWMD\WO\2 (0552812) - A-1, A-2 Reservoir\GIS\Version 9.3\Fig 4 - Point Source Location Map BW - 11by17 (9.3)

May 3, 2013

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

Attn: Mr. Robert Kukleski
Lead Environmental Engineer

Re: Phase II Environmental Site Assessment (ESA) – Addendum #1
A-2 Flow Equalization Basin (FEB) Project
Palm Beach County, Florida
Work Order #13

Dear Mr. Kukleski:

Professional Service Industries, Inc. (PSI) is pleased to submit this addendum to the Phase II Environmental Site Assessment (ESA) for the A-2 Flow Equalization Basin (FEB) dated March 25, 2013. This addendum is intended to address comments/requests for clarification that were received from the United States Army Corps of Engineers (USACE). PSI received comments from USACE via e-mail from Mark Shafer on April 2, 2013 and from Lisa Gued on April 11, 2013. We have provided each of the USACE comments below, followed by PSI's response:

Mark Shafer Comments

Provide documentation of:
a. FWS review of A2 sampling results.
b. Documentation of FDEP review of A2 Sampling results.
c. Letter from SFWMD to USACE requesting application of Sep 2011 AG-Chem policy to this project.

PSI Response: Concurrence letters from USFWS and FDEP are provided in **Attachment A** herein. SFWMD will separately provide a letter to USACE requesting application of the September 2011 USACE Ag-Chem Policy to this project.

In addition to USFWS review, this report must be reviewed by FDEP to satisfy USACE Ag-Chem policy.

PSI Response: FDEP has reviewed the Phase II ESA for the A-2 FEB and provided a concurrence letter, which is included in **Attachment A**.

Page 1. In reviewing the A2 Phase II report of March 25th, 2012, it references on page 1 the draft Summary Env. Report for the A-2 FEB, dated September 17, 2012. I have a copy of that report and it does not include much of the information that was originally included in the August 21st, 2012 version. I believe that the WMD solution to USACE concerns about the Sep 17 version was to revert back to the August 21st, 2012 version. I will be referencing the August 21st 2012 version in the CEPP PIR. To do this, page 1 of the March 25 report should be changed to reference the August 21st Summary report and the August 21st report should be provided with a signature from Steve Long.

PSI Response: A signed copy of the August 21, 2012 version of the Summary Environmental Report (SER) is included in **Attachment B**. Please note that PSI provided draft versions of the report on August 21, 2012 and September 17, 2012; however, we had not received previous instruction from SFWMD to finalize the report. Based on your comment and discussion with the District, the August 21 version of the report will be considered as the final version.

Page 6. Section 3.1. Should provide statement that USFWS and USACE reviewed the sampling scope of work and approved the sampling plan. Provide copy of USFWS review letter in appendix.

PSI Response: USFWS and FDEP were both provided with the scope of work and sampling plan. We received concurrence on the proposed plan from USFWS in a letter dated January 8, 2013. A copy of the USFWS concurrence is provided in **Attachment C**. We did not receive any written response from FDEP on the proposed sampling plan, but did receive a concurrence letter from FDEP on the Phase II ESA.

Page 4.1.1 Soil, 4th bullet. Second sentence says SCTL-LSW is appropriate. Third sentence essentially says SCTL-LSW not relevant. Please confirm with FDEP that FEB would not be a class III water though since the FEB eventually discharges to Class III water body don't know of relevance. Also, a discussion that FEB will discharge to STA34 or STA2B before being discharged to a Class III water.

PSI Response: Based on further discussions with SFWMD management, the District does not intend to pursue classification of the FEB as a treatment works as they have done for previous STA projects. The District intends to permit the FEB as a Class III surface water body; however, the FEB will discharge into either STA-3/4 or STA-2B, which are both classified as treatment works. In any case, it appears that the SCTL-LWS is an applicable and relevant and appropriate screening standard for the A-2 FEB project.

Page 12. Metals Results. Chromium exceeded the SCTL-LSW in all samples. Add discussion of why was this analyte not tested using SPLP protocol.

PSI Response: Chromium did exceed the SCTL-LSW of 4.2 milligrams per kilogram (mg/kg) in all of the composite soil samples, with concentrations ranging from 5.6 mg/kg to 28 mg/kg. The detected chromium concentrations appear to be representative of background soil conditions within the EAA and do not exceed any other ecological or

human health screening criteria. Given the high organic content of the soils, PSI does not expect the chromium to leach into surface water to a significant degree. However, based on your comment, PSI subsequently analyzed two samples containing the highest chromium concentrations by the SPLP method to evaluate the potential for leaching. These results are tabulated and discussed on page 4 of this addendum. The SPLP analysis indicates only limited potential for leaching of chromium to surface water, and we do not believe that chromium would exceed the Class III surface water standards in the water impounded within the A-2 FEB due to extensive dilution and other factors. In any case, PSI recommended sampling of the surface water for chromium at start-up as a precaution. This recommendation was accepted by both USFWS and FDEP in lieu of further pre-construction studies.

Page 21. Arsenic: Concentrations do exceed the residential exposure criteria. The FEB may be open to the public for recreation. Some discussion of risks associated with public access should be provided in text. Perhaps a reference to other sites where FDEP has developed a "recreational" exposure criteria (Lake Okeechobee Scenic Trail for instance.)

PSI Response: Arsenic concentrations exceeded the Soil Cleanup Target Level for Residential Direct Exposure (SCTL-RDE) in all of the composite soil samples, and ranged from 3.1 mg/kg to 6.8 mg/kg. The mean arsenic concentration is 4.6 mg/kg. PSI utilized EPA ProUCL to calculate the 95% upper confidence limit (UCL) for the data set. The software package recommends a 95% UCL value of 4.895 mg/kg. A copy of the 95% UCL calculation sheet is provided in **Attachment D**.

While the FDEP does not have a promulgated SCTL for arsenic in a recreational setting, the Department has utilized 5.5 mg/kg as an appropriate SCTL for a number of other recreational projects across the state, including active parks with a significantly higher public exposure frequency than is likely for the FEB. Human health risks for arsenic exposure are primarily driven by ingestion of arsenic in the soil, and children are the most sensitive receptors. For the FEB, any direct contact with arsenic contaminated soils is likely to occur only on the bermed surfaces, where the muck soils may be used for surface dressing. Contact frequency for the general public or workers is likely to be minimal, in comparison to the frequency of use assumed by FDEP in the active park scenario which was used to develop the alternate SCTL for recreational use. PSI believes this alternate recreational SCTL is appropriate for this project and that no protections are necessary for protection of the public related to exposure to arsenic impacted soils in the FEB project.

Page 21. Chromium. Not sure that it is relevant that the planned FEB will or will not be classified as a Class III water body. The FEB will discharge to the STAs and eventually a class III water body. By the way, this paragraph on the SCTL-LSW exceedances is in direct contrast to the discussion that begins in the next paragraph that follows which begins "Class III surface water criteria".

PSI Response: The classification of the FEB as a Class III water body is relevant because since the Class III surface water standards will apply to the water body, then

the SCTL-LSW criteria also apply to the soils within the A-2 FEB footprint. This discussion is now not relevant because the District has elected to permit the A-2 FEB as a Class III surface water.

Page 21. Bullet on Chromium, mercury, and selenium were.... Actual testing of these analytes using the SPLP test procedure would have been useful so you could say for sure if these "leach to a significant degree". This lack of testing should be further justified or corrected by additional testing.

PSI Response: Since the chromium, mercury and selenium concentrations in the soil appeared to be consistent with background conditions in the EAA, and the leaching potential of the highly organic soils was not considered to be high, PSI did not initially elect to perform SPLP analysis on any of the soil samples. However, pursuant to your request we analyzed two samples representing the highest range of these three metals by the SPLP method to evaluate leaching potential. The SPLP results are provided in **Attachment E** and are tabulated below.

Sample ID	Date Collected	Chromium	Mercury	Selenium
SPLP Leachate/163830 (Comp-7)	4/5/2013	3.5 U	0.062 U	2.3 U
SPLP Leachate/163832 (Comp-12)	4/5/2013	18	0.062 U	2.3 U

The results indicate limited potential for leaching of any of these three metals. It is acknowledged that the chromium concentration detected in Comp-12 slightly exceeds the Class III surface water standard of 11 ug/L and that while mercury was not detected in the samples, the method detection limits for mercury are higher than the Class III surface water standard. However, the SPLP results do not account for the extensive dilution that will occur in the FEB as fresh water enters the system. The results indicate that the underlying soils are not likely to leach to the overlying surface water to a degree that would cause an exceedence of the Class III surface water criteria. In any case, PSI has recommended surface water sampling for these metals at start-up to verify this conclusion. Both FDEP and USFWS have accepted the start-up sampling in lieu of conducting further pre-construction studies.

Page 22. Arsenic: The recommendation should indicate whether the results for Arsenic should warrant measures taken in the soil management plan to reduce possible human exposure due to potential for arsenic on levee soils. (Blending or capping with low-arsenic soils, for instance.)

PSI Response: Because the 95% UCL arsenic concentrations in the site soil are below the alternate SCTL for recreational use that has been used by FDEP on similar projects, PSI does not believe that any additional protective measures, such as blending or capping of arsenic impacted soils is warranted to reduce possible exposure to arsenic in the soil.

<u>Lisa Gued Comments on Phase II ESA</u>

Page 2: 1st bullet: How were ND values incorporated in the statistical analyses?

PSI Response: One-half of the detection limit was used to represent non-detect values in the data set.

Page 2: 1st bullet: A table listing the mean and the standard deviation of detected compounds would be useful.

PSI Response: A table showing the mean concentrations and standard deviations for detected compounds that exceeded screening criteria is provided in **Attachment F**.

Page 7: 2nd paragraph: Which chemicals were recently applied?

PSI Response: PSI was informed that Atrazine, 2, 4, D, Dimetric, Calisto, Thimet, and Asolan were in use on the property and had been recently applied. We did not obtain a specific field by field application schedule for these chemicals. Through coordination with Florida Crystals Corporation, we did ensure that we did not sample any fields where chemicals had been applied within the last two weeks.

Page 8: 2nd bullet: Split samples were not accomplished with OP pesticides and herbicides because the primary split laboratory subcontracted these analyses to Sunlabs. Sunlabs was the primary laboratory.

PSI Response: Primary and split samples for organophosphorous pesticides and herbicides were inadvertently run by the same laboratory on this project. The A-2 FEB was the first project where Sun Labs served as a primary laboratory. We were aware that the secondary laboratory, ALS had previously subcontracted these analyses to SunLabs and we would have been better served to select a different secondary laboratory and this issue will be corrected for the next project. The split samples do serve a function in evaluating the precision of the primary laboratory, as the split samples were analyzed on a different day and in a different batch than the original samples. Split samples were analyzed for OCPs and metals by separate laboratories.

Page 10: 3rd paragraph: FWS protocols recommend consideration of ESV established by EPA Region IV when Florida SQAGs are not available. Were these values considered in this assessment?

PSI Response: This statement is correct; however, in this case no ESVs were published for any of the chemicals which were detected that do not have SQAGs. Atrazine, 2,4-D, metribuzin, phorate and selenium do not have either SQAGs or ESVs.

Pages 11-13: In the discussion of the results, the mean and the standard deviation should be reported.

PSI Response: Mean chemical concentrations and standard deviations are reported in the table provided in **Attachment F.**

Pages 11-13: For compounds where the detection limit was higher than the criteria, this should be reported.

PSI Response: A data table showing all target analytes, the method detection limits and all of the regulatory criteria is provided in **Attachment G**.

Page 11: Last paragraph. The MDL that the laboratory reported is approximately 100 times the SQAG-TEC for atrazine.

PSI Response: PSI acknowledges that the MDLs reported for atrazine, which generally ranged from 24-30 ug/kg, are higher than the SQAG-TEC, but are below all other regulatory criteria. The method detection limits reported by SunLabs are consistent with those reported for other labs that are listed on the District's approved list for this contract and meet the MDLs outlined in the SFWMD standard ADaPT library. For example, E-Labs (Pace) reported an MDL for atrazine using EPA Method 8141 of 33 ug/kg and Jupiter Environmental Laboratories reported an MDL of 25 ug/kg using EPA method 8141.

Page 12: 2nd paragraph: The text fails to state that the holding times for SPLP analyses per method EPA 1312 were exceeded. This makes the data questionable.

PSI Response: PSI agrees that the holding times for atrazine and dieldrin were exceeded for the SPLP analyses; however, we do not agree with the assertion that the data is questionable due to the exceedence of hold times. We typically run SPLP analyses as a follow-up when analytes are detected in the composite soil samples at concentrations exceeding the leaching to groundwater or leaching to surface water criteria. By necessity, these samples are not analyzed until the initial results are reported and we determine the specific analytes of concern and the samples with the highest range of these chemicals. It would be cost prohibitive to run all of the samples for SPLP analyses for all analytes or to run all of the composite samples on a rush basis in order to be able to run the SPLP analyses within hold times. Additionally, it would be prohibitive to the schedule and budget to return to the field to re-collect samples for SPLP analysis. In the past, both FDEP and USFWS have accepted that the SPLP results would be slightly beyond hold time for organic analytes and we do not believe that the analysis of these samples a few days beyond the hold time would significantly impact the results.

Page 13: 4.3 Data validation: ADaPT data validation forms were not provided with the laboratory reports in Appendix A.

PSI Response: The ADaPT data validation forms are provided herein in **Attachment H**.

Page 13: 4th paragraph: Does USFWS concur with the value used of 4.2 mg/kg selenium?

PSI Response: Yes.

Page 14: 4th bullet: A spot check of the data indicate that this statement is inaccurate. The method blank run 1/30/13 by CAS has barium, cadmium, copper, mercury in it.

PSI Response: The statement should read that no target analytes were detected in the laboratory method blanks which caused the sample data to be qualified. PSI acknowledges that estimated concentrations ("I" qualified) of barium, cadmium, copper, and mercury were detected in the method blank for the secondary laboratory. The sample data were not qualified as the samples contained concentrations of these metals in excess of 10 times the blank contamination.

Page 14: Bullets 6&7: There are a wide variety of MDLs being reported by commercial laboratories. Were the labs told which criteria the data was going to be compared to? Were different labs contacted?

PSI Response: PSI is aware that individual laboratories may have different method detection limits for any given chemical. The District has established a list of subcontract laboratories that are acceptable for use under the Ecological Risk Assessment contract. Each of these laboratories has been provided with a standard ADAPT library stating the required method detection limits and quality control requirements for each analyte/method/media. The method detection limit requirements listed in the ADAPT library were developed by HSW Engineers based on performance capabilities, regulatory guidance concentrations, and the FDEP Practical Quantitation Limits Guidance.

Page 14: It should be noted that the laboratory did not achieve the SQAGs TEC concentrations for any of the organophosphate pesticides (OPP), the triazine herbicides (including atrazine) or toxaphene. The SOW that this assessment was supposed to follow named EPA 8140 as the method for OPP. The chain of custody from the field requested EPA 8141 + atrazine for the split samples; the chain of custody between ALS and their subcontractor, Sunlabs was changed to EPA 8270. The chain of custody from the field produced to Sunlabs (the primary laboratory) requested EPA 8141. The data was reported out from EPA 8270 which did not conform to the scope. Typically, EPA 8140 provides lower detection limits than EPA 8270 due to use of a more selective detector.

PSI Response: EPA Method 8140 was not specified in the SOW and is no longer included in SW-846. None of the laboratories that are in use by the District are certified by the Florida Department of Health for this method. EPA Method 8141 was specified in the proposal SOW; however, after preparation of the SOW we began experiencing difficulty with the primary laboratory (Jupiter Environmental Laboratory) that we had proposed to use on the project, and we elected to utilize SunLabs as the primary laboratory. SunLabs does not utilize EPA Method 8141, but instead runs the analysis

for OPPs by EPA method 8270. We believe that EPA method 8270 is preferable to EPA method 8141 because it offers mass spec confirmation of identified compounds. PSI has reviewed the MDLs for these compounds using the 8270 method vs. the MDLs reported by the other District-approved laboratories running EPA method 8141 and we found that the MDLs using EPA method 8270 are generally equivalent or better than those identified by the laboratories running EPA 8141. PSI did approve the use of EPA 8270 for OPP analysis, and the method should have been reflected on the chain of custody.

PSI acknowledges that the MDLs for diazinon, azinphos atrazine, simazine, and toxaphene exceed the SQAG TECs. It should be noted that the SQAG-TECs were calculated by an extrapolation of available toxicity data without reference to whether these calculated values were technically achievable by commercial laboratories using available equipment and methods. However, the MDLs reported by SunLabs using EPA 8270 are generally consistent or lower than those reported by other District laboratories using EPA Method 8141. Additionally, practical quantitation limits (PQLs) for a number of these compounds are included in the FDEP Guidance for the Selection of Analytical Methods and Evaluation of Practical Quantitation Limits (FDEP 2004) and the MDLs reported by SunLabs were lower than the FDEP PQLs in most instances. A comparison of the SQAG-TEC criteria, FDEP recommended PQLs, and the SunLabs average MDLs is presented below.

Analyte	**SQAG-TEC (ug/kg)**	**Adapt Library MDL (ug/kg)**	**FDEP PQL (ug/kg)**	**SunLabs MDL (ug/kg)**
Azinphos, ethyl	0.018	25	No goal	44
azinphos, methyl	0.062	50	7	29
chlorpyriphos	No standard	50	20	40
cuomaphos	No standard	30	40	38
diazinon	0.38	30	50	31
dimethoate	No standard	50	70	20
ethion	No standard	30	7	29
ethoprop	No standard	30	20	22
EPN	No standard	30	40	24
fensulfothion	No standard	30	50	27
fonofos	No standard	30	20	22
methyl parathion	No standard	100	20	16
mevinphos	No standard	30	30	22
naled	No standard	50	300	27
parathion	No standard	100	50	18
phorate	No standard	30	7	4.4
terbufos	No standard	30	7	4.4

Analyte	SQAG-TEC (ug/kg)	Adapt Library MDL (ug/kg)	FDEP PQL (ug/kg)	SunLabs MDL (ug/kg)
atrazine	0.3	No goal	10	25
simazine	0.34	No goal	20	24
toxaphene	0.1	30	100	57

Page 17: 1st bullet: Please confirm that the 95% UCL of dieldrin exceeds the SQAG-TEC.

PSI Response: The calculated 95% UCL for dieldrin is 2.15 ug/kg, which does slightly exceed the SQAG-TEC of 1.9 ug/kg.

Page 17: 2nd bullet: Does the FWS concur with no risk for barium?

PSI Response: Yes.

Page 17: 2nd bullet: The range of barium concentration defined by FDEP (Carvalho and Schropp, 2002) in the Florida DEPs Interpretive Tool for Assessment of Metal Enrichment in Florida Freshwater Sediment warns of the limitation that "the majority of the freshwater sediment systems used to build the sediment metals database from which this tool was developed came from central peninsular and north Florida. Therefore, this tool should be used to evaluate sediments from the same region". It goes on to say in the Recommendations: "… the interpretive tool should be used with a cautionary note outside of central peninsular and north Florida."

PSI Response: Comment noted. The Interpretive Tool was not used per se for the assessment. Rather, the concentrations of barium observed in the reference locations used in the Interpretive Tool were used to indicate that the barium concentrations observed at A-2 were not likely to be toxic to benthic invertebrates.

Table 1: SPLP should have a footnote.

PSI Response: This comment does not appear to be complete. Please indicate what the footnote should document.

Tables: A complete table listing the criteria and the found value and or detection limit would be useful to see at a glance the detection limit vs the criteria.

PSI Response: We do not typically provide tables showing all analytes, as USFWS and FDEP have indicated a preference to see only detected analytes. The method detection limits for all analytes are shown in the laboratory reports, which were included in Appendix A of the Phase II ESA. At your request, we have provided a table showing all analytes, the detection limits and the applicable regulatory criteria in **Attachment G**.

Lisa Gued Comments re: Appendix B Screening Level Ecological Risk Assessment

Page 3: 4th paragraph I have been unable to locate the full dataset.

PSI Response: The full dataset (i.e., all of the laboratory reports) was included on a CD ROM in Appendix A of the Phase II ESA Report.

Page 3: 5th paragraph: Which samples are discrete?

PSI Response: Only composite samples were collected for this assessment.

Page 4: 3.1.1 Does USFWS concur with this?

PSI Response: Yes.

Page 4: 3.1.1 The range of barium concentration defined by FDEP (Carvalho and Schropp, 2002) in the Florida DEPs Interpretive Tool for Assessment of Metal Enrichment in Florida Freshwater Sediment warns of the limitation that "the majority of the freshwater sediment systems used to build the sediment metals database from which this tool was developed came from central peninsular and north Florida. Therefore, this tool should be used to evaluate sediments from the same region". It goes on to say in the Recommendations: "… the interpretive tool should be used with a cautionary note outside of central peninsular and north Florida."

PSI Response: Comment noted. The Interpretive Tool was not used per se for the assessment. Rather, the concentrations of barium observed in the reference locations used in the Interpretive Tool were used to indicate that the barium concentrations observed at A-2 were not likely to be toxic to benthic invertebrates.

Page 5: 1st paragraph: Does the USFWS concur with the barium concentrations are not likely to cause effects?

PSI Response: Yes.

Page 5: 4th paragraph: Does the USFWS concur with the lack of PEC exceedance in any sample and the unique properties of muck soils with the A-2 cultivated area suggest that the potential for toxic effects would be lower than predicted by SQAGs?

PSI Response: Yes.

Page 5: 4th paragraph: Define unique properties.

PSI Response: The unique properties of muck soils are associated with the exceptionally high organic carbon content of the soils (20 – 50%) which is expected to reduce the bioavailability of copper once flooded versus soils containing lower amounts of organic material.

Page 6: 3.1.3: The information is in conflict with the ESA assertion on page 13. The recommended value for selenium should be inserted in to the detected table 1 and footnoted.

PSI Response: The USFWS has recommended a screening benchmark equal to 2 mg/kg for use in SFWMD SLERAs. The value is not experimentally derived and is not equivalent to a SQAG, so it is not appropriate for inclusion on Table 1. The 4.2 mg/kg value cited in the Phase II ESA is not a screening benchmark recommended by USFWS, but is rather an experimentally derived benchmark that may be applicable for use in South Florida in certain situations where selenium is present at concentrations greater than the 2.0 mg/kg screening benchmark in highly organic soils such as those found at this Site.

Page 6: 3.1.4 I am unable to identify a Figure 2 in the hard copy report.

PSI Response: Figure 2 was included in the SLERA; however, we have included a copy for your use in **Attachment I**.

Page 6: Does USFWS concur with the recalculation of the 0.0003 ug/kg TEC value for atrazine to 587 ug/kg TEC for atrazine?

PSI Response: Yes.

Page 6: 3.1.5 What is the half-life for 2,4-D?

PSI Response: According to EXTOXNET (http://extoxnet.orst.edu/pips/24-D.htm) the average half-life of 2,4-D in soils is less than 7 days.

Page 6: 3.1.5: Does USFWS concur with the calculation of the site-specific SQAGs for 2,4-D?

PSI Response: Yes.

Table 1: comp-10 should be shaded for dieldrin concentration

PSI Response: A corrected version of Table 1 reflecting dieldrin concentrations exceeding the SQAG by shading is provided in **Attachment J**.

Page 8: 2nd paragraph Does USFWS concur?

PSI Response: Yes.

Page 8:5th paragraph: Was metribuzin applied recently or not?

PSI Response: Yes.

Page 8:6th paragraph: Was phorate applied recently or not?

PSI Response: Yes.

Page 9: 3.2 The cumulative risk did not include the data for barium. Barium data were not used because it was considered background. It those data were left in the average PEC-HQ would be greater than 0.5. Does USFWS concur with deletion of barium data? Table 2: The value for SQAG PEC for dieldrin is incorrect in this table. The correct value is 0.062 mg/kg.

PSI Response: Barium was not included in the cumulative risk calculations because the PEC for barium is not based on the proper type of benchmark for average PEC calculation as discussed on Page 9 of the SLERA: "In order to calculate the potential for cumulative risk, MacDonald et al. (2003) recommends the use of the average PEC quotient (PEC-HQ) which represents the average ratio of the site chemical concentration to the PEC SQAG. This measure is only meant for use for those chemicals that have consensus-based SQAGs derived in the SQAG guidance document."

Review of the SQAG guidance document provides no information regarding the derivation of the TEC and PEC benchmarks for barium. The barium SQAGs are not representative of the typical consensus-based benchmarks provided for most of the metal contaminants in the guidance and no discussion regarding the underlying assumptions behind the benchmark is provided. A review of the referenced source for the benchmarks indicates that the author of the benchmark guidance obtained the benchmarks from a secondary source which was itself a draft document (SAIC 1991). Neither the secondary nor the primary source (USEPA 1977) were located after an extensive search for both documents. Some information on the barium benchmarks was located in the Washington State Sediment Quality Guidelines document (WADOE 1997). The Washington document indicated that the benchmarks cited in the USEPA (1977) guidance developed by USEPA Region V in order to classify Great Lakes harbor sediments. The document notes that the values are 'somewhat arbitrary and are not well founded scientifically' and that they were only adequate for 'determining the suitability of dredged material for open water disposal'. The barium benchmarks appear to be based not on benthic toxicity but on an unknown general 'contamination classification' scheme. As a result, their use in calculation of average PEC-HQs meant for consensus-based benchmarks would be inappropriate.

MacDonald, D.D., C.G. Ingersoll, D.E. Smorong, R.A. Lindskoog, G. Sloane, and T. Biernacki. 2003. Development and Evaluation of Numerical Sediment Quality Assessment Guidelines for Florida Inland Waters. Florida Department of Environmental Protection, Tallahassee, FL.

SAIC (Science Application International Corporation). 1991. Draft compilation of sediment quality guidelines for EPA Region 5 inventory of contaminated sediment sites. Prepared by Science Application International Corporation. Chicago, Illinois. 48 pp.

USEPA (United States Environmental Protection Agency). 1977. Guidelines for the pollution classification of Great Lakes Harbor sediments. United States Environmental Protection Agency. Region V. Chicago, Illinois. (As cited in SAIC 1991).

Washington State Department of Ecology. 1997. Creation and Analysis of Freshwater Sediment Quality Values in Washington. Publication Number 97-323a. July 1997.

Page 10: 2nd paragraph: The text says that "a screening-level approach was used to identify COPCs by using the maximum composite sample concentration from the discrete sediment samples…" This does not make sense. There were no discrete samples.

PSI Response: The comment is correct, discrete samples were not available and the sentence should read: **...***a screening-level approach was used to identify COPCs by using the maximum composite sample concentration ~~from the discrete sediment samples~~…"*

Page 10: 3rd paragraph: Treatment of barium is inconsistent through this report. It was not used in Table 2 to calculate PECs-HQ but it was used in Table 3 to calculate HQs for aquatic – feeding birds.

PSI Response: The treatment of barium is consistent throughout the document according to the Protocol.

Calculation of the average PEC-HQ (Table 2) was conducted using those COPCs whose concentration exceeded a consensus-based PEC from the MacDonald et al. (2003) document as previously discussed. This calculation is used to assess the potential to the benthic invertebrate community only and has no bearing on or relationship to the HQs calculated for aquatic-feeding birds.

HQs calculated for aquatic-feeding birds use a food web model as described in the Protocol that estimates the daily intake of COPCs, including barium. The estimated intake is then compared to laboratory-derived toxicity reference values (TRVs) to calculate the HQs shown in Table 3.

Page 10: 3rd paragraph: The text says that atrazine is a chemical with low toxicity. How do the authors reconcile the 0.0003 mg/kg SQAG-TEC values; it is the lowest concentration of TEC for the compounds detected.

PSI Response: SQAGs are screening-level benchmarks for predicting the potential for toxicity to benthic invertebrates and the comment is correct in that atrazine can be toxic to aquatic life. As a result, the potential for risk to benthic invertebrates was discussed in Section 3.1.4. However, Section 3.3 in which the quoted text is found discusses risk to aquatic-feeding birds. Atrazine is described by EXTOXNET

(http://extoxnet.orst.edu/pips/atrazine.htm) as “practically nontoxic to birds” as indicated in the referenced text.

Page 11: 3.3.1 Does USFWS concur with this position?

PSI Response: Yes.

∞ ∞ ∞

We trust that these responses will be satisfactory to address the USACE’s concerns regarding the report. If you have any additional questions, please do not hesitate to contact me at 303-424-5578.

Respectfully submitted,
PROFESSIONAL SERVICE INDUSTRIES, INC.

Stephen P. Long, PE, PG
Chief Engineer

Michael Rothenburg, PE
Env. Dept. Manager

Attachments:

A- USFWS and FDEP Concurrence Letters for Phase II ESA
B- Final Summary Environmental Report for A-2 FEB, dated 8/21/12
C- USFWS Concurrence Letter for Phase II ESA SOW
D- 95% UCL Calculations
E- SPLP Results
F- Mean analyte concentrations and standard deviations
G- Laboratory Analytical Data Table for Soil
H- ADaPT Data Validation Forms
I- SLERA Figure 2
J- SLERA Table 1(rev.)

C:\Documents and Settings\766107\My Documents\SFWMD\A-1 and A-2 Reservoir\A-2 Phase II ESA\Phase II ESA Addendum #1 - 4-22-13.doc

ATTACHMENT A

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960

April 17, 2013

Robert Kukleski
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

Dear Mr. Kukleski:

The U.S. Fish and Wildlife Service (Service) has reviewed the document entitled "Phase II Environmental Site Assessment for the A-2 Flow Equalization Basin, Palm Beach County, Florida," prepared by Professional Service Industries, Incorporated (PSI). This report summarizes sampling results for the approximately 14,408 acre Talisman property.

Previous due diligence assessments were performed on the A-2 Flow Equalization Basin (FEB) parcels prior to the creation of the current "Protocol for Assessment, Remediation, and Post-Remediation. Monitoring for Environmental Contaminants on Everglades Restoration Projects", therefore a reduced sampling density of 10 percent was agreed to prior to the current assessment of previously cultivated areas in the project footprint. All point source concerns within the A-2 FEB were previously assessed and remediated as necessary. A total of 30, fifty acre grids were sampled using composite samples. Analytical results were compared to the Florida Department of Environmental Protection Sediment Quality Assessment Guidelines (SQAG) and the Florida Administrative Code Soil Cleanup Target Levels (SCTL).

Results

Barium concentrations (69 to 118 mg/kg) exceeded the SQAG threshold effect concentration (20 mg/kg) and probable effect concentration (PEC) (60 mg/kg) in all of the samples. Copper (53 to 110 mg/kg) was detected at concentrations that exceeded the recommended interim screening level for protection of the Everglade snail kite (*Rostrhamus sociabilis plumbeus*) (85 mg/kg) in eight of the samples collected. The calculated 95 percent upper confidence level (UCL) of the mean copper concentrations (83.1 mg/kg) was below 85 mg/kg. The metals chromium, mercury, and selenium exceeded the SCTL for leaching to surface water in several of the sample locations. The herbicides 2,4-D, metribuzin, phorate, and atrazine were detected at some locations with concentrations above the SCTL for leaching to surface water or ground water. Atrazine (27 to 3,500 µg/kg) was relatively widespread, with detections at 16 of the sampling locations above the SQAG threshold effect concentration (TEC) (0.30 µg/kg). The pesticide dieldrin was detected above the SQAG TEC (1.9 µg/kg) in four samples, ranging from 2.7 to 5.1 µg/kg. Atrazine and dieldrin were also analyzed with the synthetic precipitation leaching procedure (SPLP). Atrazine was detected in SPLP extract at concentrations above the Florida Administrative Code (FAC) groundwater cleanup target level (GCTL) and the FAC

Surface water Cleanup Target Level (SwCTL). The detection limits for the dieldrin SPLP extracts were above the SwCTL.

Copper concentrations within the A-2 FEB did show some exceedances above the recommended interim screening level, but sitewide they are calculated to be below 85 mg/kg. In addition, the total organic carbon (TOC) content of the soils at the proposed A-2 FEB are high (20-50 percent) and will act to decrease the bioavailability of copper. The recommended interim screening level was generally established for sandy soils with roughly 1 percent TOC. To verify that copper does not present a risk to snail kites, PSI recommended a sampling program at the start-up of the A-2 FEB to monitor copper concentrations in surface water, periphyton, and any apple snails that may establish onsite. To address the exceedances of 2,4-D, atrazine, metribuzin, phorate, dieldrin, chromium, mercury, and selenium above the SCTL for leaching to surface water PSI recommended sampling surface water after start-up operations at the A-2 FEB.

Summary and Recommendations

After reviewing the analytical data, the Service concurs that the detected contaminant concentrations are unlikely to pose risk to Service trust resources at the proposed A-2 FEB. We agree that the proposed monitoring for copper is necessary to verify predictions of reduced copper bioavailability due to the high TOC. While the detected levels of barium could potentially impact the benthic community, it is unlikely that they would pose risk to federally listed species.

The Service agrees that an agrochemical best management practices (BMP) plan is appropriate to address the use of agrochemicals, if the property is used for agricultural purposes prior to project construction. We strongly recommend restricting any further use of copper and discontinuing use of atrazine a minimum of one year prior to project construction. If agrochemicals are applied during the interim use, then further sampling may be necessary to ensure that agrochemical concentrations are below thresholds for ecological risk.

Thank you for the opportunity to provide comments regarding the assessment in the A-2 FEB project area. If you have any questions, please contact Emily Bauer at 772-469-4335.

Sincerely yours,

for Larry Williams
Field Supervisor
South Florida Ecological Services Office

cc: electronic only

Corps, West Palm Beach, Florida (Tori White)
Service, Vero Beach, Florida (Sharon Kocis, Steve Mortellaro)
PSI, Tampa, Florida (Stephen Long)

DEPARTMENT OF ENVIRONMENTAL PROTECTION

MEMORANDUM

TO: **Joe Lurix, Air/Waste/WF Program Administrator**

FROM: **William Rueckert, Environmental Manager, Waste Compliance Assistance & Enforcement Section** WAR

DATE: **April 4, 2013**

SUBJECT: **Phase II Environmental Site Assessment, A-2 Flow Equalization Basin, Palm Beach County; Site No. COM_157258 (Talisman); Tract Numbers: D7100-044; -047; -066; -067; -104; -139; -141; and D7200-005.**

As requested by the Department's Office of Ecosystem Projects in Tallahassee, I have reviewed the document prepared for the South Florida Water Management District (District) by Professional Service Industries, Inc. (PSI) dated March 25, 2013 (received April 1, 2013) *Phase II Environmental Site Assessment, A-2 Flow Equalization Basin (Report), Palm Beach County, Florida*. The Department's review was performed following the "Protocol for Assessment, Remediation and Post Remediation Monitoring for Environmental Contaminants on Everglades Restoration Projects" known as the White Paper. The Waste Compliance Assistance & Enforcement Section has the following comments:

1. Based on the information and representations as presented, this Report adequately addresses the concerns of the Department's Waste Compliance Assistance & Enforcement Section with further discussion below. Therefore, the property addressed in this Report should be capable of being utilized for the intended end use as a flow equalization basin.

2. Start Up Operations - the Department concurs that during the start up operation a one-time surface water and sediment sampling event should be performed. This sampling event should be performed at the 30- or 60-day period from inundation. **In addition,** after one year of operations, an additional surface water sampling event should be performed. Sample location, minimum of three, determinations should be based upon the highest concentrations of the listed parameters presented in this Report. The Department suggests three locations with the highest copper concentrations for the metals analyses. For example, sample collection should be in the vicinity of Comp-1, Comp-16, and Comp-30.

Sample locations, minimum of three, for the pesticide and herbicide analyses should be in the areas of Comp-9, Comp-18, and Comp-28. The following parameters should be laboratory analyzed: pesticides and herbicides (2,4-D; atrazine; metribuzin; phorate) and metals (barium, chromium, copper, mercury and selenium).

3. Arsenic is not suggested for additional analyses but these soils should not be transported off site for uncontrolled disposal. As presented in Section 6.2, Recommendations, a soil management plan should be developed for project construction to ensure proper handling and disposal of the soils.

4. Also as presented in Section 6.2 of the Report, an agrochemical best management practices plan should be instituted during the continued use of agrochemicals on the property.

If you have any questions, feel free to contact William Rueckert at (561) 681-6679 or at William.Rueckert@dep.state.fl.us.

cc: (RPPS_Comp@dep.state.fl.us)

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ATTACHMENT B

Note: Attachment B is too large to include in electronic file. A hard copy of this report is being separately transmitted.

ATTACHMENT C

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960

January 8, 2013

Robert Kukleski
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

Dear Mr. Kukleski:

The U.S. Fish and Wildlife Service (Service) has reviewed the document entitled "Proposal for Phase II Environmental Site Assessment, A-2 Flow Equalization Basin (FEB) Project, Palm Beach County, Florida, Proposal No. 552-80246," prepared by Professional Service Industries, Incorporated (PSI). This proposal summarizes planned sampling for the 14,408-acre property located between US Highway 27 and the Miami Canal in southern Palm Beach County.

Due diligence assessments were performed on the A-2 FEB parcels prior to the creation of the current "Protocol for Assessment, Remediation, and Post-Remediation, Monitoring for Environmental Contamination of Everglades Restoration Projects", so reduced sampling density is satisfactory for providing a general indication of large scale concerns in the project area. Approximately 10% of the formerly cultivated sugarcane area will be sampled using composite samples from 50-acre grids. It is agreed that if exceedances based on ecological screening criteria are identified, then additional investigation will be required.

The Service concurs with the proposed sampling plan for the A-2 FEB project area. We look forward to reviewing sampling results once they become available.

Thank you for the opportunity to provide comments regarding this sampling proposal for the A-2 FEB project. If you have any questions, please contact Emily Bauer at 772-469-4335.

Sincerely yours,

for Larry Williams
Field Supervisor
South Florida Ecological Services Office

cc: electronic only
Corps, West Palm Beach, Florida (Tori White)
Service, Vero Beach, Florida (Kevin Palmer)
PSI, Tampa, Florida (Stephen Long)

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ATTACHMENT D

General UCL Statistics for Full Data Sets

User Selected Options	
From File	WorkSheet.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

C0

General Statistics

Number of Valid Observations	36	Number of Distinct Observations	24

Raw Statistics		Log-transformed Statistics	
Minimum	3.1	Minimum of Log Data	1.131
Maximum	6.8	Maximum of Log Data	1.917
Mean	4.593	Mean of log Data	1.501
Geometric Mean	4.484	SD of log Data	0.221
Median	4.3		
SD	1.036		
Std. Error of Mean	0.173		
Coefficient of Variation	0.226		
Skewness	0.556		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.93	Shapiro Wilk Test Statistic	0.952
Shapiro Wilk Critical Value	0.935	Shapiro Wilk Critical Value	0.935
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
95% Student's-t UCL	4.885	95% H-UCL	4.903
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	5.335
95% Adjusted-CLT UCL (Chen-1995)	4.894	97.5% Chebyshev (MVUE) UCL	5.656
95% Modified-t UCL (Johnson-1978)	4.888	99% Chebyshev (MVUE) UCL	6.288

Gamma Distribution Test		Data Distribution
k star (bias corrected)	19.29	Data appear Gamma Distributed at 5% Significance Level
Theta Star	0.238	
MLE of Mean	4.593	
MLE of Standard Deviation	1.046	
nu star	1389	
Approximate Chi Square Value (.05)	1303	Nonparametric Statistics
Adjusted Level of Significance	0.0428	95% CLT UCL 4.877
Adjusted Chi Square Value	1299	95% Jackknife UCL 4.885
		95% Standard Bootstrap UCL 4.873
Anderson-Darling Test Statistic	0.537	95% Bootstrap-t UCL 4.922
Anderson-Darling 5% Critical Value	0.747	95% Hall's Bootstrap UCL 4.894
Kolmogorov-Smirnov Test Statistic	0.117	95% Percentile Bootstrap UCL 4.862
Kolmogorov-Smirnov 5% Critical Value	0.147	95% BCA Bootstrap UCL 4.924
Data appear Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 5.346
		97.5% Chebyshev(Mean, Sd) UCL 5.672

Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	6.311
95% Approximate Gamma UCL (Use when n >= 40)	4.895		
95% Adjusted Gamma UCL (Use when n < 40)	4.909		
Potential UCL to Use		Use 95% Approximate Gamma UCL	4.895

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

ATTACHMENT E

April 11, 2013

Andrew Cadle
PSI
5801 Benjamin Center Dr, #112
Tampa, FL 33634

Re: SunLabs Project Number: **130404.09**
Client Project Description: **A-2 FEB SPLP**

Dear Mr. Cadle:

Enclosed is the report of laboratory analysis for the following samples:

Sample Number	Sample Description	Date Collected		Date Received
163830	Comp-7 012313	01/23/13	15:30	01/28/13
163831	SPLP Leachate/163830 (Comp-7)	04/05/13	9:00	
163832	Comp-12 012513	01/25/13	13:20	01/28/13
163833	SPLP Leachate/163832 (Comp-12)	04/05/13	9:00	

Narrative:

Unless otherwise noted below or in the report and where applicable:
- Samples were received at the proper temperature and analyzed as received.
- Sample condition upon receipt is recorded on the chain-of-custody attached to this report.
- Results for all solid matrices are reported on a dry weight basis.
- Appropriate calibration and QC criteria were satisfactorily met.
- All applicable holding times for analytes have been met.
- Copies of the chains-of-custody, if received, are attached to this report.

Samples 163830 (Comp-7 012313) and 163832 (Comp-12 012513) were leached outside of hold time for Mercury. All other metals were leached within holding times.

If you have any questions or comments concerning this report, please do not hesitate to contact us.

Sincerely,

Michael W. Palmer
Vice President, Laboratory Operations

Enclosures

Unless Otherwise Noted and Where Applicable:

The results herein relate only to the items tested or to the samples as received by the laboratory • This report shall not be reproduced except in full, without the written approval of SunLabs • All samples will be disposed of within 60 days of the date of receipt of the samples • All results meet the requirements of the NELAC standards • Uncertainty values are available upon request

Report of Laboratory Analysis

SunLabs Project Number	PSI
130404.09	Project Description
	A-2 FEB SPLP

April 11, 2013

SunLabs Sample Number	163830	Matrix	Soil
Sample Designation	Comp-7 012313	Date Collected	01/23/13 15:30
		Date Received	01/28/13 13:20

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep	Analyst
Synthetic Precipitation Leaching Procedure										
SPLP - Date Leached	1312		04/05/13	1				04/05/13	04/05/13	REB

SunLabs, Inc.
5460 Beaumont Center Blvd., Suite 520
Tampa, FL 33634

Laboratory ID Number - E84809

Phone: (813) 881-9401
Email: Info@SunLabsInc.com
Website: www.SunLabsInc.com

Report of Laboratory Analysis

SunLabs Project Number	PSI
130404.09	Project Description
	A-2 FEB SPLP

April 11, 2013

SunLabs Sample Number	163831	Matrix	SPLP Leachate
Sample Designation	SPLP Leachate/163830 (Comp-7)	Date Collected	04/05/13 09:00
		Date Received	

Parameters	Method	Units	Results		Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep	Analyst
Mercury											
Date Digested	7470		04/10/13							04/10/13 12:20	CLG
Date Analyzed	7470		04/11/13		1				04/11/13 14:27		CLG
Mercury	7470	ug/L	0.062	U	1	0.062	0.25	7439-97-6	04/11/13 14:27	04/10/13 12:20	CLG
RCRA Metals											
Date Digested	3005		04/10/13							04/10/13 14:45	CLG
Date Analyzed	6010		04/10/13		1				04/10/13 23:18		CAM
Chromium	6010	ug/L	3.5	U	1	3.5	14	7440-47-3	04/10/13 23:18	04/10/13 14:45	CAM
Selenium	6010	ug/L	2.3	U	1	2.3	9.2	7782-49-2	04/10/13 23:18	04/10/13 14:45	CAM

Report of Laboratory Analysis

SunLabs Project Number	PSI
130404.09	Project Description
	A-2 FEB SPLP

April 11, 2013

SunLabs Sample Number	163832	Matrix	Soil
Sample Designation	Comp-12 012513	Date Collected	01/25/13 13:20
		Date Received	01/28/13 13:20

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep	Analyst
Synthetic Precipitation Leaching Procedure										
SPLP - Date Leached	1312		04/05/13	1				04/05/13		REB

SunLabs, Inc.
5460 Beaumont Center Blvd., Suite 520
Tampa, FL 33634

Laboratory ID Number - E84809

Phone: (813) 881-9401
Email: Info@SunLabsInc.com
Website: www.SunLabsInc.com

Report of Laboratory Analysis

SunLabs Project Number	PSI
130404.09	Project Description
	A-2 FEB SPLP

April 11, 2013

SunLabs Sample Number	163833	Matrix	SPLP Leachate
Sample Designation	SPLP Leachate/163832 (Comp-12)	Date Collected	04/05/13 09:00
		Date Received	

Parameters	Method	Units	Results		Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep	Analyst
Mercury											
Date Digested	7470		04/10/13							04/10/13 12:20	CLG
Date Analyzed	7470		04/11/13		1				04/11/13 14:29		CLG
Mercury	7470	ug/L	0.062	U	1	0.062	0.25	7439-97-6	04/11/13 14:29	04/10/13 12:20	CLG
RCRA Metals											
Date Digested	3005		04/10/13							04/10/13 14:45	CLG
Date Analyzed	6010		04/10/13		1				04/10/13 23:21		CAM
Chromium	6010	ug/L	18		1	3.5	14	7440-47-3	04/10/13 23:21	04/10/13 14:45	CAM
Selenium	6010	ug/L	2.3	U	1	2.3	9.2	7782-49-2	04/10/13 23:21	04/10/13 14:45	CAM

Report of Laboratory Analysis

SunLabs Project Number	PSI
130404.09	Project Description
	A-2 FEB SPLP

April 11, 2013

Footnotes

**	SunLabs is not currently NELAC certified for this analyte.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J	The reported value failed to meet the established quality control criteria for either precision or accuracy(see cover letter for explanation)
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MB	Method Blank
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NA	Sample not analyzed at client's request.
Q	Sample held beyond the accepted holding time.
RPD	Relative Percent Difference
U	Compound was analyzed for but not detected.
U,Q	Compound was anaylzed for but not detected. Sample was analyzed beyond the accepted holding time.
V	Indicates that the analyte was detected in both the sample and the associated method blank.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
Z	Too many colonies were present (TNTC); the numeric value represents the filtration volume.

Quality Control Data

Project Number	PSI
130404.09	Project Description: A-2 FEB SPLP

April 11, 2013

Batch No: F1460

Test: Mercury

TestCode: Hg-L

Associated Samples: 163831, 163833

Compound	Blank	LCS Spike	LCS %Rec	LCSD %Rec	RPD %	---QC Limits--- RPD	LCS	MS Spike	MS %Rec	MSD %Rec	RPD %	---QC Limits--- RPD	MS	Dup RPD	Qualifiers
Parent Sample Number									*163831*	*163831*					
Date Digested	04/10/13														
Date Analyzed	04/11/13														
Mercury	0.062 U ug/L	5.0	93	97	4	20	80-120	5.0	94	97	3	20	75-125		

Batch No: F1463

Test: RCRA Metals

TestCode: RCRA-7-w-ug/L

Associated Samples: 163831, 163833

Compound	Blank	LCS Spike	LCS %Rec	LCSD %Rec	RPD %	---QC Limits--- RPD	LCS	MS Spike	MS %Rec	MSD %Rec	RPD %	---QC Limits--- RPD	MS	Dup RPD	Qualifiers
Parent Sample Number									*163833*	*163833*					
Chromium	3.5 U ug/L	1000	100	98	2	20	80-120	1000	97	96	1	20	75-125		
Selenium	2.3 U ug/L	1000	95	95	0	20	80-120	1000	97	96	1	20	75-125		

* indicates value is outside control limits for %Recovery or greater than acceptance criteria for RPD

Footnotes

U *Compound was analyzed for but not detected.*

Pg 1 of 3

SunLabs, Inc. Chain of Custody

130404.09

№ 37587

Client Name: PSI
Contact: Drew Cadle
Address:
Phone / Fax: on file
E-Mail :

SunLabs Project # 130128.00 apb

Project Name: A-2 Fe P
Project #: 05521114
PO #:
Alt Bill To:

SunLabs Sample #	Sample Description	Sampled Date	Sampled Time	# of Bottles	EPA 8081	EPA 8141	EPA 8151	RCRA 8 + Copper + Total Organic Carbon (TOC)	EPA 8081	EPA 8			
Bottle Type					S	S	S	S	S				
Preservative					1	1	1	1	1				
Matrix					SO	SO	SO	SO	SO				
1591070	Comp-15 012213	1-22-13	1355	3	X	X	X	X	X				
	~~Comp-15 Sp~~ RF												
1071	Comp-21 012213	1-22-13	1545	3	X	X	X	X	X				
1072	COMP-27 012213	1-22-13	1710	3	X	X	X	X	X				
1073	Comp-14 012213	1-22-13	1330	3	X	X	X	X	X				
1074	Comp-13 012213	1-22-13	1500	3	X	X	X	X	X				
1075	Comp-9 012213	1-22-13	1700	3	X	X	X	X	X				
1076	Comp-9 DUP 012213	1-22-13	1700	3	X	X	X	X	X				
1077	Comp-22 012313	1-23-13	1115	3	X	X	X	X	X				
1078	Comp-28 012313	1-23-13	1240	3	X	X	X	X	X				
1079	Comp-16 012313	1-23-13	1400	3	X	X	X	X	X				
1080	Comp-17 012313	1-23-13	1545	3	X	X	X	X	X				
1081	Comp-10 012313	1-23-13	1720	3	X	X	X	X	X				
1082	Comp-3 012313	1-23-13	1100	3	X	X	X	X	X				

Due Date Requested*:

☐ FDEP PreApproval site
☒ ADaPT EDD (PGM:_____)
Facility/Site ID:

Remarks / Comments:
3 Coolers
ADaPT EDD

Length of Record Retention if other than 5 years:*

Sampler Signature / Date: Ryan Fetter / 1-28-13

Printed Name / Affiliation: Ryan Fetter / PSI

SUNLABS, INC. RESERVES THE RIGHT TO BILL FOR DISPOSAL OF UNUSED/ UNRETURNED SAMPLES AND TO RETURN UNUSED SAMPLES.

Relinquished By:	Relinquished To:	Date:	Time:
[signature]	Ryan Fetter	1-17-13	15:00
Ryan Fetter	[signature]	1-28-13	13:20

Bottle Type Codes:
GV = Glass Vial; GVS = Low Level Volatile Kit
GA = Glass Amber; T = Tedlar Bag
P = Plastic; O = Other (Specify)
S = Soil Jar

Preservative Codes:
H = Hydrochloric Acid + Ice; S = Sulfuric Acid + Ice
I = Ice only; VS = NaHSO4, MeOH, + Ice
N = Nitric Acid; T = Sodium thiosulfate + Ice
B = Sodium bisulfate + Ice; O = Other (Specify) _____

Matrix Codes:
SO = Soil; SOL = Solid
A = Air; SW = Surface Water
DW = Drinking Water; WS = Waste; WW = Waste Water
GW = Ground Water; W = Water (Blanks)
SE = Sediment; O = Other (Specify:_____)

Internal Use Only
Temp upon receipt: 5.0 °C
Received on Ice? Y / N / NA

Internal Use Only
Sample Condition Upon Receipt:
Custody Seals present? Y / N / NA
Custody Seals intact? Y / N / NA
Shipping Bills attached? Y / N / NA
Sample containers intact? Y / N / NA
Samples within holding times? Y / N / NA
Sufficient volume for all analyses? Y / N / NA
Are vials head-space free? Y / N / NA
Proper containers and preservatives? Y / N / NA

SunLabs, Inc.
5460 Beaumont Center Blvd., Suite 520, Tampa, Florida 33634
Phone: 813-881-9401 / Fax: 813-354-4661
e-mail: info@SunLabsInc.com www.SunLabsInc.com

Rev 11/11

* See General Terms and Conditions on Reverse

Pg 2 of 3

130404.09

SunLabs, Inc. Chain of Custody

№ 37586

Client Name: PSI
Contact: Drew Cadle
Address:
Phone / Fax: on file
E-Mail :

SunLabs Project # 130128.06

Project Name: A-2 Feld
Project #: 05521114
PO #:
Alt Bill To:

SunLabs Sample #	Sample Description	Sampled Date	Sampled Time	# of Bottles	EPA 8081	EPA 8141	EPA 8151	RCRA 8 + Copper	TPH Organics Carbon Chain
Bottle Type					S	S	S	S	S
Preservative					1	1	1	1	1
Matrix					SO	SO	SO	SO	SO
159083	Comp-1 012313	1-23-13	1340	3	X	X	X	X	X
084	Comp-7 012313 *	1-23-13	1530	3	X	X	X	X	X
085	Comp-7 DUP 012313	1-23-13	1530	3	X	X	X	X	X
086	Comp-8 012313	1-23-13	1725	3	X	X	X	X	X
087	Comp-11 012413	1-24-13	1145	3	X	X	X	X	X
088	Comp-23 012413	1-24-13	1330	3	X	X	X	X	X
089	Comp-29 012413	1-24-13	1610	3	X	X	X	X	X
090	Comp-24 012413	1-24-13	1730	3	X	X	X	X	X
091	Comp-4 012413	1-24-13	1150	3	X	X	X	X	X
092	Comp-4 DUP 012413	1-24-13	1150	3	X	X	X	X	X
093	Comp-20 012413	1-24-13	1400	3	X	X	X	X	X
094	Comp-26 012413	1-24-13	1630	3	X	X	X	X	X
095	Comp-19 012413	1-24-13	1800	3	X	X	X	X	X
096	Comp-30 012513	1-25-13	1020	3	X	X	X	X	X

Due Date Requested*:

☐ FDEP PreApproval site
☒ ADaPT EDD (PGM:_____)
Facility/Site ID:

Remarks / Comments:

3 Coolers
ADaPT EDD
*SPLP Cr, Hg, Se 4/4/13

Length of Record Retention if other than 5 years:*

Sampler Signature / Date: Ryan Fetter / 1-28-13

Printed Name / Affiliation: Ryan Fetter / PSI

SUNLABS, INC. RESERVES THE RIGHT TO BILL FOR DISPOSAL OF UNUSED/ UNRETURNED SAMPLES AND TO RETURN UNUSED SAMPLES.

Relinquished By:	Relinquished To:	Date:	Time:
[signature]	Ryan Fetter	1-17-13	15:00
Ryan Fetter	[signature]	1-28-13	13:20

Bottle Type Codes:
GV = Glass Vial; GVS = Low Level Volatile Kit; GA = Glass Amber; T = Tedlar Bag; P = Plastic; O = Other (Specify); S = Soil Jar

Preservative Codes:
H = Hydrochloric Acid + Ice; S = Sulfuric Acid + Ice; I = Ice only; VS = NaHSO4, MeOH, + Ice; N = Nitric Acid; T = Sodium thiosulfate + ice; B = Sodium bisulfate + Ice; O = Other (Specify)_____

Matrix Codes:
SO = Soil; SOL = Solid; A = Air; SW = Surface Water; DW = Drinking Water; WS = Waste; WW = Waste Water; GW = Ground Water; W = Water (Blanks); SE = Sediment; O = Other (Specify:_____)

Internal Use Only

Sample Condition Upon Receipt:
Custody Seals present? Y / (N) / NA
Custody Seals intact? Y / N / (NA)
Shipping Bills attached? Y / (N) / NA
Sample containers intact? (Y) / N / NA
Samples within holding times? (Y) / N / NA
Sufficient volume for all analyses? (Y) / N / NA
Are vials head-space free? Y / N / (NA)
Proper containers and preservatives? (Y) / N / NA

Temp upon receipt: 5.0 °C

Received on Ice? (Y) / N / NA

SunLabs, Inc.
5460 Beaumont Center Blvd., Suite 520, Tampa, Florida 33634
Phone: 813-881-9401 / Fax: 813-354-4661
e-mail: info@SunLabsInc.com www.SunLabsInc.com

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Pg 3 of 3

SunLabs, Inc. Chain of Custody

130404.09

№ 37585

Client Name: PSI
Contact: Drew Cadle
Address: -
Phone / Fax: on file
E-Mail:

SunLabs Project # 130128.06

Project Name: A-2 Feb
Project #: 05521114
PO #:
Alt Bill To:

SunLabs Sample #	Sample Description	Sampled Date	Sampled Time	# of Bottles	EPA 8081	EPA 8141	EPA 8151	RCRA 8 + Fecal Coliform	Total Organic Carbon		EPA 8081	EPA 8141	EPA 8151	RCRA 8 + Color
Bottle Type					S	S	S	S	S		GA	GA	GA	P
Preservative					I	I	I	I	I					
Matrix					SO	SO	SO	SO	SO		W	W	W	W
159697	Comp-18 012513	1-25-13	1150	3	X	X	X	X	X					
698	Comp-12 012513	1-25-13	1320	3	X	X	X	X	X					
699	Comp-6 012513	1-25-13	1430	3	X	X	X	X	X					
700	Comp-25 012513	1-25-13	1030	3	X	X	X	X	X					
701	Comp-2 012513	1-25-13	1215	3	X	X	X	X	X					
702	Comp-5 012513	1-25-13	1330	3	X	X	X	X	X					
703	Equip Blank-1	1-22-13	1130	4							X	X	X	X
704	FCEB-2	1-23-13	1735	4							X	X	X	X
705	FCEB-3	1-24-13	1015	4							X	X	X	X

Analysis / Method Requested

Due Date Requested*:

☐ FDEP PreApproval site
☒ ADaPT EDD (PGM: _____)
Facility/Site ID:

Remarks / Comments:

3 coolers
ADaPT EDD
SPLP Cr, Hg, Se
4/4/13

Length of Record Retention if other than 5 years:*

Sampler Signature / Date: Ryan Fetter / 1-28-13

Printed Name / Affiliation: Ryan Fetter / PSI

SUNLABS, INC. RESERVES THE RIGHT TO BILL FOR DISPOSAL OF UNUSED/ UNRETURNED SAMPLES AND TO RETURN UNUSED SAMPLES.

Relinquished By:	Relinquished To:	Date:	Time:
[signature]	Ryan Fetter	1-17-13	15:00
Ryan Fetter	[signature]	1-28-13	13:20

Bottle Type Codes:
GV = Glass Vial; GVS = Low Level Volatile Kit
GA = Glass Amber; T = Tedlar Bag
P = Plastic; O = Other (Specify)
S = Soil Jar

Preservative Codes:
H = Hydrochloric Acid + Ice; S = Sulfuric Acid + Ice
I = Ice only; VS = NaHSO4, MeOH, + Ice
N = Nitric Acid; T = Sodium thiosulfate + ice
B = Sodium bisulfate + Ice; O = Other (Specify) _____

Matrix Codes:
SO = Soil; SOL = Solid
A = Air; SW = Surface Water
DW = Drinking Water; WS = Waste; WW = Waste Water
GW = Ground Water; W = Water (Blanks)
SE = Sediment; O = Other (Specify: _____)

Internal Use Only

Sample Condition Upon Receipt:
Custody Seals present? Y / N / NA
Custody Seals intact? Y / N / NA
Shipping Bills attached? Y / N / NA
Sample containers intact? Y / N / NA
Samples within holding times? Y / N / NA
Sufficient volume for all analyses? Y / N / NA
Are vials head-space free? Y / N / NA
Proper containers and preservatives? Y / N / NA

Internal Use Only
Temp upon receipt: 5.0 °C
Received on Ice? Y / N / NA

SunLabs, Inc.
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Rev 11/11

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ATTACHMENT F

Mean Concentrations and Standard Deviation for Detected Chemicals of Interest
PROJECT NAME: A-2 Flow Equalization Basin
PSI PROJECT NO.: 05521114

	Chlorinated Herbicides (ug/kg)	OPPs (ug/kg)			OCPs (ug/kg)	Metals (mg/kg)									TOC (mg/kg)
	D, 2-4'	Atrazine	Metribuzin	Phorate	Dieldrin	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Selenium	Silver	Total Organic Carbon
Mean Concentration	30.75	333.2	172.6	7.97	1.53	4.59	95.12	0.00	15.53	77.29	6.24	0.12	2.58	NA	401,056
Standard Deviation	2.48	832.6	366.8	24.48	1.54	1.04	9.20	0.00	5.79	12.47	0.74	0.02	0.40	NA	64,198

ATTACHMENT G

Summary of Soil Analytical Results
A-2 Flow Equalization Basin Project
(All Results in milligrams per kilogram [mg/kg])

Sample ID	Date Collected	Aldrin	Arsenic	Aspon	Atrazine	Azinphos ethyl	Azinphos methyl	Barium	BHC, a-	BHC, b-	BHC, d-	Bolstar	Cadmium	Carbophenothion	Chlordane, a-	chlordane, g-	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos Methyl	Chromium	Copper	Coumaphos	Crotoxyphos	D, 2,4-
SCTL-RDE		0.06	2.1	***	4.3	***	120	120	0.1	0.5	24	***	82	11	2.8	2.8	***	250	***	210	150	21	***	770
SCTL-LGW		0.2	***	***	0.06	***	0.2	1600	0.0003	0.001	0.2	***	7.5	13	9.6	9.6	***	15	***	38	***	0.3	***	0.7
SCTL-LSW		0.01	***	***	0.04	***	0.0002	***	0.0003	0.003	***	***	***	1.5	0.003	0.003	***	0.001	***	4.2	***	0.0007	***	0.9
SQAG-TEC		***	9.8	***	0.0003	0.000018	0.000062	20	***	***	***	***	1	***	0.0032	***	***	***	***	43	85	***	***	***
Comp-1 012313	1/23/2013	0.00014 U	**6.8**	0.011 U	**0.099 I**	0.036 U	0.024 U	**110**	0.00080 U	0.00085 U	0.00064 U	0.022 U	0.11 U	0.011 U	0.0013 U	0.0033 U	0.020 U	0.033 U	0.022 U	**19**	**110**	0.031 U	0.031 U	0.058 U
Comp-10 012313	1/23/2013	0.00013 U	**4.9**	0.011 U	0.025 U	0.036 U	0.023 U	**95**	0.00079 U	0.00084 U	0.00062 U	0.021 U	0.11 U	0.011 U	0.0012 U	0.0032 U	0.020 U	0.032 U	0.021 U	**12**	**68**	0.030 U	0.030 U	0.057 U
Comp-11 012413	1/24/2013	0.00015 U	**3.6**	0.012 U	0.027 U	0.039 U	0.025 U	**98**	0.00086 U	0.00092 U	0.00069 U	0.024 U	0.11 U	0.012 U	0.0014 U	0.0035 U	0.022 U	0.035 U	0.024 U	**15**	**79**	0.033 U	0.033 U	0.063 U
Comp-12 012513	1/25/2013	0.00015 U	**3.8**	0.012 U	0.027 U	0.039 U	0.025 U	**100**	0.00086 U	0.00092 U	0.00069 U	0.024 U	0.11 U	0.012 U	0.0014 U	0.0035 U	0.022 U	0.035 U	0.024 U	**13**	**87**	0.033 U	0.033 U	0.063 U
Comp-13 012213	1/22/2013	0.00014 U	**6.2**	0.011 U	**0.110 I**	0.037 U	0.024 U	**100**	0.00081 U	0.00087 U	0.00065 U	0.022 U	**0.15 I**	0.011 U	0.0013 U	0.0033 U	0.020 U	0.033 U	0.022 U	**29**	**90**	0.031 U	0.031 U	0.059 U
Comp-14 012213	1/22/2013	0.00014 U	**5.5**	0.011 U	0.026 U	0.038 U	0.025 U	**80**	0.00083 U	0.00089 U	0.00066 U	0.023 U	**0.18 I**	0.011 U	0.0013 U	0.0034 U	0.021 U	0.034 U	0.023 U	**16**	**68**	0.032 U	0.032 U	0.060 U
Comp-15 012213	1/22/2013	0.00016 U	**3.4**	0.013 U	**3.5**	0.043 U	0.028 U	**87**	0.00096 U	0.0010 U	0.00076 U	0.026 U	**0.12 I**	0.013 U	0.0015 U	0.0039 U	0.024 U	0.039 U	0.026 U	**7.8**	**75**	0.037 U	0.037 U	**0.29**
Comp-16 012313	1/23/2013	0.00012 U	**4**	0.0098 U	**0.33**	0.033 U	0.021 U	**91**	0.00072 U	0.00077 U	0.00057 U	0.020 U	0.096 U	0.0098 U	0.0011 U	0.0030 U	0.018 U	0.030 U	0.020 U	**23**	**96**	0.028 U	0.028 U	0.052 U
Comp-17 012313	1/23/2013	0.00014 U	**3.8**	0.011 U	**0.160 I**	0.038 U	0.025 U	**99**	0.00083 U	0.00089 U	0.00066 U	0.023 U	0.12 U	0.011 U	0.0013 U	0.0034 U	0.021 U	0.034 U	0.023 U	**17**	**85**	0.032 U	0.032 U	0.060 U
Comp-18 012513	1/25/2013	0.00015 U	**3.4**	0.012 U	**3.3**	0.039 U	0.025 U	**97**	0.00086 U	0.00092 U	0.00069 U	0.024 U	0.11 U	0.012 U	0.0014 U	0.0035 U	0.022 U	0.035 U	0.024 U	**11**	**88**	0.033 U	0.033 U	**0.94**
Comp-19 012413	1/24/2013	0.00013 U	**5.5**	0.010 U	0.024 U	0.034 U	0.022 U	**88**	0.00076 U	0.00081 U	0.00060 U	0.021 U	0.11 U	0.010 U	0.0012 U	0.0031 U	0.019 U	0.031 U	0.021 U	**17**	**59**	0.029 U	0.029 U	0.055 U
Comp-2 012513	1/25/2013	0.00015 U	**5.2**	0.012 U	0.029 U	0.041 U	0.027 U	**93**	0.00090 U	0.00096 U	0.00071 U	0.024 U	0.11 U	0.012 U	0.0014 U	0.0037 U	0.022 U	0.037 U	0.024 U	**15**	**59**	0.035 U	0.035 U	0.065 U
Comp-20 012413	1/24/2013	0.00013 U	**5**	0.011 U	0.025 U	0.036 U	0.023 U	**90**	0.00079 U	0.00084 U	0.00062 U	0.021 U	0.10 U	0.011 U	0.0012 U	0.0032 U	0.020 U	0.032 U	0.021 U	**14**	**70**	0.030 U	0.030 U	0.057 U
Comp-21 012213	1/22/2013	0.00012 U	**3.5**	0.0097 U	**0.055 I**	0.032 U	0.021 U	**69**	0.00071 U	0.00076 U	0.00056 U	0.019 U	**0.17 I**	0.0097 U	0.0011 U	0.0029 U	0.018 U	0.029 U	0.019 U	**9.4**	**79**	0.027 U	0.027 U	0.052 U
Comp-22 012313	1/23/2013	0.00015 U	**4.3**	0.012 U	0.027 U	0.039 U	0.025 U	**100**	0.00086 U	0.00092 U	0.00069 U	0.024 U	**0.16 I**	0.012 U	0.0014 U	0.0035 U	0.022 U	0.035 U	0.024 U	**12**	**83**	0.033 U	0.033 U	0.063 U
Comp-23 012413	1/24/2013	0.00014 U	**4.2**	0.011 U	0.026 U	0.037 U	0.024 U	**82**	0.00081 U	0.00087 U	0.00065 U	0.022 U	0.11 U	0.011 U	0.0013 U	0.0033 U	0.020 U	0.033 U	0.022 U	**13**	**59**	0.031 U	0.031 U	0.059 U
Comp-24 012413	1/24/2013	0.00015 U	**4.1**	0.012 U	0.028 U	0.040 U	0.026 U	**99**	0.00088 U	0.00094 U	0.00070 U	0.024 U	**0.14 I**	0.012 U	0.0014 U	0.0036 U	0.022 U	0.036 U	0.024 U	**28**	**82**	0.034 U	0.034 U	0.064 U
Comp-25 012513	1/25/2013	0.00014 U	**6.4**	0.011 U	**0.031 I**	0.036 U	0.024 U	**100**	0.00080 U	0.00085 U	0.00064 U	0.022 U	0.11 U	0.011 U	0.0013 U	0.0033 U	0.020 U	0.033 U	0.022 U	**19**	**67**	0.031 U	0.031 U	0.058 U
Comp-26 012413	1/24/2013	0.00013 U	**5.5**	0.011 U	0.025 U	0.036 U	0.023 U	**98**	0.00079 U	0.00084 U	0.00062 U	0.021 U	0.11 U	0.011 U	0.0012 U	0.0032 U	0.020 U	0.032 U	0.021 U	**17**	**78**	0.030 U	0.030 U	0.057 U
Comp-27 012213	1/22/2013	0.00016 U	**3.5**	0.013 U	**0.035 I**	0.043 U	0.028 U	**89**	0.00096 U	0.0010 U	0.00076 U	0.026 U	0.12 U	0.013 U	0.0015 U	0.0039 U	0.024 U	0.039 U	0.026 U	**9.1**	**74**	0.037 U	0.037 U	0.070 U
Comp-28 012313	1/23/2013	0.00014 U	**3.1**	0.011 U	**0.19**	0.036 U	0.024 U	**83**	0.00080 U	0.00085 U	0.00064 U	0.022 U	**0.14 I**	0.011 U	0.0013 U	0.0033 U	0.020 U	0.033 U	0.022 U	**26**	**69**	0.031 U	0.031 U	0.058 U
Comp-29 012413	1/24/2013	0.00017 U	**4.3**	0.014 U	0.033 U	0.047 U	0.030 U	**86**	0.0010 U	0.0011 U	0.00081 U	0.028 U	0.14 U	0.014 U	0.0016 U	0.0042 U	0.026 U	0.042 U	0.028 U	**7.2**	**60**	0.040 U	0.040 U	0.074 U
Comp-3 012313	1/23/2013	0.00015 U	**4.3**	0.012 U	0.029 U	0.041 U	0.027 U	**91**	0.00090 U	0.00096 U	0.00071 U	0.024 U	0.11 U	0.012 U	0.0014 U	0.0037 U	0.022 U	0.037 U	0.024 U	**16**	**82**	0.035 U	0.035 U	0.065 U
Comp-30 012513	1/25/2013	0.00015 U	**3.2**	0.012 U	**0.027 I**	0.039 U	0.025 U	**96**	0.00086 U	0.00092 U	0.00069 U	0.024 U	0.12 U	0.012 U	0.0014 U	0.0035 U	0.022 U	0.035 U	0.024 U	**21**	**100**	0.033 U	0.033 U	0.063 U
Comp-4 012413	1/24/2013	0.00015 U	**4.7**	0.012 U	0.029 U	0.041 U	0.027 U	**95**	0.00090 U	0.00096 U	0.00071 U	0.024 U	0.12 U	0.012 U	0.0014 U	0.0037 U	0.022 U	0.037 U	0.024 U	**5.6**	**91**	0.035 U	0.035 U	0.065 U
Comp-4 DUP 012413	1/24/2013	0.00017 U	**4.1**	0.014 U	0.033 U	0.047 U	0.030 U	**93**	0.0010 U	0.0011 U	0.00081 U	0.028 U	0.14 U	0.014 U	0.0016 U	0.0042 U	0.026 U	0.042 U	0.028 U	**6.8**	**80**	0.040 U	0.040 U	0.074 U
Comp-5 012513	1/25/2013	0.00015 U	**4.6**	0.012 U	0.027 U	0.039 U	0.025 U	**94**	0.00086 U	0.00092 U	0.00069 U	0.024 U	0.11 U	0.012 U	0.0014 U	0.0035 U	0.022 U	0.035 U	0.024 U	**15**	**53**	0.033 U	0.033 U	0.063 U
Comp-6 012513	1/25/2013	0.00016 U	**4.5**	0.013 U	0.030 U	0.043 U	0.028 U	**110**	0.00096 U	0.0010 U	0.00076 U	0.026 U	0.12 U	0.013 U	0.0015 U	0.0039 U	0.024 U	0.039 U	0.026 U	**18**	**75**	0.037 U	0.037 U	0.070 U
Comp-7 012313	1/23/2013	0.00013 U	**6.4**	0.011 U	0.025 U	0.036 U	0.023 U	**97**	0.00079 U	0.00084 U	0.00062 U	0.021 U	0.10 U	0.011 U	0.0012 U	0.0032 U	0.020 U	0.032 U	0.021 U	**20**	**75**	0.030 U	0.030 U	0.057 U
Comp-7 DUP 012313	1/23/2013	0.00014 U	**5.7**	0.011 U	0.025 U	0.036 U	0.024 U	**97**	0.00080 U	0.00085 U	0.00064 U	0.022 U	0.11 U	0.011 U	0.0013 U	0.0033 U	0.020 U	0.033 U	0.022 U	**19**	**74**	0.031 U	0.031 U	0.058 U
Comp-8 012313	1/23/2013	0.00014 U	**3.8**	0.012 U	**1.1**	0.038 U	0.025 U	**96**	0.00085 U	0.00090 U	0.00067 U	0.023 U	0.12 U	0.012 U	0.0013 U	0.0035 U	0.021 U	0.035 U	0.023 U	**14**	**87**	0.033 U	0.033 U	0.062 U
Comp-9 012213	1/22/2013	0.00015 U	**3.9**	0.012 U	**0.38**	0.039 U	0.025 U	**92**	0.00086 U	0.00092 U	0.00069 U	0.024 U	0.12 U	0.012 U	0.0014 U	0.0035 U	0.022 U	0.035 U	0.024 U	**13**	**67**	0.033 U	0.033 U	0.200 I
Comp-9 DUP 012213	1/22/2013	0.00017 U	**3.5**	0.013 U	**0.44**	0.044 U	0.029 U	**110**	0.00098 U	0.0010 U	0.00078 U	0.027 U	0.14 U	0.013 U	0.0015 U	0.0040 U	0.024 U	0.040 U	0.027 U	**17**	**65**	0.038 U	0.038 U	**0.170 I**

Summary of Soil Analytical Results
A-2 Flow Equalization Basin Project
(All Results in milligrams per kilogram [mg/kg])

Sample ID	Date Collected	DB, 2,4-	DDD, 4,4'-	DDE, 4,4'-	DDT, 4,4'-	Demeton-O+S	Diazinon	Dicamba	Dichlorofenthion	Dichlorprop	Dichlorvos	Dicrotophos	Dieldrin	Dimethoate	Dinoseb	Disulfoton	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	EPN	Ethion
SCTL-RDE		***	4.2	2.9	2.9	***	70	2300	***	***	0.3	7.4	0.06	13	65	3.3	***	***	***	25	***	***	0.8	42
SCTL-LGW		***	5.8	18	11	***	0.2	2.6	***	***	0.0006	0.005	0.002	0.006	0.03	0.09	***	***	***	1	***	***	0.02	1.7
SCTL-LSW		***	0.01	0.04	0.06	***	0.00005	2.4	***	***	0.00002	0.1	0.0001	0.0004	0.03	0.1	***	***	***	0.001	***	***	0.003	0.003
SQAG-TEC		***	0.0049	0.0032	0.0042	***	0.00038	***	***	***	***	***	0.0019	***	***	***	***	***	***	0.0022	0.0011	***	***	***
Comp-1 012313	1/23/2013	0.016 U	0.00053 U	0.0024 U	0.0093 U	0.040 U	0.025 U	0.036 U	0.0036 U	0.013 U	0.022 U	0.024 U	0.0017 U	0.016 U	0.0042 U	0.038 U	0.0017 U	0.00024 U	0.00069 U	0.00062 U	0.0033 U	0.0013 U	0.020 U	0.024 U
Comp-10 012313	1/23/2013	0.016 U	0.00052 U	0.0023 U	0.0091 U	0.039 U	0.025 U	0.036 U	0.0036 U	0.013 U	0.021 U	0.023 U	**0.0045 I**	0.016 U	0.0041 U	0.038 U	0.0016 U	0.00023 U	0.00068 U	0.00061 U	0.0032 U	0.0013 U	0.020 U	0.023 U
Comp-11 012413	1/24/2013	0.017 U	0.00057 U	0.0025 U	0.010 U	0.043 U	0.027 U	0.039 U	0.0039 U	0.014 U	0.024 U	0.025 U	0.0018 U	0.018 U	0.0045 U	0.041 U	0.0018 U	0.00025 U	0.00075 U	0.00067 U	0.0035 U	0.0014 U	0.022 U	0.025 U
Comp-12 012513	1/25/2013	0.017 U	0.00057 U	0.0025 U	0.010 U	0.043 U	0.027 U	0.039 U	0.0039 U	0.014 U	0.024 U	0.025 U	0.0018 U	0.018 U	0.0045 U	0.041 U	0.0018 U	0.00025 U	0.00075 U	0.00067 U	0.0035 U	0.0014 U	0.022 U	0.025 U
Comp-13 012213	1/22/2013	0.016 U	0.00054 U	0.0024 U	0.0094 U	0.041 U	0.026 U	0.037 U	0.0037 U	0.013 U	0.022 U	0.024 U	0.0017 U	0.017 U	0.0043 U	0.039 U	0.0017 U	0.00024 U	0.00070 U	0.00063 U	0.0033 U	0.0013 U	0.020 U	0.024 U
Comp-14 012213	1/22/2013	0.017 U	0.00055 U	0.0025 U	0.0096 U	0.042 U	0.026 U	0.038 U	0.0038 U	0.013 U	0.023 U	0.025 U	0.0017 U	0.017 U	0.0043 U	0.040 U	0.0017 U	0.00025 U	0.00072 U	0.00064 U	0.0034 U	0.0014 U	0.021 U	0.025 U
Comp-15 012213	1/22/2013	0.019 U	0.00063 U	0.0028 U	0.011 U	0.048 U	0.030 U	0.043 U	0.0043 U	0.015 U	0.026 U	0.028 U	**0.0049 I**	0.020 U	0.0050 U	0.046 U	0.0020 U	0.00028 U	0.00083 U	0.00074 U	0.0039 U	0.0016 U	0.024 U	0.028 U
Comp-16 012313	1/23/2013	0.014 U	0.00048 U	0.0021 U	0.0084 U	0.036 U	0.023 U	0.033 U	0.0033 U	0.012 U	0.020 U	0.021 U	**0.0051 I**	0.015 U	0.0038 U	0.034 U	0.0015 U	0.00021 U	0.00062 U	0.00056 U	0.0030 U	0.0012 U	0.018 U	0.021 U
Comp-17 012313	1/23/2013	0.017 U	0.00055 U	0.0025 U	0.0096 U	0.042 U	0.026 U	0.038 U	0.0038 U	0.013 U	0.023 U	0.025 U	0.0017 U	0.017 U	0.0043 U	0.040 U	0.0017 U	0.00025 U	0.00072 U	0.00064 U	0.0034 U	0.0014 U	0.021 U	0.025 U
Comp-18 012513	1/25/2013	0.017 U	0.00057 U	0.0025 U	0.010 U	0.043 U	0.027 U	0.039 U	0.0039 U	0.014 U	0.024 U	0.025 U	0.0018 U	0.018 U	0.0045 U	0.041 U	0.0018 U	0.00025 U	0.00075 U	0.00067 U	0.0035 U	0.0014 U	0.022 U	0.025 U
Comp-19 012413	1/24/2013	0.015 U	0.00050 U	0.0022 U	0.0088 U	0.038 U	0.024 U	0.034 U	0.0034 U	0.012 U	0.021 U	0.022 U	0.0016 U	0.016 U	0.0040 U	0.036 U	0.0016 U	0.00022 U	0.00066 U	0.00059 U	0.0031 U	0.0012 U	0.019 U	0.022 U
Comp-2 012513	1/25/2013	0.018 U	0.00059 U	0.0027 U	0.010 U	0.045 U	0.029 U	0.041 U	0.0041 U	0.014 U	0.024 U	0.027 U	0.0019 U	0.018 U	0.0047 U	0.043 U	0.0019 U	0.00027 U	0.00078 U	0.00069 U	0.0037 U	0.0015 U	0.022 U	0.027 U
Comp-20 012413	1/24/2013	0.016 U	0.00052 U	0.0023 U	0.0091 U	0.039 U	0.025 U	0.036 U	0.0036 U	0.013 U	0.021 U	0.023 U	0.0016 U	0.016 U	0.0041 U	0.038 U	0.0016 U	0.00023 U	0.00068 U	0.00061 U	0.0032 U	0.0013 U	0.020 U	0.023 U
Comp-21 012213	1/22/2013	0.014 U	0.00047 U	0.0021 U	0.0082 U	0.035 U	0.023 U	0.032 U	0.0032 U	0.011 U	0.019 U	0.021 U	0.0015 U	0.015 U	0.0037 U	0.034 U	0.0015 U	0.00021 U	0.00061 U	0.00055 U	0.0029 U	0.0012 U	0.018 U	0.021 U
Comp-22 012313	1/23/2013	0.017 U	0.00057 U	0.0025 U	0.010 U	0.043 U	0.027 U	0.039 U	0.0039 U	0.014 U	0.024 U	0.025 U	0.0018 U	0.018 U	0.0045 U	0.041 U	0.0018 U	0.00025 U	0.00075 U	0.00067 U	0.0035 U	0.0014 U	0.022 U	0.025 U
Comp-23 012413	1/24/2013	0.016 U	0.00054 U	0.0024 U	0.00094 U	0.041 U	0.026 U	0.037 U	0.0037 U	0.013 U	0.022 U	0.024 U	**0.0027 I**	0.017 U	0.0043 U	0.039 U	0.0017 U	0.00024 U	0.00070 U	0.00063 U	0.0033 U	0.0013 U	0.020 U	0.024 U
Comp-24 012413	1/24/2013	0.018 U	0.00058 U	0.0026 U	0.0010 U	0.044 U	0.028 U	0.040 U	0.0040 U	0.014 U	0.024 U	0.026 U	0.0018 U	0.018 U	0.0046 U	0.042 U	0.0018 U	0.00026 U	0.00076 U	0.00068 U	0.0036 U	0.0014 U	0.022 U	0.026 U
Comp-25 012513	1/25/2013	0.016 U	0.00053 U	0.0024 U	0.0093 U	0.040 U	0.025 U	0.036 U	0.0036 U	0.013 U	0.022 U	0.024 U	0.0017 U	0.016 U	0.0042 U	0.038 U	0.0017 U	0.00024 U	0.00069 U	0.00062 U	0.0033 U	0.0013 U	0.020 U	0.024 U
Comp-26 012413	1/24/2013	0.016 U	0.00052 U	0.0023 U	0.0091 U	0.039 U	0.025 U	0.036 U	0.0036 U	0.013 U	0.021 U	0.023 U	0.0016 U	0.016 U	0.0041 U	0.038 U	0.0016 U	0.00023 U	0.00068 U	0.00061 U	0.0032 U	0.0013 U	0.020 U	0.023 U
Comp-27 012213	1/22/2013	0.019 U	0.00063 U	0.0028 U	0.011 U	0.048 U	0.030 U	0.043 U	0.0043 U	0.015 U	0.026 U	0.028 U	0.00099 U	0.020 U	0.0050 U	0.046 U	0.0020 U	0.00028 U	0.00083 U	0.00074 U	0.0039 U	0.0016 U	0.024 U	0.028 U
Comp-28 012313	1/23/2013	0.016 U	0.00053 U	0.0024 U	0.0093 U	0.040 U	0.025 U	0.036 U	0.0036 U	0.013 U	0.022 U	0.024 U	0.0017 U	0.016 U	0.0042 U	0.038 U	0.0017 U	0.00024 U	0.00069 U	0.00062 U	0.0033 U	0.0013 U	0.020 U	0.024 U
Comp-29 012413	1/24/2013	0.020 U	0.00067 U	0.0030 U	0.0012 U	0.051 U	0.033 U	0.047 U	0.0047 U	0.017 U	0.028 U	0.030 U	0.0011 U	0.021 U	0.0053 U	0.049 U	0.0021 U	0.00030 U	0.00088 U	0.00079 U	0.0042 U	0.0017 U	0.026 U	0.030 U
Comp-3 012313	1/23/2013	0.018 U	0.00059 U	0.0027 U	0.010 U	0.045 U	0.029 U	0.041 U	0.0041 U	0.014 U	0.024 U	0.027 U	0.0019 U	0.018 U	0.0047 U	0.043 U	0.0019 U	0.00027 U	0.00078 U	0.00069 U	0.0037 U	0.0015 U	0.022 U	0.027 U
Comp-30 012513	1/25/2013	0.017 U	0.00057 U	0.0025 U	0.010 U	0.043 U	0.027 U	0.039 U	0.0039 U	0.014 U	0.024 U	0.025 U	0.0018 U	0.018 U	0.0045 U	0.041 U	0.0018 U	0.00025 U	0.00075 U	0.00067 U	0.0035 U	0.0014 U	0.022 U	0.025 U
Comp-4 012413	1/24/2013	0.018 U	0.00059 U	0.0027 U	0.010 U	0.045 U	0.029 U	0.041 U	0.0041 U	0.014 U	0.024 U	0.027 U	0.0019 U	0.018 U	0.0047 U	0.043 U	0.0019 U	0.00027 U	0.00078 U	0.00069 U	0.0037 U	0.0015 U	0.022 U	0.027 U
Comp-4 DUP 012413	1/24/2013	0.020 U	0.00067 U	0.0030 U	0.012 U	0.051 U	0.033 U	0.047 U	0.0047 U	0.017 U	0.028 U	0.030 U	0.0011 U	0.021 U	0.0053 U	0.049 U	0.0021 U	0.00030 U	0.00088 U	0.00079 U	0.0042 U	0.0017 U	0.026 U	0.030 U
Comp-5 012513	1/25/2013	0.017 U	0.00057 U	0.0025 U	0.010 U	0.043 U	0.027 U	0.039 U	0.0039 U	0.014 U	0.024 U	0.025 U	0.0018 U	0.018 U	0.0045 U	0.041 U	0.0018 U	0.00025 U	0.00075 U	0.00067 U	0.0035 U	0.0014 U	0.022 U	0.025 U
Comp-6 012513	1/25/2013	0.019 U	0.00063 U	0.0028 U	0.011 U	0.048 U	0.030 U	0.043 U	0.0043 U	0.015 U	0.026 U	0.028 U	0.00099 U	0.020 U	0.0050 U	0.046 U	0.0020 U	0.00028 U	0.00083 U	0.00074 U	0.0039 U	0.0016 U	0.024 U	0.028 U
Comp-7 012313	1/23/2013	0.016 U	0.00052 U	0.0023 U	0.0091 U	0.039 U	0.025 U	0.036 U	0.0036 U	0.013 U	0.021 U	0.023 U	0.0016 U	0.016 U	0.0041 U	0.038 U	0.0016 U	0.00023 U	0.00068 U	0.00061 U	0.0032 U	0.0013 U	0.020 U	0.023 U
Comp-7 DUP 012313	1/23/2013	0.016 U	0.00053 U	0.0024 U	0.0093 U	0.040 U	0.025 U	0.036 U	0.0036 U	0.013 U	0.022 U	0.024 U	0.0017 U	0.016 U	0.0042 U	0.038 U	0.0017 U	0.00024 U	0.00069 U	0.00062 U	0.0033 U	0.0013 U	0.020 U	0.024 U
Comp-8 012313	1/23/2013	0.017 U	0.00056 U	0.0025 U	0.0098 U	0.042 U	0.027 U	0.038 U	0.0038 U	0.014 U	0.023 U	0.025 U	0.0018 U	0.017 U	0.0044 U	0.040 U	0.0018 U	0.00025 U	0.00073 U	0.00065 U	0.0035 U	0.0014 U	0.021 U	0.025 U
Comp-9 012213	1/22/2013	0.017 U	0.00057 U	0.0025 U	0.010 U	0.043 U	0.027 U	0.039 U	0.0039 U	0.014 U	0.024 U	0.025 U	0.0018 U	0.018 U	0.0045 U	0.041 U	0.0018 U	0.00025 U	0.00075 U	0.00067 U	0.0035 U	0.0014 U	0.022 U	0.025 U
Comp-9 DUP 012213	1/22/2013	0.020 U	0.00064 U	0.0029 U	0.011 U	0.049 U	0.031 U	0.044 U	0.0044 U	0.016 U	0.027 U	0.029 U	0.0010 U	0.020 U	0.0051 U	0.047 U	0.0020 U	0.00029 U	0.00084 U	0.00076 U	0.0040 U	0.0016 U	0.024 U	0.029 U

