

# FLORIDA INTERNATIONAL UNIVERSITY BOARD OF TRUSTEES STRATEGIC PLANNING COMMITTEE

Zoom Meeting Public access via <a href="http://webcast.fiu.edu">http://webcast.fiu.edu</a>

Wednesday, September 9, 2020

10:30 AM

or

Upon Adjournment of Previous Meeting

Chair: Roger Tovar, Chair

Vice Chair: Cesar L. Alvarez, Vice Chair

Members: Leonard Boord, Donna J. Hrinak, Gene Prescott, Joerg Reinhold, Alexandra Valdes

### **AGENDA**

Call to Order and Chair's Remarks
 Roger Tovar

 Welcome and Introduction
 Roger Tovar

 Information and Discussion Items
 3.1 Strategic Planning Update
 Kenneth G. Furton
 3.2 Rankings Update
 Kenneth G. Furton
 Kenneth G. Furton

 New Business (If Any)
 Roger Tovar

Roger Tovar

The next Strategic Planning Committee Meeting is scheduled for Thursday, December 3, 2020

5. Concluding Remarks and Adjournment



# **FIU Board of Trustees Strategic Planning Committee**

Time: September 09, 2020 10:30 AM - 11:30 AM EDT

Location: Zoom Conference

Section	Agenda Item	Presenter	Page
1.	Call to Order and Chair's Remarks	Roger Tovar	
2.	Welcome and Introduction	Roger Tovar	
3.	Information and Discussion Items		
3.1	Strategic Planning Update	Kenneth G. Furton	
3.2	Rankings Update	Kenneth G. Furton	
3.3	Possum Trot	Kenneth G. Furton	
	Possum Trot Special Purpose Center		1
	New Ed Site Possum Trot FINAL		2
	Signed - Barnum Transfer Life Estate Agreement		14
	Appraisal Report - Possum Trot Estate		22
	15055 SW 216 Street Alta Update RP20- 0488		61
	FIU 236-08 2020 07 27 Phase I Summary		62
	FIU 236-08 2020 08 25 Phase II (Certified)		65
	Possum Trot Term Sheet for License Agreement		132
	Possum Trot License Agreement		134
	Possum Trot Financial Summary		149
4.	New Business (If Any)	Roger Tovar	
5.	Concluding Remarks and Adjournment	Roger Tovar	



## Possum Trot Special Purpose Center

#### <u>Purpose</u>

- Possum Trot (PT) is an initiative of the Department of Earth and Environment and the International Center for Tropical Botany (ICTB), both housed within the College of Arts, Sciences and Education
- PT is currently a privately run approximately 30 acre [28.15 acres] farm located at SW 216 Street and SW 152 Avenue in the Redland agricultural area of Miami-Dade
- PT will support cutting-edge research and innovation education in a range of disciplines including agricultural sciences, environmental sciences, tropical biology, biochemistry, biotechnology, economics, marketing and business
- PT will provide a field site for agricultural and ecological research, including providing training in
  farming and in farm business management practices; will explore the potential for improving food
  production in urban and peri-urban areas; and will contribute to the economic growth and social
  improvement of Miami-Dade's agricultural production areas
- The land will be used as (1) a field station supporting FIU faculty research and student training and (2) a revenue generating asset operated as a functional farm through a third-party operator

#### **Background**

- 2013--Property Owner provided FIU Foundation a letter of intent dated June 20, 2013 to
  unconditionally donate through an estate gift (Last Will and Testament) of real property containing
  30 acres and tropical plant and fruit collection known as "Possum Trot" with a value of
  approximately \$2 million
- 2014--FIU Foundation accepts gift of \$2 million as documented by copy of Last Will and Testament
- 2015-current FIU has been using the premises as an educational botanical outdoor classroom (Short Term Use Agreement expired June 30, 2016)
- 2018-current FIU and Property Owner develop "Transfer and Life Estate Agreement" that transfers 23.15 acres in fee simple to FIU and an additional 5 acres of land and a single family residence to FIU subject to a life estate interest retained by the Property Owner
  - FIU may sell the fee simple properties with the net proceeds to be used to benefit and support the University

#### Status

- Appraisal of the property has been completed; estimated market value of \$2,575,000 for the land (\$2,500,000) and residence (\$75,000)
- Phase 1 and Phase 2 Environment Survey has been completed: no significant issues identified
- Survey has been completed: 5 separate parcels
- Title Insurance has been completed: Old Republic National Title Insurance Company commitment
- BOG Special Purpose Center application completed
- Business Narrative and Budget completed
- Operator License Agreement with Redland Ahead completed
- Transfer and Life Estate Agreement completed



#### BOARD OF GOVERNORS, STATE UNIVERSITY SYSTEM OF FLORIDA PROPOSAL TO ESTABLISH A NEW TYPE I, II, OR III CAMPUS, OR SPECIAL PURPOSE CENTER

Florida International University	Possum Trot		
University Submitting Proposal		Proposed Name of Educational S	Site
		Special Purpose Center	
Site ID		Proposed Type of Educational S	ite
		(Type I, II, or III Campus, or Special Purpose	Center)
14955 SW 214 Street, Miami, FL 33187	7	Fall, 2020	
<b>Physical Address of Educational Site</b>		Proposed Opening Date	
(US Site: address, city, state, zip) (International site: address, number, city, county/province, country)		(First term student instruction will be offered	at the site)
relocating an educational site have be offerings.	en met pri	or to the initiation of the first cours	se
Date Approved by the University Bo	ard of	President	Date
Trustees			
Signature of Chair, Board of	Date	Vice President for Academic	Date
Trustees		Affairs	
Under Projected Envellment provide	haadaaunt	(UC) and full time equivalent (ET	E) studout

Under Projected Enrollment, provide headcount (HC) and full-time equivalent (FTE) student enrollment estimates by level from Table 1 in Appendix A for Years 1 and 5, or the Final Year of implementation if it exceeds five. Under Projected Costs, provide revenues and expenses from Table 2 and capital project costs from Table 3 for Years 1 and 5, or the Final Year if it exceeds five.

Projected Site Enrollment (from Table 1)			
	НС	FTE	
I In donous du sto	Year 1	0	0
Undergraduate	Year 5	0	0
Condesate	Year 1	0	0
Graduate	Year 5	0	0

Projected Costs (from Tables 3 and 4)					
	Operational	`			
	E&G Funding	Other (Contracts & Grants, Auxiliary)	Capital Projects	Total Cost	
Year 1	0	34,647	58,500	93,147	
Year 2	0	31,360	0	31,360	
Year 3	0	36,390	0	36,390	
Year 4	0	31,986	0	31,986	
Year 5	0	39,233	0	39,233	

Note: This outline and the questions pertaining to each section <u>must be reproduced</u> within the body of the proposal to ensure that all sections have been satisfactorily addressed. Tables 1 through 4 are to be

included as Appendix A and not reproduced within the body of the proposals because this often causes errors in the automatic calculations.

#### I. Introduction

A. Provide a short description of the project and rationale for the request to establish an educational site, including the main purpose for this site (research, instruction, administration, student services, etc.).

Global food security is arguably the critical challenge of the 21st century. In a mere 30 years, the world's population is projected to rise from 7 billion to over 9 billion. Successful mitigation of hunger and the concomitant ability to sustainably and equitably meet nutritional needs, necessitate innovative solutions and paradigmatic shifts in terms of human society and the ecosystem.

The National Research Council (New Biology for 21st Century Challenges) stresses that New Biology approaches are vital to address current world challenges of sustaining food production, protecting the natural environment, and maintaining renewable energy systems. As a result, U.S. Department of Agriculture and USAID funded research continue to prioritize food security, food safety, climate change, bioenergy, and overall global sustainability and resilience.

Possum Trot (PT), an initiative of the Department of Earth and Environment and the International Center of Tropical Botany (ICTB), both housed within the College of Arts, Sciences & Education (CASE), is designed precisely to respond to the urgent needs of the time. At its core, Possum Trot will support cutting-edge research and innovative education in a range of disciplines, including agricultural sciences, environmental sciences, tropical biology, biochemistry, biotechnology, economics, marketing and business. Addressing food security necessitates a cross-disciplinary approach and in this regard Possum Trot will serve as an integral part of both the FIU Agroecology Program and the International Center for Tropical Botany, and forge active synergies with the Biomolecular Sciences Institute. Overall, Possum Trot will be a facility focused on: improving the agricultural productivity and agro-economy of Miami-Dade County, addressing broader issues of sustainable food production, preliminary tropical plant screening of local plants to determine or discover new pharmacologically active substances in mixtures of natural products, training farm and food workers, developing new agro products, and providing technical support for the food and agricultural businesses and related stakeholders. Its distinctive topography will also allow research programs to be centered around three unique aspects of the property: (i) the high biodiversity of the natural areas and its management; (ii) the existing living collections, particularly, derived natural products, including that of assembling, maintaining, and screening tropical plant extracts for medicinal application, and, their contribution to understanding of benefits of alternative production systems; and (iii) the ability to develop new plantings of novel varieties and species of tropical plants of economic importance, and the potential to plant these in an experimental design to test hypotheses of relationships between aspects of biodiversity and ecosystem services including crop yields and biogeochemical cycles.

As FIU fulfills our mandate to improve the lives and livelihoods of our diverse South Florida communities Possum Trot will place FIU researchers and students within the heart of the

Redland agricultural community, enhancing outreach to farmers, specifically small growers and new farmers, to provide them with knowledge and skills to keep local agriculture profitable, competitive, and sustainable. To this end, Possum Trot will deliver applied research and practical training in sustainable agriculture, soil science, horticulture, and demonstration plots. The Possum Trot vision is to create a grove-to-table experience through creating a regular calendar of public events to promote agro-tourism and showcase the historical and current food presentations, as well as new and value-added food products.

It is precisely this sense of duty to community and futurity which has made possible this Possum Trot initiative. Possum Trot is a 29.24 acre tropical fruit grove located at the northeast intersection of SW 216 Street and SW 152 Avenue in the Redland agricultural area of South Miami-Dade County. Possum Trot is a commercially productive grove producing multiple important tropical specialty fruits. Collaborative land use agreements have been developed and are in place. The land is being gifted to FIU from its current owner Mr. Robert F. Barnum.

The parcel of land will be used as an important teaching element of the FIU Agroecology program housed in the College of Arts, Sciences and Education (CASE). The Agroecology program integrates science-based education, research and outreach focusing on the interface of agriculture, natural ecosystems, and urban development. Agroecology at FIU is an innovative, science-based curricular program that lets students focus on issues in agriculture at the farm, community and regional landscape level. Students are exposed to an intellectual learning environment and to agricultural agencies and research institutions such as the U.S. Department of Agriculture's Agricultural Research Service, along with other research and educational organizations.

At Possum Trot, students will be able to explore spatial agricultural issues including regional water allocation conflicts, urban-rural conflicts, community foodsheds, and geospatial analysis of agricultural resources and systems impacts. Students will actively participate in the ecological principles of food forests as sustainable agroecosystems and highlight the socioeconomic benefits of integrating forest gardening into the South Florida Landscape. An important part of the program is understanding fruit production and sales.

This grove contains an extensive and unique collection of tropical fruit, spice, and timber trees collected over the last thirty years by Mr. Robert Barnum and his family. It has about 350 tropical and sub-tropical plant species including medicinal, aromatics, and edibles. The living collection includes more than 100 varieties of mangos, 50 varieties of jackfruit, 10 varieties of avocado, 20 varieties of carambola and several varieties of tropical plants that show medicinal promise. The assemblage is unique because of the breadth of their taxonomic and genetic diversity, and because of the unique management system akin to permaculture that has been employed. Accordingly, opportunities exist (i) to conduct research comparing the management system to more conventionally managed properties in the region; and (ii) to investigate links between the diversity (taxonomic and especially genetic) and economic and ecological value of the collections, in terms of fruit production, or biogeochemical cycling (e.g., carbon storage, nutrient retention) and potency of active compounds. There also exist many opportunities to use the living collections as sources of tissue for natural products research on fibers, oils, latex and secondary chemicals. And there are continued opportunities for both teaching and research in horticulture on seed banking, propagation techniques and the establishment of a tropical

plants natural products library. Certain plant species on this farm also have the potential for developing new commercially viable food and bio-based products.

In addition, the site has the opportunity for natural area management. There have been several initial surveys of native plants and insects across the property. These censuses could be standardized and used as baseline for regular sampling that would represent temporal monitoring of diversity and composition and support. There are also opportunities for plant restoration projects, subsequent to inventories. These might include both invasive species control and conservation translocations of threatened taxa.

A major value of the site will integrate existing collections and information to design complementary plantings with sufficient replication to respond to pressing economic and ecological questions. Indeed, an agroforestry experiment with biodiversity would be very timely, especially in our unique climatic and economic setting (see Verheyen et al. 2015 in appendix). An excellent opportunity exists for establishing trials of important species that might replace certain staples and therefore buffer economically against changing markets, and ecologically against changes in climate and pests.

The specific objectives of Possum Trot are:

- Provide a field site for agricultural and ecological research aligned with the Agroecology Program, International Center of Tropical Botany, Biomolecular Sciences Institute and the College of Arts, Sciences & Education as a whole.
- Provide scientifically rigorous training opportunities in tropical and sub-tropical agriculture and environmental sciences with practical and field-based training.
- Support an increase in the number of STEM graduates who are ready to join the agricultural and scientific workforce.
- Deliver high quality research that addresses the needs of tropical and sub-tropical growers and responds to the challenges of balancing food security with ecological and social sustainability.
- Align the International Center of Tropical Botany with Biomolecular Sciences Institute to develop and maintain a Tropical Plants Natural Products Library to identify active fractions with biological testing relevant for diseases.
- Develop innovative and sustainable products and practices through research and development that can be commercialized for applications in south Florida and the tropics (e.g., soil-water-nutrient management, integrated pest management, new propagation techniques, biochar, biofuels).
- Foster collaboration between the Agroecology Program, the International Center of Tropical

Botany and the Food and Beverage Science Program in the Chaplin School of Hospitality & Tourism Management to develop and guide the development of value added and alternative products through farmers/ entrepreneurs

- Explore the potential for developing commercial bio-based products including biofuels, beverages, and industrial products.
- Preserve and further enhance, as part of the International Center for Tropical Botany and the Consultative Group for International Agricultural Research global network for plant genetic resource conservation, the Possum Trot's rare tropical and sub-tropical fruit species collection.
- Provide training in farming and in farm business management practices to new and socially disadvantaged farmers in South Florida.
- Promote scientific awareness of the tropical agro-biodiversity among college and K-12 students, area farmers, urban residents and national and international visitors interested in agricultural and biological conservation.
- Explore the potential for improving food production in urban and peri-urban areas.
- Develop local food security responses as a contribution to local and regional economic development and environmental resilience in Miami Dade County and South Florida.
- Contribute to the economic growth and social improvement of Miami Dade's agricultural production areas.
- B. Provide a short narrative assessment of how the establishment of the educational site supports the university mission and the goals incorporated into the university strategic plan and Board of Governors State University System Strategic Plan.

FIU's Next Horizon 2025 Strategic Plan, includes, as its third pillar, the university's commitment to "Assure Responsible Stewardship, by "strengthen[ing] our commitment to ensuring a sustainable future for our institution and the South Florida community." Possum Trot will advance the University's mission by focusing on environmental resilience and sustainability, by facilitating state-of-the-art research and by increasing external funding. Since this initiative will bring together faculty from several FIU departments and Centers in the College of Arts, Sciences & Education, College of Architecture and the Arts, and the Chaplin College of Hospitality and Tourism Management, Possum Trot can truly be viewed as a tangible outcome of the university-wide priorities outlined in the Next Horizon 2025 Strategic Plan.

The Florida Board of Governors has emphasized strengthening university programs that seek to train students in job-oriented science and technology fields. Possum Trot will help to strengthen comprehensive agroecology, tropical agro-biodiversity conservation and biomolecular sciences programs that will increase the number of job-oriented degrees in the field of agriculture, environmental and natural resource sciences, biological conservation, and biotechnology.

The proposed facility will directly serve goals identified in the 2012-2025 State University System's Board of Governors Strategic Plan (see Table B).

Table B: Possum Trot's Contribution to the SUS Strategic Plan

State University System of Florida Goals	Possum Trot Response
Strengthen the quality and reputation of academic programs and universities	A key resource for Agroecology, the International Center of Tropical Botany and opportunity for the Biomolecular Sciences Institute that will convene a strong group of researchers and will enhance the quality and reputation of their work by coordinating and supporting their research. A key part of the Possum Trot work will be to build local, regional and global partnerships for research and training.
Strengthen the quality and reputation of scholarship, research and innovation	Possum Trot will be a venue for working with collaborative partners and will strengthen the reputation of south Florida as a place in which to study tropical sustainable agriculture and medicinals.
Increase degree productivity and program efficiency	Possum Trot will expand FIU's ability to offer engaging research and teaching opportunities to foster the progress of our students.
Increase the number of degrees awarded in STEM and other areas of strategic emphasis	Possum Trot will be a major venue for STEM initiatives using agriculture and ecology.
Increase research and commercialization activity	Agroecology, the International Center of Tropical Botany, Biomolecular Sciences Institute and the Chaplin School of Hospitality & Tourism Management will work with farming industry partners and with agricultural communities to increase opportunities for translational research and the commercialization of research.
Increase collaboration and external support for research activity	Possum Trot will be a hub of an extensive network of local and national supporting partner institutions and agencies.

#### Table B: Possum Trot's Contribution to the SUS Strategic Plan

#### State University System of Florida Goals

#### **Possum Trot Response**

Increase levels of community and business engagement

Possum Trot will work with our farming and community education partners (e.g. County Extension Offices, U.S. Department of Agriculture research stations, area Tropical Botanical Gardens, etc.) thereby increasing our visibility in the community and increase the opportunities for students to learn, do applied research and obtain financial support.

Possum Trot will build a strong network of collaborating institutions and agencies. Those that are currently in FIU Agroecology's network are in bold. Others in the list are potential collaborating institutes and centers in Florida:

- U.S. Department of Agriculture Subtropical Horticultural Research Station
- U.S. Department of Agriculture Invasive Plant Species Laboratory
- University of Florida Tropical Research and Education Center (TREC)
- Miami Dade Fruit and Spice Park
- MacArthur Agroecology Research Center
- Miami Dade Farm Bureau
- Coalition of Florida Farmworkers Alliance
- Florida Nurseries and Plant Growers Association
- Miami-Dade Agro-tourism Visitors Center
- Miami-Dade County School District
- Patricia and Phillip Frost Museum of Science
- Fairchild Tropical Botanic Garden
- The Kampong, National Tropical Botanical Garden
- Montgomery Botanical Center

Potential national and global partners include:

- Breadfruit Institute, National Tropical Botanical Garden, Hawaii
- U.S. Department of Agriculture Agricultural Research Service, Beltsville, MD
- U.S. Department of Agriculture- National Laboratory for Agriculture and Environment, Ames, IA
- Iowa State University, Ames, IA
- Center for Renewable Carbon, University of Tennessee, Knoxville, TN
- U.S. Department of Agriculture-Coastal Plains Soil and Water Laboratory, Florence, SC
- Consultative Group on International Agriculture Research
- National University for Agriculture, Catacamas, Honduras
- Agroecology Program, ISARA-Lyon, France
- Center for Tropical Agricultural Research and Education, Costa Rica
- Inter-American Institute for Cooperation in Agriculture, mission offices in various

#### countries

- University of Agricultural Sciences, Bangalore, India
- University of Agricultural Sciences, Coimbatore, India
- C. Provide a timetable of critical benchmarks that must be met for full implementation which can be used to monitor progress (planning, design, funding, construction, etc.). The timetable should also include ensuring appropriate accreditation of the proposed educational site and any proposed programs requiring specialized accreditation, if required.

Approval by BOT	September 9, 2020
Approval by BOG	September 16, 2020
Transfer of Gift and other assets to FIU	September 25, 2020
License of land to farmer tenant	October 1, 2020
Infrastructure Improvements (Fencing)	October 1, 2020

The five-year implementation plan for establishing Possum Trot consists of:

• Phase I - Year 1 is the execution of a gift agreement, conveyance of land title, execution of License Agreement.

Year 1 – Starting in Fall 2020, Possum Trot and the Agroecology Program of the Earth and Environment Department will begin to establish a collaboration in South Florida to assist veteran and socially disadvantaged farmers and nursery growers (VSD-FNG) in order to enhance the sustainability of their farm operations. The long-term goal is to equip existing farmers (less than ten years), farm workers and prospective veterans who want to start their own farm operations.

Fall 2020 – Introduce Possum Trot to the community as a research and outreach facility with a series of public events.

• Phase II (Years 2 and 3) Continue offering to VSD-FNG technical, managerial, marketing, legal, safety and regulatory training through a combination of workshops, on-farm demonstration, farm apprenticeship, and one-on-one consulting. Increase the participation in U.S. Department of Agriculture benefit and assistance programs, direct loans, crop insurance, economic development, and traditional extension programs. Increase the knowledge and participation of eligible VSD-FNG in the U.S. Department of Agriculture class action lawsuits and claims process and to develop and disseminate web-based and print material on different farming-related (financial, land, equipment and other farm inventory), and government assistance-related information. Collaboration on joint projects with the International Center of Tropical Botany and BSI –Tropical Plants Natural Products Library continue.

In Year 3 Researchers from participating FIU departments including Earth and Environment and Biology will conduct their research at Possum Trot. All FIU faculty

members will retain their current research and teaching assignments. We will explore synergies and efficiencies with the existing International Center of Tropical Botany /Kampong staff.

• Phase III (Year 4 and subsequent years)

Possum Trot's strong collaboration with the U.S. Department of Agriculture, FNGLA and other partners will bring a return on investment that demonstrates FIU's national and international preeminence in agroecology, leading to increased academic productivity, increased FIU brand strength, and a diversified funding base for agroecology. Possum Trot will be operated to ensure it runs at a net profit or worst case as a breakeven. Any/all profits generated will be used to further improve the property, offer additional workshop and educational offerings and will also act as a reserve for any required maintenance, i.e. irrigation, fencing, etc.

Accreditation is not needed to establish Possum Trot at this time.

#### II. Need and Demand Assessment

A. Provide a detailed assessment of unmet local student demand for access to academic programs in the vicinity of the proposed educational site. Complete Table 1 in Appendix A to enrollment projections for unduplicated student headcount and FTE by degree program and level.

Not applicable; instructional activities will not take place.

B. Provide a detailed data-driven assessment that describes unmet local and regional workforce need for programs and services to be offered at the proposed educational site. In the appendices, provide letters of support from the local community and business interests.

Not applicable; instructional activities will not take place.

#### **III. Academic Programs and Courses**

A. Provide a list of the degree programs, partial programs, or college credit certificates and courses to be offered at the proposed educational site by year five or the Final Year of implementation if different, using Table 1 in Appendix A. The proposed degree programs must be identified by six-digit CIP Code, by program title, and degree level.

Not applicable; instructional activities will not take place.

B. Provide an explanation as to how the proposed degree programs and courses will be affiliated with similar programs offered on the central campus and/or other educational sites of the university. Will they be independent or an extension of existing programs?

Not applicable; instructional activities will not take place.

C. Provide an assessment, supported with data, that justifies any duplication of degree programs and services that might already be provided by an existing state university or Florida College System campus in the vicinity of the proposed educational site. Describe any discussions that have taken place with affected colleges and universities and provide letters of support or letters of concern in the appendices.

Not applicable; instructional activities will not take place.

#### IV. Administration and Student Support Services

A. Describe the administrative structure of the proposed educational site and how it will relate to the central administration of the university. Include any necessary funding in the financial plan outlined in Table 2 of Appendix A.

Possum Trot will be administratively housed in the Department of Earth and Environment, School of Environment Arts and Society (SEAS) within the College of Arts, Sciences and Education.

B. Describe how the proposed site will provide student services, either onsite or online from the central university campus.

Not applicable; instructional activities will not take place.

C. Provide a plan to provide library services and other instructional resources that will support the proposed programs. Include any necessary funding in the financial plan outlined in Table 2 of Appendix A.

Not applicable; instructional activities will not take place.

#### V. Budget and Facilities

A. Provide a projected operational budget using Table 2 in Appendix A that includes revenues and expenses out to year five, or the final year of implementation if different. Provide a narrative that explains the cost assumptions reflected in Table 2. Include the operational costs on the proposal cover page.

#### APPENDIX A

TABLE 2
SUMMARY FINANCIAL PROJECTIONS TO FULL IMPLEMENTATION

Fiscal Year Ending June 30	Year 1	Year 2	Year 3	Year 4	Year 5
General Operations Revenues	2020-21	2021-22	2022-23	2023-24	2024-25
Carry Forward from Prior Year	\$0	\$0	\$0	\$0	\$0
General Revenue/Lottery					
State Allocations (GR/Lottery)	0	0	0	0	0
Tuition/Tuition Differential and Fees					
Tuition (Marticulation)	0	0	0	0	0
Tuition (Differential, 70% UG Support)	0	0	0	0	0
Out of State Student Tuition Fees	0	0	0	0	0
Research Trust Funds (by title)					
Federal Research Grants Trust Fund	0	0	0	0	0
Financial Aid and Academic Related Fees					
Financial Aid	0	0	0	0	0
Tuition (Differential, 30% Financial Aid)	0	0	0	0	0
Out of State Financial Aid	0	0	0	0	0
Student Technology Fee	0	0	0	0	0
Stuudent Distance Learning Fee	0	0	0	0	0
Other Revenues					
License Income	7,263	7,605	7,687	7,739	7,968
Workshops	7,455	41,524	60,212	50,321	69,207
Total Revenues	\$14,718	\$49,129	\$67,899	\$58,061	\$77,175
General Operations Expenses					
Compensation and Employee Benefits	\$8,490	\$14,274	\$12,124	\$10,856	\$12,197
Shared Services	1,793	3,773	5,359	4,510	6,047
Incremental Shared and/or Contractual Services Costs					
Library Services/e-Collections					
Contractual Services	22,639	3,000	4,000	4,000	4,000
Plant Costs and Operating Supplies	58,500	0	0	0	0
Lease Agreements					
Financial Aid, Scholarships, Stipends					
Equipment					
Workshops Expenses	1,725	10,583	14,907	12,619	16,989
Total Expenses	93,147	31,630	36,390	31,986	39,233
Operating Net Revenues Over Expenses	(\$78,430)	\$17,500	\$31,509	\$26,075	\$37,942

FIU has been utilizing the land as an auxiliary enterprise operation under an agreement with the owner. Once the gift of land is received, FIU will generate auxiliary funds to cover the cost of maintaining Possum Trot. The two main sources of auxiliary revenues

will be from a licensing of the land for farm operations and from the delivery of noncredit workshops. FIU will license the use of the land out to an outside party to operate and manage a fruit, vegetable and horticultural farm operation to produce plants, fruit, vegetables and other products for sale to visitors to the farm, at farmers' markets and via direct distribution to other vendors or resellers. The Licensee will in addition, allow the use of the premises by FIU faculty, staff, students, researchers and associates as a research site for Agroecology, Botany, the International Center of Tropical Botany, and any other discipline or project as deemed appropriate by FIU as well as use of the premises as an educational site. Due to an initial investment to secure the property (fencing), total expenses during the startup period will be \$86,482 and stabilize at \$36,761. Net revenues by year 4 from the workshops and the licensing agreement will offset startup expenses and years 1 through 3 operating costs.

B. Use Table 3 in Appendix A, to identify each facility or facilities required to establish the proposed educational site, and any additional facilities that will be required once the site has reached its expected size and enrollments. Include capital facility costs on the proposal cover page.

There are no additional facilities needed.

C. Describe ownership of the new location and provide documentation of ownership or lease agreements, to include any special clauses, easements, or deed restrictions. If the property is a gift, provide the gift agreement. Please provide information on the type of ownership if the site is leased or owned (if leased please provide information on the duration of the lease and the entity that owns the lease). If the site is joint-use please provide the name of the other entity in the joint agreement as well as the total number of students this site will serve from year 1 through year 5.

The property is being gifted to FIU. As part of the gift agreement, FIU agrees to preserve the property and to recognize and preserve the agricultural and tropical botany tradition of the Donor's family and to preserve the rich agricultural tradition of South Miami-Dade represented in Homestead and the Redlands. There are no encumbrances on the property.

D. Are the facilities owned or leased by the University	ity?
---	------

(X) Owned (upon transfer of title)

() Leased

#### VI. Addendum for International Campuses and Special Purpose Centers

If the proposed site is international, include a copy of any MOU or other agreements related to the site as an appendix

( X ) The University certifies that all requirements of BOG Regulation 8.009(3)(f) have been met.

#### TRANSFER & LIFE ESTATE AGREEMENT

THIS TRANSFER & LIFE ESTATE AGREEMENT (the "Agreement") is made this day of \_\_\_\_\_\_, 2020 (the "Effective Date"), by and between ROBERT L. BARNUM (the "Donor") and THE FLORIDA INTERNATIONAL UNIVERSITY BOARD OF TRUSTEES (the "Donee").

**WHEREAS**, the Donor is the owner of those certain real estate parcels identified on <u>Exhibit A</u>, attached hereto and made a part hereof (collectively, "<u>Property A</u>"); and

WHEREAS, the Donor is also the owner of that certain real estate parcel identified on <u>Exhibit B</u>, attached hereto and made a part hereof (the "<u>Property B</u>") (Property A and Property B shall be sometimes collectively referred to as the "<u>Property</u>"); and

WHEREAS, the Donor wishes to preserve the Property and to recognize and preserve the agricultural and tropical botany tradition of the Donor's family and to preserve the rich agricultural tradition of South Miami-Dade represented in Homestead and the Redlands; and

WHEREAS, the Donor desires to make a charitable contribution to the Donee of the fee simple title to Property A; and

WHEREAS, the Donor desires to make a charitable contribution to the Donee of the remainder interest in Property B, reserving a life estate in the name of the Donor; and

WHEREAS, the Donee agrees to accept the gift of the Property subject to the terms below.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties hereby agree as follows:

- 1. Not later than three (3) days following the Effective Date of this Agreement, Donor shall deliver to Donee to the extent in Donor's possession or readily available to Donor: (i) any prior title insurance policy for the Property; (ii) surveys, environmental studies and any additional due diligence studies previously conducted on the Property; (iii) copies of the real property and personal property tax bills for the Property for the three (3) most recent tax years, together with proof of payment; (iv) copies of any agreements affecting the Property, including, but not limited to, service, supply and maintenance agreements, equipment leases and any other contracts or agreements related to or affecting the Property; (v) copies of any communications to and from governmental authorities regarding condition of, use or any other matter related to the Property; (vi) copies of any certificates, permits, licenses and other authorizations issued by appropriate governmental authorities for the use and operation of the Property; and (vii) any information regarding known defects, notices of noncompliance and any laws, or other material information which would affect Donee's ownership, use and operation of the Property.
- 2. Donee shall have forty-five (45) days from the date of this Agreement, or such additional time reasonably required by Donee, (the "<u>Due Diligence Period</u>") in which to conduct environmental, soil, physical, engineering and any additional feasibility studies with respect to the Property which it deems appropriate. Costs of these studies shall be borne by the Donee. Donor hereby grants to Donee and its representatives, employees, agents and contractors, the right and license to go onto the Property for the purpose of performing any such studies, activity, testing or investigations necessary or appropriate to the satisfaction of Donor.
- 3. During the Due Diligence Period, Donee shall, at its expense, also obtain a title search or a commitment for title insurance on the Property, whichever the Donee deems appropriate. If said title

search or commitment discloses any encumbrances or defects against the Property, Donor shall be obligated to correct, at its expense, said encumbrances or defects prior to transferring title.

- 4. At any time during or following completion of the due diligence contemplated above, Donee may notify Donor of its final decision to accept or reject title to the Property, in Donee's sole and absolute discretion.
- 5. If Donee accepts the Property, Donor shall execute warranty deeds transferring title to the Property at a date to be agreed upon by the parties, conveying title to the Property as set forth herein, together with any additional closing documentation satisfactory to Donee and Donee's title insurance company in order to allow for the issuance of a title insurance policy insuring title to the Property in the name of Donee (collectively, the "Closing Documentation").
- 6. Upon delivery of the Closing Documentation by Donor, the Donee shall record the warranty deeds and any other documents to be recorded in connection with the transfer of the Property and pay all recording fees and documentary taxes, if any.
- 7. Upon the execution and delivery of the warranty deed for Property A, Donee shall own fee simple title to Property A. Upon liquidation of Property A, the net proceeds shall be used for the benefit and support of the University.
  - 8. As to Property B, during the term of the life estate:
- a) The Donor shall use care and diligence in protecting the tropical botanical collection, consistent with the standards currently used by the Donor and consistent with the educational mission of the Donee. Any net revenue generated from production that takes place on Property B will be reinvested towards the preservation and maintenance of Property B. The Donee shall be responsible for the cost of all upkeep and repairs to Property B, and shall undertake maintenance and repair as necessary to maintain Property B.
- b) The Donor shall continue to remain employed by Florida International University (the "<u>University</u>"), in his current capacity, and shall continue to provide services on Property A as Donor currently is providing, during the term of the life estate, subject to the University's policies and procedures as applicable from time to time.
- c) The Donor shall be responsible for payment of all real estate taxes and special assessments levied against Property B as they become due. In the event that obligations become delinquent, the Donee shall have the option of paying said obligations to prevent Property B from being sold, but in such event, the Donee may then recover the cost of such payment, plus interest and reasonable attorney's fees, from the Donor through a mutually agreed repayment schedule, or by judgment from the appropriate court of law. The Donor agrees that any such delinquent amounts can also be deducted and/or set-off by the University from any compensation otherwise payable to the Donor by the University.
- d) The Donor shall fully insure Property B for hazards and shall carry liability insurance in a minimum amount of Three Hundred Thousand Dollars (\$300,000.00) on Property B. Said insurance policy or policies shall name the Donee as an additional insured as its interest may appear, and the Donee shall receive annual written notification that said policy or policies are in full force and effect.
- e) The Donor shall pay all utility costs levied against Property B, other than the cost of reasonable personal internet access thereon, which shall be maintained at the cost of the Donee. RLB

Should the Donor pay for such internet service, the Donee shall reimburse the Donor for the same within thirty (30) days of the Donor submitting a bill for the same.

- f) The Donor shall comply with all laws, health and policy requirements with respect to Property B.
- g) The Donor may make alterations, additions or improvements to Property B from time to time, subject to the written consent of the Donee.
- h) The Donee shall have the right to inspect Property B from time to time to insure compliance with this Agreement.
- i) Neither the Donor nor the Donee may encumber Property B without the express written consent of the other party.
  - 9. Should the Donor wish to terminate the life estate early, the parties may agree to either:
- a) Sell Property B at a mutually agreed upon price, with the net sale proceeds to be prorated based on the actual calculations of the Donor's remaining life estate at that time, or
- b) The Donor may transfer the balance of his or her life estate to the Donee as an additional charitable gift at which time the Donee shall have fee simple title to Property B.
- Upon the death of the Donor, the Donor's life estate interest in Property B shall terminate (if not otherwise terminated earlier), this Agreement shall terminate (if not otherwise terminated earlier) and fee simple title to Property B shall vest in the Donee. Upon liquidation of Property B, the net proceeds shall be used by the University for the benefit and support of tropical botany, or a similar endeavor to be determined by the University in its reasonable discretion. Notwithstanding the foregoing, for a period of six (6) months after the Donor's death, the Donor's brother, John M. Barnum, Jr. -- if living, or, if he is not then living; his sister, Beverly A. Barnum, if living, or, if she is not then living; his nephew, Jon Zachary Barnum, if living, or, if he is not then living; his niece, Cathryn Carden Darr, if living, or, if she is not then living; his nephew, Joseph Matthew Barnum, if living, or, if he is not then living; his niece, Cynthia Carden Anderson, if living, or, if she is not then living; his niece, Jennifer Nicole Steward, if living, or, if she is not then living; his niece, Karen Andrea Carden -- shall be permitted to access Property B, subject to reasonable notice and mutually agreed upon dates and times, to remove the Donor's household furnishings and effects, personal papers and all of his personal property and vehicles contained thereon, excluding all farming machinery, equipment, tools, top soil and other supplies, and the Donor's library, which excluded items shall go to the Donee. In the event no family member retrieves the described personal property within the six-month period following the Donor's death, all rights to such property shall be forfeited and the Donee may dispose of such property as it sees fit.
  - 11. This Agreement may be amended only in writing and executed by both parties.
- 12. This Agreement shall be governed by the laws of the State of Florida. All actions and proceedings brought with respect to this Agreement shall be brought in Miami-Dade County, Florida.
- 13. This Agreement shall be binding on and inure to the benefit of the parties and their RIB respective successors and assigns.

- In the event any one or more of the provisions contained in this Agreement shall for any 14. reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision of this Agreement, but this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained in this Agreement. Furthermore, in the event that the application of any provision of this Agreement to any person or circumstance shall for any reason be held to be invalid, illegal or unenforceable, in whole or in part, or in any respect, then, and in any event, such invalidity, illegality or unenforceability shall not be deemed to affect the application of such provision to any person or entity or circumstance against whom or which such application is legal, valid and enforceable.
- All Exhibits attached hereto are hereby incorporated herein by this reference and made a 15. part hereof for all purposes.
- This Agreement and any amendment or supplement thereto may be executed in two or 16. more counterparts (each of which may bear the original signatures of all or some of the parties to this Agreement), and, if each of the parties to this Agreement has executed at least one such counterpart, then all such counterparts together shall constitute one and the same agreement with the same force and effect as if all signatures appeared on a single document. Any signature page of this Agreement or of such an amendment or supplement thereto may be detached from any counterpart thereof without impairing the legal effect of any signatures thereon, and may be attached to another counterpart thereof identical in form thereto but having attached to it one or more additional counterparts of the same or other signature pages to this Agreement. To the extent permissible under Florida law, a facsimile or electronically transmitted signature shall be deemed to constitute an original signature for the purposes of this Agreement.
- Jury Trial Waiver. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE 17. LAW, EACH OF THE PARTIES HEREBY KNOWINGLY, VOLUNTARILY, INTENTIONALLY AND IRREVOCABLY WAIVES ANY AND ALL RIGHT TO A TRIAL BY JURY IN ANY ACTION OR PROCEEDING TO ENFORCE OR DEFEND ANY RIGHT, POWER, REMEDY OR DEFENSE ARISING OUT OF OR RELATED TO THIS AGREEMENT, WHETHER SOUNDING IN TORT OR CONTRACT OR OTHERWISE, OR WITH RESPECT TO ANY COURSE OR CONDUCT, COURSE OR DEALING, STATEMENTS (WHETHER VERBAL OR WRITTEN) OR ACTIONS OF ANY PARTY RELATING TO THIS AGREEMENT; AND AGREES THAT ANY SUCH ACTION OR PROCEEDING SHALL BE TRIED BEFORE A JUDGE AND NOT BEFORE A JURY. EACH OF THE PARTIES ACKNOWLEDGES THAT THE PROVISIONS OF THIS SECTION ARE A MATERIAL INDUCEMENT TO THE ACCEPTANCE OF THIS AGREEMENT BY THE OTHER PARTY
- 18. Time is of the essence of this Agreement; provided however, should the date for any notice or performance under this Agreement fall on a date which is a Saturday, Sunday or a legal holiday in the jurisdiction where the Property is located or under federal law, then the time for such notice or performance shall be automatically extended until the next business day which is not such a Saturday, Sunday or legal holiday.
- Any notice, communication, request, reply or advice, or duplicate thereof (hereinafter severally and collectively referred to as "Notice") in this Agreement provided or permitted to be given, made or accepted by either party to any other party must be in writing and be given or served by depositing the same in the United States mail, postpaid and registered or certified and addressed to the party to be notified, with return receipt requested, or by delivering the same in person to such party, addressed to the party to be notified, or by a nationally recognized courier service. Notice deposited in the mail in the manner hereinabove described shall be effective, unless otherwise stated in this Agreement, from and after RLB

the expiration of three (3) days after it is so deposited. Notice given in any other manner shall be effective only if and when received by the party to be notified. For purposes of notice the addresses of the parties shall, until changed in writing in accordance with this Section 19, be as follows:

#### Donor:

Robert L. Barnum

Address: 14955 SW 214 Street

Miami, Florida 33187

Telephone Number: 305-235-1768

E-mail Address: possumplentious@yahoo.com

#### with a copy to:

Sandra L. Test, Esq.\_ Address: John H. Test, P.A. 12150 S.W. 128 Court, Suite 122 Miami, FL 33186

Telephone Number: 305-255-3924

E-mail Address: SLTest@johnhtestpa.com

#### Donee:

Florida International University 11200 S.W. 8<sup>th</sup> Street, PC 523 Miami, Florida 33199

Telephone Number: 305-348-2101 E-mail Address: kenneth.jessell@fiu.edu

Attention: Kenneth A. Jessell, Senior Vice President & CFO

#### with a copy to:

Florida International University Office of the General Counsel 11200 S.W. 8<sup>th</sup> Street, PC 511 Miami, Florida 33199

Telephone Number: 305-348-2103 E-mail Address: generalc@fiu.edu Attention: General Counsel

(Signature page follows)

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date written above.

DONOR:

DONEE:

THE FLORIDA INTERNATIONAL UNIVERSITY BOARD

OF TRUSTEES

KENNETH G FURTON

Kenneth A. Jessell

DD786B86F20C4CD...

Senior Vice President & CFO

KENNETH G FURTON

Provost and Chief Operating Officer

Approved by:

Kenneth G. Furton

Provost & Executive Vice President

#### Exhibit "A"

#### PROPERTY A

Property A shall consist of the properties located in Miami-Dade County, Florida, with the following Folio Numbers:

Folio No. 30-6909-000-0305

Folio No. 30-6909-000-0211

Folio No. 30-6909-000-0400

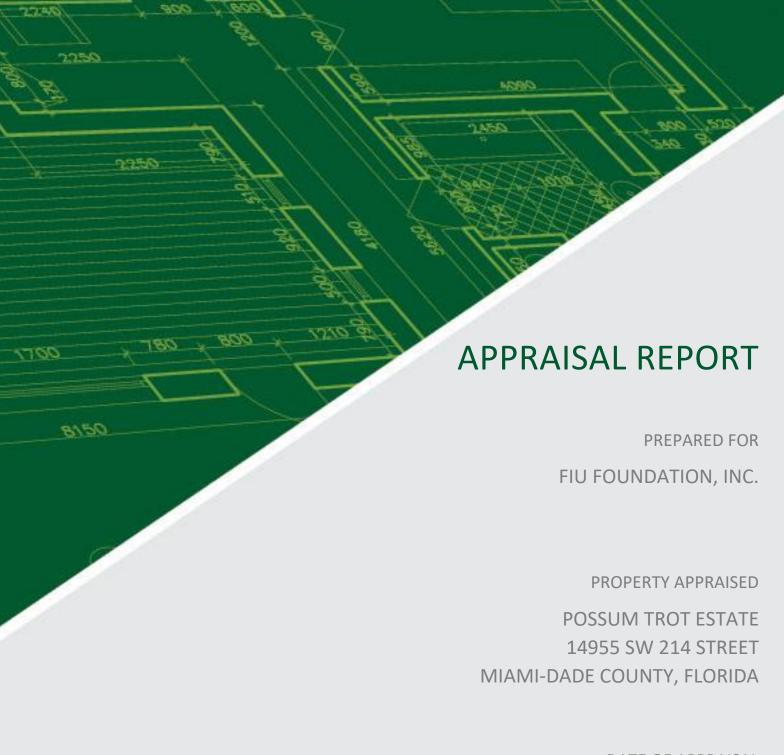
Folio No.: 30-6909-000-0207 KLB

#### Exhibit "B"

#### PROPERTY B

Property B shall consist of part of Folio No. 30-6909-000-0220, legally described as follows:

The South 1/2 of the Northeast 1/4 of the Southwest 1/4 of the Southeast 1/4, of Section 9, Township 56 South, Range 39 East. Said lands situate, lying and being in Miami-Dade County, Florida.



DATE OF APPRAISAL

AUGUST 12, 2020

**APPRAISERS** 

ROBERT E. GALLAHER, MAI CRE ALBERTJ. ARMADA, MAI SRA





August 14, 2020

Rafael G. Prohias, Esquire Senior University Counsel Office of General Counsel Florida International University 11200 SW 8th Street, PC511 Miami, Florida 33199

Re: 14955 SW 214 Street

Miami Dade County, Florida

Dear Mr. Prohias,

As you requested, we have made an investigation and analysis in order to estimate the value of a 28.15acre property, located in the Redland market area of south Miami-Dade County. The property is improved with an older single-family home and a wide variety of fruit trees. The property is described in detail in the following text, followed by the valuation analyses.

This is an update of a previous appraisal of most of this same property that we completed for the FIU Foundation in August 2018. The legal description was slightly different, but the total acreage count was very similar.

An important consideration as of the time of this valuation is uncertainty in all real estate markets caused by the Covid-19 virus and the nearly complete shutdown of the economy. What long-term impact the coronavirus will have on property values will not be known for some time and will directly depend on how long the population is prevented from returning to normal activity. The data and conclusions contained in this report are as of a point in time when the impact of the virus has resulted in over 150,000 deaths, while simultaneously states have terminated most, if not entirely all, stay-at-home orders and have opened their economies to the public at large. Miami-Dade County was under greater restrictions than many geographical areas, with gyms and other non-essential businesses ordered to close.

The subject property is identified by the Miami Dade County's Property Appraiser's Office by folio numbers as indicated in the following table:

Folio Number	Square Feet	Acres
30-6909-000-0207	412,077.6	9.46
30-6909-000-0211	86,684.4	1.99
30-6909-000-0220	217,800.0	5.00
30-6909-000-0305	206,256.6	4.74
30-6909-000-0400	303,177.6	6.96
Total	1,225,996.2	28.15

The valuation analysis, as presented, is based on the extraordinary assumption that the foregoing acreage figures are an accurate representation of the actual area of the property. We have no other data on which to base a value.

Rafael G. Prohias August 14, 2020 Page 2

The entire acreage is zoned AU, Agriculture. Improvements consist of a single-family home and various utility buildings as well as a natural forest area and a wide variety of trees and plants cultivated for food and medicinal purposes. The individual trees are not part of this valuation.

The residence, based on our initial inspection in 2018, was found to be in poor to fair condition with most of the outside walls covered with overgrown vegetation. The basic structure appeared to be sound, age and use considered, and it is our opinion that the building does contribute to value.

We were able to find recent sales of various parcels of land in the general vicinity of the subject property that could be considered directly comparable to the subject site. The sales reported are considered to reflect current market conditions. The available data indicates a value of \$85,000 to \$90,000 per acre.

In our opinion, the total value of the subject land, as of August 12, 2020 was \$2,500,000.

An additional investigation was made for sales of residences on an acre or more that were built prior to 1970. The sales prices for homes were reduced by their respective land value to indicate a net building value which was reduced to a value per square foot of building. That data was analyzed to reach an indication of the value of the subject residence. Based on the data, it is our conclusion that the contributory value of the residence is \$75,000.

The combined value of the house and the land is \$2,575,000.

This report is submitted in a format prepared in conformity with the Standards Section 2-2(a) of the Uniform Standards of Professional Appraisal Practice. Data, information, and calculations leading to the value conclusions are incorporated in the report following this letter. The report, in its entirety, including all assumptions and limiting conditions, is an integral part of, and inseparable from this letter.

Thank you for this opportunity to have been of service. If you have any questions regarding the report or if we can be of further help, please let us know.

Sincerely

Robert E. Gallaher, MAI CRE State Certified General Real Estate Appraiser RZ98



#### **TABLE OF CONTENTS**

Section	Title	Page
1	Appraisal Report Summary	1
2	The Assignment	3
3	Economic & Market Conditions	5
4	Description of the Real Estate	8
5	Highest and Best Use	14
6	Valuation Methodology	15
7	Land Value Analysis	16
8	Building Value Analysis	20
9	Reconciliation	23
10	Market Value Conclusion	23
	Certification	24

#### **ADDENDA**

Assumptions and Limiting Conditions
Definitions
Legal Description of the Subject Property
Appraiser's Qualifications



#### SECTION 1 - APPRAISAL REPORT SUMMARY

**Property Location:** 14955 SW 214<sup>th</sup> Street, Miami Dade County, Florida

Appraisal Prepared For: Florida International University

Interest Appraised: Fee simple estate

Purpose of Appraisal: Estimate market value

Intended Use of Appraisal: Internal decision making

**Extraordinary Assumptions:** That the acreage figures for the subject property as found

in the county tax record are accurate

Hypothetical Conditions: None

Date of Value:August 12, 2020Date of Inspection:August 12, 2020Date of Report:August 14, 2020

**Legal Description** Please refer to addenda section for legal descriptions.

Land Size: 28.15 acres

**Zoning:** AU, Agriculture

Master Plan Designation: Agriculture

**Improvements:** Single-family residence and various other utility buildings,

natural forest and a wide variety of fruit trees and other

plants grown for food and medicinal purposes

Use Agriculture; vacant (with a residential building)

Highest and Best Use: Agriculture

 Land Value
 \$2,500,000

 Improvement Value
 \$75,000

 Market Value
 \$2,575,000

Appraisal Number: 20034



#### **SECTION 2 • THE ASSIGNMENT**

#### SUBJECT OF THE APPRAISAL

The subject of this appraisal is a 28.15-acre tract of agricultural land in southwest Miami-Dade County, Florida. The land is improved with a single-family home.

The county tax record breaks the site up into five district tax records as follows and as shown on the aerial photograph below:

Folio Number	Square Feet	Acres
30-6909-000-0207	412,077.6	9.46
30-6909-000-0211	86,684.4	1.99
30-6909-000-0220	217,800.0	5.00
30-6909-000-0305	206,256.6	4.74
30-6909-000-0400	303,177.6	6.96
Total	1,225,996.2	28.15

The five parcels are shown on the aerial photograph below, each labeled with the last four digits of its county tax folio number.



The 0220 parcel is improved with a residential building that appears to contribute to the value of the acreage. There are also various utility buildings scattered across the acreage, none of which adds to value.

The vegetation on the land consists of a wide variety of trees and plants grown for food and medicinal purposes. There is also a hardwood hammock and a small sinkhole. To the degree that the plant material at the property has unique or rare value, that value may be above and beyond the value of the real estate analyzed here. Identification of any plants that have additional value is beyond the scope of this report and beyond the expertise of the appraiser.



#### **PURPOSE OF THE APPRAISAL**

The appraisal assignment is to develop an opinion of the market value of the property as of the valuation date.

The definition of *Market Value* is shown at the addendum.

#### INTENDED USE/USERS OF REPORT

This appraisal is being prepared to aid in internal decision making regarding the subject property. The intended users of this report are the officials and staff of Florida International University.

#### PROPERTY INSPECTION

The property was inspected on August 12, 2020. The inspection was from the adjacent streets only.

This is an update of a previous appraisal of most of this same property that was completed in 2018.

#### **EFFECTIVE DATE OF APPRAISAL**

August 12, 2020

#### **INTEREST APPRAISED**

Fee simple estate.

See the addendum for the definitions of *Fee simple estate*.

#### SCOPE OF THE ASSIGNMENT

The valuation analysis, as presented, is based on the extraordinary assumption that the acreage figures as shown int the Miami-Dade County tax record are an accurate representation of the actual area of the property. We have no other data on which to base a value.

There were no other extraordinary assumptions or any hypothetical conditions or legal instructions considered in this valuation. These terms have very specific definitions within appraisal standards and the definitions are included in the addendum of the report.

In order to complete the assignment, the following steps were taken:

- The subject property and its surrounding neighborhood were inspected in sufficient detail to understand the location and market conditions impacting the subject property.
- We did not reinspect the interior of the property or the residence for this appraisal. We have relied on data from our 2018 valuation for building descriptions.
- Available zoning, record plat, ad valorem tax records and other documents were reviewed.
- Available public data concerning zoning, utilities, street dedications, ad valorem taxes, and land areas were reviewed to acquire a sufficient description of the subject property
- In order to complete the valuation of the property, an investigation was made for sales of similar properties in the general area of the subject. Using public and proprietary data bases, data was found to develop a sales comparison approach.
- An additional investigation was made for recent sales of parcels improved with single family homes in order to estimate the contributory value of the house found at the subject land.



#### **SECTION 3 • MARKET CONDITIONS AND MARKET AREA**

As 2020 began, the United States was still enjoying a robust economy, riding eleven years of economic expansion. And then the coronavirus pandemic hit, and a near-term recession is now a certainty.

GDP growth in 2019 declined a bit from 2018 levels (3.1% growth for the first quarter of 2019, but only 2.1% in the second, 2.0% in the third and 2.1% in the fourth; 2.3% for the full year). With the impacts of the Covid-19 pandemic in full effect by the end of the 1<sup>st</sup> quarter of 2020, GDP fell to -5.0%. Returns on the 10-year US Treasury note dropped to record lows as frightened investors sought stable investments.

The stock market continued at record levels from 2019 into 2020, but then fell dramatically as the US economy shut down in March. The Dow Jones Average increased from below 25,000 at the beginning of 2019 to over 29,000 at the end of the year, but then dropped over 10,000 points at the outbreak to a low below 19,000. Since that time the Dow has recovered to above 26,000 at this writing.

The Federal Reserve dropped the federal funds rate to zero at an emergency meeting in March, after a 50-basis point reduction at its earlier regular March meeting. The rate was last cut in October, which was the third rate cut in 2019. The rate had been increased nine times between the last recession and December 2018, but, before the virus, there was growing concern about the economy's ability to sustain long-run strength. President Trump's rampant imposition of tariffs had significantly impacted industries such as automobiles and construction, driving up the cost of materials. But the coronavirus has sent all market sectors into freefall. The Fed has not changed rates at any of its meetings since March.

In 2019, the administration successfully completed the renegotiation of the North American Free Trade Agreement, resulting in the United States-Mexico-Canada Agreement and changing some of the rules to favor US employment and opening up the Canadian dairy markets. More recent trade impositions have resulted in retaliatory tariffs with some of the country's largest trading partners, including China.

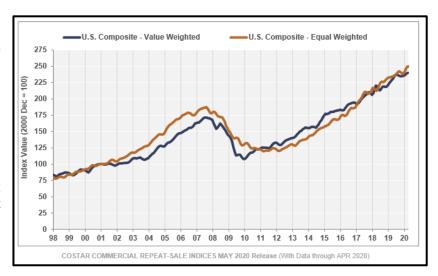
The figures below track the improvements as expressed in an unemployment rate for the local, state and national economies until the pandemic impact in the first quarter of 2020.

Location	Dec 2016	Dec 2017	Dec 2018	April 2019	Dec 2019	April 2020	June 2020
Miami-Ft Lauderdale	4.9%	4.1%	3.3%	2.9%	3.0%	11.9%	11.5%
Florida	4.9%	3.6%	3.3%	3.4%	2.9%	14.4%	13.7%
Nationwide	4.7%	4.6%	3.9%	3.6%	3.5%	14.7%	13.3%

Reports showed new housing starts surging 16.9% across the country, to a 13-year high in December 2019, a seasonally adjusted 1.608 million units. Housing starts in December were 40.8% higher than those a year earlier. 2019 starts overall were 3.2% over those of 2018. The Commerce Department reported housing starts declined in April by 26.4% and 19.0% in March. Record low interest rates are keeping buyers in the market and refinancing has continued throughout the coronavirus shutdown.



Over the past few years, improving market conditions had increased demand for quality commercial properties, compressing capitalization rates and raising prices for well-located stores, offices and warehouses with strong tenants. The April 2020 Commercial Repeat Sale Indices (CCRSI) report by CoStar, a nationally published market data research firm, shows current commercial real estate pricing as compared to earlier periods. Based on 613 repeat sale pairs in April 2020 and more than 226,600



repeat sales since 1996, the CCRSI offers a broad measure of commercial real estate repeat sales activity. Their US composite index showed a general recovery of commercial property pricing beginning in 2013 and continuing in an upward pattern. The data measures changes in the value of commercial real property (offices, apartments, retail stores, and warehouses).

Prior to the virus outbreak the US economy faced rising interest rates and capitalization rates on commercial real estate were also expected to rise, putting downward pressure on property values. The historic low capitalization rates of 2018 and 2019 may now increase due to the increased risk of real estate ownership.

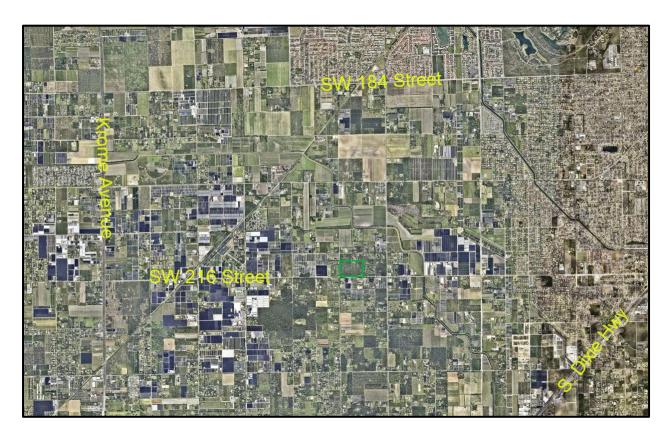
#### **MARKET AREA**

The subject land is located in southwest unincorporated Miami-Dade County in an area known as the Redland. The area is rural in nature with land used primarily for agriculture purposes. The Redland is generally bounded on the north by SW 184<sup>th</sup> Street and on the south by the northern limits of the city of Homestead, from just west of the South Dixie Highway corridor to the levy.

Being outside of the county's Urban Development Boundary (UDB), uses of land in the area are limited to agricultural purposes, with residential development limited to no more than one dwelling unit for each five acres. Actual uses range from residential estates to row crop farming to plant nurseries and fruit tree groves.

The aerial photograph below shows the rural nature of the area surrounding the subject (outlined in green). The very structured black, grey and white areas are shade houses for plant nurseries. Lighter green and beige areas are farm fields. Small dark green areas are grove land. Residential development is shown at the east periphery (right side of photo). The Castellow Hammock Preserve is the very dark green area at the lower center.





Miami-Dade County's Agricultural industry is one of the most diverse in the country. The area's tropical climate provides a year-round growing season, as well as the ability to produce an extremely wide range of crops. The industry employs more than 20,000 people and produces more than \$2.7 billion in economic impact each year. The industry is a valuable resource for the county. Coupled with the economic benefits are environmental and aesthetic advantages. A farmer's land, in addition to producing crops, also acts as open space that allows for water recharge areas and wildlife habitat.

Immediately east of the subject, on SW 216<sup>th</sup> Street, is the Monkey Jungle, a 30-acre wildlife park, with a reported 500 primates. Paved parking lots are located along the 216<sup>th</sup> Street frontage to accommodate tourist vehicles.

The only commercial corridor in the area is along South Dixie Highway (bottom right hand corner of the aerial above), approximately 2½ miles to the east of the subject. There are also commercial nodes along Krome Avenue, about 2 miles to the west, but these commercial developments consist mostly of large gas stations and some bank branches.

In summary, the subject land is located in the rural Redland area of Miami-Dade County, an area of farms, nurseries, groves and five-acre estates.



# **SECTION 4 • DESCRIPTION OF THE REAL ESTATE**

#### **IDENTIFICATION OF THE SUBJECT PROPERTY**

The subject of this appraisal is 28.15 acres of agricultural land improved with a residence and a variety of utility buildings. The land is located in unincorporated Miami Dade County.

#### **LOCATION**

The land is generally located at the northeast corner of SW 216<sup>th</sup> Street and SW 152<sup>nd</sup> Avenue.

The street address for the house is 14955 SW 214<sup>th</sup> Street, Miami-Dade County, Florida. But 214<sup>th</sup> Street is not dedicated or open.

#### **LEGAL DESCRIPTION**

The various tracts of land comprising the subject property are portions of Section 9, Township 56 South, Range 39 East, Miami-Dade County.

Please refer to the addenda section of this report for the complete legal description of the land.

#### **OWNERSHIP AND HISTORY**

According to county tax records, the land is held in the name of Robert L. Barnum.

#### **ACCESSIBILITY**

The overall 28.15-acre property is readily accessible, fronting on SW 216<sup>th</sup> Street (Hainlin Mill Drive), approximately 2½ miles west of South Dixie Highway (US Highway 1). The land also fronts on SW 152<sup>nd</sup> Avenue, but that roadway is a secondary neighborhood street that ends ½ mile north of 216<sup>th</sup> Street; it does extend south as far as 264<sup>th</sup> Street. The site has driveways to both 216<sup>th</sup> Street and 152<sup>nd</sup> Avenue.

The subject is not accessible via 214th Street, which is its street address. 214th Street is not open at this location.

SW 216<sup>th</sup> Street is the northernmost east/west traffic artery in the Redland, connecting South Dixie Highway (US Highway 1) with Krome Avenue (SW 177<sup>th</sup> Avenue). South Dixie Highway is about 3½ miles to the east and Krome Avenue is about 2½ miles to the west. These two roadways provide access to the rest of Miami-Dade County.

#### STREET IMPROVEMENTS

SW 216<sup>th</sup> Street and SW 152<sup>nd</sup> Avenue, each have a dedicated width of 50 feet at this location. They are paved with asphalt with a single traffic lane in each direction. There are no sidewalks, curbs, storm drainage or streetlights.

#### **PRESENT USE**

As of the date of valuation, the subject property is a vacant land, with a residence, several utility buildings and a wide variety of trees and plants grown for food and medicinal purposes.

#### **ZONING**

The subject land is zoned AU, Agriculture. This zoning classification allows agriculture uses or homesteading to a maximum density of one residential dwelling for each 5 acres.



#### **UTILITIES AND SERVICES**

Electricity, provided by Florida Power and Light, is the only utility assumed to be available to the property as of the appraisal date. Water is supplied by means of a well. Sewage disposal is by septic tank.

Police and fire services are provided by Miami Dade County's Police Department and by the Miami Dade County's Fire and Rescue Department, respectively.

# **SHAPE AND SIZE OF LAND**

The aerial photograph of the subject tracts shown earlier in Section 2 is repeated below. The photo shows the subject land divided into its tax folio parcels, each with the last four digits of its respective folio number.



The site is rectangular in shape. We do not have exact dimensions for the property, being limited to the legal descriptions for an estimate of the surface areas. It has just shy of 1,320 linear feet of frontage along SW 216<sup>th</sup> Street and approximately 960 feet of frontage along the east side of SW 152<sup>nd</sup> Avenue.

#### **TOPOGRAPHY**

The land is generally level and at street grade, except for a small sinkhole in the northerly portion of the 0400 parcel.

# **LISTING OF SUBJECT**

As of the appraisal date, the property was not listed for sale on the open market.

# **ENVIRONMENTAL CONSIDERATION**

While it is beyond the appraiser's expertise to determine the presence or extent of any environmental contamination at the subject 28.15-acre site, it is incumbent upon us to comment as to any visible signs or sources of potential contamination.



We noted no specific evidence of any toxic wastes or environmental contamination at the time of our inspection; detection of such conditions is beyond our expertise. If any environmental contamination were to be discovered in the future, it could materially affect the property's value.

#### **IMPROVEMENTS**

The property is improved with a single-family residence and a number of auxiliary structures scattered across the acreage. The principle facts and specification of the residence are as follows:

Year built - 1946, according to county tax records

Type of construction - concrete block, stuccoed

Roof - gable type, with tar and gravel cover

Exterior walls - stuccoed and painted

Windows - glass jalousie

Interior walls - predominantly plastered and painted; cedar paneling at main living areas;

ceramic tile wainscoting at bathrooms

Floors - terrazzo; carpet on the terrazzo in some area; ceramic tile in the

bathrooms

Ceilings - Exposed cedar sheathing on wood rafters at main living areas; plastered

and painted at smaller rooms

Condition - the condition of the building was somewhat difficult to ascertain. Most of

the exterior walls were covered with overgrown plant material and the interiors were dimly lit and, in many cases, obscured by personal property. The structure appeared to be in reasonably sound condition, age and use

considered.

Contains - Plans provided to us indicate a building area of 2,201 square feet. The

layout of this structure has been modified over the years, but it appears to consist of three bedrooms and three bathrooms, a large living and dining area, a library and two kitchens, with a double car garage converted into

storage space.

Equipment - the residence reportedly has a central air conditioning system, although it

was not being used at the time of our inspection. We also noted a water heater and a typical inventory of kitchen equipment (refrigerator, oven, range, etc.) at both kitchens. The grounds are equipped with an irrigation system, which the owner reported as not in use as of the time of the

inspection.

According the records of the Miami Dade County's Property Appraiser's Office, the structures at the property have a total combined area of 8,000 square feet. The inspection of the subject property revealed a second residential structure referred to as the cottage, and sundry storage buildings, workrooms, and covered pump stations. Most of these structures were in poor to fair condition and thus were not considered to contribute to the overall value of the subject property.

The following photographs of the buildings were taken during our August 2018 property inspection.





View of the south elevation of the residence from the south lawn



View of the easterly elevation of the residence.



View of the large utility building located north of the residence





Pump house Pump house

#### TREES AND PLANTS

During the course of our 2018 inspection we were given a tour of the grounds by the owner who recited a lengthy litany of species. Subsequent to the visit, he sent an inventory of plant material at the property. The list names 200 distinct species of tree or plant.

The rarity, utility or the value of all these plants are all well beyond the expertise of the appraiser. The value estimate contained herein is for the real estate (land and buildings) and does not include any contributory value of the plant material, which may or may not be significant. The collection of material is certainly broad and impressive.

# **ASSESSED VALUE AND TAXES**

The 28.15-acres which is the subject property, consist of five tax parcels, each with their separate folio number. The following table reports the assessed value and the taxes for each of the folio numbers which constitute the subject property, along with a total for all five parcels.

F	Folio Numbers	Ft²	Land	Bldg.	Market Value*	Assessment	Taxes
30	-6909-000-0207	412,077.6	\$520,300		\$520,300	\$23,650	\$418.73
30	-6909-000-0305	206,256.6	284,100		284,100	11,838	209.61
30	-6909-000-0220	217,800.0	219,380	\$274,430	493,810	243,932	3,739.58
30	-6909-000-0400	303,177.6	326,880		326,880	19,830	351.09
30	-6909-000-0211	86,684.4	129,350		129,350	4,975	88.08
	Totals	1,225,996.2			\$1,754,440	\$304,225	\$4,807.09

<sup>\*</sup>Market Value according to the County Property Appraiser

The total current assessed value is equal to 17% of the county's estimate of the market value of the parcels. The substantial discount is due to an agricultural exemption, which is common for this type of property.



#### **SECTION 5 • HIGHEST AND BEST USE ANALYSIS**

The highest and best use of a specific property is determined by the competitive forces within the specific market of which the property is a part. Consequently, the analysis of highest and best use is an economic study, one in which the available possible, legal and feasible uses must be compared. See the addendum for the definition of *Highest and Best Use*.

"Highest and Best Use", as defined, requires that any potential use be legally permissible, physically possible, financially feasible and provide the maximum return to the owner. The analysis is required both for the site alone, as though it were vacant and for the property as actually improved as of the appraisal date, if improvements are in place.

In view of the subject's current zoning classification as agriculture and its designation as agriculture under the Miami Dade County's Comprehensive Development Master Plan (CDMP), the highest and best use of the subject property as either vacant or improved is for agriculture uses.

The zoning code and the CDMP do permit residential development to a maximum density of one dwelling unit for five gross acres. At that rate the land could be developed with five or six houses. This use, considered the most intensive, would appear to be the "maximally productive" use of the subject property if for no other reason than increased market demand and marketing for such product. As five separate sites, the subject property would likely generate increased demand along with quicker sales than marketed as a single property.

In order that each portion of the property have street access, it may be necessary to dedicate and construct SW 150<sup>th</sup> Avenue, which appears on the aerial photographs shown earlier even though it does not currently exist.



# **SECTION 6 • VALUATION METHODOLOGY**

There are three generally accepted approaches to the valuation of real estate –

The depreciated cost approach, an estimate of the cost to reproduce the subject improvements, less the accrued depreciation, plus the value of the land;

The income approach, the translation of a property's anticipated income production into a value estimate:

And the sales comparison approach, a comparison of recent sales of similar properties to the subject, with appropriate adjustments made to the sales.

In this case, most of the value of the subject property lies in the 28 acres of land. In addition to the land, however, is one residential structure that may contribute to value. The primary focus of the valuation is therefore the value of the underlying land as vacant. The value of the dwelling will be addressed separately.