Summary of Soil Analytical Results
A-2 Flow Equalization Basin Project
(All Results in milligrams per kilogram [mg/kg])

Sample ID	Date Collected	Ethoprop	Famphur	Fenitrothion	Fensulfothion	Fenthion	Fonophos	Heptachlor	Heptachlor epoxide	Lead	Leptophos	Lindane	Malathion	MCPA	MCPP	Mercury	Merphos	Methoxychlor	Methyl Parathion	Metribuzin	Mevinphos	Mirex	Monocrotophos	Naled
SCTL-RDE		7.4	***	***	19	***	***	0.2	0.1	400	***	0.7	1500	35	64	3	2.5	420	20	54	18	***	***	150
SCTL-LGW		0.005	***	***	0.01	***	***	23	0.6	***	***	0.009	4.2	0.02	0.03	2.1	0.5	160	0.06	2.2	0.01	***	***	0.1
SCTL-LSW		0.002	***	***	0.004	***	***	0.01	0.0001	***	***	0.003	0.003	0.4	***	0.01	***	0.1	0.0003	0.8	0.0003	***	***	0.0002
SQAG-TEC		***	***	***	***	***	***	***	0.0025	36	***	0.0024	***	***	***	0.18	***	***	***	***	***	***	***	***
Comp-1 012313	1/23/2013	0.018 U	0.033 U	0.170 U	0.022 U	0.018 U	0.018 U	0.00078 U	0.0010 U	**7.8**	0.022 U	0.00064 U	0.020 U	0.0053 U	0.016 U	**0.1**	0.029 U	0.017 U	0.013 U	**0.041 I**	0.018 U	0.0013 U	0.020 U	0.022 U
Comp-10 012313	1/23/2013	0.018 U	0.032 U	0.170 U	0.021 U	0.018 U	0.018 U	0.00077 U	0.0010 U	**5.9**	0.021 U	0.00062 U	0.020 U	0.0052 U	0.016 U	**0.13**	0.029 U	0.017 U	0.012 U	0.018 U	0.018 U	0.0012 U	0.020 U	0.021 U
Comp-11 012413	1/24/2013	0.020 U	0.035 U	0.190 U	0.024 U	0.020 U	0.020 U	0.00084 U	0.0011 U	**5.6**	0.024 U	0.00069 U	0.022 U	0.0057 U	0.017 U	**0.14**	0.031 U	0.019 U	0.014 U	0.020 U	0.020 U	0.0014 U	0.022 U	0.024 U
Comp-12 012513	1/25/2013	0.020 U	0.035 U	0.190 U	0.024 U	0.020 U	0.020 U	0.00084 U	0.0011 U	**6.8**	0.024 U	0.00069 U	0.022 U	0.0057 U	0.017 U	**0.14**	0.031 U	0.019 U	0.014 U	0.020 U	0.020 U	0.0014 U	0.022 U	0.024 U
Comp-13 012213	1/22/2013	0.019 U	0.033 U	0.180 U	0.022 U	0.019 U	0.019 U	0.00080 U	0.0010 U	**6.7**	0.022 U	0.00065 U	0.020 U	0.0054 U	0.016 U	**0.13**	0.030 U	0.018 U	0.013 U	0.019 U	0.019 U	0.0013 U	0.020 U	0.022 U
Comp-14 012213	1/22/2013	0.019 U	0.034 U	0.180 U	0.023 U	0.019 U	0.019 U	0.00081 U	0.0011 U	**6.6**	0.023 U	0.00066 U	0.021 U	0.0055 U	0.017 U	**0.11**	0.030 U	0.018 U	0.013 U	0.019 U	0.019 U	0.0013 U	0.021 U	0.023 U
Comp-15 012213	1/22/2013	0.022 U	0.039 U	0.210 U	0.026 U	0.022 U	0.022 U	0.00093 U	0.0012 U	**7**	0.026 U	0.00076 U	0.024 U	0.0063 U	0.019 U	**0.11**	0.035 U	0.021 U	0.015 U	**0.73**	0.022 U	0.0015 U	0.024 U	0.026 U
Comp-16 012313	1/23/2013	0.016 U	0.030 U	0.160 U	0.020 U	0.016 U	0.016 U	0.00070 U	0.00092 U	**6.1**	0.020 U	0.00057 U	0.018 U	0.0048 U	0.015 U	**0.13**	0.026 U	0.016 U	0.011 U	**0.058 I**	0.016 U	0.0011 U	0.018 U	0.020 U
Comp-17 012313	1/23/2013	0.019 U	0.034 U	0.180 U	0.023 U	0.019 U	0.019 U	0.00081 U	0.0011 U	**6.4**	0.023 U	0.00066 U	0.021 U	0.0055 U	0.017 U	**0.13**	0.030 U	0.018 U	0.013 U	**0.6**	0.019 U	0.0013 U	0.021 U	0.023 U
Comp-18 012513	1/25/2013	0.020 U	0.035 U	0.190 U	0.024 U	0.020 U	0.020 U	0.00084 U	0.0011 U	**4.7**	0.024 U	0.00069 U	0.022 U	0.0057 U	0.017 U	**0.15**	0.031 U	0.019 U	0.014 U	**1.1**	0.020 U	0.0014 U	0.022 U	0.024 U
Comp-19 012413	1/24/2013	0.017 U	0.031 U	0.160 U	0.021 U	0.017 U	0.017 U	0.00074 U	0.00097 U	**6.5**	0.021 U	0.00060 U	0.019 U	0.0050 U	0.015 U	**0.12**	0.028 U	0.016 U	0.012 U	0.017 U	0.017 U	0.0012 U	0.019 U	0.021 U
Comp-2 012513	1/25/2013	0.020 U	0.037 U	0.190 U	0.024 U	0.020 U	0.020 U	0.00088 U	0.0011 U	**6.7**	0.024 U	0.00071 U	0.022 U	0.0059 U	0.018 U	**0.098**	0.033 U	0.019 U	0.014 U	0.020 U	0.020 U	0.0014 U	0.022 U	0.024 U
Comp-20 012413	1/24/2013	0.018 U	0.032 U	0.170 U	0.021 U	0.018 U	0.018 U	0.00077 U	0.0010 U	**6.3**	0.021 U	0.00062 U	0.020 U	0.0052 U	0.016 U	**0.11**	0.029 U	0.017 U	0.012 U	**0.14**	0.018 U	0.0012 U	0.020 U	0.021 U
Comp-21 012213	1/22/2013	0.016 U	0.029 U	0.150 U	0.019 U	0.016 U	0.016 U	0.00069 U	0.00090 U	**8.4**	0.019 U	0.00056 U	0.018 U	0.0047 U	0.014 U	**0.099**	0.026 U	0.015 U	0.011 U	**0.2**	0.016 U	0.0011 U	0.018 U	0.019 U
Comp-22 012313	1/23/2013	0.020 U	0.035 U	0.190 U	0.024 U	0.020 U	0.020 U	0.00084 U	0.0011 U	**6.2**	0.024 U	0.00069 U	0.022 U	0.0057 U	0.017 U	**0.14**	0.031 U	0.019 U	0.014 U	0.020 U	0.020 U	0.0014 U	0.022 U	0.024 U
Comp-23 012413	1/24/2013	0.019 U	0.033 U	0.180 U	0.022 U	0.019 U	0.019 U	0.00080 U	0.0010 U	**5.4**	0.022 U	0.00065 U	0.020 U	0.0054 U	0.016 U	**0.12**	0.030 U	0.0018 U	0.013 U	0.019 U	0.019 U	0.0013 U	0.020 U	0.022 U
Comp-24 012413	1/24/2013	0.020 U	0.036 U	0.190 U	0.024 U	0.020 U	0.020 U	0.00086 U	0.0011 U	**6.6**	0.024 U	0.00070 U	0.022 U	0.0058 U	0.018 U	**0.14**	0.032 U	0.0019 U	0.014 U	0.020 U	0.020 U	0.0014 U	0.022 U	0.024 U
Comp-25 012513	1/25/2013	0.018 U	0.033 U	0.170 U	0.022 U	0.018 U	0.018 U	0.00078 U	0.0010 U	**5.6**	0.022 U	0.00064 U	0.020 U	0.0053 U	0.016 U	**0.11**	0.029 U	0.017 U	0.013 U	**0.12**	0.018 U	0.0013 U	0.020 U	0.022 U
Comp-26 012413	1/24/2013	0.018 U	0.032 U	0.170 U	0.021 U	0.018 U	0.018 U	0.00077 U	0.0010 U	**6.4**	0.021 U	0.00062 U	0.020 U	0.0052 U	0.016 U	**0.13**	0.029 U	0.017 U	0.012 U	0.018 U	0.018 U	0.0012 U	0.020 U	0.021 U
Comp-27 012213	1/22/2013	0.022 U	0.039 U	0.210 U	0.026 U	0.022 U	0.022 U	0.00093 U	0.0012 U	**5.9**	0.026 U	0.00076 U	0.024 U	0.0063 U	0.019 U	**0.14**	0.035 U	0.021 U	0.015 U	0.022 U	0.022 U	0.0015 U	0.024 U	0.026 U
Comp-28 012313	1/23/2013	0.018 U	0.033 U	0.170 U	0.022 U	0.018 U	0.018 U	0.00078 U	0.0010 U	**5.8**	0.022 U	0.00064 U	0.020 U	0.0053 U	0.016 U	**0.13**	0.029 U	0.017 U	0.013 U	**1.7**	0.018 U	0.0013 U	0.020 U	0.022 U
Comp-29 012413	1/24/2013	0.023 U	0.042 U	0.220 U	0.028 U	0.023 U	0.023 U	0.0010 U	0.0013 U	**5.2**	0.028 U	0.00081 U	0.026 U	0.0067 U	0.021 U	**0.13**	0.037 U	0.0022 U	0.016 U	0.023 U	0.023 U	0.0016 U	0.026 U	0.028 U
Comp-3 012313	1/23/2013	0.020 U	0.037 U	0.190 U	0.024 U	0.020 U	0.020 U	0.00088 U	0.0011 U	**5.4**	0.024 U	0.00071 U	0.022 U	0.0059 U	0.018 U	**0.11**	0.033 U	0.019 U	0.014 U	0.020 U	0.020 U	0.0014 U	0.022 U	0.024 U
Comp-30 012513	1/25/2013	0.020 U	0.035 U	0.190 U	0.024 U	0.020 U	0.020 U	0.00084 U	0.0011 U	**6.9**	0.024 U	0.00069 U	0.022 U	0.0057 U	0.017 U	**0.15**	0.031 U	0.019 U	0.014 U	0.020 U	0.020 U	0.0014 U	0.022 U	0.024 U
Comp-4 012413	1/24/2013	0.020 U	0.037 U	0.190 U	0.024 U	0.020 U	0.020 U	0.00088 U	0.0011 U	**5.9**	0.024 U	0.00071 U	0.022 U	0.0059 U	0.018 U	**0.14**	0.033 U	0.019 U	0.014 U	0.020 U	0.020 U	0.0014 U	0.022 U	0.024 U
Comp-4 DUP 012413	1/24/2013	0.023 U	0.042 U	0.220 U	0.028 U	0.023 U	0.023 U	0.0010 U	0.0013 U	**5.7**	0.028 U	0.00081 U	0.026 U	0.0067 U	0.021 U	**0.13**	0.037 U	0.022 U	0.016 U	0.023 U	0.023 U	0.0016 U	0.026 U	0.028 U
Comp-5 012513	1/25/2013	0.020 U	0.035 U	0.190 U	0.024 U	0.020 U	0.020 U	0.00084 U	0.0011 U	**5.5**	0.024 U	0.00069 U	0.022 U	0.0057 U	0.017 U	**0.12**	0.031 U	0.019 U	0.014 U	0.020 U	0.020 U	0.0014 U	0.022 U	0.024 U
Comp-6 012513	1/25/2013	0.022 U	0.039 U	0.210 U	0.026 U	0.022 U	0.022 U	0.00093 U	0.0012 U	**6.1**	0.026 U	0.00076 U	0.024 U	0.0063 U	0.019 U	**0.12**	0.035 U	0.021 U	0.015 U	0.022 U	0.022 U	0.0015 U	0.024 U	0.026 U
Comp-7 012313	1/23/2013	0.018 U	0.032 U	0.170 U	0.021 U	0.018 U	0.018 U	0.00077 U	0.0010 U	**6.3**	0.021 U	0.00062 U	0.020 U	0.0052 U	0.016 U	**0.11**	0.029 U	0.017 U	0.012 U	0.018 U	0.018 U	0.0012 U	0.020 U	0.021 U
Comp-7 DUP 012313	1/23/2013	0.018 U	0.033 U	0.170 U	0.022 U	0.018 U	0.018 U	0.00078 U	0.0010 U	**7.1**	0.022 U	0.00064 U	0.020 U	0.0053 U	0.016 U	**0.11**	0.029 U	0.017 U	0.013 U	0.018 U	0.018 U	0.0013 U	0.020 U	0.022 U
Comp-8 012313	1/23/2013	0.019 U	0.035 U	0.180 U	0.023 U	0.019 U	0.019 U	0.00083 U	0.0011 U	**6.3**	0.023 U	0.00067 U	0.021 U	0.0056 U	0.017 U	**0.13**	0.031 U	0.018 U	0.013 U	**0.24**	0.019 U	0.0013 U	0.021 U	0.023 U
Comp-9 012213	1/22/2013	0.020 U	0.035 U	0.190 U	0.024 U	0.020 U	0.020 U	0.00084 U	0.0011 U	**5.3**	0.024 U	0.00069 U	0.022 U	0.0057 U	0.017 U	**0.12**	0.031 U	0.019 U	0.014 U	**0.28**	0.020 U	0.0014 U	0.022 U	0.024 U
Comp-9 DUP 012213	1/22/2013	0.022 U	0.040 U	0.210 U	0.027 U	0.022 U	0.022 U	0.00096 U	0.0012 U	**5.8**	0.027 U	0.00078 U	0.024 U	0.0064 U	0.020 U	**0.12**	0.036 U	0.021 U	0.016 U	**0.28**	0.022 U	0.0016 U	0.024 U	0.027 U

Summary of Soil Analytical Results
A-2 Flow Equalization Basin Project
(All Results in milligrams per kilogram [mg/kg])

Sample ID	Date Collected	Parathion	Phorate	Phosmet	Phosphamidon	Ronnel	Selenium	Silver	Silvex	Simazine	Stirofos	Sulfotepp	T, 2,4,5-	TEPP	Terbufos	Thionazin	Tokuthion	Total Organic Carbon	Toxaphene	Trichloronate
SCTL-RDE		500	16	1600	***	4200	440	410	660	7.8	***	35	690	***	1.9	***	***	***	0.9	***
SCTL-LGW		1	0.3	5	***	1300	5.2	17	5.4	0.08	***	0.1	0.4	***	0.02	***	***	***	31	***
SCTL-LSW		0.01	0.001	0.004	***	0.2	0.5	0.01	***	0.1	***	***	0.8	***	0.001	***	***	***	0.002	***
SQAG-TEC		***	***	***	***	***	***	1	***	0.00034	***	***	***	***	***	***	***	***	***	***
Comp-1 012313	1/23/2013	0.015 U	0.0036 U	0.013 U	0.031 U	0.022 U	1.7 I	0.33 U	0.013 U	0.024 U	0.022 U	0.022 U	0.013 U	0.022 U	0.0036 U	0.022 U	0.024 U	**320000**	0.053 U	0.022 U
Comp-10 012313	1/23/2013	0.014 U	0.0036 U	0.012 U	0.030 U	0.021 U	1.6 I	0.31 U	0.013 U	0.023 U	0.021 U	0.021 U	0.013 U	0.021 U	0.0036 U	0.021 U	0.023 U	**384000**	0.052 U	0.021 U
Comp-11 012413	1/24/2013	0.016 U	0.0039 U	0.014 U	0.033 U	0.024 U	0.58 U	0.31 U	0.014 U	0.025 U	0.024 U	0.024 U	0.014 U	0.024 U	0.0039 U	0.024 U	0.025 U	**450000**	0.057 U	0.024 U
Comp-12 012513	1/25/2013	0.016 U	0.0039 U	0.014 U	0.033 U	0.024 U	**3.7**	0.32 U	0.014 U	0.025 U	0.024 U	0.024 U	0.014 U	0.024 U	0.0039 U	0.024 U	0.025 U	**470000**	0.057 U	0.024 U
Comp-13 012213	1/22/2013	0.015 U	0.0037 U	0.013 U	0.031 U	0.022 U	**2.3**	0.32 U	0.013 U	0.024 U	0.022 U	0.022 U	0.013 U	0.022 U	0.0037 U	0.022 U	0.024 U	**400000**	0.054 U	0.022 U
Comp-14 012213	1/22/2013	0.015 U	0.0038 U	0.013 U	0.032 U	0.023 U	**2.2 I**	0.34 U	0.014 U	0.025 U	0.023 U	0.023 U	0.013 U	0.023 U	0.0038 U	0.023 U	0.025 U	**374000**	0.055 U	0.023 U
Comp-15 012213	1/22/2013	0.017 U	0.0043 U	0.015 U	0.037 U	0.026 U	**2.6**	0.35 U	0.016 U	0.028 U	0.026 U	0.026 U	0.015 U	0.026 U	0.0043 U	0.026 U	0.028 U	**477000**	0.063 U	0.026 U
Comp-16 012313	1/23/2013	0.013 U	**0.120 I**	0.011 U	0.028 U	0.020 U	**2.3**	0.29 U	0.012 U	0.021 U	0.020 U	0.020 U	0.012 U	0.020 U	0.0033 U	0.020 U	0.021 U	**388000**	0.048 U	0.020 U
Comp-17 012313	1/23/2013	0.015 U	0.0038 U	0.013 U	0.032 U	0.023 U	**2.6**	0.33 U	0.014 U	0.025 U	0.023 U	0.023 U	0.013 U	0.023 U	0.0038 U	0.023 U	0.025 U	**409000**	0.055 U	0.023 U
Comp-18 012513	1/25/2013	0.016 U	0.0039 U	0.014 U	0.033 U	0.024 U	1.5 I	0.32 U	0.014 U	0.025 U	0.024 U	0.024 U	0.014 U	0.024 U	0.0039 U	0.024 U	0.025 U	**450000**	0.057 U	0.024 U
Comp-19 012413	1/24/2013	0.014 U	0.0034 U	0.012 U	0.029 U	0.021 U	0.57 U	0.31 U	0.012 U	0.022 U	0.021 U	0.021 U	0.012 U	0.021 U	0.0034 U	0.021 U	0.022 U	**198000**	0.050 U	0.021 U
Comp-2 012513	1/25/2013	0.016 U	0.0041 U	0.014 U	0.035 U	0.024 U	**2.0 I**	0.33 U	0.015 U	0.027 U	0.024 U	0.024 U	0.014 U	0.024 U	0.0041 U	0.024 U	0.027 U	**383000**	0.059 U	0.024 U
Comp-20 012413	1/24/2013	0.014 U	0.0036 U	0.012 U	0.030 U	0.021 U	0.55 U	0.30 U	0.013 U	0.023 U	0.021 U	0.021 U	0.013 U	0.021 U	0.0036 U	0.021 U	0.023 U	**361000**	0.052 U	0.021 U
Comp-21 012213	1/22/2013	0.013 U	**0.093 I**	0.011 U	0.027 U	0.019 U	0.47 U	0.26 U	0.012 U	0.021 U	0.019 U	0.019 U	0.011 U	0.019 U	0.0032 U	0.019 U	0.021 U	**308000**	0.047 U	0.019 U
Comp-22 012313	1/23/2013	0.016 U	0.0039 U	0.014 U	0.033 U	0.024 U	**2.5**	0.35 U	0.014 U	0.025 U	0.024 U	0.024 U	0.014 U	0.024 U	0.0039 U	0.024 U	0.025 U	**448000**	0.057 U	0.024 U
Comp-23 012413	1/24/2013	0.015 U	0.0037 U	0.013 U	0.031 U	0.022 U	**2.6**	0.32 U	0.013 U	0.024 U	0.022 U	0.022 U	0.013 U	0.022 U	0.0037 U	0.022 U	0.024 U	**384000**	0.054 U	0.022 U
Comp-24 012413	1/24/2013	0.016 U	0.0040 U	0.014 U	0.034 U	0.024 U	**2.5**	0.35 U	0.014 U	0.026 U	0.024 U	0.024 U	0.014 U	0.024 U	0.0040 U	0.024 U	0.026 U	**464000**	0.058 U	0.024 U
Comp-25 012513	1/25/2013	0.015 U	0.0036 U	0.013 U	0.031 U	0.022 U	**2.5**	0.32 U	0.013 U	0.024 U	0.022 U	0.022 U	0.013 U	0.022 U	0.0036 U	0.022 U	0.024 U	**392000**	0.053 U	0.022 U
Comp-26 012413	1/24/2013	0.014 U	0.0036 U	0.012 U	0.030 U	0.021 U	0.58 U	0.32 U	0.013 U	0.023 U	0.021 U	0.021 U	0.013 U	0.021 U	0.0036 U	0.021 U	0.023 U	**355000**	0.052 U	0.021 U
Comp-27 012213	1/22/2013	0.017 U	0.0043 U	0.015 U	0.037 U	0.026 U	**2.9**	0.36 U	0.016 U	0.028 U	0.026 U	0.026 U	0.015 U	0.026 U	0.0043 U	0.026 U	0.028 U	**503000**	0.063 U	0.026 U
Comp-28 012313	1/23/2013	0.015 U	0.0036 U	0.013 U	0.031 U	0.022 U	1.8 I	0.30 U	0.013 U	0.024 U	0.022 U	0.022 U	0.013 U	0.022 U	0.0036 U	0.022 U	0.024 U	**415000**	0.053 U	0.022 U
Comp-29 012413	1/24/2013	0.019 U	0.0047 U	0.016 U	0.040 U	0.028 U	**2.3 I**	0.42 U	0.017 U	0.030 U	0.028 U	0.028 U	0.017 U	0.028 U	0.0047 U	0.028 U	0.030 U	**485000**	0.067 U	0.028 U
Comp-3 012313	1/23/2013	0.016 U	0.0041 U	0.014 U	0.035 U	0.024 U	**2.5**	0.33 U	0.015 U	0.027 U	0.024 U	0.024 U	0.014 U	0.024 U	0.0041 U	0.024 U	0.027 U	**440000**	0.059 U	0.024 U
Comp-30 012513	1/25/2013	0.016 U	0.0039 U	0.014 U	0.033 U	0.024 U	0.65 U	0.35 U	0.014 U	0.025 U	0.024 U	0.024 U	0.014 U	0.024 U	0.0039 U	0.024 U	0.025 U	**424000**	0.057 U	0.024 U
Comp-4 012413	1/24/2013	0.016 U	**0.0096 I**	0.014 U	0.035 U	0.024 U	**2.3 I**	0.36 U	0.015 U	0.027 U	0.024 U	0.024 U	0.014 U	0.024 U	0.0041 U	0.024 U	0.027 U	**354000**	0.059 U	0.024 U
Comp-4 DUP 012413	1/24/2013	0.019 U	0.0047 U	0.016 U	0.040 U	0.028 U	1.8 I	0.42 U	0.017 U	0.030 U	0.028 U	0.028 U	0.017 U	0.028 U	0.0047 U	0.028 U	0.030 U	**259000**	0.067 U	0.028 U
Comp-5 012513	1/25/2013	0.016 U	0.0039 U	0.014 U	0.033 U	0.024 U	**2.1 I**	0.33 U	0.014 U	0.025 U	0.024 U	0.024 U	0.014 U	0.024 U	0.0039 U	0.024 U	0.025 U	**423000**	0.057 U	0.024 U
Comp-6 012513	1/25/2013	0.017 U	0.0043 U	0.015 U	0.037 U	0.026 U	0.66 U	0.36 U	0.016 U	0.028 U	0.026 U	0.026 U	0.015 U	0.026 U	0.0043 U	0.026 U	0.028 U	**440000**	0.063 U	0.026 U
Comp-7 012313	1/23/2013	0.014 U	0.0036 U	0.012 U	0.030 U	0.021 U	0.55 U	0.30 U	0.013 U	0.023 U	0.021 U	0.021 U	0.013 U	0.021 U	0.0036 U	0.021 U	0.023 U	**389000**	0.052 U	0.021 U
Comp-7 DUP 012313	1/23/2013	0.015 U	0.0036 U	0.013 U	0.031 U	0.022 U	**2.8**	0.33 U	0.013 U	0.024 U	0.022 U	0.022 U	0.013 U	0.022 U	0.0036 U	0.022 U	0.024 U	**329000**	0.053 U	0.022 U
Comp-8 012313	1/23/2013	0.015 U	0.0038 U	0.013 U	0.033 U	0.023 U	0.62 U	0.34 U	0.014 U	0.025 U	0.023 U	0.023 U	0.014 U	0.023 U	0.0038 U	0.023 U	0.025 U	**358000**	0.056 U	0.023 U
Comp-9 012213	1/22/2013	0.016 U	0.0039 U	0.014 U	0.033 U	0.024 U	**2.4 I**	0.35 U	0.014 U	0.025 U	0.024 U	0.024 U	0.014 U	0.024 U	0.0039 U	0.024 U	0.025 U	**430000**	0.057 U	0.024 U
Comp-9 DUP 012213	1/22/2013	0.018 U	0.0044 U	0.016 U	0.038 U	0.027 U	**3**	0.40 U	0.016 U	0.029 U	0.027 U	0.027 U	0.016 U	0.027 U	0.0044 U	0.027 U	0.029 U	**419000**	0.064 U	0.027 U

ATTACHMENT H

Field Duplicate Outlier Report* (non-qualifying outliers)

Lab Report Batch: 130128.06 **Lab ID:** E84809

Field Sample: **Comp-4 012413**
Field Sample Duplicate: **Comp-4 DUP 012413**
Matrix ID: **SOILS**

		Total Or Dissolved	Result	Reporting Limit	MDL	Units	Lab Qualifier	RPD	RPD Criteria
Analysis Method EPA 8270									
Phorate	Sample result:	N/A	9.6	200	4.1		I		
	Duplicate result:	N/A	4.7	230	4.7	ug/kg	U	**200**	50
Phorate	Sample result:	N/A	9.6	200	4.1		I		
	Duplicate result:	N/A	4.7	230	4.7	ug/kg	U	**200**	50

*Outlier report also includes analytes detected in the parent sample but not in the duplicate sample or vice versa. In this case, RPD value for the field duplicate defaults to 200. RPD values that exceed project requirements do not qualify samples.

Project Number and Name: **A-2 FEB - A-2 FEB**

Surrogate Recovery Outlier Report

Lab Report Batch: 130128.06 **Lab ID:** E84809

Client Sample ID	Lab Sample ID	Analysis Method	Dilution	Matrix	Surrogate	Percent Recovery	Criteria (percent) Lower Limit	Upper Limit	Reject Point	Associated Target Analytes
Comp-12 012513	159698	EPA 8081	1.00	SO	Tetrachloro-m-xylene	43	50.0	130.0	10.0	All Target
		EPA 8270			p-terphenyl-d14	36	40.0	140.0	10.0	Base/Neutral
Comp-15 012213	159670	EPA 8321			2,4-Dichlorophenylacetic acid	40	50.0	150.0	10.0	Base/Neutral
Comp-16 012313	159679	EPA 8081			Tetrachloro-m-xylene	48	50.0	130.0	10.0	All Target
		EPA 8321			2,4-Dichlorophenylacetic acid	48	50.0	150.0	10.0	Base/Neutral
Comp-18 012513	159697	EPA 8081			Tetrachloro-m-xylene	42	50.0	130.0	10.0	All Target
		EPA 8270			p-terphenyl-d14	36	40.0	140.0	10.0	Base/Neutral
Comp-19 012413	159695	EPA 8081			Tetrachloro-m-xylene	46	50.0	130.0	10.0	All Target
		EPA 8270			p-terphenyl-d14	37	40.0	140.0	10.0	Base/Neutral
		EPA 8321			2,4-Dichlorophenylacetic acid	42	50.0	150.0	10.0	Base/Neutral
Comp-2 012513	159701	EPA 8081			Tetrachloro-m-xylene	48	50.0	130.0	10.0	All Target
Comp-20 012413	159693				Tetrachloro-m-xylene	43	50.0	130.0	10.0	All Target
Comp-22 012313	159677	EPA 8321			2,4-Dichlorophenylacetic acid	38	50.0	150.0	10.0	Base/Neutral
Comp-23 012413	159688				2,4-Dichlorophenylacetic acid	43	50.0	150.0	10.0	Base/Neutral
Comp-24 012413	159690	EPA 8270			p-terphenyl-d14	39	40.0	140.0	10.0	Base/Neutral
Comp-25 012513	159700				p-terphenyl-d14	38	40.0	140.0	10.0	Base/Neutral
Comp-26 012413	159694	EPA 8081			Tetrachloro-m-xylene	46	50.0	130.0	10.0	All Target
Comp-27 012213	159672	EPA 8321			2,4-Dichlorophenylacetic acid	47	50.0	150.0	10.0	Base/Neutral
Comp-28 012313	159678	EPA 8081			Tetrachloro-m-xylene	49	50.0	130.0	10.0	All Target
Comp-30 012513	159696	EPA 8270			p-terphenyl-d14	35	40.0	140.0	10.0	Base/Neutral
Comp-4 012413	159691	EPA 8081			Tetrachloro-m-xylene	43	50.0	130.0	10.0	All Target
		EPA 8321			2,4-Dichlorophenylacetic acid	48	50.0	150.0	10.0	Base/Neutral
Comp-4 DUP 012413	159692	EPA 8081			Tetrachloro-m-xylene	44	50.0	130.0	10.0	All Target
		EPA 8270			p-terphenyl-d14	38	40.0	140.0	10.0	Base/Neutral
Comp-5 012513	159702				p-terphenyl-d14	35	40.0	140.0	10.0	Base/Neutral
Comp-6 012513	159699				2-Fluorobiphenyl	39	40.0	140.0	10.0	Base/Neutral
					p-terphenyl-d14	31	40.0	140.0	10.0	Base/Neutral
Comp-7 DUP 012313	159685	EPA 8321			2,4-Dichlorophenylacetic acid	49	50.0	150.0	10.0	Base/Neutral

Project Number and Name: **A-2 FEB _ A-2 FEB**

Matrix Spike / Matrix Spike Duplicate Outlier Report

Method Batch : E9377 **Analysis Method :** EPA 8321 **Analysis Date :** 01/31/2013

Matrix ID : Soils **Preparation Type :** 3545 **Preparation Date :** 01/29/2013

Lab Reporting Batch : 130128.06 **Lab ID:** E84809

MS and/or MSD Analyte Recovery/RPD Outside Project Limits

Client Sample ID	Lab Sample ID	Analyte Name	Total or Dissolved	Reported * Percent Recovery	Reported * RPD	Project Limits (Percent) Rejection Point	Project Limits (Percent) Lower Limit	Project Limits (Percent) Upper Limit	Project Limits (Percent) RPD
Comp-21 012213MS	E9377.04	2,4,5-T	N/A	20		10.00	**30.00**	170.00	35.00
		Dichlorprop	N/A	30		10.00	**45.00**	96.00	35.00
		MCPA	N/A	25		10.00	**31.00**	96.00	35.00
Comp-21 012213MSD	E9377.05	2,4,5-T	N/A	25		10.00	**30.00**	170.00	35.00
		Dichlorprop	N/A	29		10.00	**45.00**	96.00	35.00
		MCPA	N/A	25		10.00	**31.00**	96.00	35.00

Associated Samples

All samples in Method Batch

Client Sample ID	Lab Sample ID
Comp-1 012313	159683
Comp-10 012313	159681
Comp-13 012213	159674
Comp-14 012213	159673
Comp-15 012213	159670
Comp-16 012313	159679
Comp-17 012313	159680
Comp-21 012213	159671
Comp-22 012313	159677
Comp-27 012213	159672
Comp-28 012313	159678
Comp-3 012313	159682
Comp-7 012313	159684
Comp-7 DUP 012313	159685
Comp-9 012213	159675
Comp-9 DUP 012213	159676

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

If the multiplier rule was selected for MS/MSD data review then spike recovery or RPD outliers will not show up on this report if that analyte did not get qualified in any associated samples during automated data review.

Project Number and Name: **A-2 FEB - A-2 FEB**

Matrix Spike / Matrix Spike Duplicate Outlier Report

Method Batch : E9383 **Analysis Method :** EPA 8321 **Analysis Date :** 02/04/2013

Matrix ID : Soils **Preparation Type :** 3545 **Preparation Date :** 01/30/2013

Lab Reporting Batch : 130128.06 **Lab ID:** E84809

MS and/or MSD Analyte Recovery/RPD Outside Project Limits

Client Sample ID	Lab Sample ID	Analyte Name	Total or Dissolved	Reported * Percent Recovery	Reported * RPD	Project Limits (Percent) Rejection Point	Project Limits (Percent) Lower Limit	Project Limits (Percent) Upper Limit	Project Limits (Percent) RPD
Comp-11 012413MSD	E9383.05	2,4,5-T	N/A	27		10.00	**30.00**	170.00	35.00
		Dichlorprop	N/A	44		10.00	**45.00**	96.00	35.00

Associated Samples

All samples in Method Batch

Client Sample ID	Lab Sample ID
Comp-11 012413	159687
Comp-12 012513	159698
Comp-18 012513	159697
Comp-19 012413	159695
Comp-2 012513	159701
Comp-20 012413	159693
Comp-23 012413	159688
Comp-24 012413	159690
Comp-25 012513	159700
Comp-26 012413	159694
Comp-29 012413	159689
Comp-30 012513	159696
Comp-4 012413	159691
Comp-4 DUP 012413	159692
Comp-5 012513	159702
Comp-6 012513	159699
Comp-8 012313	159686

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

If the multiplier rule was selected for MS/MSD data review then spike recovery or RPD outliers will not show up on this report if that analyte did not get qualified in any associated samples during automated data review.

Project Number and Name: **A-2 FEB - A-2 FEB**

Matrix Spike / Matrix Spike Duplicate Outlier Report

Method Batch : E9388 **Analysis Method :** EPA 6010 **Analysis Date :** 02/04/2013

Matrix ID : Soils **Preparation Type :** 3050B **Preparation Date :** 01/31/2013

Lab Reporting Batch : 130128.06 **Lab ID:** E84809

MS and/or MSD Analyte Recovery/RPD Outside Project Limits

Client Sample ID	Lab Sample ID	Analyte Name	Total or Dissolved	Reported * Percent Recovery	Reported * RPD	Project Limits (Percent) Rejection Point	Project Limits (Percent) Lower Limit	Project Limits (Percent) Upper Limit	Project Limits (Percent) RPD
Comp-21 012213MS	E9388.04	Barium	N/A	64		10.00	75.00	125.00	25.00
		Copper	N/A	58		10.00	75.00	125.00	25.00
		Lead	N/A	74		10.00	75.00	125.00	25.00
Comp-21 012213MSD	E9388.05	Barium	N/A	72		10.00	75.00	125.00	25.00
		Copper	N/A	71		10.00	75.00	125.00	25.00

Associated Samples

All samples in Method Batch	
Client Sample ID	**Lab Sample ID**
Comp-21 012213	159671

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

If the multiplier rule was selected for MS/MSD data review then spike recovery or RPD outliers will not show up on this report if that analyte did not get qualified in any associated samples during automated data review.

Project Number and Name: **A-2 FEB - A-2 FEB**

Matrix Spike / Matrix Spike Duplicate Outlier Report

Method Batch : E9408 **Analysis Method :** EPA 8270 **Analysis Date :** 02/01/2013

Matrix ID : Soils **Preparation Type :** 3545 **Preparation Date :** 01/31/2013

Lab Reporting Batch : 130128.06 **Lab ID:** E84809

MS and/or MSD Analyte Recovery/RPD Outside Project Limits

Client Sample ID	Lab Sample ID	Analyte Name	Total or Dissolved	Reported * Percent Recovery	Reported * RPD	Project Limits (Percent) Rejection Point	Project Limits (Percent) Lower Limit	Project Limits (Percent) Upper Limit	Project Limits (Percent) RPD
Comp-23 012413MSD	E9408.05	Bolstar	N/A	31		10.00	**35.00**	115.00	64.00
		Demeton-O+S	N/A		52	10.00	0.00	134.00	**40.00**
		Disulfoton	N/A		49	10.00	8.00	102.00	**26.00**
		Fenthion	N/A		47	10.00	40.00	126.00	**24.00**
		Phorate	N/A		50	10.00	6.00	141.00	**20.00**

Associated Samples

All samples in Method Batch

Client Sample ID	Lab Sample ID
Comp-12 012513	159698
Comp-18 012513	159697
Comp-19 012413	159695
Comp-2 012513	159701
Comp-20 012413	159693
Comp-23 012413	159688
Comp-24 012413	159690
Comp-25 012513	159700
Comp-26 012413	159694
Comp-29 012413	159689
Comp-30 012513	159696
Comp-4 012413	159691
Comp-4 DUP 012413	159692
Comp-5 012513	159702
Comp-6 012513	159699

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

If the multiplier rule was selected for MS/MSD data review then spike recovery or RPD outliers will not show up on this report if that analyte did not get qualified in any associated samples during automated data review.

Project Number and Name: **A-2 FEB - A-2 FEB**

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Preparation Batch : E9374 **Analysis Method :** EPA 8270 **Analysis Date :** 01/31/2013

MatrixID: Soils **Preparation Type :** 3545 **Preparation Date :** 01/29/2013

Lab Reporting Batch : 130128.06 **Lab ID:** E84809

LCS and/or LCSD Spike Recovery/RPD Outside Project Limits			Reported *		Project Limits (Percent)			
LCS Lab Sample ID	**Analyte Name**	**Total or Dissolved**	**Percent Recovery**	**RPD**	**Rejection Point**	**Lower Limit**	**Upper Limit**	**RPD**
E9374.02	Bolstar	N/A	33		10.00	**40.00**	111.00	40.00
	Tokuthion	N/A	51		10.00	**55.00**	104.00	40.00
E9374.03	Bolstar	N/A	34	3	10.00	**40.00**	111.00	40.00
	Tokuthion	N/A	52	2	10.00	**55.00**	104.00	40.00

Associated Samples

Client Sample ID	Lab Sample ID
Comp-1 012313	159683
Comp-10 012313	159681
Comp-11 012413	159687
Comp-13 012213	159674
Comp-14 012213	159673
Comp-15 012213	159670
Comp-16 012313	159679
Comp-17 012313	159680
Comp-21 012213	159671
Comp-22 012313	159677
Comp-27 012213	159672
Comp-28 012313	159678
Comp-3 012313	159682
Comp-7 012313	159684
Comp-7 DUP 012313	159685
Comp-8 012313	159686
Comp-9 012213	159675
Comp-9 DUP 012213	159676

*Only those Percent Recovery and/or RPD values outside project limits are listed in this report

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: **A-2 FEB - A-2 FEB**

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Preparation Batch : E9375 **Analysis Method :** EPA 8081 **Analysis Date :** 02/05/2013

MatrixID: Aqueous-Other **Preparation Type :** 3510 **Preparation Date :** 01/29/2013

Lab Reporting Batch : 130128.06 **Lab ID:** E84809

LCS and/or LCSD Spike Recovery/RPD Outside Project Limits			Reported *		Project Limits (Percent)			
LCS Lab Sample ID	**Analyte Name**	**Total or Dissolved**	**Percent Recovery**	**RPD**	**Rejection Point**	**Lower Limit**	**Upper Limit**	**RPD**
E9375.03	Methoxychlor	Tot	136	8	10.00	50.00	**130.00**	40.00

Associated Samples

Client Sample ID	Lab Sample ID
Equip Blank-1	159703
FCEB-2	159704
FCEB-3	159705

*Only those Percent Recovery and/or RPD values outside project limits are listed in this report

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: **A-2 FEB - A-2 FEB**

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Preparation Batch : E9376 **Analysis Method :** EPA 8270 **Analysis Date :** 01/31/2013

MatrixID: Aqueous-Other **Preparation Type :** 3510 **Preparation Date :** 01/29/2013

Lab Reporting Batch : 130128.06 **Lab ID:** E84809

LCS and/or LCSD Spike Recovery/RPD Outside Project Limits			Reported *		Project Limits (Percent)			
LCS Lab Sample ID	**Analyte Name**	**Total or Dissolved**	**Percent Recovery**	**RPD**	**Rejection Point**	**Lower Limit**	**Upper Limit**	**RPD**
E9376.02	Dimethoate	Tot	57		10.00	**60.00**	140.00	40.00
	Monocrotophos	Tot	8		10.00	**60.00**	140.00	40.00
	Naled	Tot	12		10.00	**60.00**	140.00	40.00
E9376.03	Monocrotophos	Tot	8	0	10.00	**60.00**	140.00	40.00
	Naled	Tot	13	8	10.00	**60.00**	140.00	40.00

Associated Samples

Client Sample ID	Lab Sample ID
Equip Blank-1	159703
FCEB-2	159704
FCEB-3	159705

*Only those Percent Recovery and/or RPD values outside project limits are listed in this report

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: **A-2 FEB - A-2 FEB**

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Preparation Batch : E9408 **Analysis Method :** EPA 8270 **Analysis Date :** 02/01/2013

MatrixID: Soils **Preparation Type :** 3545 **Preparation Date :** 01/31/2013

Lab Reporting Batch : 130128.06 **Lab ID:** E84809

LCS and/or LCSD Spike Recovery/RPD Outside Project Limits			Reported *		Project Limits (Percent)			
LCS Lab Sample ID	**Analyte Name**	**Total or Dissolved**	**Percent Recovery**	**RPD**	**Rejection Point**	**Lower Limit**	**Upper Limit**	**RPD**
E9408.03	Phorate	N/A	33	41	10.00	0.00	119.00	**40.00**

Associated Samples

Client Sample ID	Lab Sample ID
Comp-12 012513	159698
Comp-18 012513	159697
Comp-19 012413	159695
Comp-2 012513	159701
Comp-20 012413	159693
Comp-23 012413	159688
Comp-24 012413	159690
Comp-25 012513	159700
Comp-26 012413	159694
Comp-29 012413	159689
Comp-30 012513	159696
Comp-4 012413	159691
Comp-4 DUP 012413	159692
Comp-5 012513	159702
Comp-6 012513	159699

*Only those Percent Recovery and/or RPD values outside project limits are listed in this report

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: **A-2 FEB - A-2 FEB**

ATTACHMENT I

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2.5

Legend

Super-Grids

A-2 Perimeter

Samples w/SQAG Exceed. **Se** Dieldrin **Atrazine**

N

0 2,000 4,000

Feet

Copper concentrations exceeded the TEC SQAG in all samples.
Barium concentrations exceeded the PEC SQAG in all samples.

A-2 SLERA

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

FIGURE 2

SQAG Exceedances

DATE: MAR 18, 2013

BY: FSR

FOR: JMA

FORMATION ENVIRONMENTAL

S:\GIS\arcprj2\SFWMD\012-069\Fig2_A-2.mxd

ATTACHMENT J

SunLabs Summary Sample Report

Table 1
Summary of COIs Detected in Composite Soil Samples
A-2 Flow Equalization Basin

Sample ID	Date Collected	Arsenic	Atrazine	Barium	Cadmium	Chromium	Copper	D, 2,4-	Dieldrin	Lead	Mercury	Metribuzin	Phorate	Selenium	Total Organic Carbon
SQAG -TEC		**9.8**	**0.0003**	**20**	**1**	**43**	**32**	**N/A**	**0.0019**	**36**	**0.18**	**N/A**	**N/A**	**N/A**	**N/A**
SQAG - PEC		**33**	**N/A**	**60**	**5**	**110**	**150**	**N/A**	**0.062**	**130**	**1.1**	**N/A**	**N/A**	**N/A**	**N/A**
Comp-1 012313	1/23/2013	6.8	0.099 I	110	0.11 U	19	110	0.058 U	0.0017 U	7.8	0.1	0.041 I	0.0036 U	1.7 I	320000
Comp-10 012313	1/23/2013	4.9	0.025 U	95	0.11 U	12	68	0.057 U	0.0045 I	5.9	0.13	0.018 U	0.0036 U	1.6 I	384000
Comp-11 012413	1/24/2013	3.6	0.027 U	98	0.11 U	15	79	0.063 U	0.0018 U	5.6	0.14	0.020 U	0.0039 U	0.58 U	450000
Comp-12 012513	1/25/2013	3.8	0.027 U	100	0.11 U	13	87	0.063 U	0.0018 U	6.8	0.14	0.020 U	0.0039 U	3.7	470000
Comp-13 012213	1/22/2013	6.2	0.110 I	100	0.15 I	29	90	0.059 U	0.0017 U	6.7	0.13	0.019 U	0.0037 U	2.3	400000
Comp-14 012213	1/22/2013	5.5	0.026 U	80	0.18 I	16	68	0.060 U	0.0017 U	6.6	0.11	0.019 U	0.0038 U	2.2 I	374000
Comp-15 012213	1/22/2013	3.4	3.5	87	0.12 I	7.8	75	0.29	0.0049 I	7	0.11	0.73	0.0043 U	2.6	477000
Comp-16 012313	1/23/2013	4	0.33	91	0.096 U	23	96	0.052 U	0.0051 I	6.1	0.13	0.058 I	0.120 I	2.3	388000
Comp-17 012313	1/23/2013	3.8	0.160 I	99	0.12 U	17	85	0.060 U	0.0017 U	6.4	0.13	0.6	0.0038 U	2.6	409000
Comp-18 012513	1/25/2013	3.4	3.3	97	0.11 U	11	88	0.94	0.0018 U	4.7	0.15	1.1	0.0039 U	1.5 I	450000
Comp-19 012413	1/24/2013	5.5	0.024 U	88	0.11 U	17	59	0.055 U	0.0016 U	6.5	0.12	0.017 U	0.0034 U	0.57 U	198000
Comp-2 012513	1/25/2013	5.2	0.029 U	93	0.11 U	15	59	0.065 U	0.0019 U	6.7	0.098	0.020 U	0.0041 U	2.0 I	383000
Comp-20 012413	1/24/2013	5	0.025 U	90	0.10 U	14	70	0.057 U	0.0016 U	6.3	0.11	0.14	0.0036 U	0.55 U	361000
Comp-21 012213	1/22/2013	3.5	0.055 I	69	0.17 I	9.4	79	0.052 U	0.0015 U	8.4	0.099	0.2	0.093 I	0.47 U	308000
Comp-22 012313	1/23/2013	4.3	0.027 U	100	0.16 I	12	83	0.063 U	0.0018 U	6.2	0.14	0.020 U	0.0039 U	2.5	448000
Comp-23 012413	1/24/2013	4.2	0.026 U	82	0.11 U	13	59	0.059 U	0.0027 I	5.4	0.12	0.019 U	0.0037 U	2.6	384000
Comp-24 012413	1/24/2013	4.1	0.028 U	99	0.14 I	28	82	0.064 U	0.0018 U	6.6	0.14	0.020 U	0.0040 U	2.5	464000
Comp-25 012513	1/25/2013	6.4	0.031 I	100	0.11 U	19	67	0.058 U	0.0017 U	5.6	0.11	0.12	0.0036 U	2.5	392000
Comp-26 012413	1/24/2013	5.5	0.025 U	98	0.11 U	17	78	0.057 U	0.0016 U	6.4	0.13	0.018 U	0.0036 U	0.58 U	355000
Comp-27 012213	1/22/2013	3.5	0.035 I	89	0.12 U	9.1	74	0.070 U	0.00099 U	5.9	0.14	0.022 U	0.0043 U	2.9	503000
Comp-28 012313	1/23/2013	3.1	0.19	83	0.14 I	26	69	0.058 U	0.0017 U	5.8	0.13	1.7	0.0036 U	1.8 I	415000
Comp-29 012413	1/24/2013	4.3	0.033 U	86	0.14 U	7.2	60	0.074 U	0.0011 U	5.2	0.13	0.023 U	0.0047 U	2.3 I	485000
Comp-3 012313	1/23/2013	4.3	0.029 U	91	0.11 U	16	82	0.065 U	0.0019 U	5.4	0.11	0.020 U	0.0041 U	2.5	440000
Comp-30 012513	1/25/2013	3.2	0.027 I	96	0.12 U	21	100	0.063 U	0.0018 U	6.9	0.15	0.020 U	0.0039 U	0.65 U	424000
Comp-4 012413	1/24/2013	4.7	0.029 U	95	0.12 U	5.6	91	0.065 U	0.0019 U	5.9	0.14	0.020 U	0.0096 I	2.3 I	354000
Comp-4 DUP 012413	1/24/2013	4.1	0.033 U	93	0.14 U	6.8	80	0.074 U	0.0011 U	5.7	0.13	0.023 U	0.0047 U	1.8 I	259000
Comp-5 012513	1/25/2013	4.6	0.027 U	94	0.11 U	15	53	0.063 U	0.0018 U	5.5	0.12	0.020 U	0.0039 U	2.1 I	423000
Comp-6 012513	1/25/2013	4.5	0.030 U	110	0.12 U	18	75	0.070 U	0.00099 U	6.1	0.12	0.022 U	0.0043 U	0.66 U	440000
Comp-7 012313	1/23/2013	6.4	0.025 U	97	0.10 U	20	75	0.057 U	0.0016 U	6.3	0.11	0.018 U	0.0036 U	0.55 U	389000
Comp-7 DUP 012313	1/23/2013	5.7	0.025 U	97	0.11 U	19	74	0.058 U	0.0017 U	7.1	0.11	0.018 U	0.0036 U	2.8	329000
Comp-8 012313	1/23/2013	3.8	1.1	96	0.12 U	14	87	0.062 U	0.0018 U	6.3	0.13	0.24	0.0038 U	0.62 U	358000
Comp-9 012213	1/22/2013	3.9	0.38	92	0.12 U	13	67	0.200 I	0.0018 U	5.3	0.12	0.28	0.0039 U	2.4 I	430000
Comp-9 DUP 012213	1/22/2013	3.5	0.44	110	0.14 U	17	65	0.170 I	0.0010 U	5.8	0.12	0.28	0.0044 U	3	419000

All units mg/kg DW
Detected Conc. > TEC
Detected Conc. > PEC

H.2 A-2 FEB Lands Correspondence

From:	Shafer, Mark D SAJ
To:	Kukleski, Robert; Taylor, Robert
Cc:	Gued, Lisa R SAJ; Morrison, Matthew; Taplin, Kimberley A SAJ
Subject:	Shafer review of Phase II Environmental Assessment; Screening Level Ecological Risk Assessment; A-2 Flow Equalization Basin Project; Former Talisman Sugar Corporation Property (Tract No. D7 100-104) (UNCLASSIFIED)
Date:	Tuesday, April 02, 2013 12:36:00 PM

Classification: UNCLASSIFIED
Caveats: NONE

Bob(s)

Here are my comments on the A2 Sampling report. Lisa Gued indicated that she would send you comments under separate cover hopefully by end of the week.

In addition to the comments below the following are requested.

a. Documentation of FWS review of A2 sampling results.
b. Documentation of FDEP review of A2 Sampling results.
c. Letter from SFWMD to USACE requesting application of Sep 2011 AG-Chem policy to this project.

Shafer Comments:
Overall comment: In addition to USFWS review, this report must be reviewed by FDEP to satisfy USACE Ag-Chem policy.

1. Page 1. In reviewing the A2 Phase II report of March 25th, 2012, it references on page 1 the draft Summary Env. Report for the A-2 FEB, dated September 17, 2012. I have a copy of that report and it does not include much of the information that was originally included in the August 21st, 2012 version. I believe that the WMD solution to USACE concerns about the Sep 17 version was to revert back to the August 21st, 2012 version. I will be referencing the August 21st 2012 version in the CEPP PIR. To do this, page 1 of the March 25 report should be changed to reference the August 21st Summary report and the August 21st report should be provided with a signature from Steve Long.

2. Page 6. Section 3.1. Should provide statement that USFWS and USACE reviewed the sampling scope of work and approved the sampling plan. Provide copy of USFWS review letter in appendix.

3. Page 4.1.1 Soil, 4th bullet. Second sentence says SCTL-LSW is appropriate. Third sentence essentially says SCTL-LSW not relevant. Please confirm with FDEP that FEB would not be a class III water though since the FEB eventually discharges to Class III water body don't know of relevance. Also, a discussion that FEB will discharge to STA34 or STA2B before being discharged to a Class III water.

4. Page 12. Metals Results. Chromium exceeded the SCTL-LSW in all samples. Add discussion of why was this analyte not tested using SPLP protocol.

5. Page 21. Arsenic: Concentrations do exceed the residential exposure criteria. The FEB may be open to the public for recreation. Some discussion of risks associated with public access should be provided in text. Perhaps a reference to other sites where FDEP has developed a "recreational" exposure criteria (Lake Okeechobee Scenic Trail for instance.)

5. Page 21. Chromium. Not sure that it is relevant that the planned FEB will or will not be classified as a Class III water body. The FEB will discharge to the STAs and eventually a class III water body. By the way, this paragraph on the SCTL-LSW exceedances is in direct contrast to the discussion that begins in the next paragraph that follows which begins "Class III surface water criteria".

6. Page 21. Bullet on Chromium, mercury, and selenium were.... Actual testing of these analytes using the SPLP test procedure would have been useful so you could say for sure if these "leach to a significant degree". This lack of testing should be further justified or corrected by additional testing.

7. Page 22. Arsenic: The recommendation should indicate whether the results for Arsenic should warrant measures taken in the soil management plan to reduce possible human exposure due to potential for arsenic on levee soils. (Blending or capping with low-arsenic soils, for instance.)

Thanks

Mark Shafer

-----Original Message-----
From: Kukleski, Robert [mailto:rkuklesk@sfwmd.gov]
Sent: Tuesday, March 26, 2013 2:30 PM
To: Barnett, Ernie; Teets, Thomas M; Morgan, Temperince; Morrison, Matthew; Thourot, Scott; Burns, Kirk; Cooper, Abner; Warner, Paul; Kivett, Jeff; Mitnik, John; Shirkey, Alan; Leeds, Jennifer; Sciotto, Sara; Jeyakumar, Nirmala; Bertolotti, Lesley; Shaffer, John; Ramirez, Armando; Virgil, Richard; Loehrlein, Vincent; Collins, Kathleen; Story, Ester; Bassell, Richard; Palmer, Ray; Schaeffer, Robert; Arias, Dolores; Taylor, Robert; Smith, Jeffrey; Coughlin, Steve; Trammell, Herbert; Pfeuffer, Richard
Cc: robert_frakes@fws.gov; Emily Bauer; 'Anthony Sowers'; Shafer, Mark D SAJ; Gued, Lisa R SAJ; 'Dougherty, Brian'; 'Stuckey, Mark'; 'Lurix, Joe'; 'william.rueckert@dep.state.fl.us'; William C. Kennedy; 'Steve Long'; Michael Rothenburg; 'andrew.cadle@psiusa.com'; 'Joe Allen'; 'Mark Lewis'
Subject: Phase II Environmental Assessment; Screening Level Ecological Risk Assessment; A-2 Flow Equalization Basin Project; Former Talisman Sugar Corporation Property (Tract No. D7 100-104)

The attached memorandum is intended to accompany the Phase II Environmental Assessment and Screening Level Ecological Risk Assessment (SLERA) of the A-2 Flow Equalization Basin (FEB) Project, comprised of the former Talisman Sugar Corporation property (Tract No. D7 100-104). All known “point-sources” within the Project footprint have been previously assessed/remediated, with Florida Department of Environmental Protection (FDEP) concurrence with the completeness of corrective actions. The current Phase II Sampling Investigation (and accompanying SLERA) were focused upon the cultivated portions of the subject property that were not previously sampled in order to quantify the residual agrochemical concentrations associated with routine application, and to determine the environmental suitability of the subject property for the proposed Project.

The report was completed by Professional Service Industries, Inc. (PSI). A condensed electronic version (Text, Tables, and Figures) of the PSI report is also attached. A complete version of the report (including all Appendices) has been uploaded into Documentum. Complete printed versions of the report are being transmitted separately by PSI to selected recipients (as detailed in the memorandum).

We value your opinion. Please take a few minutes to share your comments on the service you received from the District by clicking on this link <http://my.sfwmd.gov/portal/page/portal/pg_grp_surveysystem/survey%20ext?pid=1653> .

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Comments for Phase II Environmental Site Assessment for the A-2 Flow Equalization Basin

Commenter: Lisa R. Gued, Ph.D., USACE

Date: April 11, 2013

Page 2: 1st bullet: How were ND values incorporated in the statistical analyses?

Page 2: 1st bullet: A table listing the mean and the standard deviation of detected compounds would be useful.

Page 7: 2nd paragraph: Which chemicals were recently applied?

Page 8: 2nd bullet: Split samples were not accomplished with OP pesticides and herbicides because the primary split laboratory subcontracted these analyses to Sunlabs. Sunlabs was the primary laboratory.

Page 10: 3rd paragraph: FWS protocols recommend consideration of ESV established by EPA Region IV when Florida SQAGs are not available. Where these values considered in this assessment?

Pages 11-13: In the discussion of the results, the mean and the standard deviation should be reported.

Pages 11-13: For compounds where the detection limit was higher than the criteria, this should be reported.

Page 11: Last paragraph. The MDL that the laboratory reported is approximately 100 times the SQAG-TEC for atrazine.

Page 12: 2nd paragraph: The text fails to state that the holding times for SPLP analyses per method EPA 1312 were exceeded. This makes the data questionable.

Page 13: 4.3 Data validation: ADaPT data validation forms were not provided with the laboratory reports in Appendix A.

Page 13: 4th paragraph: Does USFWS concur with the value used of 4.2 mg/kg selenium?

Page 14: 4th bullet: A spot check of the data indicate that this statement is inaccurate. The method blank run 1/30/13 by CAS has barium, cadmium, copper, mercury in it.

Page 14|: It should be noted that the laboratory did not achieve the SQAGs TEC concentrations for any of the organophosphate pesticides (OPP), the triazine herbicides (including atrazine) or toxaphene. The SOW that this assessment was supposed to follow named EPA 8140 as the

method for OPP. The chain of custody from the field requested EPA 8141 + atrazine for the split samples; the chain of custody between ALS and their subcontractor, Sunlabs was changed to EPA 8270. The chain of custody from the field produced to Sunlabs (the primary laboratory) requested EPA 8141. The data was reported out from EPA 8270 which did not conform to the scope. Typically, EPA 8140 provides lower detection limits than EPA 8270 due to use of a more selective detector.

Page 14: Bullets 6&7: There are a wide variety of MDLs being reported by commercial laboratories. Were the labs told which criteria the data was going to be compared to? Were different labs contacted?

Page 17: 1st bullet: Please confirm that the 95% UCL of dieldrin exceeds the SQAG-TEC.

Page 17: 2nd bullet: Does the FWS concur with no risk for barium?

Page 17: 2nd bullet: The range of barium concentration defined by FDEP (Carvalho and Schropp, 2002) in the Florida DEPs Interpretive Tool for Assessment of Metal Enrichment in Florida Freshwater Sediment warns of the limitation that "the majority of the freshwater sediment systems used to build the sediment metals database from which this tool was developed came from central peninsular and north Florida. Therefore, this tool should be used to evaluate sediments from the same region". It goes on to say in the Recommendations: "… the interpretive tool should be used with a cautionary note outside of central peninsular and north Florida."

Table 1: SPLP should have a footnote.

Tables: A complete table listing the criteria and the found value and or detection limit would be useful to see at a glance the detection limit vs the criteria.

Appendix B Screening Level Ecological Risk Assessment

Page 3: 4th paragraph I have been unable to locate the full dataset.

Page 3: 5th paragraph: Which samples are discrete?

Page 4: 3.1.1 Does USFWS concur with this?

Page 4: 3.1.1 The range of barium concentration defined by FDEP (Carvalho and Schropp, 2002) in the Florida DEPs Interpretive Tool for Assessment of Metal Enrichment in Florida Freshwater Sediment warns of the limitation that "the majority of the freshwater sediment systems used to build the sediment metals database from which this tool was developed came from central peninsular and north Florida. Therefore, this tool should be used to evaluate sediments from the

same region". It goes on to say in the Recommendations: "… the interpretive tool should be used with a cautionary note outside of central peninsular and north Florida."

Page 5: 1st paragraph: Does the USFWS concur with the barium concentrations are not likely to cause effects?

Page 5: 4th paragraph: Does the USFWS concur with the lack of PEC exceedance in any sample and the unique properties of muck soils with the A-2 cultivated area suggest that the potential for toxic effects would be lower than predicted by SQAGs?

Page 5: 4th paragraph: Define unique properties.

Page 6: 3.1.3: The information is in conflict with the ESA assertion on page 13. The recommended value for selenium should be inserted in to the detected table 1 and footnoted.

Page 6: 3.1.4 I am unable to identify a Figure 2 in the hard copy report.

Page 6: Does USFWS concur with the recalculation of the 0.0003 ug/kg TEC value for atrazine to 587 ug/kg TEC for atrazine?

Page 6: 3.1.5 What is the half-life for 2,4-D?

Page 6: 3.1.5: Does USFWS concur with the calculation of the site-specific SQAGs for 2,4-D?

Table 1: comp-10 should be shaded for dieldrin concentration

Page 8: 2nd paragraph Does USFWS concur?

Page 8:5th paragraph: Was metribuzin applied recently or not?

Page 8:6th paragraph: Was phorate applied recently or not?

Page 9: 3.2 The cumulative risk did not include the data for barium. Barium data were not used because it was considered background. It those data were left in the average PEC-HQ would be greater than 0.5. Does USFWS concur with deletion of barium data?

Table 2: The value for SQAG PEC for dieldrin is incorrect in this table. The correct value is 0.062 mg/kg.

Page 10: 2nd paragraph: The text says that "a screening-level approach was used to identify COPCs by using the maximum composite sample concentration from the discrete sediment samples…" This does not make sense. There were no discrete samples..

Page 10: 3rd paragraph: Treatment of barium is inconsistent through this report. It was not used in Table 2 to calculate PECs-HQ but it was used in Table 3 to calculate HQs for aquatic – feeding birds.

Page 10: 3rd paragraph: The text says that atrazine is a chemical with low toxicity. How do the authors reconcile the 0.0003 mg/kg SQAG-TEC values; it is the lowest concentration of TEC for the compounds detected.

Page 11: 3.3.1 Does USFWS concur with this position?

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960

April 17, 2013

Robert Kukleski
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

Dear Mr. Kukleski:

The U.S. Fish and Wildlife Service (Service) has reviewed the document entitled "Phase II Environmental Site Assessment for the A-2 Flow Equalization Basin, Palm Beach County, Florida," prepared by Professional Service Industries, Incorporated (PSI). This report summarizes sampling results for the approximately 14,408 acre Talisman property.

Previous due diligence assessments were performed on the A-2 Flow Equalization Basin (FEB) parcels prior to the creation of the current "Protocol for Assessment, Remediation, and Post-Remediation. Monitoring for Environmental Contaminants on Everglades Restoration Projects", therefore a reduced sampling density of 10 percent was agreed to prior to the current assessment of previously cultivated areas in the project footprint. All point source concerns within the A-2 FEB were previously assessed and remediated as necessary. A total of 30, fifty acre grids were sampled using composite samples. Analytical results were compared to the Florida Department of Environmental Protection Sediment Quality Assessment Guidelines (SQAG) and the Florida Administrative Code Soil Cleanup Target Levels (SCTL).

Results

Barium concentrations (69 to 118 mg/kg) exceeded the SQAG threshold effect concentration (20 mg/kg) and probable effect concentration (PEC) (60 mg/kg) in all of the samples. Copper (53 to 110 mg/kg) was detected at concentrations that exceeded the recommended interim screening level for protection of the Everglade snail kite (*Rostrhamus sociabilis plumbeus*) (85 mg/kg) in eight of the samples collected. The calculated 95 percent upper confidence level (UCL) of the mean copper concentrations (83.1 mg/kg) was below 85 mg/kg. The metals chromium, mercury, and selenium exceeded the SCTL for leaching to surface water in several of the sample locations. The herbicides 2,4-D, metribuzin, phorate, and atrazine were detected at some locations with concentrations above the SCTL for leaching to surface water or ground water. Atrazine (27 to 3,500 µg/kg) was relatively widespread, with detections at 16 of the sampling locations above the SQAG threshold effect concentration (TEC) (0.30 µg/kg). The pesticide dieldrin was detected above the SQAG TEC (1.9 µg/kg) in four samples, ranging from 2.7 to 5.1 µg/kg. Atrazine and dieldrin were also analyzed with the synthetic precipitation leaching procedure (SPLP). Atrazine was detected in SPLP extract at concentrations above the Florida Administrative Code (FAC) groundwater cleanup target level (GCTL) and the FAC

Surface water Cleanup Target Level (SwCTL). The detection limits for the dieldrin SPLP extracts were above the SwCTL.

Copper concentrations within the A-2 FEB did show some exceedances above the recommended interim screening level, but sitewide they are calculated to be below 85 mg/kg. In addition, the total organic carbon (TOC) content of the soils at the proposed A-2 FEB are high (20-50 percent) and will act to decrease the bioavailability of copper. The recommended interim screening level was generally established for sandy soils with roughly 1 percent TOC. To verify that copper does not present a risk to snail kites, PSI recommended a sampling program at the start-up of the A-2 FEB to monitor copper concentrations in surface water, periphyton, and any apple snails that may establish onsite. To address the exceedances of 2,4-D, atrazine, metribuzin, phorate, dieldrin, chromium, mercury, and selenium above the SCTL for leaching to surface water PSI recommended sampling surface water after start-up operations at the A-2 FEB.

Summary and Recommendations

After reviewing the analytical data, the Service concurs that the detected contaminant concentrations are unlikely to pose risk to Service trust resources at the proposed A-2 FEB. We agree that the proposed monitoring for copper is necessary to verify predictions of reduced copper bioavailability due to the high TOC. While the detected levels of barium could potentially impact the benthic community, it is unlikely that they would pose risk to federally listed species.

The Service agrees that an agrochemical best management practices (BMP) plan is appropriate to address the use of agrochemicals, if the property is used for agricultural purposes prior to project construction. We strongly recommend restricting any further use of copper and discontinuing use of atrazine a minimum of one year prior to project construction. If agrochemicals are applied during the interim use, then further sampling may be necessary to ensure that agrochemical concentrations are below thresholds for ecological risk.

Thank you for the opportunity to provide comments regarding the assessment in the A-2 FEB project area. If you have any questions, please contact Emily Bauer at 772-469-4335.

Sincerely yours,

for Larry Williams
Field Supervisor
South Florida Ecological Services Office

cc: electronic only

Corps, West Palm Beach, Florida (Tori White)
Service, Vero Beach, Florida (Sharon Kocis, Steve Mortellaro)
PSI, Tampa, Florida (Stephen Long)

DEPARTMENT OF ENVIRONMENTAL PROTECTION

MEMORANDUM

TO: **Joe Lurix, Air/Waste/WF Program Administrator**

FROM: **William Rueckert, Environmental Manager, Waste Compliance Assistance & Enforcement Section** WAR

DATE: **April 4, 2013**

SUBJECT: **Phase II Environmental Site Assessment, A-2 Flow Equalization Basin, Palm Beach County; Site No. COM_157258 (Talisman); Tract Numbers: D7100-044; -047; -066; -067; -104; -139; -141; and D7200-005.**

As requested by the Department's Office of Ecosystem Projects in Tallahassee, I have reviewed the document prepared for the South Florida Water Management District (District) by Professional Service Industries, Inc. (PSI) dated March 25, 2013 (received April 1, 2013) *Phase II Environmental Site Assessment, A-2 Flow Equalization Basin (Report), Palm Beach County, Florida*. The Department's review was performed following the "Protocol for Assessment, Remediation and Post Remediation Monitoring for Environmental Contaminants on Everglades Restoration Projects" known as the White Paper. The Waste Compliance Assistance & Enforcement Section has the following comments:

1. Based on the information and representations as presented, this Report adequately addresses the concerns of the Department's Waste Compliance Assistance & Enforcement Section with further discussion below. Therefore, the property addressed in this Report should be capable of being utilized for the intended end use as a flow equalization basin.

2. Start Up Operations - the Department concurs that during the start up operation a one-time surface water and sediment sampling event should be performed. This sampling event should be performed at the 30- or 60-day period from inundation. **In addition,** after one year of operations, an additional surface water sampling event should be performed. Sample location, minimum of three, determinations should be based upon the highest concentrations of the listed parameters presented in this Report. The Department suggests three locations with the highest copper concentrations for the metals analyses. For example, sample collection should be in the vicinity of Comp-1, Comp-16, and Comp-30.

Sample locations, minimum of three, for the pesticide and herbicide analyses should be in the areas of Comp-9, Comp-18, and Comp-28. The following parameters should be laboratory analyzed: pesticides and herbicides (2,4-D; atrazine; metribuzin; phorate) and metals (barium, chromium, copper, mercury and selenium).

3. Arsenic is not suggested for additional analyses but these soils should not be transported off site for uncontrolled disposal. As presented in Section 6.2, Recommendations, a soil management plan should be developed for project construction to ensure proper handling and disposal of the soils.

4. Also as presented in Section 6.2 of the Report, an agrochemical best management practices plan should be instituted during the continued use of agrochemicals on the property.

If you have any questions, feel free to contact William Rueckert at (561) 681-6679 or at William.Rueckert@dep.state.fl.us.

cc: (RPPS_Comp@dep.state.fl.us)

130267

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

June 14, 2013

Mr. David S. Hobbie
Deputy District Engineer
Programs and Project Management Division
U.S. Army Corps of Engineers
701 San Marco Boulevard
Jacksonville, FL 32207-8175

Dear Mr. Hobbie:

Subject: Request for Inclusion of a Section Entitled "Residual Agricultural Chemicals" within the Central Everglades Planning Project Final Integrated Project Implementation Report and Environmental Impact Statement

I am writing on behalf of the South Florida Water Management District (SFWMD) to request inclusion of a section entitled "Residual Agricultural Chemicals" to the Central Everglades Planning Project (CEPP) Final Integrated Project Implementation Report and Environmental Impact Statement. This request is in accordance with Paragraph 4 of the Comprehensive Everglades Restoration Plan (CERP) – Residual Agricultural Chemicals memorandum issued September 14, 2011 from the Assistant Secretary of the Army for Civil Works.

SFWMD has provided information to the Jacksonville District to fulfill the applicable requirements set forth in Paragraph 4 of the policy guidance for the CEPP and will work with the Jacksonville District to complete this section in the Final Integrated Project Implementation Report and Environmental Impact Statement.

Sincerely,

Temperince Morgan

Temperince Morgan
Director
Office Everglades Policy and Coordination

TM/pv

c: Eric Bush, USACE
Howard Gonzales, USACE
Kimberley Taplin, USACE
Tom Teets, SFWMD

From:	Kukleski, Robert
To:	Gued, Lisa R SAJ
Cc:	robert_frakes@fws.gov; Emily Bauer; Shafer, Mark D SAJ; "william.rueckert@dep.state.fl.us"; "Steve Long"; "andrew.cadle@psiusa.com"; "Joe Allen"; Davis, Murika R SAJ; Irfan, Muhammad SAJ; Taplin, Kimberley A SAJ; Taylor, Robert; Morrison, Matthew; Warner, Paul; Cooper, Abner; Thourot, Scott; Teets, Thomas M; Palmer, Ray; Bassell, Richard; Bergstrom, Jayne; Virgil, Richard; Loehrlein, Vincent; Kivett, Jeff; Mitnik, John
Subject:	Response To Additional USACOE Comments; Phase II Environmental Assessment (Addendum #1); Screening Level Ecological Risk Assessment; A-2 Flow Equalization Basin Project; Former Talisman Sugar Corporation Property (Tract No. D7 100-104)
Date:	Friday, June 14, 2013 11:02:32 AM

Lisa:

The South Florida Water Management District (SFWMD, or "the District") is submitting this response to address your requests for clarification on the Phase II Environmental Site Assessment (ESA) for the A-2 Flow Equalization Basin (FEB) that were received via e-mail on May 21, 2013; the comments were issued in response to the Phase II ESA - Addendum #1. We have provided each of your comments in italics below, followed by our response:

1. With respect to the FDEP letter, which standards will be used to evaluate the target compound water concentrations (if any) in the FEB after inundation?

Response: The FDEP concurrence letter, which was previously provided for the Phase II ESA did not specify which standards would be applied to evaluate target compound concentrations in the surface water in the A-2 Flow Equalization Basin (FEB) after inundation. However, the District is not permitting the FEB as a treatment works; and, therefore, the surface water standards for Class III surface water bodies, which are contained in Chapter 62-302, Florida Administrative Code (FAC) would apply.

2. With respect to the FDEP letter, what would be the repercussions if any of the targets exceeded the standards?

Response: The FDEP concurrence letter did not specify the repercussions for any target compounds that might exceed the surface water quality standards during the operation of the FEB. However, exceedences of the water quality standards for this FEB would be treated no differently than exceedences for any other constructed water body or reservoir that is operated by the District. When an exceedence is detected and confirmed through follow-up testing, a corrective action plan would be developed to reduce the chemical concentrations to below the applicable criteria. The District commonly employs adaptive management strategies to meet water quality standards, and the operation of the FEB might need to be altered to meet the water quality standards.

3. With respect to the USFWS letter, what concentrations of copper found in surface water, periphyton and apple snails after FEB inundation would be a cause for concern?

Response: As you are aware, SFWMD, USFWS, FDEP and USACOE are currently participating in a joint Copper Working Group to further our understanding of the fate and transport and potential ecological effects of copper in the Everglades environment. As part of this effort, we have jointly sponsored several studies which are currently underway to evaluate copper bioaccumulation, toxicity, desorption, and other important parameters that significantly impact the potential risks associated with exposure of the Everglades snail kite, and other species to copper in sediments. We believe that it is premature to set goals for allowable concentrations of copper in periphyton and apple snails at this time, but we will be in a better position to jointly set these goals after completion of these studies within the next 12-18 months, and prior to FEB construction. With regard to copper in surface water, the Class III surface water standard for copper would apply, and this value is hardness dependent.

4. With respect to the USFWS letter, what would be the consequences if copper concentrations exceeded the level of concern?

Response: Similar to the FDEP concurrence letter, the USFWS concurrence letter does not identify the consequences if the copper concentrations within the FEB exceeded the level of concern during operation. The District will utilize adaptive management techniques to address any exceedences of copper in surface water, periphyton, or snail tissue.

5. With respect to the USFWS letter, does the SFWMD agree with restricting further use of copper at the site and discontinuing use of atrazine a minimum of one year prior to project construction?

Response: The District does agree with the USFWS recommendation to restrict copper applications and to require the leasee to discontinue atrazine use a minimum of one year prior to project completion. It has been very common for the District to prepare and adopt agricultural chemical Best Management Practices (BMP) Plans which are implemented during interim use to prevent further degradation of a property prior to construction.

6. With respect to the USFWS letter, it says that "If agrochemicals are applied during the interim use, then further sampling may be necessary to ensure that agrochemical concentrations are below thresholds for ecological risk". Please confirm that SFWMD is still planning on leasing the land for the A-2 and agrochemicals will be applied. Please clarify what further sampling would be necessary to ensure that agrochemical concentrations are below threshold for ecological risk.

Response: The current lease on the property varies, with some components of the property leased until 2015 and others until 2019. The portions leased until 2019 can also be extended beyond that timeframe if the Project is not ready for construction. The District intends to allow continued farming on the property, subject to the proposed BMP restrictions, during the interim use period. Upon termination of the lease, the SFWMD Environmental Science Unit (ESU) will conduct an Exit Assessment on the property. The Exit Assessment typically involves a thorough reconnaissance of the property to identify any evidence of spills that may have occurred during the lease period (e.g., dead vegetation, staining, odors), or new chemical sources (e.g., mix/load areas, tanks, etc.) with a high potential for spills. A governmental database search is also typically performed to identify any reported spills or environmental violations that have been reported on the property during the lease period.

If any potential point sources are identified, soil and groundwater samples would typically be collected from these areas. The District would also typically perform re-sampling within the cultivated fields at a few grid locations to verify current conditions. During this re-sampling, we collect samples from previously sampled grids for comparison of current conditions with the Phase II ESA results. We typically perform re-sampling at 5-10% of the previously sampled grids. SFWMD will submit a workplan for any Exit Assessment sampling to FDEP and USFWS to obtain concurrence prior to conducting the additional work.

We trust that these responses will be satisfactory to address the USACOE's concerns regarding the report. If you have any additional questions, please do not hesitate to contact me at (561)686-8800, ext. 3337.

We value your opinion. Please take a few minutes to share your comments on the service you received from the District by clicking on this link <http://my.sfwmd.gov/portal/page/portal/pg_grp_surveysystem/survey%20ext?pid=1653> .

H.3 Comprehensive Everglades Ecosystem Restoration Plan Environmental Risk Assessment Protocol Documents

ANNEX H

PART 3

CERP ENVIRONMENTAL RISK ASSESSMENT PROTOCOL DOCUMENTS

1) **Whitepaper to Address Florida DEP Remaining Concerns about the Ecological Risk Assessment (ERA) Protocol**
   Prepared by
   Joseph Allen, Mark Lewis, Ph.D., and Shahrokh Rouhani, Ph.D., P.E.
   NewFields Companies, LLC

2) **3/14/08 FINAL VERSION**
   ATTACHMENT 1, PROTOCOL FOR ASSESSMENT, REMEDIATION AND POST-REMEDIATION MONITORING FOR ENVIRONMENTAL CONTAMINANTS ON EVERGLADES RESTORATION PROJECTS

Whitepaper to Address Florida DEP Remaining Concerns about the Ecological Risk Assessment (ERA) Protocol

Prepared by
Joseph Allen, Mark Lewis, Ph.D., and Shahrokh Rouhani, Ph.D., P.E.
NewFields Companies, LLC

Prepared for
South Florida Water Management District

October 15, 2007

NEWFIELDS

1.0 INTRODUCTION

The South Florida Water Management District (SFWMD) routinely acquires large agricultural tracts for incorporation into water storage and water quality improvement projects. Many of these tracts have residual chemicals present in the soil associated with routine agrochemical application during the period of agricultural use. In order to characterize the level of chemical impacts on these tracts, SFWMD and its land acquisition contractors have utilized a protocol for sampling and subsequent risk assessment ("the protocol") of these properties which was developed by the United States Fish and Wildlife Service (USFWS) in cooperation with SFWMD. This protocol has been in use for a number of years and has been revised occasionally to reflect lessons learned through the assessment process. The intent of the protocol is to ensure that the sampling density and methodology is consistent between project objectives and is sufficient to adequately characterize these properties with regard to chemical impacts and potential future use. As the protocol states (USFWS, 2004, page 1):

"Many of these lands proposed for acquisition will support functioning water reservoirs (storm water treatment areas, Aquifer Storage and Recovery detention reservoirs, and storage reservoirs) designed to impound a wide range of water capacities and depths over long periods of time. Additionally, many of these reservoirs will cover large expanses of several thousand acres, establishing local and regional aquatic ecosystems as well as providing foraging habitat for waterfowl and other aquatic wildlife. Without appropriate risk management and attention to design alternatives, the subsequent release of these pesticides and trace metals into CERP [the Comprehensive Everglades Restoration Plan] *wetlands, reservoirs, and conveyances will provide exposure pathways to the regional fish and wildlife communities in south Florida."*

Ultimately, the data collected using the USFWS protocol are utilized in performing ecological risk assessments (ERA) and in the decision making process as to whether the land is suitable for the proposed water quality projects, or whether remedial actions are required to protect the receptors that may utilize the habitat created by the proposed water quality improvement project.

This document has been prepared in response to concerns raised by the Florida Department of Environmental Protection (FDEP) regarding the ERA guidance. In recent months, FDEP has provided comments on environmental reports for tracts within the BBCW and C-111 projects, and other SFWMD projects. On October 20, 2006 FDEP provided SFWMD with a list of comments and concerns related to the ERA guidance. A meeting to discuss these comments was held on November 3, 2006 with technical experts representing FDEP, USFWS and SFWMD with the primary goal of addressing FDEPs concerns regarding the ERA guidance and associated sampling protocols. These comments, including the SFWMD responses to the comments were provided at the November 3, 2006

meeting. A round of comments based on the SFWMD responses was provided to SFWMD on February 26, 2007 by FDEP.

To address the above FDEP comments, a draft version of this document was submitted to FDEP on July 9, 2007, which was followed by a joint FDEP/SFWMD meeting on July 12, 2007. Discussions during this meeting indicated that the submitted draft document satisfactorily addressed most of the concerns raised by FDEP. A final round of comments, highlighting the remaining concerns, was provided to SFWMD on September 9, 2007 by FDEP. This document has been revised to address these comments.

2.0 OUTLINE OF THE ECOLOGICAL RISK ASSESSMENT GUIDANCE

The ERA guidance outlines a multi-phased approach toward determining the presence or absence of hazardous materials and the potential for ecological risk associated with their presence. The assessment steps provided in the ERA guidance are as follows:

- An initial Phase I Environmental Site Assessment ("ESA") is performed according to American Society of Testing and Materials ("ASTM") Standard Practice E1527-00 with the goal of identifying the presence or likely presence of any hazardous substance of petroleum products on the property.
    - The Phase I ESA includes a thorough site inspection, review of historical aerial photographs, land use records, and review of pertinent environmental databases, as well as onsite personnel interviews. Information acquired via the Phase I ESA is used to determine the necessity for a Phase II ESA.
    - If the Phase I ESA indicates the presence of contamination or that the potential for contamination exists, a Phase II ESA is initiated that includes coordination with the USFWS.
- A Phase II ESA is used to identify sources and locations of contamination, specifically contaminants of potential concern (both human health and ecological), and provide recommendations for additional sampling, testing or risk assessment; and corresponding corrective actions.
    - The Phase II ESA is focused on potential point sources at the property along with additional limited sampling within canals or agricultural fields.
    - Data are used to conduct a screening-level ERA (SLERA) using available benchmarks, such as the Florida Sediment Quality Assessment Guidelines (SQAGs) and/or surface water quality standards and assessment of risk to USFWS trust species.

- The ERA guidance recommends risk assessment protocols for further risk-based evaluation should the results of the SLERA indicate that risks may be elevated at the site.

3.0 OUTLINE OF THE PHASE II SAMPLING PROTOCOL

The sampling protocol for Phase II ESAs provides data for risk assessment purposes in both potential point source areas and within current or former agricultural areas. The media sampled may include soils, sediments, groundwater and/or surface water (if present).

- Phase II ESA sampling is generally focused on facilities (current and/or former) and potential point sources on the property.
  - Discrete samples are collected from all potential source areas identified during the site inspection or historical review conducted as part of the Phase I ESA and may include: pesticide mixing and loading areas, storage sheds, vehicle turn-arounds, airstrips, cattle dip tanks, pumping stations and burn areas.
  - Sediment and surface water data are collected from canals at the site.

- Phase II sampling also includes the collection of data from the current or former agricultural areas at the property following a standard protocol. The collected data in the former agricultural areas are intended to provide representative average concentrations over the specified grids for risk assessment purposes. The proposed sampling protocol does not recommend the use of grid-wide values, especially grid composite data, to delineate and/or evaluate extents or magnitudes of potential hot spots.

  - On small properties (< 500 acres), discrete samples are collected at regular intervals across the property with a density of at least one sample per 10 to 20 acres with a minimum of 10 samples.
  - On large properties (> 500 acres), a composite sampling protocol is instituted based on 50-acre grid cells.
    - On very large properties, a previously determined number of grids are randomly selected for sampling.
    - On smaller properties (e.g. < 1000 acres) an attempt is made to sample all grids.
      - 50-acre grids are stratified by agricultural use.
      - Grids are divided into ten 5-acre plots.
      - A discrete random sample is collected from each 5-acre plot.
      - Samples are composited from all discrete samples within the 50-acre grid.
      - A second aliquot from each 5-acre grid sample is typically archived for future analysis.
      - Copper is analyzed in all 5-acre discrete samples.

4.0 RISK MANAGEMENT GOALS AND GUIDING PRINCIPLES FOR THE CERP LAND ACQUISITION AND ASSESSMENT.

Risk Management Goals (RMGs) are an important part of assessing risk (EPA 1998). The RMGs for an ERA form the basis of the sampling design and process by which risks are assessed. The RMGs implicit in CERP guiding documents and ERA risk assessment and management process are as follows:

- The overall purpose of CERP is to manage ecosystem nutrient loading and hydrology.

- The CERP process recognizes that agricultural chemicals, and the risk of adverse effects from them cannot be completely removed (i.e., cannot manage to NO Risk).

- The benefits realized from reclamation of wetland and hydrologic function through CERP outweighs risk of adverse effects from residual agricultural chemicals.

- Risks to USFWS trust species are managed to avoid unacceptable adverse effects on "individual" basis rather than on a population basis.

- Ecological function from other aquatic receptors (benthos and fish) is protected on populations and community basis, some effect is tolerated if ecosystem function is protected.

- Risks and ecological function are assessed and managed on a landscape scale rather than on the smaller scale typically encountered on a regulated industrial or commercial cleanup site.

- The ability to assess ecotoxic risk is limited by available resources (time and money).

The ERA process design is based on the primary RMGs of protecting Trust wildlife species, and ecological function on a landscape scale. The process for assessing benthic effects is based on this underlying principle in that:

- The Assessment Endpoint for the benthic community is based on function of the community as a whole ecosystem occupying the landscape. Functions of benthos include nutrient cycling (including organic carbon) and to provide important prey base for the aquatic food web. These functions are generally scaled over large, landscape levels rather than at small scales and can tolerate small-scale disturbances provided that the majority of the community

remains viable. The overall impact on function should be related to the degree to which the system is affected.

- The system level effects from direct sediment toxicity to benthos (or anything else), if they occur, do not extend beyond the boundaries of the affected portion of the site (whereas bioaccumulation effects can affect area and resources beyond contaminated spot).
  - As a result, a relatively small portion of an area may be severely affected, without affecting function in the system.
  - Conversely, a large area with relatively small level of effects can have significant system effects because a proportionately larger fraction of the system is affected.

- The RMGs relate to restoring ecosystem function and protecting Trust wildlife species. For benthos and other ecological functions, this typically applies to landscape scales of the project areas. As a result, the ERA assessment goal for benthos is geared toward detecting large areas of even small effects, possibly sacrificing resolution of proportionately small areas of higher impact. This is consistent with the goals cited in the USFWS/SFWMD Guidance. This is driven, in part, by limited resources (time and money) to investigate such large tracts.