The three valuation methods above can apply to the valuation of vacant land. The most common and easiest to understand is the sales comparison approach in which recent sales of similar sites are compared to the subject and their respective prices used to indicate a value for the subject. Other methods include allocation (an expanded sales approach), extraction (a combination of sales and costs analyses), residual (a combination of sales and income analyses), ground rent capitalization (an income approach) and subdivision analysis (also a combining of the sales, income and cost approaches).

For purposes of this analysis we were able to find sales of similar vacant properties whose unit prices indicate the value of the subject land. Neither the income or the cost approaches were used because the sales comparison is preferred and most closely emulates the actions of the market.

All three valuation methods are available to us to value the dwelling – we could perform a depreciated cost approach, we could find rental information for similar homes (a rare occurrence, but possible) and we can compare the sales prices of similar sized homes in the Redland.

Having established the land value through the sales comparison approach, we have valued the dwelling unit also by the sales comparison approach, as well, but by extracting the value of the sale buildings from their overall property price. This data is presented following the land value analysis. A cost approach was deemed inaccurate due to the depreciation estimate for a 70-year old building.

The valuation begins with the Land Value Analysis on the following page.



#### **SECTION 7 • LAND VALUE ANALYSIS**

The Sales Comparison Approach is a process of comparing actual prices paid for comparable properties to the subject. This approach to value is based upon the Principle of Substitution, which holds that "the value of a property tends to be set by the price that would be paid to acquire a substitute property of similar utility and desirability within a reasonable amount of time."

The goal of the sales comparison approach is to present the most current and relevant sales data that can be used to indicate a value of the subject property. Limits are placed, therefore, on the geographical boundaries and the time period which are researched for relevant data. The sales data is compared to the subject on the basis of various elements of comparison which are cited below. Because adjustments for these relevant factors are generally market derived, the actions of typical buyers and sellers are reflected in the comparison process.

An investigation was made for recent sales of land considered similar to the subject land. We found 8 sales of acreage that can be compared to the subject property. All are similar in zoning class, either zoned agricultural (AU) like the subject property or interim (GU) which allows similar uses to the AU classification. The sales are summarized on the following schedule. They are arrayed in order of size, smallest to largest. The acreage count is based on county tax records and the precision of the amount of acreage in the record varies from 100ths of an acre to just full acres as shown below.

No.	<b>Property Address</b>	Date	Acres	Price	\$/Acre
Sbjct	14955 SW 214 St	Aug-20	28.15		·
1	NEC SW 240 St/202 Ave	May-20	5.00	\$500,000	\$100,000
2	15745 SW 232 St	Dec-19	5.00	425,000	85,000
3	25650 SW 182 Ave	Dec-19	5.00	440,000	88,000
4	SW 152 St - W of 167 Ave	Oct-19	5.00	400,000	80,000
5	SW 158 St-W of Krome	Mar-20	5.02	465,000	92,629
6	NWC SW 208 St/167 Ave	May-20	9.93	1,100,000	110,775
7	24155 SW 152 Ave	Apr-20	10.00	900,000	90,000
8	16400 SW 158th Ave	Aug-19	10.00	800,000	80,000

Sale 1 is five acres of lychee trees. It was purchased by an adjoining property owner, who would likely pay more for this land than a typical buyer. The site has no improvements other than the grove of trees and perimeter fencing. The site is at the corner of 202<sup>nd</sup> Avenue and 240<sup>th</sup> Street, though 240<sup>th</sup> Street is not paved. The property is found in the county tax record at folio number 30-6822-000-0075. The May 2020 warranty deed is recorded in Official Record Book 31837 at page 1756.

Sale 2 is a five-acre container nursery on 232<sup>nd</sup> Street, just over a mile southwest of the subject site. While not at a corner like the subject, the sale site has good accessibility fronting on another section-line road with access to both South Dixie Highway and Krome Avenue. This site is found in the tax record at folio 30-6917-000-0511 and the deed is recorded in ORBook 31758 at page 705.

Sale 3 a five-acre homesite on 182<sup>nd</sup> Avenue, south of 256<sup>th</sup> Street. The property is improved with a 1,500-square foot residence built in 1952. Most of the property is used as a nursery. The sale site is found at folio 30-6825-000-0430 and the deed is in ORBook 31734 at page 4643.

Sale 4 is five acres of open cropland. This site is about a mile east of Krome Avenue and just one-half mile west of the urban development boundary, where it intersects 152<sup>nd</sup> Street and then turns east for another mile. All of the land around the sale site is open farmland with no residences and no groves or nurseries. This is the northern periphery of the Redland market area. The sale is identified as 30-5930-000-0070 in the tax record. The deed is at ORBook 31747 at page 2995.

Sale 5 is a five-acre homesite in a private, gated community called Lindberg's Landing. Access to the neighborhood is through a secure gate for only residents and their guests. The subdivision lies on the west



side of Krome Avenue and many of the five-acre tracts (including the sale site) front on a grassed, private airplane landing strip. In fact, this site also fronts on a north/south taxiway for airplanes that might be stored on the lots on the south side of 158th Street, giving the site added flexibility in terms of where to place a hanger, should one be desired. The entrance to the community fronts directly on Krome Avenue. The tax record is 30-5825-000-0280. The buyer in this sale is the same corporation that purchased Sale 4.

Sale 6 is a ten-acre tract (less the road rights of way) on 167<sup>th</sup> Avenue at 208<sup>th</sup> Street, about a mile west of the subject. This site is being used as a truck staging site for a large nursery operation in the area. The site is approximately square in shape and both 167th Avenue and 208th Street are open and paved. The tax record is 30-6907-000-0140. The deed is found at ORBook 31947 at page 2918.

Sale 7 is a homesite on 152<sup>nd</sup> Avenue, about a mile and a half due south of the subject. This property is improved with a 4,700-square foot home built in 1956, but which appears to have been recently renovated. there is also a 1,900 square foot garage or utility building at the rear of the site and most of the land is planted with a fruit grove. The tax record for this property is 30-6921-000-0490. The deed is at ORBook 31924 at page 2015.

Sale 8 is another transaction for seasonal cropland; this one about a mile southeast of Sale 4 above. This tract is only about 600 feet west of the urban development line, which, at this point, runs along 157th Avenue. Tax record is 30-5929-000-1030. Deed is recorded in ORBook 31629 at page 1689.

#### **Elements of Comparison**

Elements of comparison are the characteristics of properties and transactions that cause the prices paid for real estate to vary. Adjustments for differences are made to the price of each comparable property to make the comparable equal to the subject on the effective date of the value estimate."1

The basic elements of comparison are as follows:

Real property rights conveyed

Financing terms (i.e. cash equivalency)

Conditions of sale (i.e. motivation)

Expenditures made immediately after purchase

Market conditions (i.e. time)

Location

Physical characteristics (e.g. size, access, condition, etc.)

Economic characteristics (e.g. lease provisions, expense ratios, etc.)

Use (e.g. zoning, water rights, environmental issues, building codes)

Non-realty components of value (e.g. business value, franchises)

The sales shown here were all fee simple interests. The sales were either for all cash or financed with institutional debt. None of the sales involved owner financing. The sales were arm's length transactions, with no apparent undue pressure on either the seller or the buyer and there were no significant post-closing expenditures that impacted the buyer's purchase price. All of the sales are considered current indicators of market conditions for the product type and market area. There were no known non-realty components of value.

While none of the parties to the sales appear to have been under pressure, the buyer at Sale 1 owns a large grove operation and a luxury residence adjacent to the sale site and may have been motivated to pay more for the property than a typical market buyer.

The sales are all located in the Redland market area, but from near the urban development boundary (UDB) to well beyond Krome Avenue. These location differences can impact pricing.

The sales reported occurred between August 2019 and May 2020 and are all considered indicators of value for the subject product type. The sale prices do not appear to have been impacted by the Covid-19

<sup>&</sup>lt;sup>1</sup> The Appraisal of Real Estate, 14th Edition, The Appraisal Institute, Chicago





pandemic; the latest sale prices per acre are similar to the prices paid pre-pandemic. In fact, the four sales that closed in 2020 reflect the highest sales price per acre, ranging (including the value of improvements) from \$90,000 (Sale 7) to \$110,775 (Sale 6). The four 2019 sales show a range \$80,000 (Sales 4 and 8) to \$88,000 per acre (Sale 3).

Reviewing the elements of comparison above, we have focused on the relative locations of the sale sites and their physical characteristics.

#### Location

Generally, properties closer to the developed areas have historically exhibited higher per acre prices than properties further out west or south. The subject land benefits from its relatively close-in location, being on 216<sup>th</sup> Street at 152<sup>nd</sup> Avenue, about a mile and a half west of the UDB. As noted above, 216<sup>th</sup> Street is the northernmost street in the Redland that connects South Dixie Highway with Krome Avenue.

By comparison, Sale 1 (\$100,000 per acre) is  $2\frac{1}{2}$  miles west of Krome, about halfway between Krome Avenue and the levy (beyond which is Everglades). But Sale 1 was also purchased by a large landowner adjacent to the sale site who appears to have paid a premium to enlarge their holdings in the immediate area.

Sale 3 (\$88,000 per acre) is also located west of Krome Avenue, on 182<sup>nd</sup> Avenue. This property is improved with an older residence as well, which contributes to its value.

Relative location is considered in the final value conclusion below.

# **Physical Characteristics**

The primary characteristics to be considered in valuing acreage is its size, its elevation and its accessibility.

The sales are all relatively similar in size, from 5 to 10 acres. All the sites are at a natural elevation for the area and are therefore all similar to the subject. There are differences in accessibility.

Sales 4 and 8 are accessible only by unpaved, graded farm roads. These "streets" are used by tractors and other farm vehicles and tend to be rutted, with very large potholes that are frequently full of water, masking their depth. All of the other sale sites are accessed via paved roadways.

While the difference in value for paved versus unpaved access is not large, it should be recognized in the value conclusion below.

The differences in the sizes of the sale tracts is accounted for by reducing the respective sales prices to a price per acre, the most common unit of comparison for the market area.

#### Conclusion

The sales data is repeated on the schedule below, arrayed in price per acre order, highest to lowest.

No.	Property Address	Date	Acres	Price	\$/Acre
6	NWC SW 208 St/167 Ave	May-20	9.93	\$1,100,000	\$110,775
1	NEC SW 240 St/202 Ave	May-20	5.00	500,000	100,000
5	SW 158 St-W of Krome	Mar-20	5.02	465,000	92,629
7	24155 SW 152 Ave	Apr-20	10.00	900,000	90,000
3	25650 SW 182 Ave	Dec-19	5.00	440,000	88,000
2	15745 SW 232 St	Dec-19	5.00	425,000	85,000
4	SW 152 St - W of 167 Ave	Oct-19	5.00	400,000	80,000
8	16400 SW 158th Ave	Aug-19	10.00	800,000	80,000

There is no apparent reason for Sale 6 to have sold at such a high per acre price (\$110,775). We have therefore discarded this sale from further consideration.



Sale 1 (\$100,000 per acre) was the sale to the adjoining owner. Therefore, it would be expected to set the high end of the range in spite of its far west location.

Sale 5 is the homesite in the gated community with an airstrip. The subject land would be expected to have a value below the \$92,600 per acre indicated by this sale.

Sales 8 and 4 (\$80,000 per acre) were the two tracts of cropland with no paved road access. They would be expected to set the low end of the range of value.

The remaining sales are all priced between \$85,000 and \$90,000 per acre, with the two highest sales in this range improved with houses.

Based on this market data, it is our conclusion that the market value of the subject land is in the range of \$85,000 to \$90,000 per acre. The subject's close-in location offsets the contributory value of the buildings found at Sales 3 and 7.

```
$85,000 \text{ per acre x } 28.15 \text{ acres} = $2,390,000 \text{ (rounded)}

$90,000 \text{ per acre x } 28.15 \text{ acres} = $2,530,000 \text{ (rounded)}
```

Based on this range of indicated values, it is our conclusion that the market value of the land as of the valuation date was \$2.5 million, the logical rounding point in the range.



#### **SECTION 8 • BUILDING VALUE ANALYSIS**

We inspected the interior of the subject residence for our earlier appraisal in 2018. We did not reinspect the building for this appraisal update. In addition to the main residence, there were several other structures on the site used for storage. Most of these structures appeared to be in a very worn condition and thus were not considered to contribute to the overall value of the subject land.

The principal residential dwelling was considered to contribute overall to value. The quality of construction of this structure was considered above average, while its condition was considered fair to poor. The building is reported to have been constructed in 1946. Plans provided for review indicate that it has 2,201 square feet of space. Being built in 1946, the actual age of the structure is 72 years.

As mentioned in the *Valuation* section above, we have used a sales comparison approach to value the structure. A cost analysis was considered too subjective due to the depreciation component and the challenge of estimating accrued depreciation for a building of this age and condition.

In the sales comparison analysis, we deducted the land value at each sale from the sale price to indicate the net value of the improvements. This net improvement value was reduced to a price per square foot of building and that range of pricing was used to value the subject building.

The results of our investigation are reported on the table on the following page. All of the sales occurred within a year of the prior 2018 valuation date. Because of the minimal value of the residence we did not update the analysis. The sales were chosen because they are all in the general vicinity of the subject, have similar zoning, they all include about one acre or more of land and the buildings were all built prior to 1970. The sales price for each property is shown and the Land Value calculated at the same per acre values used to value the subject land as of 2018. The calculated Land Value is then deducted from the sales price to get a net Building Value. That Building Value is divided by the area of each dwelling unit to get a value per square foot (\$/Ft²).





# Sales of Improved Properties Illustrating Depreciated Value of Improvements

٩	Address	Price	B-Ft <sup>2</sup>	Year	L-Ft²	Acre	100K	DV	DV/Ft <sup>2</sup>
_	23346 SW 132nd Ave	\$125,000	1,089	1940	47,916	1.10	110,000	15,000	13.77
7	25145 SW 144th Ave	\$551,500	5,030	1952	200,812	4.61	461,001	90,499	17.99
က	13900 SW 248th St	\$315,000	3,326	1939	98,228	2.26	225,500	89,500	26.91
4	22500 SW 187th Ave	\$392,175	3,841	1928	108,900	2.50	250,000	142,175	37.02
2	16275 SW 208th Ter	\$380,000	5,375	1956	32,234	0.74	73,999	306,001	56.93
9	27055 SW 157th Ave	\$388,000	1,691	1952	114,998	2.64	263,999	124,001	73.33
7	24001 SW 142nd Ave	\$450,000	3,571	1956	49,658	1.14	113,999	336,001	94.09
œ	16715 SW 296th St	\$275,000	1,876	1930	40,946	0.94	93,999	181,001	96.48
6	24601 SW 159th Ave	\$278,000	1,922	1950	30,492	0.70	70,000	208,000	108.22
10	14455 SW 256th St	\$305,000	1,756	1957	45,302	1.04	103,999	201,001	114.47
7	22840 SW 152nd Ave	\$440,000	2,427	1948	44,867	1.03	103,000	337,000	138.85
12	20105 SW 264th St	\$580,000	2,366	1969	108,900	2.50	250,000	330,000	139.48
13	14465 SW 256th St	\$474,900	2,666	1954	44,431	1.02	102,000	372,900	139.87
4	14401 SW 192nd St	\$408,500	2,245	1965	40,946	0.94	93,999	314,501	140.09
15	26500 SW 167th Ave	\$570,000	3,148	1969	47,916	1.10	110,000	460,000	146.12
16	13275 SW 224th St	\$395,000	2,013	1950	40,075	0.92	92,000	303,000	150.52
17	18240 SW 248th St	\$552,000	3,052	1943	37,897	0.87	87,000	465,000	152.36
18	16625 SW 236th St	\$445,000	2,088	1954	50,094	1.15	115,000	330,000	158.05
19	15251 SW 271 ST	\$360,000	1,494	1955	36,051	0.83	82,762	277,238	185.57
20	19680 SW 304th St	\$465,000	1,667	1956	49,223	1.13	113,000	352,000	211.16
								Mean	\$110.06
								Median	\$126.66



The net value of the improvements, ranges from \$14 per square foot of living area to \$211, with an average of \$110. It is our opinion, notwithstanding the above average quality of construction of the subject primary residential structure, but in consideration to its poor to fair condition, that the depreciated value of the improvements should be toward the lower quartile of pricing, or between \$14 and \$57 per foot.

```
$14 per ft<sup>2</sup> x 2,201 ft<sup>2</sup> = $30,814
$57 per ft<sup>2</sup> x 2,201 ft<sup>2</sup> = $125,457
```

As noted in our prior appraisal, it was difficult to fully inspect the building due to the overgrown plant material against nearly every surface of the outside walls and the dimly lit interiors. We did note vegetation growing on the roof. The building has received no significant updating since original construction and is in poor to fair condition.

Base on the available data and the observed condition of the structure, it is our opinion that the contributory value of the primary residential structure is towards the lower end of the indicated range and we have concluded at \$75,000, or \$34 per ft².



#### **SECTION 9 • RECONCILIATION**

We were able to find eight sales of land considered reasonably comparable to the subject land. These sales were analyzed and their differences considered. Based on the sales data, we concluded that the value of the subject land was \$2.5 million as of the current valuation date.

We have estimated an additional \$75,000 as the contributory value of the residence based on the market data developed in our 2018 report. It is considered highly unlikely that the value of the building would change appreciably in the two-year interim.

Based on the available data, it is our opinion that the o value of the property as of the August 12, 2020 valuation date was \$2,575,000, which is comprised of land value of \$2,500,000 and a contributory value for the residence of \$75,000.

# **SECTION 10 • MARKET VALUE CONCLUSION**

In our opinion, the market value of the subject property, as of August 12, 2020 and subject to the extraordinary assumption that the land areas as found in the county tax record are accurate and subject to the assumptions and limiting conditions attached, was:

# TWO MILLION FIVE HUNDRED SEVENTY-FIVE THOUSAND DOLLARS (\$2,575,000)

#### **Exposure Time**

Appraisal standards require a comment on the estimated exposure time for the subject property, that is, the amount of time the property would have been exposed to the market in order for it to have sold on the valuation date at our market value estimate.

The markets for acreage properties have been relatively strong in south Florida over the past few years. In our opinion, for the subject property to have sold on the valuation date at our market estimate it would likely have been on the market for a period of three to six months.





# CERTIFICATION APPRAISAL REPORT NO. 20034

We certify that, to the best of our knowledge and belief:

- the statements of fact contained in this report are true and correct.
- the reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- We have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
- We <u>have</u> performed prior appraisals of the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment
- We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
- Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
- Our compensation for completing this assignment is not contingent upon the development or reporting
  of a predetermined value or direction in value that favors the cause of the client, the amount of the value
  opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to
  the intended use of this appraisal.
- Our analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.
- We have made a personal inspection of the property that is the subject of this report.
- the analyses, opinions, and conclusions were developed and this report prepared in conformity with the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute.
- There was no other significant real property appraisal assistance to the persons signing this certification.
- the use of the report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives and by those of the Florida Real Estate Appraisal Board.
- as of the date of this report, we have completed the continuing education requirements for the State of Florida and for the Appraisal Institute.

Respectfully submitted,

ROBERT E. GALLAHER, MAI CRE State Certified General Real Estate Appraiser Certificate No. RZ98

March 1

Albert J. Armada, MAI, SRA
State Certified General Real Estate
Appraiser Certificate No. RZ397

August 14, 2020

**ADDENDA** 



#### ASSUMPTIONS AND LIMITING CONDITIONS

This is an Appraisal Report which is intended to comply with the reporting requirements set forth under Standard Rule 2-2(a) of the Uniform Standards of Professional Appraisal Practice for an appraisal report. As such, the descriptions of the data, reasoning, and analyses that were used in the appraisal process to develop the appraiser's opinion of value are summarized.

It is assumed that the title to the subject property is good and marketable; and that the legal description of the property is correct; that the improvements are entirely and correctly located on the property described; and that there are no encroachments, encumbrances, restrictions on or questions of title to this property; but no investigation or survey has been made, unless otherwise stated.

The property is appraised free and clear of any or all liens and encumbrances unless otherwise stated in this report.

The market value estimate assumes prudent ownership and management of the herein appraised property.

The information as to the description of the premises, restrictions, and improvements to the property involved in this report is as has been submitted by the applicant of this appraisal, or has been obtained from sources believed to be authoritative. No warranty is given for its accuracy.

Unless otherwise specifically stated, the value given in this report represents the opinion of the signers as to the market value as of the appraisal date. Market values of real estate are affected by economic conditions, both local and national. Therefore, market values of real estate will vary with future market conditions affecting real estate.

It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless otherwise stated in this report.

It is assumed that all applicable zoning and use regulations and restrictions have been complied with, unless a nonconformity has been stated, defined, and considered in this appraisal report.

It is assumed that all required licenses, certificates of occupancy, or other legislative or administrative authority from any local, state, or national governmental, or private entity or organization have been or can be obtained or renewed for any use on which the value estimates contained in this report are based.

Any plot, plan or sketch in this report may show approximate dimensions and are included to assist the reader in visualizing the property. Maps and exhibits found in this report are provided for reader reference purposes only. No guarantee as to accuracy is expressed or implied unless otherwise stated in this report. No survey has been made for the purpose of this report unless otherwise indicated.

It is assumed that the utilization of the land and improvements is within the boundaries or property lines of the property described and that there is no encroachment or trespass unless otherwise stated in this report.

ASSUMPTIONS AND LIMITING CONDITIONS - continued



The appraiser is not qualified to detect hazardous waste and/or toxic materials. Any comment by the appraiser that might suggest the possibility of the presence of such substances should not be taken as confirmation of the presence of hazardous waste and/or toxic materials. Such determination would require investigation by a qualified expert in the field of environmental assessment. The presence of substances such as asbestos, urea-formaldehyde foam insulation, or other potentially hazardous materials may affect the value of the property. The appraiser's value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value unless otherwise stated in this report. No responsibility is assumed for any environmental conditions, or for any expertise or engineering knowledge required to discover them. The appraiser's descriptions and resulting comments are the result of the routine observations made during the appraisal process.

Unless otherwise stated in this report, the subject property is appraised without a specific compliance survey having been conducted to determine if the property is or is not in conformance with the requirements of the Americans with Disabilities Act. The presence of architectural and communications barriers that are structural in nature that would restrict access by disabled individuals may adversely affect the property's value, marketability, or utility.

This report covers the premises herein described only. Neither the figures herein nor any analysis thereof, nor any unit values derived there from are to be construed as applicable to any other property, however similar the same may be.

Possession of this report, or copy thereof, does not carry with it the right of publication.

The signers of this report do not authorize disclosure of all or any part of the contents of this report to the public through advertising, public relations, news, sales or other media, without the written consent and approval of the author, particularly as to valuation conclusions, the identity of the appraisers or firm with which they are connected, or any reference to professional associations to which they belong or designations which they may hold.

The market value herein is based on data available at the time of our investigation and analysis. Should any additional information be made available to us that would affect the value estimate, we reserve the right to adjust our figures accordingly.

The contract for the appraisal of said premises is fulfilled by the signers hereto upon the delivery of this appraisal duly executed.



# **DEFINITIONS**

#### **Easement**

The right to use another's land for a stated purpose.<sup>2</sup> An easement attaches to the property benefitted and is referred to as an easement appurtenant. The property whose owner acquires the easement is known as the dominant tenement. The property that is subject to an easement is known as the servient tenement.

#### **Exposure Time**

The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based on an analysis of past events assuming competitive and open market.3

# **Extraordinary Assumption**

An extraordinary assumption presumes as fact otherwise uncertain information about physical, legal, or economic characteristics of the subject property, and, which, if found to be false, could alter the appraiser's opinions or conclusions.4

# **Fee Simple Estate**

Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power and escheat.5

# **Highest and Best Use**

The reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and that results in the highest land value.6

# **Hypothetical Condition**

A hypothetical condition is that which is contrary to what exists but is supposed for the purpose of the analysis.7

# **Leased Fee Interest**

A freehold (ownership interest) where the possessory interest has been granted to another party by creation of contractual landlord-tenant relationship (i.e., a lease). 8

# **Leased Fee Value**

The ownership interest held by the lessor, which includes the right to the contract rent specified in the lease plus the reversionary right when the lease expires9

A freehold (ownership interest) where the possessory interest has been granted to another party by the creation of a contractual landlord-tenant relationship (i.e. a lease). 10

# Leasehold Interest

The right held by the lessee to use and occupy real estate for a stated term and under the conditions specified in the lease<sup>11</sup>

# **Market Rent**

"The most probable rent that a property should bring in a competitive and open market reflecting all conditions and restrictions of the lease agreement, including permitted uses, use restrictions, expense obligations, term, concessions, renewal and purchase options, and tenant improvements (TIs).12

# **Market Value**



Appraisal of Real Estate 14th Edition, Appraisal Institute

<sup>&</sup>lt;sup>3</sup> The Dictionary of Real Estate Appraisal, Fifth Edition, Appraisal Institute, 2010

Uniform Standards of Professional Appraisal Practice, 2006 Edition

<sup>&</sup>lt;sup>5</sup> The Dictionary of Real Estate Appraisal, Fifth Edition, Appraisal Institute, 2010

Appraisal of Real Estate 13th Edition, Appraisal Institute

<sup>&</sup>lt;sup>7</sup> Uniform Standards of Professional Appraisal Practice, 2006 Edition

<sup>8 &</sup>lt;u>Dictionary of Real Estate Appraisal</u>, Fifth Edition, Appraisal Institute
9 <u>Appraisal of Real Estate 13<sup>th</sup> Edition</u>, Appraisal Institute

<sup>10 &</sup>lt;u>Dictionary of Real Estate Appraisal</u>, Fifth Edition, Appraisal Institute
11 <u>Appraisal of Real Estate</u>, 13<sup>th</sup> Edition, Appraisal Institute

<sup>12</sup> The Dictionary of Real Estate Appraisal, Fifth Edition, The Appraisal Institute, Chicago

The most probable price, as of a specified date, in cash, or in terms equivalent to cash, or in other precisely revealed terms, for which the specified property rights should sell after reasonable exposure in a competitive market under all conditions requisite to a fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest and assuming that neither is under undue duress.<sup>13</sup>

Market value is the amount in cash, or on terms reasonably equivalent to cash, for which in all probability the property would have sold on the effective date of the appraisal, after a reasonable exposure time on the open market, from a willing and reasonably knowledgeable seller to a willing and reasonably knowledgeable buyer, with neither acting under any compulsion to buy or sell, giving due consideration to all available economic uses of the property at the time of the appraisal.<sup>14</sup>

"Value' as used in eminent domain statutes, ordinarily means the amount which would be paid for property on assessing date to willing seller not compelled to sell, by willing purchaser, not compelled to purchase, taking into consideration all the uses to which property is adapted and might reasonably be applied." <sup>15</sup>

# **Marketing Time**

An opinion on the amount of time it might take to sell a real or personal property interest at the concluded market value level during the period immediately after the effective date of an appraisal.<sup>16</sup>

# **Surplus Land**

Land that is not currently needed to support the existing improvement but cannot be be separated from the property and sold off. Surplus land does not have independent highest and best use and may or may not contribute value to the improved parcel. <sup>17</sup>

Gallaher Valuation

DEFINITIONS Page 56 of 150

<sup>&</sup>lt;sup>13</sup> Appraisal of Real Estate, 13th Edition, Appraisal Institute

<sup>&</sup>lt;sup>14</sup> Uniform Appraisal Standards for Federal Land Acquisitions

<sup>&</sup>lt;sup>15</sup> State Road Dept v. Stack, 231 So.2d 859 Fla. 1<sup>st</sup> DCA 1969) as quoted in the Florida Department of Transportation Supplemental Standards

<sup>&</sup>lt;sup>16</sup> The Dictionary of Real Estate Appraisal (5<sup>th</sup> Edition)

<sup>17</sup> Real Estate Valuation in Litigation, Second Edition, J.D. Eaton, MAI, SRA, Appraisal Institute

# **Legal Descriptions of the Subject Property**

30-6909-000-0207 - 9.46 Acres – The North  $1\!\!2$  of the Southwest  $1\!\!4$  of the Southwest

And

The Southeast  $\frac{1}{4}$  of the Southwest  $\frac{1}{4}$  of the Southwest  $\frac{1}{4}$  of the Southeast  $\frac{1}{4}$  of the said Section 9, less the South 35 feet

And

The Northwest ¼ of the Southeast ¼ of the Southwest ¼ of the Southeast ¼ of said Section 9.

30-6909-000-0305-4.74 Acres – The South  $\frac{1}{2}$  of the Northwest  $\frac{1}{4}$  of the Southwest  $\frac{1}{4}$  of the Southwest  $\frac{1}{4}$  of Section 9, Township 56 South, Range 39 East, less West 35 feet for right of way.

30-6909-000-0220-5 Acres – The South ½ of the Northeast ¼ of the Southwest ¼ of the Southeast ¼ of Section 9, Township 56 South, Range 39 East.

30-6909-000-0400-6.96 Acres – The Northeast  $\frac{1}{4}$  of the Southeast  $\frac{1}{4}$  of the Southeast  $\frac{1}{4}$  of the Southeast  $\frac{1}{4}$  of Section 9, Township 56 South, Range 39 East

The South  $\frac{1}{2}$  of the Southeast  $\frac{1}{4}$  of the Southeast  $\frac{1}{4}$  of Section 9, Township 56 South, Range 39 East, less the South 35 feet for right of way.

30-6909-000-0211-1.969 Acres – The Southwest  $\frac{1}{4}$  of the Southwest





**GALLAHER & BIRCH, INC.,** formerly known as Hedg-peth & Gallaher, Inc., was established as The Hedg-peth Company in 1967 by C. George Hedg-peth, MAI, who had been both a staff appraiser with The McCune Company and chief commercial appraiser with Dade Federal Savings and Loan Association. The company is a full service appraisal firm completing appraisal reports for all types of real estate ranging from single family residences to apartments, hotels, vacant land to shopping centers, industrial properties and office buildings.

The predominance of appraisal assignments over the years has been for properties located in Miami-Dade, Broward or Monroe Counties. By generally limiting the area of practice to South Florida, but addressing the analysis of all types of property from vacant land to complex, multipurpose commercial developments, the company has been able to assure a consistent high level of service to its clients.

Either through its individual appraisers or corporately, the company is an approved appraiser for a large number of local lending institutions as well as for the Federal National Mortgage Association, the State of Florida, Miami-Dade County and the cities of Miami, Coral Gables, Hialeah and Homestead. Corporate clients range from local builders and developers to national and international corporations. In addition, assignments have been completed for some of the largest and most prominent South Florida law, accounting and engineering firms. The following is a brief sample of the firm's clientele:

# **Lending Institutions**

Bank United
Chase Manhattan Bank
Coconut Grove Bank
Community Bank of Florida
First National Bank of South Miami
Northern Trust Bank of Florida
Republic Federal Bank
SunTrust Bank Miami
TotalBank

# **Corporations**

Baptist Health South Florida GEO Group, Inc Manuel Diaz Farms Mount Sinai Medical Center Walt Disney World Wendy's International

#### **Law Firms**

Akerman Senteriftt
Bilzin Sumberg Baena Price & Axelrod
Brigham Moore
Earle & Patchen
Greenberg Traurig
Holland & Knight
Hicks & Schreiber
Kubicki Draper
White & Case
Kozyak Tropin Throckmorton

# Institutional/Governmental Clients

Miami-Dade County
Miami-Dade County School Board
Miami Dade College
Florida Department of Transportation
Jackson Memorial Hospital
South Florida Water Management District

The company has provided litigation support, including expert testimony, for a variety of cases, including those involving deficiency judgments, divorce, zoning, bankruptcy and eminent domain. Consultation and appraisal review services are an integral part of the services offered.

Either corporately or through its employees, the company is a member of Chamber South, Commercial Real Estate Women, and the Commercial Industrial Association of South Florida (formerly the Industrial Association of Dade County), Miami Realtors.



#### **CURRICULUM VITAE - ROBERT E. GALLAHER, MAI, CRE**

Resident of Miami, Dade County, Florida since 1950

State Certified General Real Estate Appraiser, State of Florida (Certificate Number RZ98)

Licensed Real Estate Broker, State of Florida

Licensed Real Estate Instructor, State of Florida

Graduate of University of Florida, Gainesville, Florida

Awarded Bachelor of Science in Business Administration with Major in Real Estate, 1972

Employment: Gallaher & Birch, Inc. (formerly Hedg-peth & Gallaher, Inc., formerly The Hedg-peth Company) since September 1972; currently President

Partner - Esslinger Wooten Maxwell, Realtors 1984 to 1991

Appraisal Experience: Has participated in appraisals in Miami-Dade, Broward, Monroe and other counties in Florida of various types of residential and commercial properties, including office buildings, shopping centers, apartment developments, warehouses and hotels.

Expert Witness: Qualified as an expert in real estate valuation in Miami-Dade, Broward, Monroe, Palm Beach and Lee Counties, as well as in Federal Bankruptcy Court. Has testified in deposition and in trial in matters of eminent domain, bankruptcy, divorce, deficiency judgments and other issues

#### Member of:

Appraisal Institute, with designation MAI.

Certified Under Continuing Education Program through December 2022

The Counselors of Real Estate, with designation CRE

Chairman of South Florida Chapter 2004 to 2007 and 2013 to present

Fellow of the Royal Institution of Chartered Surveyors

Miami Association of Realtors (formerly: Miami and Coral Gables Boards of Realtors)

Chairman of Association for 1995-96

President 1982 and 1987-1988

Florida Association of Realtors

National Association of Realtors

#### **Boards of Directors**

Florida Savings Bank - 2001 to 2006

Consumers Savings Bank – 1991 to 1998

Advisory Board Jerome Bain Real Estate Institute at Florida International University

ChamberSouth – 2001 to 2011 (Chairman of the Board of Directors 2008-2009)

Dade County SurTax Advisory - 1984 to 1993

Instructor, having taught seminars and/or courses for:

Miami Dade College; the Appraisal Institute, the American Bar Association, The Florida Association of Realtors; and various local real estate associations and companies.