5.0 ADDRESSING FDEP KEY CONCERNS AND RECOMMENDATIONS

As noted, FDEP provided a series of comments about various aspects of the sampling protocol. Some of these comments were satisfactorily addressed by SFWMD. The remaining FDEP comments can be grouped into the following key concerns:

- Reliability of composite samples proposed in large property investigations;
- Random selection of grids for composite sampling and analysis in very large properties;
- Analysis of resulting composite data in ERA decisions;
- Sufficiency of collected data in agricultural areas of the investigated properties;
- The use of copper Threshold Effect Concentrations (TECs), Probable Effect Concentrations (PECs) and the interim benchmark for the protection of the Everglades snail kite.
- The overall protectiveness of the process for benthic receptors (i.e. the aquatic community).
- The use of bioaccumulation and toxicity testing studies.
- Additional analysis for heavy metals.
- Canal sediment sampling.
- Fish tissue sampling.

The following sections address the above concerns and provide recommendations where appropriate.

5.1 Discrete Sample Compositing

In large properties, discrete sampling at short intervals would be at best cost prohibitive, if not impracticable. Reducing the sample density, however, can lead to under-representation of large portions of the property, as well as elevated likelihood of missing hotspots. Composite sampling is a compromise, under which large numbers of discrete samples are collected, but composited prior to laboratory analyses. As early as the 1980s, the United States Environmental Protection Agency (EPA) recognized the utility of composite sampling in large site investigations (e.g. EPA, 1989, Section 6.6).

The main advantage of composite sampling is its expanded spatial coverage, which is achieved without the ensuing increase in analytical costs. The proposed composite samples, which are unbiased and representative samples of their constituent aliquots, have the following characteristics:

- Composite samples yield unbiased and representative estimates of average concentrations over exposure areas that have ecologically relevant scales for large properties. For example, comparison of an individual composite sample to appropriate ecological benchmarks allows an appropriate remedial decision concerning the entire 50-acre grid.

- For the aquatic community endpoint, site-wide averages are an appropriate scale. Composite samples directly provide estimates of exposure and potential risk to the entire aquatic community that may colonize the site.

- For the USFWS trust species, risks to individuals are more important than risks to the population due to their threatened or endangered status. This sampling protocol allows for average concentrations to be measured directly over areas that may encompass the entire foraging range or only a portion of the foraging range depending on the species being evaluated.

The primary disadvantage of composite samples is the likelihood of masking hotspots by diluting the elevated discrete samples with cleaner aliquots. This masking can be viewed as a form of a "*false negative*," i.e., the probability of yielding clean composite results, while certain portions of the grid may exceed ecological benchmarks.

The protocol attempts to minimize the above disadvantage by including rules according to which all discrete aliquot samples associated with an exceeding composite sample should be analyzed individually. As noted, recent adjustments to the protocol have also called for the analysis of the archived discrete aliquot samples from adjacent grids.

The above protocol rule addresses the false negative problem associated with elevated composite samples. The question that remains is the problem of false negatives among non-exceeding composites. For this purpose, available data can be used to quantify such likelihoods. For example, consider the discrete and composite copper concentrations from 37 50-acre grids from various sites that have been sampled under the Phase II ESA protocol, as listed in Table 1. Figure 1 shows the range of variability of discrete aliquot samples associated with each composite. The issue is whether these exceeding discrete values are ecologically significant.

The probability of an aliquot exceeding a benchmark in a given grid can be computed as the ratio of the number of exceeding discrete aliquots in that grid over its total number of aliquots. Using the above copper data, Table 2 lists the aliquot exceedance rates in individual grids based on the three copper benchmark levels routinely used in the SLERAs of 85 ppm (USFWS Interim Benchmark for the Everglades Snail Kite), 31.6 ppm (TEC), and 150 ppm (PEC). On average, the aliquot exceedance in individual grids increases with decreasing ecological benchmarks and increasing composite values.

To address FDEP's concern about false negatives associated with non-exceeding composite samples, a supplementary step can be added to the protocol. For this purpose, a subset of non-exceeding grids is randomly selected, in which all discrete aliquots are laboratory analyzed. These discrete results are then added to discrete aliquot data produced for exceeding grids. When selecting the subset of non-exceeding grids, the following should be considered: (1) the non-exceeding grids targeted for discrete sampling shall not be clustered; and (2) the number of non-exceeding grids targeted for discrete sampling shall be at least 20% of the total number of non-exceeding grids but not greater than 10.

For each grid, the aliquot exceedance rate is computed based on the appropriate ecological benchmarks. The resulting rates are then listed according to the ascending order of their corresponding composite values, as listed in Table 2. Using these results, then the average aliquot exceedance rates are computed in the ascending grids (i.e., all grids having a composite value equal or less than the given grid). Such results allows the analyst to identify the composite concentration beyond which ascending average aliquot exceedance rates is greater than a pre-determined level, *e.g.* 5%. This composite threshold value is then considered as the area-specific trigger level. The trigger values for the example copper dataset based on the above three ecological benchmarks are listed in Table 2.

Consistent with the FDEP's recommendation, the final area-specific trigger levels must meet the following criteria: (1) trigger levels shall be determined on a chemical- and area-specific basis; and 2) if the empirically derived trigger level

exceeds the chemical-specific PEC (or PEC equivalent) benchmark then the benchmark shall be used as the trigger level.

Upon the above determination, all grids associated with composite concentrations in excess of the trigger level either will be remediated in their entirety, or their discrete samples will be laboratory analyzed for all contaminants of concern and investigated in a manner similar to other previously analyzed discrete samples. This supplementary step: (a) enhances the conservative basis of the protocol, (b) reduces the chances of false negatives consistent with area-specific results, and (c) avoids reliance of arbitrary trigger levels, such as 1/10 of a benchmark.

As the final comments of FDEP indicate, although the above approach reduces the likelihood of false negatives, it does not eliminate the chances of such occurrences. The question that immediately arises is whether the proposed approach leaves unreasonable data gaps regarding undetected hot spots. For this purpose, the following must be considered:

- The majority of hot spots are likely to occur within grids associated with composite concentrations in excess of trigger values. Therefore, although such hot spots may go undetected individually, they will be addressed collectively through proposed grid-wide remediations or further investigation.

- Under the proposed approach, the chances of missing isolated hot spots in non-exceeding grids, *i.e.* grids with composite concentrations less than trigger values, will be maintained below a pre-determined level, *e.g*. 5%. Given the fact that non-exceeding grids cover only parts of the area, the cumulative extent of undetected, isolated hot spots on an area-wide basis will always remain below the pre-determined level.

- The cumulative extent of undetected, isolated hotspots is further reduced by the fact that in the revised approach, based on the FDEP's recommendation, trigger values are ensured to remain at or below their corresponding benchmark criteria, i.e. the final chances of missing isolated hot spots in non-exceeding grids will always be at or below the pre-determined level.

- Regardless of sampling density, any field measurement entails the likelihood of a false negative. As EPA guidance (1989, page 2-1) states the question is: "*How can you balance the two sets of possibilities: the chance that the site is contaminated even when the sampling shows attainment of the cleanup standard, and the chance of contamination when the majority of samples taken show the site to be clean? The answer is to evaluate the potential magnitude of these two errors and balance them using the statistical strategies described in* [EPA (1989)]." This is exactly how SFWMD approached the problem and addressed it in accordance with EPA Guidance (EPA, 1989).

Considering the above, SFWMD concludes that the proposed sampling protocol provides a balanced approach, which maintains the chances of false negatives at a reasonable level. Language addressing FDEP's concerns regarding the accumulation of risk based on unidentified, small hot spots will be included as an uncertainty in all future risk assessments.

5.2 Random Selection of Grids

As noted, the protocol prescribes random selection of a pre-determined number of 50-acre grids for composite sampling and analysis in very large properties (>1000 acres). FDEP raised concerns about the fact that such random selections may lead to data gaps and uneven sampling of the property resulting in under-representation of large portions of the property.

Theoretically, the homogeneity of the delineated properties mitigates concerns about potential gaps and under-representations. In fact, the ERA Phase I investigation is primarily focused on ensuring the homogeneity of the investigated properties by excluding potential hotspots and point sources. The chance, however, exists that random selection of grids may leave certain zones of a property under-represented.

To address the above concern SFWMD proposes to divide very large properties into super-grids, each consisting of about 25 50-acre grids, and then randomly select a pre-determined number of grids from each super-grid. This stratified random sampling, which is consistent with EPA Guidance (EPA, 1989, Section 6.5.2.2), addresses the coverage issue, while preserving the unbiased nature of the sampling process, without undue increases in the overall cost of the sampling or analysis effort.

5.3 Analysis of Composite Data

FDEP has raised a number of comments concerning the use of composite data in remedial computations and decisions, specifically with regards to maximum and the upper confidence level of the mean (UCL) computations. Comments indicate that the main concerns stem from the apparent treatment of composite values, which are physical averages of a finite number of aliquots, as discrete values.

Any sample is representative of a given volume. The use of discrete and composite data is predicated on the following fundamental requirements that are already imbedded in the protocol, including:

- Samples representative of different volumes shall not be mixed in any statistical computations. For example, the UCL of the mean concentration

over an area cannot be calculated based on a mixture of composite and discrete samples.

- Estimates, such as mean or maximum concentration, computed based on composite or discrete samples, shall be considered as representative of the volumetric base of their constituent sample data.

- ERA decisions must be made based on sample data that have volumetric bases consistent with the given decision.

The computational procedures in the protocol are based on strict separation of composite and discrete samples. These procedures fully recognize the fact that composite data generally have lower standard deviations when compared to discrete datasets. However, many statistical procedures have self correcting mechanism to account for such differences. For example, discrete data are usually more numerous than composite data, *e.g.* Table 1. However, when calculating the UCL, the higher standard deviation of the discrete aliquot copper data is compensated by their larger sample size. As a result, UCLs of the mean based on both discrete and composite data would yield nearly similar results. As listed in Table 3, in the example dataset, although discrete aliquots have a higher standard deviation, due to their much larger number, yield a lower UCL when compared to the one calculated based on composite data.

Such self correcting mechanism does not exist for composite sample statistics. For example, on average, the maximum composite concentration in a given property is bound to be less than the maximum discrete concentrations. For example, see Table 3. Use of such sample statistics in an ERA decision is appropriate, if only the volumetric base of the composite data are considered as consistent with the underlying assumptions of the given decision.

5.4 Sufficiency of Composite Data

FDEP has raised concerns about the potential insufficiency of composite datasets for characterizing large properties. In statistical terms, large sample sizes are required for characterization of highly variable contaminants (see EPA, 1989, Box 6.10, page 6-14). The protocol pursues procedures to ensure the homogeneity of the delineated properties. Implicit in this approach is the low level of variability among the contaminants of concern within the delineated area. However, definitive confirmation of the data adequacy occurs upon the completion of the sampling effort when UCL of the mean over the entire area is computed.

Given the unbiased and representative nature of composite samples, if the computed UCL is less than ecological benchmarks, then consistent with EPA guidance (EPA, 1989, Section 6.4.3), the property as a whole can be considered as clean and the sample size can be viewed as adequate. In contrast, if the

resulting composite data display high variability, then the computed UCL may exceed ecological benchmarks, even when the computed mean is low. Under such a condition, the sample size can be viewed as inadequate for determining the clean status of the property.

If data inadequacy is determined, specific alternative can be pursued, including: (a) additional grid sampling; or (b) segregating grids that cause elevated standard deviations and repeat the process for each part separately. The segregation of composite data into statistically homogeneous subsets can be accomplished using techniques, such as the probability plot analysis (DON, 2002).

The above post-sampling analyses not only provide appropriate data for ERA decisions, but also confirm the sufficiency of the data to reach the appropriate decision.

5.5 The Use of Copper Benchmarks

Comments from FDEP have indicated concern over the application of the TEC and PEC copper benchmarks along with the interim benchmark for the protection of the Everglades snail kite. The comments have suggested that the snail kite benchmark appears to supersede all other values in risk assessment conclusions and risk management decisions.

Current SFWMD practice is to analyze all discrete 5-acre grid subcells from sampled 50-acre grid cells for copper. As a result, copper is evaluated in all current SLERAs conducted at citrus farms on a discrete sample basis only. This is an example of a protocol change made in response to agency (USFWS) comments.

In practice, all copper data are screened against the TEC. If the maximum concentration (grid composite or discrete sample) exceeds the TEC, the copper distribution is further evaluated by identifying the (discrete) grid cells in which the TEC or the PEC is exceeded. The results are presented in reports. Copper concentrations in all samples are also compared to the 85-ppm snail kite benchmark and the locations exceeding this value are identified.

Based on the results of the SLERA, risk managers at SFWMD make decisions on corrective actions and/or decisions to do more extensive ecological risk analysis, including toxicity testing, bioaccumulation testing, and elutriate testing as appropriate to the chemicals and receptors identified in the Phase II analysis.

Remediation for copper is usually based on exceedance of the snail kite screening value (85 ppm). Toxicity test results used for development of the SQAGs indicate that the 85-ppm value is protective of benthos. The snail kite value is approximately 57% of the copper PEC (150 mg/Kg). Although specific

data for copper are not available for review, FDEP (2003) indicates that an average PEC-quotient (PEC-Q) less than 0.5 (50%) for all chemicals combined corresponds to less than 20% toxicity in laboratory tests (See Attachment A, Table 4.10). This also applies to PEC-Q for combined metals (see Table 2 in USEPA 2000). This percentage is within the range corresponding to identification of TECs (See Attachment A, Table 4.8). Therefore, site management decisions made to protect snail kites based on this value appear to be protective of benthic invertebrates.

5.6 Overall Protectiveness of the ERA Process for the Aquatic Community

Comments received from FDEP have indicated that the use of the PEC value for screening purposes is not acceptable and have suggested the use of the PEC divided by a safety factor (i.e., 1/10 of the PEC) for use in the SLERA. FDEP comments also suggest that risk from combinations of chemicals (i.e., cumulative risks) are not adequately represented, and that sediment toxicity testing should be used to assess this aspect of risk to benthos.

SFWMD disagrees that 1/10 PEC should be used as a screening value. In response to past comments from FDEP and USFWS, the ERA screening process that is implemented is more conservative than described in the guidance and essentially equivalent to what FDEP has suggested. The process described above for copper is also applied to all other chemicals detected at each site. All chemical results are first screened against the TEC. For properties smaller than 500 acres this means that each 5-acre parcel is screened. For larger properties, this includes 50-acre grid composite samples. All screening results are presented in the ERA reports.

FDEP (2003) recommends using a TEC as a screening level, below which adverse effects on benthics is considered unlikely. For most organic chemicals, the TEC is less than 20% of the PEC, and for many important insecticides, less than 10% (Table 4). For metals, the ratio is higher, but still protective based on the RMGs described in previous sections. Therefore, the level of conservatism implied by screening against the TEC is near that requested for composite samples in FDEP's comment.

To address the issue of a cumulative risk to benthos from multiple chemicals, SFWMD proposes adding the PEC-quotient (PEC-Q) method to the screening process (FDEP 2003). Based on data presented by FDEP (2003), the SFWMD proposes to use a mean PEC-Q of 0.5 as a screening level. Samples from the Southeastern US with mean PEC-Q values less than 0.5 exhibited detectable toxicity in less than 20% of samples (See Attachment A, Table 4.10). FDEP guidance relies upon TECs as screening levels, and TECs typically represent concentrations at which 15-30% of toxicity tests show positive results (See

Attachment A, Table 4.8). Therefore, a PEC-Q corresponding to equivalent toxicity would offer similar protection.

Results could be used to determine whether corrective actions can be used to reach acceptable conditions. If corrective action decisions cannot be made on the basis of the above, then an expanded ERA will be performed for the site. The scope for the expanded ERAs is dependent upon results of the SLERA, and on site-specific conditions and data needs. In the past, the expanded risk assessments have included toxicity testing to varying degrees. Use of toxicity testing as part of an expanded ERA may be considered. SFWMD proposes that standard testing procedures be used to maintain consistency.

5.7 Bioaccumulation and Toxicity Testing Studies

In cases where expanded ERAs are necessary, additional data are required that allow the ERA to move beyond the typical SLERA stage. The USFWS/SFWMD guidance document provides some examples of the types of testing that could be done as part of an expanded ERA. Comments received from FDEP have provided additional suggestions.

In current practice, the use of expanded ERAs has been minimal. The Phase I/Phase II ESA process associated with the acquisition process requires relatively quick turn-around in the initial 'screening' stages. On a project-specific basis, long-term investigations (*e.g.*, long-term bioaccumulation testing) are not feasible in the initial stages. SFWMD practice has been to make conservative decisions on corrective actions to expedite process.

Expanded ERAs have been conducted under USFWS oversight in cases where decisions on corrective actions are not possible based on screening assessments. Such assessments have included bioaccumulation and toxicity testing. Study designs have been based on EPA and ASTM standard methods.

SFWMD is willing to combine data from past bioaccumulation and toxicity testing exercises to glean trends in bioaccumulation rates, and to support the development of South Florida benchmarks based on toxicity test results. Results can be used to help guide use of toxicity tests and bioaccumulation testing in the future.

SFWMD is also willing to consider research, or use of non-standard methods on a separate path. However, schedule and budget constraints in the Phase I/II process must be considered. The SFWMD agrees that additional types of data may be valuable as part of an expanded ERA and that consultation with FDEP can be beneficial to the successful completion of an expanded ERA.

5.8 Additional Analysis for Heavy Metals

The FDEP has requested that the SFWMD consider routinely analyzing soil, sediment, and groundwater samples for metals such as cadmium, chromium, boron, vanadium, nickel, and zinc because these heavy metals may be present in pesticides.

The SFWMD already routinely analyzes samples for cadmium and chromium, as part of the eight Resource Conservation and Recovery Act (RCRA) metals suite. However, these metals have not typically been detected at concentrations to raise any human health or ecological concerns.

A detailed evaluation of agrochemical application is typically conducted as part of the Phase I environmental site assessment (ESA) portion of the CERP ERA process. This evaluation includes interviews with the property manager regarding the type, quantity, timing, and method of application of agrochemicals. The evaluation also typically includes a review of material safety data sheets (MSDS) for chemicals which are handled by the property manager. Based on the SFWMD's experience, the chemicals cited by FDEP as potential components of pesticides have not been noted on any reviewed MSDS. In the event that any of these metals were noted in the MSDS, the analytical suite for the Phase II ESA would be expanded to include these chemicals. The SFWMD does not believe that routine analyses for these metals are warranted. Therefore, the SFWMD proposes to conduct these analyses on a case by case basis, as warranted by the Phase I ESA results.

5.9 Canal Sediment Sampling

The FDEP has suggested expanding the sampling of sediments in site canals as a potential screening tool for the CERP ERA protocol. While limited canal sediment sampling is typically performed as a component of the ERA protocol, the SFWMD's experience indicates that expanded canal sediment sampling is not likely to be an effective screening tool. Currently, canal sediment sampling is typically limited to potential point source areas where run-off of agrochemicals into the canals appears likely. A limited number of canal sediment samples are also typically collected in areas where canals converge or in other areas which the sampler believes would most likely be impacted.

One of the major concerns with using canal sediment sampling as a screening tool is the high potential for false negatives due to the fact that most agricultural canals are dredged on a routine basis. In many cases, the SFWMD has found a complete lack of sediments for sampling, or the chemicals of concern in the site soils have been banned for many years (e.g., DDT) and the canals have been dredged multiple times since the last application.

Additionally, since very few canals originate and terminate on the same property, it is very difficult to conclude whether the sediments in the canal originated on-site or off-site. The presence of absence of a chemical in the canal sediments appears to be a poor predictor of whether the chemical will be detected in the site soils.

Lastly, the presence of contaminants in canal sediments would probably be a minor contributor to ecological risk on agricultural properties after they are converted to water storage or treatment areas. The relatively low contribution to the overall ecological risk is also associated with several factors related to the typical construction characteristics of these projects.

(1) Most of the canals within the areas proposed for flooding are backfilled during construction to promote sheet flow across the storage areas. The backfilling of the canals would eliminate the exposure pathway to contaminated canal for ecological risk.
(2) The canals generally represent a very small percentage of the overall footprint of the eventual project areas, so they do not represent a significant portion of total habitat area when compared to the project scale.
(3) Existing conditions in many remaining canals would typically not be preferred habitat for wading birds and other sensitive receptors due to steep banks that prevent shallow water areas needed for emergent vegetation and that are preferred by wading birds.

If canal segments are to be included in project plans as part of the deepwater refugia, then samples will be collected from segments that are to remain. However, these segments cannot be identified during the Phase I/II process because detailed designs are not available.

5.10 Fish Tissue Sampling

The FDEP has suggested the collection of fish tissue samples from existing canals on agricultural properties as a screening mechanism for evaluating cumulative ecological risk. The SFWMD acknowledges that fish tissue analysis may be an appropriate tool in post-construction monitoring and adaptive management of the CERP projects. However, pre-construction sampling of fish within existing canals would not be an effective tool in making decisions about corrective actions or evaluating post construction conditions.

Foremost, it must be acknowledged that most of the canals on these agricultural properties cross many properties. Both the surface water and fish in these canals move freely between sites. While the home range of smaller fish may be solely within the subject property boundaries, the fish are exposed to water,

sediment, and possibly food sources that enter the subject property from upgradient areas. As a result, it would not be possible to infer that any accumulation of agrochemicals in fish tissue is associated with the subject property.

The construction of the CERP projects typically involves significant alteration of the surface water hydrology and habitat on these agricultural sites. Therefore, post-construction conditions are likely to be vastly different from pre-construction conditions. It is likely that most of the existing fauna on these properties would be excluded from the proposed water storage areas due to significant alteration of the habitat during and after the construction stage. For example, most existing fish in the site canals would move off-site during the draining and filling of on-site canals and other disruptive construction activities.

The SFWMD has limited experience that indicates that fish tissue may not be a reliable indicator of sources of contamination in sediments. On one particular site, no significant concentrations of toxaphene were detected in fish tissue samples collected from existing canals where high toxaphene concentrations were present in the soils of the adjacent property. Additionally, the interpretation of the data is likely to require iterative sampling and negotiating access to off-site properties in order to determine whether the source of any identified fish tissue burdens are related to on-site or off-site sources. Such a process is not likely to fit into schedule available during the property acquisition process.

Fish tissue samples collected on a project-wide basis may be good indicators of contaminants that may have the potential to cause risk following construction of the project. Such information could be used to focus on the contaminant types (and associated land uses) that are important to manage or control through design and management of the reservoirs and STAs. However, such samples do not appear to be a useful tool in the relatively narrowly focused decisions associated with the property acquisition Phase I/II process.

6.0 SUMMARY

The ecological risk assessment protocol designed and utilized by SFWMD and USFWS represents a defensible and adequate approach to making informed risk management decisions regarding the purchase of property to be utilized in various SFWMD projects.

This document was prepared in order to address several concerns regarding the protocol that have been raised by FDEP. These concerns have been grouped into ten (10) categories and the conclusions reached in each for each of these topics following discussions with FDEP are as follows:

- Reliability of composite samples proposed in large property investigations.

- An area and chemical-specific trigger value that is equal or less than the PEC benchmark (or PEC equivalent benchmark) will be calculated and used to indicate grids requiring discrete sample analysis.

- Random selection of grids for composite sampling and analysis in very large properties.
  - On very large properties, using a 'super-grid' system, blocks of 50-acre grid cells will be created and a random subset of those grids will be sampled in a stratified random sampling design to ensure more uniform sample coverage.

- Analysis of resulting composite data in ERA decisions.
  - Statistical calculations will not mix composite and discreet data and estimates of the mean will be noted as being calculated on a volumetric basis.

- Sufficiency of collected data in agricultural areas of the investigated properties.
  - Additional data may be collected if the non-point source dataset is deemed to be statistically inadequate.
  - Discrete samples will continue to be collected at all known point-source locations

- The use of copper Threshold Effect Concentrations (TECs), Probable Effect Concentrations (PECs) and the interim benchmark for the protection of the Everglades snail kite.
  - A review of the toxicological data used to calculate the TEC and PEC indicates that the interim benchmark for the Everglades snail kite is expected to approximate the benthic toxicity predicted by the TEC and is adequately protective of the aquatic community.

- The overall protectiveness of the process for benthic receptors (i.e. the aquatic community).
  - The PEC-Q approach recommended in the FDEP sediment benchmark guidance document will be utilized as another line-of-evidence in assessing risk to the aquatic community.

- The use of bioaccumulation and toxicity testing studies.
  - Where expanded ERAs are required, SFWMD will consider the use of bioaccumulation studies using both standard and non-standard protocols on a project-specific basis.

- Additional analysis for heavy metals.
  - SFWMD will consider the analysis of heavy metals not included in the standard Phase II investigation on a case-by-case basis if the Phase I investigation indicates their potential presence.

- Canal sediment sampling.
    - If canal segments are to be included in project plans as part of the deepwater refugia, then samples will be collected from segments that are to remain but not as part of the property acquisition Phase I/II process.

- Fish tissue sampling.
    - Fish tissue samples do not appear to be a useful tool in the relatively narrowly focused decisions associated with the property acquisition Phase I/II process; however, their collection will be considered on a project-wide basis.

7.0 REFERENCES

Department of Navy (DON), *"Guidance for Environmental Background Analysis, Volume I: Soil, NFESC User's Guide,"* UG-2049-ENV, April 2002.

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United States Environmental Protection Agency (EPA). *"Prediction of sediment toxicity using consensus-based freshwater sediment quality guidelines*." Prepared by USGS for USEPA. EPA 905/R-00/007. 2000.

United States Fish and Wildlife Service (USFWS), "Ecological Risk Assessment Guidance for Wetland Restoration on Agricultural Lands in South Florida," South Florida Ecological Services Office, Revised August 2004.

Tables

Table 1. Examples of Aliquot and Composite Copper Data

Area	Grid ID	Grid Number	Aliquot ID	Copper (Aliquot)	Unit	Qualifier	Copper (Composite)	Unit
AG Property	A1	1	A1-1	79	mg/Kg dw		95	mg/Kg dw
AG Property	A1	1	A1-2	200	mg/Kg dw	*	95	mg/Kg dw
AG Property	A1	1	A1-3	50	mg/Kg dw		95	mg/Kg dw
AG Property	A1	1	A1-4	120	mg/Kg dw	*	95	mg/Kg dw
AG Property	A1	1	A1-5	56	mg/Kg dw		95	mg/Kg dw
AG Property	A1	1	A1-6	84	mg/Kg dw		95	mg/Kg dw
AG Property	A1	1	A1-7	74	mg/Kg dw		95	mg/Kg dw
AG Property	A1	1	A1-8	230	mg/Kg dw	*	95	mg/Kg dw
AG Property	A1	1	A1-9	43	mg/Kg dw		95	mg/Kg dw
AG Property	A1	1	A1-10	52	mg/Kg dw		95	mg/Kg dw
AG Property	A2	2	A2-1	37	mg/Kg dw		86	mg/Kg dw
AG Property	A2	2	A2-2	55	mg/Kg dw		86	mg/Kg dw
AG Property	A2	2	A2-3	71	mg/Kg dw		86	mg/Kg dw
AG Property	A2	2	A2-4	85	mg/Kg dw		86	mg/Kg dw
AG Property	A2	2	A2-5	37	mg/Kg dw		86	mg/Kg dw
AG Property	A2	2	A2-6	17	mg/Kg dw		86	mg/Kg dw
AG Property	A2	2	A2-7	2	mg/Kg dw		86	mg/Kg dw
AG Property	A2	2	A2-8	81	mg/Kg dw		86	mg/Kg dw
AG Property	A2	2	A2-9	22	mg/Kg dw		86	mg/Kg dw
AG Property	A2	2	A2-10	36	mg/Kg dw		86	mg/Kg dw
AG Property	A3	3	A3-1	100	mg/Kg dw		90	mg/Kg dw
AG Property	A3	3	A3-2	9	mg/Kg dw		90	mg/Kg dw
AG Property	A3	3	A3-3	73	mg/Kg dw		90	mg/Kg dw
AG Property	A3	3	A3-4	13	mg/Kg dw		90	mg/Kg dw
AG Property	A3	3	A3-5	180	mg/Kg dw	*	90	mg/Kg dw
AG Property	A3	3	A3-6	48	mg/Kg dw		90	mg/Kg dw
AG Property	A3	3	A3-7	5.5	mg/Kg dw		90	mg/Kg dw
AG Property	A3	3	A3-8	53	mg/Kg dw		90	mg/Kg dw
AG Property	A3	3	A3-9	23	mg/Kg dw		90	mg/Kg dw
AG Property	A3	3	A3-10	37	mg/Kg dw		90	mg/Kg dw
AG Property	A4	4	A4-1	120	mg/Kg dw	*	97	mg/Kg dw
AG Property	A4	4	A4-2	190	mg/Kg dw	*	97	mg/Kg dw
AG Property	A4	4	A4-3	25	mg/Kg dw		97	mg/Kg dw
AG Property	A4	4	A4-4	130	mg/Kg dw	*	97	mg/Kg dw
AG Property	A4	4	A4-5	77	mg/Kg dw		97	mg/Kg dw
AG Property	A4	4	A4-6	28	mg/Kg dw		97	mg/Kg dw
AG Property	A4	4	A4-7	50	mg/Kg dw		97	mg/Kg dw
AG Property	A4	4	A4-8	91	mg/Kg dw		97	mg/Kg dw
AG Property	A4	4	A4-9	32	mg/Kg dw		97	mg/Kg dw
AG Property	A4	4	A4-10	45	mg/Kg dw		97	mg/Kg dw
AG Property	A5	5	A5-1	99	mg/Kg dw		120	mg/Kg dw
AG Property	A5	5	A5-2	30	mg/Kg dw		120	mg/Kg dw
AG Property	A5	5	A5-3	150	mg/Kg dw	*	120	mg/Kg dw
AG Property	A5	5	A5-4	26	mg/Kg dw		120	mg/Kg dw
AG Property	A5	5	A5-5	180	mg/Kg dw	*	120	mg/Kg dw
AG Property	A5	5	A5-6	63	mg/Kg dw		120	mg/Kg dw
AG Property	A5	5	A5-7	370	mg/Kg dw	*	120	mg/Kg dw
AG Property	A5	5	A5-8	50	mg/Kg dw		120	mg/Kg dw

Table 1. Examples of Aliquot and Composite Copper Data

Area	Grid ID	Grid Number	Aliquot ID	Copper (Aliquot)	Unit	Qualifier	Copper (Composite)	Unit
AG Property	A5	5	A5-9	19	mg/Kg dw		120	mg/Kg dw
AG Property	A5	5	A5-10	45	mg/Kg dw		120	mg/Kg dw
Biscayne Bay CW	S1	6	S1-A	45.1	mg/kg		20.9	mg/kg
Biscayne Bay CW	S1	6	S1-B	8.13	mg/kg		20.9	mg/kg
Biscayne Bay CW	S1	6	S1-C	12.3	mg/kg		20.9	mg/kg
Biscayne Bay CW	S1	6	S1-D	9.07	mg/kg		20.9	mg/kg
Biscayne Bay CW	S1	6	S1-E	5.97	mg/kg		20.9	mg/kg
Biscayne Bay CW	S1	6	S1-F	5.88	mg/kg		20.9	mg/kg
Biscayne Bay CW	S1	6	S1-G	20.8	mg/kg		20.9	mg/kg
Biscayne Bay CW	S1	6	S1-H	2.9	mg/kg		20.9	mg/kg
Biscayne Bay CW	S1	6	S1-I	13.7	mg/kg		20.9	mg/kg
Biscayne Bay CW	S1	6	S1-J	11.8	mg/kg		20.9	mg/kg
Biscayne Bay CW	S2	7	S2-A	6.66	mg/kg		7.35	mg/kg
Biscayne Bay CW	S2	7	S2-B	12	mg/kg		7.35	mg/kg
Biscayne Bay CW	S2	7	S2-C	7.42	mg/kg		7.35	mg/kg
Biscayne Bay CW	S2	7	S2-D	6.13	mg/kg		7.35	mg/kg
Biscayne Bay CW	S2	7	S2-E	4.36	mg/kg		7.35	mg/kg
Biscayne Bay CW	S2	7	S2-F	17	mg/kg		7.35	mg/kg
Biscayne Bay CW	S2	7	S2-G	11.3	mg/kg		7.35	mg/kg
Biscayne Bay CW	S3	8	S3-A	9.6	mg/kg		6.68	mg/kg
Biscayne Bay CW	S3	8	S3-B	7.33	mg/kg		6.68	mg/kg
Biscayne Bay CW	S3	8	S3-C	15.5	mg/kg		6.68	mg/kg
Biscayne Bay CW	S3	8	S3-D	12.9	mg/kg		6.68	mg/kg
Biscayne Bay CW	S3	8	S3-E	5.81	mg/kg		6.68	mg/kg
Biscayne Bay CW	S3	8	S3-F	3.45	mg/kg		6.68	mg/kg
Biscayne Bay CW	S3	8	S3-G	6.21	mg/kg		6.68	mg/kg
Biscayne Bay CW	S3	8	S3-H	19.3	mg/kg		6.68	mg/kg
Biscayne Bay CW	S3	8	S3-I	18.2	mg/kg		6.68	mg/kg
Biscayne Bay CW	S3	8	S3-J	16	mg/kg		6.68	mg/kg
Biscayne Bay CW	S4	9	S4-A	6.08	mg/kg		4.18	mg/kg
Biscayne Bay CW	S4	9	S4-B	5.64	mg/kg		4.18	mg/kg
Biscayne Bay CW	S4	9	S4-C	4.97	mg/kg		4.18	mg/kg
Biscayne Bay CW	S4	9	S4-D	3.15	mg/kg		4.18	mg/kg
Biscayne Bay CW	S4	9	S4-E	3.12	mg/kg		4.18	mg/kg
Biscayne Bay CW	S4	9	S4-F	2.99	mg/kg		4.18	mg/kg
Biscayne Bay CW	S4	9	S4-G	4.24	mg/kg		4.18	mg/kg
Biscayne Bay CW	S4	9	S4-H	13.1	mg/kg		4.18	mg/kg
Biscayne Bay CW	S4	9	S4-I	13.6	mg/kg		4.18	mg/kg
Biscayne Bay CW	S4	9	S4-J	13.5	mg/kg		4.18	mg/kg
Biscayne Bay CW	S5	10	S5-A	15.6	mg/kg		4.1	mg/kg
Biscayne Bay CW	S5	10	S5-B	21.8	mg/kg		4.1	mg/kg
Biscayne Bay CW	S5	10	S5-C	12.8	mg/kg		4.1	mg/kg
Biscayne Bay CW	S5	10	S5-D	6.63	mg/kg		4.1	mg/kg
Biscayne Bay CW	S5	10	S5-E	2.76	mg/kg		4.1	mg/kg
Biscayne Bay CW	S5	10	S5-F	6.12	mg/kg		4.1	mg/kg
Biscayne Bay CW	S5	10	S5-G	4.2	mg/kg		4.1	mg/kg
Biscayne Bay CW	S5	10	S5-H	2.49	mg/kg		4.1	mg/kg
Biscayne Bay CW	S5	10	S5-I	2.24	mg/kg		4.1	mg/kg

Table 1. Examples of Aliquot and Composite Copper Data

Area	Grid ID	Grid Number	Aliquot ID	Copper (Aliquot)	Unit	Qualifier	Copper (Composite)	Unit
Biscayne Bay CW	S5	10	S5-J	2.66	mg/kg		4.1	mg/kg
Biscayne Bay CW	S6	11	S6-A	9.78	mg/kg		5.29	mg/kg
Biscayne Bay CW	S6	11	S6-B	9.81	mg/kg		5.29	mg/kg
Biscayne Bay CW	S6	11	S6-C	8.26	mg/kg		5.29	mg/kg
Biscayne Bay CW	S6	11	S6-D	16.2	mg/kg		5.29	mg/kg
Biscayne Bay CW	S6	11	S6-E	2.51	mg/kg		5.29	mg/kg
Biscayne Bay CW	S6	11	S6-F	22.3	mg/kg		5.29	mg/kg
Biscayne Bay CW	S6	11	S6-G	3.02	mg/kg		5.29	mg/kg
Biscayne Bay CW	S6	11	S6-H	6.01	mg/kg		5.29	mg/kg
Biscayne Bay CW	S6	11	S6-I	2.16	mg/kg		5.29	mg/kg
Biscayne Bay CW	S6	11	S6-J	2.45	mg/kg		5.29	mg/kg
Biscayne Bay CW	S7	12	S7-A	27	mg/kg		21.8	mg/kg
Biscayne Bay CW	S7	12	S7-B	29.4	mg/kg		21.8	mg/kg
Biscayne Bay CW	S7	12	S7-C	25.3	mg/kg		21.8	mg/kg
Biscayne Bay CW	S7	12	S7-D	18.8	mg/kg		21.8	mg/kg
Biscayne Bay CW	S7	12	S7-E	26.1	mg/kg		21.8	mg/kg
Biscayne Bay CW	S7	12	S7-F	24.3	mg/kg		21.8	mg/kg
Biscayne Bay CW	S7	12	S7-G	23	mg/kg		21.8	mg/kg
Biscayne Bay CW	S7	12	S7-H	23.2	mg/kg		21.8	mg/kg
Biscayne Bay CW	S7	12	S7-I	20.7	mg/kg		21.8	mg/kg
Biscayne Bay CW	S7	12	S7-J	29.2	mg/kg		21.8	mg/kg
Biscayne Bay CW	S8	13	S8-A	27.2	mg/kg		17.6	mg/kg
Biscayne Bay CW	S8	13	S8-B	35	mg/kg		17.6	mg/kg
Biscayne Bay CW	S8	13	S8-C	3.46	mg/kg		17.6	mg/kg
Biscayne Bay CW	S8	13	S8-D	17	mg/kg		17.6	mg/kg
Biscayne Bay CW	S8	13	S8-E	15.5	mg/kg		17.6	mg/kg
Biscayne Bay CW	S8	13	S8-F	14.6	mg/kg		17.6	mg/kg
Biscayne Bay CW	S8	13	S8-G	15	mg/kg		17.6	mg/kg
Biscayne Bay CW	S9	14	S9-A	53.6	mg/kg		28.3	mg/kg
Biscayne Bay CW	S9	14	S9-B	36.6	mg/kg		28.3	mg/kg
Biscayne Bay CW	S9	14	S9-C	30	mg/kg		28.3	mg/kg
Biscayne Bay CW	S9	14	S9-D	23.6	mg/kg		28.3	mg/kg
Biscayne Bay CW	S9	14	S9-E	29.3	mg/kg		28.3	mg/kg
Biscayne Bay CW	S9	14	S9-F	21.8	mg/kg		28.3	mg/kg
Biscayne Bay CW	S9	14	S9-G	42.1	mg/kg		28.3	mg/kg
Biscayne Bay CW	S9	14	S9-H	28.2	mg/kg		28.3	mg/kg
Biscayne Bay CW	S9	14	S9-I	57.4	mg/kg		28.3	mg/kg
Biscayne Bay CW	S9	14	S9-J	57.1	mg/kg		28.3	mg/kg
Biscayne Bay CW	S10	15	S10-A	82.7	mg/kg		7.6	mg/kg
Biscayne Bay CW	S10	15	S10-B	4.57	mg/kg		7.6	mg/kg
Biscayne Bay CW	S10	15	S10-C	10.4	mg/kg		7.6	mg/kg
Biscayne Bay CW	S10	15	S10-D	2.83	mg/kg		7.6	mg/kg
Biscayne Bay CW	S10	15	S10-E	3.81	mg/kg		7.6	mg/kg
Biscayne Bay CW	S10	15	S10-F	6.61	mg/kg		7.6	mg/kg
Biscayne Bay CW	S10	15	S10-G	15.4	mg/kg		7.6	mg/kg
Biscayne Bay CW	S10	15	S10-H	5.92	mg/kg		7.6	mg/kg
Biscayne Bay CW	S10	15	S10-I	5.34	mg/kg		7.6	mg/kg
Biscayne Bay CW	S10	15	S10-J	7.33	mg/kg		7.6	mg/kg

Table 1. Examples of Aliquot and Composite Copper Data

Area	Grid ID	Grid Number	Aliquot ID	Copper (Aliquot)	Unit	Qualifier	Copper (Composite)	Unit
Biscayne Bay CW	S11	16	S11-A	14	mg/kg		10.5	mg/kg
Biscayne Bay CW	S11	16	S11-B	9.32	mg/kg		10.5	mg/kg
Biscayne Bay CW	S11	16	S11-C	8.71	mg/kg		10.5	mg/kg
Biscayne Bay CW	S11	16	S11-D	8.62	mg/kg		10.5	mg/kg
Biscayne Bay CW	S11	16	S11-E	7.69	mg/kg		10.5	mg/kg
Biscayne Bay CW	S11	16	S11-F	9.01	mg/kg		10.5	mg/kg
Biscayne Bay CW	S11	16	S11-G	12	mg/kg		10.5	mg/kg
Biscayne Bay CW	S11	16	S11-H	6.9	mg/kg		10.5	mg/kg
Biscayne Bay CW	S12	17	S12-A	4.75	mg/kg		4.95	mg/kg
Biscayne Bay CW	S12	17	S12-B	4.1	mg/kg		4.95	mg/kg
Biscayne Bay CW	S12	17	S12-C	19.5	mg/kg		4.95	mg/kg
Biscayne Bay CW	S12	17	S12-D	5.36	mg/kg		4.95	mg/kg
Biscayne Bay CW	S12	17	S12-E	5.02	mg/kg		4.95	mg/kg
Biscayne Bay CW	S12	17	S12-F	4.38	mg/kg		4.95	mg/kg
Biscayne Bay CW	S12	17	S12-G	6.35	mg/kg		4.95	mg/kg
Biscayne Bay CW	S12	17	S12-H	3.24	mg/kg		4.95	mg/kg
Biscayne Bay CW	S12	17	S12-I	11.3	mg/kg		4.95	mg/kg
Biscayne Bay CW	S12	17	S12-J	9.65	mg/kg		4.95	mg/kg
Biscayne Bay CW	S13	18	S13-A	4.1	mg/kg		4.89	mg/kg
Biscayne Bay CW	S13	18	S13-B	4.33	mg/kg		4.89	mg/kg
Biscayne Bay CW	S13	18	S13-C	6.2	mg/kg		4.89	mg/kg
Biscayne Bay CW	S13	18	S13-D	3.82	mg/kg		4.89	mg/kg
Biscayne Bay CW	S13	18	S13-E	6.42	mg/kg		4.89	mg/kg
Biscayne Bay CW	S13	18	S13-F	6.81	mg/kg		4.89	mg/kg
Biscayne Bay CW	S13	18	S13-G	4.72	mg/kg		4.89	mg/kg
Biscayne Bay CW	S13	18	S13-H	3.23	mg/kg		4.89	mg/kg
Biscayne Bay CW	S13	18	S13-I	5.4	mg/kg		4.89	mg/kg
Biscayne Bay CW	S13	18	S13-J	26	mg/kg		4.89	mg/kg
Biscayne Bay CW	S14	19	S14-A	3.46	mg/kg		4.71	mg/kg
Biscayne Bay CW	S14	19	S14-B	4.71	mg/kg		4.71	mg/kg
Biscayne Bay CW	S14	19	S14-C	4.65	mg/kg		4.71	mg/kg
Biscayne Bay CW	S14	19	S14-D	4.23	mg/kg		4.71	mg/kg
Biscayne Bay CW	S14	19	S14-E	4	mg/kg		4.71	mg/kg
Biscayne Bay CW	S14	19	S14-F	4.43	mg/kg		4.71	mg/kg
Biscayne Bay CW	S14	19	S14-G	3.96	mg/kg		4.71	mg/kg
Biscayne Bay CW	S14	19	S14-H	4.32	mg/kg		4.71	mg/kg
Biscayne Bay CW	S14	19	S14-I	3.69	mg/kg		4.71	mg/kg
Biscayne Bay CW	S14	19	S14-J	4.59	mg/kg		4.71	mg/kg
Biscayne Bay CW	S15	20	S15-A	4.06	mg/kg		4.36	mg/kg
Biscayne Bay CW	S15	20	S15-B	4.4	mg/kg		4.36	mg/kg
Biscayne Bay CW	S15	20	S15-C	4.69	mg/kg		4.36	mg/kg
Biscayne Bay CW	S15	20	S15-D	4.59	mg/kg		4.36	mg/kg
Biscayne Bay CW	S15	20	S15-E	4.6	mg/kg		4.36	mg/kg
Biscayne Bay CW	S15	20	S15-F	4.24	mg/kg		4.36	mg/kg
Biscayne Bay CW	S15	20	S15-G	4.12	mg/kg		4.36	mg/kg
Biscayne Bay CW	S15	20	S15-H	3.85	mg/kg		4.36	mg/kg
Biscayne Bay CW	S15	20	S15-I	4.39	mg/kg		4.36	mg/kg
Biscayne Bay CW	S15	20	S15-J	4.02	mg/kg		4.36	mg/kg

Table 1. Examples of Aliquot and Composite Copper Data

Area	Grid ID	Grid Number	Aliquot ID	Copper (Aliquot)	Unit	Qualifier	Copper (Composite)	Unit
Biscayne Bay CW	S16	21	S16-A	3.41	mg/kg		3.16	mg/kg
Biscayne Bay CW	S16	21	S16-B	3.8	mg/kg		3.16	mg/kg
Biscayne Bay CW	S16	21	S16-C	3.64	mg/kg		3.16	mg/kg
Biscayne Bay CW	S16	21	S16-D	4.01	mg/kg		3.16	mg/kg
Biscayne Bay CW	S16	21	S16-E	3.08	mg/kg		3.16	mg/kg
Biscayne Bay CW	S16	21	S16-F	4.1	mg/kg		3.16	mg/kg
Biscayne Bay CW	S16	21	S16-G	2.58	mg/kg		3.16	mg/kg
Biscayne Bay CW	S16	21	S16-H	2.54	mg/kg	U	3.16	mg/kg
Biscayne Bay CW	S16	21	S16-I	10.1	mg/kg		3.16	mg/kg
Biscayne Bay CW	S16	21	S16-J	2.82	mg/kg		3.16	mg/kg
Biscayne Bay CW	S17	22	S17-A	2.5	mg/kg	U	4.36	mg/kg
Biscayne Bay CW	S17	22	S17-B	2.62	mg/kg	U	4.36	mg/kg
Biscayne Bay CW	S17	22	S17-C	3.44	mg/kg		4.36	mg/kg
Biscayne Bay CW	S17	22	S17-D	2.23	mg/kg	U	4.36	mg/kg
Biscayne Bay CW	S17	22	S17-E	3.53	mg/kg		4.36	mg/kg
Biscayne Bay CW	S17	22	S17-F	3.5	mg/kg		4.36	mg/kg
Biscayne Bay CW	S17	22	S17-G	5.12	mg/kg		4.36	mg/kg
Biscayne Bay CW	S17	22	S17-H	5.5	mg/kg		4.36	mg/kg
Biscayne Bay CW	S17	22	S17-I	5.11	mg/kg		4.36	mg/kg
Biscayne Bay CW	S17	22	S17-J	4.59	mg/kg		4.36	mg/kg
Biscayne Bay CW	S18	23	S18-A	3.72	mg/kg		4.27	mg/kg
Biscayne Bay CW	S18	23	S18-B	4.31	mg/kg		4.27	mg/kg
Biscayne Bay CW	S18	23	S18-C	5.2	mg/kg		4.27	mg/kg
Biscayne Bay CW	S18	23	S18-D	4.61	mg/kg		4.27	mg/kg
Biscayne Bay CW	S18	23	S18-E	4.75	mg/kg		4.27	mg/kg
Biscayne Bay CW	S18	23	S18-F	4.7	mg/kg		4.27	mg/kg
Biscayne Bay CW	S18	23	S18-G	4.46	mg/kg		4.27	mg/kg
Biscayne Bay CW	S18	23	S18-H	4.88	mg/kg		4.27	mg/kg
Biscayne Bay CW	S18	23	S18-I	4.48	mg/kg		4.27	mg/kg
Biscayne Bay CW	S18	23	S18-J	4.42	mg/kg		4.27	mg/kg
Biscayne Bay CW	S19	24	S19-A	4.61	mg/kg		4.41	mg/kg
Biscayne Bay CW	S19	24	S19-B	5.08	mg/kg		4.41	mg/kg
Biscayne Bay CW	S19	24	S19-C	5	mg/kg		4.41	mg/kg
Biscayne Bay CW	S19	24	S19-D	4.72	mg/kg		4.41	mg/kg
Biscayne Bay CW	S19	24	S19-E	5.21	mg/kg		4.41	mg/kg
Biscayne Bay CW	S19	24	S19-F	5.03	mg/kg		4.41	mg/kg
Biscayne Bay CW	S19	24	S19-G	5.36	mg/kg		4.41	mg/kg
Biscayne Bay CW	S19	24	S19-H	5.55	mg/kg		4.41	mg/kg
Biscayne Bay CW	S19	24	S19-I	5	mg/kg		4.41	mg/kg
Biscayne Bay CW	S19	24	S19-J	4.33	mg/kg		4.41	mg/kg
Conley	C2	25	C2-1	120	mg/Kg dw	V	96	mg/Kg dw
Conley	C2	25	C2-2	11	mg/Kg dw	V	96	mg/Kg dw
Conley	C2	25	C2-3	78	mg/Kg dw	V	96	mg/Kg dw
Conley	C2	25	C2-4	220	mg/Kg dw	V	96	mg/Kg dw
Conley	C2	25	C2-5	110	mg/Kg dw	V	96	mg/Kg dw
Conley	C2	25	C2-6	180	mg/Kg dw	V	96	mg/Kg dw
Conley	C2	25	C2-7	64	mg/Kg dw	V	96	mg/Kg dw
Conley	C2	25	C2-8	180	mg/Kg dw	V	96	mg/Kg dw

Table 1. Examples of Aliquot and Composite Copper Data

Area	Grid ID	Grid Number	Aliquot ID	Copper (Aliquot)	Unit	Qualifier	Copper (Composite)	Unit
Conley	C2	25	C2-9	57	mg/Kg dw	V	96	mg/Kg dw
Conley	C2	25	C2-10	52	mg/Kg dw	V	96	mg/Kg dw
Conley	C4	26	C4-1	93	mg/Kg dw	V	87	mg/Kg dw
Conley	C4	26	C4-2	81	mg/Kg dw	V	87	mg/Kg dw
Conley	C4	26	C4-3	90	mg/Kg dw	V	87	mg/Kg dw
Conley	C4	26	C4-4	75	mg/Kg dw	V	87	mg/Kg dw
Conley	C4	26	C4-5	69	mg/Kg dw	V	87	mg/Kg dw
Conley	C4	26	C4-6	48	mg/Kg dw	V	87	mg/Kg dw
Conley	C4	26	C4-7	40	mg/Kg dw	V	87	mg/Kg dw
Conley	C4	26	C4-8	31	mg/Kg dw	V	87	mg/Kg dw
Conley	C4	26	C4-9	75	mg/Kg dw	V	87	mg/Kg dw
Conley	C4	26	C4-10	51	mg/Kg dw	V	87	mg/Kg dw
Graves	25GC	27	36G	98	mg/kg		110	mg/kg
Graves	25GC	27	32G	68	mg/kg		110	mg/kg
Graves	25GC	27	28G	270	mg/kg		110	mg/kg
Graves	25GC	27	33G	89	mg/kg		110	mg/kg
Graves	25GC	27	29G	98	mg/kg		110	mg/kg
Graves	25GC	27	25G	160	mg/kg		110	mg/kg
Graves	25GC	27	26G	190	mg/kg		110	mg/kg
Graves	25GC	27	30G	120	mg/kg		110	mg/kg
Graves	25GC	27	34G	98	mg/kg		110	mg/kg
Graves	25GC	27	35G	55	mg/kg		110	mg/kg
Graves	25GC	27	31G	83	mg/kg		110	mg/kg
Graves	25GC	27	27G	190	mg/kg		110	mg/kg
L31 N	046	28	046-A	100	mg/kg		160	mg/kg
L31 N	046	28	046-B	190	mg/kg		160	mg/kg
L31 N	046	28	046-C	500	mg/kg		160	mg/kg
L31 N	046	28	046-D	420	mg/kg		160	mg/kg
L31 N	046	28	046-E	180	mg/kg		160	mg/kg
L31 N	046	28	046-F	130	mg/kg		160	mg/kg
L31 N	046	28	046-G	210	mg/kg		160	mg/kg
L31 N	046	28	046-H	130	mg/kg		160	mg/kg
L31 N	046	28	046-I	130	mg/kg		160	mg/kg
L31 N	046	28	046-J	87	mg/kg		160	mg/kg
MacArthur	M22	29	13M	39	mg/kg		100	mg/kg
MacArthur	M22	29	14M	83	mg/kg		100	mg/kg
MacArthur	M22	29	15M	39	mg/kg		100	mg/kg
MacArthur	M22	29	16M	84	mg/kg		100	mg/kg
MacArthur	M22	29	17M	99	mg/kg		100	mg/kg
MacArthur	M22	29	18M	56	mg/kg		100	mg/kg
MacArthur	M22	29	19M	48	mg/kg		100	mg/kg
MacArthur	M22	29	20M	49	mg/kg		100	mg/kg
MacArthur	M22	29	21M	52	mg/kg		100	mg/kg
MacArthur	M22	29	22M	37	mg/kg		100	mg/kg
MacArthur	M23	30	23M	120	mg/kg		120	mg/kg
MacArthur	M23	30	24M	130	mg/kg		120	mg/kg
MacArthur	M23	30	25M	130	mg/kg		120	mg/kg
MacArthur	M23	30	26M	51	mg/kg		120	mg/kg

Table 1. Examples of Aliquot and Composite Copper Data

Area	Grid ID	Grid Number	Aliquot ID	Copper (Aliquot)	Unit	Qualifier	Copper (Composite)	Unit
MacArthur	M23	30	27M	130	mg/kg		120	mg/kg
MacArthur	M23	30	28M	74	mg/kg		120	mg/kg
MacArthur	M23	30	29M	83	mg/kg		120	mg/kg
MacArthur	M23	30	30M	52	mg/kg		120	mg/kg
MacArthur	M23	30	31M	73	mg/kg		120	mg/kg
MacArthur	M23	30	32M	180	mg/kg		120	mg/kg
MacArthur	M55	31	53M	42	mg/kg		60	mg/kg
MacArthur	M55	31	54M	29	mg/kg		60	mg/kg
MacArthur	M55	31	55M	55	mg/kg		60	mg/kg
MacArthur	M55	31	56M	49	mg/kg		60	mg/kg
MacArthur	M55	31	57M	58	mg/kg		60	mg/kg
MacArthur	M55	31	58M	47	mg/kg		60	mg/kg
MacArthur	M55	31	59M	36	mg/kg		60	mg/kg
MacArthur	M55	31	60M	30	mg/kg		60	mg/kg
MacArthur	M55	31	61M	13	mg/kg		60	mg/kg
MacArthur	M55	31	62M	35	mg/kg		60	mg/kg
MacArthur	M117	32	113M	31	mg/kg		100	mg/kg
MacArthur	M117	32	114M	57	mg/kg		100	mg/kg
MacArthur	M117	32	115M	320	mg/kg		100	mg/kg
MacArthur	M117	32	116M	53	mg/kg		100	mg/kg
MacArthur	M117	32	117M	18	mg/kg		100	mg/kg
MacArthur	M117	32	118M	31	mg/kg		100	mg/kg
MacArthur	M117	32	119M	75	mg/kg		100	mg/kg
MacArthur	M117	32	120M	140	mg/kg		100	mg/kg
MacArthur	M117	32	121M	100	mg/kg		100	mg/kg
MacArthur	M117	32	122M	34	mg/kg		100	mg/kg
Marcott	M1	33	M1-1	15	mg/Kg dw	V	120	mg/Kg dw
Marcott	M1	33	M1-2	100	mg/Kg dw	V	120	mg/Kg dw
Marcott	M1	33	M1-3	99	mg/Kg dw	V	120	mg/Kg dw
Marcott	M1	33	M1-4	130	mg/Kg dw	V	120	mg/Kg dw
Marcott	M1	33	M1-5	150	mg/Kg dw	V	120	mg/Kg dw
Marcott	M1	33	M1-6	25	mg/Kg dw	V	120	mg/Kg dw
Marcott	M1	33	M1-7	51	mg/Kg dw	V	120	mg/Kg dw
Marcott	M1	33	M1-8	46	mg/Kg dw	V	120	mg/Kg dw
Marcott	M1	33	M1-9	57	mg/Kg dw	V	120	mg/Kg dw
Marcott	M1	33	M1-10	65	mg/Kg dw		120	mg/Kg dw
Marcott	M2	34	M2-1	45	mg/Kg dw		89	mg/Kg dw
Marcott	M2	34	M2-2	33	mg/Kg dw		89	mg/Kg dw
Marcott	M2	34	M2-3	66	mg/Kg dw		89	mg/Kg dw
Marcott	M2	34	M2-4	56	mg/Kg dw		89	mg/Kg dw
Marcott	M2	34	M2-5	45	mg/Kg dw		89	mg/Kg dw
Marcott	M2	34	M2-6	15	mg/Kg dw		89	mg/Kg dw
Marcott	M2	34	M2-7	14	mg/Kg dw		89	mg/Kg dw
Marcott	M2	34	M2-8	48	mg/Kg dw		89	mg/Kg dw
Marcott	M2	34	M2-9	16	mg/Kg dw		89	mg/Kg dw
Marcott	M2	34	M2-10	29	mg/Kg dw		89	mg/Kg dw
Marcott	M3	35	M3-1	57	mg/Kg dw		86	mg/Kg dw
Marcott	M3	35	M3-2	88	mg/Kg dw		86	mg/Kg dw

Table 1. Examples of Aliquot and Composite Copper Data

Area	Grid ID	Grid Number	Aliquot ID	Copper (Aliquot)	Unit	Qualifier	Copper (Composite)	Unit
Marcott	M3	35	M3-3	33	mg/Kg dw		86	mg/Kg dw
Marcott	M3	35	M3-4	60	mg/Kg dw		86	mg/Kg dw
Marcott	M3	35	M3-5	21	mg/Kg dw		86	mg/Kg dw
Marcott	M3	35	M3-6	51	mg/Kg dw		86	mg/Kg dw
Marcott	M3	35	M3-7	43	mg/Kg dw	V	86	mg/Kg dw
Marcott	M3	35	M3-8	98	mg/Kg dw	V	86	mg/Kg dw
Marcott	M3	35	M3-9	45	mg/Kg dw	V	86	mg/Kg dw
Marcott	M3	35	M3-10	24	mg/Kg dw	V	86	mg/Kg dw
Marcott	M4	36	M4-1	59	mg/Kg dw	V	210	mg/Kg dw
Marcott	M4	36	M4-2	1.2	mg/Kg dw	V	210	mg/Kg dw
Marcott	M4	36	M4-3	96	mg/Kg dw	V	210	mg/Kg dw
Marcott	M4	36	M4-4	4	mg/Kg dw	V	210	mg/Kg dw
Marcott	M4	36	M4-5	22	mg/Kg dw	V	210	mg/Kg dw
Marcott	M4	36	M4-6	19	mg/Kg dw	V	210	mg/Kg dw
Marcott	M4	36	M4-7	18	mg/Kg dw	V	210	mg/Kg dw
Marcott	M4	36	M4-8	80	mg/Kg dw	V	210	mg/Kg dw
Marcott	M4	36	M4-9	23	mg/Kg dw	V	210	mg/Kg dw
Marcott	M4	36	M4-10	31	mg/Kg dw	V	210	mg/Kg dw
Tetley	TC	37	1T	36	mg/kg		40	mg/kg
Tetley	TC	37	3T	54	mg/kg		40	mg/kg
Tetley	TC	37	5T	24	mg/kg		40	mg/kg
Tetley	TC	37	7T	21	mg/kg		40	mg/kg
Tetley	TC	37	9T	23	mg/kg		40	mg/kg
Tetley	TC	37	10T	85	mg/kg		40	mg/kg
Tetley	TC	37	11T	24	mg/kg		40	mg/kg
Tetley	TC	37	12T	42	mg/kg		40	mg/kg

Table 2. Determination of Copper Trigger Levels Using Different Ecological Benchmarks

Benchmark	Rate of Aliquots Exceeding Benchmark					
	85 ppm		TEC (31.6 ppm)		PEC (149 ppm)	
Copper (Composite in ppm)	Individual Grid Rate	Ascending Grid Average	Individual Grid Rate	Ascending Grid Average	Individual Grid Rate	Ascending Grid Average
3.16	0%	0%	0%	0%	0%	0%
4.1	0%	0%	0%	0%	0%	0%
4.18	0%	0%	0%	0%	0%	0%
4.27	0%	0%	0%	0%	0%	0%
4.36	0%	0%	0%	0%	0%	0%
4.36	0%	0%	0%	0%	0%	0%
4.41	0%	0%	0%	0%	0%	0%
4.71	0%	0%	0%	0%	0%	0%
4.89	0%	0%	0%	0%	0%	0%
4.95	0%	0%	0%	0%	0%	0%
5.29	0%	0%	0%	0%	0%	0%
6.68	0%	0%	0%	0%	0%	0%
7.35	0%	0%	0%	0%	0%	0%
7.6	0%	0%	10%	1%	0%	0%
10.5	0%	0%	0%	1%	0%	0%
17.6	0%	0%	14%	2%	0%	0%
20.9	0%	0%	10%	2%	0%	0%
21.8	0%	0%	0%	2%	0%	0%
28.3	0%	0%	50%	4%	0%	0%
40	0%	0%	50%	7%	0%	0%
60	0%	0%	70%	10%	0%	0%
86	0%	0%	70%	12%	0%	0%
86	20%	1%	80%	15%	0%	0%
87	20%	2%	90%	19%	0%	0%
89	0%	2%	60%	20%	0%	0%
90	20%	2%	60%	22%	10%	0%
95	30%	3%	100%	25%	20%	1%
96	50%	5%	90%	27%	30%	2%
97	40%	6%	80%	29%	10%	2%
100	30%	7%	70%	30%	10%	3%
100	10%	7%	100%	32%	0%	3%
110	75%	9%	100%	35%	33%	4%
120	40%	10%	70%	36%	30%	4%
120	40%	11%	80%	37%	10%	5%
120	50%	12%	100%	39%	10%	5%
160	100%	15%	100%	40%	50%	6%
210	10%	14%	30%	40%	0%	6%
Lower Bound of Trigger Level	**95**		**28.3**		**120**	

Note: Composite values corresponding to the highlighted cells define the bounds of the trigger value for the given benchmark based on a cutoff exceedance rate of 5%

Table 3. Descriptive Statistics of Aliquot and Composite Copper Data

Parameters	Aliquot	Composite
Count	362	37
Minimum	1.2	3.2
Maximum	500.0	210.0
Mean	44.7	55.0
Std. Deviation	61.6	54.5
Std. Error	3.2	9.0
95%UCL of Mean	50.0	70.1

Table 4
Florida SQAGs and TEC/PEC Ratio

from: Development and Evaluation of Numerical Sediment Quality Assessment Guidelines for Florida Inland Waters. FDEP 2003

Chemical	TEC	PEC	TEC/PEC
Arsenic	9.8	33	0.3
Barium	20	60	0.33
Beryllium	NG	NG	--
Boron	NG	NG	--
Cadmium	1	5	0.2
Chromium	43	110	0.39
Cobalt	50	NG	--
Copper	32	150	0.21
Lead	36	130	0.28
Mercury	0.18	1.1	0.16
Nickel	23	49	0.47
Silver	1	2.2	0.45
Strontium	NG	NG	--
Titanium	NG	NG	--
Zinc	120	460	0.26
Zircon	NG	NG	--
Acenaphthene	6.7	89	0.08
Acenaphthylene	5.9	130	0.05
Anthracene	57	850	0.07
Fluorene	77	540	0.14
Naphthalene	180	560	0.32
Phenanthrene	200	1200	0.17
Benz[a]anthracene	110	1100	0.1
Benzo(a)pyrene	150	1500	0.1
Chrysene	170	1300	0.13
Dibenz[a,h]anthracene	33	140	0.24
Fluoranthene	420	2200	0.19
Pyrene	200	1500	0.13
Total PAHs	1600	23000	0.07
Total PCBs	60	680	0.09
Hexachlorobenzene (HCB)	20	240	0.08
Hexachlorobutadiene (HCBD)	55	550	0.1
Bis(2-ethylhexyl)phthalate	180	2600	0.07
Dimethyl Phthalate	NG	NG	--
Diethyl Phthalate	630	NG	--
Di-n-butyl Phthalate	NG	43	--
Chlordane	3.2	18	0.18
Dieldrin	1.9	62	0.03
Sum DDD	4.9	28	0.18
Sum DDE	3.2	31	0.1
Sum DDT	4.2	63	0.07
Total DDTs	5.3	570	0.01
Endrin	2.2	210	0.01

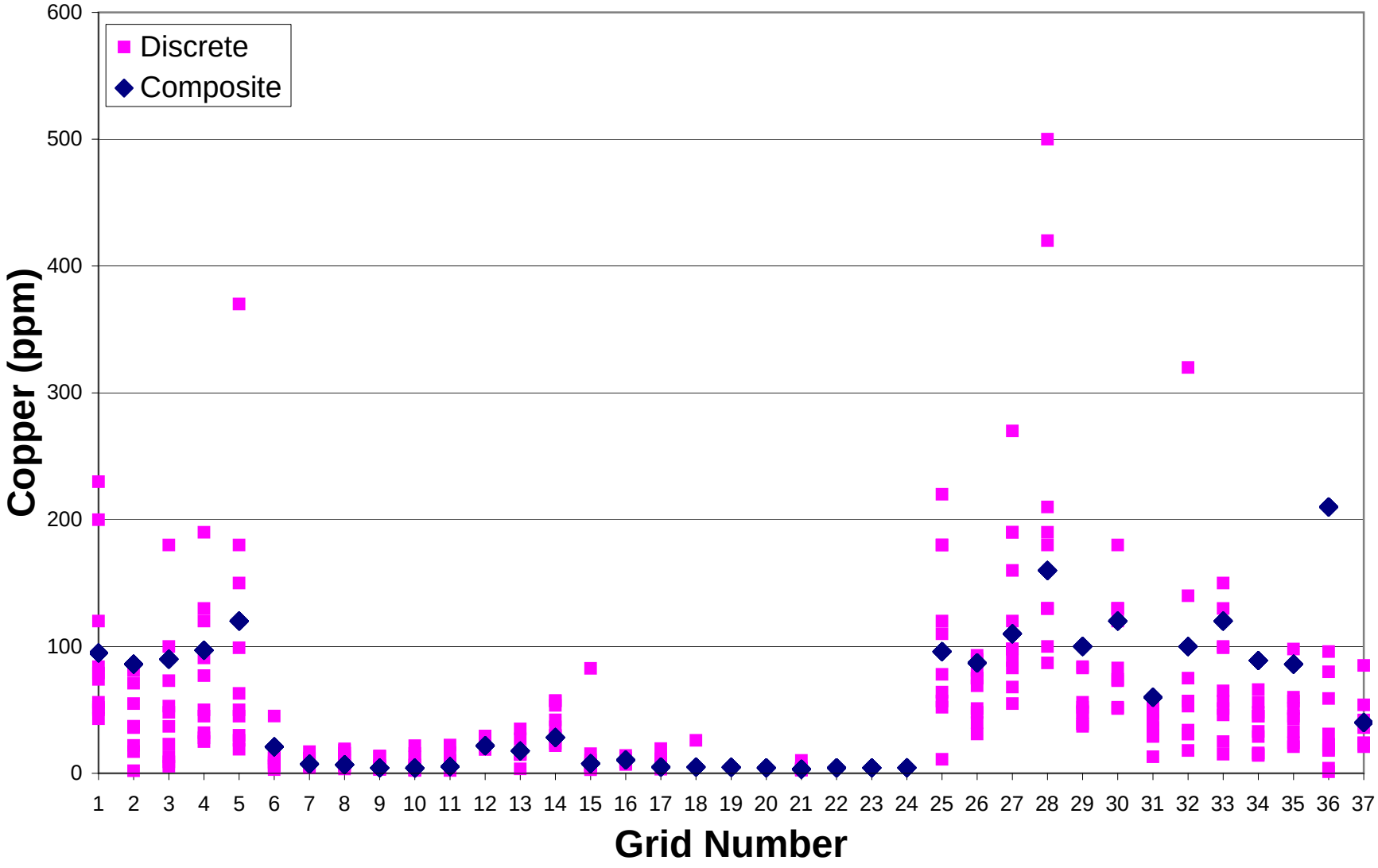
Table 4
Florida SQAGs and TEC/PEC Ratio

from: Development and Evaluation of Numerical Sediment Quality Assessment Guidelines for Florida Inland Waters. FDEP 2003

Chemical	TEC	PEC	TEC/PEC
Heptachlor Epoxide	2.5	16	0.16
Lindane	2.4	5	0.48
Azinphos-ethyl	0.018	NG	--
Azinphos-methyl	0.062	NG	--
Diazinon	0.38	NG	--
Ethion	NG	NG	--
Malathion	0.67	NG	--
Methidathion	NG	NG	--
Phosmet	NG	NG	--
Phosphamidon	NG	NG	--
Phoxim	0.06	NG	--
Pyrazophos	0.015	NG	--

Figures

Figure 1. Examples of Composite and Discrete Aliquot Copper Data



Attachment A
Exerpted Tables from:

Development and Evaluation of Numerical Sediment Quality Assessment Guidelines for Florida Inland Waters. (FDEP 2003)

Table 4.8. Incidence of toxicity within ranges of contaminant concentrations defined by the sediment quality guidelines (SQGs; from MacDonald *et al.* 2000a)

Substance	Number of Samples Evaluated	Incidence of Toxicity (number of samples in parenthesis)		
		≤TEC	TEC-PEC	>PEC
Metals				
Arsenic	150	25.9% (15 of 58)	57.6% (38 of 66)	76.9% (20 of 26)
Cadmium	347	19.6% (20 of 102)	44.6% (29 of 65)	93.7% (118 of 126)
Chromium	347	28% (37 of 132)	64.4% (38 of 59)	91.7% (100 of 109)
Copper	347	17.7% (28 of 158)	64.0% (48 of 75)	91.8% (101 of 110)
Lead	347	18.4% (28 of 152)	53.6% (37 of 69)	89.6% (112 of 125)
Mercury	79	65.7% (23 of 35)	70.0% (28 of 40)	100% (4 of 4)
Nickel	347	27.7% (51 of 184)	62.7% (32 of 51)	90.6% (87 of 96)
Zinc	347	18.4% (30 of 163)	60.9% (39 of 64)	90.0% (108 of 120)
Polycyclic Aromatic Hydrocarbons (PAHs)				
Anthracene	129	17.3% (13 of 75)	92.9% (26 of 28)	100% (13 of 13)
Fluorene	129	29% (27 of 93)	85.7% (12 of 14)	100% (13 of 13)
Naphthalene	139	24.7% (21 of 85)	94.1% (16 of 17)	92.3% (24 of 26)
Phenanthrene	139	17.7% (14 of 79)	88.2% (30 of 34)	100% (25 of 25)
Benz[a]anthracene	139	17.1% (13 of 76)	70% (14 of 20)	100% (20 of 20)
Benzo(a)pyrene	139	18.5% (15 of 81)	75.7% (28 of 37)	100% (24 of 24)
Chrysene	139	20% (16 of 80)	68.1% (32 of 47)	95.8% (23 of 24)
Fluoranthene	139	25% (24 of 96)	82.5% (33 of 40)	100% (15 of 15)
Pyrene	139	20.5% (16 of 78)	63.0% (29 of 46)	96.4% (27 of 28)
Total PAHs	167	18.5% (15 of 81)	65.1% (43 of 66)	100% (20 of 20)
Polychlorinated Biphenyls (PCBs)				
Total PCBs	120	11.1% (3 of 27)	31.0% (9 of 29)	82.3% (42 of 51)
Organochlorine Pesticides				
Chlordane	193	14.9% (15 of 101)	75.0% (15 of 20)	73.0% (27 of 37)
Dieldrin	180	16.5% (18 of 109)	95.2% (20 of 21)	100% (10 of 10)
Sum DDD	168	19.8% (20 of 101)	33.3% (1 of 3)	83.3% (5 of 6)
Sum DDE	180	18.1% (19 of 105)	33.3% (1 of 3)	96.7% (29 of 30)
Sum DDT	96	23% (23 of 100)	0.0% (0 of 1)	91.7% (11 of 12)
Total DDT	110	17.4% (16 of 92)	100% (23 of 23)	100% (10 of 10)
Endrin	170	29.4% (37 of 126)	40.0% (4 of 10)	NA% (0 of 0)
Heptachlor Epoxide	138	17.8% (16 of 90)	85.0% (17 of 20)	37.5% (3 of 8)
Lindane	180	28.1% (34 of 121)	65.9% (29 of 44)	82.4% (14 of 17)

NA = not applicable; TEC = threshold effect concentration; PEC = probable effect concentration.

Table 4.10. Incidence of sediment toxicity within ranges of mean PEC-Qs for sediments from Florida and elsewhere in the southeastern portion of the United States.

Toxicity Test - Endpoint	n	Avg mean Q	Incidence of Toxicity (number of samples in parentheses)					
			<0.1	0.1 to <0.5	0.5 to <1.0	1.0 to <5.0	≥1.0	≥5.0
10-d *Hyalella azteca* survival	522	0.379	13% (15 of 116)	15% (51 of 339)	30% (14 of 46)	33% (6 of 18)	38% (8 of 21)	67% (2 of 3)
10-d *Hyalella azteca* survival or growth	522	0.379	13% (15 of 116)	16% (54 of 339)	37% (17 of 46)	39% (7 of 18)	48% (10 of 21)	100% (3 of 3)
28-42-d *Hyalella azteca* survival	174	0.549	8% (4 of 53)	13% (11 of 87)	43% (10 of 23)	38% (3 of 8)	45% (5 of 11)	67% (2 of 3)
28-42-d *Hyalella azteca* survival or growth	174	0.549	13% (7 of 53)	24% (21 of 87)	52% (12 of 23)	38% (3 of 8)	45% (5 of 11)	67% (2 of 3)
10-d *Chironomus tentans* survival	133	0.391	19% (5 of 26)	7% (7 of 94)	0% (0 of 9)	0% (0 of 3)	0% (0 of 4)	0% (0 of 1)
10-d *Chironomus tentans* survival or growth	133	0.391	23% (6 of 26)	9% (8 of 94)	33% (3 of 9)	67% (2 of 3)	75% (3 of 4)	100% (1 of 1)
Overall Toxicity	643	0.381	18% (27 of 150)	18% (73 of 406)	43% (26 of 61)	36% (8 of 22)	42% (11 of 26)	75% (3 of 4)

n = number of samples; PEC-Q = probable effects concentration quotient.

ATTACHMENT 1

PROTOCOL FOR ASSESSMENT, REMEDIATION AND POST-REMEDIATION MONITORING FOR ENVIRONMENTAL CONTAMINANTS ON EVERGLADES RESTORATION PROJECTS

A. Contamination Assessment

1. *Phase I Environmental Site Assessment*

The Phase I Environmental Site Assessment (Phase I) is performed in accordance with the American Society of Testing and Materials (ASTM) Standard Practice E1527-00, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process." The purpose of the Phase I is to identify the presence or likely presence of any hazardous substance or petroleum product on the property. Phase I should provide all available information on current and past land use, and consists of the following elements:

a. Site Inspection

The site inspection usually consists of walking, driving, and/or flying over the property to visually ascertain the presence of features or indicators of past land uses and possible environmental contaminants. A checklist of such indicators includes, but is not limited to, dumps, drums, construction debris, fills, unusual chemical odors, above ground and underground storage tanks, chemical storage buildings, asbestos evidence, "stressed" vegetation or bare ground, "sterile" water bodies, oiled roads, stained or discolored ground or stream banks, oil slicks, air strips, maintenance areas, pipelines, transformers or other electrical equipment, oil and gas drilling, and mining activities.

b. Historical Considerations

The historical review should include interviews with current owners, previous owners, and neighbors to obtain an accurate history of past land uses, farming practices, pesticide usage, etc. Aerial photographs should be reviewed for evidence of row crops and other agricultural, commercial or industrial activities. At a minimum, the historical review should include reliable information on (1) farming practices (e.g., row crops, sugarcane, citrus, sod farm, ornamentals, grazing), (2) exact location of these practices on the property, and (3) farming chronology. For example, row cropping on a portion of the property during the period from the 1940s to the mid-1980s is strong suggestive evidence for the presence of organochlorine (OC) pesticides at that location.

c. Review of Environmental Databases

An extensive review of environmental databases (Comprehensive Environmental Response, Compensation, and Liability Information System; Resource Conservation and Recovery Information System; National Priorities List; Emergency Response Notification System;

state Above Ground and Underground Storage Tank records; Solid Waste Facility and Landfill Report; Florida State Hazardous Waste Site list; Facility Index System/Identification Initiative Program Summary Report; Formerly Used Defense Sites; and local mosquito control districts) should be conducted.

Information gleaned from the Phase I assessment is used to determine the necessity of a Phase II assessment.

2. *Phase II Environmental Site Assessment*

Should information from the Phase I or other credible sources (i.e., previous investigations) indicate the presence of contamination or that the potential for contamination exists, a Phase II Environmental Site Assessment (Phase II) should be initiated. Coordination between FWS and the agency performing the assessment is important starting at this point and throughout the rest of the process. Coordination will be facilitated by providing FWS with a Phase II Scope of Work (SOW) or proposal for review. The proposal should describe in detail the sampling plan (number, media, and location of samples), sample collection methods, analytical parameters, quality control/quality assurance (QA/QC) plan, standards and/or ecological screening criteria to be used for comparison, contingency for expanded sampling, and screening level risk assessment procedures, if applicable. The environmental laboratory to perform chemical analyses should be EPA certified, maintain a rigorous QA/QC program, and achieve laboratory detection limits consistent with state and federally approved ecological screening values and water/soil quality standards. More detail on sampling procedures and analytical requirements is provided in the following section. The selection of a credible laboratory is one of the highest priorities in the site assessment process.

The purpose of the Phase II is to identify sources and locations of contamination, specify contaminants of potential concern (both human health and ecological), and provide recommendations for additional sampling, testing, or risk assessment; and corresponding corrective actions. The focus of the Phase II is generally on facilities and potential point sources on the property, which includes: mixing/loading areas, storage sheds, vehicle turn-around areas, airstrips, cattle dip tanks, pumping stations, and burn areas.

In addition, sampling may be conducted in other areas, such as canals and agricultural fields, in order to identify contaminants that have a more widespread distribution or to establish background levels of contaminants. Media sampled may include soils, sediments, groundwater and occasionally surface water. The most commonly encountered types of contaminants at agricultural sites include pesticides, petroleum hydrocarbons, and various metals.

Chemical concentrations in the various sampled media should be compared with the appropriate ecological screening values to determine if remediation and/or additional sampling or assessment is required. Ecological screening values to be used include the following: (1) Florida Department of Environmental Protection (FDEP) Sediment Quality Assessment Guidelines (SQAGs); (2) Florida Surface Water Quality Standards; or (3) USEPA Ambient Water Quality Criteria, among others. Ecological screening values are discussed in more detail in the next section.

Generally, any point sources identified can be remediated based on the results of the Phase II, with some additional delineation work. If remediation of the point source(s) removes all ecological concerns (i.e., all contaminant concentrations are reduced below screening values), no further assessment work is required on the site. However, if the results of the Phase I and/or Phase II indicate that widespread contamination at levels of ecological concern may be present, then more extensive sampling in the agricultural fields may be required (see next section).

3. *Agricultural Field Sampling and Screening Level Ecological Risk Assessment (SLERA)*

Generally, contaminant information obtained during a standard Phase I/Phase II Environmental Site Assessment (Phase I/II) is not detailed or comprehensive enough to be suitable for use in an ecological risk assessment (ERA). The methods described in this section are designed to provide detailed information on the distribution and concentrations of contaminants of concern (COCs) identified in the Phase I/II, for use in food chain models to predict risks to FWS's trust resources. A major purpose of this section is to determine whether concentrations of contaminants in the farmed areas are uniformly distributed in the fields, or are present as "hot spots[1]" that can be remediated. The method allows for sampling coverage of a large area while keeping assessment costs at manageable levels. If there is sufficient evidence to expect that pesticide contamination is likely at a site, it may be advantageous to conduct this sampling protocol concurrently with the Phase II assessment.

Sample site selection should be biased to maximize detection of agrochemicals in cultivated soils by sampling the entire cultivated area when possible. Random sampling on properties characterized by mixed land use is not likely to provide the greatest degree of representation regarding contamination commonly associated with agricultural production (i.e., insecticides, herbicides, fungicides, fertilizers, etc.). Prior to developing a sampling strategy, each property's land use should be reviewed in terms of spatial and temporal variables, placing the greatest sampling priority on those areas which were intensively managed for agricultural production (e.g., cultivated fields). Conversely, a lesser priority should be given to rangelands and abandoned or vacant lots which have limited or no historical agricultural land uses. Some exceptions to this rationale would include commercial and industrial land uses which are sparsely distributed within the geographic areas currently under consideration for incorporation into CERP projects. In most cases, the use of random sampling is limited to those properties demonstrating homogeneous land use across the majority of the property.

a. Sample Collection

Soil samples will be collected using a stainless steel spoon or hand auger from 0-6 inches below land surface. This interval represents the biologically relevant depth for interaction with surface water and biological receptors. It is important that care is taken not to include sample material from more than 6 inches deep, as this may result in dilution and underestimation of contaminant concentrations. Between samples, sampling equipment should be decontaminated using standard procedures to prevent cross-contamination between samples. (Decontamination between subsamples (see below) will not be necessary

[1] Hot spots are referred to isolated areas of elevated contaminant concentrations.

because subsamples will be mixed together to form a composite.) Immediately following collection, samples should be placed on ice and submitted as soon as possible to the laboratory for analysis.

At all properties except citrus groves, discrete soil samples and subsamples for compositing (see below) should be composed of five aliquots of equal volumes collected from the center point located at the nominal sampling location, and from four additional points located 5 feet from the center point in each of the cardinal directions. The sample should be thoroughly homogenized in a stainless steel mixing bowl. These "close proximity composite samples" are intended to reduce the effects of small scale soil heterogeneity.

At properties used for citrus farming, discrete soil samples should be composed of three equal-volume subsamples; one subsample each from (1) the drip line of the tree nearest to the nominal sampling point; (2) the nearest drainage swale to the tree; and (3) the nearest crown of the road between rows of the trees. The sample is, therefore, expected to be representative of the average concentration of the areas most likely to be affected by the application of agricultural chemicals used in citrus farming. The sample should be thoroughly homogenized in a stainless steel mixing bowl.

Before being placed in the sample jar, all soil samples (discrete and composites) should be thoroughly homogenized until they appear completely uniform in texture and color. Analytical laboratories should be instructed that samples received from the field should be thoroughly homogenized again in the jar before an aliquot is removed for extraction.

b. Analytical Parameters

If it has been determined during the Phase I/II that a property has a history of agricultural activity prior to 1985, then each soil analysis should include, at a minimum, organochlorine pesticides (EPA Method 8081), metals (including mercury and copper), and total organic carbon (TOC). If the history of the property or more recent use suggests that other contaminants may be present, then the list of analytes should be expanded as appropriate. The best available detection limits should be requested of the analytical laboratory, but at a minimum, detection limits (practical quantitation limits) for each chemical should be as low as the corresponding screening value (see below). That is not possible in all cases; however, since some screening benchmarks are lower than quantitation limits defined by the Florida Department of Environmental Protection. As a general rule, TOC analysis should be done for all soil and sediment samples. TOC is essential for food chain modeling and interpretation of individual sample results, bioassay results, etc.

c. Discrete Sampling for Small Properties (<500 acres)

Discrete sampling will be required for agricultural areas less than 500 acres in size. Discrete sample sites should be established at regular intervals across the property, at a density of at least one sample per 10-20 acres. The actual sampling density will depend on the size of the property, analytical cost per sample, likelihood of contamination, and other factors, and will

be specified in the proposed sampling plan and agreed to by consensus between the SFWMD and FWS. A minimum of 10 samples will be necessary for most properties. Some exceptions to this minimum sample size will occur where parcels are small (<100 acres) or demonstrate a combination of land uses (i.e., residential "ranchettes," small scale livestock/garden/nursery properties, rock mining pits, etc.) where only a small percentage of the overall area was cultivated. Careful consideration should be given prior to using a sample size smaller than 10. As sample size decreases, statistical variation tends to increase, thereby increasing the size of confidence intervals used to determine the 95 percent UCL of the mean for any given analyte. Higher UCL values may increase the probability that samples will exceed ecological screening values, thereby necessitating expanded sampling, risk assessment, and subsequent clean up. Also, higher UCL values will generate correspondingly higher Hazard Quotients (HQ) in food chain modeling exercises associated with Ecological Risk Assessments (ERA).

Within this framework, actual sample location is at the discretion of the project manager. This agricultural field sampling is in addition to, and separate from, Phase II sampling that may be focusing on facilities with a high likelihood of contamination, such as pump stations, storage sheds, mixing/loading areas, airstrips, vehicle turn-arounds, cattle dip tanks, etc. The exact location of each sample should be recorded using GPS.

d. Composite Sampling for Large Properties (>500 acres-1000 acres)

In large properties, discrete sampling at short intervals would be at best cost prohibitive, if not impracticable. Reducing the sample density, however, can lead to under-representation of large portions of the property, as well as elevated likelihood of missing hot spots. In order to address this problem, composite sampling is used. Composite sampling is a compromise, under which large numbers of discrete samples are collected, but composited prior to laboratory analyses. The following composite sampling strategy has been developed jointly by FWS and SFWMD.

Using aerial photographs, a 50-acre grid pattern will be established on each property or agricultural area greater than 500 acres in size. The grids should be located and confirmed in the field using GPS. For properties between 500 acres and 1,000 acres, all of the 50 acre grids will be sampled. For example, for a 1000-acre parcel, all 20 of the 50-acre grids would be sampled.

Each of the 50-acre grids will be subdivided into ten 5-acre subgrids. One close proximity composite soil sample will be collected from each of the 5-acre subgrids in the 50-acre grid. The location of each subsample should be exactly determined using GPS. The ten sub-samples are then composited into one sample and thoroughly mixed. This composite sample, representing the entire 50-acre grid, is then submitted to the laboratory for analysis and/or testing. (For copper, discrete samples will be maintained separate (i.e., not composited) and analyzed individually.)

e. Composite Sampling for Very Large Properties (>1000 acres)

For very large properties, where complete composite sample coverage is not possible due to budget constraints, a pre-arranged fraction of the 50-acre grids should be selected. For example, a 5000-acre parcel would be divided into 100, 50-acre grids. Perhaps half (50) of these grids would be selected for sampling. The number of grids to be selected will be pre-determined for each site by consensus between the SFWMD and FWS, based on site-specific factors. Grids will be selected for sampling using a stratified random approach.

For stratified random sampling, the agricultural area will be divided into a number of equally-sized supergrids, each consisting of group of adjacent 50-acre grids. From each supergrid, the pre-arranged fraction of grids will be selected randomly for sampling. For this purpose, a random number generator will be used to select 50-acre grids from each supergrid for sampling. The stratified random approach is recommended over a purely random approach. In random sampling there is always a chance of clustering, as well as over- and under-representation of segments of the agricultural area. The stratified random approach will assure that all segments of the agricultural area are equally represented.

f. Screening-Level Ecological Risk Assessment

Following the collection of Phase II data and sampling of the cultivated areas, each site will be evaluated using a SLERA. The SLERA is intended to identify contaminants of potential ecological concern (COPECs) and provide screening-level conclusions regarding the potential for risk to the ecological receptors at the site. The conclusions of the SLERA will primarily indicate which COPECs are likely to show a low potential for elevated risk and those that may require further evaluation either through the collection of additional data for use in an expanded ecological risk assessment or through remediation.