Nationally certified instructor for the Appraisal Institute

Nationally certified instructor of Uniform Standards of Professional Appraisal Practice

Currently President/Owner of Gallaher & Birch, Inc., (formerly Hedg-peth & Gallaher, Inc.). Has been officer, director and stockholder of several closely held corporations, including Sanctuary Farms, Inc., a farming venture in Collier County; Marina Bay, Inc., a shopping center development in North Miami-Dade County; Burlingame Group, Inc., an office space owner in Miami; Miller Ludlam LLC an owner of retail stores; and First Reserve, Inc., a corporate holding company that owned Esslinger-Wooten-Maxwell, Inc., a general real estate brokerage firm and which participated in the development of Gables Waterway Executive Center and the University Inn Condominium.



#### CURRICULUM VITAE - ALBERT J. ARMADA, MAI, SRA

Resident of Miami, Dade County, Florida since 1961

State Certified General Real Estate Appraiser, State of Florida (Certificate Number RZ397)

Licensed Real Estate Broker, State of Florida

Graduate of

Miami-Dade Junior College (now Miami-Dade College) – Awarded Associates of Arts degree, 1972 University of Florida, Gainesville, Florida - Awarded Bachelor of Arts, with Honors, in Psychology, 1974 University of Miami, Coral Gables, Florida – Awarded Certificate of Middle Management, 1979 Florida International University – Awarded Master of International Business, 1984

Consultant – Affiliated, as an independent sub-contractor:

Gallaher & Birch, Inc (2018 to present)

Hedg-peth & Gallaher, Inc (1997 to 2001)

Blazejack & Company (1988 to 1989)

The Republic Appraisal Company (1986 to 1987)

Employment: Armada Appraisal & Consulting Company, Principal/Appraiser/Consultant 1993 to Present

City of Miami in various positions, 1977 to 1993, including Property & Lease Manager (1984 to 1993); Acting Assistant Director, Finance Dept (1983 to 1984); Lease Manager (1982 to 1983); Projects Supervisor, Community Development Dept.(1980 to 1982); Administrative Assistant (1979 to 1980); Personnel Office, Human Resources Dept. (1977 to 1979)

Miami-Dade County, Program Director/Unit Supervisor, Dept. of Health & Human Resources (1975 to 1977) State of Florida as Youth Counselor, Dept. of Health & Human Resources (1974 to 1975)

Special Magistrate – Miami-Dade County Value Adjustment Board (2008 to 2018)

Appraisal Experience: Has participated in appraisals in Miami-Dade, Broward, Monroe and other counties in Florida of various types of residential and commercial properties, including office buildings, shopping centers, apartments, warehouses and developments

Expert Witness: Qualified as an expert in real estate valuation in Miami-Dade Circuit and Family Courts. Has testified in deposition and in trial in matters of bankruptcy, divorce, deficiency judgments and other issues

#### Member of:

Appraisal Institute, with designations MAI and SRA.

Certified Under Continuing Education Program through December 2021

President of South Florida Chapter 2015

Director of South Florida Chapter 2009 to 2016

#### Former Member of:

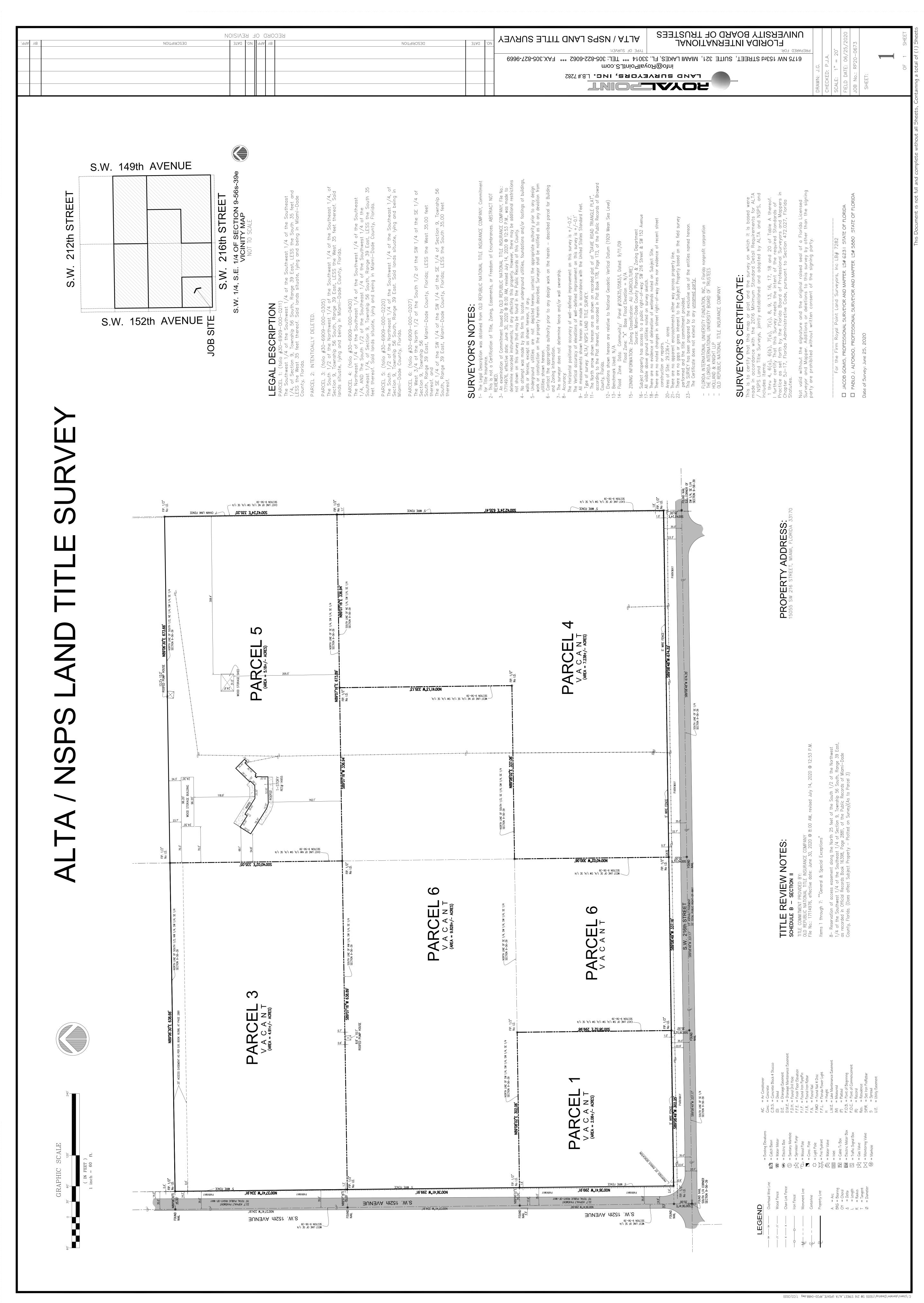
Certified Commercial Investment Member of the National Association of Realtors (designation of CCIM); relinquished 2016

American Society of Appraisers (Designation ASA, Urban); relinquished 2012

Candidate for Miami Dade County Appraiser, August 2014

Has been a managing member or investor in Miller Ludlam LLC, an owner of retail stores; and 4-B Warehouses, LLC, an owner of multi-tenant warehouses.







Mr. Rafael G. Prohias Office of General Council Florida International University 1120 S.W. 8<sup>th</sup> Street, PC 511 Miami, Florida 33199

Re: CRB Project FIU 236-08; Initial Phase I Summary for the Agricultural Property Located on the Northeast Corner of S.W. 216<sup>th</sup> Street and S.W. 152<sup>nd</sup> Avenue in Miami, Miami-Dade County, Florida and Identified as Folio Numbers 30-6909-000-0207, 30-6909-000-0211, 30-6909-000-0220, 30-6909-000-0305, and 30-6909-000-0400

Dear Mr. Prohias:

CRB Geological & Environmental Services, Inc. (CRB) is pleased to provide you with this initial Phase I Environmental Site Assessment (Phase I) Summary for the above referenced property (the "Site"). This Phase I summary consisted of a review of previous reports, a review of historical records, and a site inspection. Based on the results of these initial activities, Recognized Environmental Conditions (RECs) were identified, and additional assessment is recommended.

# **Previous Reports**

In 2014 CRB conducted a Phase I of a portion of the Site (this previous Phase I did not include folio 30-6909-000-0220 [part of the current Phase I] and instead included folio 30-6909-000-0300 [not a part of the current Phase I]). Results of the Previous Phase I identified electrical transformers as a low-risk REC and an aboveground storage tank with a diesel-powered pump and agricultural use of the Site as moderate-risk RECs. Additional assessment was recommended.

To assess the RECs identified in the previous Phase I, soil and groundwater testing were conducted in 2014, 2015, and 2018. Results of the testing activities identified arsenic concentrations above the Cleanup Target Levels (CTLs) but consistent with background concentrations and chromium above the Leachability Target Level but not leaching into the groundwater at concentrations above the CTLs (based on a groundwater sample). In addition, dieldrin in the soil was reported as above the Leachability Target Level. CRB subsequently installed and sampled a monitoring well in the area with the highest dieldrin concentration, and based on the groundwater results, dieldrin did not appear to be leaching to the groundwater at concentrations above the CTL. Based on these data, no additional assessment was recommended if the Site usage does not change. However, if soils are removed from the Site, the soils must be properly disposed of.

# **Historical Records**

CRB reviewed the historical city directories, topographic maps, fire insurance maps, and aerial photographs.

The Site appeared to be undeveloped, vacant land in the 1938 aerial photograph. By 1952 the Site appeared to be agricultural and remained agricultural through the 2018 aerial photograph. In addition, beginning in the 1968 aerial photograph, a residential structure was present on the northeastern parcel.

# **Site Inspection**

On July 24, 2020 CRB personnel conducted a visual inspection of the Site. The areas of the Site previously inspected appeared to be in a similar condition as was documented in the previous Phase I. The Site consisted primarily of a tree farm. The pump and diesel tank previously documented as a REC remained and continued to appear to be unused. No additional evidence of releases was observed associated with this pump and tank. One (1) storage container remained in the southern portion of the Site as was documented in the previous Phase I. This storage container was inaccessible at the time of the Site inspection.

The northeastern portion of the Site (not included in the previous Phase I) consisted of a tree farm, as well as an unoccupied residential structure and several sheds. The residential structure and interior portions of the sheds were inaccessible but appeared to contain typical maintenance equipment. One (1) tank consistent with those typically used for pesticide/herbicide applications was observed in this area of the Site. In addition, an unlabeled container possibly containing pesticides/herbicides were observed in the tree area. One (1) diesel-powered pump and associated aboveground storage tanks (ASTs) were observed. While the ASTs were located in a concrete secondary containment unit, the diesel-powered pump was only on a concrete slab. Some staining was observed on the concrete slab. An unused AST and gas and oil containers were observed on the open ground between the residential structure and a storage shed. These appeared to be empty. Staining or distressed vegetation was not observed.

# Discussion, Conclusions, & Recommendations

As part of the initial Phase I activities, CRB reviewed previous reports, reviewed historical sources, and conducted a Site inspection. Based on these activities, CRB identified the following RECs: 1) the documented dieldrin soil impacts at the Site, 2) the historical agricultural use of the Site and the likely application of agrichemical plant treatments, 3) the additional diesel-powered pump and associated ASTs, 4) the improper storage of oil and gasoline containers and unused ASTs on the open ground. To assess potential impacts to the Site associated with the identified RECs, CRB recommends additional assessment.

If you have any questions or require any additional information, please do not hesitate to contact one of us at (305) 447-9777.

Sincerely,

CRB Geological & Environmental Services, Inc.

Frederick R. Baddour, P.G.

Senior Project Manager



August 25, 2020

Mr. Rafael G. Prohias Office of General Council Florida International University 1120 S.W. 8<sup>th</sup> Street, PC 511 Miami, Florida 33199

Re: CRB Project FIU 236-08; Phase II Summary Report for the FIU Possum Trot Site, located on the Northeast Corner of S.W. 152<sup>nd</sup> Avenue and S.W. 216<sup>th</sup> Street, in Unincorporated Miami-Dade County, Florida

Dear Mr. Prohias:

CRB Geological & Environmental Services, Inc. (CRB) is pleased to provide you with this Phase II Summary Report (Phase II) for the above referenced property (the "Site"). This Phase II was recommended and completed to assess potential impacts to the Site associated with the Recognized Environmental Conditions (RECs) identified in the Phase I ESA prepared by CRB and dated July 27, 2020. The identified RECs included: 1) known and suspected dieldrin impacted soils; 2) the historically agricultural use of the Site; and 3) improper storage of oil and gasoline containers and a petroleum AST. A Site Location Map is included as Figure 1.

This Phase II included soil and groundwater testing. Results of this Phase II identified detections of the contaminants of concern at the Site, but no exceedances were reported. Historically, leachability soil exceedances were identified at the Site, but no groundwater impacts were reported. The current and historic data document that agricultural site operations have impacted the Site. If the pesticides were applied in accordance with the manufacturer's recommendations, and the Site usage will not change, no additional assessment and/or remediation is required. However, if any soils are removed from the Site, the soil must be properly disposed, and if the site usage changes, site assessment activities and/or environmental cleanup may be required.

# **Soil Testing**

On August 11, 2020, CRB personnel were onsite to advance soil borings SB-8 through SB-15, as shown on Figure 2. Soil borings SB-10 and SB-11 were advanced near the areas of petroleum equipment storage and areas of improperly stored petroleum containers and an AST on the open ground. Other samples were collected from throughout the agricultural areas. The soil borings were advanced using a stainless-steel auger to a total depth of approximately one-half (0.5) foot below grade, and a sample was collected from the surface to one-half (0-0.5') interval.

The soil samples were placed on wet ice and transported to Pace Analytical Services, LLC (Pace) in Pompano Beach, Florida, using proper chain of custody protocols to control the transfer of the samples. Pace analyzed the soil samples for Organochlorine Pesticides (OCP) by EPA Method

8081 and arsenic by EPA Method 6010. In addition, soil samples SB-10 (0-6") and SB-11 (0-6") were analyzed for Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270, Total Recoverable Petroleum Hydrocarbons (TRPH) by Method FL PRO, and cadmium, chromium, and lead by EPA Method 6010.

TRPH, metals, and pesticides were detected in the soils, but all reported concentrations were compliant with the applicable Cleanup Target Levels (CTLs)<sup>1</sup>.

As part of the previous Phase II activities, chromium and dieldrin were also reported above the leachability CTLs at the Site. However, groundwater exceedances were not reported in these areas of the Site, and it did not appear that these contaminants were leaching into the groundwater at concentrations that exceed the Groundwater CTLs.

A summary of the current and historical soil laboratory analytical results is included as Table 1, and the laboratory analytical reports and chain of custody record are included in Attachment A.

# **Groundwater Testing**

On August 11, 2020, CRB personnel were onsite to install monitoring wells MW-3, MW-4, and MW-5. Monitoring well MW-3 was installed in the agricultural area. Monitoring well MW-4 was installed near a pesticide application tank and monitoring well MW-5 was installed near an area of petroleum storage. The locations of the monitoring wells are shown on Figure 2. The monitoring wells were installed with a track mounted Geoprobe using the direct push method to a depth of approximately twenty-two (22) feet below grade. The monitoring wells were constructed of 1-inch diameter Schedule-40 polyvinyl chloride (PVC) pipe with ten (10) feet of 0.01-inch slotted screen, followed by a riser extending above land surface.

After developing the monitoring wells until the groundwater ran clear, monitoring wells MW-1 through MW-5 were sampled. The groundwater samples were placed on wet ice and transported to Pace using proper chain of custody protocols to control the transfer of samples. Pace analyzed the samples for OCP by EPA Method 8081 and arsenic by EPA Method 6010. In addition, the groundwater samples from monitoring wells MW-1 and MW-5 were analyzed for Volatile Organic Aromatics (VOAs) by EPA Method 8260, PAHs by EPA Method 8270, and cadmium, chromium, and lead by EPA Method 6010.

Pesticides were detected in the groundwater sample from monitoring well MW-5 but at concentrations compliant with the CTLs<sup>2</sup>.

As part of previous Phase II activities at the Site, groundwater testing was conducted and did not identify any groundwater exceedances.

\_

<sup>&</sup>lt;sup>1</sup> Arsenic in current soil sample SB-11 (0-6") and historical soil samples SB-1, SB-2, and SB-3 were reported as above the Chapter 62-777, F.A.C. CTL but was below the Miami-Dade County background level for this portion of the county. Dieldrin in soil SB-15 (0-6") was reported as 0.0024 mg/kg, which when rounded to the correct number of significant figures is compliant with the soil CTL.

<sup>&</sup>lt;sup>2</sup> Dieldrin was reported as 0.019 ug/L and qualified with an "I", indicating that the concentration was an estimate and between the MDL and PQL. Although the estimate was above the groundwater CTL, this does not represent a groundwater exceedance.

A summary of the current and historical groundwater laboratory analytical results is included in Table 2, and the laboratory analytical reports and chain of custody record are included in Attachment A.

# **Discussion, Conclusions, & Recommendations**

To determine if the RECs identified in the Phase I ESA impacted the Site, CRB recommended and conducted this Phase II, including the installation and sampling of three (3) monitoring wells and the collection and analysis of eight (8) soil samples, as well as analyzing previous Phase II data.

As part of this Phase II, contaminants of concern were detected in the soil and groundwater at the Site but at concentrations that complied with the respective CTLs. Historically, chromium and dieldirn was reported in the soil at the Site as above the leachability CTL but below the residential and commercial CTLs. Groundwater testing from these areas did not identify groundwater exceedances, indicating that the contaminants are not likely leaching from the soil into the groundwater in excess of the CTLs, and no further assessment is recommended.

The current and historic data document that agricultural site operations have impacted the Site. If the pesticides were applied in accordance with the manufacturer's recommendations, and the Site usage will not change, no additional assessment and/or remediation is required. However, if any soils are removed from the Site, the soil must be properly disposed, and if the site usage changes, site assessment activities and/or environmental cleanup may be required.

If you have any questions or require any additional information, please do not hesitate to contact either of us at (305) 447-9777.

Sincerely,

CRB Geological & Environmental Services, Inc.

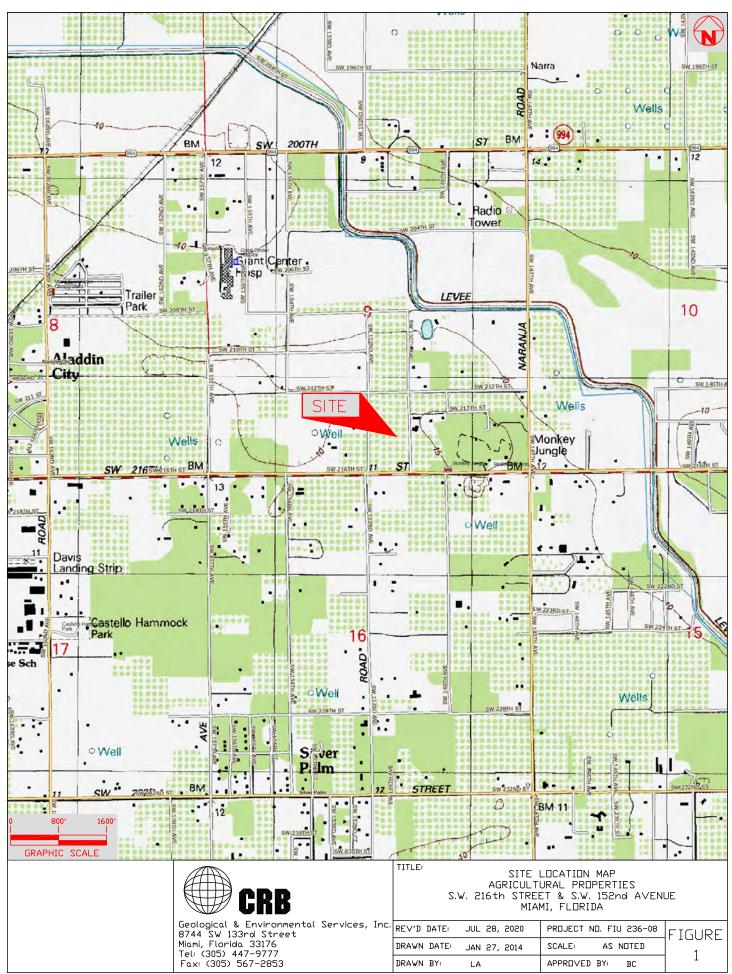
Frederick R. Baddour, P.G.

Senior Project Manager

Attachments

Project Manager

**FIGURES** 





**TABLES** 

# Table 1 - Summary of Soil Analytical Results Agricultural Property 15055 S.W. 216th Street Miami, Florida

Heptachlor Epoxide	NA	NA	0.0013 U	0.00069 U	$0.00092\mathrm{I}$	0.00063 U	0.00062 U	O.00090 U	0.00071 U	0.0015 U	$0.0016  \mathrm{U}$	0.00075 U	0.0015 U	0.0034 U	0.0017 U	0.2	0.5	9.0	NS
TOTAL MARKET	A	A	I			_								_	n	2		3	S
Heptachlor	NA	NA	0.00072	Ī	0.00023 U	J   0.00022 U	J 0.00022 U	J 0.00053 U	J 0.00041 U	0.00088 U	0.00092 U	J   0.00044 U	U 78000.0 L	0.0020 U	0.0010	0.2		23	NS
Endosulfan Sulfate	NA	NA	$0.0050\mathrm{U}$	0.00027 U	0.00048 I	0.00024 U	0.00024 U	0.00000 U	0.00047 U	$0.0010\mathrm{U}$	0.0011 U	0.00050 U	O 6600000	0.0023 U	$0.0012\mathrm{U}$	450	0092	3.8	NS
Dieldrin	NA	NA	$0.00046\mathrm{U}$	0.00025 U	0.010	0.0040 I	0.00022 U	0.00061 U	$0.00048  \mathrm{U}$	$0.0010\mathrm{U}$	0.0011 U	$0.00051~{\rm U}$	$0.0010  \mathrm{I}$	0.0023 U	0.0024 I	90.0	0.3	0.002	NS
Gamma-Chlordane	NA	NA	0.037	J 0.00042 U	J 0.0025 I	0.00045 I  0.00021 U 0.00039 U	$0.00038  \mathrm{U}$	0.015 U	0.012 U	0.025 U	$0.026\mathrm{U}$	$0.013~\mathrm{U}$	$0.025\mathrm{U}$	0.057 U	0.029 U	2.8*	14*	*9.6	SN
Alpha-Chlordane	NA	NA	0.034	0.00023 L	0.00022 L	0.00021 L	0.00021 L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2	1	6	SN
ni7blA	NA	NA	$\Omega$ 29000 $^{\circ}0$	$0.00036\mathrm{U}$	0.0011 I	$0.00045\mathrm{I}$	0.00032 U 0.00021	$0.00051~\mathrm{U}$	$0.00040  \mathrm{U}$	$0.000085 \mathrm{U}$	0.00089	$0.00042\mathrm{U}$	0.00083 U	$0.0019\mathrm{U}$	O 86000'0	90.0	6.0	0.2	SN
Total Xylenes	0.0085 I	$0.0062~\mathrm{U}$	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130	200	0.2	NS
Ругепе	0.029 I	0.15 U	NA	NA	NA	NA	NA	NA	NA	0.022 U	$0.029\mathrm{U}$	NA	NA	NA	NA	2400	45000	088	SN
Рһепапtһтепе	0.028 I	$0.18\mathrm{U}$	NA	NA	NA	NA	NA	NA	NA	0.022 U	0.031 U	NA	NA	NA	NA	2200	36000	250	SN
Indeno(1,2,3-cd)pyrene	$0.027\mathrm{I}$	$0.19\mathrm{U}$	NA	NA	NA	NA	NA	NA	NA	$0.016\mathrm{U}$	$0.021\mathrm{U}$	NA	NA	NA	NA	#	#	9:9	SN
Fluoranthene	0.028 I	$0.16\mathrm{U}$	NA	NA	NA	NA	NA	NA	NA	0.022 U	0.031 U	NA	NA	NA	NA	3200	29000	1200	SN
Dibenz(a,h)anthracene	0.026 I	$0.14\mathrm{U}$	NA	NA	NA	NA	NA	NA	NA	$0.016\mathrm{U}$	$0.022\mathrm{U}$	NA	NA	NA	NA	#	#	0.7	SN
Chrysene	0.026 I	0.17 U	NA	NA	NA	NA	NA	NA	NA	0.022 U	$0.030\mathrm{U}$	NA	NA	NA	NA	#	#	LL	SN
Benzo(k)fluoranthene	0.028 I	$0.10\mathrm{U}$	NA	NA	NA	NA	NA	NA	NA	$0.018\mathrm{U}$	0.025 U	NA	NA	NA	NA	#	#	24	NS
Benzo(g,h,i)perylene	0.028 I	0.17 U	NA	NA	NA	NA	NA	NA	NA	0.017 U	0.023 U	NA	NA	NA	NA	2500	52000	32000	SN
Benzo(a)pyrene	0.029 I	$0.056\mathrm{U}$	NA	NA	NA	NA	NA	NA	NA	0.017 U	0.023 U	NA	NA	NA	NA	0.1	0.7	8	SN
Benzo(a)anthracene	0.034 I	$0.14\mathrm{U}$	NA	NA	NA	NA	NA	NA	NA	$0.020\mathrm{U}$	0.027 U	NA	NA	NA	NA	#	#	8.0	NS
Аптргасепе	0.026 I	0.15 U	NA	NA	NA	NA	NA	NA	NA	0.024 U	0.033 U	NA	NA	NA	NA	21000	300000	2500	NS
Acenaphthylene	0.023 I	0.15 U	NA	NA	NA	NA	NA	NA	NA	$0.012\mathrm{U}$	$0.029\mathrm{U}$	NA	NA	NA	NA	1800	20000	27	SN
рвэД	13.0	25.4	NA	NA	NA	NA	NA	NA	NA	15.1	20.2	NA	NA	NA	NA	400	1400	* * *	NS
Сһғотінт	1 72.9	140	NA	NA	NA	NA	NA	NA	NA	7 19.7	5 27.9	NA	NA	NA	NA	210	0 470	38	NS
Cadmium	0.64	1.7	NA	NA	NA	NA	NA	NA	NA	I 0.47	0.36	I NA	I NA	I NA	I NA	82	1700	7.5	NS
Arsenic	2.2	N 6.8	2.9	2.0	2.1	2.1	1.5	1.6	1.7	1.9 I	3.8	2.9 I	2.3	1.8 I	2.7 I	2.1	12	* * *	7.0
ТВРН	20.5	10.2 C	NA	NA	NA	NA	NA	NA	NA	19.5	16.3	NA	NA	NA	NA	460	3700	340	NS
Date	3/21/2014	3/21/2014	3/21/2014	3/21/2014	3/21/2014	3/21/2014	3/21/2014	8/11/2020	8/11/2020	8/11/2020	8/11/2020	8/11/2020	8/11/2020	8/11/2020	8/11/2020	Residential SCTL	Commercial SCTL	Leachability	M-D Background
Sample ID	SB-1	SB-2	SB-3	SB-4	SB-5	9- <b>B</b> S	SB-7	SB-8	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	Resident	Commer	Leach	M-D Ba

## Notes:

All compounds reported in mg/kg unless otherwise noted.

Soil Cleanup Target Levels (SCTLs) and Leachability standards as provided in Chapter 62-777, F.A.C.

NS - No Background Standard

TRPH - Total Recoverable Petroleum HydrocarboNA

SB-4 was collected as part of a previous Phase II and not from the current Site.

CRB Geological & Environmental Services, Inc.

Soil Cleanup Target Levels (SCTLS) and Leachability standards as provided in Chapter 62-777, F.A.C.

I - Compound was detected between the laboratory method detection limit and the laboratory practical quantitation limit.

M-D Background concentrations for the 0-6" interval as provided in the DERM memorandum dated April 3, 2014 and titled "Miami-Dade County Anthropogenic Background Study".

NA - Not Analyzed

U - Indicates the compound was analyed for but not detected.

<sup>\* -</sup> SCTL and leachability standards provided for total chlordane.

<sup>\*\*\* -</sup> Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

<sup># -</sup> Site concentratioNA for carcinogenic polycyclic aromatic hydrocarboNA 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.

# Table 2 - Summary of Groundwater Results Agricultural Property 15055 S.W. 216th Street Miami, Florida

Sample ID	Date	Arsenic	Cadmium	Chromium	Lead	Chlordane	Dieldrin	Heptachlor Epoxide	РАН	VOA
MW-1	3/21/2014	5.0 U	0.50 U	2.5 U	5.0 U	NA	NA	NA	U	U
IVI VV - I	8/11/2020	7.1 U	0.33 U	1.7 U	4.6 U	0.24 U	0.0019 U	0.015 U	U	U
MW-2	8/13/2018	NA	NA	NA	NA	0.17 U	0.0019 U	0.0050 U	NA	NA
IVI VV -2	8/11/2020	7.1 U	NA	NA	NA	0.23 U	0.0019 U	0.015 U	NA	NA
MW-3	8/11/2020	7.1 U	NA	NA	NA	0.24 U	0.0019 U	0.015 U	NA	NA
MW-4	8/11/2020	7.1 U	NA	NA	NA	0.24 U	0.0019 U	0.015 U	NA	NA
MW-5	8/11/2020	7.1 U	0.33 U	1.7 U	4.6 U	0.31 I	0.019 I	0.020	U	U
GCTL		10	5	100	15	2	0.002	0.2	*	*
NADC		100	50	1000	150	200	0.2	20	*	*

#### Notes:

All compounds reported in ug/L unless otherwise noted.

Groundwater Cleanup Target Levels (GCTLs) and Natural Attenuation Default Concentrations as provided in Chapter 62-777, F.A.C.

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

NA - Not Analyzed

- U Compound was analyzed for but not detected.
- \* Standards provided for individual compounds.

#### ATTACHMENT A

### LABORATORY ANALYTICAL REPORT & CHAIN OF CUSTODY RECORD



August 21, 2020

Brad Compton CRB Geological & Environmental Services 8744 S.W. 133rd Street Miami, FL 33176

RE: Project: FIU 236-08

Pace Project No.: 35570003

#### Dear Brad Compton:

Enclosed are the analytical results for sample(s) received by the laboratory on August 12, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

• Pace Analytical Services - Ormond Beach

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christina Raschke

Christin Parelle

christina.raschke@pacelabs.com (954)582-4300

Project Manager

**Enclosures** 

cc: Emilia Echeveste, CRB Geological & Environmental

Services

Barbara Livieri, CRB Geological & Environmental Services



(954)582-4300



#### **CERTIFICATIONS**

Project: FIU 236-08 Pace Project No.: 35570003

#### **Pace Analytical Services Ormond Beach**

8 East Tower Circle, Ormond Beach, FL 32174

Alaska DEC- CS/UST/LUST Alabama Certification #: 41320 Arizona Certification# AZ0819

Colorado Certification: FL NELAC Reciprocity

Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

Florida Certification #: E83079 Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383 Kentucky Certification #: 90050

Louisiana Certification #: FL NELAC Reciprocity Louisiana Environmental Certificate #: 05007

Maryland Certification: #346 Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236

Montana Certification #: Cert 0074 Nebraska Certification: NE-OS-28-14 New Hampshire Certification #: 2958 New Jersey Certification #: FL022 New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710 North Dakota Certification #: R-216

Ohio DEP 87780

Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity

Virginia Environmental Certification #: 460165

West Virginia Certification #: 9962C Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity



#### **SAMPLE SUMMARY**

Project: FIU 236-08 Pace Project No.: 35570003

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35570003001	MW-3	Water	08/11/20 13:22	08/12/20 16:25
35570003002	MW-4	Water	08/11/20 14:21	08/12/20 16:25
35570003003	MW-5	Water	08/11/20 15:05	08/12/20 16:25
35570003004	MW-2	Water	08/11/20 15:54	08/12/20 16:25
35570003005	MW-1	Water	08/11/20 16:37	08/12/20 16:25
35570003006	Trip Blank	Water	08/11/20 00:01	08/12/20 16:25



#### **SAMPLE ANALYTE COUNT**

Project: FIU 236-08 Pace Project No.: 35570003

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35570003001	MW-3	EPA 8081	CB1	22	PASI-O
		EPA 6010	LEC	1	PASI-O
35570003002	MW-4	EPA 8081	CB1	22	PASI-O
		EPA 6010	LEC	1	PASI-O
35570003003	MW-5	EPA 8081	CB1	22	PASI-O
		FL-PRO	вмс	3	PASI-O
		EPA 6010	LEC	4	PASI-O
		EPA 8270 by SIM	RJR	20	PASI-O
		EPA 8260	SK1	14	PASI-O
35570003004	MW-2	EPA 8081	CB1	22	PASI-O
		EPA 6010	LEC	1	PASI-O
35570003005	MW-1	EPA 8081	CB1	22	PASI-O
		FL-PRO	вмс	3	PASI-O
		EPA 6010	LEC	4	PASI-O
		EPA 8270 by SIM	MMG	20	PASI-O
		EPA 8260	SK1	14	PASI-O
35570003006	Trip Blank	EPA 8260	SK1	14	PASI-O

PASI-O = Pace Analytical Services - Ormond Beach

#### **REPORT OF LABORATORY ANALYSIS**



#### **SUMMARY OF DETECTION**

Project: FIU 236-08 Pace Project No.: 35570003

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
35570003003	MW-5					
EPA 8081	Chlordane (Technical)	0.31 I	ug/L	0.48	08/21/20 10:27	
EPA 8081	Dieldrin	0.019 I	ug/L	0.029	08/21/20 10:27	
EPA 8081	Heptachlor epoxide	0.020	ug/L	0.019	08/21/20 10:27	

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570003

Date: 08/21/2020 04:56 PM

Sample: MW-3	Lab ID:	35570003001	Collecte	d: 08/11/20	13:22	Received: 08/	12/20 16:25 Ma	atrix: Water	
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qua
8081 GCS Pesticides	Analytical	Method: EPA 8	081 Prepa	ration Meth	od: EPA	A 3510			
	Pace Anal	ytical Services	- Ormond E	Beach					
Aldrin	0.0038 U	ug/L	0.077	0.0038	1	08/13/20 09:38	08/21/20 09:53	309-00-2	
alpha-BHC	0.0020 U	ug/L	0.0096	0.0020	1	08/13/20 09:38	08/21/20 09:53	319-84-6	
peta-BHC	0.019 U	ug/L	0.029	0.019	1	08/13/20 09:38	08/21/20 09:53	319-85-7	
delta-BHC	0.0046 U	ug/L	0.0096	0.0046	1	08/13/20 09:38	08/21/20 09:53	319-86-8	
gamma-BHC (Lindane)	0.0021 U	ug/L	0.0096	0.0021	1	08/13/20 09:38	08/21/20 09:53	58-89-9	
Chlordane (Technical)	0.24 U	ug/L	0.48	0.24	1	08/13/20 09:38	08/21/20 09:53	57-74-9	
1,4'-DDD	0.0026 U	ug/L	0.0096	0.0026	1	08/13/20 09:38	08/21/20 09:53	72-54-8	
1,4'-DDE	0.0048 U	ug/L	0.0096	0.0048	1	08/13/20 09:38	08/21/20 09:53	72-55-9	
1,4'-DDT	0.0049 U	ug/L	0.0096	0.0049	1	08/13/20 09:38	08/21/20 09:53	50-29-3	
Dieldrin	0.0019 U	ug/L	0.029	0.0019	1	08/13/20 09:38	08/21/20 09:53	60-57-1	
Endosulfan I	0.0049 U	ug/L	0.0096	0.0049	1	08/13/20 09:38	08/21/20 09:53	959-98-8	
Endosulfan II	0.0038 U	ug/L	0.0096	0.0038	1	08/13/20 09:38	08/21/20 09:53	33213-65-9	
Endosulfan sulfate	0.0059 U	ug/L	0.096	0.0059	1	08/13/20 09:38	08/21/20 09:53	1031-07-8	
Endrin	0.0041 U	ug/L	0.0096	0.0041	1	08/13/20 09:38	08/21/20 09:53	72-20-8	
Endrin aldehyde	0.0035 U	ug/L	0.096	0.0035	1	08/13/20 09:38	08/21/20 09:53	7421-93-4	
Endrin ketone	0.0048 U	ug/L	0.0096	0.0048	1	08/13/20 09:38	08/21/20 09:53	53494-70-5	
Heptachlor	0.0059 U	ug/L	0.0096	0.0059	1	08/13/20 09:38	08/21/20 09:53	76-44-8	
Heptachlor epoxide	0.015 U	ug/L	0.019	0.015	1	08/13/20 09:38	08/21/20 09:53	1024-57-3	
Methoxychlor	0.0040 U	ug/L	0.0096	0.0040	1	08/13/20 09:38	08/21/20 09:53	72-43-5	
Toxaphene	0.24 U	ug/L	0.48	0.24	1	08/13/20 09:38	08/21/20 09:53	8001-35-2	
Surrogates		Ü							
Tetrachloro-m-xylene (S)	81	%	27-124		1	08/13/20 09:38	08/21/20 09:53	877-09-8	
Decachlorobiphenyl (S)	67	%	10-132		1	08/13/20 09:38	08/21/20 09:53	2051-24-3	
6010 MET ICP	Analytical	Method: EPA 6	010 Prepa	ration Meth	od: EPA	A 3010			
	Pace Anal	ytical Services	- Ormond E	Beach					
Arsenic	7.1 U	ug/L	10.0	7.1	1	08/13/20 11:44	08/14/20 05:31	7440-38-2	

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570003

Date: 08/21/2020 04:56 PM

Sample: MW-4	Lab ID:	35570003002	Collected	d: 08/11/20	14:21	Received: 08/	12/20 16:25 Ma	atrix: Water	
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical	Method: EPA 8	081 Prepa	ration Metho	od: EPA	A 3510			
	Pace Anal	ytical Services	- Ormond B	each					
Aldrin	0.0038 U	ug/L	0.076	0.0038	1	08/13/20 09:38	08/21/20 10:10	309-00-2	
alpha-BHC	0.0020 U	ug/L	0.0096	0.0020	1	08/13/20 09:38	08/21/20 10:10	319-84-6	
oeta-BHC	0.019 U	ug/L	0.029	0.019	1	08/13/20 09:38	08/21/20 10:10	319-85-7	
delta-BHC	0.0046 U	ug/L	0.0096	0.0046	1	08/13/20 09:38	08/21/20 10:10	319-86-8	
gamma-BHC (Lindane)	0.0021 U	ug/L	0.0096	0.0021	1	08/13/20 09:38	08/21/20 10:10	58-89-9	
Chlordane (Technical)	0.24 U	ug/L	0.48	0.24	1	08/13/20 09:38	08/21/20 10:10	57-74-9	
4,4'-DDD	0.0026 U	ug/L	0.0096	0.0026	1	08/13/20 09:38	08/21/20 10:10	72-54-8	
1,4'-DDE	0.0048 U	ug/L	0.0096	0.0048	1	08/13/20 09:38	08/21/20 10:10	72-55-9	
1,4'-DDT	0.0049 U	ug/L	0.0096	0.0049	1	08/13/20 09:38	08/21/20 10:10	50-29-3	
Dieldrin	0.0019 U	ug/L	0.029	0.0019	1	08/13/20 09:38	08/21/20 10:10	60-57-1	
Endosulfan I	0.0049 U	ug/L	0.0096	0.0049	1	08/13/20 09:38	08/21/20 10:10	959-98-8	
Endosulfan II	0.0038 U	ug/L	0.0096	0.0038	1	08/13/20 09:38	08/21/20 10:10	33213-65-9	
Endosulfan sulfate	0.0059 U	ug/L	0.096	0.0059	1	08/13/20 09:38	08/21/20 10:10	1031-07-8	
Endrin	0.0041 U	ug/L	0.0096	0.0041	1	08/13/20 09:38	08/21/20 10:10	72-20-8	
Endrin aldehyde	0.0034 U	ug/L	0.096	0.0034	1	08/13/20 09:38	08/21/20 10:10	7421-93-4	
Endrin ketone	0.0048 U	ug/L	0.0096	0.0048	1	08/13/20 09:38	08/21/20 10:10	53494-70-5	
Heptachlor	0.0059 U	ug/L	0.0096	0.0059	1	08/13/20 09:38	08/21/20 10:10	76-44-8	
Heptachlor epoxide	0.015 U	ug/L	0.019	0.015	1	08/13/20 09:38	08/21/20 10:10	1024-57-3	
Methoxychlor	0.0040 U	ug/L	0.0096	0.0040	1	08/13/20 09:38	08/21/20 10:10	72-43-5	
Гохарhene	0.24 U	ug/L	0.48	0.24	1	08/13/20 09:38	08/21/20 10:10	8001-35-2	
Surrogates									
Tetrachloro-m-xylene (S)	90	%	27-124		1	08/13/20 09:38	08/21/20 10:10	877-09-8	
Decachlorobiphenyl (S)	73	%	10-132		1	08/13/20 09:38	08/21/20 10:10	2051-24-3	
6010 MET ICP	Analytical	Method: EPA 6	010 Prepa	ration Meth	od: EPA	A 3010			
	Pace Anal	ytical Services	- Ormond B	each					
Arsenic	7.1 U	ug/L	10.0	7.1	1	08/13/20 11:44	08/14/20 05:36	7440-38-2	

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570003

Date: 08/21/2020 04:56 PM

Pace Project No.: 35570003									
Sample: MW-5	Lab ID:	35570003003	Collected	d: 08/11/20	15:05	Received: 08/	12/20 16:25 M	atrix: Water	
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical I	Method: EPA 8	081 Prepai	ration Metho	od: EPA	3510			
		tical Services							
Aldrin	0.0038 U	ug/L	0.076	0.0038	1	08/13/20 09:38	08/21/20 10:27	309-00-2	
alpha-BHC	0.0030 U	ug/L	0.076	0.0030	1	08/13/20 09:38	08/21/20 10:27		
beta-BHC	0.0020 U	ug/L	0.0093	0.0020	1	08/13/20 09:38			
delta-BHC	0.0046 U	ug/L	0.0095	0.0046	1	08/13/20 09:38			
gamma-BHC (Lindane)	0.0021 U	ug/L	0.0095	0.0040	1	08/13/20 09:38			
Chlordane (Technical)	0.31 I	ug/L	0.48	0.23	1	08/13/20 09:38	08/21/20 10:27		
4,4'-DDD	0.0026 U	ug/L	0.0095	0.0026	1	08/13/20 09:38			
4,4'-DDE	0.0020 U	ug/L	0.0095	0.0020	1	08/13/20 09:38			
4,4'-DDT	0.0049 U	ug/L	0.0095	0.0049	1	08/13/20 09:38			
Dieldrin	0.019 I	ug/L	0.029	0.0043	1	08/13/20 09:38			
Endosulfan I	0.0049 U	ug/L	0.0095	0.0013	1	08/13/20 09:38			
Endosulfan II	0.0038 U	ug/L	0.0095	0.0043	1		08/21/20 10:27		
Endosulfan sulfate	0.0050 U	ug/L	0.0095	0.0059	1	08/13/20 09:38			
Endrin	0.0033 U 0.0041 U	ug/L	0.095	0.0039	1	08/13/20 09:38			
Endrin aldehyde	0.0041 U	ug/L ug/L	0.0095	0.0041	1	08/13/20 09:38			
Endrin ketone	0.0034 U	Ü	0.095	0.0034	1	08/13/20 09:38	08/21/20 10:27		
	0.0048 U	ug/L							
Heptachlor Heptachlor epoxide	0.0059 0	ug/L	0.0095 0.019	0.0059 0.015	1 1	08/13/20 09:38 08/13/20 09:38	08/21/20 10:27 08/21/20 10:27		
	0.020 0.0040 U	ug/L							
Methoxychlor		ug/L	0.0095	0.0040	1	08/13/20 09:38	08/21/20 10:27		
Toxaphene	0.24 U	ug/L	0.48	0.24	1	06/13/20 09.36	08/21/20 10:27	0001-35-2	
Surrogates Tetrachloro-m-xylene (S)	88	%	27-124		1	08/13/20 09:38	08/21/20 10:27	877-00-8	
Decachlorobiphenyl (S)	83	%	10-132		1	08/13/20 09:38	08/21/20 10:27		
Decacilioropiphenyi (3)	03	/0	10-132		'	00/13/20 09.30	00/21/20 10.27	2031-24-3	
FL-PRO Water, Low Volume		Method: FL-PR /tical Services			l: EPA 3	3510			
	•					00/40/00 40 50	00/44/00 40 04		
Petroleum Range Organics  Surrogates	0.75 U	mg/L	0.93	0.75	1	08/13/20 13:58	08/14/20 12:34		
o-Terphenyl (S)	82	%	66-139		1	08/13/20 13:58	08/14/20 12:34	84-15-1	
N-Pentatriacontane (S)	89	%	42-159		1		08/14/20 12:34		
6010 MET ICP	Analytical I	Method: EPA 6	010 Prepai	ration Metho	od: EPA	A 3010			
	•	tical Services	•						
Arsenic	7.1 U	ug/L	10.0	7.1	1	08/13/20 11:44	08/14/20 05:41	7440-38-2	
Cadmium	0.33 U	ug/L	1.0	0.33	1	08/13/20 11:44			
Chromium	1.7 U	ug/L	5.0	1.7	1	08/13/20 11:44			
Lead	4.6 U	ug/L	10.0	4.6	1		08/14/20 05:41		
8270 MSSV PAHLV by SIM	Analytical I	Method: EPA 8	270 by SIM	Preparatio	n Meth	od: EPA 3510			
-	Pace Analy	tical Services	- Ormond B	Beach					
Acenaphthene	0.040 U	ug/L	0.50	0.040	1	08/13/20 12:50	08/14/20 08:08	83-32-9	
Acenaphthylene	0.030 U	ug/L	0.50	0.030	1	08/13/20 12:50			
Anthracene	0.043 U	ug/L	0.50	0.043	1		08/14/20 08:08		
Benzo(a)anthracene	0.055 U	ug/L	0.10	0.055	1		08/14/20 08:08		
Benzo(a)pyrene	0.12 U	ug/L	0.20	0.12	1		08/14/20 08:08		
201120(α)ργιστίο	0.12 0	ug/L	0.20	0.12	•	00/10/20 12.00	50/17/20 00:00	JU JZ-U	

#### REPORT OF LABORATORY ANALYSIS



Project: FIU 236-08 35570003

Date: 08/21/2020 04:56 PM

Pace Project No.: 35570003									
Sample: MW-5	Lab ID:	35570003003	Collected:	08/11/20	15:05	Received: 08/	12/20 16:25 Ma	atrix: Water	
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAHLV by SIM		Method: EPA 8	-		on Meth	od: EPA 3510			
	Pace Anal	ytical Services	- Ormond Be	ach					
Benzo(b)fluoranthene	0.027 U	ug/L	0.10	0.027	1	08/13/20 12:50	08/14/20 08:08	205-99-2	
Benzo(g,h,i)perylene	0.15 U	ug/L	0.50	0.15	1	08/13/20 12:50	08/14/20 08:08	191-24-2	
Benzo(k)fluoranthene	0.16 U	ug/L	0.50	0.16	1	08/13/20 12:50	08/14/20 08:08	207-08-9	
Chrysene	0.026 U	ug/L	0.50	0.026	1	08/13/20 12:50	08/14/20 08:08	218-01-9	
Dibenz(a,h)anthracene	0.13 U	ug/L	0.15	0.13	1	08/13/20 12:50	08/14/20 08:08	53-70-3	
Fluoranthene	0.018 U	ug/L	0.50	0.018	1	08/13/20 12:50	08/14/20 08:08	206-44-0	
Fluorene	0.088 U	ug/L	0.50	0.088	1	08/13/20 12:50	08/14/20 08:08	86-73-7	
Indeno(1,2,3-cd)pyrene	0.12 U	ug/L	0.15	0.12	1	08/13/20 12:50	08/14/20 08:08	193-39-5	
1-Methylnaphthalene	0.19 U	ug/L	2.0	0.19	1	08/13/20 12:50	08/14/20 08:08	90-12-0	
2-Methylnaphthalene	0.68 U	ug/L	2.0	0.68	1	08/13/20 12:50	08/14/20 08:08	91-57-6	
Naphthalene	0.29 U	ug/L	2.0	0.29	1	08/13/20 12:50	08/14/20 08:08	91-20-3	
Phenanthrene	0.16 U	ug/L	0.50	0.16	1	08/13/20 12:50	08/14/20 08:08	85-01-8	
Pyrene	0.032 U	ug/L	0.50	0.032	1	08/13/20 12:50	08/14/20 08:08	129-00-0	
Surrogates		· ·							
2-Fluorobiphenyl (S)	61	%	38-92		1	08/13/20 12:50	08/14/20 08:08	321-60-8	
o-Terphenyl-d14 (S)	63	%	54-112		1	08/13/20 12:50	08/14/20 08:08	1718-51-0	
8260 MSV	Analytical	Method: EPA 8	260						
	Pace Anal	ytical Services	- Ormond Be	ach					
1,2-Dichlorobenzene	0.29 U	ug/L	1.0	0.29	1		08/14/20 07:54	95-50-1	
1,3-Dichlorobenzene	0.33 U	ug/L	1.0	0.33	1		08/14/20 07:54		
1,4-Dichlorobenzene	0.28 U	ug/L	1.0	0.28	1		08/14/20 07:54	106-46-7	
Benzene	0.30 U	ug/L	1.0	0.30	1		08/14/20 07:54		
Chlorobenzene	0.35 U	ug/L	1.0	0.35	1		08/14/20 07:54		
Ethylbenzene	0.30 U	ug/L	1.0	0.30	1		08/14/20 07:54		
Methyl-tert-butyl ether	0.51 U	ug/L	2.0	0.51	1		08/14/20 07:54		
Toluene	0.33 U	ug/L	1.0	0.33	1		08/14/20 07:54		
Xylene (Total)	2.1 U	ug/L	5.0	2.1	1		08/14/20 07:54		
m&p-Xylene	2.1 U	ug/L	4.0	2.1	1		08/14/20 07:54		
o-Xylene	0.27 U	ug/L	1.0	0.27	1		08/14/20 07:54		
Surrogates		<del>-</del>	•••	·	-			· ·	
4-Bromofluorobenzene (S)	97	%	70-130		1		08/14/20 07:54	460-00-4	
Toluene-d8 (S)	99	%	70-130		1		08/14/20 07:54	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	104	%	70-130		1		08/14/20 07:54	2199-69-1	

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570003

Date: 08/21/2020 04:56 PM

Sample: MW-2	Lab ID:	35570003004	Collecte	d: 08/11/20	15:54	Received: 08/	12/20 16:25 Ma	atrix: Water	
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical	Method: EPA 8	081 Prepa	ration Metho	od: EPA	A 3510			
	Pace Anal	ytical Services	- Ormond E	Beach					
Aldrin	0.0038 U	ug/L	0.076	0.0038	1	08/13/20 09:38	08/21/20 10:44	309-00-2	
alpha-BHC	0.0020 U	ug/L	0.0095	0.0020	1	08/13/20 09:38	08/21/20 10:44	319-84-6	
peta-BHC	0.019 U	ug/L	0.029	0.019	1	08/13/20 09:38	08/21/20 10:44	319-85-7	
delta-BHC	0.0046 U	ug/L	0.0095	0.0046	1	08/13/20 09:38	08/21/20 10:44	319-86-8	
gamma-BHC (Lindane)	0.0021 U	ug/L	0.0095	0.0021	1	08/13/20 09:38	08/21/20 10:44	58-89-9	
Chlordane (Technical)	0.23 U	ug/L	0.48	0.23	1	08/13/20 09:38	08/21/20 10:44	57-74-9	
4,4'-DDD	0.0026 U	ug/L	0.0095	0.0026	1	08/13/20 09:38	08/21/20 10:44	72-54-8	
1,4'-DDE	0.0048 U	ug/L	0.0095	0.0048	1	08/13/20 09:38	08/21/20 10:44	72-55-9	
1,4'-DDT	0.0049 U	ug/L	0.0095	0.0049	1	08/13/20 09:38	08/21/20 10:44	50-29-3	
Dieldrin	0.0019 U	ug/L	0.029	0.0019	1	08/13/20 09:38	08/21/20 10:44	60-57-1	
Endosulfan I	0.0049 U	ug/L	0.0095	0.0049	1	08/13/20 09:38	08/21/20 10:44	959-98-8	
Endosulfan II	0.0038 U	ug/L	0.0095	0.0038	1	08/13/20 09:38	08/21/20 10:44	33213-65-9	
Endosulfan sulfate	0.0059 U	ug/L	0.095	0.0059	1	08/13/20 09:38	08/21/20 10:44	1031-07-8	
Endrin	0.0041 U	ug/L	0.0095	0.0041	1	08/13/20 09:38	08/21/20 10:44	72-20-8	
Endrin aldehyde	0.0034 U	ug/L	0.095	0.0034	1	08/13/20 09:38	08/21/20 10:44	7421-93-4	
Endrin ketone	0.0048 U	ug/L	0.0095	0.0048	1	08/13/20 09:38	08/21/20 10:44	53494-70-5	
Heptachlor	0.0059 U	ug/L	0.0095	0.0059	1	08/13/20 09:38	08/21/20 10:44	76-44-8	
Heptachlor epoxide	0.015 U	ug/L	0.019	0.015	1	08/13/20 09:38	08/21/20 10:44	1024-57-3	
Methoxychlor	0.0040 U	ug/L	0.0095	0.0040	1	08/13/20 09:38	08/21/20 10:44	72-43-5	
Toxaphene	0.24 U	ug/L	0.48	0.24	1	08/13/20 09:38	08/21/20 10:44	8001-35-2	
Surrogates									
Tetrachloro-m-xylene (S)	82	%	27-124		1	08/13/20 09:38	08/21/20 10:44	877-09-8	
Decachlorobiphenyl (S)	89	%	10-132		1	08/13/20 09:38	08/21/20 10:44	2051-24-3	
6010 MET ICP	Analytical	Method: EPA 6	010 Prepa	ration Metho	od: EPA	3010			
	Pace Anal	ytical Services	- Ormond E	Beach					
Arsenic	7.1 U	ug/L	10.0	7.1	1	08/13/20 11:44	08/14/20 05:46	7440-38-2	

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08
Pace Project No.: 35570003

Date: 08/21/2020 04:56 PM

Sample: MW-1	I ah ID∙	35570003005	Collected:	: 08/11/20	16:37	Received: 08/	/12/20 16·25 M	atrix: Water	
Sample: WW-1	Lab ID.	33370003003	Collected.	. 00/11/20	10.57	Received. 00/	12/20 10.23 IVI	allix. VValei	
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qua
8081 GCS Pesticides	Analytical	Method: EPA 8	081 Prepara	ation Metho	od: EPA	3510			
	Pace Ana	lytical Services	Ormond Be	each					
Aldrin	0.0038 U	ug/L	0.076	0.0038	1	08/13/20 09:38	08/21/20 11:01	309-00-2	
alpha-BHC	0.0020 U	ug/L	0.0096	0.0020	1	08/13/20 09:38	08/21/20 11:01		
peta-BHC	0.019 U	ug/L	0.029	0.019	1	08/13/20 09:38	08/21/20 11:01		
delta-BHC	0.0046 U	ug/L	0.0096	0.0046	1	08/13/20 09:38	08/21/20 11:01		
gamma-BHC (Lindane)	0.0021 U	ug/L	0.0096	0.0021	1	08/13/20 09:38	08/21/20 11:01		
Chlordane (Technical)	0.24 U	ug/L	0.48	0.24	1	08/13/20 09:38	08/21/20 11:01		
I,4'-DDD	0.0026 U	ug/L	0.0096	0.0026	1	08/13/20 09:38	08/21/20 11:01		
I,4'-DDE	0.0020 U	ug/L	0.0096	0.0020	1	08/13/20 09:38	08/21/20 11:01		
1,4'-DDT	0.0049 U	-	0.0096	0.0048	1	08/13/20 09:38	08/21/20 11:01		
		ug/L							
Dieldrin	0.0019 U	ug/L	0.029	0.0019	1	08/13/20 09:38	08/21/20 11:01		
Endosulfan I	0.0049 U	ug/L	0.0096	0.0049	1	08/13/20 09:38	08/21/20 11:01		
Endosulfan II	0.0038 U	ug/L	0.0096	0.0038	1	08/13/20 09:38	08/21/20 11:01	33213-65-9	
Endosulfan sulfate	0.0059 U	ug/L	0.096	0.0059	1	08/13/20 09:38	08/21/20 11:01		
Endrin	0.0041 U	ug/L	0.0096	0.0041	1	08/13/20 09:38	08/21/20 11:01		
Endrin aldehyde	0.0034 U	ug/L	0.096	0.0034	1	08/13/20 09:38	08/21/20 11:01	7421-93-4	
Endrin ketone	0.0048 U	ug/L	0.0096	0.0048	1	08/13/20 09:38	08/21/20 11:01	53494-70-5	
Heptachlor	0.0059 U	ug/L	0.0096	0.0059	1	08/13/20 09:38	08/21/20 11:01	76-44-8	
Heptachlor epoxide	0.015 U	ug/L	0.019	0.015	1	08/13/20 09:38	08/21/20 11:01	1024-57-3	
Methoxychlor	0.0040 U	ug/L	0.0096	0.0040	1	08/13/20 09:38	08/21/20 11:01	72-43-5	
Toxaphene	0.24 U	ug/L	0.48	0.24	1	08/13/20 09:38	08/21/20 11:01	8001-35-2	
Surrogates		•							
Tetrachloro-m-xylene (S)	67	%	27-124		1	08/13/20 09:38	08/21/20 11:01	877-09-8	
Decachlorobiphenyl (S)	88	%	10-132		1	08/13/20 09:38	08/21/20 11:01	2051-24-3	
L-PRO Water, Low Volume	Analytical	Method: FL-PR	O Preparati	on Method	: EPA 3	3510			
	Pace Ana	lytical Services	- Ormond Be	each					
Petroleum Range Organics  Surrogates	0.75 U	mg/L	0.94	0.75	1	08/13/20 13:58	08/14/20 12:48		
o-Terphenyl (S)	87	%	66-139		1	08/13/20 13:58	08/14/20 12:48	84-15-1	
N-Pentatriacontane (S)	91	%	42-159		1	08/13/20 13:58			
6010 MET ICP	Analytical	Method: EPA 6	010 Prepara	ation Metho	od: EPA	3010			
		lytical Services							
Arsenic	7.1 U	ug/L	10.0	7.1	1	08/13/20 11:44	08/14/20 05:50	7440-38-2	
Cadmium	0.33 U	ug/L	1.0	0.33	1	08/13/20 11:44	08/14/20 05:50		
Chromium	1.7 U	ug/L	5.0	1.7	1	08/13/20 11:44	08/14/20 05:50		
_ead	4.6 U	ug/L	10.0	4.6	1	08/13/20 11:44	08/14/20 05:50		
3270 MSSV PAHLV by SIM	Analytical	Method: EPA 8	270 by SIM	Preparatio	n Meth	od: EPA 3510			
•	-	lytical Services	-						
		/1	0.50	0.040	1	08/13/20 12:50	08/13/20 19:03	83-32-9	
Acenaphthene	0.040 U	ug/L	0.50						
•		•			1	08/13/20 12:50	08/13/20 19:03	208-96-8	
Acenaphthene Acenaphthylene Anthracene	0.030 U	ug/L	0.50	0.030			08/13/20 19:03 08/13/20 19:03		
· ·		•			1 1 1	08/13/20 12:50	08/13/20 19:03 08/13/20 19:03 08/13/20 19:03	120-12-7	

#### REPORT OF LABORATORY ANALYSIS



Project: FIU 236-08 Pace Project No.: 35570003

Date: 08/21/2020 04:56 PM

Sample: MW-1	Lab ID:	35570003005	Collected	: 08/11/20	16:37	Received: 08/	12/20 16:25 Ma	atrix: Water	
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qua
8270 MSSV PAHLV by SIM	Analytical	Method: EPA 8	270 by SIM	Preparation	n Meth	od: EPA 3510			
	Pace Ana	lytical Services	- Ormond Be	each					
Benzo(b)fluoranthene	0.027 U	ug/L	0.10	0.027	1	08/13/20 12:50	08/13/20 19:03	205-99-2	
Benzo(g,h,i)perylene	0.15 U	ug/L	0.50	0.15	1	08/13/20 12:50	08/13/20 19:03	191-24-2	
Benzo(k)fluoranthene	0.16 U	ug/L	0.50	0.16	1	08/13/20 12:50	08/13/20 19:03	207-08-9	
Chrysene	0.026 U	ug/L	0.50	0.026	1	08/13/20 12:50	08/13/20 19:03	218-01-9	
Dibenz(a,h)anthracene	0.13 U	ug/L	0.15	0.13	1	08/13/20 12:50	08/13/20 19:03	53-70-3	
Fluoranthene	0.018 U	ug/L	0.50	0.018	1	08/13/20 12:50	08/13/20 19:03		
Fluorene	0.088 U	ug/L	0.50	0.088	1	08/13/20 12:50	08/13/20 19:03	86-73-7	
ndeno(1,2,3-cd)pyrene	0.12 U	ug/L	0.15	0.12	1	08/13/20 12:50	08/13/20 19:03		
1-Methylnaphthalene	0.19 U	ug/L	2.0	0.19	1	08/13/20 12:50	08/13/20 19:03		
2-Methylnaphthalene	0.68 U	ug/L	2.0	0.68	1	08/13/20 12:50	08/13/20 19:03		
Naphthalene	0.29 U	ug/L	2.0	0.29	1	08/13/20 12:50	08/13/20 19:03		
Phenanthrene	0.16 U	ug/L	0.50	0.16	1	08/13/20 12:50	08/13/20 19:03		
Pyrene	0.032 U	ug/L	0.50	0.032	1	08/13/20 12:50	08/13/20 19:03		
Surrogates	0.002	~g/ =	0.00	0.002	•	00/10/20 12:00	00/10/20 10:00	0 00 0	
2-Fluorobiphenyl (S)	56	%	38-92		1	08/13/20 12:50	08/13/20 19:03	321-60-8	
o-Terphenyl-d14 (S)	57	%	54-112		1	08/13/20 12:50	08/13/20 19:03	1718-51-0	
8260 MSV	Analytical	Method: EPA 8	260						
	Pace Ana	lytical Services	- Ormond Be	each					
1,2-Dichlorobenzene	0.29 U	ug/L	1.0	0.29	1		08/14/20 08:22	95-50-1	
1,3-Dichlorobenzene	0.33 U	ug/L	1.0	0.33	1		08/14/20 08:22	541-73-1	
1,4-Dichlorobenzene	0.28 U	ug/L	1.0	0.28	1		08/14/20 08:22		
Benzene	0.30 U	ug/L	1.0	0.30	1		08/14/20 08:22	71-43-2	
Chlorobenzene	0.35 U	ug/L	1.0	0.35	1		08/14/20 08:22	108-90-7	
Ethylbenzene	0.30 U	ug/L	1.0	0.30	1		08/14/20 08:22		
Methyl-tert-butyl ether	0.51 U	ug/L	2.0	0.51	1		08/14/20 08:22		
Toluene	0.33 U	ug/L	1.0	0.33	1		08/14/20 08:22		
Kylene (Total)	2.1 U	ug/L	5.0	2.1	1		08/14/20 08:22		
m&p-Xylene	2.1 U	ug/L	4.0	2.1	1		08/14/20 08:22		
o-Xylene	0.27 U	ug/L	1.0	0.27	1		08/14/20 08:22		
Surrogates	<del>-</del>	<del>3</del> - –	•••	*·-·	•			<del>-</del>	
4-Bromofluorobenzene (S)	97	%	70-130		1		08/14/20 08:22	460-00-4	
Toluene-d8 (S)	101	%	70-130		1		08/14/20 08:22	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	103	%	70-130		1		08/14/20 08:22	2199-69-1	

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570003

Date: 08/21/2020 04:56 PM

Sample: Trip Blank	Lab ID:	35570003006	Collecte	d: 08/11/20	00:01	Received: 08	3/12/20 16:25 Ma	atrix: Water	
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA 8	260						
	Pace Anal	ytical Services	- Ormond E	Beach					
1,2-Dichlorobenzene	0.29 U	ug/L	1.0	0.29	1		08/14/20 08:49	95-50-1	
1,3-Dichlorobenzene	0.33 U	ug/L	1.0	0.33	1		08/14/20 08:49	541-73-1	
1,4-Dichlorobenzene	0.28 U	ug/L	1.0	0.28	1		08/14/20 08:49	106-46-7	
Benzene	0.30 U	ug/L	1.0	0.30	1		08/14/20 08:49	71-43-2	
Chlorobenzene	0.35 U	ug/L	1.0	0.35	1		08/14/20 08:49	108-90-7	
Ethylbenzene	0.30 U	ug/L	1.0	0.30	1		08/14/20 08:49	100-41-4	
Methyl-tert-butyl ether	0.51 U	ug/L	2.0	0.51	1		08/14/20 08:49	1634-04-4	
Toluene	0.33 U	ug/L	1.0	0.33	1		08/14/20 08:49	108-88-3	
Xylene (Total)	2.1 U	ug/L	5.0	2.1	1		08/14/20 08:49	1330-20-7	
m&p-Xylene	2.1 U	ug/L	4.0	2.1	1		08/14/20 08:49	179601-23-1	
o-Xylene	0.27 U	ug/L	1.0	0.27	1		08/14/20 08:49	95-47-6	
Surrogates		Ū							
4-Bromofluorobenzene (S)	97	%	70-130		1		08/14/20 08:49	460-00-4	
Toluene-d8 (S)	103	%	70-130		1		08/14/20 08:49	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	103	%	70-130		1		08/14/20 08:49	2199-69-1	

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570003

Date: 08/21/2020 04:56 PM

QC Batch: 656721
QC Batch Method: EPA 3010

Analysis Method: EPA 6010
Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35570003001, 35570003002, 35570003003, 35570003004, 35570003005

METHOD BLANK: 3570960 Matrix: Water

Associated Lab Samples: 35570003001, 35570003002, 35570003003, 35570003004, 35570003005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	7.1 U	10.0	7.1	08/14/20 05:22	
Cadmium	ug/L	0.33 U	1.0	0.33	08/14/20 05:22	
Chromium	ug/L	1.7 U	5.0	1.7	08/14/20 05:22	
Lead	ug/L	4.6 U	10.0	4.6	08/14/20 05:22	

LABORATORY CONTROL SAMPLE: 3570961 LCS Spike LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Arsenic 250 244 98 80-120 ug/L Cadmium 101 ug/L 25 25.2 80-120 Chromium ug/L 250 251 101 80-120 Lead ug/L 250 251 100 80-120

MATRIX SPIKE & MATRIX SI	PIKE DUPLI	ICATE: 3570	962		3570963							
			MS	MSD								
		35569467003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Arsenic	ug/L	7.1 U	250	250	261	263	104	105	75-125	1	20	
Cadmium	ug/L	0.33 U	25	25	25.4	25.8	102	103	75-125	1	20	
Chromium	ug/L	2.8 1	250	250	272	269	107	106	75-125	1	20	
Lead	ua/L	4.6 U	250	250	265	265	106	106	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570003

QC Batch: 656925 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35570003003, 35570003005, 35570003006

METHOD BLANK: 3571876 Matrix: Water

Associated Lab Samples: 35570003003, 35570003005, 35570003006

Davamatan	Unite	Blank	Reporting	MDI	A a b a -d	O a lifi a na
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
1,2-Dichlorobenzene	ug/L	0.29 U	1.0	0.29	08/14/20 01:05	
1,3-Dichlorobenzene	ug/L	0.33 U	1.0	0.33	08/14/20 01:05	
1,4-Dichlorobenzene	ug/L	0.28 U	1.0	0.28	08/14/20 01:05	
Benzene	ug/L	0.30 U	1.0	0.30	08/14/20 01:05	
Chlorobenzene	ug/L	0.35 U	1.0	0.35	08/14/20 01:05	
Ethylbenzene	ug/L	0.30 U	1.0	0.30	08/14/20 01:05	
n&p-Xylene	ug/L	2.1 U	4.0	2.1	08/14/20 01:05	
Methyl-tert-butyl ether	ug/L	0.51 U	2.0	0.51	08/14/20 01:05	
o-Xylene	ug/L	0.27 U	1.0	0.27	08/14/20 01:05	
Toluene	ug/L	0.33 U	1.0	0.33	08/14/20 01:05	
(ylene (Total)	ug/L	2.1 U	5.0	2.1	08/14/20 01:05	
1,2-Dichlorobenzene-d4 (S)	%	105	70-130		08/14/20 01:05	
I-Bromofluorobenzene (S)	%	97	70-130		08/14/20 01:05	
Toluene-d8 (S)	%	99	70-130		08/14/20 01:05	