Screening is conducted for two general sets of ecological receptors and the screening values are used to identify areas that may require further attention for each receptor. For the aquatic community receptor, the FDEP's Sediment Quality Assessment Guidelines (SQAGs) for Florida Inland Waters (MacDonald et al. 2003) should be used as screening values whenever possible. The SQAGs were developed for assessing sediment quality in Florida waters, based on the probability of effects on sediment-dwelling organisms. For each contaminant there are two SQAGs: Threshold Effect Concentration (TEC) and Probable Effect Concentration (PEC). TECs were formulated to define concentrations of contaminants below which adverse effects on sediment-dwelling organisms are unlikely to occur. PECs were developed to define ranges of concentrations above which adverse effects are likely to occur.

In most cases the TEC will serve as the initial screening value, especially when using a composite sampling design. Use of PECs as screening values may be justified under some circumstances for certain contaminants. For some contaminants, SQAGs have not yet been developed. The U.S. Environmental Protection Agency's Ecotox Thresholds, the National Oceanic and Atmospheric Administration's Effects Range Low and Effects Range Median, or other ecologically-based guidelines should be used when SQAGs are not available. For

some chemicals such as metals, information on natural background levels may have to be considered. Human health-based guidelines for cleanup of contaminated sites, such as FDEP's Soil Cleanup Target Levels, should not be used for this purpose. Chemicals exceeding either the TEC or the PEC, or their equivalent benchmark where SQAGs are not available, will be identified as COPECs and will be further discussed in the SLERA.

When more than one chemical is present in the sediments, the risk associated with exposure of the aquatic community to the mixture may be greater than to a single chemical. Risks associated with exposure to multiple chemicals in any one chemical group (e.g., metals, organochlorine pesticides, etc.) are generally considered to be additive. In order to account for the potential effects of multiple chemicals, a PEC-quotient (PEC-q) approach will be utilized, when more than one chemical in a group is detected on a site. The PEC-q for each chemical is calculated by dividing the chemical concentration by the PEC for that chemical. The mean of the PEC-q's for all of the chemicals in the group will then be calculated. If the mean PEC-q is greater than 0.5, the combined effects of the multiple chemicals in the sediment may be toxic and should be further evaluated. Specific tests and methods to be used for further risk-based evaluation are discussed in the following sections.

Since TECs/PECs are specific to benthic macroinvertebrates, screening is also conducted for aquatic-feeding wildlife (birds and mammals) that are FWS trust wildlife species (i.e. MBTA and ESA species). Generally, the bald eagle (*Haliaeetus leucocephalus*), white pelican (*Pelecanus erythrorhynchos*), snail kite (Rostrhamus sociabilis), osprey (*Pandion haliaetus*), clapper rail (*Rallus longirostris*), great blue heron (*Ardea herodias*), and wood stork (*Mycteria americana*) are federal trust species that have been used as representative target species in exposure and risk calculations.

For wildlife, the screening-level risk is expressed by calculating a screening-level hazard quotient (HQ), which is simply the ratio of the modeled exposure (numerator) and TRV (denominator). Screening-level HQs for wildlife species are calculated using the site-specific reasonable maximum exposure (numerator) compared to a TRV based on the No Observed Adverse Effects Level (NOAEL)(denominator). Exposures are generally calculated using the fugacity-based foodweb exposure model that was developed jointly by FWS and SFWMD (Goodrich 2002 and NewFields 2006), but other exposure models can be used if needed and approved by FWS. A screening-level HQ greater than one indicates that the chemical should be retained as a COPEC for further risk analysis in the SLERA and potentially as a basis for risk management actions.

g. Sites Which Exceed the PEC and/or with Wildlife HQs Greater than 1.0

Sediments with concentrations of contaminants above the PEC potentially represent significant and immediate hazards to exposed aquatic life. If any of the 50-acre composite samples, described above, exceeds the PEC or other appropriate probable effect-level screening value, it will be necessary to return to that 50-acre grid and obtain individual samples from each of the ten aliquot locations. These samples should be taken as close as possible to the original sample locations. These discrete samples should then be submitted to the laboratory for analysis.

The purpose of this follow-up sampling is to determine the spatial distribution of contaminants within the 50-acre grid; i.e., do the data indicate the presence of one or more isolated hot spots, or widespread contamination above the PEC? If only one or a few of the individual (5-acre) samples are elevated, SFWMD may choose to attempt to remediate these areas in order to reduce the average contaminant levels of the 50-acre grid to below PEC. This will require additional sampling in order to confirm that the sub-grids in question were indeed responsible for the PEC exceedance, and to delineate the extent of the hotspot(s). Due to possible small scale variability in contaminant concentrations, one sample is not sufficient as a basis for remediation decisions. As discussed in Section C (Remediation), the SFWMD may chose to conduct a more detailed analysis, including geostatistical analyses, to attempt to identify areas in need of remediation.

Conversely, follow-up sampling may indicate that large portions of the site contain elevated levels of contaminants. Remediation of widespread contamination over such a large area may not be practical. In such a case, further testing and completion of an ecological risk assessment (ERA) will be necessary in order to refine our understanding of the hazards to federal trust resources associated with contaminants on the site. These tests and assessments should include: (1) desorption studies, (2) sediment bioassays, and (3) ERA with food chain modeling. In addition, if any of the contaminants have a tendency to accumulate in aquatic organisms or biomagnify in the food chain, such as organochlorine pesticides, PCBs, PCDDs/PCDFs, and some metals, bioaccumulation studies are recommended. Specific tests and methods to be used are discussed in the following sections.

As stated above, follow-up sampling of discrete locations within a 50-acre grid is intended to determine the spatial distribution of contaminants within the grid, and should not constitute an attempt to confirm or refute the original composite result. If widely disparate results are obtained upon follow-up (discrete) sampling compared with the original composite, this suggests either small-scale variability in the COPEC concentrations or that some error has occurred in sampling, homogenization, or laboratory analysis. In these cases, the original composite result will represent the 50-acre grid in question, barring some evidence to the contrary suggesting that the follow-up result is actually more representative of contaminant concentrations in the grid.

In order to avoid the above situation, consideration will be given on a project-by-project basis, that discrete samples collected in the field, following homogenization, be split into two jars. One sample jar will be used for producing the composite by mixing with the other samples representing a particular 50-acre grid; the other jar of each pair would be stored at 4 degrees centigrade for possible future analyses. If screening levels for any analytes of interest are exceeded in the composite sample analyses, then all 10 of the subsample aliquots used to make that sample will be reanalyzed for the observed compounds to identify more precisely the location of the observed contaminants. Use of this methodology may be problematic for very large properties due to limited storage space.

h. Sites Which Exceed Only the TEC

In general, a few scattered exceedances of a TEC by an individual contaminant at a site, when there are no PECs exceeded, is not considered to be a significant cause for concern. However, if enough samples exceed the TEC, such that the mean (estimated by the 95 percent upper confidence limit (UCL) of the mean) for the entire site (i.e., the mean of all discrete samples for a small site, or the mean of all 50-acre composites for a large site) is above the TEC, widespread ecological effects are possible. To evaluate this, the mean and the 95 percent UCL of the mean should be calculated for each COPEC. In most cases, if the 95 percent UCL for all contaminants is below the TEC, the SLERA will indicate that the potential for unacceptable risk is low and no further action will be necessary. However, if the 95 percent UCL for any contaminant exceeds the TEC, then the additional testing and an ERA (as described above for PEC exceedances) or remedial activities may be necessary. These tests and assessments should include: (1) desorption studies, (2) sediment bioassays, (3) ERA with food chain modeling, and (4) bioaccumulation studies for lipophilic contaminants. In addition, if TECs are exceeded by more than one contaminant in the same grid(s), further evaluation will be necessary to address possible synergistic or additive effects of these co-contaminants. Bioassays may be useful in this case to identify potential toxicity from multiple contaminants that would not be predicted by using individual screening values.

i. Evaluation of False Negatives where Composite Samples are Used

[Note: The following procedure for the evaluation of potential false negatives has been added to this MOA at the request of the Florida Department of Environmental Protection (FDEP) and is not required by FWS. This procedure is included in this MOA in order to provide a complete documentation of the sampling and assessment protocol followed by SFWMD.]

The primary disadvantage of composite samples is the possibility of masking hot spots by diluting the elevated discrete samples with cleaner aliquots. This masking can be viewed as a form of a "false negative," i.e., the probability of yielding clean composite results, while certain portions of the grid may exceed ecological benchmarks. In order to minimize the above disadvantage, the following procedure is included.

A representative percentage of "clean" grids (i.e., COPEC concentrations within the grid are all below the SQAG-TEC values) will be selected for further evaluation. The percentage of grids selected for further evaluation will depend upon the variability of the data and the total number of composite samples which were analyzed. When selecting the subset of non-exceeding grids, the following should be considered: (1) the non-exceeding grids targeted for discrete sampling shall not be clustered; and (2) the number of non-exceeding grids targeted for discrete sampling shall be at least 20% of the total number of "clean" grids but not greater than 10.

All of the individual discrete aliquots making up the ten-point composite samples within the selected grids will subsequently be analyzed for the COPECs only. The results for the

discrete samples for selected clean grids will be tabulated, along with the results for individual discrete samples that are analyzed for exceeding grids (per the procedure outlined in section h. below). Both the composite sample and discrete sample values for each grid should be tabulated.

For each grid, the percentage of discrete samples exceeding the ecological benchmark will be calculated. The grids will then be sorted based on ascending COPEC composite concentration. The average aliquot exceedence rate for each grid is then computed by obtaining the average percentage of aliquots exceeding the benchmark in that grid and in all grids with lower composite concentrations.

The average aliquot exceedance rates are then used to determine the composite sample concentration above which the individual sample results exceed the composite value by a pre-determined percentage (e.g., 5%). The largest composite value corresponding to the pre-determined exceedence rate will be defined as the trigger level. If the trigger level is less than the PEC for the given chemical, it shall be used in all subsequent analyses as the substitute for the PEC.

Using this approach, the probability of missing hot spots in clean grids can be maintained below a pre-determined level (e.g. 5%). Trigger levels for individual chemicals that have already been established in certain types of agricultural areas may be used in other similar agricultural areas. In such instances, supplementary area-specific false negative sampling and analyses are not required.

4. Expanded Ecological Risk Assessment

In cases where clear decisions regarding the potential for risk cannot be reached or where remediation to remove potential risks based on screening-level results is impractical, further testing and completion of an ERA will be necessary in order to refine our understanding of the hazards to federal trust resources associated with contaminants on the site. These tests and assessments should include: (1) desorption studies, (2) sediment toxicity tests, and (3) ERA with food chain modeling. In addition, if any of the contaminants have a tendency to accumulate in aquatic organisms or biomagnify in the food chain, such as organochlorine pesticides, PCBs, PCDDs/PCDFs, and some metals, bioaccumulation studies are recommended. The details of the ERA should be agreed upon by SFWMD and FWS prior to the initiation of work.

a. Desorption Studies

Contaminated soils inundated during the process of wetland restoration may release soil bound pollutants into the pore and surface waters. Soil or sediment characteristics governing pollutant desorption (e.g., total organic carbon, grain size, pH) will vary among locations. In addition, weathering or aging of some contaminants may alter their bioavailability from that predicted in the published literature. This necessitates site-specific desorption studies to accurately assess pollutant availability to aquatic organisms. Pollutant desorption is assessed on soils from the location using ASTM method E-1195-01, “Method for Determining a

Sorption Constant (Koc) for an Organic Chemical in Soil and Sediments." This method simulates flooding of site soils and measures release of contaminants from the soil over time. Filtered pore water samples are collected and analyzed for COCs after 3, 7, 14, and 2l days contact time. These results are used to determine a site-specific organic carbon partitioning coefficient (Koc), an estimate of pollutant partitioning between sediments and water. This value can be used in food chain models for predicting aquatic and terrestrial organism exposure to pollutants.

Soils used in the desorption study should represent, as near as possible, the maximum detected concentration of the contaminant on the site, in order to ensure that measurable levels of the particular COC are released into the water. Bulk soil samples collected for this purpose must be thoroughly mixed. To ensure uniform contaminant concentrations, samples should be collected and analyzed from several locations within the bulk soil sample (e.g., top, middle, and bottom of the container). In order to be useful, the water analysis results must show evidence that steady-state concentrations have been reached within the 21-day duration of the test. Contaminant concentrations in water obtained during the desorption study may be compared with Florida Surface Water Quality Standards.

b. Sediment Toxicity Testing

Toxicity testing with representative aquatic invertebrates and vertebrates allows prediction of soil bound pollutant toxicity to aquatic organisms if the location is converted to a wetland. For properties requiring an ecological risk assessment, the following sediment toxicity tests should be conducted: 10-day flow through sediment bioassay with two invertebrate species (e.g., *Hyalella azteca* and *Chironomus tentans*), and 7-day flow through sediment bioassay with one fish species such as the fathead minnow (*Pimephales promelas*) or other suitable species.

"Standard Test Methods for Measuring the Toxicity of Sediment-Associated Contaminants with Freshwater Invertebrates (ASTM E-1706-95)," "Methods for Measuring the Toxicity and Bioaccumulation of Sediment-Associated Contaminants with Freshwater Invertebrates (USEPA/600-R-99/064)," and "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (USEPA/600/4-91/002)" provide standard methods to assess soil-associated pollutant effects upon aquatic organisms.

Endpoints measured in these tests are survival and growth. Any statistically significant impacts upon these endpoints in any test are considered direct evidence of potential impairment of the prospective benthic/aquatic community in the restored wetland.

As with the other sediment studies, bulk soil samples collected for this purpose must be thoroughly mixed, and uniformity of contaminant concentrations should be confirmed by sampling from several locations within the bulk soil simple. Soils used in the sediment toxicity tests should represent, as near as possible, the maximum detected concentration of the contaminant on the site.

c. Bioaccumulation Studies

Factors affecting pollutant accumulation by aquatic organisms can vary among locations. Accurate prediction of pollutant bioaccumulation at a location requires site-specific bioaccumulation studies, using species representative of those that may exist on the location once flooded. For properties requiring an ecological risk assessment, 28-day bioaccumulation studies should be performed with a representative benthic macro invertebrate (e.g., *Lumbriculus variegatus*) and fish (e.g., *Pimephales promelas*).

Methods described in "Great Lakes Dredged Material Testing and Evaluation Manual (USEPA and Army Corps of Engineers, 1998)" and "Standard Guide for Determination of the Bioaccumulation of Sediment-Associated Contaminants by Benthic Invertebrates (ASTM E-1688)" should be used to determine the bioaccumulation potential of soil-associated pollutants. These results are considered as site-specific measures of the degree to which sediment-associated chemicals may accumulate in biota. Results can be used to generate input variables for food-chain modeling.

Soils used in the bioaccumulation studies should represent, as near as possible, the maximum detected concentration of the contaminant on the site, in order to ensure that measurable levels of the particular COC are released into the water and taken up by the organisms. Bulk soil samples collected for this purpose must be thoroughly mixed. To ensure uniform contaminant concentrations, samples should be collected and analyzed from several locations within the bulk soil sample (e.g., top, middle, and bottom of the container). In order to be useful, the concentration of contaminant(s) in the test organisms must show evidence that steady-state conditions have been reached within the 28-day duration of the test.

d. Exposure and Risk Analysis Using Aquatic Food Chain Models

In the absence of direct measures of effects, it is necessary to estimate or predict the risk of adverse effects upon FWS's trust resources and other organisms that may utilize the created wetland, reservoir, or STA. Food chain models allow prediction of effects on higher level organisms by combining data from the site-specific desorption and bioaccumulation studies with information on dietary composition, consumption rates, body weights, etc. and literature toxicity data. The FWS and SFWMD have jointly developed a food web model for this purpose (Goodrich 2002 and NewFields 2006), and this model is the preferred tool for risk analysis. However, alternative approaches for modeling exposure may be used if they are more applicable to site conditions. FWS must approve the use alternative models, and reports should present details of the model components and input variables.

FWS's trust resources include migratory birds and federally listed threatened or endangered species. Typically, representative Trust species such as the bald eagle (*Haliaeetus leucocephalus*), white pelican (*Pelecanus erythrorhynchos*), snail kite (*Rostrhamus sociabilis*), osprey (*Pandion haliaetus*), clapper rail (*Rallus longirostris*), and wood stork (*Mycteria americana*) have been used in the analysis. Where bioaccumulating pollutants are present, a maximally exposed piscivorous bird must always be included. Generic fish

species (omnivorous and higher level predatory fish) may be used as aquatic focal species. At a minimum, the food chain model should assess risk to the following groups (trophic levels) of target organisms: benthic invertebrates (detritivores), omnivorous fish, first order carnivorous fish (trophic level 3), second order carnivorous fish (trophic level 4), omnivorous bird, first order carnivorous bird, second order carnivorous bird, and all threatened or endangered species that may utilize the site after flooding. The following potential routes of exposure should be included in the model: direct exposure to contaminated water/sediments, sediment ingestion, water ingestion, and food ingestion. The following transfer mechanisms and processes should be included; desorption from sediment to water, bioconcentration from water, bioaccumulation through ingestion of contaminated prey, and biomagnification.

Once the target species exposure to pollutants has been modeled, the potential risk to the species should be assessed by comparing the modeled exposure to a toxicity reference value (TRV). For purposes of this program, the most relevant endpoints for assessing risk are effects upon (1) survival and (2) reproduction. In the absence of toxicity tests performed with the specific target species, TRVs for the pollutant(s) of interest must be obtained from the literature. Where possible, the ideal TRV will have been generated using a similar exposure route for a taxonomically related species. Uncertainties arising from the use of TRVs based on different exposure routes or unrelated species should be discussed in the risk assessment. In general, the most sensitive TRV should be utilized to assess risk to the target species.

As discussed in previous sections, risk is expressed by calculating an HQ, which is simply the ratio of the modeled exposure (numerator) and TRV (denominator). HQs above one indicate a potential for adverse effects to occur in a species under a given exposure scenario. The higher the HQ above one, the greater the risk that adverse effects will occur. HQs below one generally indicate that adverse effects are unlikely. HQs that are greatly different from one provide the greatest level of certainty in their interpretation.

Where appropriate, a probabilistic risk analysis may also be used as a tool for assessing risk at sites where the food chain model is also used in an expanded risk analysis. The details of any probabilistic risk assessment should be discussed and agreed upon by SFWMD and FWS on a site-specific basis prior to initiating any such analysis.

5. *Final Reports*

a. Phase I/II Environmental Site Assessment and SLERA Report

Upon completion of all sampling, chemical analyses, and screening-level food chain modeling, a Phase I/II and SLERA report should be prepared which identifies all potential hazards to ecological receptors and provides recommendations for additional risk-based data collection and assessment. The Phase I/II/SLERA will also provide all analytical data and corresponding global positioning system (GPS) coordinates for all collected samples in the report. These data and coordinates will also be provided to FWS in an electronic

spreadsheet form (Excel). Finally, the Phase I/II/SLERA may also provide general recommendations for corrective actions and/or management of the project that will reduce the hazards to acceptable levels.

Given the spatial resolution of the data collected for the Phase I/II and the sometimes limited timeframe available for completion of the Phase I/II, SFWMD recognizes that accurate delineation of areas that may require remediation may not possible without further investigation. The Phase I/II will be used to provide a general estimation of the amount of remediation necessary to reduce the potential for risk at a site. More detailed delineation of areas of elevated COPEC concentrations that may occur subsequent to the Phase I/II will be presented in separate reports.

FWS will review the report and provide concurrence or make recommendations for changes or additions. Any recommendations for changes or additions will be handled as addenda to the report.

b. Ecological Risk Assessment Report

If additional risk assessment activities are required, an Ecological Risk Assessment (ERA) report will be provided as a separate document. Following the completion of the expanded ERA, SFWMD will provide FWS with a draft of the ERA report for review. The draft ERA report will include the complete results of all desorption studies, sediment toxicity testing, bioaccumulation studies, and food chain modeling. In addition, it should include a complete and clear description of all methods, assumptions, and inputs used in the laboratory studies and food chain modeling. The report should provide detailed conclusions regarding risks to all trophic groups and species of concern for the entire site or any portion thereof. FWS will review the draft report and make recommendations for changes or additions. Following the resolution of any FWS concerns, a final ERA report will be provided to FWS.

H.4 Phase I Environmental Assessment Update Everglades Agricultural Area (EAA) Storage Reservoir

AECOM

December 14, 2017

Mr. Robert J. Taylor
Lead Environmental Engineer
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

DRAFT

RE: Memorandum
Phase I Environmental Assessment Update
Everglades Agricultural Area (EAA) Storage Reservoir
Western Palm Beach County, Florida
Job # 60561114

Dear Mr. Taylor:

1.0 INTRODUCTION / BACKGROUND

AECOM Technical Services, Inc. (AECOM) is pleased to present this memorandum to the South Florida Water Management District (District) summarizing the results of the Phase I Environmental Site Assessment update, review and summarize previous investigations at the above referenced project area. The proposed reservoir project is located within the footprint of the existing A-2 Parcel and the adjacent expansion area located in western Palm Beach County, Florida. The A-2 Parcel is located west and adjacent to the A-1 Parcel and adjacent to and north of the Holey Land Wildlife Management Area. The A-2 Parcel is approximately 14,495 acres. In addition to the District owned A-2 lands, the expansion area located immediately west includes approximately 1,263 acres of TIFT owned land, approximately 500 acres that are held in private ownership, and approximately 2,393 acres that are currently owned by the District. Figure 1 illustrates the A-2 Parcel and expansion area.

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1.1 Property Description

The A-2 Parcel and expansion area consist of 20 parcels that were previously used for the cultivation of sugar cane. The tract numbers, current and prior ownership and acreage are given below.

A-2 Flow Equalization Basin		
Tract No.	**Former Owner**	**Acreage**
D7100-044	TALISMAN SUGAR CORPORATION	2
D7100-047	TALISMAN SUGAR CORPORATION	10
D7100-066	TALISMAN SUGAR CORPORATION	12
D7100-067	TALISMAN SUGAR CORPORATION	1
D7100-104	TALISMAN SUGAR CORPORATION	14,371.53[1]
D7100-139	TALISMAN SUGAR CORPORATION	1
D7100-141	WEINLEIN, JOAN	10
D7200-005	TALISMAN SUGAR CORPORATION	1
A-2 Total		**14,408.53**
Expansion Area		
Tract No.	**Former / Current Owner**	**Acreage**
D7100-152	Okeelanta Corp (Parker Family Trust)	773.17
D7100-103	Okeelanta Corp (Farm 15)	855.85
D7100-143	Gillespie	9.97
D7100-104	TALISMAN SUGAR CORPORATION	754.17[1]
D7100-085	TIIF Lands	638.45
D7100-142	TIIF Lands	9.97
D7100-086	TIIF Lands	541.60
D7100-145	TIIF Lands	9.97
D7100-087	TIIF Lands	50.80
D7100-147	TIIF Lands	12.08
D7100-109	New Hope Sugar (Seventh Day Adventist)	489.00
D7100-144	Susan Goggin	9.97
Expansion Area Total		**4,155**

[1] Acreages shown include only the portion of the tract that is within the proposed limits of construction for the A-2 FEB / Expansion Area project. The total acreage of Tract D7100-104 is 20,525 acres, and includes lands outside the current project footprint.

2.0 OBJECTIVE

The objectives are to conduct a site visit of the A-2 Parcel and expansion area and to formulate a Phase I ESA update on properties that are both owned and not owned by the District within the A-2 Parcel and expansion area, and review readily available environmental reports within the A-2 Parcel and adjacent properties. Identify known point source and non-point source areas of impact which may present potential ecological or human health risk during and after the project has been constructed. Provide recommendations for additional assessment and/or corrective actions that may be required to ensure the land is suitable for the District's intended use. The results of the ESA will be used to support the project feasibility study.

3.0 Regulatory Environmental Database Review

An electronic regulatory environmental database search and review was conducted on the A-2 Parcel and expansion area foot print. AECOM utilized Environmental Data Resources, Inc. (EDR) for compiling the database.

3.1 Contaminated Sites and Regulatory Status

The environmental database report, provided by EDR was reviewed to identify areas within the A-2 Parcel and expansion area where there have been leaking tanks, documented soil and/or groundwater impacts and whether any open regulatory enforcement cases were present on the project areas. Given below is a summary of the contaminated sites and regulatory status.

Talisman Sugar Corporation

T-2 Borrow Pit (COM_170717) – Used to dispose of solid waste, farm related waste, tires, and metal parts. Removed 1,009 tons of metal, 473 tons of tires, 3,895 tons of construction debris, and 3,735 tons of impacted soil and disposed offsite. A groundwater treatment system was installed and subsequently discontinued due to the inability of the system to abate the lead in the groundwater. Received SRCO with non-residential use deed restriction with included soil and groundwater restrictions.

T-3 Labor Camp (COM_216895) – Housed farm laborers, and utilized as an airstrip for crop dusting operations. Excavated approximately 2,928 tons of pesticide, fuels and metal impacted soil. Received SRCO with soil restrictions.

T-8 Pump Station – Diesel pump station used to maintain water levels in an adjacent irrigation canal. Excavated 7 tons of petroleum impacted soils and disposed offsite. Received an SRCO.

T-10 Pump Station (FAC ID 508628252) - Diesel pump station used to maintain water levels in an adjacent irrigation canal. Excavated 293 tons of petroleum impacted soils and disposed offsite. Received and SRCO.

T-21 Mix and Load Area (COM_157269) - Farm equipment staging area and storage shed where pesticides, and fuels were stored, handled and mixed. Excavated 686 tons of arsenic impacted soils and disposed offsite. Install a groundwater remedation system. Reducted arsenic in groundwere to below GCTL. Received SRCO with soil restrictions.

T-24 Pump Station (FAC ID 508628252) - Diesel pump station used to maintain water levels in an adjacent irrigation canal. Excavated 0.68 tons of petroleum impacted soils and disposed offsite. Received an SRCO.

Farm 15 Florida Crystal PS 15-2 (COM_287122). Diesel pump station used to maintain water levels in header canal. Excavated 278 tons of petroleum impacted soils and disposed offsite. Site is currently inactive.

With the exception of the Florida Crystal Farm 15 PS 15-2, the database review did not identify any open spills, leaking underground or aboveground petroleum storage tanks or enforcement cases requiring additional corrective action.

3.2 Well Search Report

Five permitted wells are identified on the Well Search Report. The depth of the wells range in depth from 225 feet to 27 feet. The wells are not permitted for use as public water supply, and appear to be associated with the U.S.Geological Survey Florida Water Science Center.

The two pump stations located on the western boundary of the expansion area have permits for extraction of water from the District L-24 Canal.

4.0 Site Visit

After reviewing the regulatory environmental database, on December 6, 2017, AECOM, and representatives of the District and US Fish and Wildlife Service (Service) conducted a site visit of the A-2 Parcel and expansion area. Areas that were readily accessible were inspected via a 4-wheel drive vehicle.

The A-2 Parcel and expansion area is currently being used for the cultivation of sugar cane. The District land under cultivation is being subleased. Depending on which tracts of land, the sugarcane is in various stages of growth. Portions of the sugarcane fields were being harvested during the site inspection. Numerous staging areas and portable pump stations were observed. No buildings or structures were observed. Two permanent pump stations were observed; one open air pump station, identified as PS-189, with three pumps and associated aboveground storage tank (AST) located in the northwest corner of the expansion area; and one open air pump station with one pump and associated AST located on the west-central boundary of the expansion area.

5.0 Review of Environmental Reports for the A-2 Parcel and Expansion Area

AECOM reviewed readily available Environmental Assessment reports on properties within the project areas owned by the District.

5.1 Tract D7100-104 – Former Talisman South Ranch

This property consists of approximately 14,371 acres that has been used for the cultivation of sugar cane since the mid-1960s. Prior to the developed as sugar cane the property was undeveloped. From the 1960's through 2009, the property was continually used for the cultivation of sugar cane, when construction of the EAA Reservoir commenced. Sections of the former Talisman property not included as part of the initial construction have remained in operations for sugar cane cultivation The Talisman Sugar Corporation Tract # 100-104 lies within portions of Sections 4, 5, and 6, Township 45 South Range 37 East, a portion of Section 13, Township 46 South, Range 35 East, Sections 15 – 36, Township 46 South, Range 36 East, Sections 5 – 9, 16 – 22, 26 – 30, and portions of Sections 4, 10, 14, 23 – 25, 31- 36, Township 46 South, Range 37 East, and a portion of Section 31, Township 46 South, Range 38 East. Soils on portions of the tract have been scraped as part of the construction of the abandoned EAA Reservoir project. The property makes up the east central portion of the proposed A1 Reservoir and the western portion of the proposed A2 Reservoir.

Dames & Moore (D&M) conducted a Phase I Environmental Site Assessment (ESA) of the Talisman South Ranch in 1996. The ESA included site reconnaissance, interviews with the property owner and government officials, review of governmental databases for regulated facilities and spill sites, and a review of available historical resources. The report identified the following 14 areas of concern on Tract 7100-104:

- T-2 Borrow Pit Landfill
- T-3 Labor Camp
    - T-3.1 Pesticide mix/load area
    - T-3.2 Aircraft Refueling Area/Runway
    - T-3.3 Burn Pit

    - T-3.4 Drum Storage Area
    - T-3.5 Aircraft Maintenance Building
    - T-3.6 Water Treatment Plant
    - T-3.7 Miscellaneous Area
- T-4 Surface Solid Waste Area
- T-6 Electric Pump Station
- T-7 Diesel Pump Station
- T-8 Diesel Pump Station
- T-9 Staging Area
- T-10 Diesel Pump Station
- T-11 Equipment Staging Area
- T-12 Diesel Pump Station
- T-20 Surface Solid Waste Area
- T-21 Pesticide mix/load area
- T-24 Pump Station
- T-Shed Pesticide Storage Shed

These areas were subsequently investigated during a Phase II ESA performed by D&M in 1998. The Phase II ESA included the collection and analysis of soil and groundwater samples in each of these areas for a broad range of target analytes which included fuels and oils, pesticides, herbicides, and soil addendums. Based on the Phase II investigation, D&M eliminated T-3.5, T-3.6, T-3.7, T-4, T-9, T-11, T-12, and T-24 as concerns. D&M recommended removal of surficial solid waste at T-20 but did not identify any impacts to soil or groundwater. The Phase II ESA identified the presence of constituents of potential concern (COPC) at concentrations exceeding soil and/or groundwater cleanup target levels at eight areas of concern (T-2, T-3, T-6, T-7, T-8, T-10, T-21, T-Shed), and these parcels were identified as "Exclusion Areas". The Exclusion Areas were deferred during the land transfer from Talisman to the District until such time as Talisman obtained Site Rehabilitation Completion Orders (SRCO) on these Exclusion Areas from Florida Department of Environmental Protection (FDEP). Talisman was required to assess and remediate these areas to the lower of the Soil Cleanup Target Level (SCTL) criteria or the Sediment Quality Assessment Guidelines (SQAG) –Threshold Effects Concentration (TEC) criteria, whichever was lower.

Talisman did obtain SRCOs for these Exclusion Areas and these were subsequently transferred to the District.

Between 1999 and 2005, Talisman performed assessment and corrective actions on each of the Exclusion Areas. The assessment and corrective action work was completed under the direction of FDEP. Talisman completed a Site Rehabilitation Completion Report for each of the Exclusion Areas, and FDEP provided separate SRCOs for each Exclusion Area. Most of the impacted areas were minor in extent and consisted of soil impacts only that were remediated by source removal action, with the exception of the Labor Camp (T-3) and the Borrow Pit Landfill (T-2), which are described below.

The Talisman Borrow Pit Landfill (T-2) was a former rock quarry that was filled with vegetative matter, debris, tires, and equipment from farm and sugar mill operations. Low levels of Total Petroleum Hydrocarbons (TRPH) and various Polynuclear Aromatic Hydrocarbons (PAH) were detected in the backfill materials. PSI conducted a source removal to remove the metal debris and petroleum impacted soil from the pit, but the vegetative material was allowed to remain. As a result of the excavation activities, approximately 1,009 tons of steel, 473 tons of tires, 3,895 tons of construction and demolition (C&D) debris, and 3,735 tons of soil which did not meet the clean soil criteria was transported off-site to a disposal facility. Upon completion of the excavation activities, the Borrow Pit Landfill was capped with a clean soil cap to prevent exposure to residual contaminants remaining in place. The FDEP issued an SCRO with non-residential use deed restriction for this exclusion area on July 21, 2006. As part of the deed restriction, the engineered cover over the area must remain in place.

The former Labor Camp (T-3) encompassed 10 acres and formerly operated as housing for farm workers. The labor camp ceased operation in about 1971 and the property was then utilized by a crop dusting operation until 1999. The exclusion area includes four former concrete buildings used as residential quarters, an aircraft landing strip, and a pesticide mixing/loading area for loading agrichemicals into aircraft. Fueling and minor maintenance of single engine aircraft was also performed at the site. Four ASTs were also located within the exclusion area. Other areas of interest on the site included a wastewater

treatment plant for domestic wastes associated with the former labor camp and a concrete burn pit for burning of empty agrichemical containers. All of these areas were assessed by PSI and five areas were identified by PSI which required cleanup: The FDEP issued an SCRO with conditions on June 21, 2006.

Area #1:	Pesticide and metals impacted soils in the pesticide mix/load area
Area #2:	Atrazine-impacted soils in the pesticide mix/load area
Area #3:	Atrazine-impacted soils in the pesticide mix/load area
Area #4:	Pesticide and metals impacted soils in the drum storage area
Area #5:	Lower concentration pesticide and metals impacted soils around the north and east sides of Building C

PSI performed source removal activities to address all of these areas. A total of 2,928 tons of pesticide and metal impacted soils were excavated and disposed offsite. With the exception of the concrete slabs, the buildings were demolished.

Upon completion of the excavations, PSI collected confirmation soil samples from the sidewalls and base of each excavation. On July 21, 2006, the FDEP issued an SCRO with a non-residential use deed restriction for this exclusion area.

Talisman was able to obtain SRCOs on the Exclusion Areas and these properties were transferred to District in 2007. Site inspections were performed by the District in 2007 and 2009, at which time no new or unaddressed impacts were identified on these parcels.

The eastern portion of the Talisman South Ranch and all of Tract 100-105 were leased by District to New Hope Corporation and Okeelanta Corporation for continued sugar cane farming during the interim use period after their acquisition until 2009. URS Corporation (URS) conducted an exit audit in June 2009, to verify that the agricultural operations during the interim use period did not adversely impact the site. During this assessment, two composite samples were collected on the Talisman South Ranch and the results indicated that arsenic was present

at concentrations exceeding the FDEP SCTL-Residential Direct Exposure criteria. No other chemicals of potential concern (COPC) were identified, and URS concluded that the agricultural operations had not adversely impacted the site and was suitable for use as a component of the Everglades Agricultural Area Reservoir.

To further evaluate the cultivated areas of the A-2 Parcel, PSI conducted additional soil sampling in 2013. With concurrence of the Service, the sampling density was set at 10 percent of the 50 acre grids rather than the typical 30 to 50 percent typically specified per the Service Protocol. PSI collected and analyzed 30 composite samples from the 13,825 acre site for pesticides, herbicides, total organic carbon and metals following a stratified random approach. The laboratory results indicate that some of the soils have residual arsenic, barium, cadmium, chromium, copper, mercury, selenium, 2-4-D, atrazine, metribuzin, phorate, and dieldrin.

Based on the results of the 2013 soil testing, the Service and FDEP recommend that during the initial operations of the reservoir, the District perform testing of water for several contaminants (2,4-D, atrazine, metribuzin, phorate, dieldrin, chromium, mercury, selenium, copper) as well as testing of periphyton and apple snails for copper. The FDEP also recommended the development of a soil management plan to address the fate of arsenic impacted soils during construction as well as the same start-up operations sampling program as provided by the Service.

5.2 Tract D7100-152 – Parker Family Trust

This property consists of approximately 763 acres located east adjacent to the District L-24 Canal (aka Miami Canal), approximately 10 miles west of US Highway 27, and 15 miles south of Lake Okeechobee. The property lies within Sections 22, 23, and 26, Township 46 South, Range 35 East. The property is currently being leased and operated by the Okeelanta Corporation (Florida Crystals).

Tetra Tech conducted a Phase I and II ESA on the Parker property in 2007. According to the report, the property was historically utilized for agricultural

production (sugarcane and intermittent rice production) for at least 29 years. The Phase I identified four areas of potential concern on the property:

- Cultivated Area (Sugarcane);
- Mix/Load/Staging Areas;
- Irrigation Canal Pump Station, and
- Irrigation/Drainage Canals.

In conjunction with the Phase I, TetraTech performed Phase II activities on these four areas of concern. Composite soil sampling was conducted in the cultivated areas. Point source or discrete soil sampling and groundwater sampling were conducted to address the other three areas. The results of the composite samples from the cultivated areas indicated elevated levels of atrazine, barium, and copper throughout much of the site. Elevated TPH was detected at one of the mix/load areas exceeding the SCTL-RDE and barium in the soil at the point source locations exceeding the SQAG-TEC or SQAG-PEC.

Based on the atrazine, barium, and copper exceedances throughout the cultivated areas, a SLERA was performed by NewFields, Inc. The SLERA had the following conclusions:

- Atrazine and barium pose a low-risk to aquatic receptors.
- Copper exceedances may cause toxicity to benthic invertebrates to occur at the property following inundation; however, the copper impacted soil is not expected to cause widespread effects that could limit the function of the newly created ecosystem.
- Risks to the Service trust species are expected to be low for all species with the exception of the Everglades snail kite. Copper concentrations exceeded the interim benchmark of 85 milligrams per kilogram in several of the 5-acre discrete samples; however, the benchmark was not exceeded in any of the composite samples.

Based on the Phase II results and subsequent SLERA, TetraTech concluded that corrective action is necessary in 15, 5-acre grids located within the cultivated area, to address the copper exceedances of the Service 85 mg/kg interim

benchmark. Corrective action was also recommended to address the TPH exceedance in one of the mix/load staging areas. TetraTech recommended no further corrective action with respect to atrazine based on the findings of SLERA. Regarding barium, TetraTech also recommended no further action based on the SLERA. However, they did recommend additional sampling and ecological risk evaluation to verify that barium is present in an insoluble form and does not pose a risk under future intended land use.

5.3 Tract D7100-103 – Farm 15

This property consists of 892 acres located east adjacent to the Miami Canal and 16 miles south of Lake Okeechobee. The property has been used for cultivation since the mid-1960s. The Farm 15 lies within portions of Sections 26 and 35, Township 46 South, Range 35 East. The property is located to the west of the A2 Reservoir, outside of the footprint, and is currently fallow.

A Phase I and II ESA conducted by D&M in 1999 identified a pump station, and equipment staging area, and the cultivated crop areas as potential environmental concern. These three areas were investigated as part of the Phase II ESA. Soil analytical results indicated petroleum-impacted soils in the vicinity of the pump station. Elevated zinc concentrations were identified in the soil samples collected from the equipment staging area and the cultivated crop area. Atrazine was detected in the groundwater sample above the GCTL in the cultivated crop area.

In 2002, URS conducted additional sampling around the equipment staging area and extensive grid sampling in the cultivated area on Farm 15. The grid sampling was the precursor to the Service's 2008 Protocol. No concerns were identified in the cultivated area or in the equipment staging area that required corrective action. No additional samples were collected at the pump station during the contamination assessment.

PSI performed excavation activities to remediate petroleum impacted soils at the pump station in 2002. The pump station was identified by Okeelanta personnel as Pump Station F15-2. A total of 278.36 tons of petroleum impacted soil was excavated and transported for disposal at an off-site landfill. Subsequent

confirmation sampling indicated that soils exceeding the human health and ecological risk criteria had been removed. PSI recommended that the FDEP issue a SRCO for the subject site. As of this date, the FDEP has not issued a comment letter nor an SRCO.

URS submitted a summary report in 2002 covering Farm 15 and numerous other parcels within the proposed EAA Storage Reservoir. The report summarized the previous assessment and corrective actions on Farm 15. The FDEP issued a comment letter on July 19, 2002 that did not request any further assessment or corrective action on Farm 15. The Service issued a comment letter on November 30, 2007 concurring that Farm 15 is suitable for its intended use.

5.4 Tract D7100-143 – Gillespie Property

This property consists of 10 acres located just east of the Miami Canal and 16 miles south of Lake Okeechobee. The property has been used for cultivation since the mid-1960s. The property lies within Section 25, Township 46 South, Range 35 East. The property is located to the west of the A2 Reservoir, outside of the reservoir footprint, and is currently fallow.

A Phase I-II ESA conducted by URS on the property in 2008 indicated that the entire 10 acres was cultivated in sugar cane at the time of the Phase II ESA. No point sources were identified on the property. Soil and groundwater samples were collected from the cultivated areas for analysis. The results indicated that barium and copper were detected in one soil sample on the northwest corner of the property above the SQAG PEC and the Service's interim value of 85 mg/kg, respectively. Twelve additional close composite discrete soil samples were collected from the northwest corner of the property and analyzed for OCPs, barium and copper. Analytical results of the additional soil samples indicated that barium was detected in all of the additional soil samples at concentrations exceeding the SQAG-PEC of 60 mg/kg. Copper concentrations ranged from 46.7 mg/kg to 80.4 mg/kg, which is below the interim benchmark of 85 mg/kg.

URS recommended that the small area of copper impacted soils represented by the initial sample exceeding 85 mg/kg be excavated and relocated outside the

project. URS concluded that the other chemicals of potential concern (COPC) had not adversely impacted the site and was suitable for use as a component of a reservoir.

6.0 Conclusions and Recommendations

6.1 Conclusions

Based on the site visit regulatory database and review of previous studies performed to date across the project area, the following are AECOM's conclusions:

- The potential point sources located throughout the project area have been identified. Phase I and II Environmental Site Assessments or similar studies have been conducted on the A-2 Parcel and a major portion of the expansion area. The 1,263 acres of TIFF lands and 500 acres under private ownership have not been evaluated in the expansion area.

- The historic use of all of the project parcels appears relatively similar. Since the 1960's the area has been in cultivation for sugar cane, with occasional rotational crops of corn and rice. No significant use of the project area for row cropping of vegetables was identified.

- A review of current governmental databases did not identify any open enforcement cases.

- The identified point sources have been assessed to evaluate the extent of soil and groundwater impacts at each point source area.

- Corrective action is still required on the mix/load area on Tract 100-152 to remediate petroleum impacted soils.

- Corrective actions have been completed at all but one of the point source areas and FDEP has issued the necessary SCROs to verify agency concurrence at each of these point source areas.

- Three of the SRCOs issued by FDEP on the Talisman parcel are conditional SRCOs, whereby impacted soils exceeding the SCTL-RDE criteria were allowed to remain in place.

- Approximately 75 acres of copper impacted soils were identified on Tract 100-152 and 5 acres were identified on Tract 100-143 where copper concentrations exceed the 85 mg/kg interim screening level. These areas will require corrective action in order to address copper impacts.

- Barium has been detected at concentrations exceeding the SQAG-TEC across most of the sampled cultivated areas, and exceeds the SQAG-PEC and SCTL-RDE in a few locations. However, the detected barium concentrations appear to be representative of background conditions, and are not likely to pose a significant risk to ecological receptors. Barium concentrations as high as 132 mg/kg were detected on Cabassa Farm, and USFWS has opined that the barium on that tract does not present a significant ecological risk to aquatic-feeding avian fauna.

- Atrazine has been widely detected in the soils across Tract 100-152. However, given the limited persistence of atrazine in the environment, AECOM does not believe that atrazine presents a significant ecological risk associated with the future construction of the project.

- Limited areas of impacted groundwater remain present across the project areas. The presence of contaminants in groundwater should not impact ecological risks within the project footprint; but the classification of the groundwater as HTRW would prohibit USACE from handling the groundwater. Construction of the reservoir may require limited contact with groundwater.

6.2 Recommendations

- Additional sampling is required on portions of the Parker Trust Tract D7100-152 and the Gillespie Property Tract D7100-143. Based on previous assessments, corrective actions may be required to abate these copper impacted soils across 80 acres along the east side of the Miami Canal. Soil inversion is recommended as the preferred remedial technology for these areas, if the sufficient thicknesses of soils are available for inverting. Source removal is recommended to address petroleum impacted soils at the mix/load area on Parker Trust Tract 100-152.

- Conduct Phase II ESA on the 1,263 acres owned by TIFF and on the 500 acres that are privately owned. The Phase II ESA should follow the Service's sampling protocol for agricultural lands. The sampling results will need to be reviewed by the FDEP and Service for review and concurrence. Based on the results of the sampling, correct actions may be warranted.

- Conduct an exit audit on the District and non-District owned lands in the A-2 Parcel and expansion area as the farming leases are terminated. The exit audit should include a windshield survey to identified point source areas, regulatory file review, and review of chemical application lists. The results of the exit audit will forwarded to the FDEP and Service for review and concurrence. The need for additional assessment or corrective action will be addressed in the exit audit.

- In the event reservoir construction requires dewatering, the dewatering plan will need a site specific water quality assessment component to address residual agrochemicals previously detected in the groundwater i.e. atrazine, metals, OCPs.

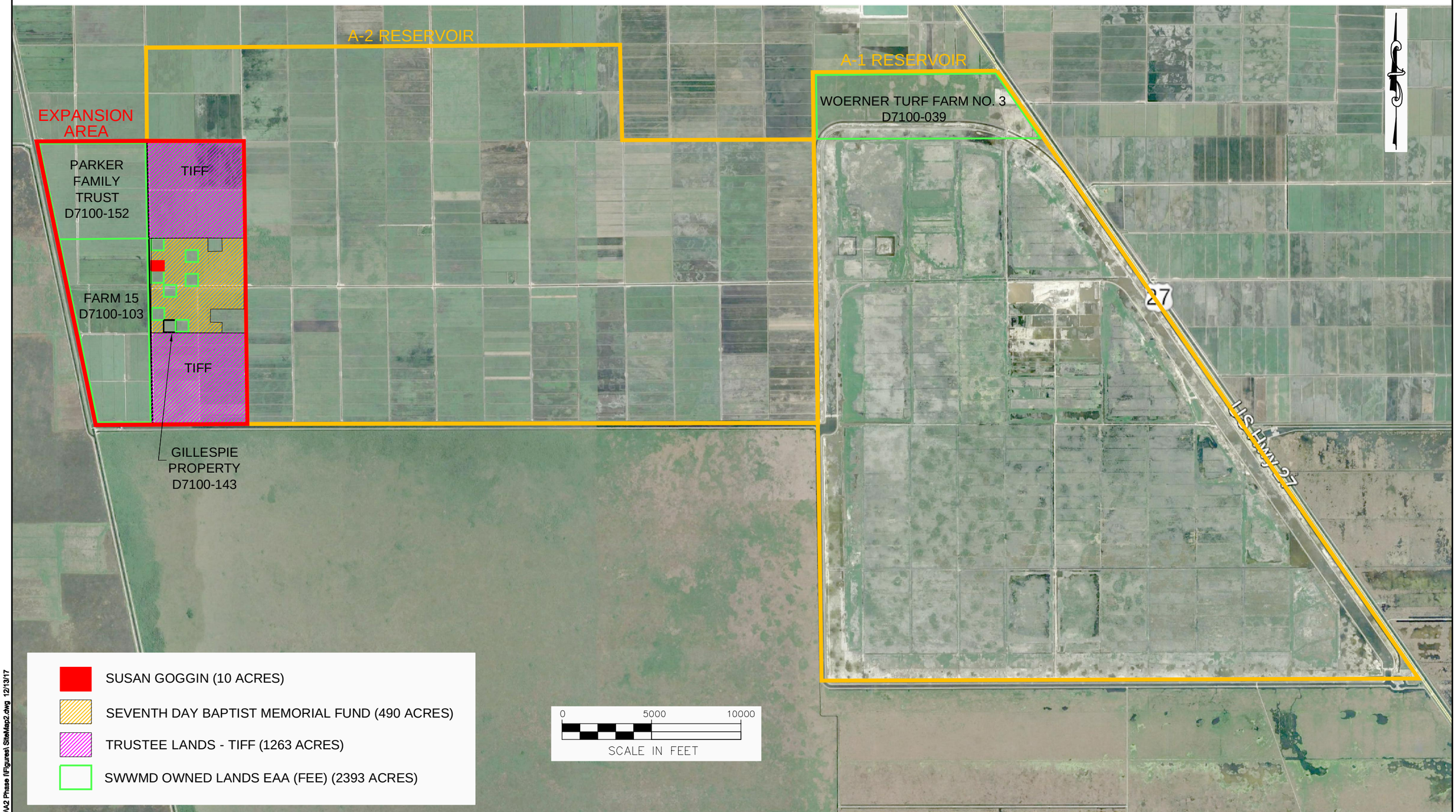
Respectfully Submitted,

AECOM TECHNICAL SERVICES, INC.

Edward A. Leding, P.G.
Project Manager

Jamie Sullivan, P.G.
Project Geologist

Attachments
Figure 1 – Site Map – A2 and Expansion Area
EDR DataMap™ Area Survey
EDR DataMap™ Well Search Report
USGS Aerial Photography Priority Package



R:\Environmental\Lobel_SFWMD\A-2 Phase I\Figures\SiteMap2.dwg 12/13/17

DRAWN BY: RC
CHECKED BY: EL
DATE: DEC 17

AECOM

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BOCA RATON, FLORIDA 33487
PHONE: (561) 994-6500
FAX: (561) 994-6524

Everglades Agricultural Area Storage Reservoir
Palm Beach County, Florida

Date: DECEMBER 2017

Job No: 60561114

SITE MAP
A-2 and Expansion Area

FIGURE: 1

EAA Storage Reservoir
Southwest Palm Beach, FL 33480

Inquiry Number: 5124409.6s
December 06, 2017

EDR DataMap™ Area Study

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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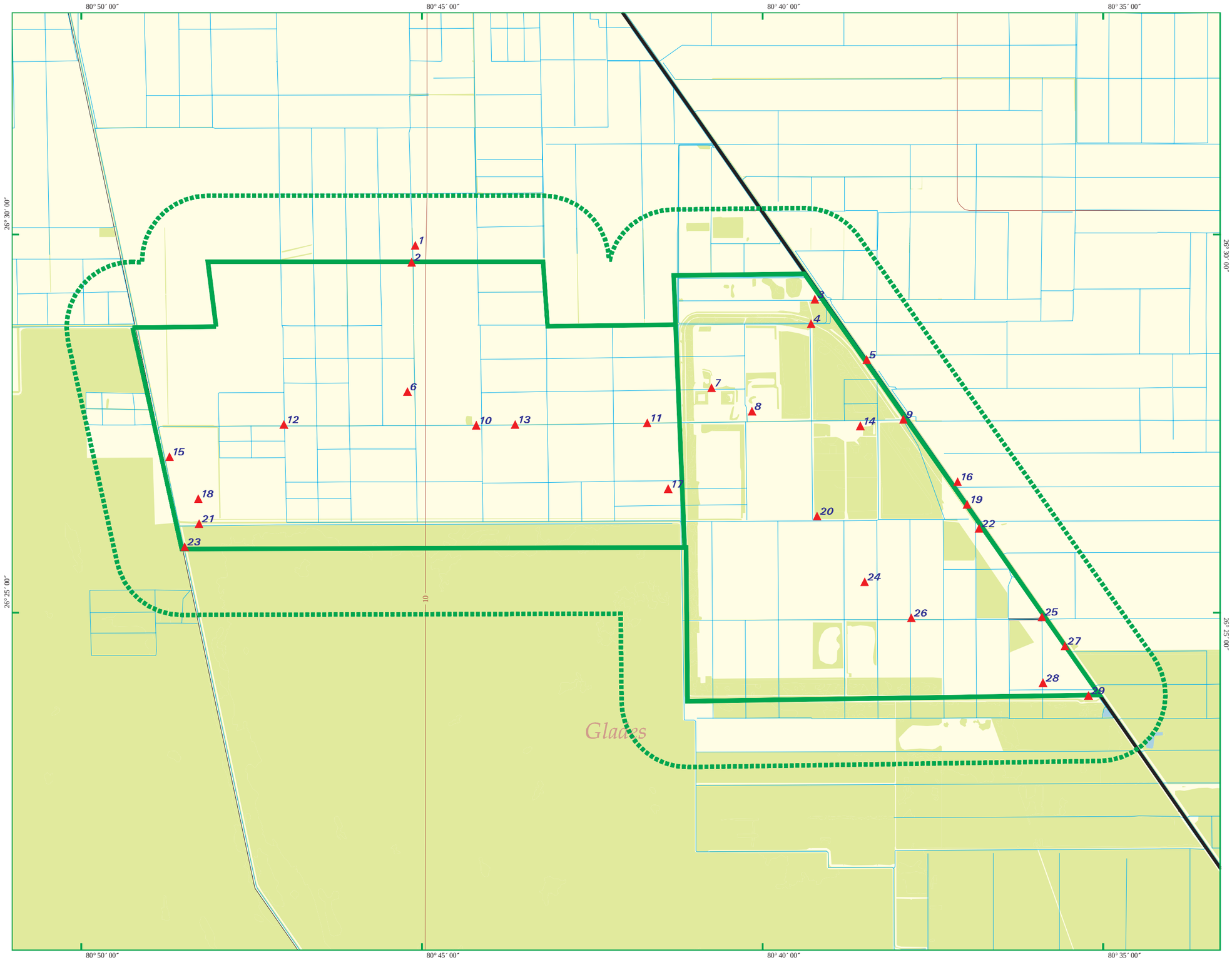
EDR DataMap®
Area Study

EAA Storage Reservoir



- Listed Sites
- Earthquake Epicenters (Richter 5 or greater)
- Sinkholes
- Search Boundary
- Roads
- Major Roads
- Waterways
- Railroads
- Contour Lines
- Pipelines
- Powerlines
- Fault Lines
- Water
- Superfund Sites
- Federal DOD Sites
- Indian Reservations BIA
- Florida Brownfields
- National Wetland Inventory

N

Southwest Palm Beach, FL

0 1 2

Scale in Miles

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5124409.6s - 06 Dec 17

EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

SOUTHWEST PALM BEACH, FL 33480
SOUTHWEST PALM BEACH, FL 33480

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records within the requested search area for the following databases:

FEDERAL RECORDS

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL LIENS	Federal Superfund Liens
SEMS	Superfund Enterprise Management System
SEMS-ARCHIVE	Superfund Enterprise Management System Archive
LIENS 2	CERCLA Lien Information
CORRACTS	Corrective Action Report
RCRA-TSDF	RCRA - Treatment, Storage and Disposal
RCRA-LQG	RCRA - Large Quantity Generators
RCRA-SQG	RCRA - Small Quantity Generators
RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generator
RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
ERNS	Emergency Response Notification System
HMIRS	Hazardous Materials Information Reporting System
DOT OPS	Incident and Accident Data
US CDL	National Clandestine Laboratory Register
US BROWNFIELDS	A Listing of Brownfields Sites
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
LUCIS	Land Use Control Information System
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
ODI	Open Dump Inventory
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
US MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems

EXECUTIVE SUMMARY

ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
RAATS	RCRA Administrative Action Tracking System
RMP	Risk Management Plans
FUELS PROGRAM	EPA Fuels Program Registered Listing
DOCKET HWC	Hazardous Waste Compliance Docket Listing
UXO	Unexploded Ordnance Sites
FUSRAP	Formerly Utilized Sites Remedial Action Program
COAL ASH DOE	Steam-Electric Plant Operation Data
2020 COR ACTION	2020 Corrective Action Program List
PRP	Potentially Responsible Parties
EPA WATCH LIST	EPA WATCH LIST
US FIN ASSUR	Financial Assurance Information
PCB TRANSFORMER	PCB Transformer Registration Database
US HIST CDL	Delisted National Clandestine Laboratory Register
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
IHS OPEN DUMPS	Open Dumps on Indian Land
ABANDONED MINES	Abandoned Mines
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
FEMA UST	Underground Storage Tank Listing
FEDERAL FACILITY	Federal Facility Site Information listing
US AIRS	Aerometric Information Retrieval System Facility Subsystem
LEAD SMELTERS	Lead Smelter Sites

STATE AND LOCAL RECORDS

SHWS	Florida's State-Funded Action Sites
UIC	Underground Injection Wells Database Listing
SWRCY	Recycling Centers
LAST	Leaking Aboveground Storage Tank Listing
Fl Sites	Sites List
ENG CONTROLS	Institutional Controls Registry
VCP	Voluntary Cleanup Sites
DRYCLEANERS	Drycleaning Facilities
PRIORITYCLEANERS	Priority Ranking List
DEDB	Ethylene Dibromide Database Results
BROWNFIELDS	Brownfields Sites Database
FL Cattle Dip. Vats	Cattle Dipping Vats
ASBESTOS	ASBESTOS
FF TANKS	Federal Facilities Listing
SITE INV SITES	Site Investigation Section Sites Listing

TRIBAL RECORDS

INDIAN RESERV	Indian Reservations
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land
INDIAN UST	Underground Storage Tanks on Indian Land
INDIAN VCP	Voluntary Cleanup Priority Listing

EDR PROPRIETARY RECORDS

EDR MGP	EDR Proprietary Manufactured Gas Plants

EXECUTIVE SUMMARY

EDR Hist Auto..... EDR Exclusive Historical Auto Stations
EDR Hist Cleaner..... EDR Exclusive Historical Cleaners
RGA HWS..... Recovered Government Archive State Hazardous Waste Facilities List
RGA LF..... Recovered Government Archive Solid Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL RECORDS

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 07/23/2017 has revealed that there are 8 FINDS sites within the searched area.

Site	Address	Map ID	Page
BARNARD CONSTRUCTION	***17415 SOUTH U.S. 27***	***3***	***15***
SFWMD TEMPORARY TEST	***N OF WESTON, W OF US***	***7***	***34***
EAA A-1 RESERVOIR SE	***17415 SOUTH US-27***	***20***	***72***
SOUTH FLORIDA WATER	NW CORNER HOLEY LAND	21	73
COMMUNICATIONS LINE	***US 27***	***22***	***81***
G-373 SPILLWAY STRUC	***MIAMI CANAL 18 MI S***	***23***	***84***
G - 373 SPILLWAY STR	MIAMI CANAL 18 MI S	23	84
SR 25/ US 27 INTELLI	***UNKNOWN***	***27***	***92***

ECHO: ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

A review of the ECHO list, as provided by EDR, and dated 09/02/2017 has revealed that there are 6 ECHO sites within the searched area.

Site	Address	Map ID	Page
BARNARD CONSTRUCTION	***17415 SOUTH U.S. 27***	***3***	***15***
SFWMD TEMPORARY TEST	***N OF WESTON, W OF US***	***7***	***34***
EAA A-1 RESERVOIR SE	***17415 SOUTH US-27***	***20***	***72***
COMMUNICATIONS LINE	***US 27***	***22***	***81***
G-373 SPILLWAY STRUC	***MIAMI CANAL 18 MI S***	***23***	***84***
SR 25/ US 27 INTELLI	***UNKNOWN***	***27***	***92***

EXECUTIVE SUMMARY

STATE AND LOCAL RECORDS

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Department of Environmental Protection's Facility Directory (Solid Waste Facilities).

A review of the SWF/LF list, as provided by EDR, has revealed that there is 1 SWF/LF site within the searched area.

Site	Address	Map ID	Page
TALISMAN SUGAR Database: LF PALM BEACH, Date of Government Version: 09/01/2011 Site Number: 68		6	31

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Protection's PCTO1--Petroleum Contamination Detail Report.

A review of the LUST list, as provided by EDR, and dated 10/04/2017 has revealed that there are 11 LUST sites within the searched area.

Site	Address	Map ID	Page
CLASSIC TURF FARM #3 Discharge Cleanup Status: NFA - NFA COMPLETE Facility Status: CLOSED Facility-Site Id: 8623288	***RT 27 11 MI S OF SOU***	***3***	***7***
BARNARD CONSTRUCTION Discharge Cleanup Status: NFA - NFA COMPLETE Facility Status: DELETED Facility-Site Id: 9808833	PO BOX 774	3	11
SUGAR FARMS COOP SOU Discharge Cleanup Status: NREQ - CLEANUP NOT REQUIRED Discharge Cleanup Status: NFA - NFA COMPLETE Facility Status: OPEN Facility-Site Id: 8623110	***1550 US HWY 27***	***5***	***18***
TALISMAN SUGAR CORP- Discharge Cleanup Status: NFAC - NO FURTHER ACTION WITH CONDITIONS Facility Status: CLOSED Facility-Site Id: 8514728	US HWY 27 16 MI S OF	8	40
SUGAR FARMS CO OP Discharge Cleanup Status: NFA - NFA COMPLETE Facility Status: CLOSED Facility-Site Id: 9802134	***US 27-16 MI S OF SOU***	***16***	***61***
ZEPHYR EGG CO TRUCK Discharge Cleanup Status: NREQ - CLEANUP NOT REQUIRED Facility Status: CLOSED Facility-Site Id: 9803835	***US HWY 27 @ 17 MI SO***	***19***	***70***
LUCKY START TRANSPOR Discharge Cleanup Status: NFA - NFA COMPLETE	***US HWY 27 23 MI NORT***	***22***	***82***

Facility Status: CLOSED
Facility-Site Id: 9803539

CLASSIC TURF FARM #2	***RT 27-19 MI S OF SOU***	***27***	***92***

Discharge Cleanup Status: SRCR - SRCR COMPLETE
Facility Status: OPEN
Facility-Site Id: 8514657

ROTH FARMS INC-GRESS	***E SIDE OF BROWNS FAR***	***28***	***99***

Discharge Cleanup Status: NFA - NFA COMPLETE
Facility Status: OPEN
Facility-Site Id: 8623294

SOUTH FL WTR MGMT DI	***5.3 MI N BROWARD CO***	***29***	***104***

Discharge Cleanup Status: SRCR - SRCR COMPLETE
Facility Status: CLOSED
Facility-Site Id: 9813885

SOUTH FL WATER MGMT	***US 27-19 MI SOUTH OF***	***29***	***106***

Discharge Cleanup Status: NFA - NFA COMPLETE
Facility Status: CLOSED
Facility-Site Id: 9809549

TANKS: This listing includes storage tank facilities that do not have tank information. The tanks have either be closed or removed from the site, but the facilities were still registered at some point in history.

A review of the TANKS list, as provided by EDR, and dated 10/04/2017 has revealed that there are 3 TANKS sites within the searched area.

Site	Address	Map ID	Page
ZEPHYR EGG CO TRUCK	***US HWY 27 @ 17 MI SO***	***19***	***70***

Facility Status: CLOSED
Facility ID: 9803835

LUCKY START TRANSPOR	***US HWY 27 23 MI NORT***	***22***	***82***

Facility Status: CLOSED
Facility ID: 9803539

SOUTH FL WTR MGMT DI	***5.3 MI N BROWARD CO***	***29***	***104***

Facility Status: CLOSED
Facility ID: 9813885

UST: The Underground Storage Tank database contains registered USTs. Shortly after the September 11 event, the DEP was instructed to remove the detail about some of the storage tank facilities in the state from their reports. Federal-owned facilities and bulk storage facilities are included in that set.

A review of the UST list, as provided by EDR, has revealed that there are 4 UST sites within the searched area.

Site	Address	Map ID	Page
CLASSIC TURF FARM #3	***RT 27 11 MI S OF SOU***	***3***	***7***

Database: UST, Date of Government Version: 10/04/2017
Tank Status: B

Facility-Site Id: 8623288
Facility Status: CLOSED

FL DEPT OF TRANSPORT 6 MI N OF BROWARD/WP 27 99
Database: UST, Date of Government Version: 10/04/2017
Tank Status: B
Facility-Site Id: 9401056
Facility Status: CLOSED

ROTH FARMS INC-GRESS E SIDE OF BROWNS FAR 28 99
Database: UST, Date of Government Version: 10/04/2017
Tank Status: B
Facility-Site Id: 8623294
Facility Status: OPEN

SOUTH FL WATER MGMT US 27-19 MI SOUTH OF 29 106
Database: UST, Date of Government Version: 10/04/2017
Tank Status: B
Facility-Site Id: 9809549
Facility Status: CLOSED

AST: Shortly after the Sept 11 event, the DEP was instructed to remove the detail about some of the storage tank facilities in the state from their reports. Federal-owned facilities and bulk storage facilities are included in that set.

A review of the AST list, as provided by EDR, has revealed that there are 7 AST sites within the searched area.

Site	Address	Map ID	Page
CLASSIC TURF FARM #3	***RT 27 11 MI S OF SOU***	***3***	***7***
Database: AST, Date of Government Version: 10/04/2017 Facility-Site Id: 8623288 Facility Status: CLOSED Facility Status: CLOSED			
SUGAR FARMS COOP SOU	***1550 US HWY 27***	***5***	***18***
Database: AST, Date of Government Version: 10/04/2017 Facility-Site Id: 8623110 Facility Status: OPEN Facility Status: OPEN			
TALISMAN SUGAR CORP-	US 27	6	31
Database: AST, Date of Government Version: 10/04/2017 Facility-Site Id: 8839284 Facility Status: CLOSED Facility Status: CLOSED			
TALISMAN SUGAR CORP-	US HWY 27 16 MI S OF	8	34
Database: AST, Date of Government Version: 10/04/2017 Facility-Site Id: 8514728 Facility Status: CLOSED Facility Status: CLOSED			
SUGAR FARMS CO OP	***US 27-16 MI S OF SOU***	***16***	***61***
Database: AST, Date of Government Version: 10/04/2017 Facility-Site Id: 9802134 Facility Status: CLOSED			

Facility Status: CLOSED

CLASSIC TURF FARM #2 ***RT 27-19 MI S OF SOU*** ***27*** ***92***
Database: AST, Date of Government Version: 10/04/2017
Facility-Site Id: 8514657
Facility Status: OPEN
Facility Status: OPEN

ROTH FARMS INC-GRESS ***E SIDE OF BROWNS FAR*** ***28*** ***99***
Database: AST, Date of Government Version: 10/04/2017
Facility-Site Id: 8623294
Facility Status: OPEN
Facility Status: OPEN

SPILLS: Fuel Spill Cases from the Department of Environmental resource management

A review of the SPILLS list, as provided by EDR, and dated 10/10/2017 has revealed that there is 1 SPILLS site within the searched area.

Site	Address	Map ID	Page
EAA A-1 FLOW EQUALIZ OHMIT Incident Number: 38035 Incident Status: Closed	***13775 SOUTH US 27***	***3***	***16***

INST CONTROL: The registry is a database of all contaminated sites in the state of Florida which are subject to institutional and engineering controls.

A review of the INST CONTROL list, as provided by EDR, and dated 10/02/2017 has revealed that there are 6 INST CONTROL sites within the searched area.

Site	Address	Map ID	Page
T-21 - TALISMAN SUGA Facility-Site Id: COM_157269	RURAL AREA FARM - 00	2	5
TALISMAN SUGAR CORP Facility-Site Id: COM_216895	T-3 - LABOR CAMP - R	6	32
T-1 & T-5 - TALISMAN Facility-Site Id: COM_209147	RURAL AREA IN FARM -	8	39
SUGAR MILL - TALISMA Facility-Site Id: COM_87499	SUGAR MILL - 0037460	8	44
B-3 - TALISMAN SUGAR Facility-Site Id: COM_157238	B-3 - RURAL AREA IN	8	46
TALISMAN SUGAR CORP Facility-Site Id: COM_170717	T-2 - BORROW PIT - R	10	51

EXECUTIVE SUMMARY

NPDES: Domestic and Industrial Wastewater Facilities

A review of the NPDES list, as provided by EDR, and dated 11/01/2017 has revealed that there is 1 NPDES site within the searched area.

Site	Address	Map ID	Page
EAA A-1 FLOW EQUALIZ Status: A Facility ID: FLG071003	***13775 SOUTH US 27***	***3***	***16***

AIRS: A listing of Air Resources Management permits.

A review of the AIRS list, as provided by EDR, and dated 05/17/2017 has revealed that there is 1 AIRS site within the searched area.

Site	Address	Map ID	Page
SFWMD / PUMP STATION Facility Status: A Facility Id: 990615	NW CORNER HOLEY LAND	18	69

TIER 2: A listing of facilities which store or manufacture hazardous materials that submit a chemical inventory report.

A review of the TIER 2 list, as provided by EDR, and dated 12/31/2016 has revealed that there are 6 TIER 2 sites within the searched area.

Site	Address	Map ID	Page
SOUTH FLORIDA WATER Facility Id: 3995036	US HIGHWAY 27 - 10 1	9	47
CEMEX - SOUTH BAY PO Facility Id: 3985954	SOUTH US HIGHWAY 27	14	54
STAR FARMS CORPORATI Facility Id: 5017903 Facility Id: 5416073 Facility Id: 4557656 Facility Id: 4293025 Facility Id: 5865509	COUNTY ROAD 827	17	64
SOUTH FLORIDA WATER Facility Id: 4484666 Facility Id: 4976676 Facility Id: 4094554 Facility Id: 3986264 Facility Id: 5831013 **Additional key fields are available in the Map Findings section*	NORTHWEST CORNER OF	21	74
SOUTH FLORIDA WATER	US 27, 6.7 MILES NOR	25	86
SOUTH FLORIDA WATER Facility Id: 3995092	US HIGHWAY 27 - 6 1/	25	87

EXECUTIVE SUMMARY

CLEANUP SITES: This listing includes the locations of waste cleanup sites from various programs. The source of the cleanup site data includes Hazardous Waste programs, Site Investigation Section, Compliance and Enforcement Tracking, Drycleaning State Funded Cleanup Program (possibly other state funded cleanup), Storage Tank Contamination Monitoring.

A review of the CLEANUP SITES list, as provided by EDR, and dated 08/28/2017 has revealed that there are 6 CLEANUP SITES sites within the searched area.

Site	Address	Map ID	Page
A-2 FLOW EQUALIZATIO DEP Cleanup Site Key: 50439557	***WEST SIDE OF HWY 27***	***1***	***4***
WOERNER TURF FARM 3, DEP Cleanup Site Key: 50440175	***STRD 27***	***3***	***14***
FL. CRYSTALS FARM 21 DEP Cleanup Site Key: 50439235 DEP Cleanup Site Key: 50440351		***15***	***59***
A-1 FLOW EQUALIZATIO DEP Cleanup Site Key: 50439703	***WEST SIDE OF US 27 S***	***20***	***72***
FL. CRYSTALS CABASSA DEP Cleanup Site Key: 50439398		***25***	***88***
HADLEY, CABASSA #51 DEP Cleanup Site Key: 50440350		***26***	***90***

RESP PARTY: Open, inactive and closed responsible party sites

A review of the RESP PARTY list, as provided by EDR, and dated 10/02/2017 has revealed that there are 17 RESP PARTY sites within the searched area.

Site	Address	Map ID	Page
A-2 FLOW EQUALIZATIO Site Status: OPEN	***WEST SIDE OF HWY 27***	***1***	***4***
T-21 TALISMAN FARM Site Status: CLOSED	RURAL AREA FARM - 00	2	6
WOERNER TURF FARM 3, Site Status: INACTIVE	***STRD 27***	***3***	***14***
T-SHED TALISMAN FARM Site Status: CLOSED	RURAL AREA FARM - 00	4	17
T-3 TALISMAN FARM FO Site Status: CLOSED	NONE REMOTE FARM LO	6	33
T-1 / T-5 TALISMAN M Site Status: CLOSED	SUGAR MILL - 0037460	8	44
T-7 TALISMAN FARM Site Status: CLOSED		10	49
T-8 TALISMAN FARM Site Status: CLOSED	NONE REMOTE LOCATION	10	49
T-2 TALISMAN FARM (B Site Status: CLOSED	RURAL AREA IN FARM -	10	50
T-6 TALISMAN FARM		11	52

Site Status: CLOSED			
T-10 TALISMAN FARM Site Status: CLOSED	NONE - REMOTE LOCATI	12	53
T-24 PUMP STATION Site Status: CLOSED	NONE - REMOTE FARM L	13	54
FL. CRYSTALS FARM 21 Site Status: INACTIVE		***15***	***59***
A-1 FLOW EQUALIZATIO Site Status: OPEN	***WEST SIDE OF US 27 S***	***20***	***72***
WOERNER TURF TRACT 2 Site Status: CLOSED	***US HWY 27***	***24***	***85***
FL. CRYSTALS CABASSA Site Status: INACTIVE		***25***	***88***
HADLEY, CABASSA #51 Site Status: INACTIVE		***26***	***90***

DWM CONTAM: A listing of active or known sites. The listing includes sites that need cleanup but are not actively being working on because the agency currently does not have funding (primarily petroleum and drycleaning).

A review of the DWM CONTAM list, as provided by EDR, and dated 04/01/2017 has revealed that there are 7 DWM CONTAM sites within the searched area.

Site	Address	Map ID	Page
WOERNER TURF FARM 3, Program Site Id: 287080	***STRD 27***	***3***	***14***
TALISMAN SUGAR CORP- Program Site Id: 8514728	US HWY 27 16 MI S OF	8	43
FL. CRYSTALS FARM 21 Program Site Id: 287122		***15***	***59***
WOERNER TURF TRACT 2 Program Site Id: 287086	***US HWY 27***	***24***	***85***
FL. CRYSTALS CABASSA Program Site Id: 287125		***25***	***88***
HADLEY, CABASSA #51 Program Site Id: 287117		***26***	***90***
ROTH FARMS INC-GRESS Program Site Id: 8623294	***E SIDE OF BROWNS FAR***	***28***	***99***

EXECUTIVE SUMMARY

Please refer to the end of the findings report for unmapped orphan sites due to poor or inadequate address information.

MAP FINDINGS SUMMARY

Database	Total Plotted
FEDERAL RECORDS	
NPL	0
Proposed NPL	0
Delisted NPL	0
NPL LIENS	0
SEMS	0
SEMS-ARCHIVE	0
LIENS 2	0
CORRACTS	0
RCRA-TSDF	0
RCRA-LQG	0
RCRA-SQG	0
RCRA-CESQG	0
RCRA NonGen / NLR	0
US ENG CONTROLS	0
US INST CONTROL	0
ERNS	0
HMIRS	0
DOT OPS	0
US CDL	0
US BROWNFIELDS	0
DOD	0
FUDS	0
LUCIS	0
CONSENT	0
ROD	0
UMTRA	0
ODI	0
DEBRIS REGION 9	0
US MINES	0
TRIS	0
TSCA	0
FTTS	0
HIST FTTS	0
SSTS	0
ICIS	0
PADS	0
MLTS	0
RADINFO	0
FINDS	8
RAATS	0
RMP	0
ECHO	6
FUELS PROGRAM	0
DOCKET HWC	0
UXO	0
FUSRAP	0
COAL ASH DOE	0
2020 COR ACTION	0

MAP FINDINGS SUMMARY

Database	Total Plotted
PRP	0
EPA WATCH LIST	0
US FIN ASSUR	0
PCB TRANSFORMER	0
US HIST CDL	0
SCRD DRYCLEANERS	0
IHS OPEN DUMPS	0
ABANDONED MINES	0
COAL ASH EPA	0
FEMA UST	0
FEDERAL FACILITY	0
US AIRS	0
LEAD SMELTERS	0

STATE AND LOCAL RECORDS

SHWS	0
SWF/LF	1
UIC	0
SWRCY	0
LUST	11
TANKS	3
UST	4
LAST	0
AST	7
Fl Sites	0
SPILLS	1
ENG CONTROLS	0
INST CONTROL	6
VCP	0
DRYCLEANERS	0
PRIORITYCLEANERS	0
DEDB	0
BROWNFIELDS	0
NPDES	1
AIRS	1
FL Cattle Dip. Vats	0
TIER 2	6
ASBESTOS	0
CLEANUP SITES	6
FF TANKS	0
RESP PARTY	17
DWM CONTAM	7
SITE INV SITES	0

TRIBAL RECORDS

INDIAN RESERV	0
INDIAN ODI	0
INDIAN LUST	0
INDIAN UST	0

MAP FINDINGS SUMMARY

Database	Total Plotted
INDIAN VCP	0
EDR PROPRIETARY RECORDS	
EDR MGP	0
EDR Hist Auto	0
EDR Hist Cleaner	0
RGA HWS	0
RGA LF	0
RGA LUST	0

NOTES:

Sites may be listed in more than one database

1 A-2 FLOW EQUALIZATION BASIN (FEB) **CLEANUP SITES** **S114040793**
WEST SIDE OF HWY 27 S **RESP PARTY** **N/A**
EVERGLADES, FL

CLEANUP SITES:

DEP Cleanup Site Key:	50439557
Source Database Name:	Compliance and Enforcement Tracking - Responsible Party waste cleanup under 62-780
Source Database Id:	COM_321057
CPAC Program Area Id:	CU
CLLC Cleanup Category Key:	OTHCU
RSC2 Remediation Status Key:	ACTIVE
Data Load Date:	08/24/2017
OC3 Office Id:	TAL
Physical Address Line 2:	Not reported
OIC Object Of Interest Id:	CAP_R
PC2 Proximity Id:	APPRX
Calc Coordinates Accuracy Level Id:	6
CMC2 Coordinate Method Id:	Address Matching
DC4 Datum Id:	North American Datum of 1983
VSC1 Verification Status:	NOT REVIEWED
Collect Username:	YILMAZ_F
Collect Date:	09/05/2013
Collect Affiliation:	Florida Department of Environmental Protection
Map Source:	Not reported
Map Source Scale:	Not reported
Interpolation Scale:	Not reported
Verifier Username:	Not reported
Verifier Affiliation:	Not reported
Verification Date:	Not reported
Verified Coordinate Method Id:	Not reported
Source Database Name Code:	COMET
CMC2 Coordinate Method ID Code:	ADDM
DC4 Datum ID Code:	NAD83
Verified Coordinate Method ID Code:	Not reported
Comments:	Not reported
Latitude/Longitude (deg/min/sec):	26 29 47 / 13 80 45

RESP PARTY:

District:	TAL
Site Id:	321057
Project Id:	338805
Site Status:	OPEN
Project Manager:	DOUGHERTY_B
OGC Case Number:	Not reported
Initial Date Received:	09/05/2013
Contaminants:	Not reported
Offsite Cont Impact:	Not reported
Priority Score:	Not reported
Datum:	NAD83
Method ID:	ADDM
Feature:	Not reported
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	APPRX
Collect Username:	YILMAZ_F
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CL
Collect Date:	09/05/2013
Map Series Used:	Not reported

A-2 FLOW EQUALIZATION BASIN (FEB) (Continued) **S114040793**

Map Source Scale:	Not reported
Interpolation Scale:	Not reported
Coordinate Accuracy Id:	6
Verify Method Id:	Not reported
Verifier Username:	Not reported
Verifier Affiliation:	Not reported
Verifying Program Id:	Not reported
Verification Date:	Not reported
Decode for District:	Tallahassee Office
Decode for Datum:	North American Datum of 1983
Decode for Method:	Address Matching
Decode for Off Site COC:	Not reported
Decode for V_Method:	Not reported
Latitude/Longitude (deg/min/sec):	26 29 47 / 80 45 13

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2 **T-21 - TALISMAN SUGAR CORP (THE ST. JOE COMPANY)** **INST CONTROL** **S111761728**
RURAL AREA FARM - 00364617000001020 **N/A**
SOUTHWEST PALM BEACH COUTY, FL 53

Inst Control:

Facility Id:	COM_157269
Inst Control Type:	DIGGING RESTRICTION
Eng Control Type:	NONE
Contaminated Media:	SOIL
Contamination:	PESTICIDES (INCLUDES HERBICIDES, FUNGICIDES AND INSECTICIDES)
Lat/Long (dms):	26 29 33.5642 / 80 45 16.0943
Date Amended:	Not reported
Mechanism - Date IC Removed:	/2/06/06/2
Mechanism - Program Area:	WASTE CLEANUP
Mechanism - Date Order Issued:	06/21/2006
Date Removed:	Not reported
Inspection Date:	Not reported
Legal Description:	Not reported
Comments:	Part of Talisman Sugar Corp settlement; See OGC Case#99-0339
Township:	44S
Range:	36E
Parcel ID:	00364617000001020
Section:	17
Book Number:	20532
Page Number:	476-482
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

Facility Id:	COM_157269
Inst Control Type:	LAND USE RESTRICTION
Eng Control Type:	NONE
Contaminated Media:	SOIL
Contamination:	PESTICIDES (INCLUDES HERBICIDES, FUNGICIDES AND INSECTICIDES)
Lat/Long (dms):	26 29 33.5642 / 80 45 16.0943
Date Amended:	Not reported
Mechanism - Date IC Removed:	/2/06/06/2
Mechanism - Program Area:	WASTE CLEANUP
Mechanism - Date Order Issued:	06/21/2006
Date Removed:	Not reported
Inspection Date:	Not reported
Legal Description:	Not reported
Comments:	Part of Talisman Sugar Corp settlement; See OGC Case#99-0339
Township:	44S
Range:	36E

T-21 - TALISMAN SUGAR CORP (THE ST. JOE COMPANY) (Continued) **S111761728**

Parcel ID:	00364617000001020
Section:	17
Book Number:	20532
Page Number:	476-482
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

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2 **T-21 TALISMAN FARM** **RESP PARTY** **S117898804**
RURAL AREA FARM - 00364617000001020 **N/A**
BELLE GLADE, FL 33430

RESP PARTY:

District:	Southeast District
Site Id:	157269
Project Id:	230205
Site Status:	CLOSED
Project Manager:	WIERZBICKI_P
OGC Case Number:	99-0339
Initial Date Received:	09/30/1998
Contaminants:	Farm equipment area where pesticides, fuels and oils stored and handled.
Offsite Cont Impact:	N
Priority Score:	Not reported
Datum:	NAD83
Method ID:	DPHO
Feature:	Pesticide Mix/Load Area
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	EXACT
Collect Username:	WILLIAMS_CA
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	07/21/2011
Map Series Used:	2004_DOQQ
Map Source Scale:	4618
Interpolation Scale:	4618
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO
Verifier Username:	WILLIAMS_CA
Verifier Affiliation:	Florida Department of Environmental Protection
Verifying Program Id:	CL
Verification Date:	07/21/2011
Decode for District:	Southeast District
Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	No, the best available evidence (such as completed SAR) demonstrates that contamination above applicable standards or criteria DOES NOT extend offsite.
Decode for V_Method:	Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec):	26 29 33.5642 / 80 45 16.0943

3 CLASSIC TURF FARM #3 TIMCO — **LUST** — **U001366571**
RT 27 11 MI S OF SOUTH BAY — **UST** — **N/A**
SOUTH BAY, FL 33430 — **AST**

LUST:

Region:	STATE
Facility Id:	8623288
Facility Status:	CLOSED
Facility Type:	M - Agricultural
Facility Phone:	(561)996-1538
Facility Cleanup Rank:	Not reported
District:	Southeast District
Lat/Long (dms):	26 29 4.6 / 80 39 16.69
Section:	037
Township:	047
Range:	007
Feature:	Not reported
Method:	AGPS
Datum:	0
Score:	6
Score Effective Date:	11/04/1997
Score When Ranked:	Not reported
Operator:	BILLY RAY BREWER
Name Update:	11/25/2003
Address Update:	05/25/2006

Discharge Cleanup Summary:

Discharge Date:	04/25/1989
PCT Discharge Combined:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	11/11/1992
Cleanup Work Status:	COMPLETED
Information Source:	A - ABANDONED TANK RESTORATION
Other Source Description:	Not reported
Eligibility Indicator:	E - ELIGIBLE
Site Manager:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-

Petroleum Cleanup Program Eligibility:

Facility ID:	8623288
Discharge Date:	25-APR-89
Pct Discharge Combined With:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	11/11/1992
Cleanup Work Status:	COMPLETED
Information Source:	A - ABANDONED TANK RESTORATION
Other Source Description:	Not reported
Application Received Date:	28-JUN-89
Cleanup Program:	A - ABANDONED TANK RESTORATION PROGRAM
Eligibility Status:	20-NOV-90
Elig Status Date:	20-NOV-90
Letter Of Intent Date:	09/13/1990
Redetermined:	No
Inspection Date:	10/18/1990
Site Manager:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-

CLASSIC TURF FARM #3 TIMCO (Continued) **U001366571**

Deductible Amount:	500
Deductible Paid To Date:	500
Co-Pay Amount:	0
Co-Pay Paid To Date:	0
Cap Amount:	Not reported

Task Information:

District:	SED
Facility ID:	8623288
Facility Status:	CLOSED
Facility Type:	M - Agricultural -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	E
Source Effective Date:	11-11-1992
Discharge Date:	04-25-1989
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	11-11-1992
SRC Action Type:	NFA - NO FURTHER ACTION
SRC Submit Date:	10-02-1992
SRC Review Date:	10-29-1992
SRC Completion Status:	A - APPROVED
SRC Issue Date:	11-11-1992
SRC Comment:	Not reported
Cleanup Work Status:	COMPLETED
Site Mgr:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-
SR Task ID:	38648
SR Cleanup Responsible:	-
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	01-23-1990
SR Payment Date:	02-26-1993
SR Oral Date:	Not reported
SR Written Date:	Not reported
SR Soil Removal:	Y
SR Free Product Removal:	Not reported
SR Soil Tonnage Removed:	28
SR Soil Treatment:	Not reported
SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	38649
SA Cleanup Responsible:	-
SA Funding Eligibility Type:	-
SA Actual Cost:	$43,945.42
SA Completion Date:	Not reported
SA Payment Date:	02-26-1993
RAP Task ID:	38650
RAP Cleanup Responsible ID:	NA - NOT APPLICABLE
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported

CLASSIC TURF FARM #3 TIMCO (Continued) **U001366571**

RAP Last Order Approved:	Not reported
RA Task ID:	38651
RA Cleanup Responsible:	RP - RESPONSIBLE PARTY
RA Funding Eligibility Type:	-
RA Years to Complete:	Not reported
RA Actual Cost:	Not reported

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UST:

Facility Id:	8623288
Facility Status:	CLOSED
Type Description:	Agricultural
Facility Phone:	(561) 996-1538
Region:	STATE
Positioning Method:	AGPS
Lat/Long (dms):	26 29 1 / 80 39 18

Owner:

Owner Id:	44684
Owner Name:	WOERNER SOUTH INC
Owner Address:	275 SW 3RD AVE
Owner Address 2:	Not reported
Owner City,St,Zip:	SOUTH BAY, FL 33493
Owner Contact:	DAVE WILLIAMS
Owner Phone:	(561) 996-8500

Tank Info:

Tank Id:	10
Status:	Removed
Status Date:	31-JAN-1990
Install Date:	Not reported
Substance:	Unknown/Not reported
Content Description:	Unknown/Not Reported
Gallons:	1000
Vessel Indicator:	TANK
Tank Location:	UNDERGROUND
DEP Contractor:	P

Tank Id:	4
Status:	Removed
Status Date:	31-JAN-1990
Install Date:	Not reported
Substance:	Unleaded gas
Content Description:	Unleaded Gas
Gallons:	1000
Vessel Indicator:	TANK
Tank Location:	UNDERGROUND
DEP Contractor:	P

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AST:

Facility ID:	8623288
Facility Status:	CLOSED

CLASSIC TURF FARM #3 TIMCO (Continued) **U001366571**

Type Description: Agricultural
Facility Phone: (561) 996-1538
DEP Contractor Own: P
Region: STATE
Positioning Method: AGPS
Lat/Long (dms): 26 29 1 / 80 39 18

Owner:
Owner Id: 44684
Owner Name: WOERNER SOUTH INC
Owner Address: 275 SW 3RD AVE
Owner Address 2: Not reported
Owner City,St,Zip: SOUTH BAY, FL 33493
Owner Contact: DAVE WILLIAMS
Owner Phone: (561) 996-8500