LABORATORY CONTROL SAMPLE	: 3571877					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,2-Dichlorobenzene	ug/L		19.8	99	70-130	
1,3-Dichlorobenzene	ug/L	20	20.9	104	70-130	
1,4-Dichlorobenzene	ug/L	20	19.4	97	70-130	
Benzene	ug/L	20	20.9	105	70-130	
Chlorobenzene	ug/L	20	19.0	95	70-130	
Ethylbenzene	ug/L	20	19.6	98	70-130	
m&p-Xylene	ug/L	40	39.2	98	70-130	
Methyl-tert-butyl ether	ug/L	20	18.7	94	64-124	
o-Xylene	ug/L	20	17.9	89	70-130	
Toluene	ug/L	20	18.7	94	70-130	
Xylene (Total)	ug/L	60	57.1	95	70-130	
1,2-Dichlorobenzene-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			101	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570003

			MS	MSD								
		20166175001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,2-Dichlorobenzene	ug/L	ND	20	20	18.9	19.7	95	99	70-130	4	40	
1,3-Dichlorobenzene	ug/L	ND	20	20	20.6	21.7	103	109	70-130	5	40	
1,4-Dichlorobenzene	ug/L	ND	20	20	18.9	19.8	95	99	70-130	4	40	
Benzene	ug/L	ND	20	20	21.7	22.5	108	113	70-130	4	40	
Chlorobenzene	ug/L	ND	20	20	19.2	19.6	96	98	70-130	2	40	
Ethylbenzene	ug/L	ND	20	20	20.2	20.9	101	104	70-130	3	40	
m&p-Xylene	ug/L	ND	40	40	40.2	41.4	101	104	70-130	3	40	
Methyl-tert-butyl ether	ug/L	ND	20	20	17.7	18.2	88	91	64-124	3	40	
o-Xylene	ug/L	ND	20	20	17.6	18.6	88	93	70-130	6	40	
Toluene	ug/L	ND	20	20	18.9	19.3	94	97	70-130	2	40	
Xylene (Total)	ug/L	ND	60	60	57.8	60.0	96	100	70-130	4	40	
1,2-Dichlorobenzene-d4 (S)	%						99	100	70-130			
4-Bromofluorobenzene (S)	%						98	98	70-130		40	
Toluene-d8 (S)	%						100	99	70-130		40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570003

Date: 08/21/2020 04:56 PM

QC Batch: 656636 Analysis Method: EPA 8081

QC Batch Method: EPA 3510 Analysis Description: 8081 GCS Pesticides

Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35570003001, 35570003002, 35570003003, 35570003004, 35570003005

METHOD BLANK: 3570678 Matrix: Water

Associated Lab Samples: 35570003001, 35570003002, 35570003003, 35570003004, 35570003005

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
4,4'-DDD	ug/L	0.0027 U	0.010	0.0027	08/21/20 08:28	
4,4'-DDE	ug/L	0.0050 U	0.010	0.0050	08/21/20 08:28	
4,4'-DDT	ug/L	0.0051 U	0.010	0.0051	08/21/20 08:28	
Aldrin	ug/L	0.0040 U	0.080	0.0040	08/21/20 08:28	
alpha-BHC	ug/L	0.0021 U	0.010	0.0021	08/21/20 08:28	
beta-BHC	ug/L	0.020 U	0.030	0.020	08/21/20 08:28	
Chlordane (Technical)	ug/L	0.25 U	0.50	0.25	08/21/20 08:28	
delta-BHC	ug/L	0.0048 U	0.010	0.0048	08/21/20 08:28	
Dieldrin	ug/L	0.0020 U	0.030	0.0020	08/21/20 08:28	
Endosulfan I	ug/L	0.0051 U	0.010	0.0051	08/21/20 08:28	
Endosulfan II	ug/L	0.0040 U	0.010	0.0040	08/21/20 08:28	
Endosulfan sulfate	ug/L	0.0062 U	0.10	0.0062	08/21/20 08:28	
Endrin	ug/L	0.0043 U	0.010	0.0043	08/21/20 08:28	
Endrin aldehyde	ug/L	0.0036 U	0.10	0.0036	08/21/20 08:28	
Endrin ketone	ug/L	0.0050 U	0.010	0.0050	08/21/20 08:28	
gamma-BHC (Lindane)	ug/L	0.0022 U	0.010	0.0022	08/21/20 08:28	
Heptachlor	ug/L	0.0062 U	0.010	0.0062	08/21/20 08:28	
Heptachlor epoxide	ug/L	0.016 U	0.020	0.016	08/21/20 08:28	
Methoxychlor	ug/L	0.0042 U	0.010	0.0042	08/21/20 08:28	
Toxaphene	ug/L	0.25 U	0.50	0.25	08/21/20 08:28	
Decachlorobiphenyl (S)	%	49	10-132		08/21/20 08:28	
Tetrachloro-m-xylene (S)	%	80	27-124		08/21/20 08:28	

LABORATORY CONTROL SAMPLE & LC	SD: 3570679		35	70708						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
4,4'-DDD	ug/L	0.5	0.59	0.59	117	117	67-133	0	40	
4,4'-DDE	ug/L	0.5	0.56	0.55	112	111	59-125	1	40	
4,4'-DDT	ug/L	0.5	0.53	0.55	107	110	54-132	3	40	
Aldrin	ug/L	0.5	0.49	0.48	98	96	25-116	3	40	
alpha-BHC	ug/L	0.5	0.55	0.55	111	110	53-126	0	40	
beta-BHC	ug/L	0.5	0.57	0.58	113	116	62-130	2	40	
delta-BHC	ug/L	0.5	0.58	0.59	117	118	35-122	1	40	
Dieldrin	ug/L	0.5	0.56	0.56	113	113	66-128	0	40	
Endosulfan I	ug/L	0.5	0.56	0.56	113	112	67-125	0	40	
Endosulfan II	ug/L	0.5	0.57	0.57	114	115	67-131	0	40	
Endosulfan sulfate	ug/L	0.5	0.59	0.61	118	121	62-127	3	40	
Endrin	ug/L	0.5	0.52	0.53	104	107	66-130	2	40	
Endrin aldehyde	ug/L	0.5	0.59	0.59	117	118	61-124	1	40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570003

Date: 08/21/2020 04:56 PM

LABORATORY CONTROL SAMPL	.E & LCSD: 357067	9	35	70708						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
Endrin ketone	ug/L	0.5	0.61	0.62	122	123	65-132	1	40	
gamma-BHC (Lindane)	ug/L	0.5	0.56	0.56	111	111	58-127	0	40	
Heptachlor	ug/L	0.5	0.51	0.50	103	101	35-123	2	40	
Heptachlor epoxide	ug/L	0.5	0.56	0.56	111	111	62-125	0	40	
Methoxychlor	ug/L	0.5	0.58	0.59	115	119	59-135	3	40	
Decachlorobiphenyl (S)	%				82	48	10-132			
Tetrachloro-m-xylene (S)	%				88	85	27-124			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570003

Date: 08/21/2020 04:56 PM

QC Batch: 656619 Analysis Method: EPA 8270 by SIM

QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAHLV by SIM MSSV

Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35570003003, 35570003005

METHOD BLANK: 3570636 Matrix: Water

Associated Lab Samples: 35570003003, 35570003005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene		0.19 U	2.0	0.19	08/13/20 21:40	
2-Methylnaphthalene	ug/L	0.68 U	2.0	0.68	08/13/20 21:40	
Acenaphthene	ug/L	0.040 U	0.50	0.040	08/13/20 21:40	
Acenaphthylene	ug/L	0.030 U	0.50	0.030	08/13/20 21:40	
Anthracene	ug/L	0.043 U	0.50	0.043	08/13/20 21:40	
Benzo(a)anthracene	ug/L	0.055 U	0.10	0.055	08/13/20 21:40	
Benzo(a)pyrene	ug/L	0.12 U	0.20	0.12	08/13/20 21:40	
Benzo(b)fluoranthene	ug/L	0.027 U	0.10	0.027	08/13/20 21:40	
Benzo(g,h,i)perylene	ug/L	0.15 U	0.50	0.15	08/13/20 21:40	
Benzo(k)fluoranthene	ug/L	0.16 U	0.50	0.16	08/13/20 21:40	
Chrysene	ug/L	0.026 U	0.50	0.026	08/13/20 21:40	
Dibenz(a,h)anthracene	ug/L	0.13 U	0.15	0.13	08/13/20 21:40	
Fluoranthene	ug/L	0.018 U	0.50	0.018	08/13/20 21:40	
Fluorene	ug/L	0.088 U	0.50	0.088	08/13/20 21:40	
ndeno(1,2,3-cd)pyrene	ug/L	0.12 U	0.15	0.12	08/13/20 21:40	
Naphthalene	ug/L	0.29 U	2.0	0.29	08/13/20 21:40	
Phenanthrene	ug/L	0.16 U	0.50	0.16	08/13/20 21:40	
Pyrene	ug/L	0.032 U	0.50	0.032	08/13/20 21:40	
2-Fluorobiphenyl (S)	%	62	38-92		08/13/20 21:40	
o-Terphenyl-d14 (S)	%	59	54-112		08/13/20 21:40	

LABORATORY CONTROL SAMPLE:	3570637					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1-Methylnaphthalene	ug/L		2.9	59	40-96	
2-Methylnaphthalene	ug/L	5	2.9	58	40-94	
Acenaphthene	ug/L	5	3.1	62	42-96	
Acenaphthylene	ug/L	5	2.9	59	39-90	
Anthracene	ug/L	5	3.0	60	46-109	
Benzo(a)anthracene	ug/L	5	3.2	64	50-116	
Benzo(a)pyrene	ug/L	5	3.2	64	48-117	
Benzo(b)fluoranthene	ug/L	5	3.2	64	51-124	
Benzo(g,h,i)perylene	ug/L	5	3.6	71	47-121	
Benzo(k)fluoranthene	ug/L	5	3.3	66	50-125	
Chrysene	ug/L	5	3.4	68	53-122	
Dibenz(a,h)anthracene	ug/L	5	3.5	70	45-123	
Fluoranthene	ug/L	5	3.4	68	52-119	
Fluorene	ug/L	5	3.0	61	44-100	
Indeno(1,2,3-cd)pyrene	ug/L	5	3.6	72	46-121	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570003

LABORATORY CONTROL SAMPLE:	3570637					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L		2.9	58	40-91	
Phenanthrene	ug/L	5	3.1	62	47-111	
Pyrene	ug/L	5	3.4	68	51-120	
2-Fluorobiphenyl (S)	%			63	38-92	
p-Terphenyl-d14 (S)	%			61	54-112	

MATRIX SPIKE & MATRIX S	SPIKE DUPLIC	CATE: 3570	767		3570768							
			MS	MSD								
	3	5569989001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1-Methylnaphthalene	ug/L	0.19 U	5	5	3.0	3.1	61	61	40-96	1	40	
2-Methylnaphthalene	ug/L	0.68 U	5	5	3.0	3.0	60	61	40-94	1	40	
Acenaphthene	ug/L	0.040 U	5	5	3.2	3.2	63	64	42-96	2	40	
Acenaphthylene	ug/L	0.030 U	5	5	3.1	3.1	62	63	39-90	2	40	
Anthracene	ug/L	0.043 U	5	5	3.4	3.3	67	67	46-109	1	40	
Benzo(a)anthracene	ug/L	0.055 U	5	5	3.6	3.6	73	72	50-116	2	40	
Benzo(a)pyrene	ug/L	0.12 U	5	5	3.6	3.6	73	72	48-117	1	40	
Benzo(b)fluoranthene	ug/L	0.027 U	5	5	3.7	3.6	73	71	51-124	3	40	
Benzo(g,h,i)perylene	ug/L	0.15 U	5	5	4.0	4.0	81	80	47-121	1	40	
Benzo(k)fluoranthene	ug/L	0.16 U	5	5	3.7	3.7	75	74	50-125	1	40	
Chrysene	ug/L	0.026 U	5	5	3.7	3.7	75	73	53-122	2	40	
Dibenz(a,h)anthracene	ug/L	0.13 U	5	5	4.0	3.9	79	78	45-123	2	40	
Fluoranthene	ug/L	0.018 U	5	5	3.7	3.7	74	74	52-119	1	40	
Fluorene	ug/L	0.088 U	5	5	3.2	3.2	64	64	44-100	1	40	
Indeno(1,2,3-cd)pyrene	ug/L	0.12 U	5	5	4.1	4.0	82	80	46-121	2	40	
Naphthalene	ug/L	0.29 U	5	5	2.9	3.0	59	59	40-91	1	40	
Phenanthrene	ug/L	0.16 U	5	5	3.4	3.4	68	67	47-111	1	40	
Pyrene	ug/L	0.032 U	5	5	3.7	3.7	75	74	51-120	1	40	
2-Fluorobiphenyl (S)	%						64	63	38-92			
p-Terphenyl-d14 (S)	%						66	64	54-112			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570003

QC Batch: 656638

QC Batch Method: EPA 3510

Analysis Method: FL-PRO

Analysis Description:

FL-PRO Water Low Volume

Laboratory:

Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35570003003, 35570003005

METHOD BLANK: 3570686

Date: 08/21/2020 04:56 PM

Matrix: Water

Associated Lab Samples: 35570003003, 35570003005

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Petroleum Range Organics	mg/L	0.80 U	1.0	0.80	08/14/20 08:18	
N-Pentatriacontane (S)	%	89	42-159		08/14/20 08:18	
o-Terphenyl (S)	%	82	66-139		08/14/20 08:18	

LABORATORY CONTROL SAMPLE:	3570687					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Petroleum Range Organics	mg/L		4.0	79	66-119	
N-Pentatriacontane (S)	%			88	42-159	
o-Terphenyl (S)	%			85	66-139	

MATRIX SPIKE SAMPLE:	3570691						
		35569871001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Petroleum Range Organics	mg/L	0.73 U	4.6	3.7	77	65-123	
N-Pentatriacontane (S)	%				90	42-159	
o-Terphenyl (S)	%				84	66-139	

SAMPLE DUPLICATE: 3570692						
		35569871002	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
Petroleum Range Organics	mg/L	0.74 U	0.75 U		20	)
N-Pentatriacontane (S)	%	81	84			
14-1 entathacontaile (5)	%	01	04			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

#### **REPORT OF LABORATORY ANALYSIS**



#### **QUALIFIERS**

Project: FIU 236-08 Pace Project No.: 35570003

#### **DEFINITIONS**

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

**DUP - Sample Duplicate** 

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

#### **ANALYTE QUALIFIERS**

Date: 08/21/2020 04:56 PM

- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- U Compound was analyzed for but not detected.

**REPORT OF LABORATORY ANALYSIS** 



#### **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: FIU 236-08 Pace Project No.: 35570003

Date: 08/21/2020 04:56 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
35570003001	MW-3	EPA 3510	656636	EPA 8081	657018
35570003002	MW-4	EPA 3510	656636	EPA 8081	657018
35570003003	MW-5	EPA 3510	656636	EPA 8081	657018
35570003004	MW-2	EPA 3510	656636	EPA 8081	657018
35570003005	MW-1	EPA 3510	656636	EPA 8081	657018
5570003003	MW-5	EPA 3510	656638	FL-PRO	657027
5570003005	MW-1	EPA 3510	656638	FL-PRO	657027
5570003001	MW-3	EPA 3010	656721	EPA 6010	656909
5570003002	MW-4	EPA 3010	656721	EPA 6010	656909
5570003003	MW-5	EPA 3010	656721	EPA 6010	656909
5570003004	MW-2	EPA 3010	656721	EPA 6010	656909
5570003005	MW-1	EPA 3010	656721	EPA 6010	656909
5570003003	MW-5	EPA 3510	656619	EPA 8270 by SIM	656887
5570003005	MW-1	EPA 3510	656619	EPA 8270 by SIM	656887
35570003003	MW-5	EPA 8260	656925		
5570003005	MW-1	EPA 8260	656925		
35570003006	Trip Blank	EPA 8260	656925		

#### **REPORT OF LABORATORY ANALYSIS**

Pace Analytical Chain-of-Cu	E-CUSTODY Analyti	CHAIN-OF-CUSTODY Analytical Request Document Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields	ent	2	AB USE ONL	r- Affix Workorder/Login L. MTJL Log-ii	LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here
Gredicated	Billing Information:				A	LL SHADED AREAS	ALL SHADED AREAS are for LAB USE ONLY
Address: 8 THY SW 133 S+	la la			0	ontainer Pre	Container Preservative Type **	Lab Project Manager:
of comoto	Email To:	Compton ECREGED not	# 9	Preservative 1	lypes: (1) nitri	c acid, (2) sulfuric acid, (3) hydr ste (8) sodium thiosulfate (9)	** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) nechanol (7) codium hisulizate (8) codium hisulizate (9) havano (4) scookic acid (8) ammonium culfate.
	Site Collection Info/Address		( C)	ammonium h	ydroxide, (D)	TSP, (U) Unpreserved, (O) Other	to) metianov, (7) conduit promises, (9) conduit uniconnate, (7) executiv acid, (9) all informatin solitate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other
Customer Project Name/Number:	State: County/City:	ity: Time Zone Collected: [ ]PT [ ]MT [ ]CT [ ]ET	. [ ] et		Ā	Analyses	Line: ple Receipt Checklist:
J		Compliance Monitoring? [ ] Yes [ ] No	711		yraeki - re		Custody Seals Flescht indect I B NA Collector Signature Present Y B NA Collector Signature Present Y B NA Collector Flescht Fl
Collected By (print): Purchase Order #:	-10	DW PWS ID #: DW Location Code:		10-10-	ledi I		in in the second
Collected By (signature): Turnaround Date Required:	Required:	Immediately Packed on Ice:    X   Yes     No		Day.	12		adspace Acceptable Y M
ropriate [ ] Return	\text{\text{ush:}}	Field Filtered [ ] Yes Analysis:			1-3/1	, , ,	ing Time Y N ne Present Y N table Y N
Codes (Insert in Matrix box below): Dri-	(Expedite Charges Apply) hking Water (DW), Ground Water , Air (AR), Tissue (TS), Bioassay (B)	(GW), Wastewater (WW), J. Vapor (V), Other (OT)	92	5	+16	.م، د	Sulfide Present Y N NA Lead Acetate Strips:
Customer Sample ID Matrix * G	Comp / Co lected (or Grab Composite Start)	Composite End Cl	# of Ctns	A A9	761		Lab Sample # / Comments:
	4	Date Time		- 1			
MW-3 6W		8/11/20 13.22	۲ ×	×			
h-MW		1241	7 ×	×			
MW-S		1505	× %	×	×	×	
1-MM	90	1554	7 X	k		75	
Mw-1		V 1657	≫ ×	×	×	#OM ×	0#:35570003
						35570003	
Customer Remarks / Special Conditions / Possible Hazards:	Type of Ice Used:	Wet Blue Dry	None	SHORT H	OLDS PRESE	SHORT HOLDS PRESENT (<72 hours): Y N	N/A Lab Sample Temperature Info:
				Lab Tracking #:	king #:	2464766	6 Therm ID#:
	Radchem sample(s) screened (<500 cpm	screened (<500 cpm):	Jan Ca	Samples re	Samples received via:	Client Courier	
Relinquished by/Company: (Signa	Date/Time:	No.	ature)	150	III.	MTJIL LA	Comments:
	KInlu 1130	X	TIM	B	No	// Table #:	
Reinquished by/Company: (Signature) Q	Date/Time:	Received by/Company: (Signatu(e)	atu(e)/	Date	1/1 16	28 Template:	Trip Blank Received: Y N NA HCL MeOH TSP Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: Signs	Signature)	JE.	7-12-21 23/S	23/5 PM:	Non Conformance(s): Page:
	ا هازد مم	7 / P2	Page 98 of 150	150			



Project Manager Review:

# Document Name: Sample Condition Upon Receipt Form Document No.: F-FL-C-007 rev, 13

Document Revised:
May 30, 2018
Issuing Authority:
Pace Florida Quality Office

		-	VALUE
	WO#: 3557000	3	SCUR)
Project # Project Manager:	PM: CTR Due Date: CLIENT: 36-CRBGEO		Date and Initials of person: Examining contents:
Client:			Deliver:
Thermometer Used:	338 Date 8/2/20	Time:	pH:
ooler #1 Temp. C, \( \script{\script{Visua}}	(Correction Factor)		Samples on ice, cooling process has be
	(Correction Factor)	•	Samples on ice, cooling process has be
	(Correction Factor)		Samples on ice, cooling process has be
	l)(Correction Factor)		Samples on ice, cooling process has be
	(Correction Factor)		Samples on ice, cooling process has be
	l)(Correction Factor)		Samples on ice, cooling process has be
☐ Other	☐ Sender ☐ Third Party ☐	Credit Card	□ Unknown
stody Seal on Cooler/Box Present		ct:	Ico Wet Blue Dry None
stody Seal on Cooler/Box Present	Bubble Bags None Other	r	Ice Wet Blue Dry None  rted Time: Qty:
stody Seal on Cooler/Box Present cking Material: Bubble Wrap mples shorted to lab (If Yes, comp	Bubble Bags None Other	r Shor	
stody Seal on Cooler/Box Present cking Material: Bubble Wrap mples shorted to lab (If Yes, comp ain of Custody Present	Bubble Bags None Other	r Shor	
stody Seal on Cooler/Box Present cking Material: Bubble Wrap mples shorted to lab (If Yes, comp ain of Custody Present ain of Custody Filled Out	Bubble Bags	r Shor	
stody Seal on Cooler/Box Present cking Material: Bubble Wrap mples shorted to lab (If Yes, comp ain of Custody Present ain of Custody Filled Out inquished Signature & Sampler Nar	Bubble Bags	r Shor	
stody Seal on Cooler/Box Present cking Material: Bubble Wrap mples shorted to lab (If Yes, comp ain of Custody Present ain of Custody Filled Out inquished Signature & Sampler Nam mples Arrived within Hold Time	Bubble Bags	r Shor	
stody Seal on Cooler/Box Present cking Material: Bubble Wrap mples shorted to lab (If Yes, comp ain of Custody Present ain of Custody Filled Out inquished Signature & Sampler Nar mples Arrived within Hold Time	Bubble Bags	r Shor	
stody Seal on Cooler/Box Present cking Material: Bubble Wrap mples shorted to lab (If Yes, comp ein of Custody Present ein of Custody Filled Out inquished Signature & Sampler Nam mples Arrived within Hold Time sh TAT requested on COC	Bubble Bags	r Shor	
stody Seal on Cooler/Box Present cking Material: Bubble Wrap mples shorted to lab (If Yes, comp ain of Custody Present ain of Custody Filled Out inquished Signature & Sampler Nam nples Arrived within Hold Time th TAT requested on COC ficient Volume rect Containers Used tainers Intact	Bubble Bags	r Shor	
stody Seal on Cooler/Box Present cking Material: Bubble Wrap mples shorted to lab (If Yes, comp ain of Custody Present ain of Custody Filled Out inquished Signature & Sampler Nam nples Arrived within Hold Time th TAT requested on COC ficient Volume rect Containers Used tainers Intact ple Labels match COC (sample IDs & d ction)	Bubble Bags	r Shor	rted Time: Qty:
stody Seal on Cooler/Box Present cking Material: Bubble Wrap mples shorted to lab (If Yes, comp ain of Custody Present ain of Custody Filled Out inquished Signature & Sampler Nam nples Arrived within Hold Time th TAT requested on COC ficient Volume rect Containers Used tainers Intact ple Labels match COC (sample IDs & d ction) ontainers needing acid/base preservation ked. ontainers needing preservation are four oliance with EPA recommendation:	Bubble Bags	Shorts:  Preservativ Lot #/Trace Date:	Containes MISSINGHI Preservation Information:
istody Seal on Cooler/Box Present cking Material: Bubble Wrap imples shorted to lab (If Yes, comp ain of Custody Present ain of Custody Filled Out inquished Signature & Sampler Nam inquished Signature & Sampler Nam inples Arrived within Hold Time sh TAT requested on COC ficient Volume rect Containers Used Italiners Intact iple Labels match COC (sample IDs & diction) ontainers needing acid/base preservation kked. ontainers needing preservation are four oliance with EPA recommendation: Exceptions: VOA, Coliform	Bubble Bags	Short	Containes Missing Average Preservation Information:
istody Seal on Cooler/Box Present cking Material: Bubble Wrap imples shorted to lab (If Yes, comp ain of Custody Present ain of Custody Filled Out linquished Signature & Sampler Nar imples Arrived within Hold Time sh TAT requested on COC ficient Volume rect Containers Used intainers Intact iple Labels match COC (sample IDs & di interest In	Bubble Bags	Shorts:  Preservativ Lot #/Trace Date:	Containes Missing Average Preservation Information:
ustody Seal on Cooler/Box Present acking Material: Bubble Wrap amples shorted to lab (If Yes, comp main of Custody Present main of Custody Filled Out elinquished Signature & Sampler Narr mples Arrived within Hold Time ash TAT requested on COC fficient Volume arrect Containers Used intainers Intact imple Labels match COC (sample IDs & d ection) containers needing acid/base preservation cked. Containers needing preservation are four ppliance with EPA recommendation:	Bubble Bags	Shorts:  Preservativ Lot #/Trace Date:	Containes Missing Average Preservation Information:

Date:\_\_

Page 25 of 26



Document Name: Sample Condition Upon Receipt Form Document No.; F-FL-C-007 rev. 13 Document Revised: May 30, 2018 Issuing Authority: Pace Florida Quality Office

#### Sample Condition Upon Receipt Form (SCUR)

Project # Project Manager: Client:			Date and Initials of person:  Examining contents:  Label:  Deliver:  pH:
Thermometer Used:		<u>D</u> Time: _/(	Initials: PD
State of Origin:	_ For W p	rojects, all containers ver	rified to ≤6 °C
Cooler #1 Temp.°C 4-9 (Visual) -0	(Correction Factor)	1.8 (Actual)	Samples on ice, cooling process has begu
Cooler #2 Temp. C(Visual)	(Correction Factor)	(Actual)	Samples on ice, cooling process has begin
Cooler #3 Temp.°C(Visual)	(Correction Factor)	(Actual)	Samples on Ice, cooling process has begu
Cooler #4 Temp.°C(Visual)			Samples on ice, cooling process has begu
Cooler #5 Temp. C(Visual)			Samples on ice, cooling process has begu
Cooler #6 Temp.°C(Visual)	(Correction Factor)	(Actual)	Samples on ice, cooling process has begu
Courier: Fed Ex UPS UPS Shipping Method: First Overnight Pr		/	☐ Other
	der    Third Party	☐ Credit Card	□ Unknown
Tracking #			
Chain of Custody Present	☐Yes ☐ No ☐N/A	comments:	
Chain of Custody Filled Out	ZYes DNo DN/A		
Relinquished Signature & Sampler Name COC	DY es I No IN/A	Counter d	id not relinguish
Samples Arrived within Hold Time	ZYes □ No □N/A		
Rush TAT requested on COC	□Yes / No □N/A		
Sufficient Volume	□Yes □ No □N/A		
Correct Containers Used	□Yes □ No □N/A		
Containers intact Sample Labels match COC (sample IDs & date/time of	☐Yes ☐ No ☐N/A		
collection)	∐Yes ∐ No ∐N/A		
All containers needing acid/base preservation have be checked.	Pen □Yes □No □N/A	Preservativ	Preservation Information:
All Containers needing preservation are found to be in compliance with EPA recommendation:		Lot #/Trace	#:
Exceptions: VOA, Coliform, TOC, O&		Date:	Time:
Headspace in VOA Vials? ( >6mm):	□Yes □ No □N/A		
rip Blank Present:	□Yes □ No □N/A		
Comments/ Resolution (use back for addition	ai comments):		



August 21, 2020

Brad Compton CRB Geological & Environmental Services 8744 S.W. 133rd Street Miami, FL 33176

RE: Project: FIU 236-08

Pace Project No.: 35570004

#### Dear Brad Compton:

Enclosed are the analytical results for sample(s) received by the laboratory on August 12, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

• Pace Analytical Services - Ormond Beach

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christina Raschke

Christin Parelle

christina.raschke@pacelabs.com (954)582-4300

Project Manager

**Enclosures** 

cc: Emilia Echeveste, CRB Geological & Environmental

Services

Barbara Livieri, CRB Geological & Environmental Services





#### **CERTIFICATIONS**

Project: FIU 236-08 Pace Project No.: 35570004

#### **Pace Analytical Services Ormond Beach**

8 East Tower Circle, Ormond Beach, FL 32174

Alaska DEC- CS/UST/LUST Alabama Certification #: 41320 Arizona Certification# AZ0819

Colorado Certification: FL NELAC Reciprocity

Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

Florida Certification #: E83079 Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383 Kentucky Certification #: 90050

Louisiana Certification #: FL NELAC Reciprocity Louisiana Environmental Certificate #: 05007

Maryland Certification: #346 Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236

Montana Certification #: Cert 0074 Nebraska Certification: NE-OS-28-14 New Hampshire Certification #: 2958 New Jersey Certification #: FL022 New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710 North Dakota Certification #: R-216

Ohio DEP 87780

Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity

Virginia Environmental Certification #: 460165

West Virginia Certification #: 9962C Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

#### **REPORT OF LABORATORY ANALYSIS**



#### **SAMPLE SUMMARY**

Project: FIU 236-08 Pace Project No.: 35570004

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35570004001	SB-8 (0-6")	Solid	08/11/20 09:00	08/12/20 16:25
35570004002	SB-9 (0-6")	Solid	08/11/20 09:30	08/12/20 16:25
35570004003	SB-10 (0-6")	Solid	08/11/20 10:00	08/12/20 16:25
35570004004	SB-11 (0-6")	Solid	08/11/20 10:30	08/12/20 16:25
35570004005	SB-12 (0-6")	Solid	08/11/20 11:05	08/12/20 16:25
35570004006	SB-13 (0-6")	Solid	08/11/20 11:20	08/12/20 16:25
35570004007	SB-14 (0-6")	Solid	08/11/20 11:35	08/12/20 16:25
35570004008	SB-15 (0-6")	Solid	08/11/20 12:00	08/12/20 16:25

#### **REPORT OF LABORATORY ANALYSIS**



#### **SAMPLE ANALYTE COUNT**

Project: FIU 236-08 Pace Project No.: 35570004

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35570004001	SB-8 (0-6")	EPA 8081	CB1	22	PASI-O
		EPA 6010	CS2	1	PASI-O
		ASTM D2974-87	JM2	1	PASI-O
35570004002	SB-9 (0-6")	EPA 8081	CB1	22	PASI-O
		EPA 6010	CS2	1	PASI-O
		ASTM D2974-87	JM2	1	PASI-O
35570004003	SB-10 (0-6")	EPA 8081	CB1	22	PASI-O
		FL-PRO	BMC	3	PASI-O
		EPA 6010	CS2	4	PASI-O
		EPA 8270	MMG	21	PASI-O
		ASTM D2974-87	JM2	1	PASI-O
5570004004	SB-11 (0-6")	EPA 8081	CB1	22	PASI-O
		FL-PRO	BMC	3	PASI-O
		EPA 6010	CS2	4	PASI-O
		EPA 8270	MMG	21	PASI-O
		ASTM D2974-87	JM2	1	PASI-O
35570004005	SB-12 (0-6")	EPA 8081	CB1	22	PASI-O
		EPA 6010	CS2	1	PASI-O
		ASTM D2974-87	JM2	1	PASI-O
35570004006	SB-13 (0-6")	EPA 8081	CB1	22	PASI-O
		EPA 6010	CS2	1	PASI-O
		ASTM D2974-87	JM2	1	PASI-O
35570004007	SB-14 (0-6")	EPA 8081	CB1	22	PASI-O
		EPA 6010	CS2	1	PASI-O
		ASTM D2974-87	JM2	1	PASI-O
35570004008	SB-15 (0-6")	EPA 8081	CB1	22	PASI-O
		EPA 6010	CS2	1	PASI-O
		ASTM D2974-87	JM2	1	PASI-O

PASI-O = Pace Analytical Services - Ormond Beach

#### **REPORT OF LABORATORY ANALYSIS**



#### **SUMMARY OF DETECTION**

Project: FIU 236-08 Pace Project No.: 35570004

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
35570004001	SB-8 (0-6")					
EPA 6010	Arsenic	1.6	mg/kg	0.62	08/17/20 18:24	
ASTM D2974-87	Percent Moisture	11.8	%	0.10	08/19/20 09:58	
35570004002	SB-9 (0-6")					
EPA 6010	Arsenic	1.7	mg/kg	0.62	08/17/20 18:29	
ASTM D2974-87	Percent Moisture	12.6	%	0.10	08/19/20 09:58	
35570004003	SB-10 (0-6")					
FL-PRO	Petroleum Range Organics	19.5	mg/kg	14.7	08/14/20 13:16	P1
EPA 6010	Arsenic	1.9 I	mg/kg	3.4	08/17/20 18:43	
EPA 6010	Cadmium	0.47	mg/kg	0.34	08/17/20 18:43	
EPA 6010	Chromium	19.7	mg/kg	1.7	08/17/20 18:43	
EPA 6010	Lead	15.1	mg/kg	3.4	08/17/20 18:43	
ASTM D2974-87	Percent Moisture	10.8	%	0.10	08/19/20 09:58	
35570004004	SB-11 (0-6")					
FL-PRO	Petroleum Range Organics	16.3	mg/kg	14.0	08/14/20 13:32	P1
EPA 6010	Arsenic	3.8	mg/kg	2.8	08/17/20 18:48	
EPA 6010	Cadmium	0.36	mg/kg	0.28	08/17/20 18:48	
EPA 6010	Chromium	27.9	mg/kg	1.4	08/17/20 18:48	
EPA 6010	Lead	20.2	mg/kg	2.8	08/17/20 18:48	
ASTM D2974-87	Percent Moisture	7.4	%	0.10	08/19/20 09:58	
35570004005	SB-12 (0-6")					
EPA 6010	Arsenic	2.9 1	mg/kg	3.1	08/17/20 18:53	
ASTM D2974-87	Percent Moisture	18.7	%	0.10	08/19/20 09:58	
35570004006	SB-13 (0-6")					
EPA 8081	Dieldrin	0.0010 I	mg/kg	0.0083	08/20/20 23:43	J(L1), P1
EPA 6010	Arsenic	2.3	mg/kg	3.4	08/17/20 18:58	
ASTM D2974-87	Percent Moisture	15.3	%	0.10	08/19/20 09:58	
35570004007	SB-14 (0-6")					
EPA 6010	Arsenic	1.8 I	mg/kg	3.4	08/17/20 19:03	
ASTM D2974-87	Percent Moisture	14.0	%	0.10	08/19/20 09:59	
35570004008	SB-15 (0-6")					
EPA 8081	Dieldrin	0.0024 I	mg/kg	0.0097	08/21/20 00:17	J(L1)
EPA 6010	Arsenic	2.7	mg/kg	3.1	08/17/20 19:07	. ,
ASTM D2974-87	Percent Moisture	12.6	%	0.10	08/19/20 09:59	