Tank Id: 1
Status: Removed
Status Date: 31-JUL-1990
Install Date: Not reported
Substance: Fuel oil-on site heat
Content Description: Fuel Oil - Onsite Heat
Gallons: 2000
Tank Location: ABOVEGROUND

Tank Id: 2
Status: Removed
Status Date: 31-JUL-1990
Install Date: Not reported
Substance: Fuel oil-on site heat
Content Description: Fuel Oil - Onsite Heat
Gallons: 1000
Tank Location: ABOVEGROUND

Tank Id: 3
Status: Removed
Status Date: 31-JUL-1990
Install Date: Not reported
Substance: Fuel oil-on site heat
Content Description: Fuel Oil - Onsite Heat
Gallons: 1500
Tank Location: ABOVEGROUND

Tank Id: 5
Status: Removed
Status Date: 31-JUL-1990
Install Date: Not reported
Substance: Fuel oil-on site heat
Content Description: Fuel Oil - Onsite Heat
Gallons: 1500
Tank Location: ABOVEGROUND

Tank Id: 6
Status: Removed
Status Date: 06-MAR-1997
Install Date: 01-JUL-1980
Substance: Diesel-generator,pump

CLASSIC TURF FARM #3 TIMCO (Continued) **U001366571**

Content Description: Generator/Pump Diesel
Gallons: 1000
Tank Location: ABOVEGROUND

Tank Id: 7
Status: Removed
Status Date: 31-JUL-1990
Install Date: Not reported
Substance: Fuel oil-on site heat
Content Description: Fuel Oil - Onsite Heat
Gallons: 1000
Tank Location: ABOVEGROUND

Tank Id: 8
Status: Removed
Status Date: 31-JUL-1990
Install Date: Not reported
Substance: Fuel oil-on site heat
Content Description: Fuel Oil - Onsite Heat
Gallons: 1500
Tank Location: ABOVEGROUND

Tank Id: 9
Status: Removed
Status Date: 31-JUL-1990
Install Date: Not reported
Substance: Fuel oil-on site heat
Content Description: Fuel Oil - Onsite Heat
Gallons: 1000
Tank Location: ABOVEGROUND

Tank Id: 11
Status: Moved to New Site
Status Date: 07-AUG-2006
Install Date: 01-JUN-1996
Substance: Diesel-generator,pump
Content Description: Generator/Pump Diesel
Gallons: 1000
Tank Location: ABOVEGROUND

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3 **BARNARD CONSTRUCTION** **LUST** **S108971507**
PO BOX 774 **N/A**
SOUTH BAY, FL 33493

LUST:
Region: STATE
Facility Id: 9808833
Facility Status: DELETED
Facility Type: C - Fuel user/Non-retail
Facility Phone: (561)996-9972
Facility Cleanup Rank: Not reported
District: Southeast District
Lat/Long (dms): 26 29 3.8062 / 80 39 15.7358
Section: Not reported
Township: Not reported

BARNARD CONSTRUCTION (Continued) **S108971507**

Range:	Not reported
Feature:	Not reported
Method:	Not reported
Datum:	Not reported
Score:	Not reported
Score Effective Date:	Not reported
Score When Ranked:	Not reported
Operator:	NEILVAN AMBURG
Name Update:	Not reported
Address Update:	Not reported

Discharge Cleanup Summary:

Discharge Date:	09/11/2007
PCT Discharge Combined:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	12/17/2007
Cleanup Work Status:	COMPLETED
Information Source:	Z - OTHER
Other Source Description:	phone call from 3rd party
Eligibility Indicator:	I - INELIGIBLE
Site Manager:	GIBSON_D
Site Mgr End Date:	09/24/2008
Tank Office:	PCLP50 - PALM BEACH CNTY ENVIRONMENTAL RESOURCES MGMT

Contaminated Media:

Discharge Date:	09/11/2007
Pct Discharge Combined With:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	12/17/2007
Cleanup Work Status:	COMPLETED
Information Source:	Z - OTHER
Other Source Description:	phone call from 3rd party
Elig Indicator:	I - INELIGIBLE
Site Manager:	GIBSON_D
Site Mgr End Date:	09/24/2008
Tank Office:	PCLP50 - PALM BEACH CNTY ENVIR
Contaminated Drinking Wells:	Not reported
Contaminated Monitoring Well:	No
Contaminated Soil:	Yes
Contaminated Surface Water:	Yes
Contaminated Ground Water:	No
Pollutant:	H - Generator/Pump Diesel
Pollutant Other Description:	Not reported
Gallons Discharged:	300

Task Information:

District:	SED
Facility ID:	9808833
Facility Status:	DELETED
Facility Type:	C - Fuel user/Non-retail -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	I
Source Effective Date:	11-06-2007
Discharge Date:	09-11-2007
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE

BARNARD CONSTRUCTION (Continued) **S108971507**

Disch Cleanup Status Date:	12-17-2007
SRC Action Type:	NFA - NO FURTHER ACTION
SRC Submit Date:	11-02-2007
SRC Review Date:	11-06-2007
SRC Completion Status:	A - APPROVED
SRC Issue Date:	12-17-2007
SRC Comment:	Not reported
Cleanup Work Status:	COMPLETED
Site Mgr:	GIBSON_D
Site Mgr End Date:	09-24-2008
Tank Office:	PCLP50 - Palm Beach County
SR Task ID:	Not reported
SR Cleanup Responsible:	-
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	Not reported
SR Payment Date:	Not reported
SR Oral Date:	Not reported
SR Written Date:	Not reported
SR Soil Removal:	Not reported
SR Free Product Removal:	Not reported
SR Soil Tonnage Removed:	Not reported
SR Soil Treatment:	Not reported
SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	Not reported
SA Cleanup Responsible:	-
SA Funding Eligibility Type:	-
SA Actual Cost:	Not reported
SA Completion Date:	Not reported
SA Payment Date:	Not reported
RAP Task ID:	Not reported
RAP Cleanup Responsible ID:	-
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported
RAP Last Order Approved:	Not reported
RA Task ID:	81909
RA Cleanup Responsible:	-
RA Funding Eligibility Type:	-
RA Years to Complete:	0
RA Actual Cost:	Not reported

Click here for Florida Oculus:

3 WOERNER TURF FARM 3, TRACT D7-100-039 — **DWM CONTAM** — **S113721830**
STRD 27 — **CLEANUP SITES** — **N/A**
SOUTH BAY, FL 53 — **RESP PARTY**

DWM CONTAM:

Program Site Id:	287080
Lat DD:	Not reported
Lat MM:	Not reported
Lat SS:	Not reported
Long DD:	Not reported
Long MM:	Not reported
Long SS:	Not reported
Office/ District:	SED
Program Area:	Responsible Party
Offsite Contamination:	Not reported
Project Manager:	WIERZBICKI_P
Priority Score:	Not reported
Remediation Status:	OPEN
Date Known Offsite:	Not reported
Datum:	Not reported
Method:	Not reported
Program Eligible:	Not reported
Ineligible:	Not reported

CLEANUP SITES:

DEP Cleanup Site Key:	50440175
Source Database Name:	Compliance and Enforcement Tracking - Responsible Party waste cleanup under 62-780
Source Database Id:	COM_287080
CPAC Program Area Id:	CU
CLLC Cleanup Category Key:	OTHCU
RSC2 Remediation Status Key:	PENDING
Data Load Date:	08/24/2017
OC3 Office Id:	SED
Physical Address Line 2:	Not reported
OIC Object Of Interest Id:	CAP_R
PC2 Proximity Id:	EXACT
Calc Coordinates Accuracy Level Id:	3
CMC2 Coordinate Method Id:	Digital Aerial Photography With Ground Control
DC4 Datum Id:	North American Datum of 1983
VSC1 Verification Status:	REVIEWED
Collect Username:	WILLIAMS_CA
Collect Date:	11/30/2010
Collect Affiliation:	Florida Department of Environmental Protection
Map Source:	2004_DOQQ
Map Source Scale:	4618
Interpolation Scale:	Not reported
Verifier Username:	WILLIAMS_CA
Verifier Affiliation:	Florida Department of Environmental Protection
Verification Date:	11/30/2010
Verified Coordinate Method Id:	Digital Aerial Photography With Ground Control
Source Database Name Code:	COMET
CMC2 Coordinate Method ID Code:	DPHO
DC4 Datum ID Code:	NAD83
Verified Coordinate Method ID Code:	DPHO
Comments:	Not reported
Latitude/Longitude (deg/min/sec):	26 29 4.5983 / 16.6484 80 39

WOERNER TURF FARM 3, TRACT D7-100-039 (Continued) **S113721830**

RESP PARTY:

District:	Southeast District
Site Id:	287080
Project Id:	311593
Site Status:	INACTIVE
Project Manager:	WIERZBICKI_P
OGC Case Number:	Not reported
Initial Date Received:	06/21/2006
Contaminants:	Not reported
Offsite Cont Impact:	Not reported
Priority Score:	Not reported
Datum:	NAD83
Method ID:	DPHO
Feature:	Not reported
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	EXACT
Collect Username:	WILLIAMS_CA
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	11/30/2010
Map Series Used:	2004_DOQQ
Map Source Scale:	4618
Interpolation Scale:	4618
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO
Verifier Username:	WILLIAMS_CA
Verifier Affiliation:	Florida Department of Environmental Protection
Verifying Program Id:	CR
Verification Date:	11/30/2010
Decode for District:	Southeast District
Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	Not reported
Decode for V_Method:	Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec):	26 29 4.59830000 / 80 39 16.6483999

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3 **BARNARD CONSTRUCTION COMPANY, INC.** **FINDS** **1012237415**
17415 SOUTH U.S. 27 **ECHO** **N/A**
SOUTH BAY, FL 33493

FINDS:

Registry ID: 110039625064

Environmental Interest/Information System
AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

BARNARD CONSTRUCTION COMPANY, INC. (Continued) **1012237415**

AIR SYNTHETIC MINOR

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1012237415
Registry ID:	110039625064
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110039625064

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3 **EAA A-1 FLOW EQUALIZATION BASIN** **SPILLS** **S108969998**
13775 SOUTH US 27 **NPDES** **N/A**
SOUTH BAY, FL

SPILLS:

OHMIT Incident Number:	38035
Incident Legacy:	Not reported
On-Scene Response:	Yes
Criminal Indicator:	No
Hurricane Indicator:	No
Incident Date:	09/11/2007
Incident Status:	Closed
Incident Report Date:	09/11/2007
Pollutant:	Diesel fuel
Pollutants Category:	Petroleum
Substance Spilled:	Diesel fuel
Amount Spilled (Gallons):	10.00
Pollutant - Unit Measure:	gallon
Incident Party Name:	Barnard Construction
Description:	Inland
Incident Party Name:	Cliff Berry
Description:	Inland
Incident Party Name:	Southwest Florida Water Management District
Description:	Inland

WASTEWATER:

Facility ID:	FLG071003
Facility Type:	Dewatering GP
Status:	Active - Existing, permitted facility/site for which effluent, reclaimed water or wastewater residual discharge into the environment and/or monitoring is taking place.
District Office:	SED
NPDES Permitted Site:	Yes
Environmental Interest:	Industrial Wastewater Program
Owner Type:	Unknown
Permit Capacity:	Not reported
Party Name:	Miguel Vila, PMTE
Company Name:	Central Florida Equipment Rentals Inc
RP Address:	9030 NW 97th Ter
RP Address 2:	Not reported
RP City,Stat,Zip:	Medley FL 33178-1429
Telephone:	3058883344

EAA A-1 FLOW EQUALIZATION BASIN (Continued) **S108969998**

Email:	miguelv@centralfloridaequip.com
Issue Date:	01/10/2014
Effective Date:	01/10/2014
Expiration Date:	01/09/2019
DOC Description:	Generic Permit
Latitude Degrees:	Not reported
Latitude Minutes:	Not reported
Latitude Seconds:	Not reported
Longitude Degrees:	Not reported
Longitude Minutes:	Not reported
Longitude Seconds:	Not reported
Treatment:	Not reported
Decode For Fstatus:	Active

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4 **T-SHED TALISMAN FARM (FORMER)** **RESP PARTY** **S117898805**
RURAL AREA FARM - 00374604000001030 **N/A**
BELLE GLADE, FL 33430

RESP PARTY:

District:	Southeast District
Site Id:	209147
Project Id:	265107
Site Status:	CLOSED
Project Manager:	WIERZBICKI_P
OGC Case Number:	99-0339
Initial Date Received:	05/06/1999
Contaminants:	Small Farm Pesticide Mix / load area. Pesticides, Fuels, oils, metals.
Offsite Cont Impact:	N
Priority Score:	Not reported
Datum:	NAD83
Method ID:	DPHO
Feature:	Fmr Pest. Mix/Load Area
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	EXACT
Collect Username:	WILLIAMS_CA
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	05/13/2015
Map Series Used:	IMAGERY_11_13
Map Source Scale:	5000
Interpolation Scale:	5000
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO
Verifier Username:	WILLIAMS_CA
Verifier Affiliation:	DEPARTMENT OF ENVIRONMENTAL PROTECTION
Verifying Program Id:	CR
Verification Date:	05/13/2015
Decode for District:	Southeast District
Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	No, the best available evidence (such as completed SAR) demonstrates that contamination above applicable standards or criteria DOES NOT extend offsite.
Decode for V_Method:	Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec):	26 28 44.7700999 / 80 39 24.2745

5 SUGAR FARMS COOP SOUTHERN DIV — **LUST** — **S103588813**
1550 US HWY 27 — **AST** — **N/A**
SOUTH BAY, FL 33493

LUST:

Region:	STATE
Facility Id:	8623110
Facility Status:	OPEN
Facility Type:	M - Agricultural
Facility Phone:	(561)942-4455
Facility Cleanup Rank:	Not reported
District:	Southeast District
Lat/Long (dms):	26 28 19.164 / 80 38 31.6674
Section:	Not reported
Township:	Not reported
Range:	Not reported
Feature:	Not reported
Method:	AGPS
Datum:	0
Score:	Not reported
Score Effective Date:	Not reported
Score When Ranked:	Not reported
Operator:	JOAQUIN FERNANDEZ
Name Update:	12/22/1998
Address Update:	03/11/2004

Discharge Cleanup Summary:

Discharge Date:	03/15/1997
PCT Discharge Combined:	Not reported
Cleanup Required:	N - NO CLEANUP REQUIRED
Discharge Cleanup Status:	NREQ - CLEANUP NOT REQUIRED
Disch Cleanup Status Date:	05/29/2001
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	Not reported
Eligibility Indicator:	I - INELIGIBLE
Site Manager:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-
Discharge Date:	06/02/1993
PCT Discharge Combined:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	11/17/1995
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	Not reported
Eligibility Indicator:	I - INELIGIBLE
Site Manager:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-
Discharge Date:	06/03/1993
PCT Discharge Combined:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	11/17/1995
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	Not reported
Eligibility Indicator:	I - INELIGIBLE

SUGAR FARMS COOP SOUTHERN DIV (Continued) **S103588813**

Site Manager:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-
Discharge Date:	06/09/1992
PCT Discharge Combined:	Not reported
Cleanup Required:	N - NO CLEANUP REQUIRED
Discharge Cleanup Status:	NREQ - CLEANUP NOT REQUIRED
Disch Cleanup Status Date:	01/18/2006
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	Not reported
Eligibility Indicator:	I - INELIGIBLE
Site Manager:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-
Discharge Date:	06/14/2010
PCT Discharge Combined:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	08/19/2010
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	Not reported
Eligibility Indicator:	I - INELIGIBLE
Site Manager:	RIAL_S
Site Mgr End Date:	08/19/2010
Tank Office:	PCLP50 - PALM BEACH CNTY ENVIRONMENTAL RESOURCES MGMT
Discharge Date:	10/25/2000
PCT Discharge Combined:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	02/02/2001
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	Cut fuel line!
Eligibility Indicator:	I - INELIGIBLE
Site Manager:	GIBSON_D
Site Mgr End Date:	02/02/2001
Tank Office:	PCLP50 - PALM BEACH CNTY ENVIRONMENTAL RESOURCES MGMT

Contaminated Media:

Discharge Date:	06/14/2010
Pct Discharge Combined With:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	08/19/2010
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	Not reported
Elig Indicator:	I - INELIGIBLE
Site Manager:	RIAL_S
Site Mgr End Date:	08/19/2010
Tank Office:	PCLP50 - PALM BEACH CNTY ENVIR
Contaminated Drinking Wells:	Not reported
Contaminated Monitoring Well:	No
Contaminated Soil:	Yes
Contaminated Surface Water:	Yes
Contaminated Ground Water:	No

SUGAR FARMS COOP SOUTHERN DIV (Continued) **S103588813**

Pollutant:	H - Generator/Pump Diesel
Pollutant Other Description:	Not reported
Gallons Discharged:	170
Discharge Date:	10/25/2000
Pct Discharge Combined With:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	02/02/2001
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	Cut fuel line!
Elig Indicator:	I - INELIGIBLE
Site Manager:	GIBSON_D
Site Mgr End Date:	02/02/2001
Tank Office:	PCLP50 - PALM BEACH CNTY ENVIR
Contaminated Drinking Wells:	Not reported
Contaminated Monitoring Well:	Not reported
Contaminated Soil:	Yes
Contaminated Surface Water:	Yes
Contaminated Ground Water:	Not reported
Pollutant:	H - Generator/Pump Diesel
Pollutant Other Description:	FROM 2000 GALLON AST!
Gallons Discharged:	50

Task Information:

District:	SED
Facility ID:	8623110
Facility Status:	OPEN
Facility Type:	M - Agricultural -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	I
Source Effective Date:	Not reported
Discharge Date:	03-15-1997
Cleanup Required:	N - NO CLEANUP REQUIRED
Discharge Cleanup Status:	NREQ - CLEANUP NOT REQUIRED
Disch Cleanup Status Date:	05-29-2001
SRC Action Type:	-
SRC Submit Date:	Not reported
SRC Review Date:	Not reported
SRC Completion Status:	-
SRC Issue Date:	Not reported
SRC Comment:	Not reported
Cleanup Work Status:	COMPLETED
Site Mgr:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-
SR Task ID:	Not reported
SR Cleanup Responsible:	-
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	Not reported
SR Payment Date:	Not reported
SR Oral Date:	Not reported
SR Written Date:	Not reported
SR Soil Removal:	Not reported
SR Free Product Removal:	Not reported
SR Soil Tonnage Removed:	Not reported

SUGAR FARMS COOP SOUTHERN DIV (Continued) **S103588813**

SR Soil Treatment:	Not reported
SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	Not reported
SA Cleanup Responsible:	-
SA Funding Eligibility Type:	-
SA Actual Cost:	Not reported
SA Completion Date:	Not reported
SA Payment Date:	Not reported
RAP Task ID:	Not reported
RAP Cleanup Responsible ID:	-
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported
RAP Last Order Approved:	Not reported
RA Task ID:	77691
RA Cleanup Responsible:	-
RA Funding Eligibility Type:	-
RA Years to Complete:	Not reported
RA Actual Cost:	Not reported
District:	SED
Facility ID:	8623110
Facility Status:	OPEN
Facility Type:	M - Agricultural -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	I
Source Effective Date:	11-17-1995
Discharge Date:	06-02-1993
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	11-17-1995
SRC Action Type:	NFA - NO FURTHER ACTION
SRC Submit Date:	01-23-1995
SRC Review Date:	11-01-1995
SRC Completion Status:	A - APPROVED
SRC Issue Date:	11-17-1995
SRC Comment:	Not reported
Cleanup Work Status:	COMPLETED
Site Mgr:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-
SR Task ID:	Not reported
SR Cleanup Responsible:	-
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	Not reported
SR Payment Date:	Not reported
SR Oral Date:	Not reported
SR Written Date:	Not reported
SR Soil Removal:	Not reported
SR Free Product Removal:	Not reported
SR Soil Tonnage Removed:	Not reported

SUGAR FARMS COOP SOUTHERN DIV (Continued) **S103588813**

SR Soil Treatment:	Not reported
SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	36940
SA Cleanup Responsible:	-
SA Funding Eligibility Type:	-
SA Actual Cost:	Not reported
SA Completion Date:	09-29-1995
SA Payment Date:	Not reported
RAP Task ID:	36941
RAP Cleanup Responsible ID:	NA - NOT APPLICABLE
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported
RAP Last Order Approved:	Not reported
RA Task ID:	36942
RA Cleanup Responsible:	RP - RESPONSIBLE PARTY
RA Funding Eligibility Type:	-
RA Years to Complete:	Not reported
RA Actual Cost:	Not reported
District:	SED
Facility ID:	8623110
Facility Status:	OPEN
Facility Type:	M - Agricultural -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	I
Source Effective Date:	11-17-1995
Discharge Date:	06-03-1993
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	11-17-1995
SRC Action Type:	NFA - NO FURTHER ACTION
SRC Submit Date:	01-23-1995
SRC Review Date:	11-01-1995
SRC Completion Status:	A - APPROVED
SRC Issue Date:	11-17-1995
SRC Comment:	Not reported
Cleanup Work Status:	COMPLETED
Site Mgr:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-
SR Task ID:	Not reported
SR Cleanup Responsible:	-
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	Not reported
SR Payment Date:	Not reported
SR Oral Date:	Not reported
SR Written Date:	Not reported
SR Soil Removal:	Not reported
SR Free Product Removal:	Not reported
SR Soil Tonnage Removed:	Not reported

SUGAR FARMS COOP SOUTHERN DIV (Continued) **S103588813**

SR Soil Treatment:	Not reported
SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	36937
SA Cleanup Responsible:	-
SA Funding Eligibility Type:	-
SA Actual Cost:	Not reported
SA Completion Date:	09-29-1995
SA Payment Date:	Not reported
RAP Task ID:	36938
RAP Cleanup Responsible ID:	NA - NOT APPLICABLE
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported
RAP Last Order Approved:	Not reported
RA Task ID:	36939
RA Cleanup Responsible:	RP - RESPONSIBLE PARTY
RA Funding Eligibility Type:	-
RA Years to Complete:	0
RA Actual Cost:	Not reported
District:	SED
Facility ID:	8623110
Facility Status:	OPEN
Facility Type:	M - Agricultural -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	I
Source Effective Date:	Not reported
Discharge Date:	06-09-1992
Cleanup Required:	N - NO CLEANUP REQUIRED
Discharge Cleanup Status:	NREQ - CLEANUP NOT REQUIRED
Disch Cleanup Status Date:	01-18-2006
SRC Action Type:	-
SRC Submit Date:	Not reported
SRC Review Date:	Not reported
SRC Completion Status:	-
SRC Issue Date:	Not reported
SRC Comment:	Not reported
Cleanup Work Status:	COMPLETED
Site Mgr:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-
SR Task ID:	36943
SR Cleanup Responsible:	RP - RESPONSIBLE PARTY
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	04-27-1993
SR Payment Date:	Not reported
SR Oral Date:	Not reported
SR Written Date:	04-30-1993
SR Soil Removal:	Y
SR Free Product Removal:	Y
SR Soil Tonnage Removed:	77

SUGAR FARMS COOP SOUTHERN DIV (Continued) **S103588813**

SR Soil Treatment:	Not reported
SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	36944
SA Cleanup Responsible:	RP - RESPONSIBLE PARTY
SA Funding Eligibility Type:	-
SA Actual Cost:	Not reported
SA Completion Date:	Not reported
SA Payment Date:	Not reported
RAP Task ID:	36945
RAP Cleanup Responsible ID:	NA - NOT APPLICABLE
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported
RAP Last Order Approved:	Not reported
RA Task ID:	36946
RA Cleanup Responsible:	NA - NOT APPLICABLE
RA Funding Eligibility Type:	-
RA Years to Complete:	0
RA Actual Cost:	Not reported
District:	SED
Facility ID:	8623110
Facility Status:	OPEN
Facility Type:	M - Agricultural -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	I
Source Effective Date:	07-30-2010
Discharge Date:	06-14-2010
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	08-19-2010
SRC Action Type:	NFA - NO FURTHER ACTION
SRC Submit Date:	07-19-2010
SRC Review Date:	07-30-2010
SRC Completion Status:	A - APPROVED
SRC Issue Date:	08-19-2010
SRC Comment:	Not reported
Cleanup Work Status:	COMPLETED
Site Mgr:	RIAL_S
Site Mgr End Date:	08-19-2010
Tank Office:	PCLP50 - Palm Beach County
SR Task ID:	86569
SR Cleanup Responsible:	-
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	Not reported
SR Payment Date:	Not reported
SR Oral Date:	Not reported
SR Written Date:	Not reported
SR Soil Removal:	Not reported
SR Free Product Removal:	Not reported
SR Soil Tonnage Removed:	Not reported

SUGAR FARMS COOP SOUTHERN DIV (Continued) **S103588813**

SR Soil Treatment:	Not reported
SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	Not reported
SA Cleanup Responsible:	-
SA Funding Eligibility Type:	-
SA Actual Cost:	Not reported
SA Completion Date:	Not reported
SA Payment Date:	Not reported
RAP Task ID:	Not reported
RAP Cleanup Responsible ID:	-
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported
RAP Last Order Approved:	Not reported
RA Task ID:	86505
RA Cleanup Responsible:	-
RA Funding Eligibility Type:	-
RA Years to Complete:	0
RA Actual Cost:	Not reported
District:	SED
Facility ID:	8623110
Facility Status:	OPEN
Facility Type:	M - Agricultural -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	I
Source Effective Date:	01-24-2001
Discharge Date:	10-25-2000
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	02-02-2001
SRC Action Type:	NFA - NO FURTHER ACTION
SRC Submit Date:	01-22-2001
SRC Review Date:	01-24-2001
SRC Completion Status:	A - APPROVED
SRC Issue Date:	02-02-2001
SRC Comment:	Not reported
Cleanup Work Status:	COMPLETED
Site Mgr:	GIBSON_D
Site Mgr End Date:	02-02-2001
Tank Office:	PCLP50 - Palm Beach County
SR Task ID:	Not reported
SR Cleanup Responsible:	-
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	Not reported
SR Payment Date:	Not reported
SR Oral Date:	Not reported
SR Written Date:	Not reported
SR Soil Removal:	Not reported
SR Free Product Removal:	Not reported
SR Soil Tonnage Removed:	Not reported

SUGAR FARMS COOP SOUTHERN DIV (Continued) **S103588813**

SR Soil Treatment:	Not reported
SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	67174
SA Cleanup Responsible:	-
SA Funding Eligibility Type:	-
SA Actual Cost:	Not reported
SA Completion Date:	Not reported
SA Payment Date:	Not reported
RAP Task ID:	Not reported
RAP Cleanup Responsible ID:	-
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported
RAP Last Order Approved:	Not reported
RA Task ID:	68369
RA Cleanup Responsible:	-
RA Funding Eligibility Type:	-
RA Years to Complete:	0
RA Actual Cost:	Not reported

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AST:

Facility ID:	8623110
Facility Status:	OPEN
Type Description:	Agricultural
Facility Phone:	(561) 942-4455
DEP Contractor Own:	C
Region:	STATE
Positioning Method:	AGPS
Lat/Long (dms):	26 28 16.3999999 / 80 38 35.2999999

Owner:

Owner Id:	51682
Owner Name:	SUGAR FARMS CO OP
Owner Address:	PO BOX 408
Owner Address 2:	ATTN: STORAGE TANK REGIS
Owner City,St,Zip:	LOXAHATCHEE, FL 33470
Owner Contact:	MARK HOWELL / EXT 25401 | JAIME VEGA 561-924-4465
Owner Phone:	(561) 996-9072

Tank Id:	1
Status:	Removed
Status Date:	30-NOV-1993
Install Date:	Not reported
Substance:	Diesel-generator,pump
Content Description:	Generator/Pump Diesel
Gallons:	5500
Tank Location:	ABOVEGROUND

Tank Id:	10

SUGAR FARMS COOP SOUTHERN DIV (Continued) **S103588813**

Status: Removed
Status Date: 30-SEP-1990
Install Date: Not reported
Substance: Leaded gas
Content Description: Leaded Gas
Gallons: 2000
Tank Location: ABOVEGROUND

Tank Id: 11
Status: In service
Status Date: Not reported
Install Date: 01-OCT-1991
Substance: Unleaded gas
Content Description: Unleaded Gas
Gallons: 4000
Tank Location: ABOVEGROUND

Construction:
Tank Id: 11
Construction Category: Secondary Containment
Construction Description: AST containment

Tank Id: 11
Construction Category: Primary Construction
Construction Description: Steel

Tank Id: 11
Construction Category: Overfill/Spill
Construction Description: Level gauges/alarms

Monitoring:
Tank ID: 11
Monitoring Description: Visual inspection of ASTs

Piping:
Tank ID: 11
Piping Category: Miscellaneous Attributes
Piping Description: Abv, no soil contact

Tank Id: 12
Status: In service
Status Date: Not reported
Install Date: 01-OCT-1991
Substance: Vehicular diesel
Content Description: Vehicular Diesel
Gallons: 12000
Tank Location: ABOVEGROUND

Construction:
Tank Id: 12
Construction Category: Secondary Containment
Construction Description: AST containment

Tank Id: 12
Construction Category: Primary Construction

SUGAR FARMS COOP SOUTHERN DIV (Continued) **S103588813**

Construction Description: Steel

Tank Id: 12
Construction Category: Overfill/Spill
Construction Description: Level gauges/alarms

Monitoring:
Tank ID: 12
Monitoring Description: Visual inspection of ASTs

Piping:
Tank ID: 12
Piping Category: Miscellaneous Attributes
Piping Description: Abv, no soil contact

Tank Id: 2
Status: Removed
Status Date: Not reported
Install Date: Not reported
Substance: Leaded gas
Content Description: Leaded Gas
Gallons: 2000
Tank Location: ABOVEGROUND

Tank Id: S100
Status: In service
Status Date: 01-AUG-1983
Install Date: 01-AUG-1983
Substance: Diesel-generator,pump
Content Description: Generator/Pump Diesel
Gallons: 2000
Tank Location: ABOVEGROUND

Construction:
Tank Id: S100
Construction Category: Primary Construction
Construction Description: Steel

Tank Id: S100
Construction Category: Secondary Containment
Construction Description: AST containment

Tank Id: S100
Construction Category: Overfill/Spill
Construction Description: Spill containment bucket

Monitoring:
Tank ID: S100
Monitoring Description: Visual inspection of ASTs

Piping:
Tank ID: S100
Piping Category: Miscellaneous Attributes
Piping Description: Abv, no soil contact

SUGAR FARMS COOP SOUTHERN DIV (Continued) **S103588813**

Tank Id:	4
Status:	Removed
Status Date:	30-NOV-1993
Install Date:	01-SEP-1990
Substance:	Vehicular diesel
Content Description:	Vehicular Diesel
Gallons:	4000
Tank Location:	ABOVEGROUND

Tank Id:	5
Status:	Removed
Status Date:	30-NOV-1993
Install Date:	01-SEP-1990
Substance:	Vehicular diesel
Content Description:	Vehicular Diesel
Gallons:	4000
Tank Location:	ABOVEGROUND

Tank Id:	6
Status:	Removed
Status Date:	30-NOV-1993
Install Date:	01-SEP-1990
Substance:	Vehicular diesel
Content Description:	Vehicular Diesel
Gallons:	4000
Tank Location:	ABOVEGROUND

Tank Id:	7
Status:	Removed
Status Date:	30-NOV-1993
Install Date:	Not reported
Substance:	Leaded gas
Content Description:	Leaded Gas
Gallons:	1000
Tank Location:	ABOVEGROUND

Tank Id:	9
Status:	Deleted
Status Date:	01-MAY-1994
Install Date:	01-JUL-1991
Substance:	Diesel-generator,pump
Content Description:	Generator/Pump Diesel
Gallons:	10000
Tank Location:	ABOVEGROUND

Tank Id:	13
Status:	Removed
Status Date:	30-NOV-1991
Install Date:	01-SEP-1990
Substance:	Leaded gas
Content Description:	Leaded Gas
Gallons:	3000
Tank Location:	ABOVEGROUND

Tank Id:	14
Status:	Removed
Status Date:	30-NOV-1993

SUGAR FARMS COOP SOUTHERN DIV (Continued) **S103588813**

Install Date: 01-JUL-1991
Substance: Diesel-generator,pump
Content Description: Generator/Pump Diesel
Gallons: 10000
Tank Location: ABOVEGROUND

Tank Id: S102
Status: Removed
Status Date: 01-FEB-2010
Install Date: 01-NOV-1993
Substance: Diesel-generator,pump
Content Description: Generator/Pump Diesel
Gallons: 2000
Tank Location: ABOVEGROUND

Tank Id: 16
Status: Removed
Status Date: 01-DEC-2000
Install Date: 01-NOV-1993
Substance: Diesel-generator,pump
Content Description: Generator/Pump Diesel
Gallons: 2000
Tank Location: ABOVEGROUND

Tank Id: 17
Status: In service
Status Date: 01-SEP-1999
Install Date: 01-SEP-1999
Substance: Vehicular diesel
Content Description: Vehicular Diesel
Gallons: 1500
Tank Location: ABOVEGROUND

Construction:
Tank Id: 17
Construction Category: Primary Construction
Construction Description: Steel

Tank Id: 17
Construction Category: Secondary Containment
Construction Description: AST containment

Monitoring:
Tank ID: 17
Monitoring Description: Visual inspection of ASTs

Piping:
Tank ID: 17
Piping Category: Miscellaneous Attributes
Piping Description: Abv, no soil contact

Tank Id: 18
Status: Deleted
Status Date: 01-OCT-2000
Install Date: 01-OCT-2000
Substance: Diesel-generator,pump

SUGAR FARMS COOP SOUTHERN DIV (Continued) **S103588813**

Content Description: Generator/Pump Diesel
Gallons: 2000
Tank Location: ABOVEGROUND

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6 **TALISMAN SUGAR** **SWF/LF** **S111220793**
N/A

, FL

LF PALM BEACH:
Site Number: 68
Permit Number: FLD 078464799
Owner Of Site: Talisman Sugar, Inc.
Quad: Everglades, 2 NE
Pbc Street Atlas 2000: NA
Latitude: 26,27,45.00
Longitude: 80,45,15.00
Township: 46 S
Range: 36 E
Section: 20
Class: 500
Open: Not reported
Closed: Not reported
Operation: Petroleum products contamination of soil, reported release of hydrochloric acid onto land between 1987-89 to US EPA.
Site Size In Acres: Not reported
Location: 9.8 mi S of intersection of SR 80 & US 27.

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6 **TALISMAN SUGAR CORP-ABELS FLYING** **AST** **A100148879**
US 27 **N/A**
BELLE GLADE, FL 33430

AST:
Facility ID: 8839284
Facility Status: CLOSED
Type Description: Fuel user/Non-retail
Facility Phone: Not reported
DEP Contractor Own: P
Region: STATE
Positioning Method: AGPS
Lat/Long (dms): 26 27 55 / 80 45 21

Owner:
Owner Id: 120
Owner Name: ABELS FLYING SERVICE
Owner Address: 18390 SW 156TH ST
Owner Address 2: Not reported
Owner City,St,Zip: MIAMI, FL 33187
Owner Contact: MABEL SERNA
Owner Phone: (305) 551-3785

Tank Id: 1
Status: Removed
Status Date: 01-FEB-2000

TALISMAN SUGAR CORP-ABELS FLYING (Continued) **A100148879**

Install Date:	01-JUL-1985
Substance:	Aviation gas
Content Description:	Aviation Gas
Gallons:	4000
Tank Location:	ABOVEGROUND

Tank Id:	2
Status:	Removed
Status Date:	01-FEB-2000
Install Date:	01-JUL-1985
Substance:	Aviation gas
Content Description:	Aviation Gas
Gallons:	4000
Tank Location:	ABOVEGROUND

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6 **TALISMAN SUGAR CORP (THE ST. JOE COMPANY)** **INST CONTROL** **S111761736**
T-3 - LABOR CAMP - RURAL AREA IN FARM **N/A**
SOUTHWEST PALM BEACH COUTY, FL 53

Inst Control:

Facility Id:	COM_216895
Inst Control Type:	LAND USE RESTRICTION
Eng Control Type:	NONE
Contaminated Media:	SOIL
Contamination:	PESTICIDES (INCLUDES HERBICIDES, FUNGICIDES AND INSECTICIDES)
Lat/Long (dms):	26 27 55.7271 / 80 45 17.945
Date Amended:	Not reported
Mechanism - Date IC Removed:	/2/06/06/2
Mechanism - Program Area:	WASTE CLEANUP
Mechanism - Date Order Issued:	06/21/2006
Date Removed:	Not reported
Inspection Date:	Not reported
Legal Description:	Not reported
Comments:	Part of Talisman Sugar Corp Settlement; See OGC case #99-0339
Township:	46S
Range:	36E
Parcel ID:	00364620000005010
Section:	20
Book Number:	20479
Page Number:	216-223
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

Facility Id:	COM_216895
Inst Control Type:	DIGGING RESTRICTION
Eng Control Type:	NONE
Contaminated Media:	SOIL
Contamination:	PESTICIDES (INCLUDES HERBICIDES, FUNGICIDES AND INSECTICIDES)
Lat/Long (dms):	26 27 55.7271 / 80 45 17.945
Date Amended:	Not reported
Mechanism - Date IC Removed:	/2/06/06/2
Mechanism - Program Area:	WASTE CLEANUP
Mechanism - Date Order Issued:	06/21/2006
Date Removed:	Not reported
Inspection Date:	Not reported
Legal Description:	Not reported

TALISMAN SUGAR CORP (THE ST. JOE COMPANY) (Continued) **S111761736**

Comments:	Part of Talisman Sugar Corp Settlement; See OGC case #99-0339
Township:	46S
Range:	36E
Parcel ID:	00364620000005010
Section:	20
Book Number:	20479
Page Number:	216-223
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

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6 **T-3 TALISMAN FARM FORMER LABOR CAMP AND AIR STRIP** **RESP PARTY** **S117361227**
NONE REMOTE FARM LOCATION **N/A**
BELLE GLADE, FL 33430

RESP PARTY:

District:	Southeast District
Site Id:	216895
Project Id:	269825
Site Status:	CLOSED
Project Manager:	WIERZBICKI_P
OGC Case Number:	99-0339
Initial Date Received:	09/30/1998
Contaminants:	Former Residential Labor Camp and later crop dusting airstrip. Pesticides, fuels, oils, metals.
Offsite Cont Impact:	N
Priority Score:	Not reported
Datum:	NAD83
Method ID:	DPHO
Feature:	Fmr Labor Camp & crop Dtr
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	EXACT
Collect Username:	WILLIAMS_CA
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	07/21/2011
Map Series Used:	1999 doqs
Map Source Scale:	4999
Interpolation Scale:	Not reported
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO
Verifier Username:	THORNTON_A
Verifier Affiliation:	DEPARTMENT OF ENVIRONMENTAL PROTECTION
Verifying Program Id:	CL
Verification Date:	08/22/2005
Decode for District:	Southeast District
Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	No, the best available evidence (such as completed SAR) demonstrates that contamination above applicable standards or criteria DOES NOT extend offsite.
Decode for V_Method:	Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec):	26 27 55.7271 / 80 45 17.945

7 SFWMD TEMPORARY TEST CELLS — **FINDS** — **1008172749**
N OF WESTON, W OF US 2 — **ECHO** — **N/A**
N/A, FL 00000

FINDS:

Registry ID: 110020733054

Environmental Interest/Information System
US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Florida Environmental System Today Application (FIESTA) Data Maintenance (FDM) system maintains entity, environmental interest and affiliation data for the State of Florida.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1008172749
Registry ID: 110020733054
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110020733054

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8 TALISMAN SUGAR CORP-MILLING PLANT — **AST** — **U004035061**
US HWY 27 16 MI S OF SOUTH BAY — **N/A**
SOUTH BAY, FL 33430

AST:
Facility ID: 8514728
Facility Status: CLOSED
Type Description: Fuel user/Non-retail
Facility Phone: Not reported
DEP Contractor Own: P
Region: STATE
Positioning Method: AGPS
Lat/Long (dms): 26 27 27 / 80 40 22

Owner:
Owner Id: 21488
Owner Name: TALISMAN SUGAR CORP
Owner Address: PO BOX 814
Owner Address 2: Not reported
Owner City,St,Zip: BELLE GLADE, FL 33430
Owner Contact: MIGUEL CERVERA
Owner Phone: (561) 996-5527

Tank Id: 1
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Vehicular diesel

TALISMAN SUGAR CORP-MILLING PLANT (Continued) **U004035061**

Content Description: Vehicular Diesel
Gallons: 10000
Tank Location: ABOVEGROUND

Tank Id: 10
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Unleaded gas
Content Description: Unleaded Gas
Gallons: 5000
Tank Location: ABOVEGROUND

Tank Id: 11
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Unleaded gas
Content Description: Unleaded Gas
Gallons: 5000
Tank Location: ABOVEGROUND

Tank Id: 12
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Unleaded gas
Content Description: Unleaded Gas
Gallons: 2000
Tank Location: ABOVEGROUND

Tank Id: 13
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: V
Content Description: Residual oils, 5&6
Gallons: 100600
Tank Location: ABOVEGROUND

Tank Id: 14
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Vehicular diesel
Content Description: Vehicular Diesel
Gallons: 3000
Tank Location: ABOVEGROUND

Tank Id: 15
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Diesel-generator,pump
Content Description: Generator/Pump Diesel
Gallons: 3000
Tank Location: ABOVEGROUND

TALISMAN SUGAR CORP-MILLING PLANT (Continued) **U004035061**

Tank Id: 16
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: New/lube oil
Content Description: New/Lube Oil
Gallons: 8000
Tank Location: ABOVEGROUND

Tank Id: 17
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: New/lube oil
Content Description: New/Lube Oil
Gallons: 8000
Tank Location: ABOVEGROUND

Tank Id: 18
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: New/lube oil
Content Description: New/Lube Oil
Gallons: 10000
Tank Location: ABOVEGROUND

Tank Id: 19
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: New/lube oil
Content Description: New/Lube Oil
Gallons: 10000
Tank Location: ABOVEGROUND

Tank Id: 2
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Vehicular diesel
Content Description: Vehicular Diesel
Gallons: 10000
Tank Location: ABOVEGROUND

Tank Id: 20
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: New/lube oil
Content Description: New/Lube Oil
Gallons: 10000
Tank Location: ABOVEGROUND

Tank Id: 21
Status: Removed
Status Date: 01-FEB-2000

TALISMAN SUGAR CORP-MILLING PLANT (Continued) **U004035061**

Install Date: Not reported
Substance: New/lube oil
Content Description: New/Lube Oil
Gallons: 8000
Tank Location: ABOVEGROUND

Tank Id: 3
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Vehicular diesel
Content Description: Vehicular Diesel
Gallons: 10000
Tank Location: ABOVEGROUND

Tank Id: 4
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Vehicular diesel
Content Description: Vehicular Diesel
Gallons: 10000
Tank Location: ABOVEGROUND

Tank Id: 5
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Vehicular diesel
Content Description: Vehicular Diesel
Gallons: 10000
Tank Location: ABOVEGROUND

Tank Id: 6
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Vehicular diesel
Content Description: Vehicular Diesel
Gallons: 10000
Tank Location: ABOVEGROUND

Tank Id: 7
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Vehicular diesel
Content Description: Vehicular Diesel
Gallons: 5000
Tank Location: ABOVEGROUND

Tank Id: 8
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Vehicular diesel
Content Description: Vehicular Diesel

TALISMAN SUGAR CORP-MILLING PLANT (Continued) **U004035061**

Gallons: 5000
Tank Location: ABOVEGROUND

Tank Id: 9
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Vehicular diesel
Content Description: Vehicular Diesel
Gallons: 5000
Tank Location: ABOVEGROUND

Tank Id: 22
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Waste oil
Content Description: Waste Oil
Gallons: 900
Tank Location: ABOVEGROUND

Tank Id: 23
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Waste oil
Content Description: Waste Oil
Gallons: 1000
Tank Location: ABOVEGROUND

Tank Id: 24
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Waste oil
Content Description: Waste Oil
Gallons: 1000
Tank Location: ABOVEGROUND

Tank Id: 25
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Waste oil
Content Description: Waste Oil
Gallons: 1000
Tank Location: ABOVEGROUND

Tank Id: 26
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Mineral acid
Content Description: Mineral Acid
Gallons: 8000
Tank Location: ABOVEGROUND

TALISMAN SUGAR CORP-MILLING PLANT (Continued) **U004035061**

Tank Id: 27
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Hazardous substance
Content Description: Hazardous Substance
Gallons: 900
Tank Location: ABOVEGROUND

Tank Id: 28
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Hazardous substance
Content Description: Hazardous Substance
Gallons: 900
Tank Location: ABOVEGROUND

Tank Id: 29
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: New/lube oil
Content Description: New/Lube Oil
Gallons: 4100
Tank Location: ABOVEGROUND

Tank Id: 30
Status: Removed
Status Date: 01-FEB-2000
Install Date: Not reported
Substance: Vehicular diesel
Content Description: Vehicular Diesel
Gallons: 2640
Tank Location: ABOVEGROUND

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8 **T-1 & T-5 - TALISMAN SUGAR CORP (THE ST. JOE COMP** **INST CONTROL** **S111761734**
RURAL AREA IN FARM - 00374608000001020 **N/A**
SOUTHWEST PALM BEACH COUTY, FL 53

Inst Control:
Facility Id: COM_209147
Inst Control Type: DIGGING RESTRICTION
Eng Control Type: NONE
Contaminated Media: SOIL
Contamination: PESTICIDES (INCLUDES HERBICIDES, FUNGICIDES AND INSECTICIDES)
Lat/Long (dms): 26 27 29.8000000 / 80 40 18.9699999
Date Amended: Not reported
Mechanism - Date IC Removed: /2/06/06/1
Mechanism - Program Area: WASTE CLEANUP
Mechanism - Date Order Issued: 06/21/2006
Date Removed: Not reported
Inspection Date: Not reported
Legal Description: Not reported
Comments: Part of Talisman Corp; See OgC case # 99-0339

T-1 & T-5 - TALISMAN SUGAR CORP (THE ST. JOE COMPANY) (Continued) **S111761734**

Township:	46S
Range:	37E
Parcel ID:	00374604000001030
Section:	04
Book Number:	20479
Page Number:	0216
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

Facility Id:	COM_209147
Inst Control Type:	LAND USE RESTRICTION
Eng Control Type:	NONE
Contaminated Media:	SOIL
Contamination:	PESTICIDES (INCLUDES HERBICIDES, FUNGICIDES AND INSECTICIDES)
Lat/Long (dms):	26 27 29.8000000 / 80 40 18.9699999
Date Amended:	Not reported
Mechanism - Date IC Removed:	/2/06/06/1
Mechanism - Program Area:	WASTE CLEANUP
Mechanism - Date Order Issued:	06/21/2006
Date Removed:	Not reported
Inspection Date:	Not reported
Legal Description:	Not reported
Comments:	Part of Talisman Corp; See OgC case # 99-0339
Township:	46S
Range:	37E
Parcel ID:	00374604000001030
Section:	04
Book Number:	20479
Page Number:	0216
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

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8 **TALISMAN SUGAR CORP-MILLING PLANT** **LUST** **S108979166**
US HWY 27 16 MI S OF SOUTH BAY **N/A**
SOUTH BAY, FL 33430

LUST:

Region:	STATE
Facility Id:	8514728
Facility Status:	CLOSED
Facility Type:	C - Fuel user/Non-retail
Facility Phone:	Not reported
Facility Cleanup Rank:	11086
District:	Southeast District
Lat/Long (dms):	26 27 29.88 / 80 40 18.84
Section:	008
Township:	46S
Range:	36E
Feature:	Not reported
Method:	AGPS
Datum:	0
Score:	5
Score Effective Date:	05/09/2008
Score When Ranked:	9
Operator:	Not reported
Name Update:	Not reported
Address Update:	02/23/1999

TALISMAN SUGAR CORP-MILLING PLANT (Continued) **S108979166**

Discharge Cleanup Summary:

Discharge Date:	04/15/1991
PCT Discharge Combined:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFAC - NO FURTHER ACTION WITH CONDITIONS
Disch Cleanup Status Date:	07/21/2006
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	Not reported
Eligibility Indicator:	I - INELIGIBLE
Site Manager:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-
Discharge Date:	04/25/1994
PCT Discharge Combined:	Not reported
Cleanup Required:	C - COMBINED CLEANUP REQUIRED
Discharge Cleanup Status:	NFAC - NO FURTHER ACTION WITH CONDITIONS
Disch Cleanup Status Date:	07/21/2006
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	Not reported
Eligibility Indicator:	I - INELIGIBLE
Site Manager:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-

Task Information:

District:	SED
Facility ID:	8514728
Facility Status:	CLOSED
Facility Type:	C - Fuel user/Non-retail -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	I
Source Effective Date:	07-21-2006
Discharge Date:	04-15-1991
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFAC - NO FURTHER ACTION WITH CONDITIONS
Disch Cleanup Status Date:	07-21-2006
SRC Action Type:	NFAC - NO FURTHER ACTION WITH CONDITIONS
SRC Submit Date:	03-26-2003
SRC Review Date:	03-26-2003
SRC Completion Status:	A - APPROVED
SRC Issue Date:	07-21-2006
SRC Comment:	ISSUED BY SE DIST WCU
Cleanup Work Status:	COMPLETED
Site Mgr:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-
SR Task ID:	Not reported
SR Cleanup Responsible:	-
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	Not reported
SR Payment Date:	Not reported
SR Oral Date:	Not reported
SR Written Date:	Not reported

TALISMAN SUGAR CORP-MILLING PLANT (Continued) **S108979166**

SR Soil Removal:	Not reported
SR Free Product Removal:	Not reported
SR Soil Tonnage Removed:	Not reported
SR Soil Treatment:	Not reported
SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	37587
SA Cleanup Responsible:	-
SA Funding Eligibility Type:	-
SA Actual Cost:	Not reported
SA Completion Date:	Not reported
SA Payment Date:	Not reported
RAP Task ID:	Not reported
RAP Cleanup Responsible ID:	-
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported
RAP Last Order Approved:	Not reported
RA Task ID:	88582
RA Cleanup Responsible:	RP - RESPONSIBLE PARTY
RA Funding Eligibility Type:	-
RA Years to Complete:	0
RA Actual Cost:	Not reported
District:	SED
Facility ID:	8514728
Facility Status:	CLOSED
Facility Type:	C - Fuel user/Non-retail -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	I
Source Effective Date:	07-21-2006
Discharge Date:	04-25-1994
Cleanup Required:	C - COMBINED CLEANUP REQUIRED
Discharge Cleanup Status:	NFAC - NO FURTHER ACTION WITH CONDITIONS
Disch Cleanup Status Date:	07-21-2006
SRC Action Type:	NFAC - NO FURTHER ACTION WITH CONDITIONS
SRC Submit Date:	03-26-2003
SRC Review Date:	03-26-2003
SRC Completion Status:	A - APPROVED
SRC Issue Date:	07-21-2006
SRC Comment:	ISSUED BY SE DIST WCU
Cleanup Work Status:	COMPLETED
Site Mgr:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-
SR Task ID:	Not reported
SR Cleanup Responsible:	-
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	Not reported
SR Payment Date:	Not reported
SR Oral Date:	Not reported
SR Written Date:	Not reported

TALISMAN SUGAR CORP-MILLING PLANT (Continued) **S108979166**

SR Soil Removal:	Not reported
SR Free Product Removal:	Not reported
SR Soil Tonnage Removed:	Not reported
SR Soil Treatment:	Not reported
SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	65806
SA Cleanup Responsible:	-
SA Funding Eligibility Type:	-
SA Actual Cost:	Not reported
SA Completion Date:	Not reported
SA Payment Date:	Not reported
RAP Task ID:	Not reported
RAP Cleanup Responsible ID:	-
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported
RAP Last Order Approved:	Not reported
RA Task ID:	88584
RA Cleanup Responsible:	RP - RESPONSIBLE PARTY
RA Funding Eligibility Type:	-
RA Years to Complete:	0
RA Actual Cost:	Not reported

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8 **TALISMAN SUGAR CORP-MILLING PLANT** **DWM CONTAM** **S109418631**
US HWY 27 16 MI S OF SOUTH BAY **N/A**
SOUTH BAY, FL 33430

DWM CONTAM:

Program Site Id:	8514728
Lat DD:	26
Lat MM:	27
Lat SS:	31.76
Long DD:	80
Long MM:	40
Long SS:	18.08
Office/ District:	PCLP50
Program Area:	Petroleum
Offsite Contamination:	N
Project Manager:	Not reported
Priority Score:	5
Remediation Status:	WAITING
Date Known Offsite:	Not reported
Datum:	HARN
Method:	AGPS
Program Eligible:	Not reported
Ineligible:	Yes

8 T-1 / T-5 TALISMAN MILL **RESP PARTY** **S117898800**
SUGAR MILL - 00374608000001020 **N/A**
BELLE GLADE, FL 33430

RESP PARTY:

District:	Southeast District
Site Id:	87499
Project Id:	229038
Site Status:	CLOSED
Project Manager:	WIERZBICKI_P
OGC Case Number:	99-0339
Initial Date Received:	09/30/1998
Contaminants:	Site of former Sugar Mill, pesticides, metals, petroleum, oils, bagasse, etc.
Offsite Cont Impact:	N
Priority Score:	Not reported
Datum:	NAD83
Method ID:	DPHO
Feature:	Former Sugar Mill
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	APPRX
Collect Username:	WILLIAMS_CA
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	05/13/2015
Map Series Used:	IMAGERY_11_13
Map Source Scale:	5000
Interpolation Scale:	5000
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO
Verifier Username:	WILLIAMS_CA
Verifier Affiliation:	DEPARTMENT OF ENVIRONMENTAL PROTECTION
Verifying Program Id:	CR
Verification Date:	05/13/2015
Decode for District:	Southeast District
Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	No, the best available evidence (such as completed SAR) demonstrates that contamination above applicable standards or criteria DOES NOT extend offsite.
Decode for V_Method:	Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec):	26 27 36.1918999 / 80 40 16.3867000

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8 SUGAR MILL - TALISMAN SUGAR CORP (THE ST. JOE COM **INST CONTROL** **S117898780**
SUGAR MILL - 00374608000001020 **N/A**
BELLE GLADE, FL 3340

Inst Control:

Facility Id:	COM_87499
Inst Control Type:	LAND USE RESTRICTION
Eng Control Type:	NONE
Contaminated Media:	SOIL
Contamination:	PETROLEUM (INCLUDES BTEX AND MTBE)
Lat/Long (dms):	26 27 36.1918999 / 80 40 16.3867000
Date Amended:	Not reported
Mechanism - Date IC Removed:	/2/06/06/2
Mechanism - Program Area:	WASTE CLEANUP
Mechanism - Date Order Issued:	07/21/2006
Date Removed:	Not reported
Inspection Date:	Not reported

SUGAR MILL - TALISMAN SUGAR CORP (THE ST. JOE COMPANY) (Continued) **S117898780**

Legal Description:	Not reported
Comments:	Not reported
Township:	46S
Range:	37E
Parcel ID:	00374608000001020
Section:	08
Book Number:	20532
Page Number:	460-475
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

Facility Id:	COM_87499
Inst Control Type:	LAND USE RESTRICTION
Eng Control Type:	NONE
Contaminated Media:	SOIL
Contamination:	PESTICIDES (INCLUDES HERBICIDES, FUNGICIDES AND INSECTICIDES)
Lat/Long (dms):	26 27 36.1918999 / 80 40 16.3867000
Date Amended:	Not reported
Mechanism - Date IC Removed:	/2/06/06/2
Mechanism - Program Area:	WASTE CLEANUP
Mechanism - Date Order Issued:	07/21/2006
Date Removed:	Not reported
Inspection Date:	Not reported
Legal Description:	Not reported
Comments:	Not reported
Township:	46S
Range:	37E
Parcel ID:	00374608000001020
Section:	08
Book Number:	20532
Page Number:	460-475
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

Facility Id:	COM_87499
Inst Control Type:	DIGGING RESTRICTION
Eng Control Type:	NONE
Contaminated Media:	SOIL
Contamination:	PESTICIDES (INCLUDES HERBICIDES, FUNGICIDES AND INSECTICIDES)
Lat/Long (dms):	26 27 36.1918999 / 80 40 16.3867000
Date Amended:	Not reported
Mechanism - Date IC Removed:	/2/06/06/2
Mechanism - Program Area:	WASTE CLEANUP
Mechanism - Date Order Issued:	07/21/2006
Date Removed:	Not reported
Inspection Date:	Not reported
Legal Description:	Not reported
Comments:	Not reported
Township:	46S
Range:	37E
Parcel ID:	00374608000001020
Section:	08
Book Number:	20532
Page Number:	460-475
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

Facility Id:	COM_87499
Inst Control Type:	DIGGING RESTRICTION
Eng Control Type:	NONE

SUGAR MILL - TALISMAN SUGAR CORP (THE ST. JOE COMPANY) (Continued) **S117898780**

Contaminated Media:	SOIL
Contamination:	PETROLEUM (INCLUDES BTEX AND MTBE)
Lat/Long (dms):	26 27 36.1918999 / 80 40 16.3867000
Date Amended:	Not reported
Mechanism - Date IC Removed:	/2/06/06/2
Mechanism - Program Area:	WASTE CLEANUP
Mechanism - Date Order Issued:	07/21/2006
Date Removed:	Not reported
Inspection Date:	Not reported
Legal Description:	Not reported
Comments:	Not reported
Township:	46S
Range:	37E
Parcel ID:	00374608000001020
Section:	08
Book Number:	20532
Page Number:	460-475
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

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8 **B-3 - TALISMAN SUGAR CORP (THE ST. JOE COMPANY)** **INST CONTROL** **S111761720**
B-3 - RURAL AREA IN FARM **N/A**
BELLE GLAGE, FL 33430

Inst Control:

Facility Id:	COM_157238
Inst Control Type:	DIGGING RESTRICTION
Eng Control Type:	NONE
Contaminated Media:	SOIL
Contamination:	PESTICIDES (INCLUDES HERBICIDES, FUNGICIDES AND INSECTICIDES)
Lat/Long (dms):	26 27 41.9896999 / 80 40 14.7624
Date Amended:	Not reported
Mechanism - Date IC Removed:	/2/01/02/1
Mechanism - Program Area:	WASTE CLEANUP
Mechanism - Date Order Issued:	04/06/2001
Date Removed:	Not reported
Inspection Date:	05/03/1999
Legal Description:	Not reported
Comments:	Part of Talisman Sugar Corp settlement; see OGC Case #99-0339 1.3 acre in size
Township:	46S
Range:	37E
Parcel ID:	00384337010060061
Section:	08
Book Number:	12319
Page Number:	1181-1191
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

Facility Id:	COM_157238
Inst Control Type:	LAND USE RESTRICTION
Eng Control Type:	NONE
Contaminated Media:	SOIL
Contamination:	PESTICIDES (INCLUDES HERBICIDES, FUNGICIDES AND INSECTICIDES)
Lat/Long (dms):	26 27 41.9896999 / 80 40 14.7624
Date Amended:	Not reported
Mechanism - Date IC Removed:	/2/01/02/1
Mechanism - Program Area:	WASTE CLEANUP

B-3 - TALISMAN SUGAR CORP (THE ST. JOE COMPANY) (Continued) **S111761720**

Mechanism - Date Order Issued:	04/06/2001
Date Removed:	Not reported
Inspection Date:	05/03/1999
Legal Description:	Not reported
Comments:	Part of Talisman Sugar Corp settlement; see OGC Case #99-0339 1.3 acre in size
Township:	46S
Range:	37E
Parcel ID:	00384337010060061
Section:	08
Book Number:	12319
Page Number:	1181-1191
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

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9 **SOUTH FLORIDA WATER MANAGEMENT DISTRICT - TALISMAN** **TIER 2** **S113388217**
US HIGHWAY 27 - 10 1/2 MILES NORTH OF BROWARD COUNTY LINE **N/A**
SOUTH BAY, FL

TIER 2:

Year:	2011
Facility Id:	3995036
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.458055
Longitude:	-80.63417
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	Not reported
Last Modified Date:	11/12/2012
First Submit Date:	11/09/2012
Data Submitted By:	Florida Division of Emergency Management
Company Name:	SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Comments:	Not reported

Contact:

Contact ID:	Not reported
Year:	2011
Facility Id:	3995036
Contact Type:	Tier II Emergency Contact
Contact Name:	Jeffrey Smith
Contact Title:	Not reported
Contact Phone:	5616822516
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported

SOUTH FLORIDA WATER MANAGEMENT DISTRICT - TALISMAN STATION (Continued) **S113388217**

Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

Contact ID:	Not reported
Year:	2011
Facility Id:	3995036
Contact Type:	Tier II Secondary 24 Hour Contact
Contact Name:	Jeffrey Smith
Contact Title:	Not reported
Contact Phone:	5616822516
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

Contact ID:	Not reported
Year:	2011
Facility Id:	3995036
Contact Type:	Tier II Secondary Contact
Contact Name:	Jeffrey Smith
Contact Title:	Not reported
Contact Phone:	5616822516
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

Contact ID:	Not reported
Year:	2011
Facility Id:	3995036
Contact Type:	Tier II Emergency 24 Hour Contact
Contact Name:	Jeffrey Smith
Contact Title:	Not reported
Contact Phone:	5616822516
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

10 T-7 TALISMAN FARM **RESP PARTY** **S117361229**
N/A
, FL

RESP PARTY:

District:	Southeast District
Site Id:	157259
Project Id:	230212
Site Status:	CLOSED
Project Manager:	WIERZBICKI_P
OGC Case Number:	99-0339
Initial Date Received:	09/30/1998
Contaminants:	Not reported
Offsite Cont Impact:	Not reported
Priority Score:	Not reported
Datum:	NAD83
Method ID:	DPHO
Feature:	Pump Station
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	VICIN
Collect Username:	WIERZBICKI_P
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	06/15/2012
Map Series Used:	IMAGERY_04_09
Map Source Scale:	5000
Interpolation Scale:	5000
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO
Verifier Username:	WIERZBICKI_P
Verifier Affiliation:	Florida Department of Environmental Protection
Verifying Program Id:	CL
Verification Date:	06/15/2012
Decode for District:	Southeast District
Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	Not reported
Decode for V_Method:	Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec):	26 27 18.6179999 / 80 44 14.1145999

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10 T-8 TALISMAN FARM **RESP PARTY** **S117361230**
NONE REMOTE LOCATION **N/A**
, FL

RESP PARTY:

District:	Southeast District
Site Id:	157261
Project Id:	230211
Site Status:	CLOSED
Project Manager:	WIERZBICKI_P
OGC Case Number:	99-0339
Initial Date Received:	09/30/1998
Contaminants:	Not reported
Offsite Cont Impact:	Not reported
Priority Score:	Not reported
Datum:	NAD83
Method ID:	DPHO
Feature:	Pump Station
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	VICIN

T-8 TALISMAN FARM (Continued) **S117361230**

Collect Username:	WIERZBICKI_P
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	06/18/2012
Map Series Used:	IMAGERY_04_09
Map Source Scale:	1250
Interpolation Scale:	1250
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO
Verifier Username:	WIERZBICKI_P
Verifier Affiliation:	Florida Department of Environmental Protection
Verifying Program Id:	CR
Verification Date:	06/18/2012
Decode for District:	Southeast District
Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	Not reported
Decode for V_Method:	Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec):	26 27 26.2462000 / 80 44 14.2601

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10 **T-2 TALISMAN FARM (BORROW PIT)** **RESP PARTY** **S117898803**
RURAL AREA IN FARM - 00364628000001020 **N/A**
SOUTHWEST PALM BEACH COUTY, FL 53

RESP PARTY:

District:	Southeast District
Site Id:	170717
Project Id:	238934
Site Status:	CLOSED
Project Manager:	WIERZBICKI_P
OGC Case Number:	99-0339
Initial Date Received:	09/30/1998
Contaminants:	Borrow Pit used for disposal of solid waste and farm related waste: tires, metal parts. Metals. (Waste has been removed.)
Offsite Cont Impact:	N
Priority Score:	Not reported
Datum:	NAD83
Method ID:	DPHO
Feature:	Borrow Pit landfill
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	EXACT
Collect Username:	WIERZBICKI_P
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	01/25/2012
Map Series Used:	IMAGERY_04_09
Map Source Scale:	1250
Interpolation Scale:	1250
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO
Verifier Username:	WIERZBICKI_P
Verifier Affiliation:	Florida Department of Environmental Protection
Verifying Program Id:	CR
Verification Date:	01/25/2012
Decode for District:	Southeast District
Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	No, the best available evidence (such as completed SAR) demonstrates

T-2 TALISMAN FARM (BORROW PIT) (Continued) **S117898803**

that contamination above applicable standards or criteria DOES NOT extend offsite.

Decode for V_Method: Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec): 26 27 28.7061999 / 80 44 25.5223000

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10 TALISMAN SUGAR CORP (THE ST. JOE COMPANY) **INST CONTROL** **S111761733**
T-2 - BORROW PIT - RURAL AREA IN FARM **N/A**
SOUTHWEST PALM BEACH COUTY, FL 53

Inst Control:

Facility Id:	COM_170717
Inst Control Type:	GROUNDWATER USE RESTRICTION
Eng Control Type:	NONE
Contaminated Media:	GROUND WATER
Contamination:	PESTICIDES (INCLUDES HERBICIDES, FUNGICIDES AND INSECTICIDES)
Lat/Long (dms):	26 27 28.7061999 / 80 44 25.5223000
Date Amended:	Not reported
Mechanism - Date IC Removed:	/2/06/06/2
Mechanism - Program Area:	WASTE CLEANUP
Mechanism - Date Order Issued:	06/21/2006
Date Removed:	Not reported
Inspection Date:	Not reported
Legal Description:	Not reported
Comments:	part of Talisman Sugar Corp Settlement; See OGC Case# 99-039
Township:	46S
Range:	37E
Parcel ID:	00364628000001020
Section:	28
Book Number:	20532
Page Number:	450-459
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

Facility Id:	COM_170717
Inst Control Type:	LAND USE RESTRICTION
Eng Control Type:	NONE
Contaminated Media:	SOIL
Contamination:	PESTICIDES (INCLUDES HERBICIDES, FUNGICIDES AND INSECTICIDES)
Lat/Long (dms):	26 27 28.7061999 / 80 44 25.5223000
Date Amended:	Not reported
Mechanism - Date IC Removed:	/2/06/06/2
Mechanism - Program Area:	WASTE CLEANUP
Mechanism - Date Order Issued:	06/21/2006
Date Removed:	Not reported
Inspection Date:	Not reported
Legal Description:	Not reported
Comments:	part of Talisman Sugar Corp Settlement; See OGC Case# 99-039
Township:	46S
Range:	37E
Parcel ID:	00364628000001020
Section:	28
Book Number:	20532
Page Number:	450-459
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

Facility Id:	COM_170717
Inst Control Type:	GROUNDWATER USE RESTRICTION
Eng Control Type:	NONE
Contaminated Media:	SURFACE WATER

TALISMAN SUGAR CORP (THE ST. JOE COMPANY) (Continued) **S111761733**

Contamination:	PESTICIDES (INCLUDES HERBICIDES, FUNGICIDES AND INSECTICIDES)
Lat/Long (dms):	26 27 28.7061999 / 80 44 25.5223000
Date Amended:	Not reported
Mechanism - Date IC Removed:	/2/06/06/2
Mechanism - Program Area:	WASTE CLEANUP
Mechanism - Date Order Issued:	06/21/2006
Date Removed:	Not reported
Inspection Date:	Not reported
Legal Description:	Not reported
Comments:	part of Talisman Sugar Corp Settlement; See OGC Case# 99-039
Township:	46S
Range:	37E
Parcel ID:	00364628000001020
Section:	28
Book Number:	20532
Page Number:	450-459
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

Facility Id:	COM_170717
Inst Control Type:	DIGGING RESTRICTION
Eng Control Type:	NONE
Contaminated Media:	SOIL
Contamination:	PESTICIDES (INCLUDES HERBICIDES, FUNGICIDES AND INSECTICIDES)
Lat/Long (dms):	26 27 28.7061999 / 80 44 25.5223000
Date Amended:	Not reported
Mechanism - Date IC Removed:	/2/06/06/2
Mechanism - Program Area:	WASTE CLEANUP
Mechanism - Date Order Issued:	06/21/2006
Date Removed:	Not reported
Inspection Date:	Not reported
Legal Description:	Not reported
Comments:	part of Talisman Sugar Corp Settlement; See OGC Case# 99-039
Township:	46S
Range:	37E
Parcel ID:	00364628000001020
Section:	28
Book Number:	20532
Page Number:	450-459
Acquisition:	DPHO-DIGITAL ARIAL PHOTOGRAPHY WITH GROUND CONTROL

Click here for Florida Oculus:

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11 **T-6 TALISMAN FARM** **RESP PARTY** **S117361228**
N/A

, FL

RESP PARTY:

District:	Southeast District
Site Id:	157258
Project Id:	230213
Site Status:	CLOSED
Project Manager:	WIERZBICKI_P
OGC Case Number:	99-0339
Initial Date Received:	09/30/1998
Contaminants:	Not reported
Offsite Cont Impact:	Not reported
Priority Score:	Not reported
Datum:	NAD83

T-6 TALISMAN FARM (Continued) **S117361228**

Method ID:	DPHO
Feature:	Pump Station
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	VICIN
Collect Username:	WIERZBICKI_P
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	06/12/2012
Map Series Used:	IMAGERY_04_09
Map Source Scale:	5000
Interpolation Scale:	5000
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO
Verifier Username:	WIERZBICKI_P
Verifier Affiliation:	Florida Department of Environmental Protection
Verifying Program Id:	CR
Verification Date:	06/12/2012
Decode for District:	Southeast District
Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	Not reported
Decode for V_Method:	Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec):	26 27 26.0903999 / 80 41 48.625

---

12 **T-10 TALISMAN FARM** **RESP PARTY** **S117361219**
NONE - REMOTE LOCATION **N/A**
, FL

RESP PARTY:

District:	Southeast District
Site Id:	157262
Project Id:	230210
Site Status:	CLOSED
Project Manager:	WIERZBICKI_P
OGC Case Number:	99-0339
Initial Date Received:	09/30/1998
Contaminants:	Not reported
Offsite Cont Impact:	Not reported
Priority Score:	Not reported
Datum:	NAD83
Method ID:	DPHO
Feature:	Pump Station
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	VICIN
Collect Username:	WIERZBICKI_P
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	06/18/2012
Map Series Used:	IMAGERY_04_09
Map Source Scale:	5000
Interpolation Scale:	5000
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO
Verifier Username:	WIERZBICKI_P
Verifier Affiliation:	Florida Department of Environmental Protection
Verifying Program Id:	CR
Verification Date:	06/18/2012
Decode for District:	Southeast District

T-10 TALISMAN FARM (Continued) **S117361219**

Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	Not reported
Decode for V_Method:	Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec):	26 27 24.9825000 / 80 47 8.65670000

---

13 **T-24 PUMP STATION** **RESP PARTY** **S117361226**
NONE - REMOTE FARM LOCATION **N/A**
, FL

RESP PARTY:

District:	Southeast District
Site Id:	162359
Project Id:	231694
Site Status:	CLOSED
Project Manager:	WIERZBICKI_P
OGC Case Number:	99-0339
Initial Date Received:	09/30/1998
Contaminants:	Not reported
Offsite Cont Impact:	Not reported
Priority Score:	Not reported
Datum:	NAD83
Method ID:	DPHO
Feature:	pump station
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	APPRX
Collect Username:	WIERZBICKI_P
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	06/29/2012
Map Series Used:	IMAGERY_04_09
Map Source Scale:	2500
Interpolation Scale:	2500
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO
Verifier Username:	WIERZBICKI_P
Verifier Affiliation:	Florida Department of Environmental Protection
Verifying Program Id:	CR
Verification Date:	06/29/2012
Decode for District:	Southeast District
Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	Not reported
Decode for V_Method:	Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec):	26 27 24.8446 / 80 43 45.0082999

---

14 **CEMEX - SOUTH BAY PORTABLE READY MIX** **TIER 2** **S111750644**
SOUTH US HIGHWAY 27 AT MILE MARKER 50 **N/A**
SOUTH BAY, FL 33493

TIER 2:

Year:	2011
Facility Id:	3985954
Active Date:	Not reported
Inactive Date:	Not reported

CEMEX - SOUTH BAY PORTABLE READY MIX (Continued) **S111750644**

Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.4566
Longitude:	-80.644700
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	Not reported
Last Modified Date:	11/12/2012
First Submit Date:	11/09/2012
Data Submitted By:	Florida Division of Emergency Management
Company Name:	CEMEX CONSTRUCTION MATERIALS FLORIDA LLC
Comments:	Not reported

Contact:

Contact ID:	Not reported
Year:	2011
Facility Id:	3985954
Contact Type:	Tier II Secondary Contact
Contact Name:	JEFFREY PORTER
Contact Title:	Not reported
Contact Phone:	561-820-8415
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jeffreyr.porter@cemex.com

Contact ID:	Not reported
Year:	2011
Facility Id:	3985954
Contact Type:	Regulatory Contact
Contact Name:	DENISE CORRALES
Contact Title:	Not reported
Contact Phone:	813-968-3274
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	denise.corrales@cemex.com

Year:	2010
Facility Id:	Not reported
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported

CEMEX - SOUTH BAY PORTABLE READY MIX (Continued) **S111750644**

Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.4566
Longitude:	-80.64
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	Not reported
Last Modified Date:	Not reported
First Submit Date:	Not reported
Data Submitted By:	Not reported
Company Name:	Not reported
Comments:	Not reported

Chemical Code:	68131748
Chemical Name:	FLY ASH [COAL ASH]
Chemical State:	SOLID POWDER
Location Name:	Entire Facility
Container Code:	H
Pressure Code:	1
Temperature Code:	4
Average Quantity:	103000
Maximum Quantity:	137000
Days On Site:	365

Year:	2010
Facility Id:	Not reported
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.4566
Longitude:	-80.64
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	Not reported
Last Modified Date:	Not reported
First Submit Date:	Not reported
Data Submitted By:	Not reported
Company Name:	Not reported
Comments:	Not reported

Chemical Code:	WRDA 60
Chemical Name:	WRDA 60 (Lignosulfonate, Amine and Carbohydrates Solution)
Chemical State:	LIQUID SOLUTION
Location Name:	Entire Facility

CEMEX - SOUTH BAY PORTABLE READY MIX (Continued) **S111750644**

Container Code:	A
Pressure Code:	1
Temperature Code:	4
Average Quantity:	15000
Maximum Quantity:	20000
Days On Site:	365

Year:	2010
Facility Id:	Not reported
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.4566
Longitude:	-80.64
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	Not reported
Last Modified Date:	Not reported
First Submit Date:	Not reported
Data Submitted By:	Not reported
Company Name:	Not reported
Comments:	Not reported

Chemical Code:	ADVA 120
Chemical Name:	ADVA 120 - carboxylated polyether
Chemical State:	LIQUID SOLUTION
Location Name:	Entire Facility
Container Code:	A
Pressure Code:	1
Temperature Code:	4
Average Quantity:	20600
Maximum Quantity:	27400
Days On Site:	365

Year:	2010
Facility Id:	Not reported
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.4566
Longitude:	-80.64
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported

CEMEX - SOUTH BAY PORTABLE READY MIX (Continued) **S111750644**

SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	Not reported
Last Modified Date:	Not reported
First Submit Date:	Not reported
Data Submitted By:	Not reported
Company Name:	Not reported
Comments:	Not reported

Chemical Code:	65997151
Chemical Name:	PORTLAND CEMENT
Chemical State:	SOLID POWDER
Location Name:	Entire Facility
Container Code:	H
Pressure Code:	1
Temperature Code:	4
Average Quantity:	98700
Maximum Quantity:	131600
Days On Site:	365

Year:	2010
Facility Id:	Not reported
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.4566
Longitude:	-80.64
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	Not reported
Last Modified Date:	Not reported
First Submit Date:	Not reported
Data Submitted By:	Not reported
Company Name:	Not reported
Comments:	Not reported

Chemical Code:	Aggregate
Chemical Name:	Aggregate Products (Limestone/Dolomite, Granite/Basalt, Sand, or Gravel)
Chemical State:	SOLID
Location Name:	Entire Facility
Container Code:	R
Pressure Code:	1
Temperature Code:	4
Average Quantity:	2250000
Maximum Quantity:	3000000
Days On Site:	365

15 FL. CRYSTALS FARM 21 PS 21-6 — **DWM CONTAM, CLEANUP SITES, RESP PARTY** — **S113720434, N/A**

SOUTH BAY, FL 53

DWM CONTAM:

Program Site Id:	287122
Lat DD:	Not reported
Lat MM:	Not reported
Lat SS:	Not reported
Long DD:	Not reported
Long MM:	Not reported
Long SS:	Not reported
Office/ District:	SED
Program Area:	Responsible Party
Offsite Contamination:	Not reported
Project Manager:	WIERZBICKI_P
Priority Score:	Not reported
Remediation Status:	OPEN
Date Known Offsite:	Not reported
Datum:	Not reported
Method:	Not reported
Program Eligible:	Not reported
Ineligible:	Not reported

CLEANUP SITES:

DEP Cleanup Site Key:	50439235
Source Database Name:	Compliance and Enforcement Tracking - Responsible Party waste cleanup under 62-780
Source Database Id:	COM_287122
CPAC Program Area Id:	CU
CLLC Cleanup Category Key:	OTHCU
RSC2 Remediation Status Key:	PENDING
Data Load Date:	08/24/2017
OC3 Office Id:	SED
Physical Address Line 2:	Not reported
OIC Object Of Interest Id:	CAP_R
PC2 Proximity Id:	PROMF
Calc Coordinates Accuracy Level Id:	3
CMC2 Coordinate Method Id:	Digital Aerial Photography With Ground Control
DC4 Datum Id:	North American Datum of 1983
VSC1 Verification Status:	REVIEWED
Collect Username:	WILLIAMS_CA
Collect Date:	11/23/2010
Collect Affiliation:	Florida Department of Environmental Protection
Map Source:	2004_DOQQ
Map Source Scale:	4618
Interpolation Scale:	Not reported
Verifier Username:	WILLIAMS_CA
Verifier Affiliation:	Florida Department of Environmental Protection
Verification Date:	11/23/2010
Verified Coordinate Method Id:	Digital Aerial Photography With Ground Control
Source Database Name Code:	COMET
CMC2 Coordinate Method ID Code:	DPHO
DC4 Datum ID Code:	NAD83
Verified Coordinate Method ID Code:	DPHO
Comments:	Not reported
Latitude/Longitude (deg/min/sec):	26 26 59.3036 / 49.3108 80 48

DEP Cleanup Site Key:	50440351

FL. CRYSTALS FARM 21 PS 21-6 (Continued) **S113720434**

Source Database Name:	Compliance and Enforcement Tracking - Responsible Party waste cleanup under 62-780
Source Database Id:	COM_287126
CPAC Program Area Id:	CU
CLLC Cleanup Category Key:	OTHCU
RSC2 Remediation Status Key:	PENDING
Data Load Date:	08/24/2017
OC3 Office Id:	SED
Physical Address Line 2:	Not reported
OIC Object Of Interest Id:	CAP_R
PC2 Proximity Id:	PROMF
Calc Coordinates Accuracy Level Id:	3
CMC2 Coordinate Method Id:	Digital Aerial Photography With Ground Control
DC4 Datum Id:	North American Datum of 1983
VSC1 Verification Status:	REVIEWED
Collect Username:	WILLIAMS_CA
Collect Date:	11/23/2010
Collect Affiliation:	Florida Department of Environmental Protection
Map Source:	2004_DOQQ
Map Source Scale:	4618
Interpolation Scale:	Not reported
Verifier Username:	WILLIAMS_CA
Verifier Affiliation:	Florida Department of Environmental Protection
Verification Date:	11/23/2010
Verified Coordinate Method Id:	Digital Aerial Photography With Ground Control
Source Database Name Code:	COMET
CMC2 Coordinate Method ID Code:	DPHO
DC4 Datum ID Code:	NAD83
Verified Coordinate Method ID Code:	DPHO
Comments:	Not reported
Latitude/Longitude (deg/min/sec):	26 23 6.4695 / 39.8749 80 34

RESP PARTY:

District:	Southeast District
Site Id:	287122
Project Id:	311635
Site Status:	INACTIVE
Project Manager:	WIERZBICKI_P
OGC Case Number:	Not reported
Initial Date Received:	09/19/2002
Contaminants:	Not reported
Offsite Cont Impact:	Not reported
Priority Score:	Not reported
Datum:	NAD83
Method ID:	DPHO
Feature:	Not reported
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	PROMF
Collect Username:	WILLIAMS_CA
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	11/23/2010
Map Series Used:	2004_DOQQ
Map Source Scale:	4618
Interpolation Scale:	4618
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO

FL. CRYSTALS FARM 21 PS 21-6 (Continued) **S113720434**

Verifier Username:	WILLIAMS_CA
Verifier Affiliation:	Florida Department of Environmental Protection
Verifying Program Id:	CR
Verification Date:	11/23/2010
Decode for District:	Southeast District
Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	Not reported
Decode for V_Method:	Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec):	26 26 59.3036000 / 80 48 49.3108

District:	Southeast District
Site Id:	287126
Project Id:	311639
Site Status:	INACTIVE
Project Manager:	WIERZBICKI_P
OGC Case Number:	Not reported
Initial Date Received:	09/06/2002
Contaminants:	Not reported
Offsite Cont Impact:	Not reported
Priority Score:	Not reported
Datum:	NAD83
Method ID:	DPHO
Feature:	Not reported
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	PROMF
Collect Username:	WILLIAMS_CA
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	11/23/2010
Map Series Used:	2004_DOQQ
Map Source Scale:	4618
Interpolation Scale:	4618
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO
Verifier Username:	WILLIAMS_CA
Verifier Affiliation:	Florida Department of Environmental Protection
Verifying Program Id:	CR
Verification Date:	11/23/2010
Decode for District:	Southeast District
Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	Not reported
Decode for V_Method:	Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec):	26 23 6.4695 / 80 34 39.8748999

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16 **SUGAR FARMS CO OP** **LUST** **S104412096**
US 27-16 MI S OF SOUTH BAY **AST** **N/A**
SOUTH BAY, FL 33430

LUST:

Region:	STATE
Facility Id:	9802134
Facility Status:	CLOSED
Facility Type:	M - Agricultural
Facility Phone:	(561)924-4455
Facility Cleanup Rank:	Not reported
District:	Southeast District

SUGAR FARMS CO OP (Continued) **S104412096**

Lat/Long (dms):	26 27 27.58 / 80 38 1.47
Section:	Not reported
Township:	Not reported
Range:	Not reported
Feature:	Not reported
Method:	AGPS
Datum:	Not reported
Score:	Not reported
Score Effective Date:	Not reported
Score When Ranked:	Not reported
Operator:	JOAQUIN FERNANDEZ
Name Update:	02/06/2006
Address Update:	02/06/2006

Discharge Cleanup Summary:

Discharge Date:	04/04/2000
PCT Discharge Combined:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	12/14/2000
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	Not reported
Eligibility Indicator:	I - INELIGIBLE
Site Manager:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-

Task Information:

District:	SED
Facility ID:	9802134
Facility Status:	CLOSED
Facility Type:	M - Agricultural -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	I
Source Effective Date:	12-14-2000
Discharge Date:	04-04-2000
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	12-14-2000
SRC Action Type:	NFA - NO FURTHER ACTION
SRC Submit Date:	09-01-2000
SRC Review Date:	12-05-2000
SRC Completion Status:	A - APPROVED
SRC Issue Date:	12-14-2000
SRC Comment:	Not reported
Cleanup Work Status:	COMPLETED
Site Mgr:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-
SR Task ID:	Not reported
SR Cleanup Responsible:	-
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	Not reported
SR Payment Date:	Not reported
SR Oral Date:	Not reported

SUGAR FARMS CO OP (Continued) **S104412096**

SR Written Date:	Not reported
SR Soil Removal:	Not reported
SR Free Product Removal:	Not reported
SR Soil Tonnage Removed:	Not reported
SR Soil Treatment:	Not reported
SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	67020
SA Cleanup Responsible:	-
SA Funding Eligibility Type:	-
SA Actual Cost:	Not reported
SA Completion Date:	Not reported
SA Payment Date:	Not reported
RAP Task ID:	Not reported
RAP Cleanup Responsible ID:	-
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported
RAP Last Order Approved:	Not reported
RA Task ID:	62271
RA Cleanup Responsible:	-
RA Funding Eligibility Type:	-
RA Years to Complete:	0
RA Actual Cost:	Not reported

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AST:

Facility ID:	9802134
Facility Status:	CLOSED
Type Description:	Agricultural
Facility Phone:	(561) 924-4455
DEP Contractor Own:	P
Region:	STATE
Positioning Method:	AGPS
Lat/Long (dms):	26 27 29 / 80 38 2

Owner:

Owner Id:	51682
Owner Name:	SUGAR FARMS CO OP
Owner Address:	PO BOX 408
Owner Address 2:	ATTN: STORAGE TANK REGIS
Owner City,St,Zip:	LOXAHATCHEE, FL 33470
Owner Contact:	MARK HOWELL / EXT 25401 | JAIME VEGA 561-924-4465
Owner Phone:	(561) 996-9072

Tank Id:	3C
Status:	Removed
Status Date:	01-APR-2003
Install Date:	01-SEP-1999
Substance:	Diesel-generator,pump
Content Description:	Generator/Pump Diesel

SUGAR FARMS CO OP (Continued) **S104412096**

Gallons:	3000
Tank Location:	ABOVEGROUND

Tank Id:	1C
Status:	Removed
Status Date:	01-MAR-2005
Install Date:	01-SEP-1999
Substance:	Unleaded gas
Content Description:	Unleaded Gas
Gallons:	2000
Tank Location:	ABOVEGROUND

Tank Id:	SD-16
Status:	Removed
Status Date:	01-FEB-2010
Install Date:	01-SEP-1999
Substance:	Diesel-generator,pump
Content Description:	Generator/Pump Diesel
Gallons:	3000
Tank Location:	ABOVEGROUND

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17 **STAR FARMS CORPORATION - SIMON FARM** **TIER 2** **S115596196**
COUNTY ROAD 827 **N/A**
BELLE GLADE, FL 33430

TIER 2:

Year:	2016
Facility Id:	5865509
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	Not reported
Longitude:	Not reported
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	0133
SIC Code 2:	Not reported
NAICS Code:	111930
Last Modified Date:	03/16/2017
First Submit Date:	03/16/2017
Data Submitted By:	Richard Burns / General Manager
Company Name:	Star Farms Corporation
Comments:	Not reported

Contact:

Contact ID:	Not reported
Year:	2016
Facility Id:	5865509
Contact Type:	Emergency Contact

STAR FARMS CORPORATION - SIMON FARM (Continued) **S115596196**

Contact Name:	Richard Burns
Contact Title:	Not reported
Contact Phone:	954-931-5999
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	561-996-9800
Contact Telephone 3:	Not reported
Contact Telephone 4:	561-996-2225
Contact Telephone 5:	Not reported
Contact Telephone 6:	561-996-9800
Contact Email:	StarFarms@bellsouth.net

Year:	2015
Facility Id:	5416073
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.44275
Longitude:	-80.69173
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	0133
SIC Code 2:	Not reported
NAICS Code:	111930
Last Modified Date:	02/26/2016
First Submit Date:	02/26/2016
Data Submitted By:	Richard Burns / General Manager
Company Name:	Star Farms Corporation
Comments:	Not reported

Contact:

Contact ID:	Not reported
Year:	2015
Facility Id:	5416073
Contact Type:	Emergency Contact
Contact Name:	Richard Burns
Contact Title:	Not reported
Contact Phone:	954-931-5999
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	561-996-9800
Contact Telephone 3:	Not reported
Contact Telephone 4:	561-996-2225
Contact Telephone 5:	Not reported
Contact Telephone 6:	561-996-9800
Contact Email:	StarFarms@bellsouth.net

Year:	2014
Facility Id:	5017903

STAR FARMS CORPORATION - SIMON FARM (Continued) **S115596196**

Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.44275
Longitude:	-80.69173
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	0133
SIC Code 2:	Not reported
NAICS Code:	111930
Last Modified Date:	09/04/2015
First Submit Date:	02/25/2015
Data Submitted By:	Richard Burns / General Manager
Company Name:	Star Farms Corporation
Comments:	Not reported

Contact:

Contact ID:	Not reported
Year:	2014
Facility Id:	5017903
Contact Type:	Emergency Contact
Contact Name:	Richard Burns
Contact Title:	Not reported
Contact Phone:	954-931-5999
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	561-996-9800
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	StarFarms@bellsouth.net

Year:	2013
Facility Id:	4557656
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.44275
Longitude:	-80.69173
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	0133
SIC Code 2:	Not reported
NAICS Code:	111930
Last Modified Date:	02/25/2014

STAR FARMS CORPORATION - SIMON FARM (Continued) **S115596196**

First Submit Date:	02/25/2014
Data Submitted By:	Richard Burns / General Manager
Company Name:	Star Farms Corporation
Comments:	Not reported

Contact:

Contact ID:	Not reported
Year:	2013
Facility Id:	4557656
Contact Type:	Emergency Contact
Contact Name:	Richard Burns
Contact Title:	Not reported
Contact Phone:	561-996-9800
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	954-931-5999
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	StarFarms@bellsouth.net

Year:	2012
Facility Id:	4293025
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.44275
Longitude:	-80.69173
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	0133
SIC Code 2:	Not reported
NAICS Code:	111930
Last Modified Date:	12/03/2013
First Submit Date:	08/13/2013
Data Submitted By:	Richard Burns / General Manager
Company Name:	Star Farms Corporation
Comments:	Not reported

Contact:

Contact ID:	Not reported
Year:	2012
Facility Id:	4293025
Contact Type:	Owner / Operator
Contact Name:	Star Farms Corporation
Contact Title:	Not reported
Contact Phone:	561-996-9800
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported

STAR FARMS CORPORATION - SIMON FARM (Continued) **S115596196**

Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	StarFarms@bellsouth.net

Contact ID:	Not reported
Year:	2012
Facility Id:	4293025
Contact Type:	Regulatory Point of Contact
Contact Name:	Richard Burns
Contact Title:	Not reported
Contact Phone:	561-996-9800
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	StarFarms@bellsouth.net

Contact ID:	Not reported
Year:	2012
Facility Id:	4293025
Contact Type:	Emergency Contact
Contact Name:	Richard Burns
Contact Title:	Not reported
Contact Phone:	561-996-9800
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	StarFarms@bellsouth.net

Contact ID:	Not reported
Year:	2012
Facility Id:	4293025
Contact Type:	Other
Contact Name:	Kathy Kirchman
Contact Title:	Not reported
Contact Phone:	561-996-2225
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	561-996-9800
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	Star_Farm@bellsouth.net

18 **SFWMD / PUMP STATION G-372** **AIRS** **S107798141**
NW CORNER HOLEY LAND TRACT **N/A**
PALM BEACH COUNTY, FL 33493

AIRS:

Facility ID:	990615
Facility Status:	Active One or more emissions units in operation, on standby status, temporarily shut down (including any shutdown while undergoing modification), or on long-term reserve shutdown. This code indicates an existing facility which has not been permanently shut down, though it may not be operating at the time of, or immediately subsequent to, permit issuance.
Office:	SEPB
Category:	POINT
Owner Name:	South Florida Water Management District
SIC:	Admin. Of Environmental, Quality & Housing Program
Title V:	Yes
Permit Number:	0990615006AV
Issue Date:	12/01/2014
Expiration Date:	12/01/2019
Lat/Long (dms):	26 26 4 / 80 48 22
Contact Name:	Jeffrey Smith
Contact Address1:	3301 Gun Club Rd
Contact Address2:	Not reported
Contact City:	West Palm Beach
Contact State:	FL
Contact Zip Code:	33406
Contact Zip4:	3007
Contact Phone:	561-682-2516
Contact EMail:	JESMITH@SFWMD.GOV

Facility ID:	990615
Facility Status:	Active One or more emissions units in operation, on standby status, temporarily shut down (including any shutdown while undergoing modification), or on long-term reserve shutdown. This code indicates an existing facility which has not been permanently shut down, though it may not be operating at the time of, or immediately subsequent to, permit issuance.
Office:	SEPB
Category:	POINT
Owner Name:	South Florida Water Management District
SIC:	Admin. Of Environmental, Quality & Housing Program
Title V:	Yes
Permit Number:	0990615005AC
Issue Date:	06/12/2012
Expiration Date:	06/12/2013
Lat/Long (dms):	26 26 4 / 80 48 22
Contact Name:	Jeffrey Smith
Contact Address1:	3301 Gun Club Rd
Contact Address2:	Not reported
Contact City:	West Palm Beach
Contact State:	FL
Contact Zip Code:	33406
Contact Zip4:	3007
Contact Phone:	561-682-2516
Contact EMail:	JESMITH@SFWMD.GOV

19 ZEPHYR EGG CO TRUCK SPILL — **LUST** — **U004146701**
US HWY 27 @ 17 MI SOUTH OF SOUTH BAY — **TANKS** — **N/A**
SOUTH BAY, FL 00053

LUST:

Region:	STATE
Facility Id:	9803835
Facility Status:	CLOSED
Facility Type:	Q - Emergency Response Spill Site
Facility Phone:	Not reported
Facility Cleanup Rank:	Not reported
District:	Southeast District
Lat/Long (dms):	26 26 21.3895 / 80 37 6.9907
Section:	Not reported
Township:	Not reported
Range:	Not reported
Feature:	Not reported
Method:	Not reported
Datum:	Not reported
Score:	Not reported
Score Effective Date:	Not reported
Score When Ranked:	Not reported
Operator:	Not reported
Name Update:	Not reported
Address Update:	Not reported

Discharge Cleanup Summary:

Discharge Date:	10/21/1998
PCT Discharge Combined:	Not reported
Cleanup Required:	N - NO CLEANUP REQUIRED
Discharge Cleanup Status:	NREQ - CLEANUP NOT REQUIRED
Disch Cleanup Status Date:	11/21/2001
Cleanup Work Status:	COMPLETED
Information Source:	R - EMERGENCY RESPONSE REPORT
Other Source Description:	TRUCK SPILL
Eligibility Indicator:	I - INELIGIBLE
Site Manager:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-

Task Information:

District:	SED
Facility ID:	9803835
Facility Status:	CLOSED
Facility Type:	Q - Emergency Response Spill Site -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	I
Source Effective Date:	Not reported
Discharge Date:	10-21-1998
Cleanup Required:	N - NO CLEANUP REQUIRED
Discharge Cleanup Status:	NREQ - CLEANUP NOT REQUIRED
Disch Cleanup Status Date:	11-21-2001
SRC Action Type:	-
SRC Submit Date:	Not reported
SRC Review Date:	Not reported
SRC Completion Status:	-
SRC Issue Date:	Not reported
SRC Comment:	Not reported
Cleanup Work Status:	COMPLETED

ZEPHYR EGG CO TRUCK SPILL (Continued) **U004146701**

Site Mgr:	Not reported
Site Mgr End Date:	Not reported
Tank Office:	-
SR Task ID:	Not reported
SR Cleanup Responsible:	-
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	Not reported
SR Payment Date:	Not reported
SR Oral Date:	Not reported
SR Written Date:	Not reported
SR Soil Removal:	Not reported
SR Free Product Removal:	Not reported
SR Soil Tonnage Removed:	Not reported
SR Soil Treatment:	Not reported
SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	Not reported
SA Cleanup Responsible:	-
SA Funding Eligibility Type:	-
SA Actual Cost:	Not reported
SA Completion Date:	Not reported
SA Payment Date:	Not reported
RAP Task ID:	Not reported
RAP Cleanup Responsible ID:	-
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported
RAP Last Order Approved:	Not reported
RA Task ID:	65210
RA Cleanup Responsible:	-
RA Funding Eligibility Type:	-
RA Years to Complete:	Not reported
RA Actual Cost:	Not reported

Click here for Florida Oculus:

TANKS:

Facility ID:	9803835
Facility Phone:	Not reported
Facility Status:	CLOSED
Facility Type:	Q
Type Description:	Emergency Response Spill Site
Dep Co:	P
Lat/Lon Deg Min Sec:	Not reported

20 EAA A-1 RESERVOIR SEEPAGE CANA — **FINDS** — **1009607227**
17415 SOUTH US-27 — **ECHO** — **N/A**
SOUTH BAY, FL 33493

FINDS:

Registry ID: 110025346203

Environmental Interest/Information System

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Florida Environmental System Today Application (FIESTA) Data Maintenance (FDM) system maintains entity, environmental interest and affiliation data for the State of Florida.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1009607227
Registry ID:	110025346203
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110025346203

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20 A-1 FLOW EQUALIZATION BASIN (FEB) — **CLEANUP SITES** — **S114040792**
WEST SIDE OF US 27 S — **RESP PARTY** — **N/A**
EVERGLADES, FL

CLEANUP SITES:

DEP Cleanup Site Key:	50439703
Source Database Name:	Compliance and Enforcement Tracking - Responsible Party waste cleanup under 62-780
Source Database Id:	COM_321056
CPAC Program Area Id:	CU
CLLC Cleanup Category Key:	OTHCU
RSC2 Remediation Status Key:	ACTIVE
Data Load Date:	08/24/2017
OC3 Office Id:	TAL
Physical Address Line 2:	Not reported
OIC Object Of Interest Id:	CAP_R
PC2 Proximity Id:	APPRX
Calc Coordinates Accuracy Level Id:	6
CMC2 Coordinate Method Id:	Address Matching
DC4 Datum Id:	North American Datum of 1983
VSC1 Verification Status:	NOT REVIEWED
Collect Username:	YILMAZ_F
Collect Date:	09/05/2013
Collect Affiliation:	Florida Department of Environmental Protection
Map Source:	Not reported
Map Source Scale:	Not reported
Interpolation Scale:	Not reported
Verifier Username:	Not reported

A-1 FLOW EQUALIZATION BASIN (FEB) (Continued) **S114040792**

Verifier Affiliation:	Not reported
Verification Date:	Not reported
Verified Coordinate Method Id:	Not reported
Source Database Name Code:	COMET
CMC2 Coordinate Method ID Code:	ADDM
DC4 Datum ID Code:	NAD83
Verified Coordinate Method ID Code:	Not reported
Comments:	Not reported
Latitude/Longitude (deg/min/sec):	26 26 15 / 15 80 39

RESP PARTY:

District:	TAL
Site Id:	321056
Project Id:	338804
Site Status:	OPEN
Project Manager:	DOUGHERTY_B
OGC Case Number:	Not reported
Initial Date Received:	09/05/2013
Contaminants:	Not reported
Offsite Cont Impact:	Not reported
Priority Score:	Not reported
Datum:	NAD83
Method ID:	ADDM
Feature:	Not reported
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	APPRX
Collect Username:	YILMAZ_F
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CL
Collect Date:	09/05/2013
Map Series Used:	Not reported
Map Source Scale:	Not reported
Interpolation Scale:	Not reported
Coordinate Accuracy Id:	6
Verify Method Id:	Not reported
Verifier Username:	Not reported
Verifier Affiliation:	Not reported
Verifying Program Id:	Not reported
Verification Date:	Not reported
Decode for District:	Tallahassee Office
Decode for Datum:	North American Datum of 1983
Decode for Method:	Address Matching
Decode for Off Site COC:	Not reported
Decode for V_Method:	Not reported
Latitude/Longitude (deg/min/sec):	26 26 15 / 80 39 15

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21 **SOUTH FLORIDA WATER MANAGEMENT DISTRICT** **FINDS** **1011992323**
NW CORNER HOLEY LAND TRACT **N/A**
SOUTH BAY, FL 33493

FINDS:

Registry ID: 110038037816

Environmental Interest/Information System
CRITERIA AIR POLLUTANT MAJOR

SOUTH FLORIDA WATER MANAGEMENT DISTRICT (Continued) **1011992323**

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

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21 **SOUTH FLORIDA WATER MANAGEMENT DISTRICT- PUMP STAT** **TIER 2** **S108634900**
NORTHWEST CORNER OF HOLEY LAND TRACT (JCT L-23/L24 CANALS) **N/A**
UNICORP, FL 34974

TIER 2:

Year:	2016
Facility Id:	5831013
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	Not reported
Longitude:	Not reported
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	924110
Last Modified Date:	01/31/2017
First Submit Date:	01/31/2017
Data Submitted By:	JEFFREY SMITH, LEAD ENVIRONMENTAL SCIENTIST
Company Name:	SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Comments:	Not reported

Contact:

Contact ID:	Not reported
Year:	2016
Facility Id:	5831013
Contact Type:	Emergency Contact
Contact Name:	South Florida Water Management District - Control Room
Contact Title:	Not reported
Contact Phone:	5616826116
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	5616822516
Contact Telephone 3:	Not reported
Contact Telephone 4:	5616822516
Contact Telephone 5:	5616822516
Contact Telephone 6:	5612482451
Contact Email:	jesmith@sfwmd.gov

Year:	2015
Facility Id:	5384713
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported

SOUTH FLORIDA WATER MANAGEMENT DISTRICT- PUMP STATION G-372 (Continued) **S108634900**

PLOT Source:	Not reported
Latitude:	26.435474
Longitude:	-80.806621
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	924110
Last Modified Date:	01/29/2016
First Submit Date:	01/29/2016
Data Submitted By:	JEFFREY SMITH, LEAD ENVIRONMENTAL SCIENTIST
Company Name:	SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Comments:	Not reported

Contact:

Contact ID:	Not reported
Year:	2015
Facility Id:	5384713
Contact Type:	Tier II Emergency 24 Hour Contact
Contact Name:	N/A South Florida Water Management District - Control Room
Contact Title:	Not reported
Contact Phone:	5616826116
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	5616822516
Contact Telephone 3:	Not reported
Contact Telephone 4:	5616822516
Contact Telephone 5:	5616822516
Contact Telephone 6:	5612482451
Contact Email:	jesmith@sfwmd.gov

Year:	2014
Facility Id:	4976676
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.435474
Longitude:	-80.806621
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	924110
Last Modified Date:	01/06/2015
First Submit Date:	01/06/2015
Data Submitted By:	JEFFREY SMITH, LEAD ENVIRONMENTAL SCIENTIST
Company Name:	SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Comments:	Not reported

SOUTH FLORIDA WATER MANAGEMENT DISTRICT- PUMP STATION G-372 (Continued) **S108634900**

Contact:

Contact ID:	Not reported
Year:	2014
Facility Id:	4976676
Contact Type:	Tier II Emergency 24 Hour Contact
Contact Name:	South Florida Water Management District - Control Room
Contact Title:	Not reported
Contact Phone:	5616826116
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	5616822516
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

Year:	2013
Facility Id:	4484666
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.435474
Longitude:	-80.806621
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	924110
Last Modified Date:	01/02/2014
First Submit Date:	01/02/2014
Data Submitted By:	JEFFREY SMITH, LEAD ENVIRONMENTAL SCIENTIST
Company Name:	SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Comments:	Not reported

Contact:

Contact ID:	Not reported
Year:	2013
Facility Id:	4484666
Contact Type:	Owner / Operator
Contact Name:	Jeffrey Smith
Contact Title:	Not reported
Contact Phone:	5612482451
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	5616822516
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

SOUTH FLORIDA WATER MANAGEMENT DISTRICT- PUMP STATION G-372 (Continued) **S108634900**

Year:	2012
Facility Id:	4094554
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.435474
Longitude:	-80.806621
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	924110
Last Modified Date:	03/04/2013
First Submit Date:	02/22/2013
Data Submitted By:	JEFFREY SMITH, LEAD ENVIRONMENTAL SCIENTIST
Company Name:	SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Comments:	Not reported

Contact:

Contact ID:	Not reported
Year:	2012
Facility Id:	4094554
Contact Type:	Owner / Operator
Contact Name:	Jeffrey Smith
Contact Title:	Not reported
Contact Phone:	Not reported
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

Contact ID:	Not reported
Year:	2012
Facility Id:	4094554
Contact Type:	Tier II Emergency 24 Hour Contact
Contact Name:	South Florida Water Management District - Control Room
Contact Title:	Not reported
Contact Phone:	Not reported
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

Year:	2011

SOUTH FLORIDA WATER MANAGEMENT DISTRICT- PUMP STATION G-372 (Continued) **S108634900**

Facility Id:	3986264
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.43555
Longitude:	-80.806660
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	Not reported
Last Modified Date:	11/12/2012
First Submit Date:	11/09/2012
Data Submitted By:	Florida Division of Emergency Management
Company Name:	SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Comments:	Not reported

Contact:

Contact ID:	Not reported
Year:	2011
Facility Id:	3986264
Contact Type:	Tier II Emergency Contact
Contact Name:	Jeffrey Smith
Contact Title:	Not reported
Contact Phone:	5616822516
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

Contact ID:	Not reported
Year:	2011
Facility Id:	3986264
Contact Type:	Tier II Secondary 24 Hour Contact
Contact Name:	Jeffrey Smith
Contact Title:	Not reported
Contact Phone:	5616822516
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

Contact ID:	Not reported
Year:	2011
Facility Id:	3986264
Contact Type:	Tier II Secondary Contact
Contact Name:	Jeffrey Smith

SOUTH FLORIDA WATER MANAGEMENT DISTRICT- PUMP STATION G-372 (Continued) **S108634900**

Contact Title:	Not reported
Contact Phone:	5616822516
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

Contact ID:	Not reported
Year:	2011
Facility Id:	3986264
Contact Type:	Tier II Emergency 24 Hour Contact
Contact Name:	Jeffrey Smith
Contact Title:	Not reported
Contact Phone:	5616822516
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

Year:	2010
Facility Id:	Not reported
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.43555
Longitude:	-80.81
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	Not reported
Last Modified Date:	Not reported
First Submit Date:	Not reported
Data Submitted By:	Not reported
Company Name:	Not reported
Comments:	Not reported

Chemical Code:	68476346
Chemical Name:	Diesel Fuel Oil (low sulfur)
Chemical State:	LIQUID
Location Name:	Fuel Supply Tanks
Container Code:	A
Pressure Code:	1

SOUTH FLORIDA WATER MANAGEMENT DISTRICT- PUMP STATION G-372 (Continued) **S108634900**

Temperature Code:	4
Average Quantity:	682000
Maximum Quantity:	682000
Days On Site:	365

Year:	Not reported
Facility Id:	Not reported
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	False
Original Date:	Not reported
PLOT Source:	geocoded using batchgeocode.com 07/06/07
Latitude:	27.186100
Longitude:	-80.854600
LEPC District:	7
Counties:	Polk,Okeechobee,Highlands,Hardee,DeSoto,
SERC:	34346
Program Level:	Not reported
PRIME:	26207
SIC Code:	9511
SIC Code 2:	Not reported
NAICS Code:	92411

Other Chemical Data:

Report Year:	2006
Tier 2 Report ID:	101673
Chemical ID:	280476
CAS Number:	68476346
Chemical Name:	DIESEL FUEL OIL (HIGH SULFUR)
Chemical Date:	2/6/2008
Average Amount:	5
Maximum Amount:	682000
Location ID:	467907
Chemical State:	LIQUID
Mixture:	True
Mixture Percent:	.00
Containter:	A - ABOVE GROUND TANK
Pressure:	1 - AMBIENT PRESSURE
Temperature:	4 - AMBIENT TEMPERATURE
Average Amount:	5
Maximum Amount:	682000
Days on Site:	365
Site Plan:	False
Site Plan Document:	Not reported
Private Location:	False
Location:	AST AT PUMP STATION

Report Year:	2005
Tier 2 Report ID:	98954
Chemical ID:	268930
CAS Number:	68476346
Chemical Name:	DIESEL FUEL OIL (HIGH SULFUR)
Chemical Date:	6/21/2007
Average Amount:	5
Maximum Amount:	682000
Location ID:	453655
Chemical State:	LIQUID

SOUTH FLORIDA WATER MANAGEMENT DISTRICT- PUMP STATION G-372 (Continued) **S108634900**

Mixture:	True
Mixture Percent:	.00
Containter:	A - ABOVE GROUND TANK
Pressure:	1 - AMBIENT PRESSURE
Temperature:	4 - AMBIENT TEMPERATURE
Average Amount:	5
Maximum Amount:	682000
Days on Site:	365
Site Plan:	False
Site Plan Document:	Not reported
Private Location:	False
Location:	5 - AST'S AT PUMP STATION

Company Info:

Company Name:	SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Company Address:	3301 GUN CLUB ROAD
Company City,St,Zip:	WEST PALM BEACH, FL 33406
Company Phone:	561-682-2516
Company Fax:	Not reported
Company Email:	Not reported
FEI Number:	596015290
Comany Contact Name:	JEFFERY A. SMITH
Cmpny Contact Phone:	Not reported
Reduced Fees:	False
Exempt Fees:	False
Electronic Filing:	True
Employee:	0
Comments:	GOV'T

---

22 **COMMUNICATIONS LINE INSTALL - GADSDEN CO - PROJ NO** **FINDS** **1014882300**
US 27 **ECHO** **N/A**
PALM BEACH, FL 33480

FINDS:

Registry ID: 110044262721

Environmental Interest/Information System

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1014882300

COMMUNICATIONS LINE INSTALL - GADSDEN CO - PROJ NO. 1E841014 (Continued) **1014882300**

Registry ID: 110044262721
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110044262721

---

22 LUCKY START TRANSPORTATION SPILL **LUST** **U004147441**
US HWY 27 23 MI NORTH OF I-595 **TANKS** **N/A**
SOUTH BAY, FL 00053

LUST:

Region:	STATE
Facility Id:	9803539
Facility Status:	CLOSED
Facility Type:	Q - Emergency Response Spill Site
Facility Phone:	Not reported
Facility Cleanup Rank:	Not reported
District:	Southeast District
Lat/Long (dms):	26 26 8.38 / 80 36 56.94
Section:	Not reported
Township:	Not reported
Range:	Not reported
Feature:	Not reported
Method:	AGPS
Datum:	Not reported
Score:	Not reported
Score Effective Date:	Not reported
Score When Ranked:	Not reported
Operator:	Not reported
Name Update:	Not reported
Address Update:	Not reported

Discharge Cleanup Summary:

Discharge Date:	05/25/1999
PCT Discharge Combined:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	02/06/2001
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	truck spill
Eligibility Indicator:	I - INELIGIBLE
Site Manager:	GIBSON_D
Site Mgr End Date:	05/06/2005
Tank Office:	PCLP50 - PALM BEACH CNTY ENVIRONMENTAL RESOURCES MGMT

Contaminated Media:

Discharge Date:	05/25/1999
Pct Discharge Combined With:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	02/06/2001
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	truck spill
Elig Indicator:	I - INELIGIBLE
Site Manager:	GIBSON_D
Site Mgr End Date:	05/06/2005
Tank Office:	PCLP50 - PALM BEACH CNTY ENVIR
Contaminated Drinking Wells:	Not reported
Contaminated Monitoring Well:	Not reported
Contaminated Soil:	Yes

LUCKY START TRANSPORTATION SPILL (Continued) **U004147441**

Contaminated Surface Water:	Not reported
Contaminated Ground Water:	Not reported
Pollutant:	D - Vehicular Diesel
Pollutant Other Description:	TRUCK SPILL
Gallons Discharged:	100

Task Information:

District:	SED
Facility ID:	9803539
Facility Status:	CLOSED
Facility Type:	Q - Emergency Response Spill Site -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	I
Source Effective Date:	02-06-2001
Discharge Date:	05-25-1999
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	02-06-2001
SRC Action Type:	NFA - NO FURTHER ACTION
SRC Submit Date:	01-25-2001
SRC Review Date:	01-29-2001
SRC Completion Status:	A - APPROVED
SRC Issue Date:	02-06-2001
SRC Comment:	Not reported
Cleanup Work Status:	COMPLETED
Site Mgr:	GIBSON_D
Site Mgr End Date:	05-06-2005
Tank Office:	PCLP50 - Palm Beach County
SR Task ID:	76117
SR Cleanup Responsible:	-
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	06-30-1999
SR Payment Date:	Not reported
SR Oral Date:	Not reported
SR Written Date:	Not reported
SR Soil Removal:	Y
SR Free Product Removal:	Not reported
SR Soil Tonnage Removed:	545
SR Soil Treatment:	Not reported
SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	67261
SA Cleanup Responsible:	-
SA Funding Eligibility Type:	-
SA Actual Cost:	Not reported
SA Completion Date:	Not reported
SA Payment Date:	Not reported
RAP Task ID:	64131
RAP Cleanup Responsible ID:	-
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported

LUCKY START TRANSPORTATION SPILL (Continued) **U004147441**

RAP Last Order Approved: Not reported
RA Task ID: 62409
RA Cleanup Responsible: -
RA Funding Eligibility Type: -
RA Years to Complete: 0
RA Actual Cost: Not reported

Click here for Florida Oculus:

TANKS:
Facility ID: 9803539
Facility Phone: Not reported
Facility Status: CLOSED
Facility Type: Q
Type Description: Emergency Response Spill Site
Dep Co: P
Lat/Lon Deg Min Sec: 26 26 4.55999999 / 80 37 0.01

---

23 **G-373 SPILLWAY STRUCTURE** **FINDS** **1008160818**
MIAMI CANAL 18 MI S OF LAKE HA **ECHO** **N/A**
LAKE HARBOR, FL 33493

FINDS:

Registry ID: 110020552490

Environmental Interest/Information System
US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1008160818
Registry ID: 110020552490
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110020552490

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23 **G - 373 SPILLWAY STRUCTURE** **FINDS** **1011414458**
MIAMI CANAL 18 MI S OF LAKE HARBOR **N/A**
LAKE HARBOR, FL 33493

FINDS:

Registry ID: 110035457485

Environmental Interest/Information System
Florida Environmental System Today Application (FIESTA) Data

G - 373 SPILLWAY STRUCTURE (Continued) **1011414458**

Maintenance (FDM) system maintains entity, environmental interest and affiliation data for the State of Florida.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

---

24 WOERNER TURF TRACT 2 **RESP PARTY** **S117361491**
US HWY 27 **DWM CONTAM** **N/A**
SOUTH BAY, FL 33438

RESP PARTY:

District:	Southeast District
Site Id:	287086
Project Id:	311600
Site Status:	CLOSED
Project Manager:	WIERZBICKI_P
OGC Case Number:	Not reported
Initial Date Received:	03/30/2004
Contaminants:	Not reported
Offsite Cont Impact:	Not reported
Priority Score:	Not reported
Datum:	NAD83
Method ID:	DPHO
Feature:	Not reported
Object Of Interest:	FACILITY
Proximity To Object:	APPRX
Collect Username:	RUECKERT_W
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	03/28/2012
Map Series Used:	IMAGERY_04_09
Map Source Scale:	85000
Interpolation Scale:	85000
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO
Verifier Username:	RUECKERT_W
Verifier Affiliation:	DEPARTMENT OF ENVIRONMENTAL PROTECTION
Verifying Program Id:	CR
Verification Date:	03/28/2012
Decode for District:	Southeast District
Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	Not reported
Decode for V_Method:	Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec):	26 25 20.1186000 / 80 38 37.1747999

DWM CONTAM:

Program Site Id:	287086
Lat DD:	Not reported
Lat MM:	Not reported
Lat SS:	Not reported
Long DD:	Not reported
Long MM:	Not reported
Long SS:	Not reported
Office/ District:	SED
Program Area:	Responsible Party

WOERNER TURF TRACT 2 (Continued) **S117361491**

Offsite Contamination:	Not reported
Project Manager:	WIERZBICKI_P
Priority Score:	Not reported
Remediation Status:	OPEN
Date Known Offsite:	Not reported
Datum:	Not reported
Method:	Not reported
Program Eligible:	Not reported
Ineligible:	Not reported

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25 **SOUTH FLORIDA WATER MANAGEMENT DISTRICT - CABASSA** **TIER 2** **S111751162**
US 27, 6.7 MILES NORTH OF BROWARD COUNTY LINE **N/A**
SOUTH BAY, FL

TIER 2:

Year:	2010
Facility Id:	Not reported
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.414167
Longitude:	80.6
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	Not reported
Last Modified Date:	Not reported
First Submit Date:	Not reported
Data Submitted By:	Not reported
Company Name:	Not reported
Comments:	Not reported

Chemical Code:	68476346
Chemical Name:	Diesel Fuel Oil (low sulfur)
Chemical State:	LIQUID
Location Name:	Pump Station Storage Tank
Container Code:	A
Pressure Code:	1
Temperature Code:	4
Average Quantity:	15000
Maximum Quantity:	15000
Days On Site:	365

25 SOUTH FLORIDA WATER MANAGEMENT DISTRICT - CABASSA **TIER 2** **S113388211**
US HIGHWAY 27 - 6 1/2 MILES NORTH OF BROWARD COUNTY LINE **N/A**
SOUTH BAY, FL

TIER 2:

Year:	2011
Facility Id:	3995092
Active Date:	Not reported
Inactive Date:	Not reported
Sale Pending:	Not reported
Original Date:	Not reported
PLOT Source:	Not reported
Latitude:	26.414167
Longitude:	-80.600555
LEPC District:	Not reported
Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	Not reported
SIC Code 2:	Not reported
NAICS Code:	Not reported
Last Modified Date:	11/12/2012
First Submit Date:	11/09/2012
Data Submitted By:	Florida Division of Emergency Management
Company Name:	SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Comments:	Not reported

Contact:

Contact ID:	Not reported
Year:	2011
Facility Id:	3995092
Contact Type:	Tier II Emergency Contact
Contact Name:	Jeffrey Smith
Contact Title:	Not reported
Contact Phone:	5616822516
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

Contact ID:	Not reported
Year:	2011
Facility Id:	3995092
Contact Type:	Tier II Secondary 24 Hour Contact
Contact Name:	Jeffrey Smith
Contact Title:	Not reported
Contact Phone:	5616822516
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

SOUTH FLORIDA WATER MANAGEMENT DISTRICT - CABASSA STATION (Continued) **S113388211**

Contact ID:	Not reported
Year:	2011
Facility Id:	3995092
Contact Type:	Tier II Secondary Contact
Contact Name:	Jeffrey Smith
Contact Title:	Not reported
Contact Phone:	5616822516
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

Contact ID:	Not reported
Year:	2011
Facility Id:	3995092
Contact Type:	Tier II Emergency 24 Hour Contact
Contact Name:	Jeffrey Smith
Contact Title:	Not reported
Contact Phone:	5616822516
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	Not reported
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	jesmith@sfwmd.gov

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25 **FL. CRYSTALS CABASSA FARM PS C-17** **DWM CONTAM** **S113720433**
CLEANUP SITES **N/A**
SOUTH BAY, FL 53 **RESP PARTY**

DWM CONTAM:

Program Site Id:	287125
Lat DD:	Not reported
Lat MM:	Not reported
Lat SS:	Not reported
Long DD:	Not reported
Long MM:	Not reported
Long SS:	Not reported
Office/ District:	SED
Program Area:	Responsible Party
Offsite Contamination:	Not reported
Project Manager:	WIERZBICKI_P
Priority Score:	Not reported
Remediation Status:	OPEN
Date Known Offsite:	Not reported
Datum:	Not reported
Method:	Not reported
Program Eligible:	Not reported
Ineligible:	Not reported

FL. CRYSTALS CABASSA FARM PS C-17 (Continued) **S113720433**

CLEANUP SITES:

DEP Cleanup Site Key:	50439398
Source Database Name:	Compliance and Enforcement Tracking - Responsible Party waste cleanup under 62-780
Source Database Id:	COM_287125
CPAC Program Area Id:	CU
CLLC Cleanup Category Key:	OTHCU
RSC2 Remediation Status Key:	PENDING
Data Load Date:	08/24/2017
OC3 Office Id:	SED
Physical Address Line 2:	Not reported
OIC Object Of Interest Id:	CAP_R
PC2 Proximity Id:	PROMF
Calc Coordinates Accuracy Level Id:	3
CMC2 Coordinate Method Id:	Digital Aerial Photography With Ground Control
DC4 Datum Id:	North American Datum of 1983
VSC1 Verification Status:	REVIEWED
Collect Username:	WILLIAMS_CA
Collect Date:	11/23/2010
Collect Affiliation:	Florida Department of Environmental Protection
Map Source:	2004_DOQQ
Map Source Scale:	4618
Interpolation Scale:	Not reported
Verifier Username:	WILLIAMS_CA
Verifier Affiliation:	Florida Department of Environmental Protection
Verification Date:	11/23/2010
Verified Coordinate Method Id:	Digital Aerial Photography With Ground Control
Source Database Name Code:	COMET
CMC2 Coordinate Method ID Code:	DPHO
DC4 Datum ID Code:	NAD83
Verified Coordinate Method ID Code:	DPHO
Comments:	Not reported
Latitude/Longitude (deg/min/sec):	26 24 53.1824 / 1.4238 80 36

RESP PARTY:

District:	Southeast District
Site Id:	287125
Project Id:	311638
Site Status:	INACTIVE
Project Manager:	WIERZBICKI_P
OGC Case Number:	Not reported
Initial Date Received:	09/19/2002
Contaminants:	Not reported
Offsite Cont Impact:	Not reported
Priority Score:	Not reported
Datum:	NAD83
Method ID:	DPHO
Feature:	Not reported
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	PROMF
Collect Username:	WILLIAMS_CA
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	11/23/2010
Map Series Used:	2004_DOQQ
Map Source Scale:	4618

FL. CRYSTALS CABASSA FARM PS C-17 (Continued) **S113720433**

Interpolation Scale:	4618
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO
Verifier Username:	WILLIAMS_CA
Verifier Affiliation:	Florida Department of Environmental Protection
Verifying Program Id:	CR
Verification Date:	11/23/2010
Decode for District:	Southeast District
Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	Not reported
Decode for V_Method:	Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec):	26 24 53.1824000 / 80 36 1.4238

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26 **HADLEY, CABASSA #51 FARMS** **DWM CONTAM** **S113720694**
CLEANUP SITES **N/A**
SOUTH BAY, FL 53 **RESP PARTY**

DWM CONTAM:

Program Site Id:	287117
Lat DD:	Not reported
Lat MM:	Not reported
Lat SS:	Not reported
Long DD:	Not reported
Long MM:	Not reported
Long SS:	Not reported
Office/ District:	SED
Program Area:	Responsible Party
Offsite Contamination:	Not reported
Project Manager:	WIERZBICKI_P
Priority Score:	Not reported
Remediation Status:	OPEN
Date Known Offsite:	Not reported
Datum:	Not reported
Method:	Not reported
Program Eligible:	Not reported
Ineligible:	Not reported

CLEANUP SITES:

DEP Cleanup Site Key:	50440350
Source Database Name:	Compliance and Enforcement Tracking - Responsible Party waste cleanup under 62-780
Source Database Id:	COM_287117
CPAC Program Area Id:	CU
CLLC Cleanup Category Key:	OTHCU
RSC2 Remediation Status Key:	PENDING
Data Load Date:	08/24/2017
OC3 Office Id:	SED
Physical Address Line 2:	Not reported
OIC Object Of Interest Id:	CAP_R
PC2 Proximity Id:	CENTR
Calc Coordinates Accuracy Level Id:	3
CMC2 Coordinate Method Id:	Digital Aerial Photography With Ground Control
DC4 Datum Id:	North American Datum of 1983
VSC1 Verification Status:	REVIEWED
Collect Username:	WILLIAMS_CA
Collect Date:	11/23/2010

HADLEY, CABASSA #51 FARMS (Continued) **S113720694**

Collect Affiliation:	Florida Department of Environmental Protection
Map Source:	2004_DOQQ
Map Source Scale:	4618
Interpolation Scale:	Not reported
Verifier Username:	WILLIAMS_CA
Verifier Affiliation:	Florida Department of Environmental Protection
Verification Date:	11/23/2010
Verified Coordinate Method Id:	Digital Aerial Photography With Ground Control
Source Database Name Code:	COMET
CMC2 Coordinate Method ID Code:	DPHO
DC4 Datum ID Code:	NAD83
Verified Coordinate Method ID Code:	DPHO
Comments:	Not reported
Latitude/Longitude (deg/min/sec):	26 24 51.5519 / 56.0999 80 37

RESP PARTY:

District:	Southeast District
Site Id:	287117
Project Id:	311632
Site Status:	INACTIVE
Project Manager:	WIERZBICKI_P
OGC Case Number:	Not reported
Initial Date Received:	01/23/2002
Contaminants:	CAP Fram 21 Hadley, Cabassa 51, Farm 15 &WPM Farms
Offsite Cont Impact:	Not reported
Priority Score:	Not reported
Datum:	NAD83
Method ID:	DPHO
Feature:	Not reported
Object Of Interest:	CAP_RAP SITE
Proximity To Object:	CENTR
Collect Username:	WILLIAMS_CA
Collect Affiliation:	Florida Department of Environmental Protection
Collect Program Id:	CR
Collect Date:	11/23/2010
Map Series Used:	2004_DOQQ
Map Source Scale:	4618
Interpolation Scale:	4618
Coordinate Accuracy Id:	3
Verify Method Id:	DPHO
Verifier Username:	WILLIAMS_CA
Verifier Affiliation:	Florida Department of Environmental Protection
Verifying Program Id:	CR
Verification Date:	11/23/2010
Decode for District:	Southeast District
Decode for Datum:	North American Datum of 1983
Decode for Method:	Digital Aerial Photography With Ground Control
Decode for Off Site COC:	Not reported
Decode for V_Method:	Digital Aerial Photography With Ground Control
Latitude/Longitude (deg/min/sec):	26 24 51.5519000 / 80 37 56.0998999

27 **SR 25/ US 27 INTELLIGENT TRAFFIC SYSTEMS (ITS) PRO** **FINDS** **1016388034**
UNKNOWN **ECHO** **N/A**
JACKSONVILLE, FL 32204

FINDS:

Registry ID: 110055212602

Environmental Interest/Information System
US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1016388034
Registry ID:	110055212602
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110055212602

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27 **CLASSIC TURF FARM #2** **LUST** **S102533740**
RT 27-19 MI S OF SOUTH BAY **AST** **N/A**
SOUTH BAY, FL 33493

LUST:

Region:	STATE
Facility Id:	8514657
Facility Status:	OPEN
Facility Type:	M - Agricultural
Facility Phone:	(561)996-1538
Facility Cleanup Rank:	12937
District:	Southeast District
Lat/Long (dms):	26 24 32.43 / 80 35 33.88
Section:	025
Township:	46S
Range:	37E
Feature:	Not reported
Method:	AGPS
Datum:	0
Score:	6
Score Effective Date:	11/04/1997
Score When Ranked:	6
Operator:	BILLY BREWER
Name Update:	11/25/2003
Address Update:	Not reported

Discharge Cleanup Summary:

Discharge Date:	04/20/1989
PCT Discharge Combined:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	SRCR - SRCR COMPLETE
Disch Cleanup Status Date:	06/19/2008
Cleanup Work Status:	COMPLETED

CLASSIC TURF FARM #2 (Continued) **S102533740**

Information Source:	A - ABANDONED TANK RESTORATION
Other Source Description:	Not reported
Eligibility Indicator:	E - ELIGIBLE
Site Manager:	GIBSON_D
Site Mgr End Date:	06/19/2008
Tank Office:	PCLP50 - PALM BEACH CNTY ENVIRONMENTAL RESOURCES MGMT

Petroleum Cleanup Program Eligibility:

Facility ID:	8514657
Discharge Date:	20-APR-89
Pct Discharge Combined With:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	SRCR - SRCR COMPLETE
Disch Cleanup Status Date:	06/19/2008
Cleanup Work Status:	COMPLETED
Information Source:	A - ABANDONED TANK RESTORATION
Other Source Description:	Not reported
Application Received Date:	13-SEP-90
Cleanup Program:	A - ABANDONED TANK RESTORATION PROGRAM
Eligibility Status:	06-MAR-91
Elig Status Date:	06-MAR-91
Letter Of Intent Date:	09/13/1990
Redetermined:	No
Inspection Date:	11/28/1990
Site Manager:	GIBSON_D
Site Mgr End Date:	06/19/2008
Tank Office:	PCLP50 - PALM BEACH CNTY ENVIRONMENTAL RESOURCES MGMT
Deductible Amount:	500
Deductible Paid To Date:	500
Co-Pay Amount:	0
Co-Pay Paid To Date:	0
Cap Amount:	Not reported

Contaminated Media:

Discharge Date:	04/20/1989
Pct Discharge Combined With:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	SRCR - SRCR COMPLETE
Disch Cleanup Status Date:	06/19/2008
Cleanup Work Status:	COMPLETED
Information Source:	A - ABANDONED TANK RESTORATION
Other Source Description:	Not reported
Elig Indicator:	E - ELIGIBLE
Site Manager:	GIBSON_D
Site Mgr End Date:	06/19/2008
Tank Office:	PCLP50 - PALM BEACH CNTY ENVIR
Contaminated Drinking Wells:	0
Contaminated Monitoring Well:	No
Contaminated Soil:	Yes
Contaminated Surface Water:	No
Contaminated Ground Water:	No
Pollutant:	D - Vehicular Diesel
Pollutant Other Description:	Not reported
Gallons Discharged:	Not reported

Task Information:

District:	SED
Facility ID:	8514657
Facility Status:	OPEN

CLASSIC TURF FARM #2 (Continued) **S102533740**

Facility Type:	M - Agricultural -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	E
Source Effective Date:	06-02-2008
Discharge Date:	04-20-1989
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	SRCR - SRCR COMPLETE
Disch Cleanup Status Date:	06-19-2008
SRC Action Type:	SRCR - SITE REHABILITATION COMPLETION REPORT
SRC Submit Date:	04-10-2008
SRC Review Date:	04-11-2008
SRC Completion Status:	A - APPROVED
SRC Issue Date:	06-19-2008
SRC Comment:	FREE PRODUCT 1/3/95
Cleanup Work Status:	COMPLETED
Site Mgr:	GIBSON_D
Site Mgr End Date:	06-19-2008
Tank Office:	PCLP50 - Palm Beach County
SR Task ID:	84358
SR Cleanup Responsible:	-
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	09-06-2005
SR Payment Date:	Not reported
SR Oral Date:	Not reported
SR Written Date:	Not reported
SR Soil Removal:	Y
SR Free Product Removal:	Not reported
SR Soil Tonnage Removed:	15805
SR Soil Treatment:	Not reported
SR Other Treatment:	2596.60 9/28/07
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	39301
SA Cleanup Responsible:	-
SA Funding Eligibility Type:	-
SA Actual Cost:	$68,625.94
SA Completion Date:	02-04-1991
SA Payment Date:	08-17-1992
RAP Task ID:	39302
RAP Cleanup Responsible ID:	RP - RESPONSIBLE PARTY
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported
RAP Last Order Approved:	Not reported
RA Task ID:	39303
RA Cleanup Responsible:	RP - RESPONSIBLE PARTY
RA Funding Eligibility Type:	-
RA Years to Complete:	3
RA Actual Cost:	Not reported

CLASSIC TURF FARM #2 (Continued) **S102533740**

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AST:

Facility ID:	8514657
Facility Status:	OPEN
Type Description:	Agricultural
Facility Phone:	(561) 996-1538
DEP Contractor Own:	P
Region:	STATE
Positioning Method:	AGPS
Lat/Long (dms):	26 24 29 / 80 35 37

Owner:

Owner Id:	44684
Owner Name:	WOERNER SOUTH INC
Owner Address:	275 SW 3RD AVE
Owner Address 2:	Not reported
Owner City,St,Zip:	SOUTH BAY, FL 33493
Owner Contact:	DAVE WILLIAMS
Owner Phone:	(561) 996-8500

Tank Id:	1
Status:	Removed
Status Date:	31-JAN-1990
Install Date:	Not reported
Substance:	Leaded gas
Content Description:	Leaded Gas
Gallons:	2000
Tank Location:	ABOVEGROUND

Tank Id:	2
Status:	Removed
Status Date:	31-JUL-1990
Install Date:	Not reported
Substance:	Fuel oil-on site heat
Content Description:	Fuel Oil - Onsite Heat
Gallons:	3000
Tank Location:	ABOVEGROUND

Tank Id:	3
Status:	Removed
Status Date:	Not reported
Install Date:	Not reported
Substance:	Leaded gas
Content Description:	Leaded Gas
Gallons:	3000
Tank Location:	ABOVEGROUND

Tank Id:	4
Status:	Removed
Status Date:	31-JUL-1990
Install Date:	Not reported
Substance:	Waste oil
Content Description:	Waste Oil
Gallons:	1500
Tank Location:	ABOVEGROUND

CLASSIC TURF FARM #2 (Continued) **S102533740**

Tank Id: 5
Status: Removed
Status Date: 31-JUL-1990
Install Date: Not reported
Substance: Waste oil
Content Description: Waste Oil
Gallons: 1000
Tank Location: ABOVEGROUND

Tank Id: 6
Status: Removed
Status Date: 31-JUL-1990
Install Date: Not reported
Substance: Fuel oil-on site heat
Content Description: Fuel Oil - Onsite Heat
Gallons: 3000
Tank Location: ABOVEGROUND

Tank Id: 7
Status: Removed
Status Date: 31-JAN-1990
Install Date: Not reported
Substance: Fuel oil-on site heat
Content Description: Fuel Oil - Onsite Heat
Gallons: 4000
Tank Location: ABOVEGROUND

Tank Id: 8
Status: Removed
Status Date: 31-JAN-1990
Install Date: Not reported
Substance: Unleaded gas
Content Description: Unleaded Gas
Gallons: 4000
Tank Location: ABOVEGROUND

Tank Id: 9
Status: Removed
Status Date: Not reported
Install Date: Not reported
Substance: Fuel oil-on site heat
Content Description: Fuel Oil - Onsite Heat
Gallons: 2000
Tank Location: ABOVEGROUND

Tank Id: 11
Status: Removed
Status Date: 31-MAY-1992
Install Date: 01-JUL-1989
Substance: Vehicular diesel
Content Description: Vehicular Diesel
Gallons: 10000
Tank Location: ABOVEGROUND

Tank Id: 12
Status: Removed
Status Date: 31-MAY-1992

CLASSIC TURF FARM #2 (Continued) **S102533740**

Install Date: 01-JUL-1989
Substance: Unleaded gas
Content Description: Unleaded Gas
Gallons: 2000
Tank Location: ABOVEGROUND

Tank Id: 3
Status: Removed
Status Date: 31-JAN-1994
Install Date: 01-JUL-1977
Substance: Diesel-generator,pump
Content Description: Generator/Pump Diesel
Gallons: 3000
Tank Location: ABOVEGROUND

Tank Id: 14
Status: Removed
Status Date: 31-JAN-1994
Install Date: 01-JUL-1977
Substance: Diesel-generator,pump
Content Description: Generator/Pump Diesel
Gallons: 3000
Tank Location: ABOVEGROUND

Tank Id: 15
Status: Removed
Status Date: 01-JAN-2004
Install Date: 01-MAY-1992
Substance: Vehicular diesel
Content Description: Vehicular Diesel
Gallons: 10000
Tank Location: ABOVEGROUND

Tank Id: 16
Status: In service
Status Date: 01-JAN-2004
Install Date: 01-MAY-1992
Substance: New/lube oil
Content Description: New/Lube Oil
Gallons: 250
Tank Location: ABOVEGROUND

Tank Id: 17
Status: In service
Status Date: Not reported
Install Date: 01-MAY-1992
Substance: New/lube oil
Content Description: New/Lube Oil
Gallons: 250
Tank Location: ABOVEGROUND

Tank Id: 18
Status: In service
Status Date: Not reported
Install Date: 01-MAY-1992
Substance: Waste oil
Content Description: Waste Oil

CLASSIC TURF FARM #2 (Continued) **S102533740**

Gallons: 500
Tank Location: ABOVEGROUND

Tank Id: 19
Status: Removed
Status Date: 01-JAN-2004
Install Date: 01-MAY-1992
Substance: Unleaded gas
Content Description: Unleaded Gas
Gallons: 1000
Tank Location: ABOVEGROUND

Tank Id: 13R1
Status: Removed
Status Date: 01-SEP-2007
Install Date: 01-DEC-1993
Substance: Diesel-generator,pump
Content Description: Generator/Pump Diesel
Gallons: 2000
Tank Location: ABOVEGROUND

Tank Id: 14R1
Status: Removed
Status Date: 01-SEP-2007
Install Date: 01-DEC-1993
Substance: Diesel-generator,pump
Content Description: Generator/Pump Diesel
Gallons: 2000
Tank Location: ABOVEGROUND

Tank Id: 20
Status: Removed
Status Date: 01-JAN-2004
Install Date: 01-SEP-1993
Substance: Vehicular diesel
Content Description: Vehicular Diesel
Gallons: 1500
Tank Location: ABOVEGROUND

Tank Id: 21
Status: Removed
Status Date: 01-JAN-2004
Install Date: 01-JUN-1996
Substance: Misc. petrol-based product
Content Description: Misc Petrol-Based Product
Gallons: 1000
Tank Location: ABOVEGROUND

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27 FL DEPT OF TRANSPORTATION-OLD SUGAR MILL BLDG — **UST** — **U001963256**
6 MI N OF BROWARD/WPB CNTY LINE US 27 — **N/A**
WEST PALM BEACH, FL 00053

UST:

Facility Id:	9401056
Facility Status:	CLOSED
Type Description:	State Government
Facility Phone:	Not reported
Region:	STATE
Positioning Method:	AGPS
Lat/Long (dms):	26 33 41 / 80 35 3

Owner:

Owner Id:	24716
Owner Name:	FL DEPT OF TRANSPORTATION DIST IV
Owner Address:	3400 W COMMERCIAL BLVD
Owner Address 2:	ATTN: DIST FLEET MGR
Owner City,St,Zip:	FORT LAUDERDALE, FL 33309
Owner Contact:	RICHARD PLAISIR
Owner Phone:	(954) 777-4216

Tank Info:

Tank Id:	1
Status:	Removed
Status Date:	01-AUG-1993
Install Date:	Not reported
Substance:	Unknown/Not reported
Content Description:	Unknown/Not Reported
Gallons:	2000
Vessel Indicator:	TANK
Tank Location:	UNDERGROUND
DEP Contractor:	P

Tank Id:	2
Status:	Removed
Status Date:	01-AUG-1993
Install Date:	Not reported
Substance:	Unknown/Not reported
Content Description:	Unknown/Not Reported
Gallons:	2000
Vessel Indicator:	TANK
Tank Location:	UNDERGROUND
DEP Contractor:	P

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28 ROTH FARMS INC-GRESSINGER FARM — **LUST** — **U003656904**
E SIDE OF BROWNS FARM RD-9 MI S OF SR880 — **UST** — **N/A**
BELLE GLADE, FL 33430 — **AST**
DWM CONTAM

LUST:

Region:	STATE
Facility Id:	8623294
Facility Status:	OPEN
Facility Type:	C - Fuel user/Non-retail
Facility Phone:	Not reported
Facility Cleanup Rank:	14364

ROTH FARMS INC-GRESSINGER FARM (Continued) **U003656904**

District:	Southeast District
Lat/Long (dms):	26 32 26.3232 / 80 34 2.9517
Section:	020
Township:	45S
Range:	38E
Feature:	Not reported
Method:	AGPS
Datum:	0
Score:	5
Score Effective Date:	11/04/1997
Score When Ranked:	5
Operator:	Not reported
Name Update:	Not reported
Address Update:	02/03/2000

Discharge Cleanup Summary:

Discharge Date:	03/26/1991
PCT Discharge Combined:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	02/17/2012
Cleanup Work Status:	COMPLETED
Information Source:	A - ABANDONED TANK RESTORATION
Other Source Description:	Not reported
Eligibility Indicator:	E - ELIGIBLE
Site Manager:	TRUEBLOOD_K
Site Mgr End Date:	02/17/2012
Tank Office:	PCTM5 - PETROLEUM CLEANUP TEAM 5

Petroleum Cleanup Program Eligibility:

Facility ID:	8623294
Discharge Date:	26-MAR-91
Pct Discharge Combined With:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	02/17/2012
Cleanup Work Status:	COMPLETED
Information Source:	A - ABANDONED TANK RESTORATION
Other Source Description:	Not reported
Application Received Date:	07-JUL-92
Cleanup Program:	A - ABANDONED TANK RESTORATION PROGRAM
Eligibility Status:	11-DEC-92
Elig Status Date:	11-DEC-92
Letter Of Intent Date:	07/07/1992
Redetermined:	No
Inspection Date:	04/29/1991
Site Manager:	TRUEBLOOD_K
Site Mgr End Date:	02/17/2012
Tank Office:	PCTM5 - PETROLEUM CLEANUP TEAM 5
Deductible Amount:	500
Deductible Paid To Date:	500
Co-Pay Amount:	0
Co-Pay Paid To Date:	0
Cap Amount:	Not reported

Contaminated Media:

Discharge Date:	03/26/1991
Pct Discharge Combined With:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED

ROTH FARMS INC-GRESSINGER FARM (Continued) **U003656904**

Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	02/17/2012
Cleanup Work Status:	COMPLETED
Information Source:	A - ABANDONED TANK RESTORATION
Other Source Description:	Not reported
Elig Indicator:	E - ELIGIBLE
Site Manager:	TRUEBLOOD_K
Site Mgr End Date:	02/17/2012
Tank Office:	PCTM5 - PETROLEUM CLEANUP TEAM
Contaminated Drinking Wells:	0
Contaminated Monitoring Well:	No
Contaminated Soil:	Yes
Contaminated Surface Water:	No
Contaminated Ground Water:	No
Pollutant:	D - Vehicular Diesel
Pollutant Other Description:	Not reported
Gallons Discharged:	Not reported

Task Information:

District:	SED
Facility ID:	8623294
Facility Status:	OPEN
Facility Type:	C - Fuel user/Non-retail -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	E
Source Effective Date:	02-16-2012
Discharge Date:	03-26-1991
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	02-17-2012
SRC Action Type:	NFA - NO FURTHER ACTION
SRC Submit Date:	09-26-2011
SRC Review Date:	10-26-2011
SRC Completion Status:	A - APPROVED
SRC Issue Date:	02-17-2012
SRC Comment:	Not reported
Cleanup Work Status:	COMPLETED
Site Mgr:	TRUEBLOOD_K
Site Mgr End Date:	02-17-2012
Tank Office:	PCTM5 - Team 5
SR Task ID:	37712
SR Cleanup Responsible:	RP - RESPONSIBLE PARTY
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	Not reported
SR Payment Date:	Not reported
SR Oral Date:	Not reported
SR Written Date:	12-13-1991
SR Soil Removal:	Y
SR Free Product Removal:	Y
SR Soil Tonnage Removed:	980
SR Soil Treatment:	Not reported
SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported

ROTH FARMS INC-GRESSINGER FARM (Continued) **U003656904**

SA Task ID:	37713
SA Cleanup Responsible:	RP - RESPONSIBLE PARTY
SA Funding Eligibility Type:	-
SA Actual Cost:	Not reported
SA Completion Date:	03-12-1993
SA Payment Date:	Not reported
RAP Task ID:	37714
RAP Cleanup Responsible ID:	RP - RESPONSIBLE PARTY
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	03-30-1994
RAP Payment Date:	Not reported
RAP Last Order Approved:	1994-03-30 00:00:00
RA Task ID:	37715
RA Cleanup Responsible:	RP - RESPONSIBLE PARTY
RA Funding Eligibility Type:	-
RA Years to Complete:	0
RA Actual Cost:	Not reported

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UST:

Facility Id:	8623294
Facility Status:	OPEN
Type Description:	Fuel user/Non-retail
Facility Phone:	Not reported
Region:	STATE
Positioning Method:	AGPS
Lat/Long (dms):	26 24 0 / 80 36 0

Owner:

Owner Id:	18716
Owner Name:	ROTH FARMS INC
Owner Address:	PO BOX 1300
Owner Address 2:	Not reported
Owner City,St,Zip:	BELLE GLADE, FL 33430
Owner Contact:	DENNIS LECROY
Owner Phone:	(561) 996-2991

Tank Info:

Tank Id:	10
Status:	Removed
Status Date:	31-DEC-1988
Install Date:	01-AUG-1984
Substance:	Vehicular diesel
Content Description:	Vehicular Diesel
Gallons:	10000
Vessel Indicator:	TANK
Tank Location:	UNDERGROUND
DEP Contractor:	P

Tank Id:	11
Status:	Removed
Status Date:	30-JUN-1988
Install Date:	01-AUG-1984
Substance:	Leaded gas
Content Description:	Leaded Gas

ROTH FARMS INC-GRESSINGER FARM (Continued) **U003656904**

Gallons: 4000
Vessel Indicator: TANK
Tank Location: UNDERGROUND
DEP Contractor: P

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AST:
Facility ID: 8623294
Facility Status: OPEN
Type Description: Fuel user/Non-retail
Facility Phone: Not reported
DEP Contractor Own: P
Region: STATE
Positioning Method: AGPS
Lat/Long (dms): 26 24 0 / 80 36 0

Owner:
Owner Id: 18716
Owner Name: ROTH FARMS INC
Owner Address: PO BOX 1300
Owner Address 2: Not reported
Owner City,St,Zip: BELLE GLADE, FL 33430
Owner Contact: DENNIS LECROY
Owner Phone: (561) 996-2991

Tank Id: 12
Status: In service
Status Date: Not reported
Install Date: 01-JUL-1983
Substance: New/lube oil
Content Description: New/Lube Oil
Gallons: 550
Tank Location: ABOVEGROUND

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DWM CONTAM:
Program Site Id: 8623294
Lat DD: 26
Lat MM: 32
Lat SS: 26.62
Long DD: 80
Long MM: 29
Long SS: 51.55
Office/ District: PCLP50
Program Area: Petroleum
Offsite Contamination: U
Project Manager: Not reported
Priority Score: 5
Remediation Status: WAITING
Date Known Offsite: Not reported
Datum: HARN
Method: AGPS

ROTH FARMS INC-GRESSINGER FARM (Continued) **U003656904**

Program Eligible: Yes
Ineligible: Not reported

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29 SOUTH FL WTR MGMT DIST-FRMR EAA VILLAGE **LUST** **U004218962**
5.3 MI N BROWARD CO LINE-WESTSIDE US 27 **TANKS** **N/A**
BOCA RATON, FL 00053

LUST:

Region:	STATE
Facility Id:	9813885
Facility Status:	CLOSED
Facility Type:	Z - Other Regulated Facility
Facility Phone:	(561)682-2516
Facility Cleanup Rank:	Not reported
District:	Southeast District
Lat/Long (dms):	26 23 47.4 / 80 35 24.72
Section:	31
Township:	46S
Range:	38E
Feature:	Not reported
Method:	Not reported
Datum:	Not reported
Score:	Not reported
Score Effective Date:	Not reported
Score When Ranked:	Not reported
Operator:	JEFFREY SMITH
Name Update:	Not reported
Address Update:	10/11/2013

Discharge Cleanup Summary:

Discharge Date:	09/24/2013
PCT Discharge Combined:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	SRCR - SRCR COMPLETE
Disch Cleanup Status Date:	01/06/2014
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	Not reported
Eligibility Indicator:	I - INELIGIBLE
Site Manager:	GIBSON_D
Site Mgr End Date:	01/06/2014
Tank Office:	PCLP50 - PALM BEACH CNTY ENVIRONMENTAL RESOURCES MGMT

Contaminated Media:

Discharge Date:	09/24/2013
Pct Discharge Combined With:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	SRCR - SRCR COMPLETE
Disch Cleanup Status Date:	01/06/2014
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	Not reported
Elig Indicator:	I - INELIGIBLE
Site Manager:	GIBSON_D
Site Mgr End Date:	01/06/2014
Tank Office:	PCLP50 - PALM BEACH CNTY ENVIR
Contaminated Drinking Wells:	Not reported
Contaminated Monitoring Well:	No
Contaminated Soil:	Yes

SOUTH FL WTR MGMT DIST-FRMR EAA VILLAGE (Continued) **U004218962**

Contaminated Surface Water:	No
Contaminated Ground Water:	No
Pollutant:	E - Aviation Gas
Pollutant Other Description:	Not reported
Gallons Discharged:	400

Task Information:

District:	SED
Facility ID:	9813885
Facility Status:	CLOSED
Facility Type:	Z - Other Regulated Facility -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	I
Source Effective Date:	12-04-2013
Discharge Date:	09-24-2013
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	SRCR - SRCR COMPLETE
Disch Cleanup Status Date:	01-06-2014
SRC Action Type:	SRCR - SITE REHABILITATION COMPLETION REPORT
SRC Submit Date:	11-27-2013
SRC Review Date:	12-04-2013
SRC Completion Status:	A - APPROVED
SRC Issue Date:	01-06-2014
SRC Comment:	Not reported
Cleanup Work Status:	COMPLETED
Site Mgr:	GIBSON_D
Site Mgr End Date:	01-06-2014
Tank Office:	PCLP50 - Palm Beach County
SR Task ID:	90848
SR Cleanup Responsible:	-
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	Not reported
SR Payment Date:	Not reported
SR Oral Date:	Not reported
SR Written Date:	Not reported
SR Soil Removal:	Not reported
SR Free Product Removal:	Not reported
SR Soil Tonnage Removed:	Not reported
SR Soil Treatment:	Not reported
SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	Not reported
SA Cleanup Responsible:	-
SA Funding Eligibility Type:	-
SA Actual Cost:	Not reported
SA Completion Date:	Not reported
SA Payment Date:	Not reported
RAP Task ID:	Not reported
RAP Cleanup Responsible ID:	-
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported

SOUTH FL WTR MGMT DIST-FRMR EAA VILLAGE (Continued) **U004218962**

RAP Last Order Approved:	Not reported
RA Task ID:	90849
RA Cleanup Responsible:	-
RA Funding Eligibility Type:	-
RA Years to Complete:	0
RA Actual Cost:	Not reported

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TANKS:

Facility ID:	9813885
Facility Phone:	(561) 682-2516
Facility Status:	CLOSED
Facility Type:	Z
Type Description:	Other Regulated Facility
Dep Co:	P
Lat/Lon Deg Min Sec:	Not reported

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29 SOUTH FL WATER MGMT DIST-FORMER CABASSA FARMS **LUST U004110007**
US 27-19 MI SOUTH OF SOUTH BAY **UST N/A**
SOUTH BAY, FL 33430

LUST:

Region:	STATE
Facility Id:	9809549
Facility Status:	CLOSED
Facility Type:	G - State Government
Facility Phone:	(561)682-2516
Facility Cleanup Rank:	Not reported
District:	Southeast District
Lat/Long (dms):	26 23 51.9048 / 80 35 16.2909
Section:	Not reported
Township:	Not reported
Range:	Not reported
Feature:	Not reported
Method:	Not reported
Datum:	Not reported
Score:	Not reported
Score Effective Date:	Not reported
Score When Ranked:	Not reported
Operator:	JEFFREY SMITH
Name Update:	Not reported
Address Update:	Not reported

Discharge Cleanup Summary:

Discharge Date:	08/31/2007
PCT Discharge Combined:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	12/24/2007
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	Not reported
Eligibility Indicator:	I - INELIGIBLE
Site Manager:	RIAL_S
Site Mgr End Date:	03/11/2008
Tank Office:	PCLP50 - PALM BEACH CNTY ENVIRONMENTAL RESOURCES MGMT

SOUTH FL WATER MGMT DIST-FORMER CABASSA FARMS (Continued) **U004110007**

Contaminated Media:

Discharge Date:	08/31/2007
Pct Discharge Combined With:	Not reported
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	12/24/2007
Cleanup Work Status:	COMPLETED
Information Source:	D - DISCHARGE NOTIFICATION
Other Source Description:	Not reported
Elig Indicator:	I - INELIGIBLE
Site Manager:	RIAL_S
Site Mgr End Date:	03/11/2008
Tank Office:	PCLP50 - PALM BEACH CNTY ENVIR
Contaminated Drinking Wells:	Not reported
Contaminated Monitoring Well:	Yes
Contaminated Soil:	No
Contaminated Surface Water:	No
Contaminated Ground Water:	Yes
Pollutant:	H - Generator/Pump Diesel
Pollutant Other Description:	1500 gallon abandoned UST.
Gallons Discharged:	Not reported

Task Information:

District:	SED
Facility ID:	9809549
Facility Status:	CLOSED
Facility Type:	G - State Government -
County:	PALM BEACH
County ID:	50
Cleanup Eligibility Status:	I
Source Effective Date:	11-13-2007
Discharge Date:	08-31-2007
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	NFA - NFA COMPLETE
Disch Cleanup Status Date:	12-24-2007
SRC Action Type:	NFA - NO FURTHER ACTION
SRC Submit Date:	11-07-2007
SRC Review Date:	11-13-2007
SRC Completion Status:	A - APPROVED
SRC Issue Date:	12-24-2007
SRC Comment:	Not reported
Cleanup Work Status:	COMPLETED
Site Mgr:	RIAL_S
Site Mgr End Date:	03-11-2008
Tank Office:	PCLP50 - Palm Beach County
SR Task ID:	Not reported
SR Cleanup Responsible:	-
SR Funding Eligibility Type:	-
SR Actual Cost:	Not reported
SR Completion Date:	Not reported
SR Payment Date:	Not reported
SR Oral Date:	Not reported
SR Written Date:	Not reported
SR Soil Removal:	Not reported
SR Free Product Removal:	Not reported
SR Soil Tonnage Removed:	Not reported
SR Soil Treatment:	Not reported

SOUTH FL WATER MGMT DIST-FORMER CABASSA FARMS (Continued) **U004110007**

SR Other Treatment:	Not reported
SR Alternate Proc Received Date:	Not reported
SR Alternate Procedure Status:	Not reported
SR Alternate Procedure Status Date:	Not reported
SR Alternate Procedure Comments:	Not reported
SA Task ID:	81936
SA Cleanup Responsible:	-
SA Funding Eligibility Type:	-
SA Actual Cost:	Not reported
SA Completion Date:	Not reported
SA Payment Date:	Not reported
RAP Task ID:	Not reported
RAP Cleanup Responsible ID:	-
RAP Funding Eligibility Type:	-
RAP Actual Cost:	Not reported
RAP Completion Date:	Not reported
RAP Payment Date:	Not reported
RAP Last Order Approved:	Not reported
RA Task ID:	81937
RA Cleanup Responsible:	-
RA Funding Eligibility Type:	-
RA Years to Complete:	0
RA Actual Cost:	Not reported

Click here for Florida Oculus:

UST:

Facility Id:	9809549
Facility Status:	CLOSED
Type Description:	State Government
Facility Phone:	(561) 682-2516
Region:	STATE
Positioning Method:	Not reported
Lat/Long (dms):	Not reported

Owner:

Owner Id:	20374
Owner Name:	SOUTH FL WATER MGMT DIST
Owner Address:	3301 GUN CLUB RD-DEPT #5432
Owner Address 2:	ATTN: JEFFREY SMITH
Owner City,St,Zip:	WEST PALM BEACH, FL 33406
Owner Contact:	JEFFREY A SMITH
Owner Phone:	(561) 682-2516

Tank Info:

Tank Id:	1
Status:	Removed
Status Date:	20-AUG-2007
Install Date:	Not reported
Substance:	Diesel-generator,pump
Content Description:	Generator/Pump Diesel
Gallons:	1500
Vessel Indicator:	TANK
Tank Location:	UNDERGROUND
DEP Contractor:	P

SOUTH FL WATER MGMT DIST-FORMER CABASSA FARMS (Continued) **U004110007**

Click here for Florida Oculus:

Count: 8 records

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BELLE GLADE	A100162810	PALM BEACH CNTY-PALMTRAN SITE	1703 HWY 16	33430	AST
BELLE GLADE	A100011403	TOP FARMS INC	SR 80 / 5.5 MI E OF BELLE GLADE	33430	AST
BELLE GLADE	A100184066	GROWERS MGMT INC	HWY 827 BROWNS FARM RD	33430	AST
BELLE GLADE	A100289531	ATLANTIC MILL TANK FARM	HWY 880 15 MI E OF BELLE GLADE	33430	AST
BELLE GLADE	S121158338	POLICE TRAINING BUILDING AND STORAGE	2050 W CANAL STREET	33430	ASBESTOS
BELLE GLADE	1014388808	SUGAR FARMS CO-OP MAINTENANCE	STATE ROAD 880	33430	RCRA-CESQG
PALM BEACH COUNTY	M300006544	PALM BEACH AGGREGATES, INC.	PALM BEACH MINE		US MINES
SOUTH BAY	1000701366	TALISMAN SUGAR CORP	US HWY 27 E	33430	RCRA NonGen / NLR

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/08/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 99

Source: EPA
Telephone: N/A
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: EPA
Telephone: N/A
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Quarterly

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: EPA
Telephone: N/A
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/11/2017
Date Data Arrived at EDR: 07/21/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 77

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Quarterly

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/11/2017
Date Data Arrived at EDR: 07/28/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 70

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/11/2017
Date Data Arrived at EDR: 07/26/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/10/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/27/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 08/10/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/27/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Varies

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/18/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 22

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/21/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 22

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 07/13/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 30

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Quarterly

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/19/2017
Date Data Arrived at EDR: 06/20/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/20/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Semi-Annually

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 11/22/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/22/2017
Date Data Arrived at EDR: 06/13/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 94

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/08/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2017
Date Data Arrived at EDR: 08/03/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 78

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 09/27/2017
Date Data Arrived at EDR: 10/12/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 8

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/22/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/20/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: No Update Planned

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 12/01/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 07/31/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 44

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Semi-Annually

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 12/01/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Varies

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/20/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/22/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 126

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/02/2017
Date Data Arrived at EDR: 10/05/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/05/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/23/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 9

Source: EPA
Telephone: (404) 562-9900
Last EDR Contact: 12/05/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2017
Date Data Arrived at EDR: 02/09/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/20/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Biennially

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 02/13/2017
Date Data Arrived at EDR: 02/15/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 261

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 11/21/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Varies

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/09/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2016
Date Data Arrived at EDR: 06/02/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 133

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 07/13/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 30

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/17/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 09/08/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/06/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Varies

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 12/05/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Varies

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US FIN ASSUR: Financial Assurance Information
All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 05/10/2017
Date Data Arrived at EDR: 05/17/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 121

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST
EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/06/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Quarterly

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/02/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/26/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/17/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 29

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/20/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/02/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 12/05/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Quarterly

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/25/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 24

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

STATE AND LOCAL RECORDS

SHWS: Florida's State-Funded Action Sites

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 08/10/2017
Date Data Arrived at EDR: 08/22/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 30

Source: Department of Environmental Protection
Telephone: 850-488-0190
Last EDR Contact: 11/22/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Semi-Annually

SWF/LF: Solid Waste Facility Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 10/16/2017
Date Data Arrived at EDR: 10/17/2017
Date Made Active in Reports: 11/27/2017
Number of Days to Update: 41

Source: Department of Environmental Protection
Telephone: 850-922-7121
Last EDR Contact: 10/17/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Quarterly

UIC: Underground Injection Wells Database Listing

A listing of Class I wells. Class I wells are used to inject hazardous waste, nonhazardous waste, or municipal waste below the lowermost USDW.

Date of Government Version: 10/31/2017
Date Data Arrived at EDR: 11/01/2017
Date Made Active in Reports: 11/28/2017
Number of Days to Update: 27

Source: Department of Environmental Protection
Telephone: 850-245-8655
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

SWRCY: Recycling Centers

A listing of recycling centers located in the state of Florida.

Date of Government Version: 07/24/2014
Date Data Arrived at EDR: 10/22/2014
Date Made Active in Reports: 01/12/2015
Number of Days to Update: 82

Source: Department of Environmental Protection
Telephone: 850-245-8718
Last EDR Contact: 10/20/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Varies

LUST: Petroleum Contamination Detail Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 10/04/2017
Date Data Arrived at EDR: 10/31/2017
Date Made Active in Reports: 11/27/2017
Number of Days to Update: 27

Source: Department of Environmental Protection
Telephone: 850-245-8839
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Quarterly

TANKS: Storage Tank Facility List

This listing includes storage tank facilities that do not have tank information. The tanks have either be closed or removed from the site, but the facilities were still registered at some point in history.

Date of Government Version: 10/04/2017
Date Data Arrived at EDR: 10/31/2017
Date Made Active in Reports: 11/21/2017
Number of Days to Update: 21

Source: Department of Environmental Protection
Telephone: 850-245-8841
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Quarterly

UST: Storage Tank Facility Information

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 10/04/2017
Date Data Arrived at EDR: 10/31/2017
Date Made Active in Reports: 11/21/2017
Number of Days to Update: 21

Source: Department of Environmental Protection
Telephone: 850-245-8839
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Quarterly

LAST: Leaking Aboveground Storage Tank Listing

The file for Leaking Aboveground Storage Tanks. Please remember STCM does not track the source of the discharge so the agency provides a list of facilities with an aboveground tank and an open discharge split by facilities with aboveground tanks only and facilities with aboveground and underground tanks.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 11/27/2017
Number of Days to Update: 24

Source: Department of Environmental Protection
Telephone: 850-245-8799
Last EDR Contact: 10/25/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

AST: Storage Tank Facility Information

Registered Aboveground Storage Tanks.

Date of Government Version: 10/04/2017
Date Data Arrived at EDR: 10/31/2017
Date Made Active in Reports: 11/21/2017
Number of Days to Update: 21

Source: Department of Environmental Protection
Telephone: 850-245-8839
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Quarterly

FL SITES: Sites List

This summary status report was developed from a number of lists including the Eckhardt list, the Moffit list, the EPA Hazardous Waste Sites list, EPA's Emergency & Remedial Response information System list (RCRA Section 3012) & existing department lists such as the obsolete uncontrolled Hazardous Waste Sites list. This list is no longer updated.

Date of Government Version: 12/31/1989
Date Data Arrived at EDR: 05/09/1994
Date Made Active in Reports: 08/04/1994
Number of Days to Update: 87

Source: Department of Environmental Protection
Telephone: 850-245-8705
Last EDR Contact: 03/24/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS: Oil and Hazardous Materials Incidents

Statewide oil and hazardous materials inland incidents.

Date of Government Version: 10/10/2017
Date Data Arrived at EDR: 10/12/2017
Date Made Active in Reports: 11/27/2017
Number of Days to Update: 46

Source: Department of Environmental Protection
Telephone: 850-245-2010
Last EDR Contact: 10/10/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

ENG CONTROLS: Institutional Controls Registry

The registry is a database of all contaminated sites in the state of Florida which are subject to engineering controls. Engineering Controls encompass a variety of engineered remedies to contain and/or reduce contamination, and/or physical barriers intended to limit access to property. ECs include fences, signs, guards, landfill caps, provision of potable water, slurry walls, sheet pile (vertical caps), pumping and treatment of groundwater, monitoring wells, and vapor extraction systems.

Date of Government Version: 10/02/2017
Date Data Arrived at EDR: 10/03/2017
Date Made Active in Reports: 11/27/2017
Number of Days to Update: 55

Source: Department of Environmental Protection
Telephone: 850-245-8927
Last EDR Contact: 10/03/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Semi-Annually

Inst Control: Institutional Controls Registry

The registry is a database of all contaminated sites in the state of Florida which are subject to institutional and engineering controls.

Date of Government Version: 10/02/2017
Date Data Arrived at EDR: 10/03/2017
Date Made Active in Reports: 11/27/2017
Number of Days to Update: 55

Source: Department of Environmental Protection
Telephone: 850-245-8927
Last EDR Contact: 10/03/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Semi-Annually

VCP: Voluntary Cleanup Sites

Listing of closed and active voluntary cleanup sites.

Date of Government Version: 08/22/2017
Date Data Arrived at EDR: 08/23/2017
Date Made Active in Reports: 10/23/2017
Number of Days to Update: 61

Source: Department of Environmental Protection
Telephone: 850-245-8705
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Facilities

The Drycleaners database, maintained by the Department of Environmental Protection, provides information about permitted dry cleaner facilities.

Date of Government Version: 10/03/2017
Date Data Arrived at EDR: 10/24/2017
Date Made Active in Reports: 11/21/2017
Number of Days to Update: 28

Source: Department of Environmental Protection
Telephone: 850-245-8927
Last EDR Contact: 10/24/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

PRIORITYCLEANERS: Priority Ranking List

The Florida Legislature has established a state-funded program to cleanup properties that are contaminated as a result of the operations of a drycleaning facility.

Date of Government Version: 07/10/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 10/23/2017
Number of Days to Update: 67

Source: Department of Environmental Protection
Telephone: 850-245-8927
Last EDR Contact: 11/17/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Varies

DEDB: Ethylene Dibromide Database Results

Ethylene dibromide (EDB), a soil fumigant, that has been detected in drinking water wells. The amount found exceeds the maximum contaminant level as stated in Chapter 62-550 or 520. It is a potential threat to public health when present in drinking water.

Date of Government Version: 09/27/2017
Date Data Arrived at EDR: 09/28/2017
Date Made Active in Reports: 11/21/2017
Number of Days to Update: 54

Source: Department of Environmental Protection
Telephone: 850-245-8335
Last EDR Contact: 09/27/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Varies

BSRA: Brownfield Site Rehabilitation Agreements Listing

The BSRA provides DEP and the public assurance that site rehabilitation will be conducted in accordance with Florida Statutes and DEP's Contaminated Site Cleanup Criteria rule. In addition, the BSRA provides limited liability protection for the voluntary responsible party. The BSRA contains various commitments by the voluntary responsible party, including milestones for completion of site rehabilitation tasks and submittal of technical reports and plans.
It also contains a commitment by DEP to review technical reports according to an agreed upon schedule. Only those brownfield sites with an executed BSRA are eligible to apply for a voluntary cleanup tax credit incentive pursuant to Section 376.30781, Florida Statutes.

Date of Government Version: 08/02/2017
Date Data Arrived at EDR: 10/03/2017
Date Made Active in Reports: 11/21/2017
Number of Days to Update: 49

Source: Department of Environmental Protection
Telephone: 850-245-8934
Last EDR Contact: 10/03/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Varies

BROWNFIELDS AREAS: Brownfields Areas Database

A "brownfield area" means a contiguous area of one or more brownfield sites, some of which may not be contaminated, that has been designated as such by a local government resolution. Such areas may include all or portions of community redevelopment areas, enterprise zones, empowerment zones, other such designated economically deprived communities and areas, and Environmental Protection Agency (EPA) designated brownfield pilot projects. This layer provides a polygon representation of the boundaries of these designated Brownfield Areas in Florida.

Date of Government Version: 08/23/2017
Date Data Arrived at EDR: 10/03/2017
Date Made Active in Reports: 11/21/2017
Number of Days to Update: 49

Source: Department of Environmental Protection
Telephone: 850-245-8934
Last EDR Contact: 10/03/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Quarterly

BROWNFIELDS: Brownfields Sites Database

Brownfields are defined by the Florida Department of Environmental Protection (FDEP) as abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

Date of Government Version: 09/19/2017
Date Data Arrived at EDR: 10/03/2017
Date Made Active in Reports: 11/21/2017
Number of Days to Update: 49

Source: Department of Environmental Protection
Telephone: 850-245-8927
Last EDR Contact: 10/03/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Semi-Annually

WASTEWATER: Wastewater Facility Regulation Database

Domestic and industrial wastewater facilities.

Date of Government Version: 11/01/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 11/28/2017
Number of Days to Update: 21

Source: Department of Environmental Protection
Telephone: 850-245-8600
Last EDR Contact: 11/07/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Quarterly

AIRS: Permitted Facilities Listing

A listing of Air Resources Management permits.

Date of Government Version: 05/17/2017
Date Data Arrived at EDR: 05/23/2017
Date Made Active in Reports: 08/01/2017
Number of Days to Update: 70

Source: Department of Environmental Protection
Telephone: 850-921-9558
Last EDR Contact: 10/25/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

TIER 2: Tier 2 Facility Listing

A listing of facilities which store or manufacture hazardous materials that submit a chemical inventory report.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/23/2017
Date Made Active in Reports: 08/02/2017
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: 850-413-9970
Last EDR Contact: 09/07/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Varies

FL Cattle Dip. Vats: Cattle Dipping Vats

From the 1910's through the 1950's, these vats were filled with an arsenic solution for the control and eradication of the cattle fever tick. Other pesticides, such as DDT, were also widely used. By State law, all cattle, horses, mules, goats, and other susceptible animals were required to be dipped every 14 days. Under certain circumstances, the arsenic and other pesticides remaining at the site may present an environmental or public health hazard.

Date of Government Version: 02/04/2005
Date Data Arrived at EDR: 06/29/2007
Date Made Active in Reports: 07/11/2007
Number of Days to Update: 12

Source: Department of Environmental Protection
Telephone: 850-245-4444
Last EDR Contact: 10/03/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: No Update Planned

ASBESTOS: Asbestos Notification Listing
Asbestos sites

Date of Government Version: 10/23/2017
Date Data Arrived at EDR: 10/24/2017
Date Made Active in Reports: 11/21/2017
Number of Days to Update: 28

Source: Department of Environmental Protection
Telephone: 850-717-9086
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

RESP PARTY: Responsible Party Sites Listing
Open, inactive and closed responsible party sites

Date of Government Version: 10/02/2017
Date Data Arrived at EDR: 10/03/2017
Date Made Active in Reports: 11/27/2017
Number of Days to Update: 55

Source: Department of Environmental Protection
Telephone: 850-245-8758
Last EDR Contact: 10/03/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Quarterly

CLEANUP SITES: DEP Cleanup Sites - Contamination Locator Map Listing
This listing includes the locations of waste cleanup sites from various programs. The source of the cleanup site data includes Hazardous Waste programs, Site Investigation Section, Compliance and Enforcement Tracking, Drycleaning State Funded Cleanup Program (possibly other state funded cleanup), Storage Tank Contamination Monitoring.

Date of Government Version: 08/28/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 11/02/2017
Number of Days to Update: 64

Source: Department of Environmental Protection
Telephone: 866-282-0787
Last EDR Contact: 11/27/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Quarterly

DWM CONTAM: DWM CONTAMINATED SITES
A listing of active or known sites. The listing includes sites that need cleanup but are not actively being working on because the agency currently does not have funding (primarily petroleum and drycleaning).

Date of Government Version: 04/01/2017
Date Data Arrived at EDR: 05/16/2017
Date Made Active in Reports: 08/01/2017
Number of Days to Update: 77

Source: Department of Environmental Protection
Telephone: 850-245-7503
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Varies

SITE INV SITES: Site Investigation Section Sites Listing
Statewide coverage of Site Investigation Section (SIS) sites. Site Investigation is a Section within the Bureau of Waste Cleanup, Division of Waste Management. SIS provides technical support to FDEP District Waste Cleanup Programs and conducts contamination assessments throughout the state.

Date of Government Version: 08/21/2017
Date Data Arrived at EDR: 08/22/2017
Date Made Active in Reports: 10/23/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 850-245-8953
Last EDR Contact: 11/20/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Quarterly

FF TANKS: Federal Facilities Listing
A listing of federal facilities with storage tanks.

Date of Government Version: 10/03/2017
Date Data Arrived at EDR: 10/05/2017
Date Made Active in Reports: 11/27/2017
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 850-245-8250
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/30/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/07/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 11/07/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Quarterly

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/25/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/02/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank
The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Protection in Floridia.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182
Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List
The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Protection in Floridia.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182
Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List
The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Protection in Floridia.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/10/2014
Number of Days to Update: 193
Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALACHUA COUNTY:

Facility List
List of all regulated facilities in Alachua County.

Date of Government Version: 03/28/2017
Date Data Arrived at EDR: 03/29/2017
Date Made Active in Reports: 05/15/2017
Number of Days to Update: 47
Source: Alachua County Environmental Protection Department
Telephone: 352-264-6800
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

BROWARD COUNTY:

Aboveground Storage Tanks
Aboveground storage tank locations in Broward County.

Date of Government Version: 06/06/2017
Date Data Arrived at EDR: 07/17/2017
Date Made Active in Reports: 09/22/2017
Number of Days to Update: 67
Source: Broward County Environmental Protection Department
Telephone: 954-818-7509
Last EDR Contact: 12/01/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Varies

Semi-Annual Inventory Report on Contaminated Locations
Early Detection Incentive/Environmental Assessment Remediation. This report monitors the status and remediation progress of known contaminated locations within Broward County. Sites listed by the US EPA, the Florida Department of Environmental Protection, and sites licensed for contamination assessment and cleanup by the Division of Pollution Prevention and Remediation Programs of the Department.

Date of Government Version: 08/29/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 10/27/2017
Number of Days to Update: 58

Source: Broward County Environmental Protection Department
Telephone: 954-818-7509
Last EDR Contact: 11/27/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Semi-Annually

Hazardous Material Sites

HM sites use or store greater than 25 gallons of hazardous materials per month.

Date of Government Version: 06/06/2017
Date Data Arrived at EDR: 07/17/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 95

Source: Broward County Environmental Protection Department
Telephone: 954-818-7509
Last EDR Contact: 12/01/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Annually

Notice Of Violations Sites

NOV facilities have received a notice of violation letter under the Broward County Chapter 27 Code.

Date of Government Version: 06/06/2017
Date Data Arrived at EDR: 07/17/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 95

Source: Broward County Environmental Protection Department
Telephone: 954-818-7509
Last EDR Contact: 12/01/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Annually

Underground Storage Tanks

All known regulated storage tanks within Broward County, including those tanks that have been closed

Date of Government Version: 06/06/2017
Date Data Arrived at EDR: 07/17/2017
Date Made Active in Reports: 09/22/2017
Number of Days to Update: 67

Source: Broward County Environmental Protection Department
Telephone: 954-818-7509
Last EDR Contact: 12/01/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Annually

HILLSBOROUGH COUNTY:

Hillsborough County LF

Hillsborough county landfill sites.

Date of Government Version: 09/08/2017
Date Data Arrived at EDR: 10/24/2017
Date Made Active in Reports: 11/27/2017
Number of Days to Update: 34

Source: Hillsborough County Environmental Protection Commission
Telephone: 813-627-2600
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Varies

MIAMI-DADE COUNTY:

Air Permit Sites

Facilities that release or have a potential to release pollutants.

Date of Government Version: 08/30/2017
Date Data Arrived at EDR: 08/31/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 70

Source: Department of Environmental Resources Management
Telephone: 305-372-6755
Last EDR Contact: 11/27/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Semi-Annually

Liquid Waste Transporter List

The Liquid Waste Transporter permit regulates the transportation of various types of liquid and solid waste, including hazardous waste, waste oil and oily waste waters, septic and grease trap waste, biomedical waste, spent radiator fluid, photo chemical waste, dry sewage sludge, and other types of non-hazardous industrial waste. The Liquid Waste Transporter permits needed to protect the environment and the public from improperly handled and transported waste.

Date of Government Version: 08/30/2017
Date Data Arrived at EDR: 08/31/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 70

Source: DERM
Telephone: 305-372-6755
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Quarterly

Grease Trap Sites

Any non-residential facility that discharges waste to a sanitary sewer.