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

Sample: SB-8 (0-6") Lab ID: 35570004001 Collected: 08/11/20 09:00 Received: 08/12/20 16:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qı
8081 GCS Pesticides			8081 Prepa		od: EP/	₹ 3546			
Aldrin	0.00051 U	mg/kg	0.0050	0.00051	1	08/14/20 05:26	08/21/20 11:18	309-00-2	J(L1
alpha-BHC	0.00050 U	mg/kg	0.0050	0.00050	1	08/14/20 05:26	08/21/20 11:18	319-84-6	P1 J(L1
beta-BHC	0.00060 U	mg/kg	0.0050	0.00060	1	08/14/20 05:26	08/21/20 11:18	319-85-7	P1 J(L1 P1
delta-BHC	0.00026 U	mg/kg	0.0050	0.00026	1	08/14/20 05:26	08/21/20 11:18	319-86-8	J(L1 P1
gamma-BHC (Lindane)	0.00044 U	mg/kg	0.0050	0.00044	1	08/14/20 05:26	08/21/20 11:18	58-89-9	J(L1 P1
Chlordane (Technical) 4,4'-DDD	0.015 U 0.00078 U	mg/kg mg/kg	0.050 0.0050	0.015 0.00078	1 1	08/14/20 05:26 08/14/20 05:26	08/21/20 11:18 08/21/20 11:18		P1 J(L1
4,4'-DDE	0.00055 U	mg/kg	0.0050	0.00055	1	08/14/20 05:26	08/21/20 11:18	72-55-9	P1 J(L1
4,4'-DDT	0.00067 U	mg/kg	0.0050	0.00067	1	08/14/20 05:26	08/21/20 11:18	50-29-3	P1 J(L1 P1
Dieldrin	0.00061 U	mg/kg	0.0050	0.00061	1	08/14/20 05:26	08/21/20 11:18	60-57-1	J(L1 P1
Endosulfan I	0.00056 U	mg/kg	0.0050	0.00056	1	08/14/20 05:26	08/21/20 11:18	959-98-8	J(L1 P1
Endosulfan II	0.00059 U	mg/kg	0.0050	0.00059	1	08/14/20 05:26	08/21/20 11:18	33213-65-9	J(L1 P1
Endosulfan sulfate	0.00060 U	mg/kg	0.0050	0.00060	1	08/14/20 05:26	08/21/20 11:18	1031-07-8	J(L1 P1
Endrin	0.00057 U	mg/kg	0.0050	0.00057	1	08/14/20 05:26	08/21/20 11:18	72-20-8	J(L1 P1
Endrin aldehyde Endrin ketone	0.00064 U 0.00063 U	mg/kg mg/kg	0.0098 0.0050	0.00064 0.00063	1 1	08/14/20 05:26 08/14/20 05:26	08/21/20 11:18 08/21/20 11:18		P1 J(L1 P1
Heptachlor	0.00053 U	mg/kg	0.0050	0.00053	1	08/14/20 05:26	08/21/20 11:18	76-44-8	J(L1 P1
Heptachlor epoxide	0.00090 U	mg/kg	0.0050	0.00090	1	08/14/20 05:26	08/21/20 11:18	1024-57-3	J(L1 P1
Methoxychlor	0.00074 U	mg/kg	0.0050	0.00074	1	08/14/20 05:26	08/21/20 11:18	72-43-5	J(L1 P1
Toxaphene	0.022 U	mg/kg	0.050	0.022	1	08/14/20 05:26	08/21/20 11:18	8001-35-2	P1
Surrogates Tetrachloro-m-xylene (S) Decachlorobiphenyl (S)	99 103	% %	53-140 43-157		1 1	08/14/20 05:26 08/14/20 05:26	08/21/20 11:18 08/21/20 11:18		
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Ormond Beach								
Arsenic	1.6	mg/kg	0.62	0.31	1	08/17/20 06:34	08/17/20 18:24	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Ormond Beach								
Percent Moisture	11.8	%	0.10	0.10	1		08/19/20 09:58		

#### REPORT OF LABORATORY ANALYSIS



Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

Sample: SB-9 (0-6") Lab ID: 35570004002 Collected: 08/11/20 09:30 Received: 08/12/20 16:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qu	
8081 GCS Pesticides			\ 8081 Prepa es - Ormond E		od: EP/	A 3546				
Aldrin	0.00040 U	mg/kg	0.0039	0.00040	1	08/14/20 05:26	08/21/20 11:36	309-00-2	J(L1)	
alpha-BHC	0.00039 U	mg/kg	0.0039	0.00039	1	08/14/20 05:26	08/21/20 11:36	319-84-6	P1 J(L1) P1	
beta-BHC	0.00047 U	mg/kg	0.0039	0.00047	1	08/14/20 05:26	08/21/20 11:36	319-85-7	J(L1 P1	
delta-BHC	0.00020 U	mg/kg	0.0039	0.00020	1	08/14/20 05:26	08/21/20 11:36	319-86-8	J(L1 P1	
gamma-BHC (Lindane)	0.00034 U	mg/kg	0.0039	0.00034	1	08/14/20 05:26	08/21/20 11:36	58-89-9	J(L1) P1	
Chlordane (Technical) 4,4'-DDD	0.012 U 0.00061 U	mg/kg mg/kg	0.039 0.0039	0.012 0.00061	1 1	08/14/20 05:26 08/14/20 05:26	08/21/20 11:36 08/21/20 11:36		P1 J(L1) P1	
4,4'-DDE	0.00043 U	mg/kg	0.0039	0.00043	1	08/14/20 05:26	08/21/20 11:36	72-55-9	J(L1) P1	
1,4'-DDT	0.00053 U	mg/kg	0.0039	0.00053	1	08/14/20 05:26	08/21/20 11:36	50-29-3	J(L1 P1	
Dieldrin	0.00048 U	mg/kg	0.0039	0.00048	1	08/14/20 05:26	08/21/20 11:36	60-57-1	J(L1 P1	
Endosulfan I	0.00044 U	mg/kg	0.0039	0.00044	1	08/14/20 05:26	08/21/20 11:36	959-98-8	J(L1 P1	
Endosulfan II	0.00046 U	mg/kg	0.0039	0.00046	1	08/14/20 05:26	08/21/20 11:36	33213-65-9	J(L1 P1	
Endosulfan sulfate	0.00047 U	mg/kg	0.0039	0.00047	1	08/14/20 05:26	08/21/20 11:36	1031-07-8	J(L1 P1	
Endrin	0.00045 U	mg/kg	0.0039	0.00045	1	08/14/20 05:26	08/21/20 11:36	72-20-8	J(L1 P1	
Endrin aldehyde Endrin ketone	0.00050 U 0.00050 U	mg/kg mg/kg	0.0077 0.0039	0.00050 0.00050	1 1	08/14/20 05:26 08/14/20 05:26	08/21/20 11:36 08/21/20 11:36		P1 J(L1 P1	
Heptachlor	0.00041 U	mg/kg	0.0039	0.00041	1	08/14/20 05:26	08/21/20 11:36	76-44-8	J(L1 P1	
Heptachlor epoxide	0.00071 U	mg/kg	0.0039	0.00071	1	08/14/20 05:26	08/21/20 11:36	1024-57-3	J(L1 P1	
Methoxychlor	0.00058 U	mg/kg	0.0039	0.00058	1	08/14/20 05:26	08/21/20 11:36	72-43-5	J(L1 P1	
Toxaphene	0.017 U	mg/kg	0.039	0.017	1	08/14/20 05:26	08/21/20 11:36	8001-35-2	P1	
Surrogates Fetrachloro-m-xylene (S) Decachlorobiphenyl (S)	95 99	% %	53-140 43-157		1 1	08/14/20 05:26 08/14/20 05:26	08/21/20 11:36 08/21/20 11:36			
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Ormond Beach									
Arsenic	1.7	mg/kg	0.62	0.31	1	08/17/20 06:34	08/17/20 18:29	7440-38-2		
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Ormond Beach									
Percent Moisture	12.6	%	0.10	0.10	1		08/19/20 09:58			

#### **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

Sample: SB-10 (0-6") Lab ID: 35570004003 Collected: 08/11/20 10:00 Received: 08/12/20 16:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

		.8081 Prepa es - Ormond E 0.0084 0.0084		od: EP/ 2	A 3546			
0.00084 U 0.0010 U	mg/kg		0.00085	2				
0.0010 U		0.0084			08/14/20 05:26	08/20/20 23:09	309-00-2	J(L1),
	mg/kg		0.00084	2	08/14/20 05:26	08/20/20 23:09	319-84-6	P1 J(L1), P1
0.00043 U		0.0084	0.0010	2	08/14/20 05:26	08/20/20 23:09	319-85-7	J(L1)
	mg/kg	0.0084	0.00043	2	08/14/20 05:26	08/20/20 23:09	319-86-8	P1 J(L1)
0.00073 U	mg/kg	0.0084	0.00073	2	08/14/20 05:26	08/20/20 23:09	58-89-9	P1 J(L1) P1
0.025 U	mg/kg	0.084	0.025	2	08/14/20 05:26	08/20/20 23:09	57-74-9	P1
0.0013 U	mg/kg	0.0084	0.0013	2	08/14/20 05:26	08/20/20 23:09	72-54-8	J(L1) P1
0.00092 U	mg/kg	0.0084	0.00092	2	08/14/20 05:26	08/20/20 23:09	72-55-9	J(C2) J(L1) P1
0.0011 U	mg/kg	0.0084	0.0011	2	08/14/20 05:26	08/20/20 23:09	50-29-3	J(L1) P1
0.0010 U	mg/kg	0.0084	0.0010	2	08/14/20 05:26	08/20/20 23:09	60-57-1	J(L1) P1
0.00094 U	mg/kg	0.0084	0.00094	2	08/14/20 05:26	08/20/20 23:09	959-98-8	J(L1)
0.00098 U	mg/kg	0.0084	0.00098	2	08/14/20 05:26	08/20/20 23:09	33213-65-9	P1 J(L1) P1
0.0010 U	mg/kg	0.0084	0.0010	2	08/14/20 05:26	08/20/20 23:09	1031-07-8	J(L1) P1
0.00096 U	mg/kg	0.0084	0.00096	2	08/14/20 05:26	08/20/20 23:09	72-20-8	J(L1) P1
0.0011 U	mg/kg	0.016	0.0011	2	08/14/20 05:26	08/20/20 23:09	7421-93-4	P1
0.0011 U	mg/kg	0.0084	0.0011	2	08/14/20 05:26	08/20/20 23:09	53494-70-5	J(L1) P1
0.00088 U	mg/kg	0.0084	0.00088	2	08/14/20 05:26	08/20/20 23:09	76-44-8	J(L1) P1
0.0015 U	mg/kg	0.0084	0.0015	2	08/14/20 05:26	08/20/20 23:09	1024-57-3	J(L1) P1
0.0012 U	mg/kg	0.0084	0.0012	2	08/14/20 05:26	08/20/20 23:09	72-43-5	J(L1) P1
0.036 U	mg/kg	0.084	0.036	2	08/14/20 05:26	08/20/20 23:09	8001-35-2	P1
99	%	53-140		2	08/14/20 05:26	08/20/20 23:09	877-09-8	
96	%	43-157		2	08/14/20 05:26	08/20/20 23:09	2051-24-3	
•		•		l: EPA	3546			
	•			_				
19.5		14.7	12.6	1				P1
87	%	66-136		1				
	0.025 U 0.0013 U 0.00092 U 0.0011 U 0.0010 U 0.00098 U 0.0010 U 0.00096 U 0.0011 U 0.00015 U 0.0015 U 0.0012 U 0.0036 U 99 96 Analytical Pace Anal 19.5	0.025 U mg/kg 0.0013 U mg/kg 0.00092 U mg/kg 0.0011 U mg/kg 0.0010 U mg/kg 0.00098 U mg/kg 0.00098 U mg/kg 0.0011 U mg/kg 0.0012 U mg/kg 0.0015 U mg/kg	0.025 U mg/kg         0.084           0.0013 U mg/kg         0.0084           0.00092 U mg/kg         0.0084           0.0011 U mg/kg         0.0084           0.0010 U mg/kg         0.0084           0.00094 U mg/kg         0.0084           0.00098 U mg/kg         0.0084           0.0010 U mg/kg         0.0084           0.0011 U mg/kg         0.0084           0.0011 U mg/kg         0.016           0.0011 U mg/kg         0.0084           0.00088 U mg/kg         0.0084           0.0015 U mg/kg         0.0084           0.0012 U mg/kg         0.0084           0.036 U mg/kg         0.0084           0.0015 U mg/kg         0.0084           0.0016 U mg/kg         0.0084           0.0017 U mg/kg         0.0084           0.0018 U mg/kg         0.0084           0.0015	0.025 U mg/kg         0.084 0.0084 0.0013           0.0013 U mg/kg         0.0084 0.00092           0.00092 U mg/kg         0.0084 0.00092           0.0011 U mg/kg         0.0084 0.0011           0.0010 U mg/kg         0.0084 0.0010           0.00094 U mg/kg         0.0084 0.00094           0.00098 U mg/kg         0.0084 0.00098           0.0010 U mg/kg         0.0084 0.0010           0.00096 U mg/kg         0.0084 0.00096           0.0011 U mg/kg         0.016 0.0011           0.0011 U mg/kg         0.0084 0.0011           0.00088 U mg/kg         0.0084 0.0011           0.0015 U mg/kg         0.0084 0.0015           0.0015 U mg/kg         0.0084 0.0015           0.0012 U mg/kg         0.0084 0.0015           0.036 U mg/kg         0.084 0.0012           0.036 U mg/kg         0.084 0.0015           Analytical Method: FL-PRO Preparation Method: Pace Analytical Services - Ormond Beach           19.5 mg/kg         14.7 12.6           87 % 66-136	0.025 U mg/kg         0.084 0.0025 2           0.0013 U mg/kg         0.0084 0.0013 2           0.00092 U mg/kg         0.0084 0.0092 2           0.0011 U mg/kg         0.0084 0.0011 2           0.0010 U mg/kg         0.0084 0.0010 2           0.00094 U mg/kg         0.0084 0.0094 2           0.00098 U mg/kg         0.0084 0.00098 2           0.0010 U mg/kg         0.0084 0.0010 2           0.0011 U mg/kg         0.0084 0.0010 2           0.0011 U mg/kg         0.016 0.0011 2           0.0011 U mg/kg         0.0084 0.0011 2           0.00088 U mg/kg         0.0084 0.0011 2           0.0015 U mg/kg         0.0084 0.0015 2           0.0015 U mg/kg         0.0084 0.0015 2           0.0012 U mg/kg         0.0084 0.0012 2           0.036 U mg/kg         0.084 0.0012 2           0.036 U mg/kg         0.084 0.0012 2           Analytical Method: FL-PRO Preparation Method: EPA Pace Analytical Services - Ormond Beach           19.5 mg/kg         14.7 12.6 1           19.5 mg/kg         14.7 12.6 1	0.025 U mg/kg         0.084 0.025 2 08/14/20 05:26           0.0013 U mg/kg         0.0084 0.0013 2 08/14/20 05:26           0.00092 U mg/kg         0.0084 0.00092 2 08/14/20 05:26           0.0011 U mg/kg         0.0084 0.0011 2 08/14/20 05:26           0.0010 U mg/kg         0.0084 0.0010 2 08/14/20 05:26           0.00094 U mg/kg         0.0084 0.00094 2 08/14/20 05:26           0.00098 U mg/kg         0.0084 0.00098 2 08/14/20 05:26           0.0010 U mg/kg         0.0084 0.00098 2 08/14/20 05:26           0.0010 U mg/kg         0.0084 0.0010 2 08/14/20 05:26           0.0011 U mg/kg         0.0084 0.00096 2 08/14/20 05:26           0.0011 U mg/kg         0.016 0.0011 2 08/14/20 05:26           0.0011 U mg/kg         0.0084 0.0011 2 08/14/20 05:26           0.00088 U mg/kg         0.0084 0.00088 2 08/14/20 05:26           0.0015 U mg/kg         0.0084 0.00088 2 08/14/20 05:26           0.0012 U mg/kg         0.0084 0.0015 2 08/14/20 05:26           0.0012 U mg/kg         0.0084 0.0012 2 08/14/20 05:26           0.036 U mg/kg         0.0084 0.0012 2 08/14/20 05:26           0.036 U mg/kg         0.084 0.0012 2 08/14/20 05:26           0.036 U mg/kg         0.084 0.0012 2 08/14/20 05:26           0.036 U mg/kg         0.084 0.0012 2 08/14/20 05:26           0.041 0 mg/kg         0.084 0.0012	0.025 U         mg/kg         0.084         0.025         2         08/14/20 05:26         08/20/20 23:09           0.0013 U         mg/kg         0.0084         0.0013         2         08/14/20 05:26         08/20/20 23:09           0.00092 U         mg/kg         0.0084         0.00092         2         08/14/20 05:26         08/20/20 23:09           0.0011 U         mg/kg         0.0084         0.0011         2         08/14/20 05:26         08/20/20 23:09           0.0010 U         mg/kg         0.0084         0.00094         2         08/14/20 05:26         08/20/20 23:09           0.00098 U         mg/kg         0.0084         0.00098         2         08/14/20 05:26         08/20/20 23:09           0.0010 U         mg/kg         0.0084         0.00098         2         08/14/20 05:26         08/20/20 23:09           0.0010 U         mg/kg         0.0084         0.0010         2         08/14/20 05:26         08/20/20 23:09           0.0011 U         mg/kg         0.0084         0.00096         2         08/14/20 05:26         08/20/20 23:09           0.0011 U         mg/kg         0.016         0.0011         2         08/14/20 05:26         08/20/20 23:09           0.0015 U         mg/k	0.025 U         mg/kg         0.084         0.025         2         08/14/20 05:26         08/20/20 23:09         57-74-9           0.0013 U         mg/kg         0.0084         0.0013         2         08/14/20 05:26         08/20/20 23:09         72-54-8           0.00092 U         mg/kg         0.0084         0.00092         2         08/14/20 05:26         08/20/20 23:09         72-55-9           0.0011 U         mg/kg         0.0084         0.0011         2         08/14/20 05:26         08/20/20 23:09         50-29-3           0.0010 U         mg/kg         0.0084         0.0010         2         08/14/20 05:26         08/20/20 23:09         50-29-3           0.00098 U         mg/kg         0.0084         0.00094         2         08/14/20 05:26         08/20/20 23:09         959-98-8           0.0010 U         mg/kg         0.0084         0.00098         2         08/14/20 05:26         08/20/20 23:09         33213-65-9           0.0010 U         mg/kg         0.0084         0.0010         2         08/14/20 05:26         08/20/20 23:09         72-20-8           0.0011 U         mg/kg         0.004         0.0011         2         08/14/20 05:26         08/20/20 23:09         7421-93-4

# REPORT OF LABORATORY ANALYSIS



Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

Sample: SB-10 (0-6") Lab ID: 35570004003 Collected: 08/11/20 10:00 Received: 08/12/20 16:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Ormond Beach Arsenic 1.9 I mg/kg 3.4 1.7 5 08/17/20 06:34 08/17/20 18:43 7440-38-2 Pace Analytical Services - Ormond Beach Arsenic 1.9 I mg/kg 0.34 0.17 5 08/17/20 06:34 08/17/20 18:43 7440-43-9 Pace Analytical Method: EPA 8270 Preparation Method: EPA 3546 Pace Analytical Method: EPA 8270 Preparation Method: EPA 3546 Pace Analytical Services - Ormond Beach Arsenic Accenaphthene 0.024 U mg/kg 0.073 0.024 1 08/13/20 23:34 08/15/20 02:33 208-96-8 P1 Anthracene 0.021 U mg/kg 0.069 0.021 1 08/13/20 23:34 08/15/20 02:33 208-96-8 P1 Anthracene 0.024 U mg/kg 0.069 0.021 1 08/13/20 23:34 08/15/20 02:33 208-96-8 P1 Anthracene 0.020 U mg/kg 0.069 0.017 1 08/13/20 23:34 08/15/20 02:33 208-96-8 P1 Benzo(a)phrtene 0.017 U mg/kg 0.069 0.017 1 08/13/20 23:34 08/15/20 02:33 50-32-8 P1 Benzo(a)phrene 0.017 U mg/kg 0.069 0.017 1 08/13/20 23:34 08/15/20 02:33 206-99-2 P1 Benzo(a)phrene 0.017 U mg/kg 0.069 0.017 1 08/13/20 23:34 08/15/20 02:33 206-99-2 P1 Benzo(a)phrene 0.018 U mg/kg 0.069 0.017 1 08/13/20 23:34 08/15/20 02:33 206-99-2 P1 Benzo(a)phrene 0.018 U mg/kg 0.069 0.018 1 08/13/20 23:34 08/15/20 02:33 206-99-2 P1 Benzo(a)phrene 0.018 U mg/kg 0.069 0.017 1 08/13/20 23:34 08/15/20 02:33 207-09-9 P1 Benzo(a)phrene 0.018 U mg/kg 0.069 0.018 1 08/13/20 23:34 08/15/20 02:33 207-09-9 P1 Benzo(a)phrene 0.022 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 307-03-9 P1 Benzo(a)phrene 0.024 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 307-03-9 P1 Benzo(a)phrene 0.024 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 307-03-9 P1 Benzo(a)phrene 0.024 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 307-03-9 P1 Benzo(a)phrene 0.024 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 307-03-9 P1 Benzo(a)phrene 0.024 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 307-03-9 P1 Benzo(a)phrene 0.024 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 307-03-9 P1 Benzo(a)phrene 0.024 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 307-0				-		-	_				
Arsenic 1.9 I mg/kg 3.4 1.7 5 08/17/20 06:34 08/17/20 18:43 7440-38-2 cadmium 0.47 mg/kg 0.34 0.17 5 08/17/20 06:34 08/17/20 18:43 7440-43-9 0.17 0.18 0.18 08/17/20 08:34 08/17/20 18:43 7440-43-9 0.18 08/17/20 08:34 08/17/20 18:43 7440-43-9 0.18 08/17/20 08:34	Parameters	Results	Units	PQL -	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
Arsenic 1.9 I mg/kg 3.4 1.7 5 08/17/20 06:34 08/17/20 18:43 7440-38-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	6010 MET ICP	Analytical	Method: EPA	A 6010 Prepa	ration Meth	od: EP	A 3050				
Cadmium		Pace Anal	lytical Service	es - Ormond B	Beach						
Cadmium	Arsenic	1.9 I	mg/kg	3.4	1.7	5	08/17/20 06:34	08/17/20 18:43	7440-38-2		
Analytical Method: EPA 8270   Preparation Method: EPA 3546	Cadmium	0.47		0.34	0.17	5	08/17/20 06:34	08/17/20 18:43	7440-43-9		
Analytical Method: EPA 8270 Preparation Method: EPA 3546 Pace Analytical Services - Ormond Beach Acenaphthene  0.024 U mg/kg 0.073 0.024 1 08/13/20 23:34 08/15/20 02:33 83-32-9 P1 Acenaphthylene  0.021 U mg/kg 0.069 0.021 1 08/13/20 23:34 08/15/20 02:33 208-96-8 P1 Anthracene  0.024 U mg/kg 0.073 0.024 1 08/13/20 23:34 08/15/20 02:33 208-96-8 P1 Anthracene  0.024 U mg/kg 0.069 0.020 1 08/13/20 23:34 08/15/20 02:33 120-12-7 P1 Benzo(a)pyrene  0.017 U mg/kg 0.069 0.017 1 08/13/20 23:34 08/15/20 02:33 50-32-8 P1 Benzo(b)fluoranthene  0.018 U mg/kg 0.069 0.018 1 08/13/20 23:34 08/15/20 02:33 50-32-8 P1 Benzo(b)fluoranthene  0.018 U mg/kg 0.069 0.018 1 08/13/20 23:34 08/15/20 02:33 205-99-2 P1 Benzo(b)fluoranthene  0.018 U mg/kg 0.069 0.018 1 08/13/20 23:34 08/15/20 02:33 207-08-9 P1 Benzo(b)fluoranthene  0.018 U mg/kg 0.069 0.018 1 08/13/20 23:34 08/15/20 02:33 207-08-9 P1 Benzo(b)fluoranthene  0.018 U mg/kg 0.069 0.012 1 08/13/20 23:34 08/15/20 02:33 207-08-9 P1 Benzo(b)fluoranthene  0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 207-08-9 P1 Bluoranthene  0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 208-04-0 P1 Bluorene  0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 206-44-0 P1 Bluorene  0.024 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 206-44-0 P1 Bluorene  0.024 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 193-39-5 P1 Bluorene  0.025 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 193-39-5 P1 Bluorene  0.026 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 193-39-5 P1 Bluorene  0.027 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 193-39-5 P1 Bluorene  0.026 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 193-39-5 P1 Bluorene  0.026 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 193-39-5 P1 Bluorene  0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 193-39-5 P1 Bluorene  0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 193-39-5 P1 Bluorene  0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 193-39-5 P1 Bluorene  0.022	Chromium	19.7	mg/kg	1.7	0.85	5	08/17/20 06:34	08/17/20 18:43	7440-47-3		
Pace Analytical Services - Ormond Beach   Acenaphthene   0.024 U mg/kg   0.073   0.024   1 08/13/20 23:34 08/15/20 02:33 83-32-9 P1	Lead	15.1	mg/kg	3.4	1.7	5	08/17/20 06:34	08/17/20 18:43	7439-92-1		
Acenaphthene  0.024 U mg/kg 0.073 0.024 1 08/13/20 23:34 08/15/20 02:33 83-32-9 P1 Acenaphthylene 0.021 U mg/kg 0.069 0.021 1 08/13/20 23:34 08/15/20 02:33 208-96-8 P1 Anthracene 0.024 U mg/kg 0.069 0.024 1 08/13/20 23:34 08/15/20 02:33 120-12-7 P1 Benzo(a)pyrene 0.020 U mg/kg 0.069 0.020 1 08/13/20 23:34 08/15/20 02:33 56-55-3 P1 Benzo(a)pyrene 0.017 U mg/kg 0.069 0.017 1 08/13/20 23:34 08/15/20 02:33 50-32-8 P1 Benzo(b)fluoranthene 0.018 U mg/kg 0.069 0.018 1 08/13/20 23:34 08/15/20 02:33 205-99-2 P1 Benzo(b)fluoranthene 0.018 U mg/kg 0.069 0.017 1 08/13/20 23:34 08/15/20 02:33 205-99-2 P1 Benzo(b)fluoranthene 0.018 U mg/kg 0.069 0.017 1 08/13/20 23:34 08/15/20 02:33 205-99-2 P1 Benzo(b)fluoranthene 0.018 U mg/kg 0.069 0.018 1 08/13/20 23:34 08/15/20 02:33 207-98-9 P1 Chrysene 0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 218-01-9 P1 Dibenz(a,h)anthracene 0.016 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 218-01-9 P1 Eluoranthene 0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 218-01-9 P1 Eluoranthene 0.024 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 206-44-0 P1 Eluoranthene 0.024 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 206-44-0 P1 Eluoranthene 0.024 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 193-39-5 P1 El-Methylnaphthalene 0.027 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 193-39-5 P1 E-Methylnaphthalene 0.026 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 193-39-5 P1 E-Methylnaphthalene 0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 193-39-5 P1 E-Methylnaphthalene 0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 193-39-5 P1 E-Methylnaphthalene 0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 193-09-0 P1 E-Methylnaphthalene 0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 193-09-0 P1 E-Methylnaphthalene 0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 193-09-0 P1 E-Methylnaphthylnaphthylnaphthylnaphthylnaphthylnaphthylnaphthylnaphthylnaphthylnaphthylnaphthylnaphthylnaphthylnaphthylnaphthylnap	8270 MSSV Short List Microwave	Analytical	Method: EPA	\ 8270 Prepa	ration Meth	od: EP	A 3546				
Accept   Compact   Compa		Pace Analytical Services - Ormond Beach									
Anthracene	Acenaphthene	0.024 U	mg/kg	0.073	0.024	1	08/13/20 23:34	08/15/20 02:33	83-32-9	P1	
Benzo(a)anthracene Benzo(a)anthracene Benzo(a)pyrene  0.017 U mg/kg 0.069 0.017 1 08/13/20 23:34 08/15/20 02:33 56-55-3 P1 Benzo(b)fluoranthene 0.018 U mg/kg 0.069 0.018 1 08/13/20 23:34 08/15/20 02:33 50-32-8 P1 Benzo(b)fluoranthene 0.018 U mg/kg 0.069 0.018 1 08/13/20 23:34 08/15/20 02:33 05-99-2 P1 Benzo(k)fluoranthene 0.018 U mg/kg 0.069 0.017 1 08/13/20 23:34 08/15/20 02:33 025-99-2 P1 Benzo(k)fluoranthene 0.018 U mg/kg 0.069 0.018 1 08/13/20 23:34 08/15/20 02:33 027-08-9 P1 Chrysene 0.022 U mg/kg 0.069 0.018 1 08/13/20 23:34 08/15/20 02:33 027-08-9 P1 Chrysene 0.016 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 027-08-9 P1 Chrysene 0.016 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 027-08-9 P1 Chrysene 0.022 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 027-08-9 P1 Chrysene 0.024 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 027-08-9 P1 Chrysene 0.024 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 027-08-9 P1 Chrysene 0.024 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 027-08-9 P1 Chrysene 0.024 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 027-08-9 P1 Chrysene 0.024 U mg/kg 0.069 0.016 1 08/13/20 23:34 08/15/20 02:33 027-08-9 P1 Chrysene 0.026 U mg/kg 0.081 0.027 1 08/13/20 23:34 08/15/20 02:33 09-12-0 P1 Chrysene 0.024 U mg/kg 0.071 0.024 1 08/13/20 23:34 08/15/20 02:33 09-12-0 P1 Chrysene 0.024 U mg/kg 0.071 0.024 1 08/13/20 23:34 08/15/20 02:33 09-12-0 P1 Chrysene 0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 09-12-0 P1 Chrysene 0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 09-12-0 P1 Chrysene 0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 09-12-0 P1 Chrysene 0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 09-12-0 P1 Chrysene 0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 09-12-0 P1 Chrysene 0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 09-12-0 P1 Chrysene 0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 09-12-0 P1 Chrysene 0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 09-	Acenaphthylene	0.021 U	mg/kg	0.069	0.021	1	08/13/20 23:34	08/15/20 02:33	208-96-8	P1	
Benzo(a)pyrene	Anthracene	0.024 U	mg/kg	0.073	0.024	1	08/13/20 23:34	08/15/20 02:33	120-12-7	P1	
Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(g,h,i)perylene Benzo(g,h,i)perylene Benzo(g,h,i)perylene Benzo(g,h,i)perylene Benzo(g,h,i)perylene Benzo(g,h,i)perylene Benzo(g,h,i)perylene Benzo(k)fluoranthene Benzo(k)f	Benzo(a)anthracene	0.020 U	mg/kg	0.069	0.020	1	08/13/20 23:34	08/15/20 02:33	56-55-3	P1	
Senzo(g,h,i)perylene	Benzo(a)pyrene	0.017 U	mg/kg	0.069	0.017	1	08/13/20 23:34	08/15/20 02:33	50-32-8	P1	
Senzo(k)fluoranthene   0.018 U mg/kg   0.069   0.018   1 08/13/20 23:34 08/15/20 02:33 207-08-9 P1	Benzo(b)fluoranthene	0.018 U	mg/kg	0.069	0.018	1	08/13/20 23:34	08/15/20 02:33	205-99-2	P1	
Disperse	Benzo(g,h,i)perylene	0.017 U	mg/kg	0.069	0.017	1	08/13/20 23:34	08/15/20 02:33	191-24-2	P1	
Dibenz(a,h)anthracene	Benzo(k)fluoranthene	0.018 U	mg/kg	0.069	0.018	1	08/13/20 23:34	08/15/20 02:33	207-08-9	P1	
Fluoranthene  0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 206-44-0 P1 Fluorene  0.024 U mg/kg 0.075 0.024 1 08/13/20 23:34 08/15/20 02:33 86-73-7 P1 Indeno(1,2,3-cd)pyrene I-Methylnaphthalene	Chrysene	0.022 U	mg/kg	0.069	0.022	1	08/13/20 23:34	08/15/20 02:33	218-01-9	P1	
Fluorene	Dibenz(a,h)anthracene	0.016 U	mg/kg	0.069	0.016	1	08/13/20 23:34	08/15/20 02:33	53-70-3	P1	
O.016 U mg/kg	Fluoranthene	0.022 U	mg/kg	0.069	0.022	1	08/13/20 23:34	08/15/20 02:33	206-44-0	P1	
I-Methylnaphthalene I-Meth	Fluorene	0.024 U	mg/kg	0.075	0.024	1	08/13/20 23:34	08/15/20 02:33	86-73-7	P1	
2-Methylnaphthalene	Indeno(1,2,3-cd)pyrene	0.016 U	mg/kg	0.069	0.016	1	08/13/20 23:34	08/15/20 02:33	193-39-5	P1	
Naphthalene   0.024 U mg/kg   0.071   0.024 1   08/13/20 23:34   08/15/20 02:33   91-20-3   P1	1-Methylnaphthalene	0.027 U	mg/kg	0.081	0.027	1	08/13/20 23:34	08/15/20 02:33	90-12-0	P1	
Phenanthrene  0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 85-01-8 P1 Pyrene  0.022 U mg/kg 0.069 0.022 1 08/13/20 23:34 08/15/20 02:33 129-00-0 P1  Surrogates  Nitrobenzene-d5 (S)  41 % 24-98 1 08/13/20 23:34 08/15/20 02:33 4165-60-0  P-Fluorobiphenyl (S)  49 % 29-101 1 08/13/20 23:34 08/15/20 02:33 321-60-8  D-Terphenyl-d14 (S)  Percent Moisture  Analytical Method: ASTM D2974-87  Pace Analytical Services - Ormond Beach	2-Methylnaphthalene	0.026 U	mg/kg	0.079	0.026	1	08/13/20 23:34	08/15/20 02:33	91-57-6	P1	
Pyrene	Naphthalene	0.024 U	mg/kg	0.071	0.024	1	08/13/20 23:34	08/15/20 02:33	91-20-3	P1	
Surrogates Nitrobenzene-d5 (S)	Phenanthrene	0.022 U	mg/kg	0.069	0.022	1	08/13/20 23:34	08/15/20 02:33	85-01-8	P1	
Nitrobenzene-d5 (S) 41 % 24-98 1 08/13/20 23:34 08/15/20 02:33 4165-60-0 2-Fluorobiphenyl (S) 49 % 29-101 1 08/13/20 23:34 08/15/20 02:33 321-60-8 0-Terphenyl-d14 (S) 69 % 29-112 1 08/13/20 23:34 08/15/20 02:33 1718-51-0 2-Terphenyl-d14 (S) Analytical Method: ASTM D2974-87 Pace Analytical Services - Ormond Beach	Pyrene	0.022 U	mg/kg	0.069	0.022	1	08/13/20 23:34	08/15/20 02:33	129-00-0	P1	
2-Fluorobiphenyl (S) 49 % 29-101 1 08/13/20 23:34 08/15/20 02:33 321-60-8 o-Terphenyl-d14 (S) 69 % 29-112 1 08/13/20 23:34 08/15/20 02:33 1718-51-0  Percent Moisture Analytical Method: ASTM D2974-87 Pace Analytical Services - Ormond Beach	Surrogates										
Percent Moisture Analytical Method: ASTM D2974-87 Pace Analytical Services - Ormond Beach	Nitrobenzene-d5 (S)	41	%	24-98		1	08/13/20 23:34	08/15/20 02:33	4165-60-0		
Percent Moisture  Analytical Method: ASTM D2974-87  Pace Analytical Services - Ormond Beach	2-Fluorobiphenyl (S)	49	%	29-101		1	08/13/20 23:34	08/15/20 02:33	321-60-8		
Pace Analytical Services - Ormond Beach	p-Terphenyl-d14 (S)	69	%	29-112		1	08/13/20 23:34	08/15/20 02:33	1718-51-0		
·	Percent Moisture	Analytical	Method: AST	ΓM D2974-87							
Percent Moisture 10.8 % 0.10 0.10 1 08/19/20 09:58		Pace Anal	lytical Service	es - Ormond E	Beach						
	Percent Moisture	10.8	%	0.10	0.10	1		08/19/20 09:58			