Date of Government Version: 08/30/2017
Date Data Arrived at EDR: 08/31/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 70

Source: Dade County Dept. of Env. Resources Mgmt.
Telephone: 305-372-6508
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Semi-Annually

Marine Facilities Operating Permit

What is this permit used for? Miami-Dade County Ordinance 89-104 and Section 24-18 of the Code of Miami-Dade County require the following types of marine facilities to obtain annual operating permits from DERM: All recreational boat docking facilities with ten (10) or more boat slips, moorings, davit spaces, and vessel tie-up spaces. All boat storage facilities contiguous to tidal waters in Miami-Dade County with ten (10) or more dry storage spaces including boatyards and boat manufacturing facilities.

Date of Government Version: 08/30/2017
Date Data Arrived at EDR: 08/31/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 70

Source: DERM
Telephone: 305-372-3576
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Quarterly

Maimi River Enforcement

The Miami River Enforcement database files were created for facilities and in some instances vessels that were inspected by a workgroup within the Department that was identified as the Miami River Enforcement Group. The files do not all necessarily reflect enforcement cases and some were created for locations that were permitted by other Sections within the Department.

Date of Government Version: 06/05/2013
Date Data Arrived at EDR: 06/06/2013
Date Made Active in Reports: 08/06/2013
Number of Days to Update: 61

Source: DERM
Telephone: 305-372-3576
Last EDR Contact: 11/27/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Quarterly

Hazardous Waste Sites

Sites with the potential to generate waste

Date of Government Version: 08/30/2017
Date Data Arrived at EDR: 08/31/2017
Date Made Active in Reports: 11/13/2017
Number of Days to Update: 74

Source: Dade County Department of Environmental Resources Management
Telephone: 305-372-6755
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Semi-Annually

Industrial Waste Type 2-4 Sites

IW2s are facilities having reclaim or recycling systems with no discharges, aboveground holding tanks or spill prevention and countermeasure plans. IW4s are facilities that discharge an effluent to the ground.

Date of Government Version: 08/30/2017
Date Data Arrived at EDR: 08/31/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 70

Source: Department of Environmental Resources Management
Telephone: 305-372-6700
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Semi-Annually

Industrial Waste Type 5 Sites

Generally these facilities fall under the category of "conditionally exempt small quantity generator" or "small quantity generator".

Date of Government Version: 08/30/2017
Date Data Arrived at EDR: 08/31/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 70

Source: Department of Environmental Resources Management
Telephone: 305-372-6700
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Semi-Annually

Industrial Waste Type 6

Permits issued to those non-residential land uses located within the major drinking water wellfield protection areas that are not served by sanitary sewers. These facilities do not handle hazardous materials but are regulated because of the env. sensitivity of the areas where they are located.

Date of Government Version: 08/30/2017
Date Data Arrived at EDR: 08/31/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 70

Source: Department of Environmental Resources Management
Telephone: 305-372-6700
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Semi-Annually

Industrial Waste Permit Sites

Facilities that either generate more than 25,000 of wastewater per day to sanitary sewers or are pre-defined by EPA.

Date of Government Version: 08/30/2017
Date Data Arrived at EDR: 08/31/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 70

Source: Department of Environmental Resources Management
Telephone: 305-372-6700
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Semi-Annually

Enforcement Case Tracking System Sites

Enforcement cases monitored by the Dade County Department of Environmental Resources Management.

Date of Government Version: 08/30/2017
Date Data Arrived at EDR: 08/31/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 70

Source: Department of Environmental Resources Management
Telephone: 305-372-6755
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Semi-Annually

Fuel Spills Cases

DERM documents fuel spills of sites that are not in a state program.

Date of Government Version: 01/08/2009
Date Data Arrived at EDR: 01/13/2009
Date Made Active in Reports: 02/05/2009
Number of Days to Update: 23

Source: Department of Environmental Resources Management
Telephone: 305-372-6755
Last EDR Contact: 11/27/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Semi-Annually

Storage Tanks

A listing of aboveground and underground storage tank site locations.

Date of Government Version: 06/01/2017
Date Data Arrived at EDR: 06/02/2017
Date Made Active in Reports: 08/01/2017
Number of Days to Update: 60

Source: Department of Environmental Resource Management
Telephone: 305-372-6700
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Semi-Annually

PALM BEACH COUNTY:

Palm Beach County LF
Palm Beach County Inventory of Solid Waste Sites.

Date of Government Version: 09/01/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/10/2011
Number of Days to Update: 20

Source: Palm Beach County Solid Waste Authority
Telephone: 561-640-4000
Last EDR Contact: 09/15/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/28/2017
Date Data Arrived at EDR: 08/18/2017
Date Made Active in Reports: 11/14/2017
Number of Days to Update: 88

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 107

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/05/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 10/01/2017
Date Data Arrived at EDR: 11/01/2017
Date Made Active in Reports: 11/13/2017
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/16/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 07/14/2017
Number of Days to Update: 92

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/11/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Department of Children & Families
Source: Provider Information
Telephone: 850-488-4900

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Environmental Protection
Telephone: 850-245-8238

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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EAA Storage Reservoir
Southwest Palm Beach, FL 33480

Inquiry Number: 5124409.6w
December 07, 2017

EDR DataMap™ Well Search Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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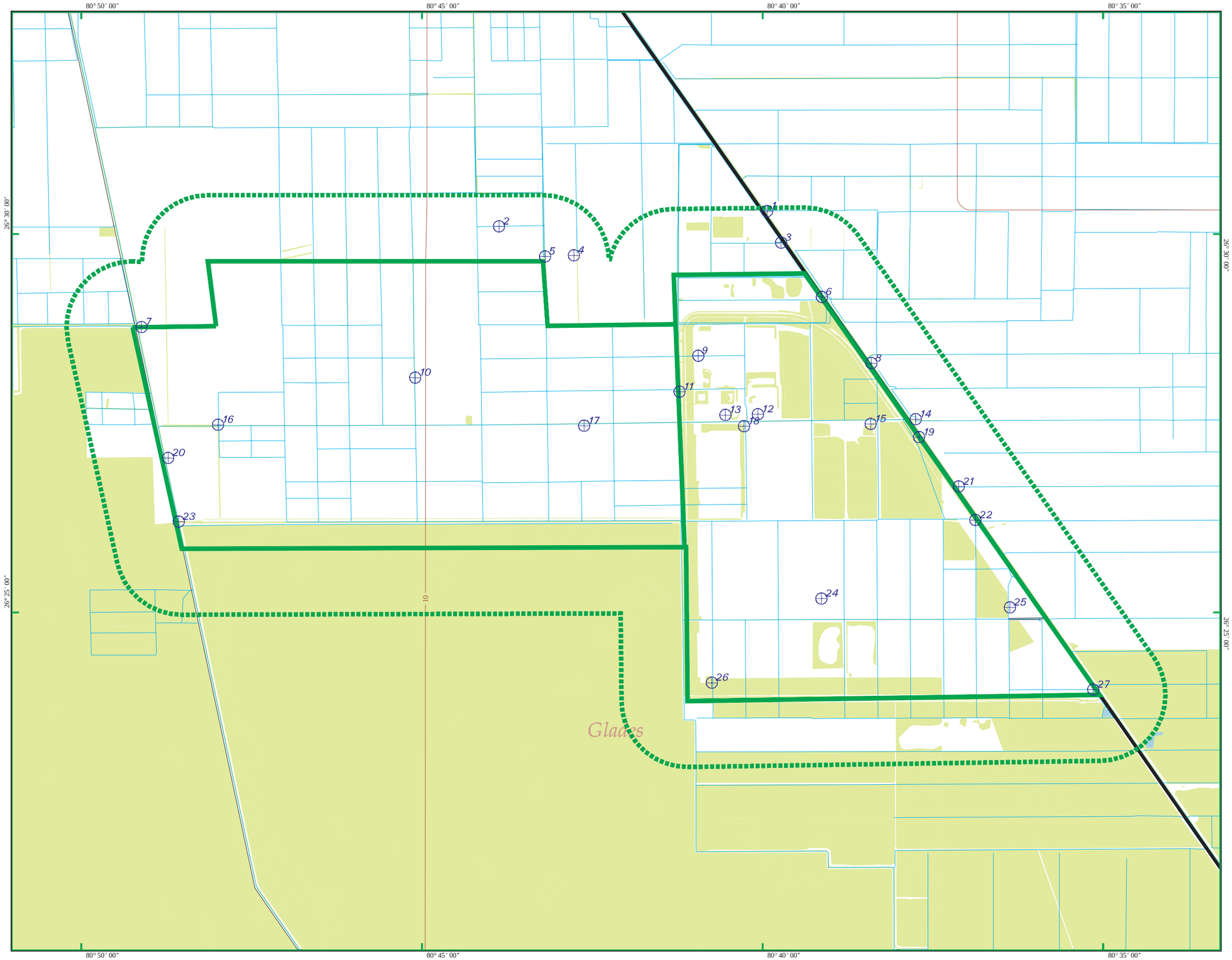
Well Search

EAA Storage Reservoir



- Listed Water Wells
- Sinkholes
- Study Boundary
- Roads
- Major Roads
- Waterways
- Railroads
- Contour Lines
- Fault Lines
- Water
- Superfund Sites
- Wetlands

N

Southwest Palm Beach, FL

0 1 2

Scale in Miles

EDR Environmental Data Resources, Inc.

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5124409.6w - 07 Dec 17

GEOCHECK VERSION 2.1
SUMMARY

FEDERAL DATABASE WELL INFORMATION

MAP ID	WELL ID
2	USGS40000236893
4	USGS40000236876
7	USGS40000236821
8	USGS40000236794
10	USGS40000236778
11	USGS40000236764
17	USGS40000236737
19	USGS40000236725
22	USGS40000236635
23	USGS40000236568
24	USGS40000236565
25	USGS40000236497
26	USGS40000236498
27	USGS40000236495

STATE WATER WELL INFORMATION

MAP ID	WELL ID
1	FLSO80000017614
1	FLSO80000017625
1	FLSO80000017624
3	FLSO80000019854
5	FLSO80000032387
6	FLSO80000032717
6	FLSO80000032716
6	FLSO80000032735
6	FLSO80000032734
6	FLSO80000028762
6	FLSO80000056329
6	FLSO80000028760
6	FLSO80000032714
6	FLSO80000032715
7	FLSO80000032719
7	FLSO80000032718
8	FLSO80000032395
9	FLSO80000051711
9	FLSO80000051710
8	FLSA80000027383
8	FLSO80000012004
8	FLSA80000027708
12	FLSO80000028761
14	FLSO80000032184
15	FLSO80000056330
16	FLSO80000032379
18	FLSO80000039772
20	FLSO80000032720
20	FLSO80000032721
21	FLSO80000032185

GEOCHECK VERSION 2.1
SUMMARY

PUBLIC WATER SUPPLY SYSTEM INFORMATION

Map ID: 13
PWS ID: FL4504225
PWS Name: TALISMAN SUGAR MILL
US27(16MILES)SOUTH OF S.BAY
SOUTH BAY, FL 33430
PWS currently has or had major violation(s) or enforcement:

PUBLIC WATER SUPPLY SYSTEM INFORMATION

Map ID: 13
PWS ID: FL4504225
PWS Name: TALISMAN SUGAR MILL
US27(16MILES)SOUTH OF S.BAY
SOUTH BAY, FL 33430
PWS currently has or had major violation(s) or enforcement:

USGS TOPOGRAPHIC MAP(S)

26080-D5 NORTH OF DEEM CITY, FL
26080-D6 SOUTH OF OKEELANTA, FL
26080-D7 EAST OF LITTLE CYPRESS SW, FL
26080-E6 OKEELANTA, FL
26080-E7 LAKE HARBOR SE, FL

AREA RADON INFORMATION

Federal EPA Radon Zone for PALM BEACH County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for PALM BEACH COUNTY, FL

Number of sites tested: 104

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area	0.650 pCi/L	99%	1%	0%
Basement	Not Reported	Not Reported	Not Reported	Not Reported

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Water Well Information:

Map ID:	2		
Org. Identifier:	USGS-FL	Site ID:	USGS40000236893
Formal name:	USGS Florida Water Science Center		
Monloc Identifier:	USGS-263000080440001		
Monloc name:	PB -1701		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	03090202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	26.5003514
Longitude:	-80.7331154	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	minutes
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	12
Vert measure units:	feet	Vertacc measure val:	2
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	935
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

Map ID:	4		
Org. Identifier:	USGS-FL	Site ID:	USGS40000236876
Formal name:	USGS Florida Water Science Center		
Monloc Identifier:	USGS-262937080425401		
Monloc name:	PB - 444		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	03090202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	26.4939627
Longitude:	-80.7147816	Sourcemap scale:	Not Reported
Horiz Acc measure:	Unknown	Horiz Acc measure units:	Unknown
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Unconfined single aquifer		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

Map ID:	7		
Org. Identifier:	USGS-FL	Site ID:	USGS40000236821
Formal name:	USGS Florida Water Science Center		
Monloc Identifier:	USGS-262837080491701		
Monloc name:	PB -1486		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	03090202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	26.4772969
Longitude:	-80.8211733	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Surficial aquifer system		
Formation type:	Fort Thompson Formation		
Aquifer type:	Unconfined single aquifer		
Construction date:	19830823	Welldepth:	220
Welldepth units:	ft	Wellholedepth:	225
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

Map ID:	8		
Org. Identifier:	USGS-FL	Site ID:	USGS40000236794
Formal name:	USGS Florida Water Science Center		
Monloc Identifier:	USGS-262813080383801		
Monloc name:	PB -1790		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	03090202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	26.4706578
Longitude:	-80.6437797	Sourcemap scale:	Not Reported
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	11.56
Vert measure units:	feet	Vertacc measure val:	.01
Vert accmeasure units:	feet		
Vertcollection method:	Differential Global Positioning System (GPS)r		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Surficial aquifer system		
Formation type:	Surficial Aquifer System		

Aquifer type:	Unconfined multiple aquifers		
Construction date:	20030411	Welldepth:	65.6
Welldepth units:	ft	Wellholedepth:	67
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

Map ID:	10		
Org. Identifier:	USGS-FL	Site ID:	USGS40000236778
Formal name:	USGS Florida Water Science Center		
Monloc Identifier:	USGS-262800080451401		
Monloc name:	PB -1786		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	03090202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	26.4670582
Longitude:	-80.7535965	Sourcemap scale:	Not Reported
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Differentially corrected Global Positioning System (DGPS)		
Horiz coord refsys:	NAD83	Vert measure val:	13.38
Vert measure units:	feet	Vertacc measure val:	.1
Vert accmeasure units:	feet		
Vertcollection method:	Differential Global Positioning System (GPS)r		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Surficial aquifer system		
Formation type:	Surficial Aquifer System		
Aquifer type:	Not Reported		
Construction date:	20020813	Welldepth:	181.3
Welldepth units:	ft	Wellholedepth:	182
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

Map ID:	11		
Org. Identifier:	USGS-FL	Site ID:	USGS40000236764
Formal name:	USGS Florida Water Science Center		
Monloc Identifier:	USGS-262749080412101		
Monloc name:	PB -1787		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	03090202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	26.4639554
Longitude:	-80.6889337	Sourcemap scale:	Not Reported
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Differentially corrected Global Positioning System (DGPS)		
Horiz coord refsys:	NAD83	Vert measure val:	12.15
Vert measure units:	feet	Vertacc measure val:	.1
Vert accmeasure units:	feet		
Vertcollection method:	Differential Global Positioning System (GPS)r		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Surficial aquifer system		
Formation type:	Surficial Aquifer System		

Aquifer type:	Not Reported		
Construction date:	20020813	Welldepth:	161.5
Welldepth units:	ft	Wellholedepth:	183
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

Map ID:	17		
Org. Identifier:	USGS-FL	Site ID:	USGS40000236737
Formal name:	USGS Florida Water Science Center		
Monloc Identifier:	USGS-262722080424501		
Monloc name:	PB -1485		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	03090202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	26.456464
Longitude:	-80.7122816	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Surficial aquifer system		
Formation type:	Fort Thompson Formation		
Aquifer type:	Unconfined single aquifer		
Construction date:	19830822	Welldepth:	220
Welldepth units:	ft	Wellholedepth:	225
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

Map ID:	19		
Org. Identifier:	USGS-FL	Site ID:	USGS40000236725
Formal name:	USGS Florida Water Science Center		
Monloc Identifier:	USGS-262713080375001		
Monloc name:	PB - 840		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	03090202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	26.4539639
Longitude:	-80.630335	Sourcemap scale:	Not Reported
Horiz Acc measure:	Unknown	Horiz Acc measure units:	Unknown
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19741107	Welldepth:	260
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

Map ID:	22		
Org. Identifier:	USGS-FL	Site ID:	USGS40000236635
Formal name:	USGS Florida Water Science Center		
Monloc Identifier:	USGS-262607080370001		
Monloc name:	PB -1785		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	03090202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	26.4357146
Longitude:	-80.6165736	Sourcemap scale:	Not Reported
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Differentially corrected Global Positioning System (DGPS)		
Horiz coord refsys:	NAD83	Vert measure val:	11.84
Vert measure units:	feet	Vertacc measure val:	.1
Vert accmeasure units:	feet		
Vertcollection method:	Differential Global Positioning System (GPS)r		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Surficial aquifer system		
Formation type:	Surficial Aquifer System		
Aquifer type:	Not Reported		
Construction date:	20020813	Welldepth:	173.8
Welldepth units:	ft	Wellholedepth:	180
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

Map ID:	23		
Org. Identifier:	USGS-FL	Site ID:	USGS40000236568
Formal name:	USGS Florida Water Science Center		
Monloc Identifier:	USGS-262508080483701		
Monloc name:	PB - 149		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	03090202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	26.4353539
Longitude:	-80.8114509	Sourcemap scale:	Not Reported
Horiz Acc measure:	Unknown	Horiz Acc measure units:	Unknown
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19410412	Welldepth:	27.1
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

Map ID:	24		
Org. Identifier:	USGS-FL	Site ID:	USGS40000236565
Formal name:	USGS Florida Water Science Center		
Monloc Identifier:	USGS-262505080391601		
Monloc name:	PB -1696		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	03090202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	26.4184097
Longitude:	-80.6542246	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	11
Vert measure units:	feet	Vertacc measure val:	2
Vert accmeasure units:	feet		
Vertcollection method:	Unknown		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	1705
Welldepth units:	ft	Wellholedepth:	1705
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

Map ID:	25		
Org. Identifier:	USGS-FL	Site ID:	USGS40000236497
Formal name:	USGS Florida Water Science Center		
Monloc Identifier:	USGS-262355080360201		
Monloc name:	PB -1473		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	03090202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	26.4164652
Longitude:	-80.6081123	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Surficial aquifer system		
Formation type:	Fort Thompson Formation		

Aquifer type:	Unconfined single aquifer		
Construction date:	19830808	Welldepth:	45
Welldepth units:	ft	Wellholedepth:	45
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

Map ID:	26		
Org. Identifier:	USGS-FL	Site ID:	USGS40000236498
Formal name:	USGS Florida Water Science Center		
Monloc Identifier:	USGS-262358080405201		
Monloc name:	PB -1792		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	26.3998826
Longitude:	-80.6810309	Sourcemap scale:	Not Reported
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	11.92
Vert measure units:	feet	Vertacc measure val:	.01
Vert accmeasure units:	feet		
Vertcollection method:	Differential Global Positioning System (GPS)r		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Surficial Aquifer System		
Aquifer type:	Not Reported		
Construction date:	20030404	Welldepth:	71.67
Welldepth units:	ft	Wellholedepth:	73
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

Map ID:	27		
Org. Identifier:	USGS-FL	Site ID:	USGS40000236495
Formal name:	USGS Florida Water Science Center		
Monloc Identifier:	USGS-262353080351601		
Monloc name:	PB -1789		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	03090202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	26.3983825
Longitude:	-80.5877229	Sourcemap scale:	Not Reported
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	11.82
Vert measure units:	feet	Vertacc measure val:	.01
Vert accmeasure units:	feet		
Vertcollection method:	Differential Global Positioning System (GPS)r		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Surficial aquifer system		
Formation type:	Surficial Aquifer System		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Aquifer type:	Unconfined multiple aquifers		
Construction date:	20030414	Welldepth:	74.5
Welldepth units:	ft	Wellholedepth:	76
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

Water Well Information:

Map ID:	1		
Permit no:	50-00045-W	App no:	101012-1
Actual per:	IND		
Project name:	STAR RANCH ENTERPRISES		
Lu code:	AGR		
Acres serv:	4813.7		
Id:	44351		
Facinv typ:	CULVERT		
Fac name:	C-5 (East Farm)		
Pumptype c:	N/A		
Pump diame:	0		
Cul diamet:	24		
Well diame:	0		
Pump capac:	0		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	3.5		
Pump coord:	764903		
Pump coo 1:	788918		
Well depth:	0		
Cased dept:	0		
Usests cod:	PRM	Facwlsts c:	E
Factypwu c:	IRR		
Source nam:	SFWMD Canal (L-19)		
Display na:	Paige Bollenbacher, P.G.	Fee catego:	IND
Site id:	FLSO80000017614		

Map ID:	1		
Permit no:	50-00045-W	App no:	101012-1
Actual per:	IND		
Project name:	STAR RANCH ENTERPRISES		
Lu code:	AGR		
Acres serv:	4813.7		
Id:	230404		
Facinv typ:	PUMP		
Fac name:	P-9 (East Farm)		
Pumptype c:	AXF		
Pump diame:	24		
Cul diamet:	0		
Well diame:	0		
Pump capac:	764		
Pump intak:	0		
Pump int 1:	3.5		
Invert ele:	0		
Pump coord:	764903		
Pump coo 1:	788918		
Well depth:	0		
Cased dept:	0		
Usests cod:	PRM	Facwlsts c:	E

Factypwu c:	IRR		
Source nam:	SFWMD Canal (L-19)		
Display na:	Paige Bollenbacher, P.G.	Fee catego:	IND
Site id:	FLSO80000017625		

Map ID:	1		
Permit no:	50-00045-W	App no:	101012-1
Actual per:	IND		
Project name:	STAR RANCH ENTERPRISES		
Lu code:	AGR		
Acres serv:	4813.7		
Id:	230403		
Facinv typ:	PUMP		
Fac name:	P-8 (East Farm)		
Pumptype c:	AXF		
Pump diame:	24		
Cul diamet:	0		
Well diame:	0		
Pump capac:	764		
Pump intak:	0		
Pump int 1:	3.5		
Invert ele:	0		
Pump coord:	764903		
Pump coo 1:	788918		
Well depth:	0		
Cased dept:	0		
Usests cod:	PRM	Facwlsts c:	E
Factypwu c:	IRR		
Source nam:	SFWMD Canal (L-19)		
Display na:	Paige Bollenbacher, P.G.	Fee catego:	IND
Site id:	FLSO80000017624		

Map ID:	3		
Permit no:	50-00092-W	App no:	101007-28
Actual per:	IND		
Project name:	WEST FARM		
Lu code:	AGR		
Acres serv:	868		
Id:	44167		
Facinv typ:	CULVERT		
Fac name:	Culvert #1		
Pumptype c:	N/A		
Pump diame:	0		
Cul diamet:	24		
Well diame:	0		
Pump capac:	0		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	3		
Pump coord:	766032		
Pump coo 1:	786398		
Well depth:	0		
Cased dept:	0		
Usests cod:	PRM	Facwlsts c:	E

Factypwu c:	IRR		
Source nam:	SFWMD Canal (L-19)		
Display na:	Rick Bower, P.G.	Fee catego:	IND
Site id:	FLSO80000019854		

Map ID:	5		
Permit no:	50-08986-W	App no:	140321-10
Actual per:	IND		
Project name:	SUGAR FARMS CO OP		
Lu code:	AGR		
Acres serv:	98473.42		
Id:	264867		
Facinv typ:	CULVERT		
Fac name:	3 Talisman N-S 3		
Pumptype c:	N/A		
Pump diame:	0		
Cul diamet:	48		
Well diame:	0		
Pump capac:	0		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	747151		
Pump coo 1:	785243		
Well depth:	0		
Cased dept:	0		
Usests cod:	PRM	Facwlsts c:	E
Factypwu c:	IRR		
Source nam:	SFWMD Canal (L-19)		
Display na:	Vincent Migliore, P.G.	Fee catego:	IND
Site id:	FLSO80000032387		

Map ID:	6		
Permit no:	50-00656-W	App no:	140307-29
Actual per:	IND		
Project name:	OKEELANTA - TENNANT NORTH AND SOUTH CULVERTS		
Lu code:	AGR		
Acres serv:	61937.22		
Id:	37280		
Facinv typ:	PUMP		
Fac name:	16 - East		
Pumptype c:	AXF		
Pump diame:	0		
Cul diamet:	0		
Well diame:	0		
Pump capac:	36000		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	769811		
Pump coo 1:	782170		
Well depth:	0		
Cased dept:	0		
Usests cod:	PRM	Facwlsts c:	E

Factypwu c:	IRR		
Source nam:	SFWMD Canal (L-19)		
Display na:	Nancy Demonstranti, P.G.	Fee catego:	IND
Site id:	FLSO80000032717		

Map ID:	6		
Permit no:	50-00656-W	App no:	140307-29
Actual per:	IND		
Project name:	OKEELANTA - TENNANT NORTH AND SOUTH CULVERTS		
Lu code:	AGR		
Acres serv:	61937.22		
Id:	37280		
Facinv typ:	PUMP		
Fac name:	16 - East		
Pumptype c:	AXF		
Pump diame:	0		
Cul diamet:	0		
Well diame:	0		
Pump capac:	36000		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	769811		
Pump coo 1:	782170		
Well depth:	0		
Cased dept:	0		
Usests cod:	PRM	Facwlsts c:	E
Factypwu c:	FRZ		
Source nam:	SFWMD Canal (L-19)		
Display na:	Nancy Demonstranti, P.G.	Fee catego:	IND
Site id:	FLSO80000032716		

Map ID:	6		
Permit no:	50-00656-W	App no:	140307-29
Actual per:	IND		
Project name:	OKEELANTA - TENNANT NORTH AND SOUTH CULVERTS		
Lu code:	AGR		
Acres serv:	61937.22		
Id:	44271		
Facinv typ:	CULVERT		
Fac name:	10- EAST (Project Culvert)		
Pumptype c:	N/A		
Pump diame:	0		
Cul diamet:	60		
Well diame:	0		
Pump capac:	0		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	769811		
Pump coo 1:	782170		
Well depth:	0		
Cased dept:	0		
Usests cod:	PRM	Facwlsts c:	E

Factypwu c:	IRR		
Source nam:	SFWMD Canal (L-19)		
Display na:	Nancy Demonstranti, P.G.	Fee catego:	IND
Site id:	FLSO80000032735		

Map ID:	6		
Permit no:	50-00656-W	App no:	140307-29
Actual per:	IND		
Project name:	OKEELANTA - TENNANT NORTH AND SOUTH CULVERTS		
Lu code:	AGR		
Acres serv:	61937.22		
Id:	44271		
Facinv typ:	CULVERT		
Fac name:	10- EAST (Project Culvert)		
Pumptype c:	N/A		
Pump diame:	0		
Cul diamet:	60		
Well diame:	0		
Pump capac:	0		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	769811		
Pump coo 1:	782170		
Well depth:	0		
Cased dept:	0		
Usests cod:	PRM	Facwlsts c:	E
Factypwu c:	FRZ		
Source nam:	SFWMD Canal (L-19)		
Display na:	Nancy Demonstranti, P.G.	Fee catego:	IND
Site id:	FLSO80000032734		

Map ID:	6		
Permit no:	50-07674-W	App no:	070411-2
Actual per:	GP		
Project name:	EAA A-1 RESERVIOR		
Lu code:	PWS		
Acres serv:	1		
Id:	212823		
Facinv typ:	WELL		
Fac name:	WELL 3		
Pumptype c:	CEN		
Pump diame:	0		
Cul diamet:	0		
Well diame:	2		
Pump capac:	20		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	768680		
Pump coo 1:	782155		
Well depth:	50		
Cased dept:	50		
Usests cod:	PRM	Facwlsts c:	P

Factypwu c:	PWS		
Source nam:	Surficial Aquifer System		
Display na:	Adrienne Charbonneau	Fee catego:	GP MIN
Site id:	FLSO80000028762		

Map ID:	6		
Permit no:	50-10438-W	App no:	140218-3
Actual per:	GP		
Project name:	E A A A-1 FEB		
Lu code:	PWS		
Acres serv:	1		
Id:	267326		
Facinv typ:	WELL		
Fac name:	Well 1		
Pumptype c:	CEN		
Pump diame:	0		
Cul diamet:	0		
Well diame:	2		
Pump capac:	20		
Pump intak:	10		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	768958		
Pump coo 1:	782107		
Well depth:	50		
Cased dept:	50		
Usests cod:	PRM	Facwlsts c:	E
Factypwu c:	PWS		
Source nam:	Surficial Aquifer System		
Display na:	Lisa J. Ullman, P.G.	Fee catego:	GP MIN
Site id:	FLSO80000056329		

Map ID:	6		
Permit no:	50-07674-W	App no:	070411-2
Actual per:	GP		
Project name:	EAA A-1 RESERVIOR		
Lu code:	PWS		
Acres serv:	1		
Id:	195854		
Facinv typ:	WELL		
Fac name:	WELL 1		
Pumptype c:	CEN		
Pump diame:	0		
Cul diamet:	0		
Well diame:	2		
Pump capac:	20		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	769061		
Pump coo 1:	782037		
Well depth:	50		
Cased dept:	50		
Usests cod:	PRM	Facwlsts c:	E

Factypwu c:	PWS		
Source nam:	Surficial Aquifer System		
Display na:	Adrienne Charbonneau	Fee catego:	GP MIN
Site id:	FLSO80000028760		

Map ID:	6		
Permit no:	50-00656-W	App no:	140307-29
Actual per:	IND		
Project name:	OKEELANTA - TENNANT NORTH AND SOUTH CULVERTS		
Lu code:	AGR		
Acres serv:	61937.22		
Id:	37279		
Facinv typ:	PUMP		
Fac name:	15- East		
Pumptype c:	AXF		
Pump diame:	0		
Cul diamet:	0		
Well diame:	0		
Pump capac:	37000		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	769970		
Pump coo 1:	781915		
Well depth:	0		
Cased dept:	0		
Usests cod:	PRM	Facwlsts c:	E
Factypwu c:	FRZ		
Source nam:	SFWMD Canal (L-19)		
Display na:	Nancy Demonstranti, P.G.	Fee catego:	IND
Site id:	FLSO80000032714		

Map ID:	6		
Permit no:	50-00656-W	App no:	140307-29
Actual per:	IND		
Project name:	OKEELANTA - TENNANT NORTH AND SOUTH CULVERTS		
Lu code:	AGR		
Acres serv:	61937.22		
Id:	37279		
Facinv typ:	PUMP		
Fac name:	15- East		
Pumptype c:	AXF		
Pump diame:	0		
Cul diamet:	0		
Well diame:	0		
Pump capac:	37000		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	769970		
Pump coo 1:	781915		
Well depth:	0		
Cased dept:	0		
Usests cod:	PRM	Facwlsts c:	E

Factypwu c:	IRR		
Source nam:	SFWMD Canal (L-19)		
Display na:	Nancy Demonstranti, P.G.	Fee catego:	IND
Site id:	FLSO80000032715		

Map ID:	7		
Permit no:	50-00656-W	App no:	140307-29
Actual per:	IND		
Project name:	OKEELANTA - TENNANT NORTH AND SOUTH CULVERTS		
Lu code:	AGR		
Acres serv:	61937.22		
Id:	37319		
Facinv typ:	PUMP		
Fac name:	9 - FARM 15		
Pumptype c:	AXF		
Pump diame:	30		
Cul diamet:	0		
Well diame:	0		
Pump capac:	18000		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	714934		
Pump coo 1:	779788		
Well depth:	0		
Cased dept:	0		
Usests cod:	PROD	Facwlsts c:	E
Factypwu c:	IRR		
Source nam:	SFWMD Canal (L-24)		
Display na:	Nancy Demonstranti, P.G.	Fee catego:	IND
Site id:	FLSO80000032719		

Map ID:	7		
Permit no:	50-00656-W	App no:	140307-29
Actual per:	IND		
Project name:	OKEELANTA - TENNANT NORTH AND SOUTH CULVERTS		
Lu code:	AGR		
Acres serv:	61937.22		
Id:	37319		
Facinv typ:	PUMP		
Fac name:	9 - FARM 15		
Pumptype c:	AXF		
Pump diame:	30		
Cul diamet:	0		
Well diame:	0		
Pump capac:	18000		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	714934		
Pump coo 1:	779788		
Well depth:	0		
Cased dept:	0		
Usests cod:	PROD	Facwlsts c:	E

Factypwu c:	FRZ		
Source nam:	SFWMD Canal (L-24)		
Display na:	Nancy Demonstranti, P.G.	Fee catego:	IND
Site id:	FLSO80000032718		

Map ID:	8		
Permit no:	50-08986-W	App no:	140321-10
Actual per:	IND		
Project name:	SUGAR FARMS CO OP		
Lu code:	AGR		
Acres serv:	98473.42		
Id:	41456		
Facinv typ:	PUMP		
Fac name:	1 Farm 50		
Pumptype c:	AXF		
Pump diame:	36		
Cul diamet:	0		
Well diame:	0		
Pump capac:	25000		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	773337		
Pump coo 1:	777562		
Well depth:	0		
Cased dept:	0		
Usests cod:	PRM	Facwlsts c:	E
Factypwu c:	IRR		
Source nam:	SFWMD Canal (L-18)		
Display na:	Vincent Migliore, P.G.	Fee catego:	IND
Site id:	FLSO80000032395		

Map ID:	9		
Permit no:	50-04240-W	App no:	010802-1
Actual per:	IND		
Project name:	PERO FAMILY FARM INC		
Lu code:	AGR		
Acres serv:	6.4		
Id:	110713		
Facinv typ:	WELL		
Fac name:	2		
Pumptype c:	SUB		
Pump diame:	0		
Cul diamet:	0		
Well diame:	6		
Pump capac:	150		
Pump intak:	-40		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	759450		
Pump coo 1:	777350		
Well depth:	120		
Cased dept:	100		
Usests cod:	PRM	Facwlsts c:	P

Factypwu c:	IRR		
Source nam:	Surficial Aquifer System		
Display na:	Jeffery Scott	Fee catego:	GP
Site id:	FLSO80000051711		

Map ID:	9		
Permit no:	50-04240-W	App no:	010802-1
Actual per:	IND		
Project name:	PERO FAMILY FARM INC		
Lu code:	AGR		
Acres serv:	6.4		
Id:	29689		
Facinv typ:	WELL		
Fac name:	1		
Pumptype c:	SUB		
Pump diame:	0		
Cul diamet:	0		
Well diame:	6		
Pump capac:	150		
Pump intak:	-40		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	759400		
Pump coo 1:	777300		
Well depth:	120		
Cased dept:	100		
Usests cod:	PRM	Facwlsts c:	P
Factypwu c:	IRR		
Source nam:	Surficial Aquifer System		
Display na:	Jeffery Scott	Fee catego:	GP
Site id:	FLSO80000051710		

Map ID:	8		
Fluwid:	AAH1058	Well type:	41
Status:	INACTIVE	Casing mat:	Black Steel
Longitude:	-80.64166		
Latitude:	26.47082		
Well depth:	85		
Length:	70		
Diameter:	Not Reported	Permit num:	4500119
Comment :	Well is out of service		
Sanit seal:	Yes	Name:	SUGAR FARMS SOUTHERN DIVISION
First name:	Not Reported	Last name:	Not Reported
Phone:	Not Reported	Phone ext:	Not Reported
Lg pws:	0		
Datum:	WS1984		
Hae:	9.89		
Gps date:	31-JUL-01	Loc method:	DGPS
Project id:	PWS	Insp fname:	Not Reported
Insp lname:	Not Reported	Insp chd:	Not Reported
Req numb:	Not Reported	Property i:	Not Reported
County:	PALM BEACH	Address:	15500 US HWY #27
Number :	15500	Predir:	Not Reported

Prefix:	Not Reported	Street:	US HWY #27
Suffix:	Not Reported	Postdir:	Not Reported
Zipcode:	00053	City:	SOUTH BAY
Loc id:	324160		
Gps id:	324160		
Wsrp id:	Not Reported	Action:	Not Reported
Port stat:	POTABLE	Res type:	Not Reported
Other id:	Not Reported	Software:	Not Reported
Streetside:	Not Reported	Agency:	Not Reported
Parcel id:	Not Reported		
Pws design:	0		
Pws verify:	0		
Site id:	FLSA80000027383		

Map ID:	8		
Permit no:	50-08585-W	App no:	080220-7
Actual per:	GP		
Project name:	HACIENDA NTNC		
Lu code:	PWS		
Acres serv:	1		
Id:	222729		
Facinv typ:	WELL		
Fac name:	well 1		
Pumptype c:	CEN		
Pump diame:	0		
Cul diamet:	0		
Well diame:	4		
Pump capac:	8		
Pump intak:	28		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	773865		
Pump coo 1:	776905		
Well depth:	35		
Cased dept:	25		
Usests cod:	PRM	Facwlsts c:	E
Factypwu c:	PWS		
Source nam:	Surficial Aquifer System		
Display na:	Lindy Cerar, P.G.	Fee catego:	GP MIN
Site id:	FLSO80000012004		

Map ID:	8		
Fluwid:	AAH2265	Well type:	45
Status:	ACTIVE	Casing mat:	PVC
Longitude:	-80.6403		
Latitude:	26.47044		
Well depth:	0		
Length:	0		
Diameter:	2	Permit num:	4500119
Comment :	Not Reported		
Sanit seal:	Yes	Name:	NEW HOPE SOUTH INC.
First name:	Not Reported	Last name:	Not Reported

Phone:	Not Reported	Phone ext:	Not Reported
Lg pws:	0		
Datum:	WS1984		
Hae:	-20.74		
Gps date:	05-APR-02	Loc method:	DGPS
Project id:	SUPER	Insp fname:	Not Reported
Insp lname:	Not Reported	Insp chd:	Not Reported
Req numb:	Not Reported	Property i:	Not Reported
County:	PALM BEACH	Address:	15500 US HIGHWAY 27
Number :	15500	Predir:	Not Reported
Prefix:	Not Reported	Street:	US HIGHWAY 27
Suffix:	Not Reported	Postdir:	Not Reported
Zipcode:	00053	City:	SOUTH BAY
Loc id:	324810		
Gps id:	324810		
Wsrp id:	500049901	Action:	UNFILTERED
Port stat:	POTABLE	Res type:	Not Reported
Other id:	Not Reported	Software:	Not Reported
Streetside:	Not Reported	Agency:	Not Reported
Parcel id:	Not Reported		
Pws design:	14000		
Pws verify:	0		
Site id:	FLSA80000027708		

Map ID:	12		
Permit no:	50-07674-W	App no:	070411-2
Actual per:	GP		
Project name:	EAA A-1 RESERVIOR		
Lu code:	PWS		
Acres serv:	1		
Id:	195855		
Facinv typ:	WELL		
Fac name:	WELL 2		
Pumptype c:	CEN		
Pump diame:	0		
Cul diamet:	0		
Well diame:	2		
Pump capac:	20		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	764209		
Pump coo 1:	772657		
Well depth:	50		
Cased dept:	50		
Usests cod:	PRM	Facwlsts c:	E
Factypwu c:	PWS		
Source nam:	Surficial Aquifer System		
Display na:	Adrienne Charbonneau	Fee catego:	GP MIN
Site id:	FLSO80000028761		

Map ID:	14		
Permit no:	50-08986-W	App no:	140321-10
Actual per:	IND		
Project name:	SUGAR FARMS CO OP		
Lu code:	AGR		
Acres serv:	98473.42		
Id:	228001		
Facinv typ:	CULVERT		
Fac name:	1 Resmondo Ousley		
Pumptype c:	N/A		
Pump diame:	0		
Cul diamet:	42		
Well diame:	0		
Pump capac:	0		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	776840		
Pump coo 1:	772300		
Well depth:	0		
Cased dept:	0		
Usests cod:	PRM	Facwlsts c:	E
Factypwu c:	IRR		
Source nam:	SFWMD Canal (L-18)		
Display na:	Vincent Migliore, P.G.	Fee catego:	IND
Site id:	FLSO80000032184		

Map ID:	15		
Permit no:	50-10438-W	App no:	140218-3
Actual per:	GP		
Project name:	E A A A-1 FEB		
Lu code:	PWS		
Acres serv:	1		
Id:	267746		
Facinv typ:	WELL		
Fac name:	Well 2		
Pumptype c:	CEN		
Pump diame:	0		
Cul diamet:	0		
Well diame:	2		
Pump capac:	20		
Pump intak:	5		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	773236		
Pump coo 1:	771908		
Well depth:	50		
Cased dept:	40		
Usests cod:	PRM	Facwlsts c:	E
Factypwu c:	PWS		
Source nam:	Surficial Aquifer System		
Display na:	Lisa J. Ullman, P.G.	Fee catego:	GP MIN
Site id:	FLSO80000056330		

Map ID:	16		
Permit no:	50-08986-W	App no:	140321-10
Actual per:	IND		
Project name:	SUGAR FARMS CO OP		
Lu code:	AGR		
Acres serv:	98473.42		
Id:	228098		
Facinv typ:	CULVERT		
Fac name:	3 Talisman N-S 1		
Pumptype c:	N/A		
Pump diame:	0		
Cul diamet:	48		
Well diame:	0		
Pump capac:	0		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	721000		
Pump coo 1:	771730		
Well depth:	0		
Cased dept:	0		
Usests cod:	PRM	Facwlsts c:	E
Factypwu c:	IRR		
Source nam:	SFWMD Canal (L-24)		
Display na:	Vincent Migliore, P.G.	Fee catego:	IND
Site id:	FLSO80000032379		

Map ID:	18		
Permit no:	50-04222-W	App no:	990129-44
Actual per:	GP		
Project name:	DELRAY GROWERS		
Lu code:	NUR		
Acres serv:	7		
Id:	29625		
Facinv typ:	WELL		
Fac name:	1		
Pumptype c:	#N/A		
Pump diame:	0		
Cul diamet:	0		
Well diame:	6		
Pump capac:	300		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	763100		
Pump coo 1:	771700		
Well depth:	120		
Cased dept:	100		
Usests cod:	PRM	Facwlsts c:	E
Factypwu c:	IRR		
Source nam:	Surficial Aquifer System		
Display na:	Thomas Colios	Fee catego:	GP
Site id:	FLSO80000039772		

Map ID:	20		
Permit no:	50-00656-W	App no:	140307-29
Actual per:	IND		
Project name:	OKEELANTA - TENNANT NORTH AND SOUTH CULVERTS		
Lu code:	AGR		
Acres serv:	61937.22		
Id:	37320		
Facinv typ:	PUMP		
Fac name:	10 - FARM 15		
Pumptype c:	AXF		
Pump diame:	16		
Cul diamet:	0		
Well diame:	0		
Pump capac:	8000		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	717007		
Pump coo 1:	769070		
Well depth:	0		
Cased dept:	0		
Usests cod:	PROD	Facwlsts c:	E
Factypwu c:	FRZ		
Source nam:	SFWMD Canal (L-24)		
Display na:	Nancy Demonstranti, P.G.	Fee catego:	IND
Site id:	FLSO80000032720		

Map ID:	20		
Permit no:	50-00656-W	App no:	140307-29
Actual per:	IND		
Project name:	OKEELANTA - TENNANT NORTH AND SOUTH CULVERTS		
Lu code:	AGR		
Acres serv:	61937.22		
Id:	37320		
Facinv typ:	PUMP		
Fac name:	10 - FARM 15		
Pumptype c:	AXF		
Pump diame:	16		
Cul diamet:	0		
Well diame:	0		
Pump capac:	8000		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	717007		
Pump coo 1:	769070		
Well depth:	0		
Cased dept:	0		
Usests cod:	PROD	Facwlsts c:	E
Factypwu c:	IRR		
Source nam:	SFWMD Canal (L-24)		
Display na:	Nancy Demonstranti, P.G.	Fee catego:	IND
Site id:	FLSO80000032721		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Map ID:	21		
Permit no:	50-08986-W	App no:	140321-10
Actual per:	IND		
Project name:	SUGAR FARMS CO OP		
Lu code:	AGR		
Acres serv:	98473.42		
Id:	228002		
Facinv typ:	CULVERT		
Fac name:	2 Resmondo Ousley		
Pumptype c:	N/A		
Pump diame:	0		
Cul diamet:	42		
Well diame:	0		
Pump capac:	0		
Pump intak:	0		
Pump int 1:	0		
Invert ele:	0		
Pump coord:	780302		
Pump coo 1:	766925		
Well depth:	0		
Cased dept:	0		
Usests cod:	PRM	Facwlsts c:	E
Factypwu c:	IRR		
Source nam:	SFWMD Canal (L-18)		
Display na:	Vincent Migliore, P.G.	Fee catego:	IND
Site id:	FLSO80000032185		

GEOCHECK VERSION 2.1
PUBLIC WATER SUPPLY SYSTEM INFORMATION

PWS SUMMARY:

Map ID: 13

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

PWS Water Well Information:

Epa region:	04	State:	FL
Pwsid:	FL4504225		
Pwsname:	TALISMAN SUGAR MILL		
City served:	Not Reported	State served:	FL
Zip served:	Not Reported	Fips county:	12099
Status:	Closed	Pop srvd:	475
Pwssvcconn:	27	Source:	Groundwater
Pws type:	NTNCWS	Owner:	Private
Contact:	Not Reported		
Contactor gname:	Not Reported		
Contact phone:	561-996-5527	Contact address1:	US27(16MILES)SOUTH OF S.BAY
Contact address2:	Not Reported	Contact city:	SOUTH BAY
Contact state:	FL	Contact zip:	33430
Activity code:	I		

Facid:	1		
Facname:	PLANT ID = 02 SOURCE ID = 000		
Facility type:	Treatment_plant	Activity code:	I
Treatment obj:	corrosion control	Treatment process:	sequestration
Treatment obj:	corrosion control	Treatment process:	ph adjustment
Treatment obj:	disinfection	Treatment process:	hypochlorination, post
Treatment obj:	organics removal	Treatment process:	reverse osmosis
Treatment obj:	taste / odor control	Treatment process:	aeration, packed tower

Facid:	2		
Facname:	PLANT ID = 01 SOURCE ID = 000		
Facility type:	Treatment_plant	Activity code:	I
Treatment obj:	corrosion control	Treatment process:	ph adjustment
Treatment obj:	disinfection	Treatment process:	gaseous chlorination, post
Treatment obj:	particulate removal	Treatment process:	coagulation
Treatment obj:	particulate removal	Treatment process:	filtration, rapid sand
Treatment obj:	softening (hardness removal)	Treatment process:	lime - soda ash addition

Location Information:

Name:	TALISMAN SUGAR MILL		
Pwstypcd:	NTNCWS	Primsrccd:	GW
Popserved:	475		
Add1:	US27(16MILES)SOUTH OF S.BAY		
Add2:	Not Reported		
City:	SOUTH BAY	State:	FL
Zip:	33430	Phone:	561-996-5527
Cityserv:	SOUTH BAY	Cntyserv:	Not Reported
Stateserv:	FL	Zipserv:	Not Reported

PWS ID:	FL4504225		
Date Initiated:	Not Reported	Date Deactivated:	Not Reported
PWS Name:	TALISMAN SUGAR MILL US27(16MILES)SOUTH OF S.BAY SOUTH BAY, FL 33430		

GEOCHECK VERSION 2.1
PUBLIC WATER SUPPLY SYSTEM INFORMATION

PWS SUMMARY:

Addressee / Facility:	System Owner/Responsible Party TALISMAN SUGAR CORPORATION P.O BOX 814 BELLE GLADE, FL 33430		
Facility Latitude:	26 27 30	Facility Longitude:	080 40 40
Facility Latitude:	26 27 31	Facility Longitude:	080 40 41
City Served:	Not Reported		
Treatment Class:	Treated	Population:	00000475

Violations information not reported.

Map ID: 13

Epa region:	04	State:	FL
Pwsid:	FL4504225		
Pwsname:	TALISMAN SUGAR MILL		
City served:	Not Reported	State served:	FL
Zip served:	Not Reported	Fips county:	12099
Status:	Closed	Pop srvd:	475
Pwssvcconn:	27	Source:	Groundwater
Pws type:	NTNCWS	Owner:	Private
Contact:	Not Reported		
Contactor gname:	Not Reported		
Contact phone:	561-996-5527	Contact address1:	US27(16MILES)SOUTH OF S.BAY
Contact address2:	Not Reported	Contact city:	SOUTH BAY
Contact state:	FL	Contact zip:	33430
Activity code:	I		

Facid:	1		
Facname:	PLANT ID = 02 SOURCE ID = 000		
Facility type:	Treatment_plant	Activity code:	I
Treatment obj:	corrosion control	Treatment process:	sequestration
Treatment obj:	corrosion control	Treatment process:	ph adjustment
Treatment obj:	disinfection	Treatment process:	hypochlorination, post
Treatment obj:	organics removal	Treatment process:	reverse osmosis
Treatment obj:	taste / odor control	Treatment process:	aeration, packed tower

Facid:	2		
Facname:	PLANT ID = 01 SOURCE ID = 000		
Facility type:	Treatment_plant	Activity code:	I
Treatment obj:	corrosion control	Treatment process:	ph adjustment
Treatment obj:	disinfection	Treatment process:	gaseous chlorination, post
Treatment obj:	particulate removal	Treatment process:	coagulation
Treatment obj:	particulate removal	Treatment process:	filtration, rapid sand
Treatment obj:	softening (hardness removal)	Treatment process:	lime - soda ash addition

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Location Information:

Name:	TALISMAN SUGAR MILL		
Pwstypcd:	NTNCWS	Primsrccd:	GW
Popserved:	475		
Add1:	US27(16MILES)SOUTH OF S.BAY		
Add2:	Not Reported		
City:	SOUTH BAY	State:	FL
Zip:	33430	Phone:	561-996-5527
Cityserv:	SOUTH BAY	Cntyserv:	Not Reported
Stateserv:	FL	Zipserv:	Not Reported

PWS ID:	FL4504225		
Date Initiated:	Not Reported	Date Deactivated:	Not Reported
PWS Name:	TALISMAN SUGAR MILL US27(16MILES)SOUTH OF S.BAY SOUTH BAY, FL 33430		

Addressee / Facility: System Owner/Responsible Party
TALISMAN SUGAR CORPORATION
P.O BOX 814
BELLE GLADE, FL 33430

Facility Latitude:	26 27 30	Facility Longitude:	080 40 40
Facility Latitude:	26 27 31	Facility Longitude:	080 40 41
City Served:	Not Reported		
Treatment Class:	Treated	Population:	00000475

Violations information not reported.

FLORIDA GOVERNMENT WELL RECORDS SEARCHED

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

State Wetlands Data: Wetlands Inventory
Source: Department of Environmental Protection
Telephone: 850-245-8238

Well Construction Permitting Database
Source: Northwest Florida Water Management District
Telephone: 850-539-5999

Consumptive Use Permit Well Database
Source: St. Johns River Water Management District
Telephone: 386-329-4841

Permitted Well Location Database
Source: South Florida Water Management District
Telephone: 561-682-6877

Super Act Program Well Data
This table consists of data relating to all privately and publicly owned potable wells investigated as part of the SUPER Act program. The Florida Department of Health's SUPER Act Program (per Chapter 376.3071(4)(g), Florida Statutes), was given authority to provide field and laboratory services, toxicological risk assessments, investigations of drinking water contamination complaints and education of the public
Source: Department of Health
Telephone: 850-245-4250

Water Well Location Information
Source: Suwannee River Water Management District
Telephone: 386-796-7211

Water Well Permit Database
Source: Southwest Water Management District
Telephone: 352-796-7211

DEP GWIS - Generalized Water Information System Well Data
Source: Department of Environmental Protection
Telephone: 850-245-8507
Data collected for the Watershed Monitoring Section of the Department of Environmental Protection.

DOH and DEP Historic Study of Private Wells
Source: Department of Environmental Protection
Telephone: 850-559-0901
Historic database for private supply wells.

Florida Sinkholes
Source: Department of Environmental Protection, Geological Survey
The sinkhole data was gathered by the Florida Sinkhole Research Institute, University of Florida.

Oil and Gas Permit Database
Source: Department of Environmental Protection
Telephone: 850-245-3194
Locations of all permitted wells in the state of Florida.

FLORIDA GOVERNMENT WELL RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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EAA Storage Reservoir
EAA Storage Reservoir
Southwest Palm Beach, FL 00053

Inquiry Number: 5132330.1
December 09, 2017

USGS Aerial Photography Priority Package

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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USGS Aerial Photography

Order # 5132330.1

Southwest Palm Beach, FL Palm Beach County

Photo ID	Date	Scale
NP0NAPP011083172	1999	1”=3333’
NP0NAPP011083101	1999	1”=3333’
NP0NAPP008677141	1996	1”=3333’
NP0NAPP008677103	1996	1”=3333’
NC1NHAP840401110	1986	1”=4833’ 50% cov w
NC1NHAP840043072	1984	1”=6666’
NC1NHAP840043235	1984	1”=6666’
AR1VEOR00150185	1980	1”=6666’
AR1VEOR00190028	1980	1”=6666’
AR1VEOR00140219	1979	1”=6666’ 40% cov se
AR1SWEO00050099	1971	1”=6850’
AR1SWEO00030005	1971	1”=6850’
AR1SWDA00020024	1970	1”=2000’ 40% cov w
AR1VCHV00010342	1969	1”=2000’ 55% cov e
AR1VCHV00010380	1969	1”=2000’
AR1VCHV00010379	1969	1”=2000’
AR1VCHV00010381	1969	1”=2000’
ARB590310030253	1960	1”=3333’ 60% cov w
AR1VYM000010034	1957	1”=1966 60% cov n
AR1VYM000010037	1957	1”=1966’
AR1VYM000010036	1967	1”=1966’
AR1VYM000010032	1967	1=1966’
AR1SU0000120031	1953	1”=1966’ 99% cov n
AR1SU0000120033	1953	1”=1966’
AR1SU0000110026	1953	1”=1966’

AR1SU0000120034	1953	1”=1966’
AR1SU0000120036	1953	1”=1966’
AR1SU0000110029	1953	1”=1966’
AR1SU0000110028	1953	1”=1966’
AR1SU0000040053	1952	1”=1966’ 20% cov s
AR1SU0000040049	1952	1”=1966’
AR1SU0000040055	1952	1”=1966’
AR1SU0000040051	1952	1”=1966’
ARA007111016092	1950	1”=4750’ 90% cov e

Tips:

The following information is intended to assist you in the use of the USGS Aerials. Because the performance and use of different systems can vary greatly, questions on the use of each computer, and program used should be referred to the manufacturer of the computer and program.

Opening and working with large .tiff files:

- **Click on file to open once only (please be patient).**
- **Close other programs to make memory available.**
- **Only open one photo at a time, close photo before attempting to open another.**
- USGS Aerials are provided in .tiff format on a DVD and may require a special program to open or edit.
- **You must have a DVD-ROM drive** on your computer to open the images.
- If you have Windows XP/98se, the **Microsoft Paint Program** will allow you to view and edit the images. Other programs are available from Adobe and on the Internet.
- The files provided on the USGS DVD are **very large** (up to 400 megabytes) and can take up to **15 minutes, or longer, to open** on your computer depending on your hardware and software.
- For faster opening, copy the files into your local hard drive prior to opening the files.
- USGS Aerials **do not have a north indicator**; please verify natural land marks such as lakes and rivers for proper alignment.
- Be sure your computer meets the minimum system requirements.
- Minimum System Requirements:
  - Microsoft Windows 98/2000/XP Mac OS 9+ LINUX
  - Pentium-300mhz + or equivalent
  - 64 MB RAM
  - HDD free space: 300 Mb for each photo 100 Mb of system disk space for a swap-file
  - DVD-ROM Drive
  - .tiff editing/viewing program

Photo ID	Date	Scale
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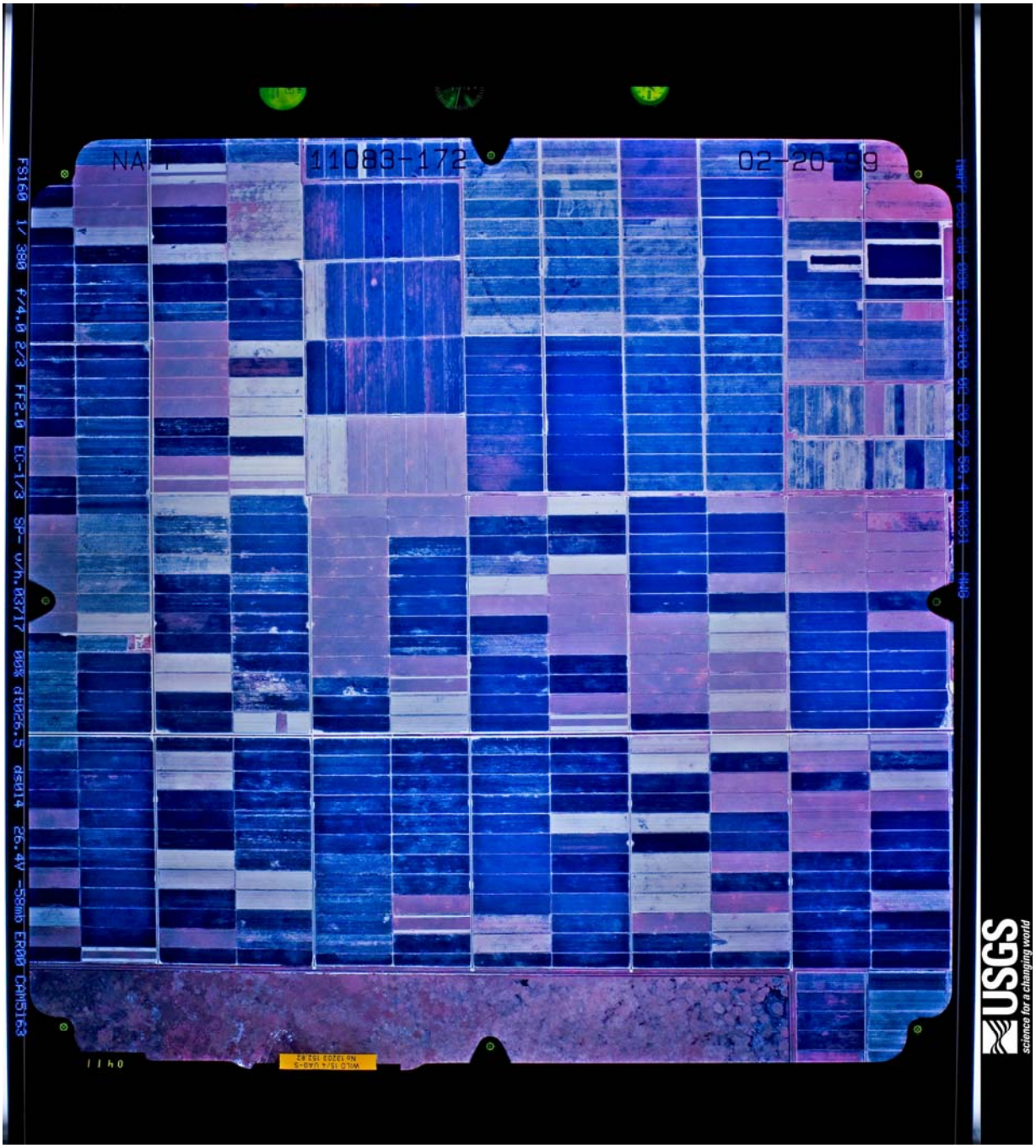

Photo ID	Date	Scale
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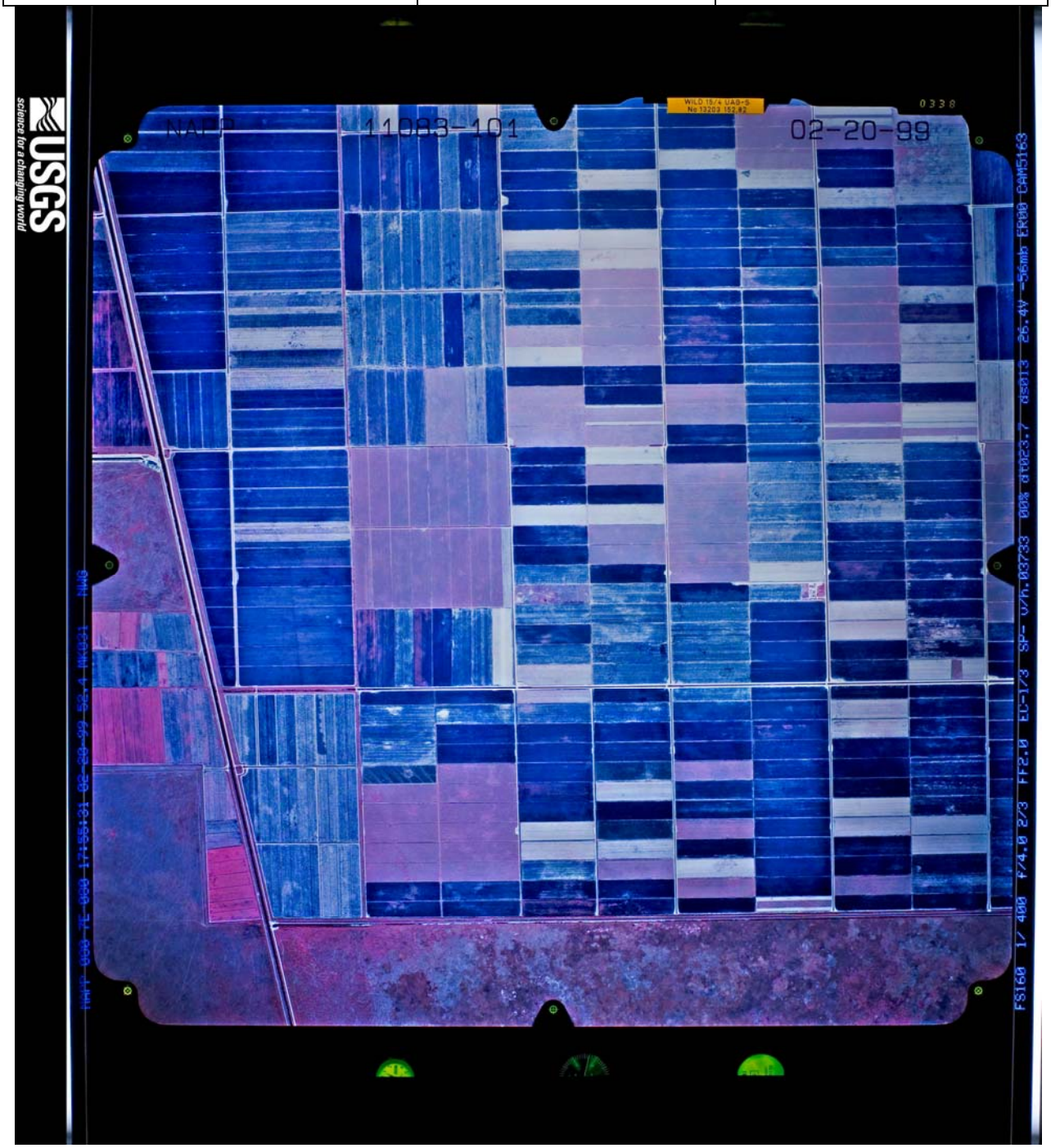

Photo ID	Date	Scale
NP0NAPP008677141	1996	1”=3333’

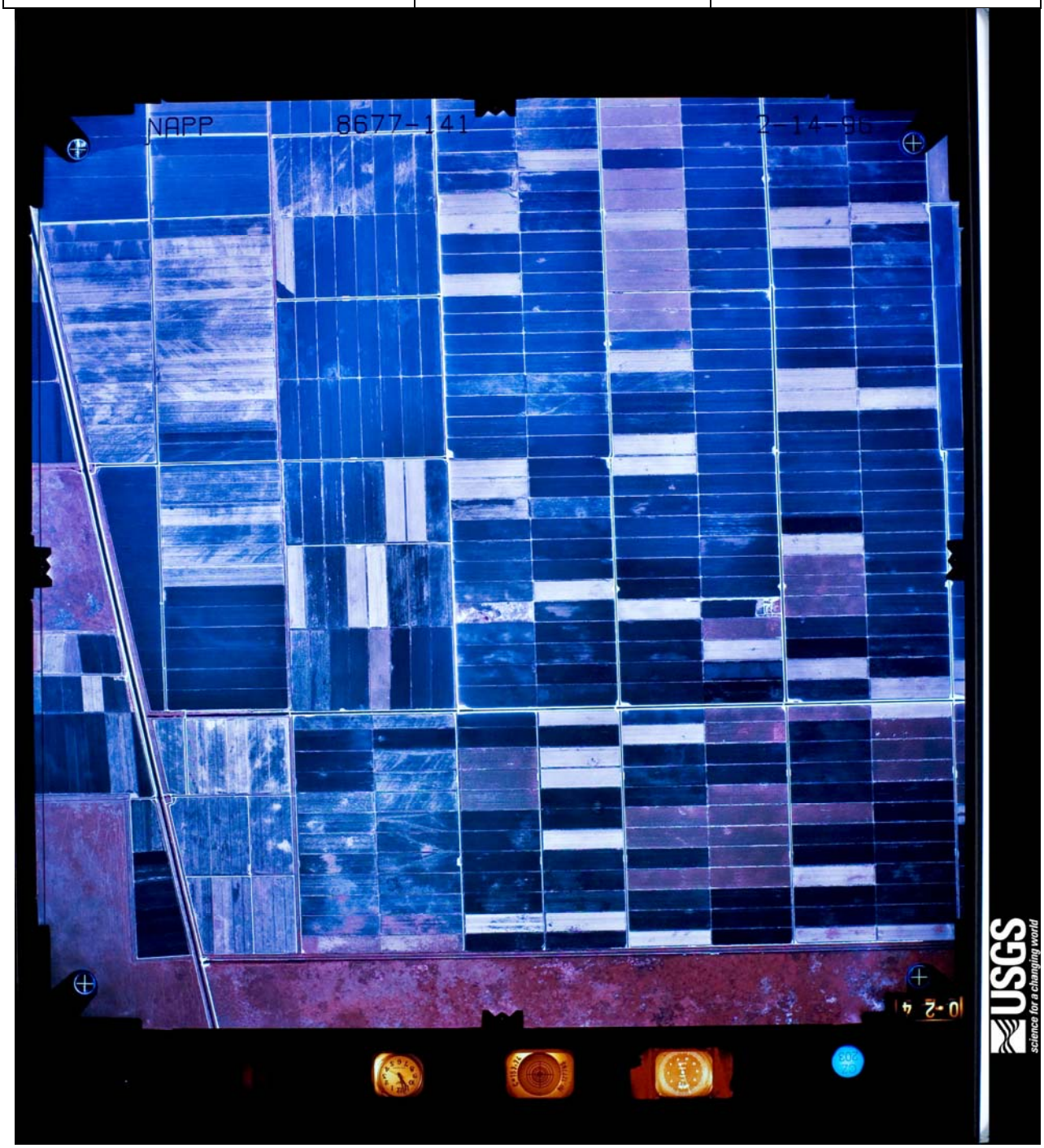

Photo ID	Date	Scale
NP0NAPP008677103	1996	1”=3333’

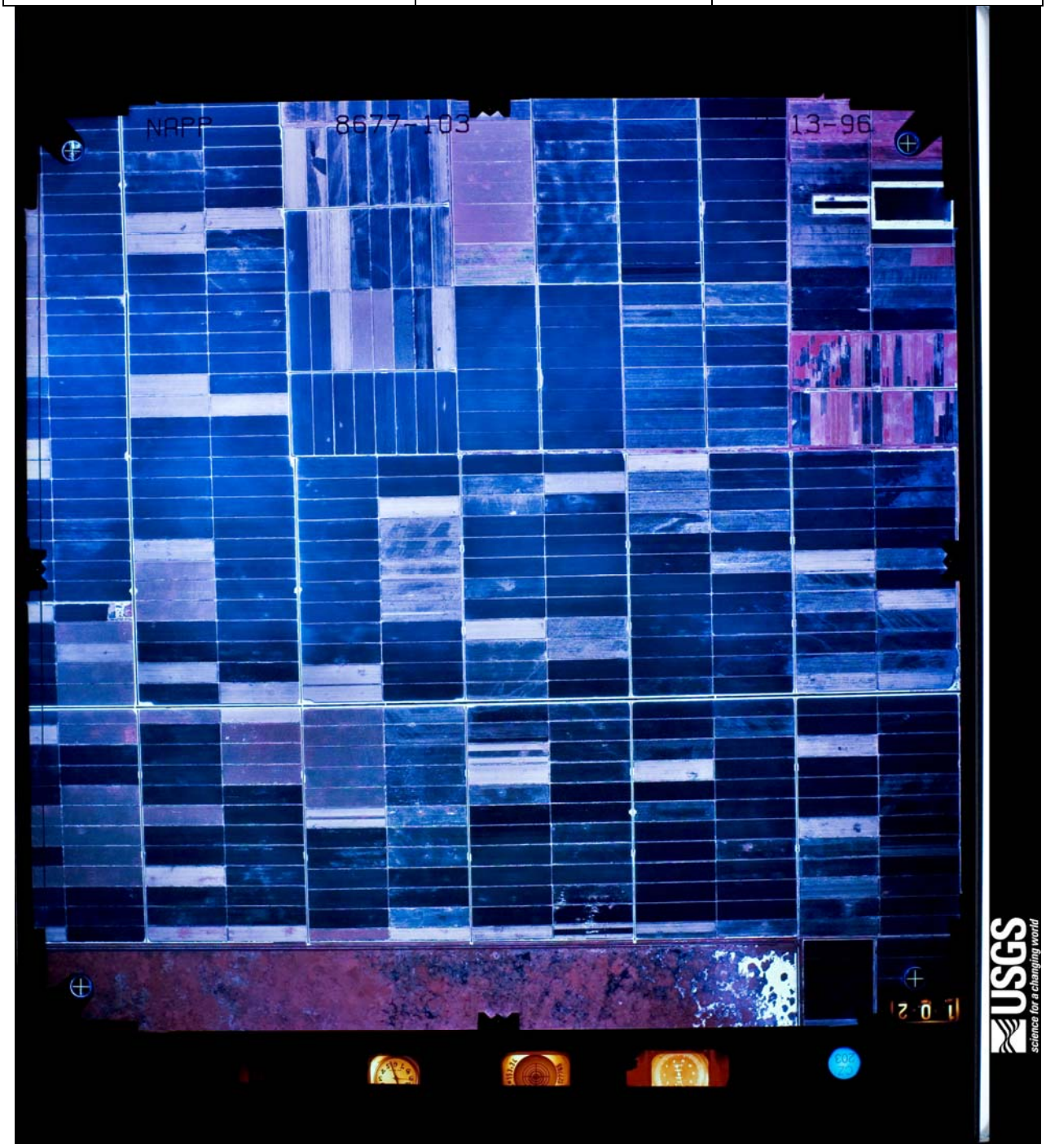

Photo ID	Date	Scale
NC1NHAP840401110	1986	1”=4833’ 50% cov w

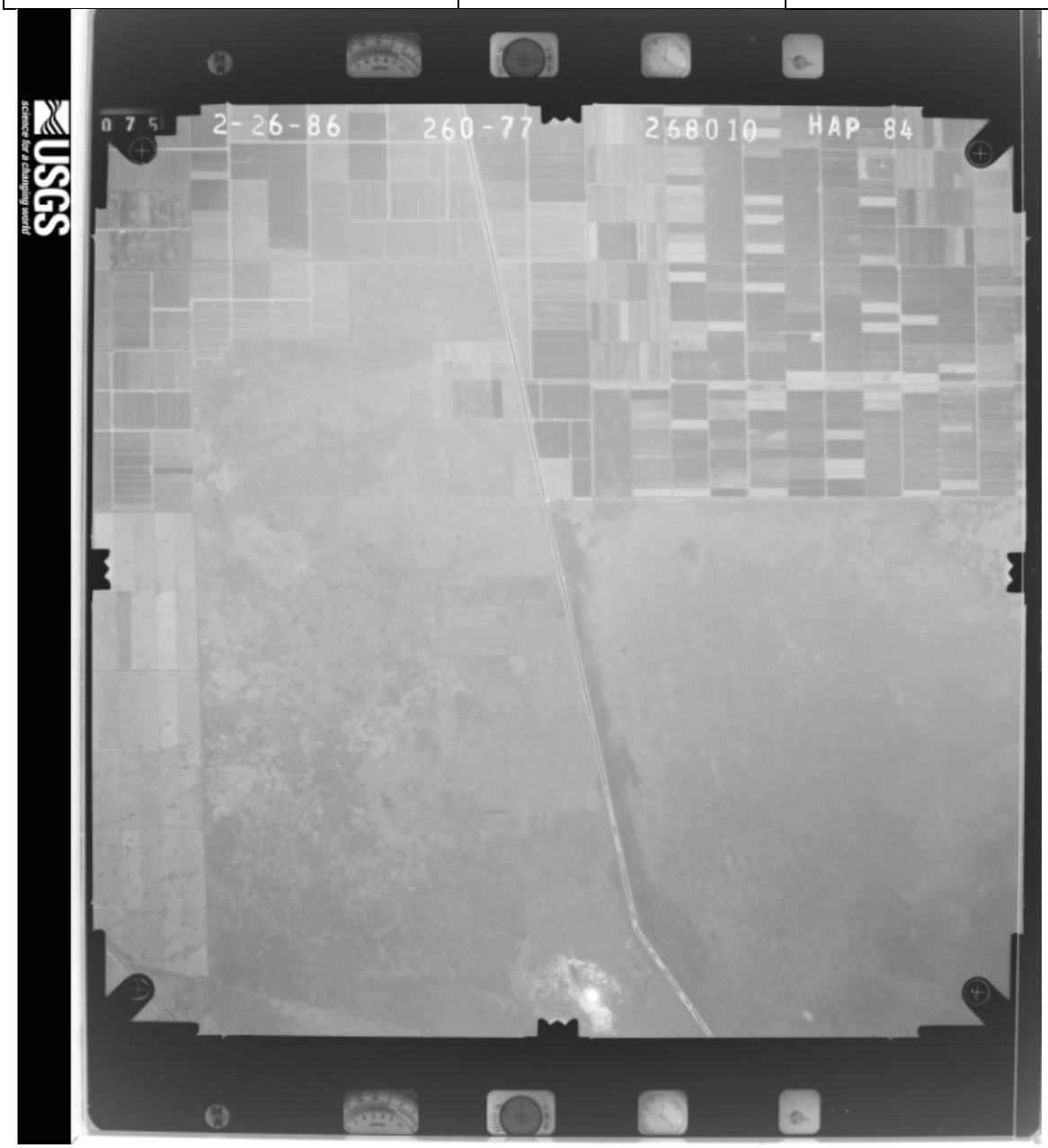

Photo ID	Date	Scale
NC1NHAP840043072	1984	1”=6666’

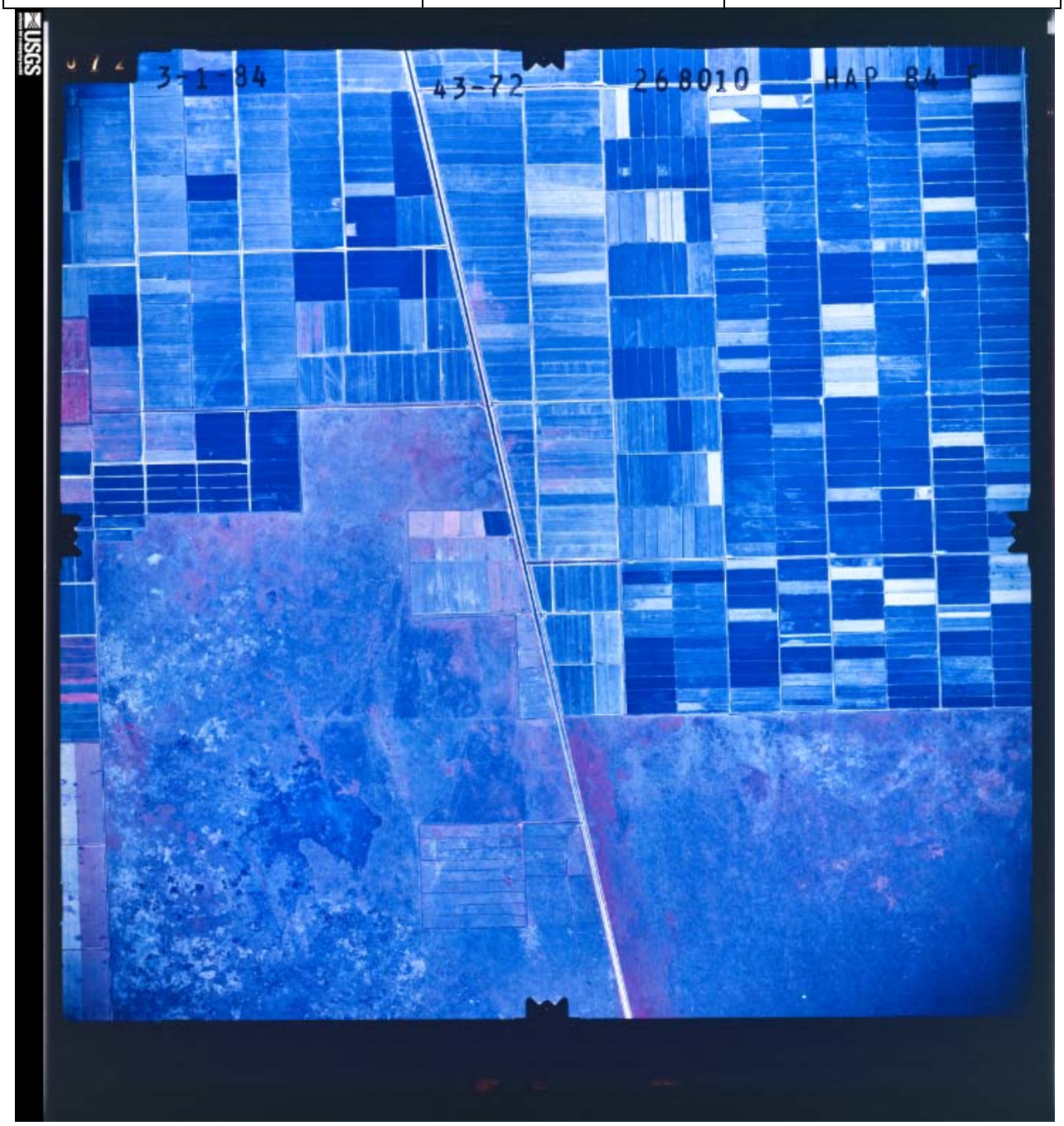

Photo ID	Date	Scale
NC1NHAP840043235	1984	1”=6666’

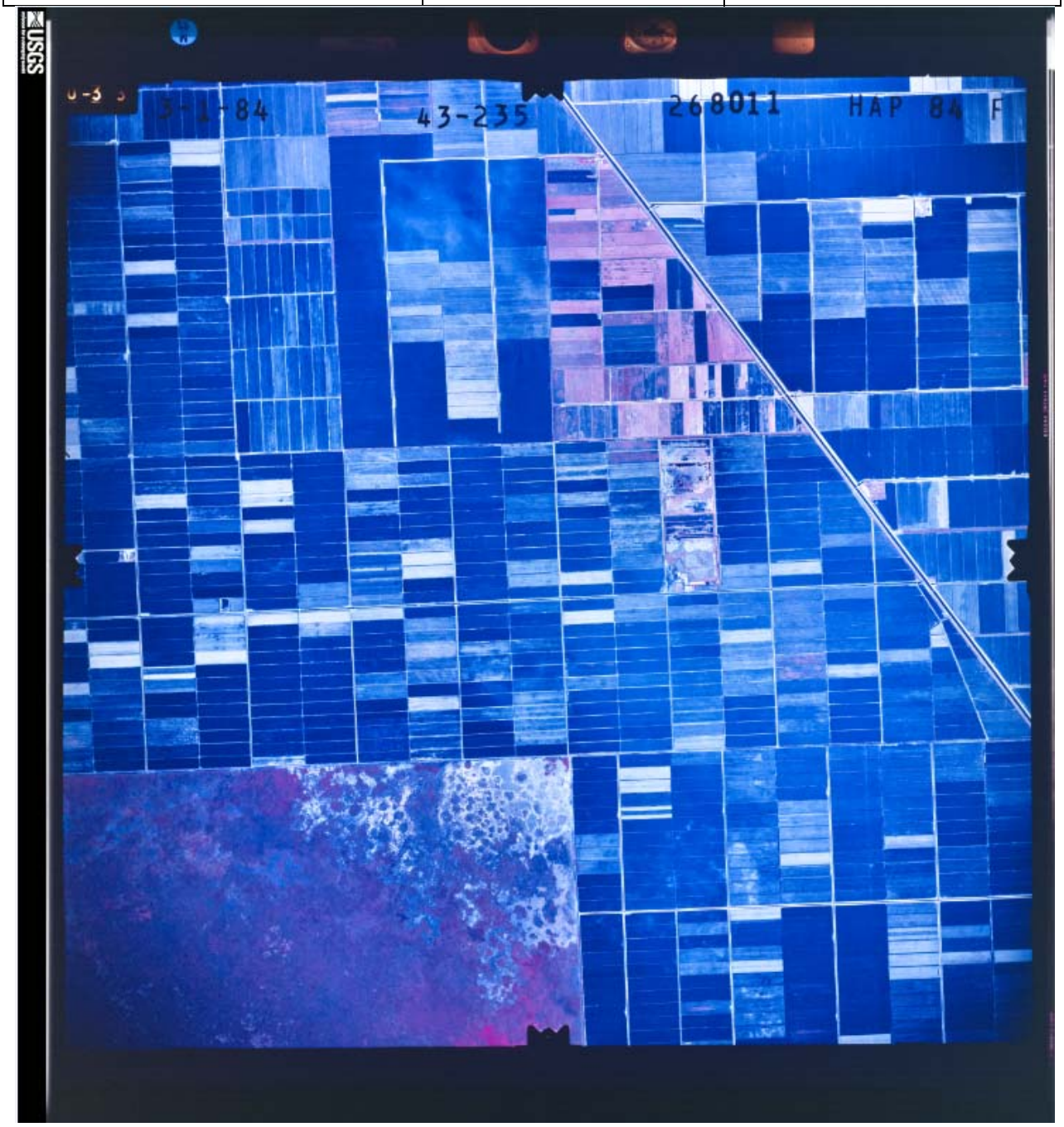

Photo ID	Date	Scale
AR1VEOR00150185	1980	1”=6666’

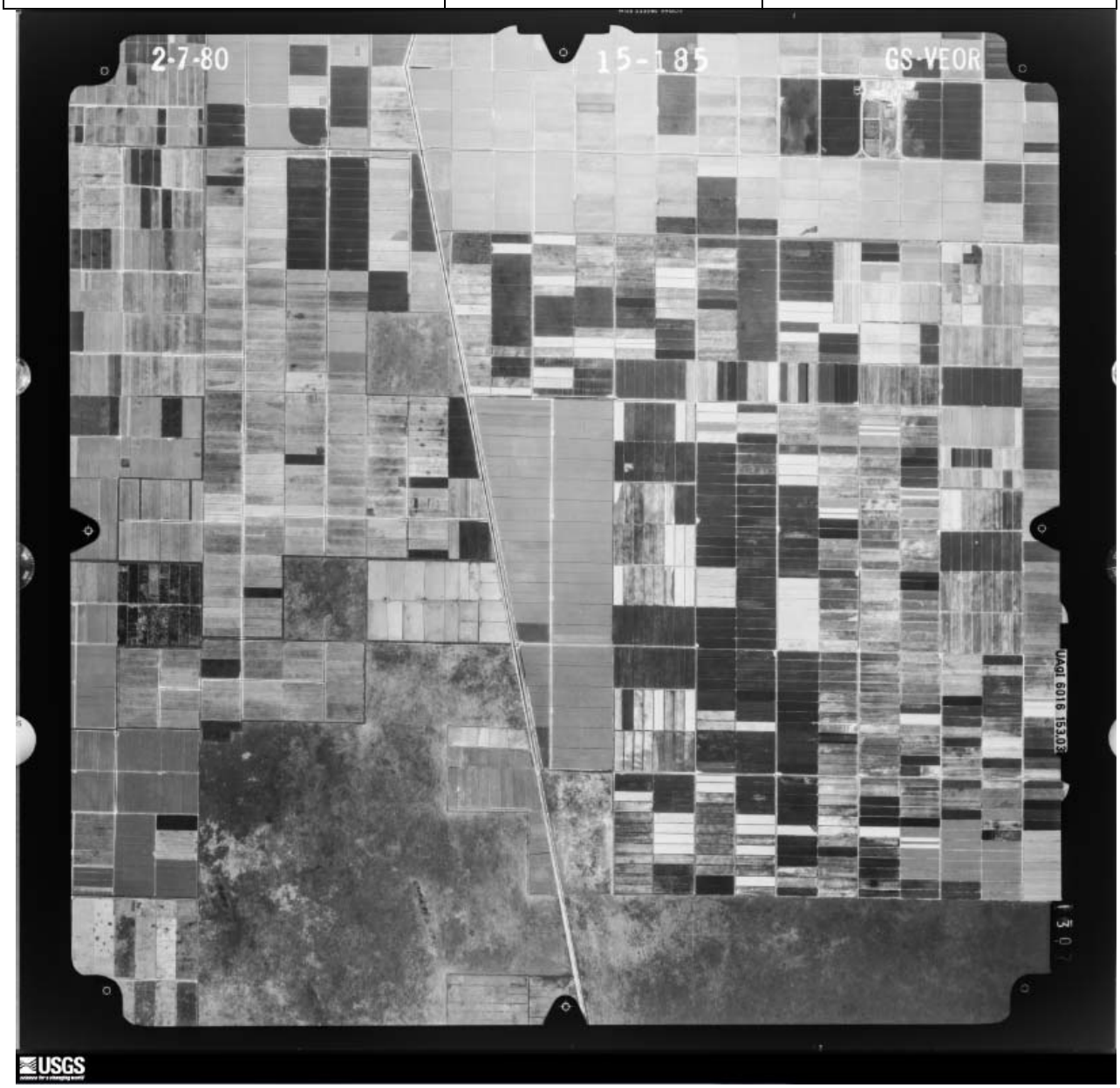

Photo ID	Date	Scale
AR1VEOR00190028	1980	1”=6666’

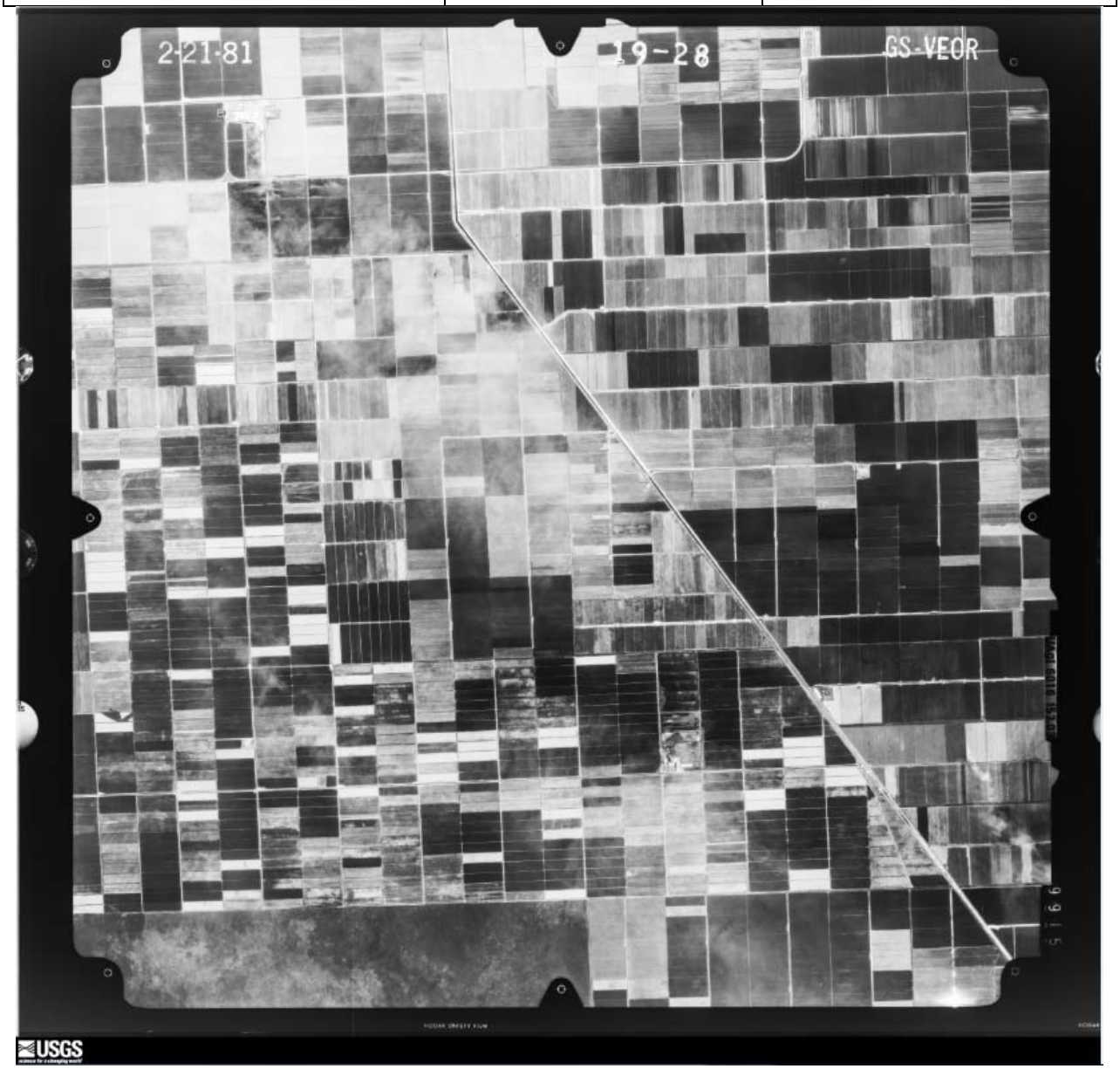

Photo ID	Date	Scale
AR1VEOR00140219	1979	1”=6666’ 40% cov se

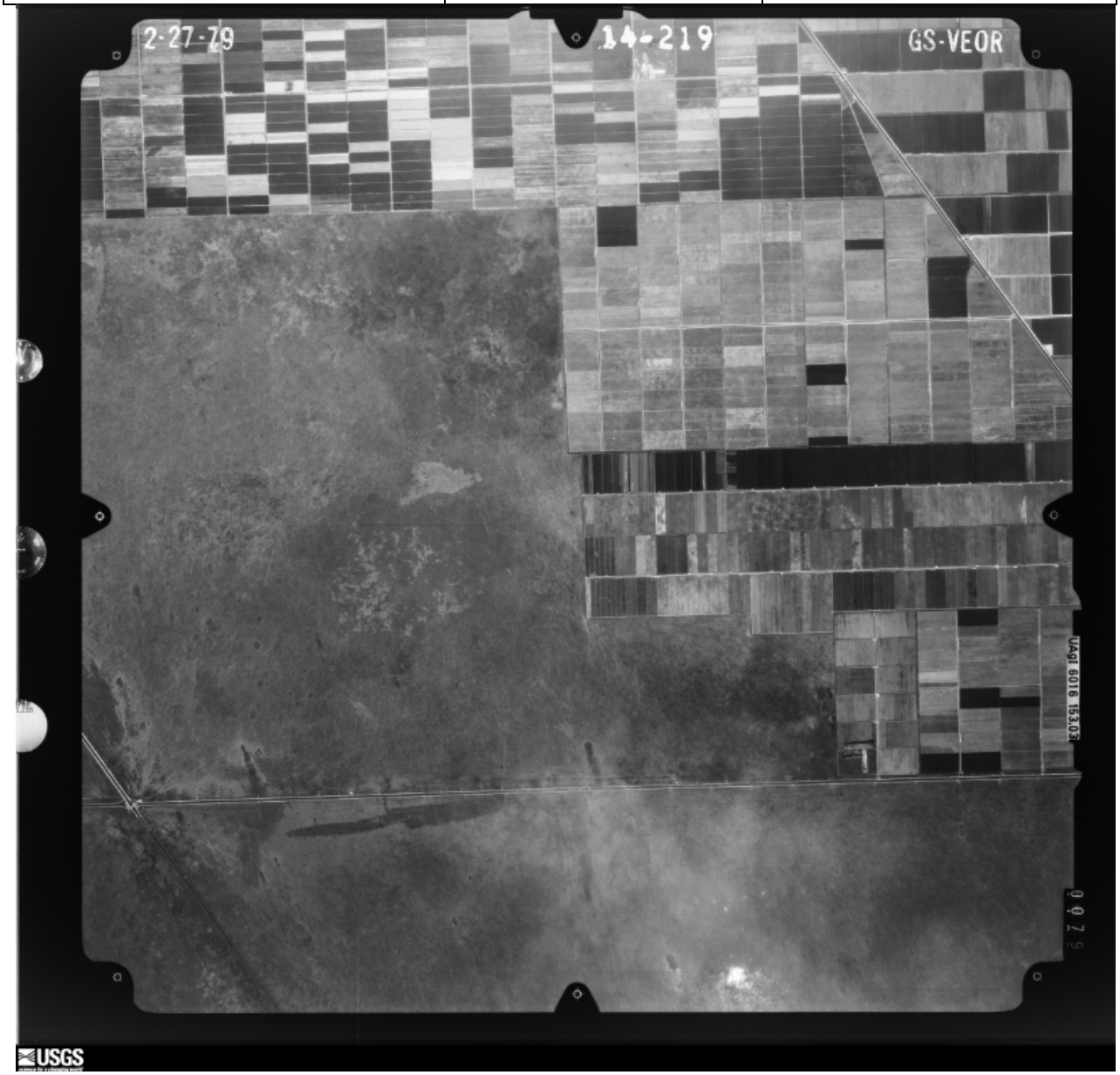

Photo ID	Date	Scale
AR1SWEO00050099	1971	1”=6850’

Photo ID	Date	Scale
AR1SWEO00030005	1971	1”=6850’

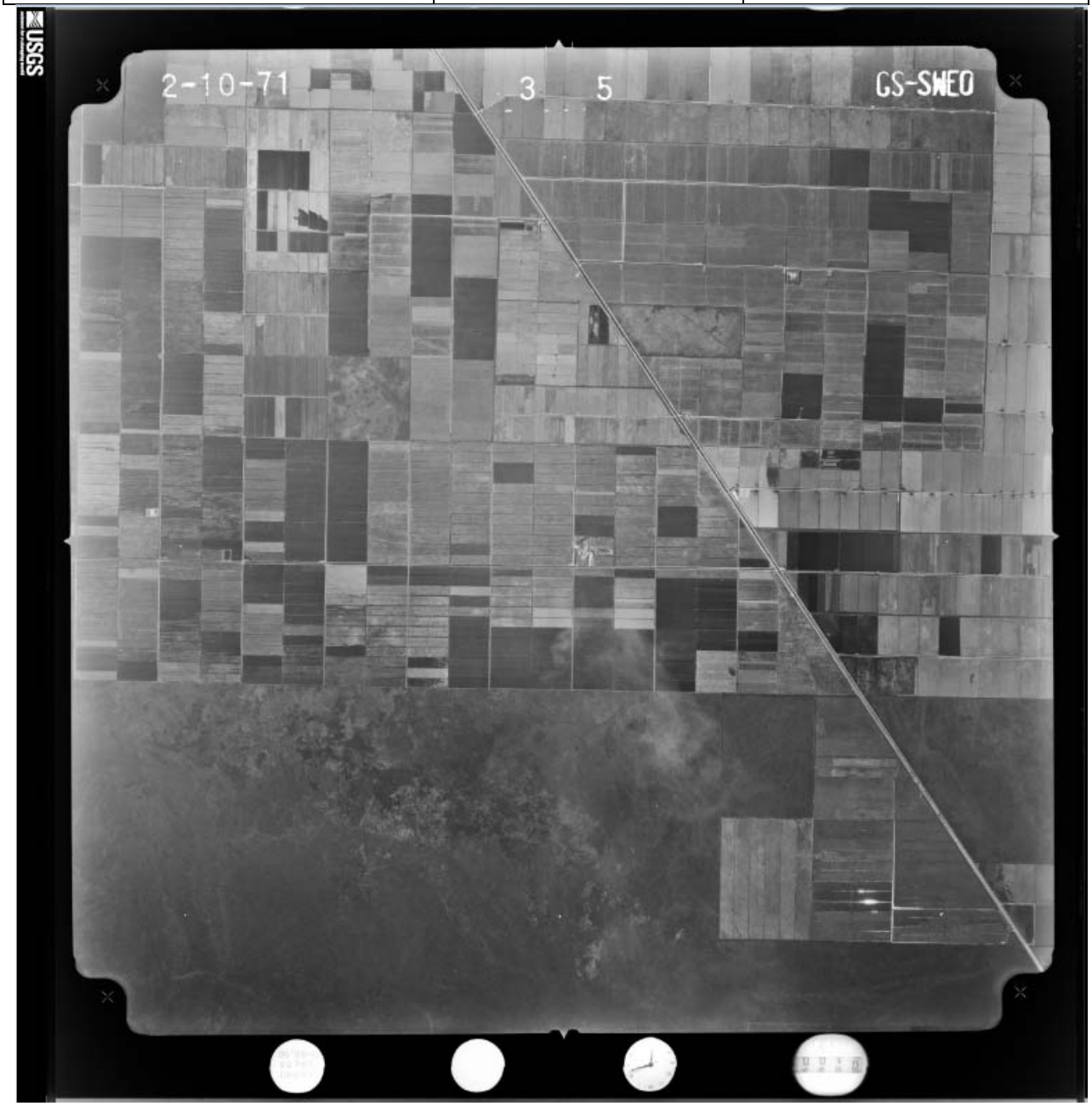

Photo ID	Date	Scale
AR1SWDA00020024	1970	1”=2000’ 40% cov w

Photo ID	Date	Scale
AR1VCHV00010342	1969	1”=2000’ 55% cov e

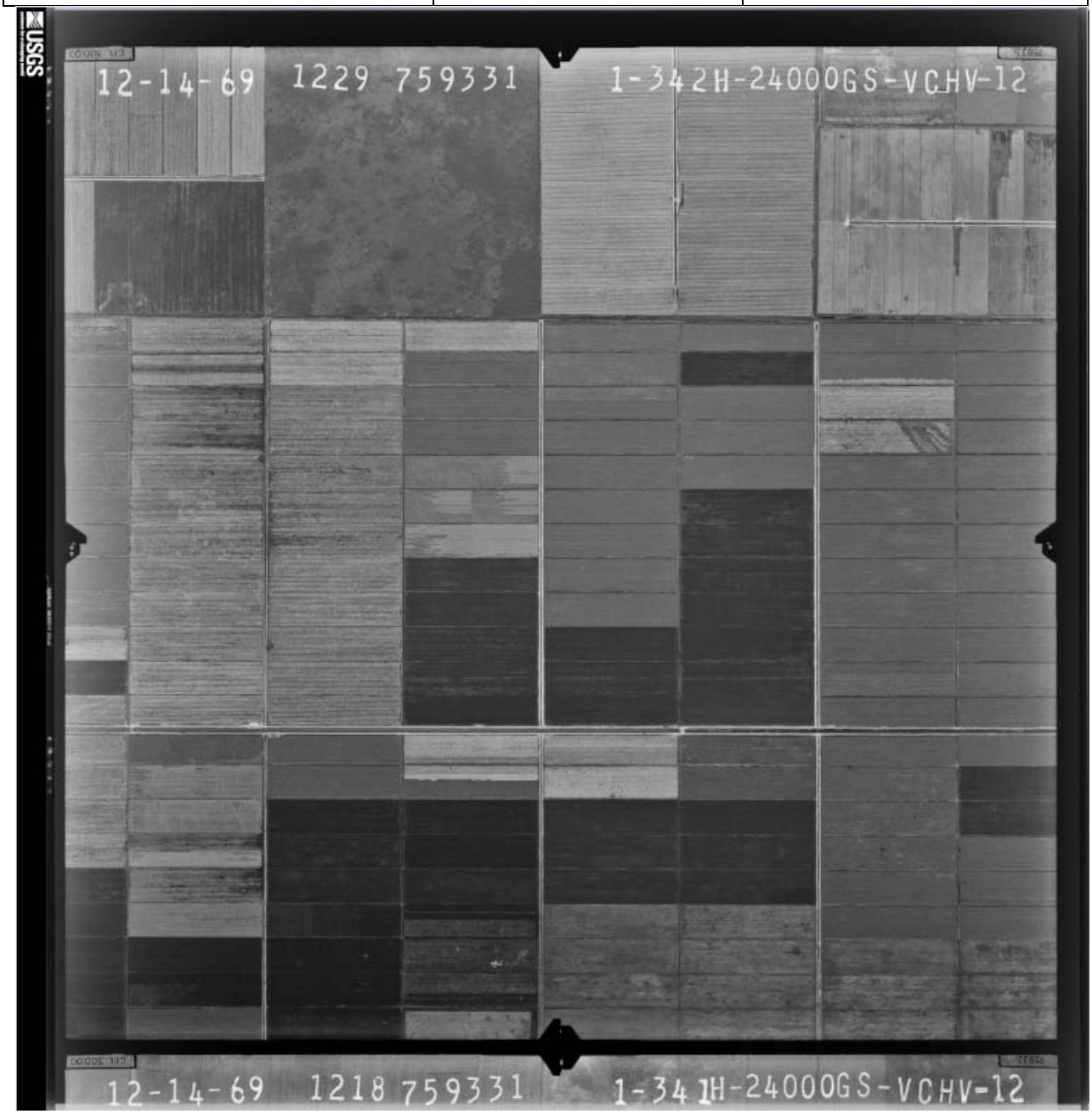

Photo ID	Date	Scale
AR1VCHV00010380	1969	1”=2000’

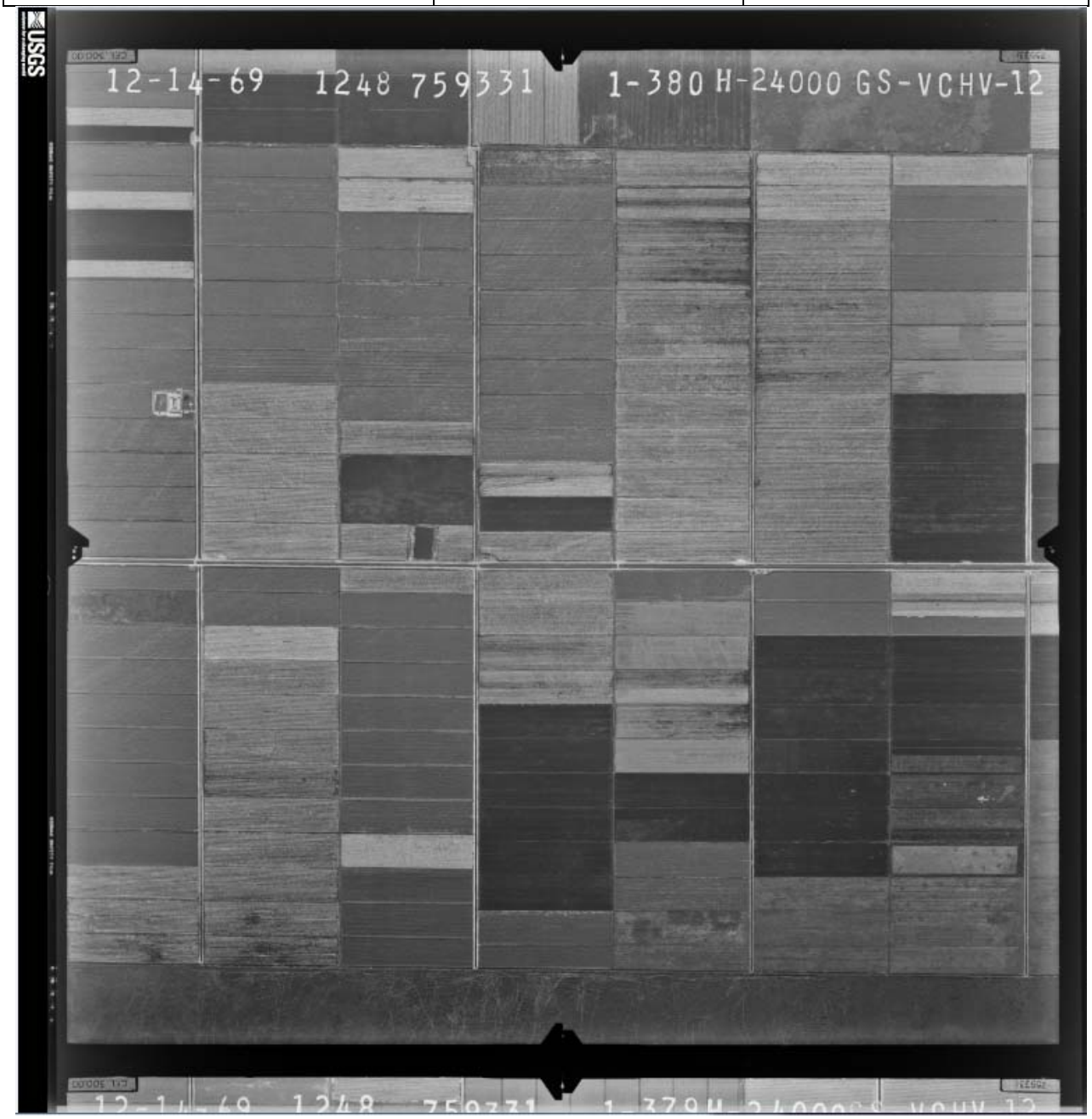

Photo ID	Date	Scale
AR1VCHV00010379	1969	1”=2000’

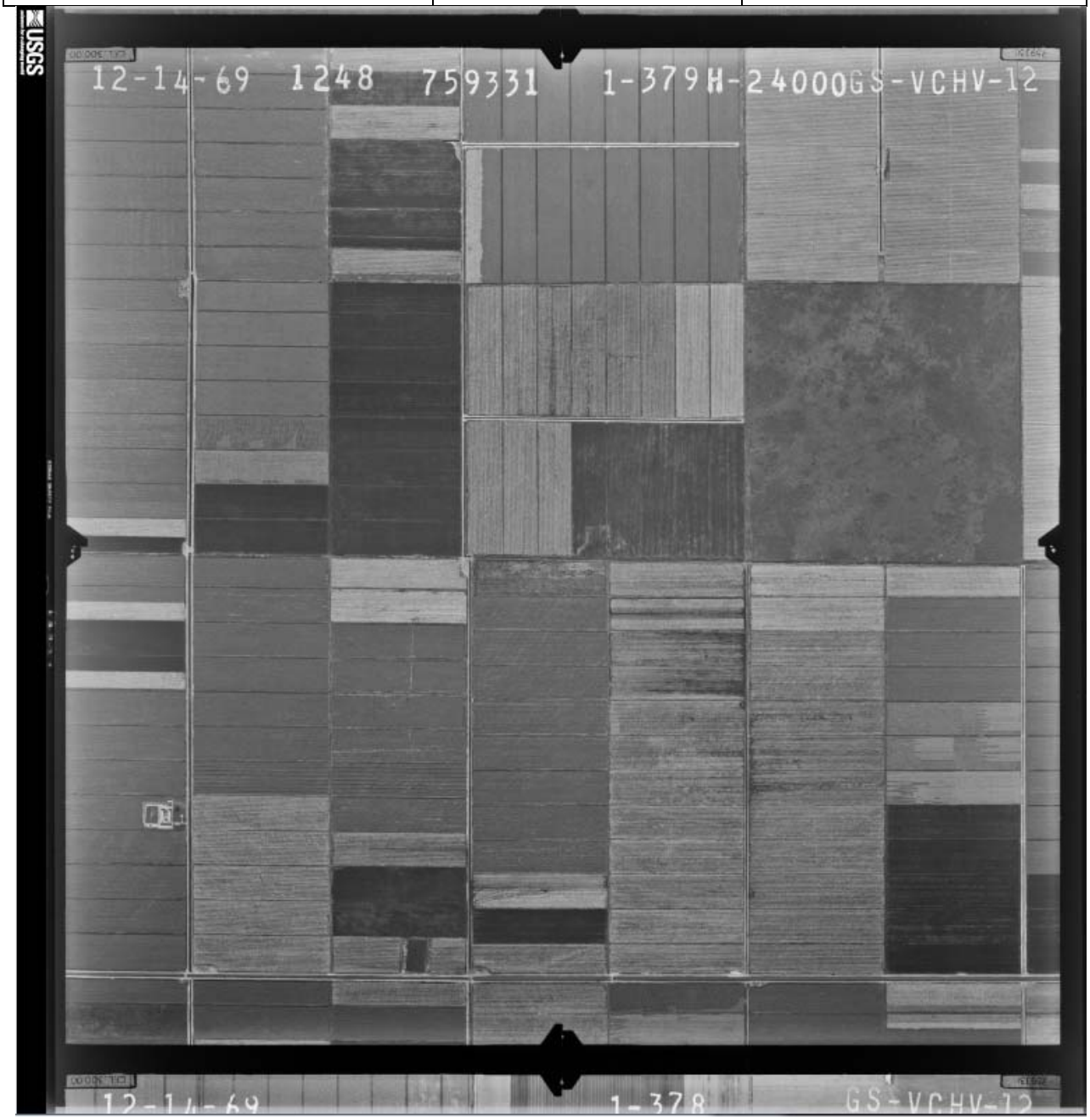

Photo ID	Date	Scale
AR1VCHV00010381	1969	1”=2000’

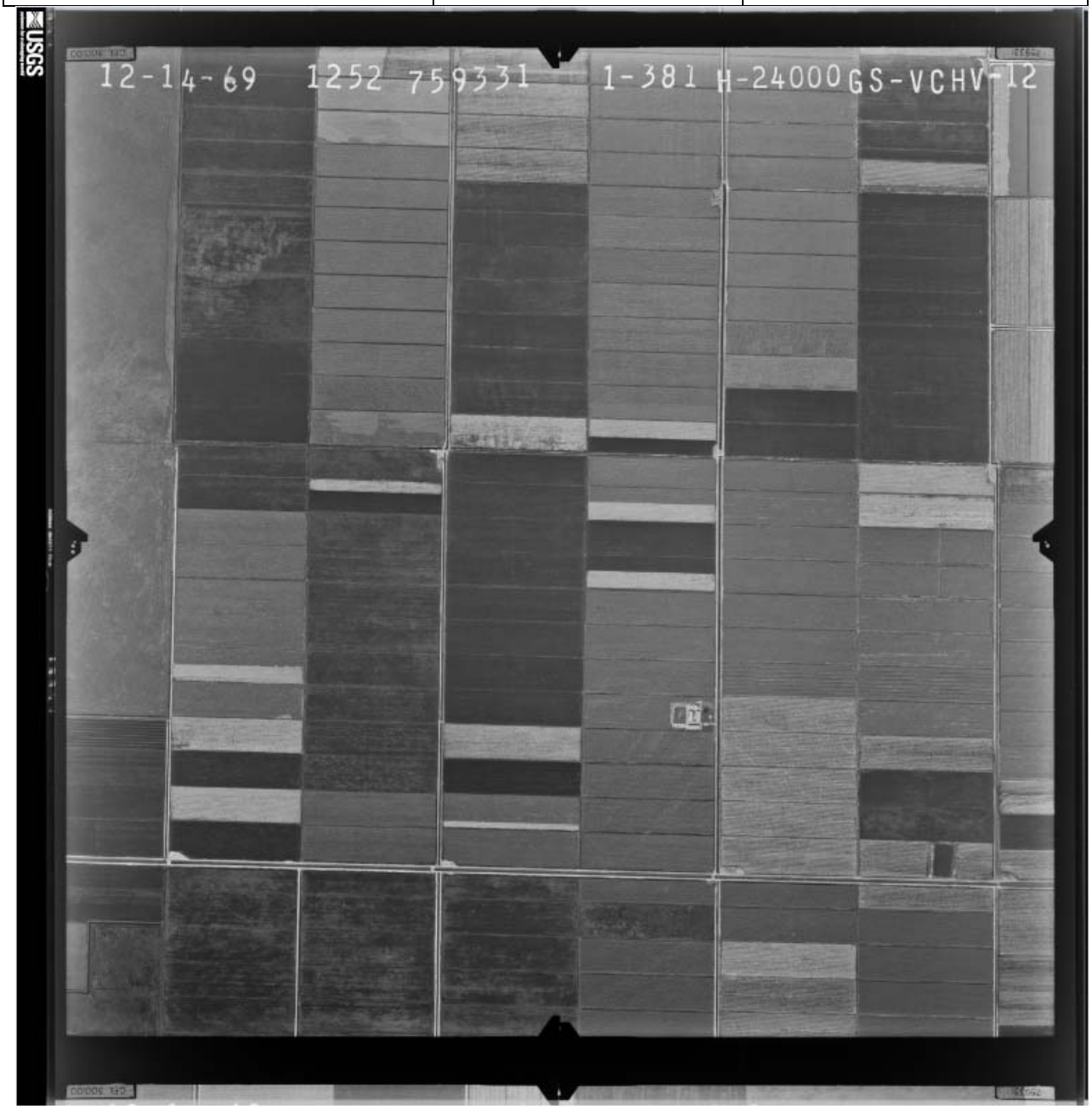

Photo ID	Date	Scale
ARB590310030253	1960	1”=3333’ 60% cov w

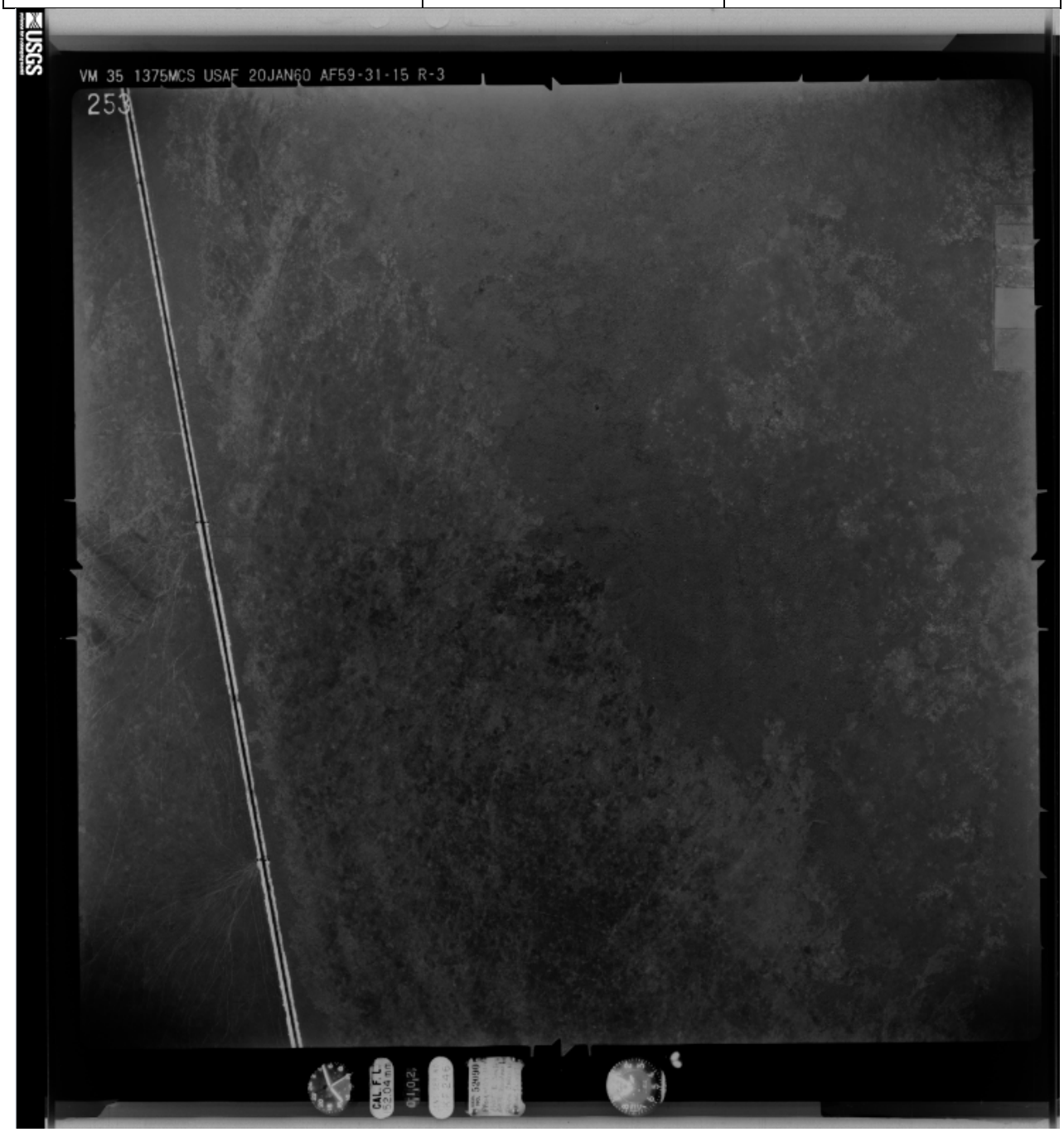

Photo ID	Date	Scale
AR1VYM000010034	1957	1”=1966 60% cov n

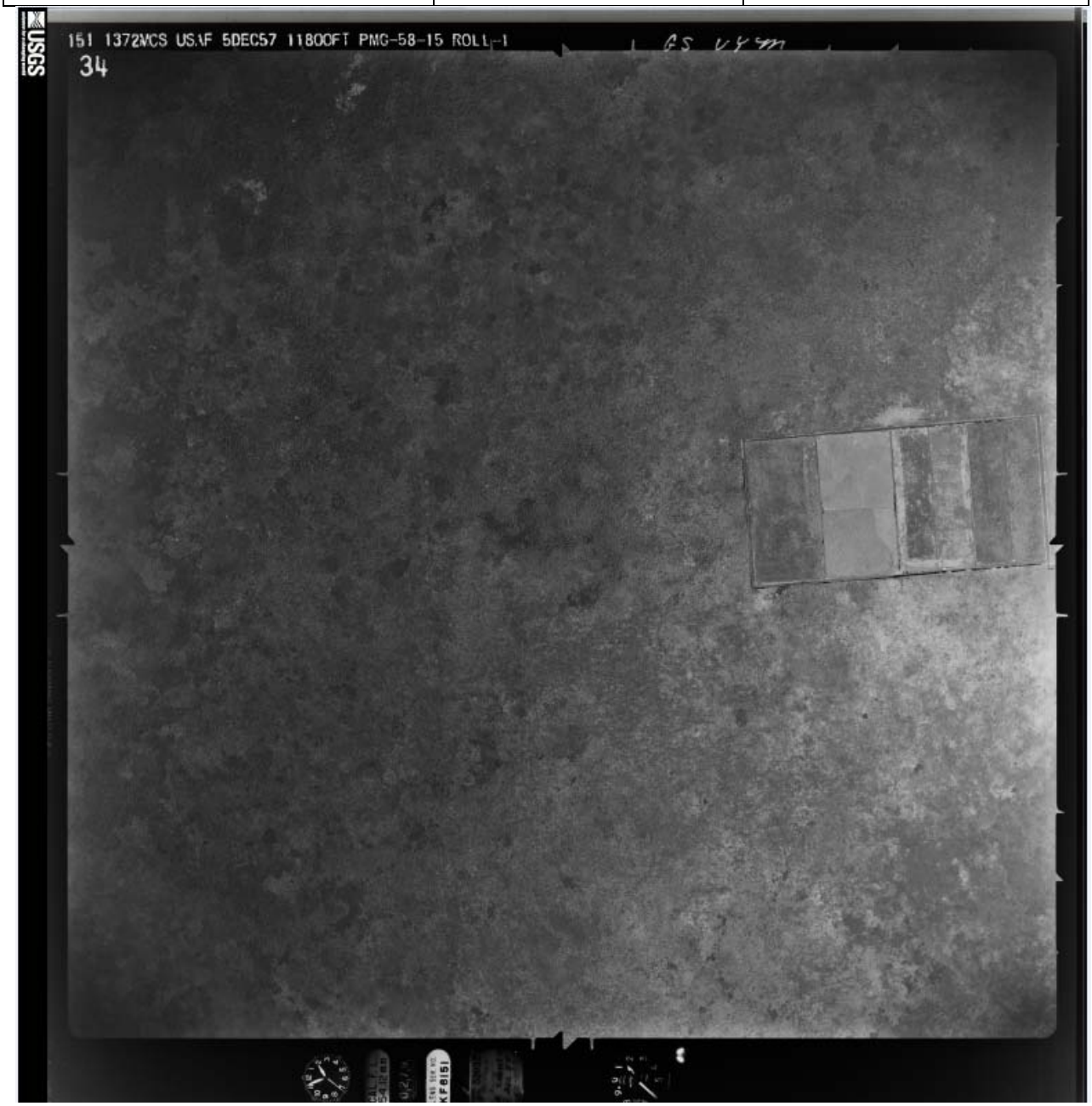

Photo ID	Date	Scale
AR1VYM000010037	1957	1”=1966’

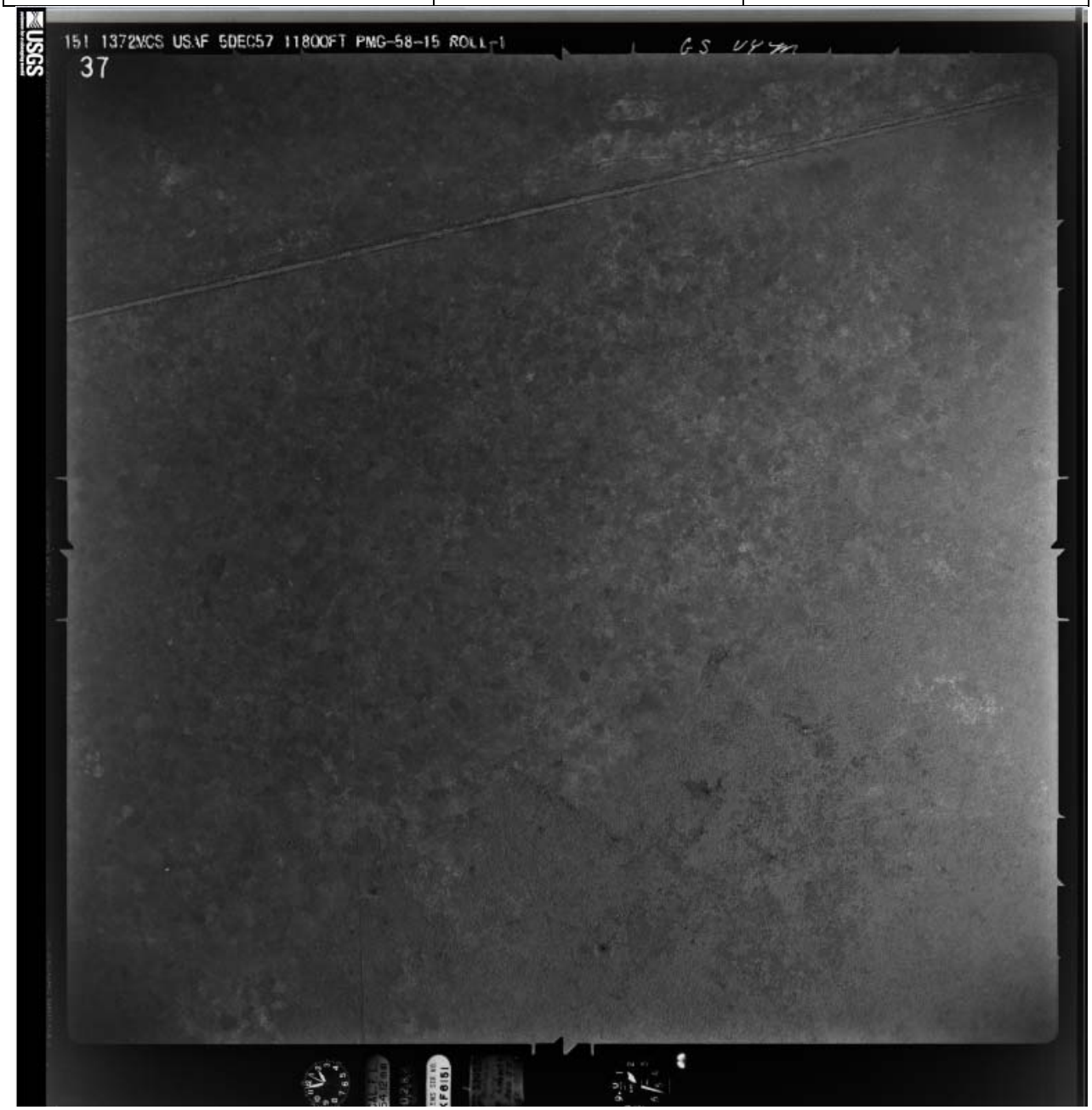

Photo ID	Date	Scale
AR1VYM000010036	1967	1”=1966’

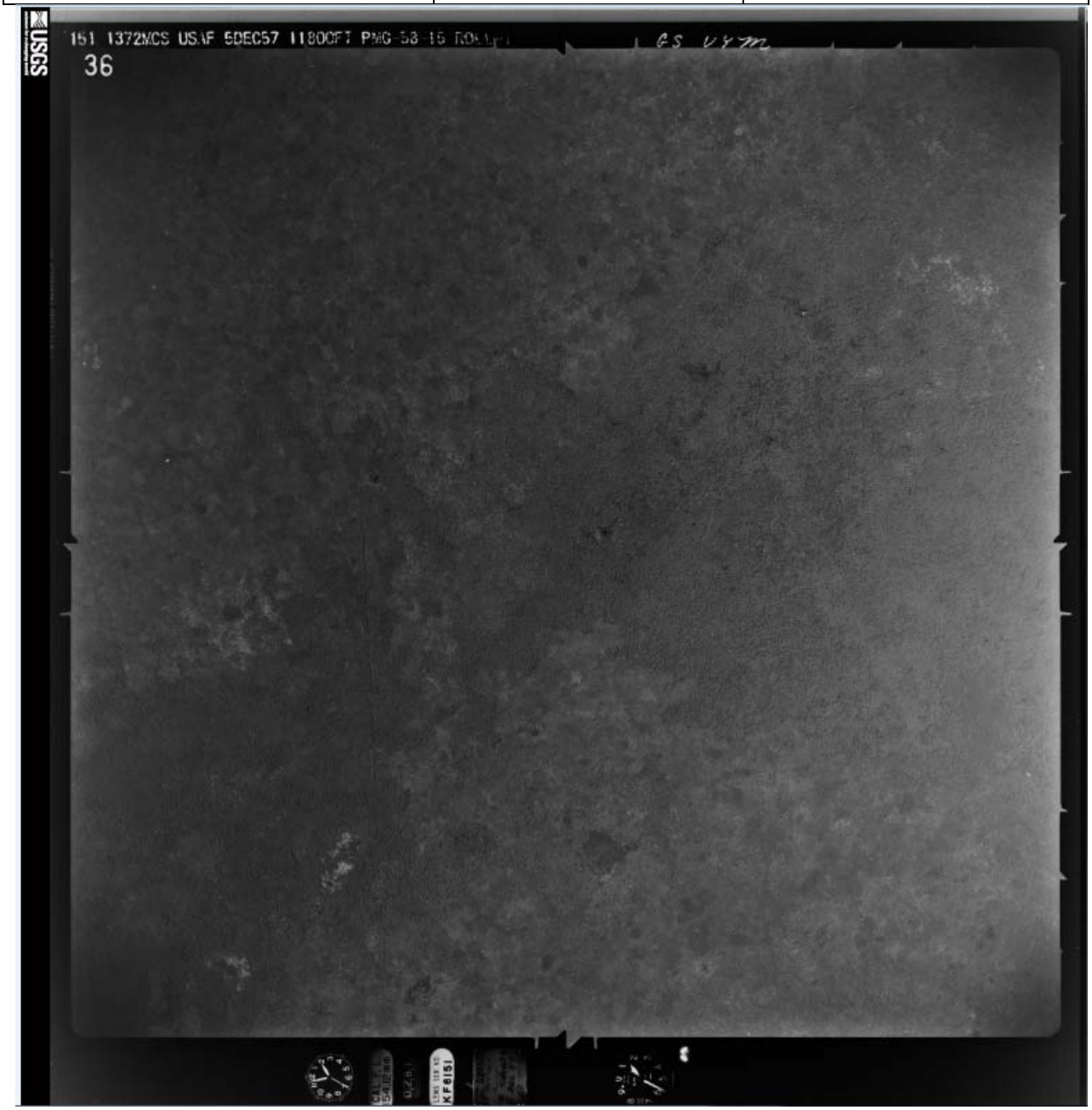

Photo ID	Date	Scale
AR1VYM000010032	1967	1=1966’

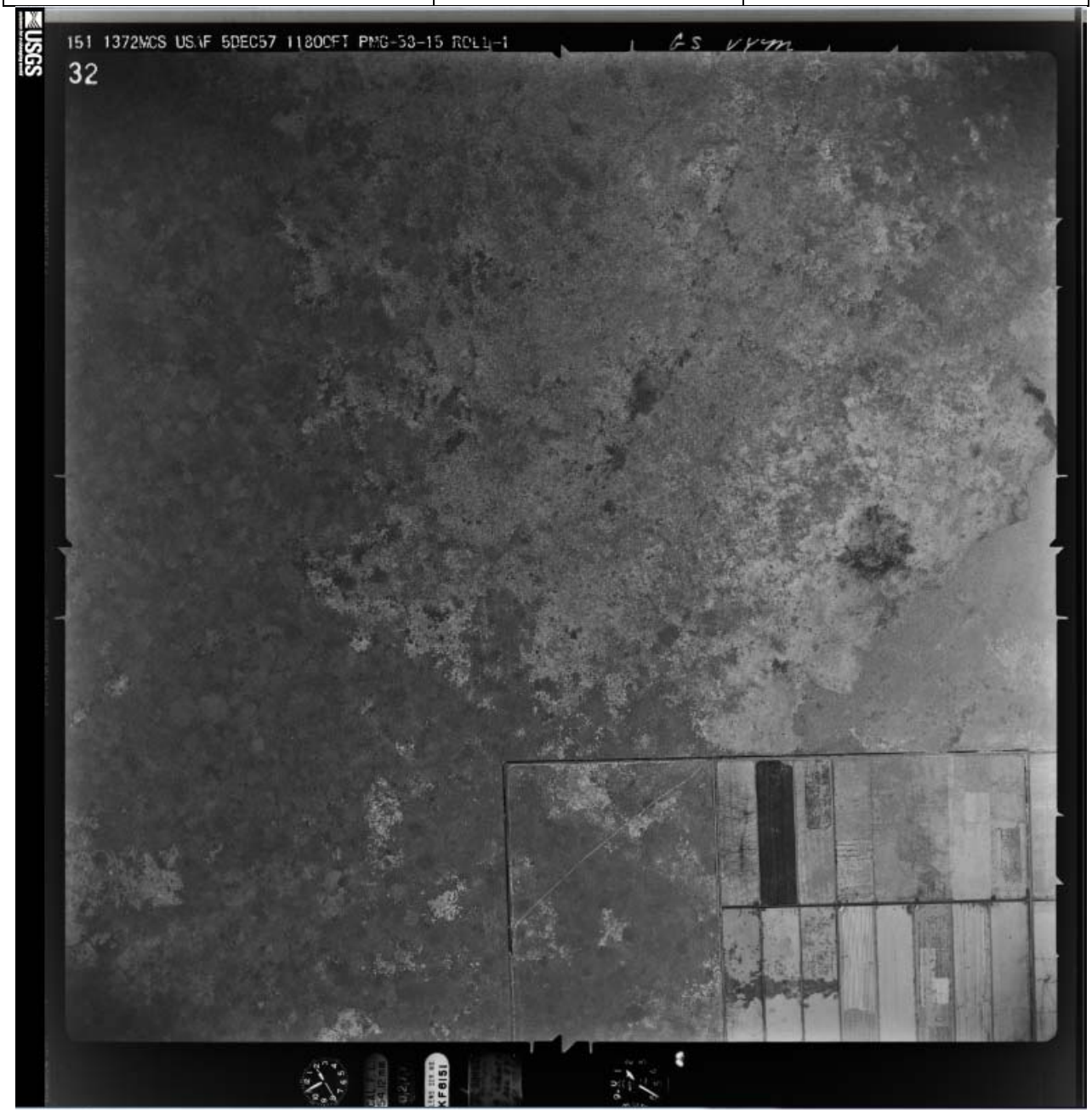

Photo ID	Date	Scale
AR1SU0000120031	1953	1”=1966’ 99% cov n

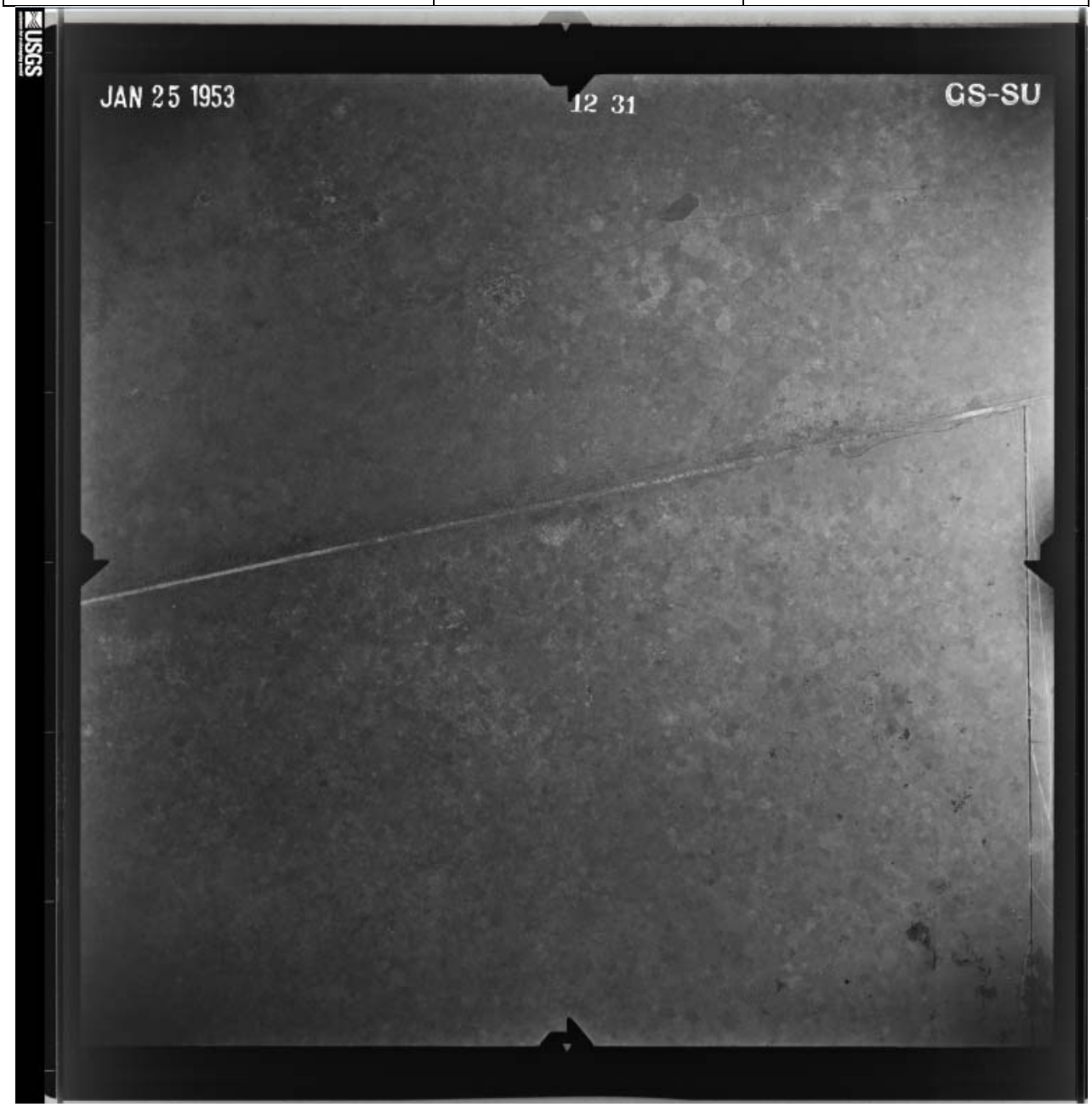

Photo ID	Date	Scale
AR1SU0000120033	1953	1”=1966’

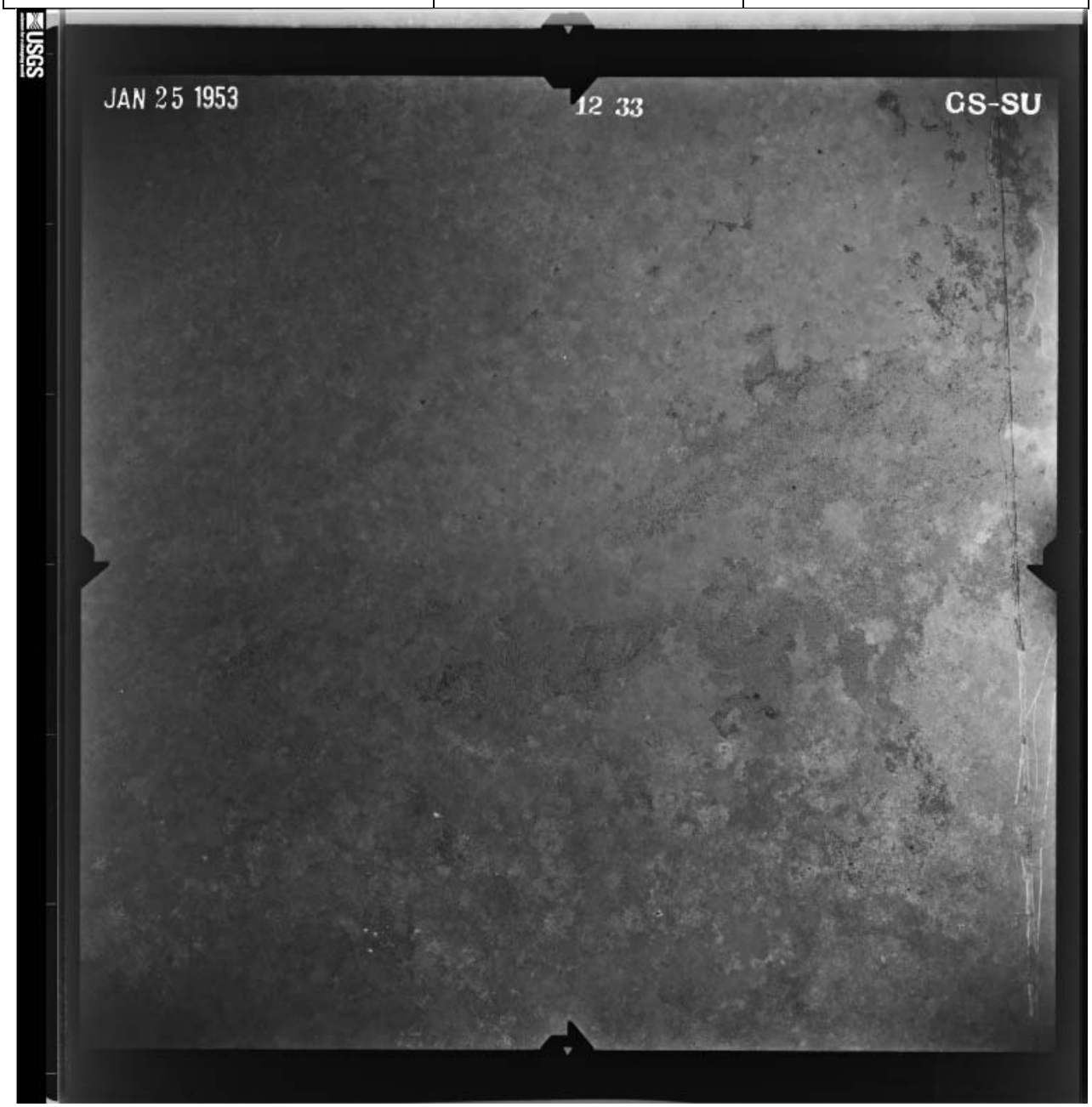

Photo ID	Date	Scale
AR1SU0000110026	1953	1”=1966’

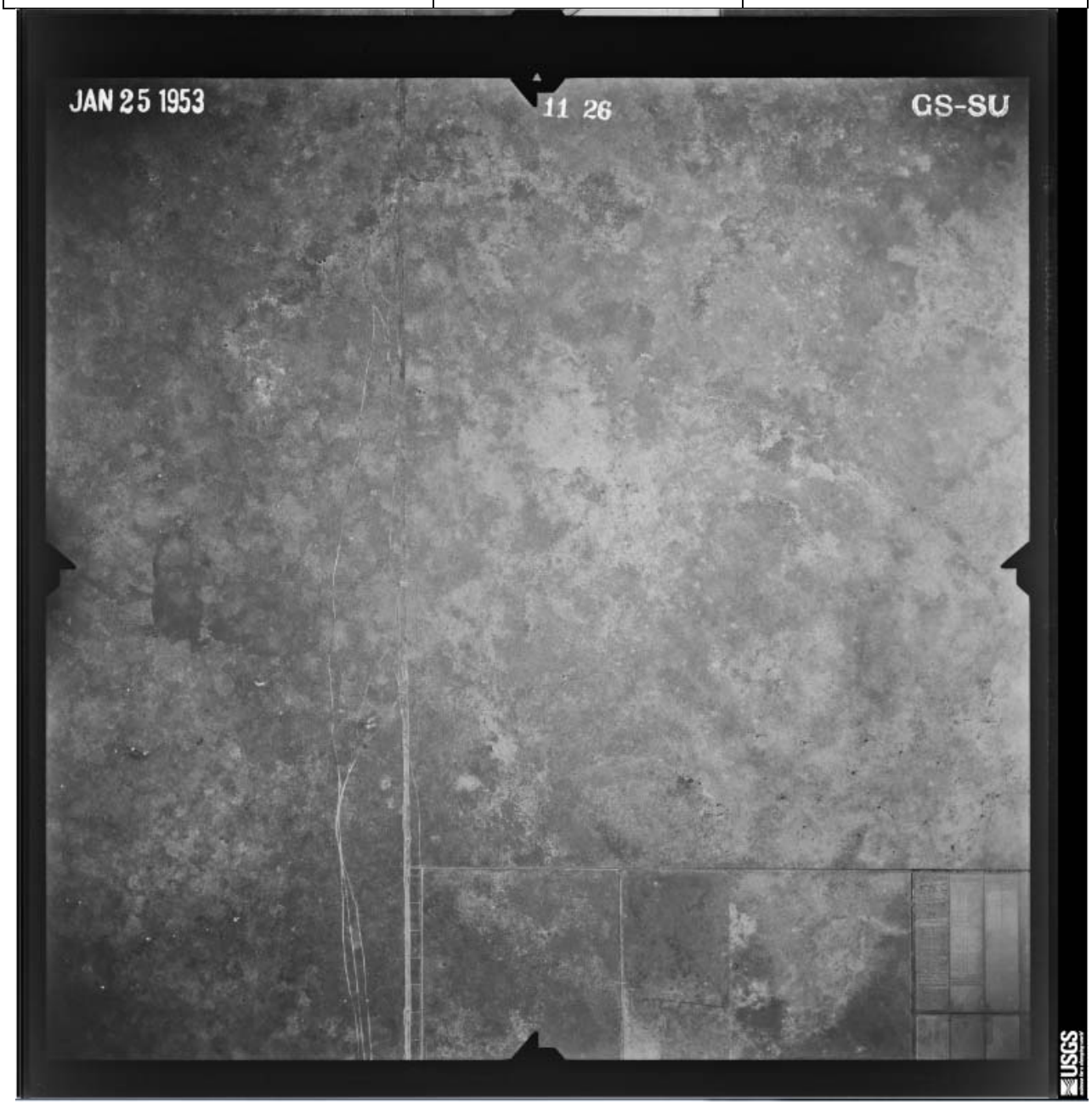

Photo ID	Date	Scale
AR1SU0000120034	1953	1”=1966’

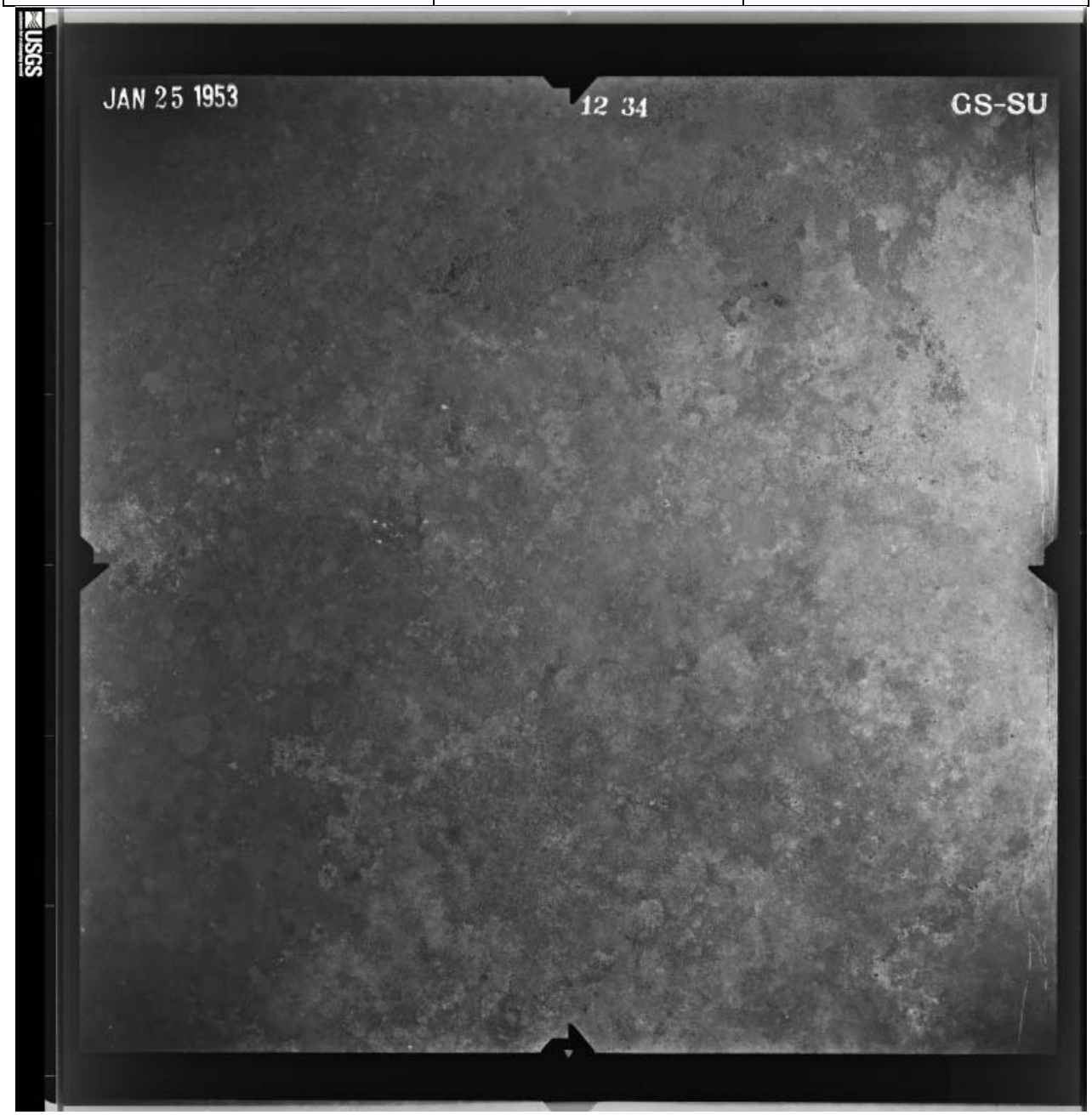

Photo ID	Date	Scale
AR1SU0000120036	1953	1”=1966’

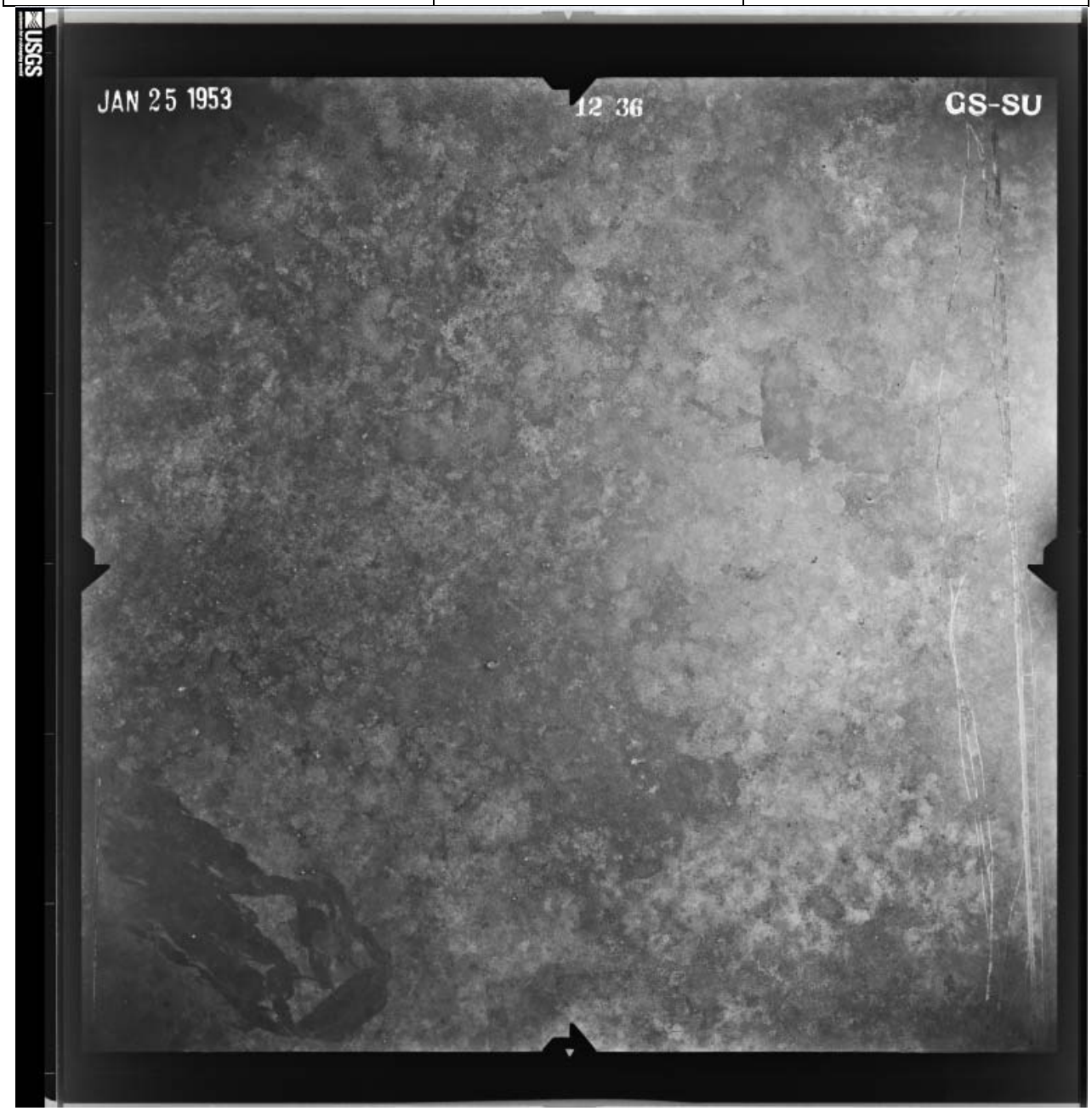

Photo ID	Date	Scale
AR1SU0000110029	1953	1”=1966’

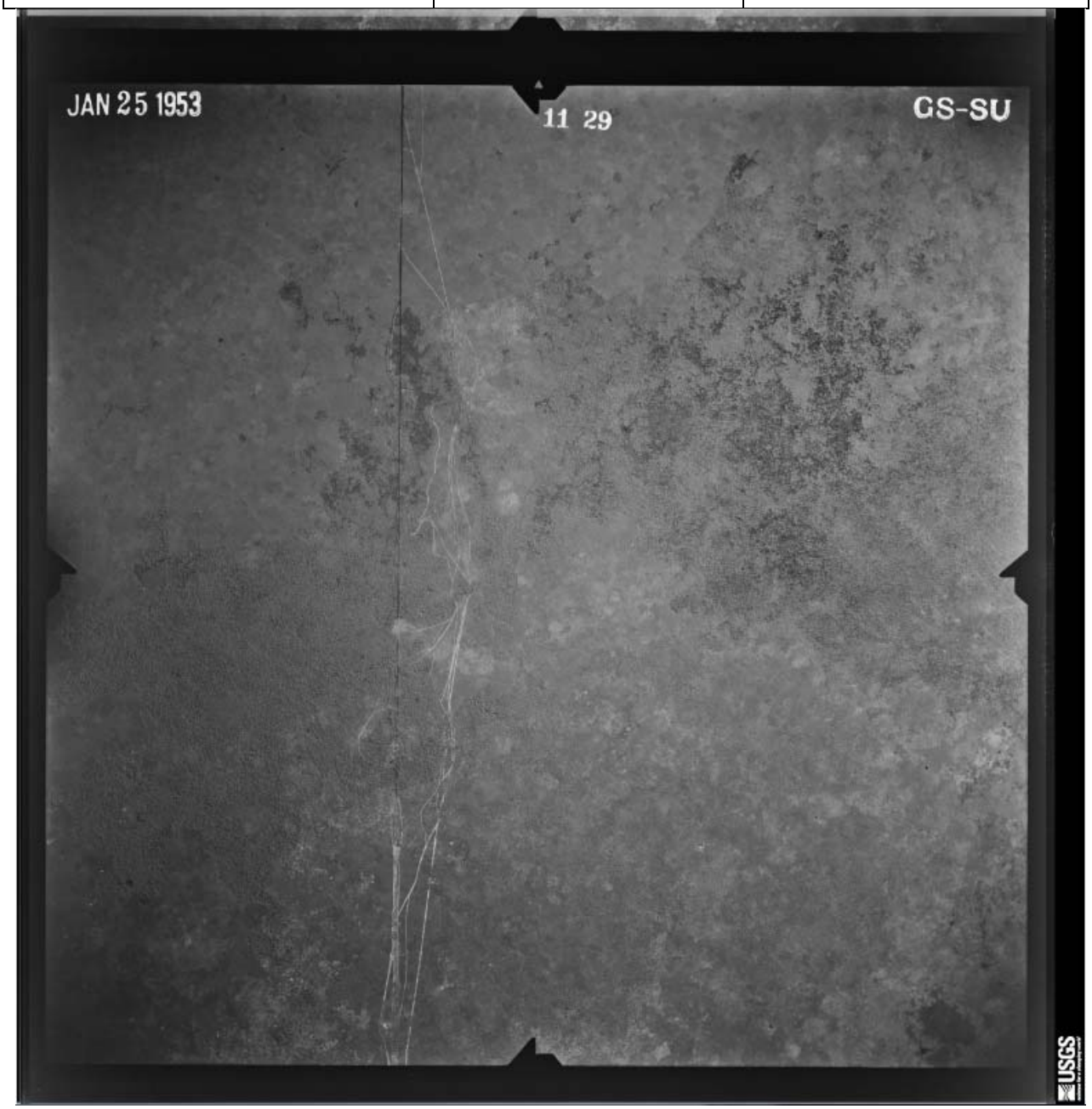

Photo ID	Date	Scale
AR1SU0000110028	1953	1”=1966’

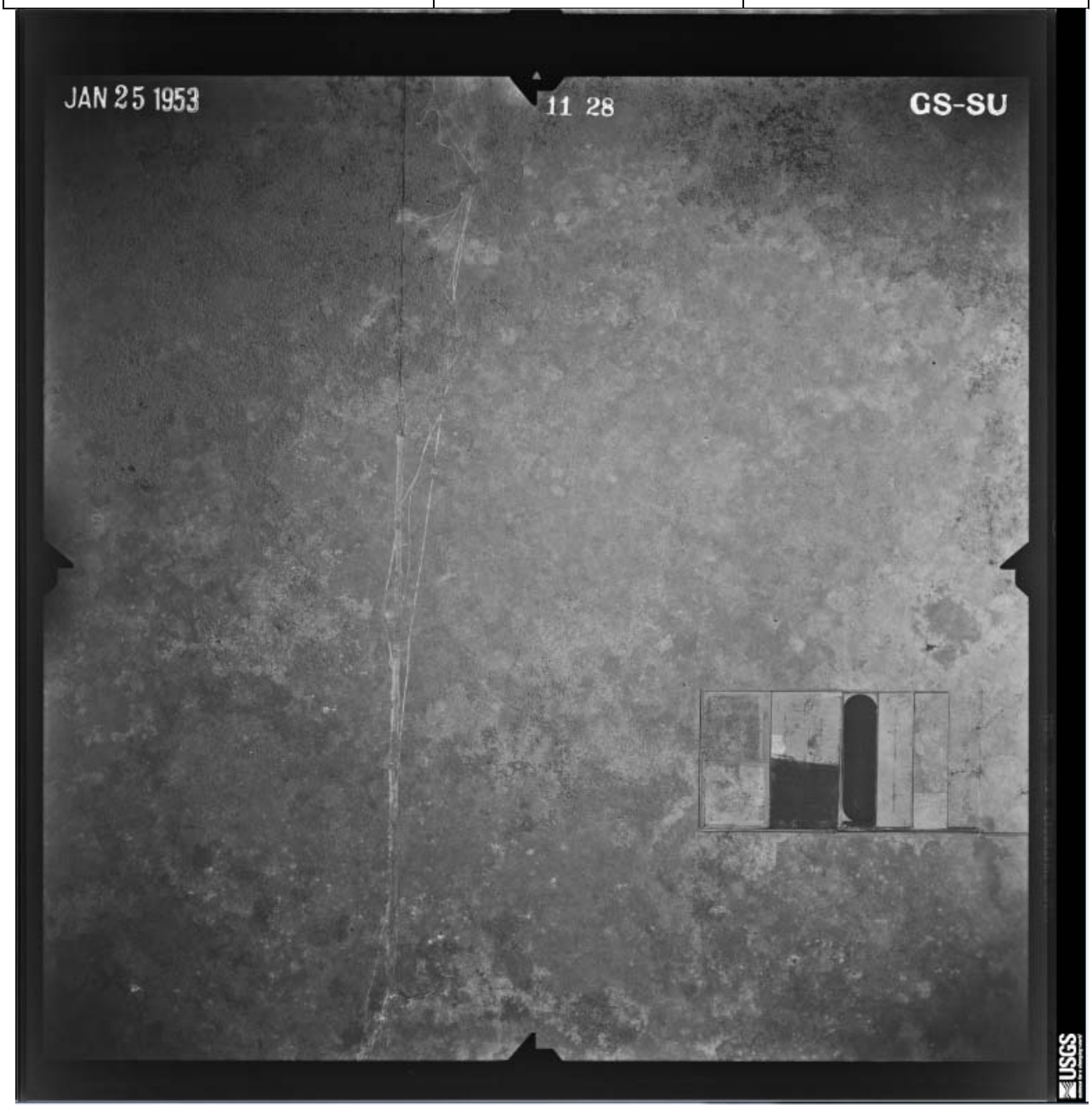

Photo ID	Date	Scale
AR1SU0000040053	1952	1”=1966’ 20% cov s

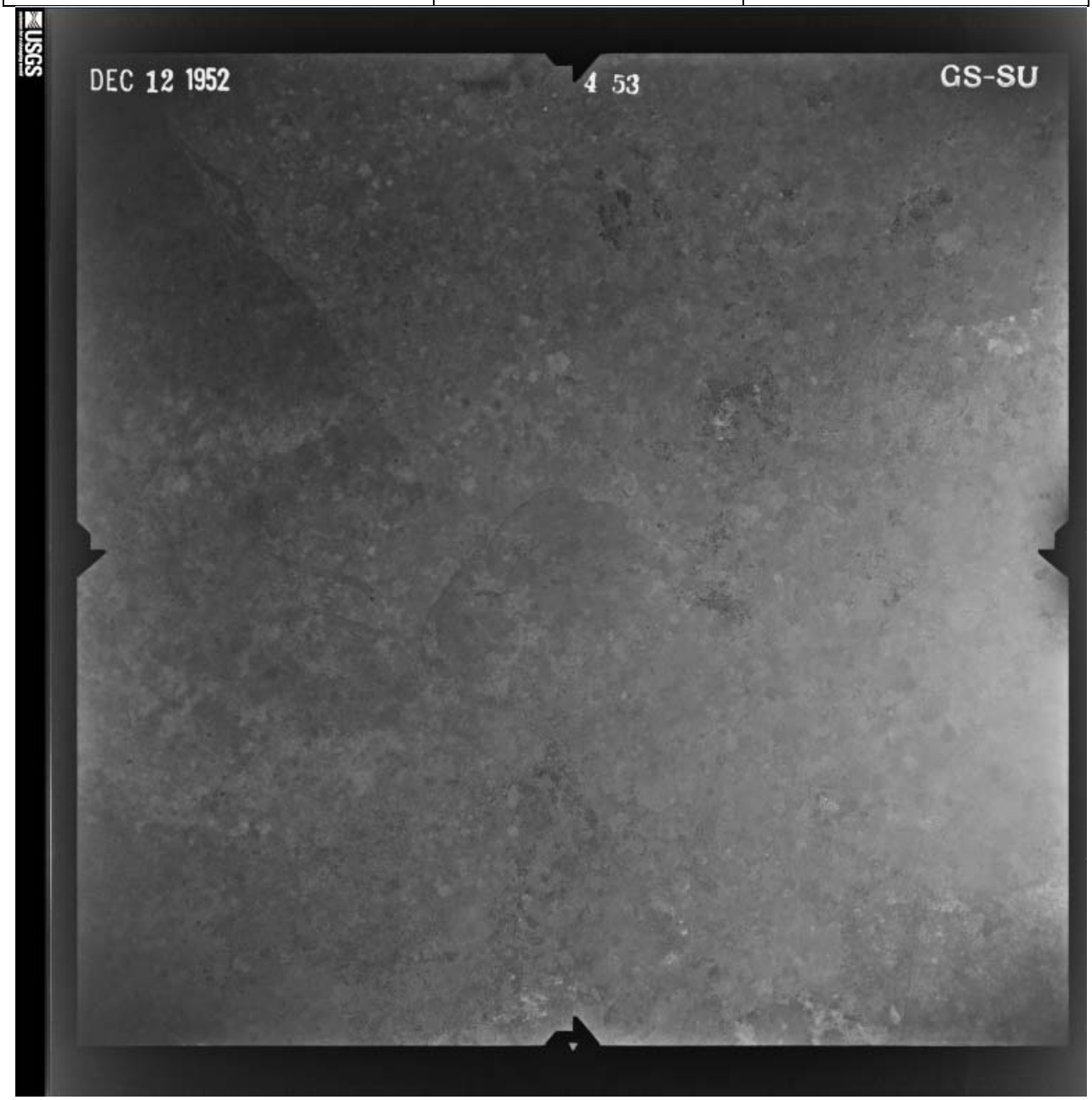

Photo ID	Date	Scale
AR1SU0000040049	1952	1”=1966’

Photo ID	Date	Scale
AR1SU0000040055	1952	1”=1966’

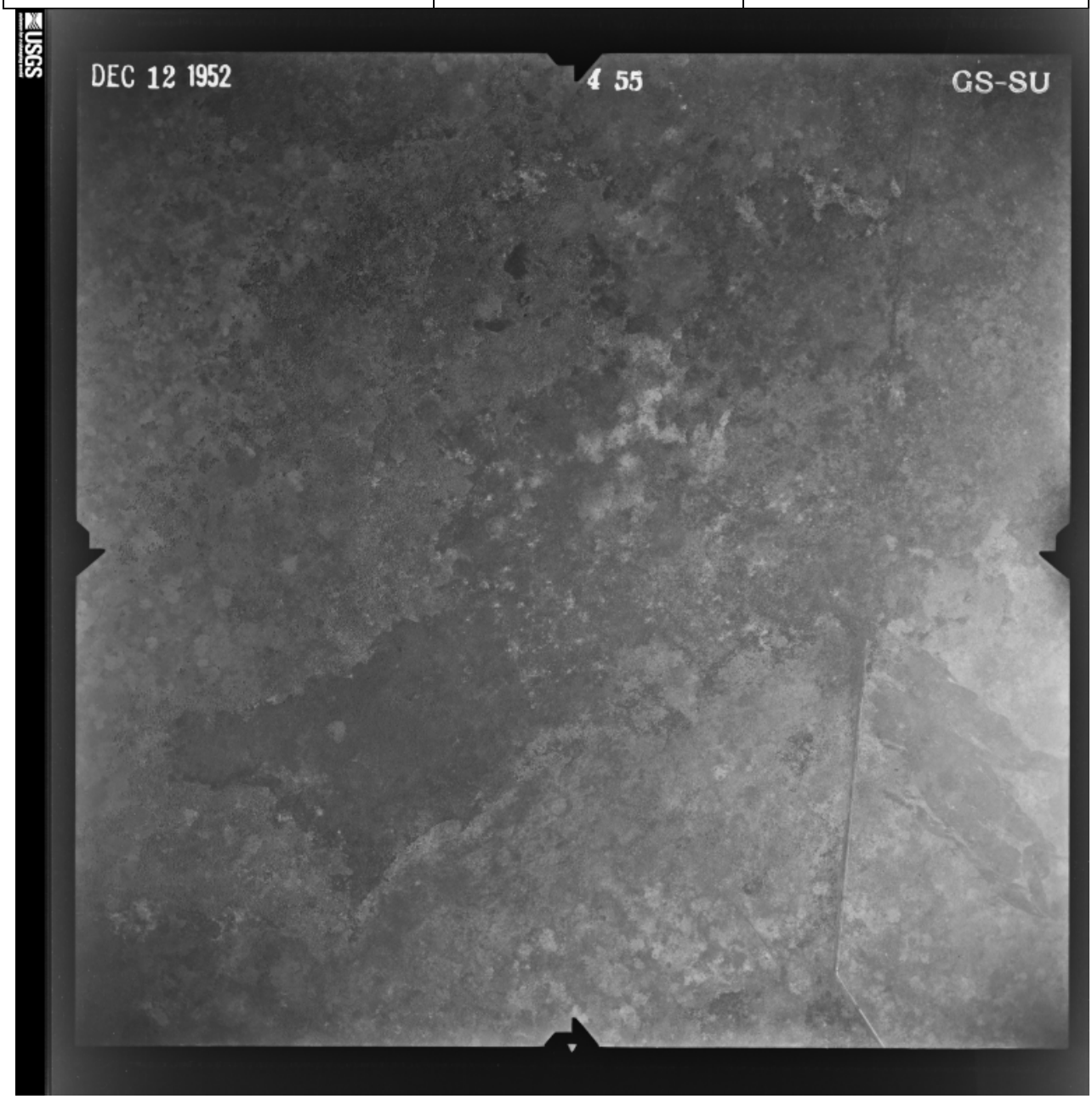

Photo ID	Date	Scale
AR1SU0000040051	1952	1”=1966’

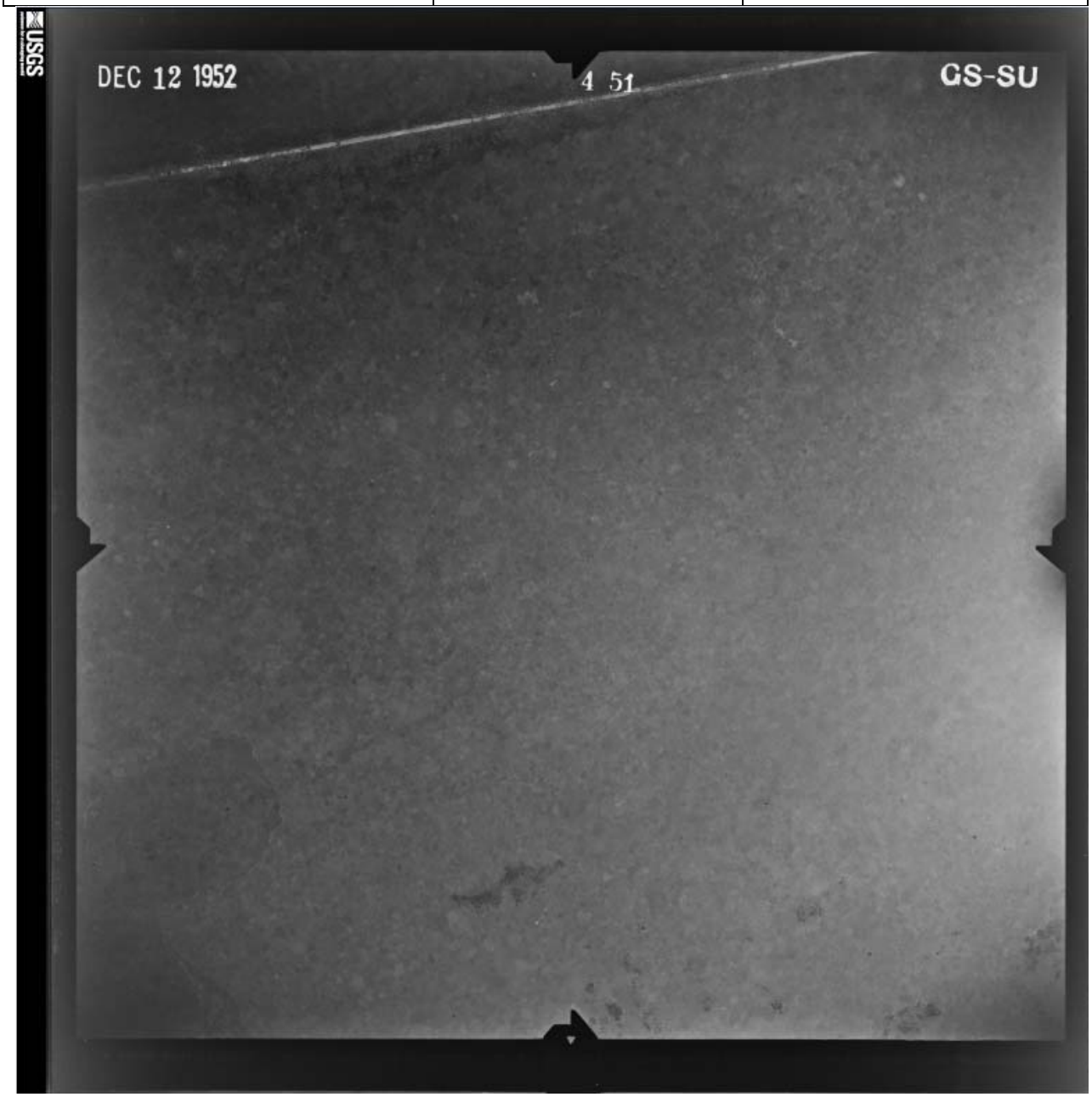
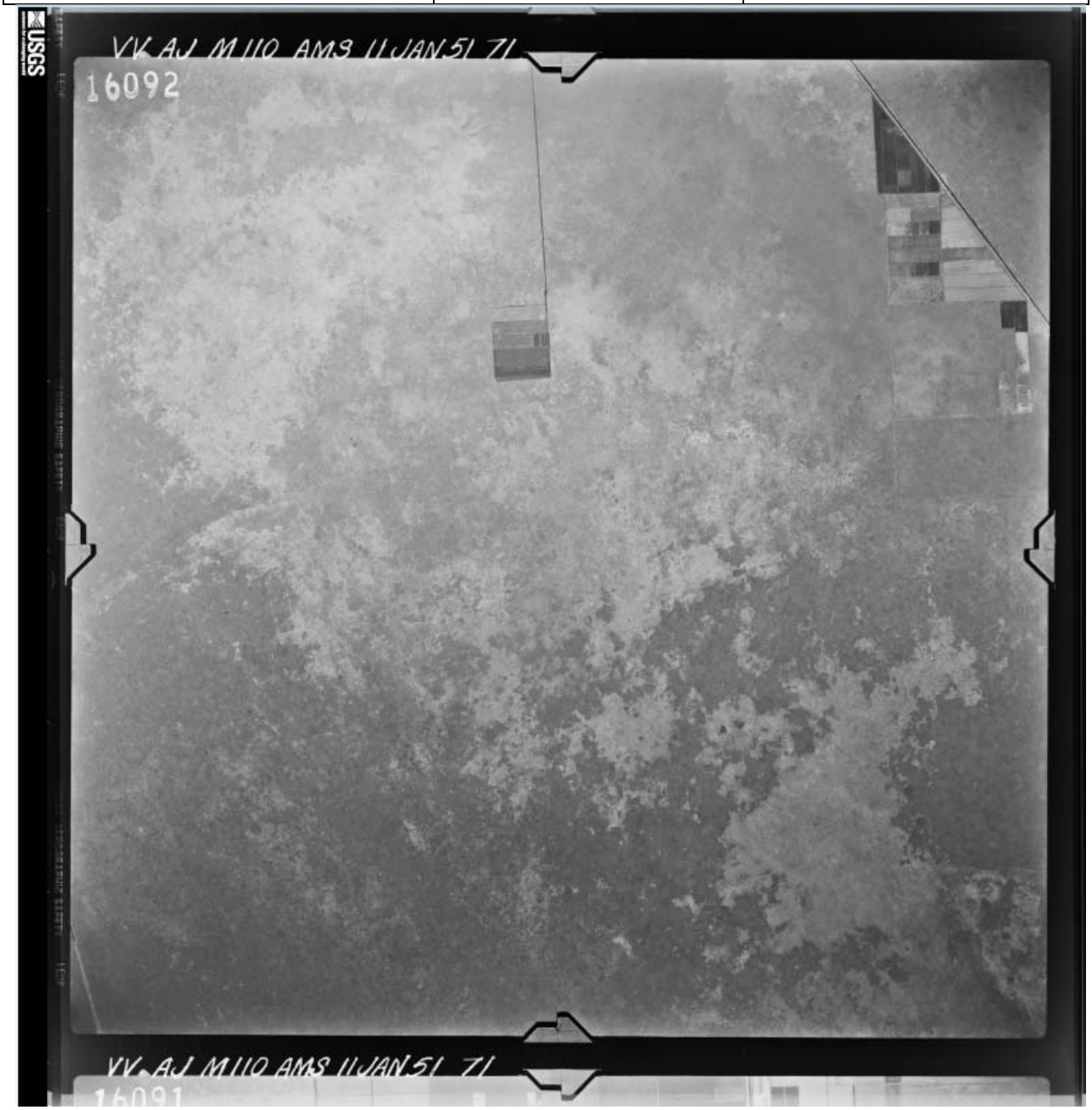
Photo ID	Date	Scale
ARA007111016092	1950	1”=4750’ 90% cov e