# **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

Sample: SB-11 (0-6") Lab ID: 35570004004 Collected: 08/11/20 10:30 Received: 08/12/20 16:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	•		\ 8081 Prepa es - Ormond E		od: EP/	₹ 3546			
Aldrin	0.00089 U	mg/kg	0.0088	0.00089	2	08/14/20 05:26	08/20/20 23:26	309-00-2	J(L1),
alpha-BHC	0.00088 U	mg/kg	0.0088	0.00088	2	08/14/20 05:26	08/20/20 23:26	319-84-6	P1 J(L1), P1
beta-BHC	0.0011 U	mg/kg	0.0088	0.0011	2	08/14/20 05:26	08/20/20 23:26	319-85-7	J(L1), P1
delta-BHC	0.00045 U	mg/kg	0.0088	0.00045	2	08/14/20 05:26	08/20/20 23:26	319-86-8	J(L1), P1
gamma-BHC (Lindane)	0.00077 U	mg/kg	0.0088	0.00077	2	08/14/20 05:26	08/20/20 23:26	58-89-9	J(L1), P1
Chlordane (Technical)	0.026 U	mg/kg	0.088	0.026	2	08/14/20 05:26	08/20/20 23:26	57-74-9	P1
4,4'-DDD	0.0014 U	mg/kg	0.0088	0.0014	2	08/14/20 05:26	08/20/20 23:26	72-54-8	J(L1), P1
4,4'-DDE	0.00096 U	mg/kg	0.0088	0.00096	2	08/14/20 05:26	08/20/20 23:26	72-55-9	J(L1), P1
4,4'-DDT	0.0012 U	mg/kg	0.0088	0.0012	2	08/14/20 05:26	08/20/20 23:26	50-29-3	J(L1), P1
Dieldrin	0.0011 U	mg/kg	0.0088	0.0011	2	08/14/20 05:26	08/20/20 23:26	60-57-1	J(L1), P1
Endosulfan I	0.00098 U	mg/kg	0.0088	0.00098	2	08/14/20 05:26	08/20/20 23:26	959-98-8	J(L1), P1
Endosulfan II	0.0010 U	mg/kg	0.0088	0.0010	2	08/14/20 05:26	08/20/20 23:26	33213-65-9	J(L1), P1
Endosulfan sulfate	0.0011 U	mg/kg	0.0088	0.0011	2	08/14/20 05:26	08/20/20 23:26	1031-07-8	J(L1), P1
Endrin	0.0010 U	mg/kg	0.0088	0.0010	2	08/14/20 05:26	08/20/20 23:26	72-20-8	J(L1), P1
Endrin aldehyde	0.0011 U	mg/kg	0.017	0.0011	2	08/14/20 05:26	08/20/20 23:26	7421-93-4	P1
Endrin ketone	0.0011 U	mg/kg	0.0088	0.0011	2	08/14/20 05:26	08/20/20 23:26	53494-70-5	J(L1), P1
Heptachlor	0.00092 U	mg/kg	0.0088	0.00092	2	08/14/20 05:26	08/20/20 23:26	76-44-8	J(L1), P1
Heptachlor epoxide	0.0016 U	mg/kg	0.0088	0.0016	2	08/14/20 05:26	08/20/20 23:26	1024-57-3	J(L1), P1
Methoxychlor	0.0013 U	mg/kg	0.0088	0.0013	2	08/14/20 05:26	08/20/20 23:26	72-43-5	J(L1), P1
Toxaphene Surrogates	0.038 U	mg/kg	0.088	0.038	2	08/14/20 05:26	08/20/20 23:26	8001-35-2	P1
Tetrachloro-m-xylene (S)	85	%	53-140		2	08/14/20 05:26	08/20/20 23:26	877-09-8	
Decachlorobiphenyl (S)	121	%	43-157		2	08/14/20 05:26	08/20/20 23:26	2051-24-3	
FL-PRO Soil Microwave	Analytical Method: FL-PRO Preparation Method: EPA 3546 Pace Analytical Services - Ormond Beach								
Petroleum Range Organics	16.3	mg/kg	14.0	12.0	1	08/14/20 02:07	08/14/20 13:32		P1
Surrogates	400	0/	66.400		4	00/44/00 00:07	00/44/00 40:00	04.45.4	
o-Terphenyl (S) N-Pentatriacontane (S)	103 103	% %	66-136 42-159		1 1	08/14/20 02:07 08/14/20 02:07	08/14/20 13:32 08/14/20 13:32		

# **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

Sample: SB-11 (0-6") Lab ID: 35570004004 Collected: 08/11/20 10:30 Received: 08/12/20 16:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical	Method: EPA	A 6010 Prepa	ration Meth	od: EP	A 3050			
	Pace Ana	lytical Service	es - Ormond E	Beach					
Arsenic	3.8	mg/kg	2.8	1.4	5	08/17/20 06:34	08/17/20 18:48	7440-38-2	
Cadmium	0.36	mg/kg	0.28	0.14	5	08/17/20 06:34	08/17/20 18:48	7440-43-9	
Chromium	27.9	mg/kg	1.4	0.69	5	08/17/20 06:34	08/17/20 18:48	7440-47-3	
Lead	20.2	mg/kg	2.8	1.4	5	08/17/20 06:34	08/17/20 18:48	7439-92-1	
8270 MSSV Short List Microwave	Analytical	Method: EPA	A 8270 Prepa	ration Meth	od: EP	A 3546			
	-		es - Ormond E						
Acenaphthene	0.032 U	mg/kg	0.099	0.032	1	08/14/20 03:19	08/15/20 04:53	83-32-9	P1
Acenaphthylene	0.029 U	mg/kg	0.094	0.029	1	08/14/20 03:19	08/15/20 04:53	208-96-8	P1
Anthracene	0.033 U	mg/kg	0.099	0.033	1	08/14/20 03:19	08/15/20 04:53	120-12-7	P1
Benzo(a)anthracene	0.027 U	mg/kg	0.094	0.027	1	08/14/20 03:19	08/15/20 04:53	56-55-3	P1
Benzo(a)pyrene	0.023 U	mg/kg	0.094	0.023	1	08/14/20 03:19	08/15/20 04:53	50-32-8	P1
Benzo(b)fluoranthene	0.025 U	mg/kg	0.094	0.025	1	08/14/20 03:19	08/15/20 04:53	205-99-2	P1
Benzo(g,h,i)perylene	0.023 U	mg/kg	0.094	0.023	1	08/14/20 03:19	08/15/20 04:53	191-24-2	P1
Benzo(k)fluoranthene	0.025 U	mg/kg	0.094	0.025	1	08/14/20 03:19	08/15/20 04:53	207-08-9	P1
Chrysene	0.030 U	mg/kg	0.094	0.030	1	08/14/20 03:19	08/15/20 04:53	218-01-9	P1
Dibenz(a,h)anthracene	0.022 U	mg/kg	0.094	0.022	1	08/14/20 03:19	08/15/20 04:53	53-70-3	P1
Fluoranthene	0.031 U	mg/kg	0.094	0.031	1	08/14/20 03:19	08/15/20 04:53	206-44-0	P1
Fluorene	0.033 U	mg/kg	0.10	0.033	1	08/14/20 03:19	08/15/20 04:53	86-73-7	P1
Indeno(1,2,3-cd)pyrene	0.021 U	mg/kg	0.094	0.021	1	08/14/20 03:19	08/15/20 04:53	193-39-5	P1
1-Methylnaphthalene	0.037 U	mg/kg	0.11	0.037	1	08/14/20 03:19	08/15/20 04:53	90-12-0	P1
2-Methylnaphthalene	0.036 U	mg/kg	0.11	0.036	1	08/14/20 03:19	08/15/20 04:53	91-57-6	P1
Naphthalene	0.032 U	mg/kg	0.097	0.032	1	08/14/20 03:19	08/15/20 04:53	91-20-3	P1
Phenanthrene	0.031 U	mg/kg	0.094	0.031	1	08/14/20 03:19	08/15/20 04:53	85-01-8	P1
Pyrene	0.029 U	mg/kg	0.094	0.029	1	08/14/20 03:19	08/15/20 04:53	129-00-0	P1
Surrogates									
Nitrobenzene-d5 (S)	32	%	24-98		1	08/14/20 03:19	08/15/20 04:53	4165-60-0	
2-Fluorobiphenyl (S)	55	%	29-101		1	08/14/20 03:19	08/15/20 04:53	321-60-8	
p-Terphenyl-d14 (S)	69	%	29-112		1	08/14/20 03:19	08/15/20 04:53	1718-51-0	
Percent Moisture	Analytical	Method: AS7	ΓM D2974-87						
	Pace Ana	lytical Service	es - Ormond E	Beach					
Percent Moisture	7.4	%	0.10	0.10	1		08/19/20 09:58		

# **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

Sample: SB-12 (0-6") Lab ID: 35570004005 Collected: 08/11/20 11:05 Received: 08/12/20 16:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical	Method: EPA	8081 Prepa	ration Metho	od: EP/	A 3546			
	Pace Anal	ytical Service	es - Ormond E	Beach					
Aldrin	0.00042 U	mg/kg	0.0042	0.00042	2	08/14/20 05:26	08/17/20 21:15	309-00-2	J(L1)
alpha-BHC	0.00042 U	mg/kg	0.0042	0.00042	2	08/14/20 05:26	08/17/20 21:15	319-84-6	ĊÙ,
					_				J(L1)
beta-BHC	0.00050 U	mg/kg	0.0042	0.00050	2	08/14/20 05:26	08/17/20 21:15		J(L1)
delta-BHC	0.00021 U	mg/kg	0.0042	0.00021	2	08/14/20 05:26	08/17/20 21:15	319-86-8	CU, J(L1), J(M0)
gamma-BHC (Lindane)	0.00036 U	mg/kg	0.0042	0.00036	2	08/14/20 05:26	08/17/20 21:15	58-89-9	J(L1)
Chlordane (Technical)	0.013 U	mg/kg	0.042	0.013	2	08/14/20 05:26	08/17/20 21:15	57-74-9	
4,4'-DDD	0.00065 U	mg/kg	0.0042	0.00065	2	08/14/20 05:26	08/17/20 21:15	72-54-8	CU,
4,4'-DDE	0.00046 U	mg/kg	0.0042	0.00046	2	08/14/20 05:26	08/17/20 21:15	72-55-9	J(L1) CU,
4,4'-DDT	0.00056 U	mg/kg	0.0042	0.00056	2	08/14/20 05:26	08/17/20 21:15	50-20-3	J(L1) J(L1)
Dieldrin	0.00050 U	mg/kg	0.0042	0.00050	2	08/14/20 05:26	08/17/20 21:15		J(L1)
Endosulfan I	0.00047 U	mg/kg	0.0042	0.00047	2	08/14/20 05:26	08/17/20 21:15		J(L1)
Endosulfan II	0.00049 U	mg/kg	0.0042	0.00049	2	08/14/20 05:26	08/17/20 21:15		CÙ,
Endosulfan sulfate	0.00050 U	mg/kg	0.0042	0.00050	2	08/14/20 05:26	08/17/20 21:15	1031-07-8	J(L1) CU, J(L1)
Endrin	0.00048 U	mg/kg	0.0042	0.00048	2	08/14/20 05:26	08/17/20 21:15	72-20-8	CÙ, <sup>′</sup> J(L1)
Endrin aldehyde	0.00053 U	mg/kg	0.0081	0.00053	2	08/14/20 05:26	08/17/20 21:15	7421-93-4	( )
Endrin ketone	0.00053 U	mg/kg	0.0042	0.00053	2	08/14/20 05:26	08/17/20 21:15	53494-70-5	CU, J(L1), J(M0)
Heptachlor	0.00044 U	mg/kg	0.0042	0.00044	2	08/14/20 05:26	08/17/20 21:15	76-44-8	J(L1)
Heptachlor epoxide	0.00075 U	mg/kg	0.0042	0.00075	2	08/14/20 05:26	08/17/20 21:15	1024-57-3	J(L1)
Methoxychlor	0.00062 U	mg/kg	0.0042	0.00062	2	08/14/20 05:26	08/17/20 21:15	72-43-5	J(L1)
Toxaphene Surrogates	0.018 U	mg/kg	0.042	0.018	2	08/14/20 05:26	08/17/20 21:15	8001-35-2	
Tetrachloro-m-xylene (S)	82	%	53-140		2	08/14/20 05:26	08/17/20 21:15	877-09-8	
Decachlorobiphenyl (S)	95	%	43-157		2	08/14/20 05:26	08/17/20 21:15	2051-24-3	CU
6010 MET ICP	-		\ 6010 Prepa es - Ormond E		od: EP/	A 3050			
Arsenic	2.9 I	mg/kg	3.1	1.5	5	08/17/20 06:34	08/17/20 18:53	7440-38-2	
Percent Moisture	•		M D2974-87 es - Ormond E	Beach					
Percent Moisture	18.7	%	0.10	0.10	1		08/19/20 09:58		

# REPORT OF LABORATORY ANALYSIS



Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

Sample: SB-13 (0-6") Lab ID: 35570004006 Collected: 08/11/20 11:20 Received: 08/12/20 16:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.		
8081 GCS Pesticides	Analytical	Method: EPA	8081 Prepa	ration Meth	od: EP/	- ————————————————————————————————————		-		
	Pace Anal	ytical Service	es - Ormond E	Beach						
Aldrin	0.00083 U	mg/kg	0.0083	0.00083	2	08/14/20 05:26	08/20/20 23:43	309-00-2		
alpha-BHC	0.00083 U	mg/kg	0.0083	0.00083	2	08/14/20 05:26	08/20/20 23:43	319-84-6		
beta-BHC	0.00099 U	mg/kg	0.0083	0.00099	2	08/14/20 05:26	08/20/20 23:43	319-85-7		
delta-BHC	0.00042 U	mg/kg	0.0083	0.00042	2	08/14/20 05:26	08/20/20 23:43	319-86-8		
gamma-BHC (Lindane)	0.00072 U	mg/kg	0.0083	0.00072	2	08/14/20 05:26	08/20/20 23:43	58-89-9		
Chlordane (Technical)	0.025 U	mg/kg	0.083	0.025	2	08/14/20 05:26	08/20/20 23:43	57-74-9		
4,4'-DDD	0.0013 U	mg/kg	0.0083	0.0013	2	08/14/20 05:26	08/20/20 23:43	72-54-8		
4,4'-DDE	0.00091 U	mg/kg	0.0083	0.00091	2	08/14/20 05:26	08/20/20 23:43	72-55-9		
4,4'-DDT	0.0011 U	mg/kg	0.0083	0.0011	2	08/14/20 05:26	08/20/20 23:43	50-29-3		
Dieldrin	0.0010 I	mg/kg	0.0083	0.0010	2	08/14/20 05:26	08/20/20 23:43	60-57-1		
Endosulfan I	0.00093 U	mg/kg	0.0083	0.00093	2	08/14/20 05:26	08/20/20 23:43	959-98-8		
Endosulfan II	0.00097 U	mg/kg	0.0083	0.00097	2	08/14/20 05:26	08/20/20 23:43	33213-65-9		
Endosulfan sulfate	0.00099 U	mg/kg	0.0083	0.00099	2	08/14/20 05:26	08/20/20 23:43	1031-07-8		
Endrin	0.00094 U	mg/kg	0.0083	0.00094	2	08/14/20 05:26	08/20/20 23:43	72-20-8		
Endrin aldehyde	0.0010 U	mg/kg	0.016	0.0010	2	08/14/20 05:26	08/20/20 23:43	7421-93-4		
Endrin ketone	0.0010 U	mg/kg	0.0083	0.0010	2	08/14/20 05:26	08/20/20 23:43	53494-70-5		
Heptachlor	0.00087 U	mg/kg	0.0083	0.00087	2	08/14/20 05:26	08/20/20 23:43	76-44-8		
Heptachlor epoxide	0.0015 U	mg/kg	0.0083	0.0015	2	08/14/20 05:26	08/20/20 23:43	1024-57-3		
Methoxychlor	0.0012 U	mg/kg	0.0083	0.0012	2	08/14/20 05:26	08/20/20 23:43	72-43-5		
Toxaphene <b>Surrogates</b>	0.036 U	mg/kg	0.083	0.036	2	08/14/20 05:26	08/20/20 23:43	8001-35-2		
Tetrachloro-m-xylene (S)	87	%	53-140		2	08/14/20 05:26	08/20/20 23:43	877-09-8		
Decachlorobiphenyl (S)	84	%	43-157		2	08/14/20 05:26	08/20/20 23:43	2051-24-3		
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Ormond Beach									
Arsenic	2.3 I	mg/kg	3.4	1.7	5	08/17/20 06:34	08/17/20 18:58	7440-38-2		
Percent Moisture	•		TM D2974-87 es - Ormond E	Beach						
Percent Moisture	15.3	%	0.10	0.10	1		08/19/20 09:58			

# **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

Sample: SB-14 (0-6") Lab ID: 35570004007 Collected: 08/11/20 11:35 Received: 08/12/20 16:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual		
8081 GCS Pesticides	•		\ 8081 Prepa es - Ormond E		od: EPA	\ 3546					
Aldrin	0.0019 U	mg/kg	0.019	0.0019	5	08/14/20 05:26	08/21/20 00:00	309-00-2	J(L1), P1		
alpha-BHC	0.0019 U	mg/kg	0.019	0.0019	5	08/14/20 05:26	08/21/20 00:00	319-84-6	J(L1), P1		
beta-BHC	0.0023 U	mg/kg	0.019	0.0023	5	08/14/20 05:26	08/21/20 00:00	319-85-7	J(L1), P1		
delta-BHC	0.00097 U	mg/kg	0.019	0.00097	5	08/14/20 05:26	08/21/20 00:00	319-86-8	J(L1), P1		
gamma-BHC (Lindane)	0.0017 U	mg/kg	0.019	0.0017	5	08/14/20 05:26	08/21/20 00:00	58-89-9	J(L1), P1		
Chlordane (Technical) 4,4'-DDD	0.057 U 0.0029 U	mg/kg mg/kg	0.19 0.019	0.057 0.0029	5 5	08/14/20 05:26 08/14/20 05:26	08/21/20 00:00 08/21/20 00:00		P1 J(L1),		
4,4'-DDE	0.0021 U	mg/kg	0.019	0.0021	5	08/14/20 05:26	08/21/20 00:00	72-55-9	P1 J(L1),		
4,4'-DDT	0.0025 U	mg/kg	0.019	0.0025	5	08/14/20 05:26	08/21/20 00:00	50-29-3	P1 J(L1), P1		
Dieldrin	0.0023 U	mg/kg	0.019	0.0023	5	08/14/20 05:26	08/21/20 00:00	60-57-1	J(L1), P1		
Endosulfan I	0.0021 U	mg/kg	0.019	0.0021	5	08/14/20 05:26	08/21/20 00:00	959-98-8	J(L1), P1		
Endosulfan II	0.0022 U	mg/kg	0.019	0.0022	5	08/14/20 05:26	08/21/20 00:00	33213-65-9	J(L1), P1		
Endosulfan sulfate	0.0023 U	mg/kg	0.019	0.0023	5	08/14/20 05:26	08/21/20 00:00	1031-07-8	J(L1), P1		
Endrin	0.0022 U	mg/kg	0.019	0.0022	5	08/14/20 05:26	08/21/20 00:00	72-20-8	J(L1), P1		
Endrin aldehyde Endrin ketone	0.0024 U 0.0024 U	mg/kg mg/kg	0.037 0.019	0.0024 0.0024	5 5	08/14/20 05:26 08/14/20 05:26	08/21/20 00:00 08/21/20 00:00		P1 J(L1), P1		
Heptachlor	0.0020 U	mg/kg	0.019	0.0020	5	08/14/20 05:26	08/21/20 00:00	76-44-8	J(L1), P1		
Heptachlor epoxide	0.0034 U	mg/kg	0.019	0.0034	5	08/14/20 05:26	08/21/20 00:00	1024-57-3	J(L1), P1		
Methoxychlor	0.0028 U	mg/kg	0.019	0.0028	5	08/14/20 05:26	08/21/20 00:00	72-43-5	J(L1), P1		
Toxaphene	0.082 U	mg/kg	0.19	0.082	5	08/14/20 05:26	08/21/20 00:00	8001-35-2	P1		
Surrogates Tetrachloro-m-xylene (S) Decachlorobiphenyl (S)	97 102	% %	53-140 43-157		5 5	08/14/20 05:26 08/14/20 05:26	08/21/20 00:00 08/21/20 00:00				
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Ormond Beach										
Arsenic	1.8 I	mg/kg	3.4	1.7	5	08/17/20 06:34	08/17/20 19:03	7440-38-2			
Percent Moisture			TM D2974-87 es - Ormond E	Beach							
Percent Moisture	14.0	%	0.10	0.10	1		08/19/20 09:59				

# **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

Sample: SB-15 (0-6") Lab ID: 35570004008 Collected: 08/11/20 12:00 Received: 08/12/20 16:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	•		\ 8081 Prepa		od: EP/	A 3546			
	Pace Anal	ytical Service	es - Ormond E	Beach					
Aldrin	0.00098 U	mg/kg	0.0097	0.00098	5	08/14/20 05:26	08/21/20 00:17	309-00-2	J(L1)
alpha-BHC	0.00097 U	mg/kg	0.0097	0.00097	5	08/14/20 05:26	08/21/20 00:17	319-84-6	J(L1)
beta-BHC	0.0012 U	mg/kg	0.0097	0.0012	5	08/14/20 05:26	08/21/20 00:17	319-85-7	J(L1)
delta-BHC	0.00050 U	mg/kg	0.0097	0.00050	5	08/14/20 05:26	08/21/20 00:17	319-86-8	J(L1)
gamma-BHC (Lindane)	0.00085 U	mg/kg	0.0097	0.00085	5	08/14/20 05:26	08/21/20 00:17	58-89-9	J(L1)
Chlordane (Technical)	0.029 U	mg/kg	0.097	0.029	5	08/14/20 05:26	08/21/20 00:17	57-74-9	
4,4'-DDD	0.0015 U	mg/kg	0.0097	0.0015	5	08/14/20 05:26	08/21/20 00:17	72-54-8	J(L1)
4,4'-DDE	0.0011 U	mg/kg	0.0097	0.0011	5	08/14/20 05:26	08/21/20 00:17	72-55-9	J(L1)
4,4'-DDT	0.0013 U	mg/kg	0.0097	0.0013	5	08/14/20 05:26	08/21/20 00:17	50-29-3	J(C2), J(L1)
Dieldrin	0.0024 I	mg/kg	0.0097	0.0012	5	08/14/20 05:26	08/21/20 00:17	60-57-1	J(L1)
Endosulfan I	0.0011 U	mg/kg	0.0097	0.0011	5	08/14/20 05:26	08/21/20 00:17	959-98-8	J(L1)
Endosulfan II	0.0011 U	mg/kg	0.0097	0.0011	5	08/14/20 05:26	08/21/20 00:17	33213-65-9	J(L1)
Endosulfan sulfate	0.0012 U	mg/kg	0.0097	0.0012	5	08/14/20 05:26	08/21/20 00:17	1031-07-8	J(L1)
Endrin	0.0011 U	mg/kg	0.0097	0.0011	5	08/14/20 05:26	08/21/20 00:17	72-20-8	J(L1)
Endrin aldehyde	0.0012 U	mg/kg	0.019	0.0012	5	08/14/20 05:26	08/21/20 00:17	7421-93-4	
Endrin ketone	0.0012 U	mg/kg	0.0097	0.0012	5	08/14/20 05:26	08/21/20 00:17	53494-70-5	J(L1)
Heptachlor	0.0010 U	mg/kg	0.0097	0.0010	5	08/14/20 05:26	08/21/20 00:17	76-44-8	J(L1)
Heptachlor epoxide	0.0017 U	mg/kg	0.0097	0.0017	5	08/14/20 05:26	08/21/20 00:17	1024-57-3	J(L1)
Methoxychlor	0.0014 U	mg/kg	0.0097	0.0014	5	08/14/20 05:26	08/21/20 00:17	72-43-5	J(L1)
Toxaphene Surrogates	0.042 U	mg/kg	0.097	0.042	5	08/14/20 05:26	08/21/20 00:17	8001-35-2	
Tetrachloro-m-xylene (S)	83	%	53-140		5	08/14/20 05:26	08/21/20 00:17	877-09-8	
Decachlorobiphenyl (S)	89	%	43-157		5	08/14/20 05:26	08/21/20 00:17	2051-24-3	
6010 MET ICP	Analytical	Method: EPA	\ 6010 Prepa	ration Metho	od: EPA	A 3050			
	Pace Anal	ytical Service	es - Ormond E	Beach					
Arsenic	2.7 I	mg/kg	3.1	1.5	5	08/17/20 06:34	08/17/20 19:07	7440-38-2	
Percent Moisture	Analytical	Method: AS	ΓM D2974-87						
	Pace Anal	ytical Service	es - Ormond E	Beach					
Percent Moisture	12.6	%	0.10	0.10	1		08/19/20 09:59		

# **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

QC Batch: 657503 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET Solid

Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35570004001, 35570004002, 35570004003, 35570004004, 35570004005, 35570004006, 35570004007,

35570004008

METHOD BLANK: 3576051 Matrix: Solid

Associated Lab Samples: 35570004001, 35570004002, 35570004003, 35570004004, 35570004005, 35570004006, 35570004007,

35570004008

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	0.31 U	0.61	0.31	08/17/20 17:46	
Cadmium	mg/kg	0.031 U	0.061	0.031	08/17/20 17:46	
Chromium	mg/kg	0.15 U	0.31	0.15	08/17/20 17:46	
Lead	mg/kg	0.31 U	0.61	0.31	08/17/20 17:46	

LABORATORY CONTROL SAMPLE:	3576052	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	mg/kg	15.3	15.2	99	80-120	
Cadmium	mg/kg	1.5	1.6	103	80-120	
Chromium	mg/kg	15.3	16.2	106	80-120	
Lead	mg/kg	15.3	16.2	106	80-120	

MATRIX SPIKE & MATRIX S	PIKE DUPLIC	CATE: 3576	053		3576054							
			MS	MSD								
	3	35568071060	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Arsenic	mg/kg	2.4 1	18.9	18.9	20.4	21.5	95	101	75-125	5	20	_
Cadmium	mg/kg	0.16 U	1.8	2	2.0	2.0	104	105	75-125	1	20	
Chromium	mg/kg	3.9	18.9	18.9	21.8	23.0	95	101	75-125	5	20	
Lead	mg/kg	9.1	18.9	18.9	26.2	28.3	91	101	75-125	8	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

# **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570004

QC Batch: 656985 Analysis Method: EPA 8081

QC Batch Method: EPA 3546 Analysis Description: 8081 GCS Pesticides

Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35570004001, 35570004002, 35570004003, 35570004004, 35570004005, 35570004006, 35570004007,

35570004008

METHOD BLANK: 3572247 Matrix: Solid

Associated Lab Samples: 35570004001, 35570004002, 35570004003, 35570004004, 35570004005, 35570004006, 35570004007,

35570004008

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
4,4'-DDD	mg/kg	0.00026 U	0.0017	0.00026	08/17/20 20:20	
4,4'-DDE	mg/kg	0.00019 U	0.0017	0.00019	08/17/20 20:20	
4,4'-DDT	mg/kg	0.00023 U	0.0017	0.00023	08/17/20 20:20	
Aldrin	mg/kg	0.00017 U	0.0017	0.00017	08/17/20 20:20	
alpha-BHC	mg/kg	0.00017 U	0.0017	0.00017	08/17/20 20:20	
beta-BHC	mg/kg	0.00020 U	0.0017	0.00020	08/17/20 20:20	
Chlordane (Technical)	mg/kg	0.0051 U	0.017	0.0051	08/17/20 20:20	
delta-BHC	mg/kg	0.000087 U	0.0017	0.000087	08/17/20 20:20	
Dieldrin	mg/kg	0.00021 U	0.0017	0.00021	08/17/20 20:20	
Endosulfan I	mg/kg	0.00019 U	0.0017	0.00019	08/17/20 20:20	
Endosulfan II	mg/kg	0.00020 U	0.0017	0.00020	08/17/20 20:20	
Endosulfan sulfate	mg/kg	0.00020 U	0.0017	0.00020	08/17/20 20:20	
Endrin	mg/kg	0.00019 U	0.0017	0.00019	08/17/20 20:20	
Endrin aldehyde	mg/kg	0.00021 U	0.0033	0.00021	08/17/20 20:20	
Endrin ketone	mg/kg	0.00021 U	0.0017	0.00021	08/17/20 20:20	
gamma-BHC (Lindane)	mg/kg	0.00015 U	0.0017	0.00015	08/17/20 20:20	
Heptachlor	mg/kg	0.00018 U	0.0017	0.00018	08/17/20 20:20	
Heptachlor epoxide	mg/kg	0.00030 U	0.0017	0.00030	08/17/20 20:20	
Methoxychlor	mg/kg	0.00025 U	0.0017	0.00025	08/17/20 20:20	
Toxaphene	mg/kg	0.0073 U	0.017	0.0073	08/17/20 20:20	
Decachlorobiphenyl (S)	%	111	43-157		08/17/20 20:20	
Tetrachloro-m-xylene (S)	%	96	53-140		08/17/20 20:20	

LABORATORY CONTROL SAMPLE:	3572248					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits Qual	ifiers
4,4'-DDD	mg/kg	0.016	0.026	156	62-144 J(L1)	
4,4'-DDE	mg/kg	0.016	0.025	154	67-141 J(L1)	
4,4'-DDT	mg/kg	0.016	0.029	174	57-159 J(L1)	
Aldrin	mg/kg	0.016	0.024	148	70-136 J(L1)	
alpha-BHC	mg/kg	0.016	0.026	158	67-136 J(L1)	
beta-BHC	mg/kg	0.016	0.024	146	68-131 J(L1)	
delta-BHC	mg/kg	0.016	0.029	174	58-120 J(L1)	
Dieldrin	mg/kg	0.016	0.025	149	63-145 J(L1)	
Endosulfan I	mg/kg	0.016	0.024	148	66-129 J(L1)	
Endosulfan II	mg/kg	0.016	0.025	150	59-130 J(L1)	
Endosulfan sulfate	mg/kg	0.016	0.027	165	57-137 J(L1)	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

# **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full,

Page 17 of 31



Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

LABORATORY CONTROL SAMPLE:	3572248					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Endrin	mg/kg	0.016	0.027	164	67-147	J(L1)
Endrin aldehyde	mg/kg	0.016	0.024	144	54-144	
Endrin ketone	mg/kg	0.016	0.029	175	60-139	J(L1)
amma-BHC (Lindane)	mg/kg	0.016	0.026	157	69-137	J(L1)
eptachlor	mg/kg	0.016	0.024	146	68-135	J(L1)
eptachlor epoxide	mg/kg	0.016	0.024	147	68-135	J(L1)
ethoxychlor	mg/kg	0.016	0.030	179	57-153	J(L1)
ecachlorobiphenyl (S)	%			151	43-157	
etrachloro-m-xylene (S)	%			139	53-140	

MATRIX SPIKE & MATRIX S	SPIKE DUPLIC	ATE: 3572			3572476							
Parameter	39 Units	5570004005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4,4'-DDD	mg/kg	0.00065	0.021	0.021	0.022	0.021	111	105	62-144	5	40	
4,4'-DDE	mg/kg	0.00046 U	0.021	0.021	0.021	0.020	104	98	67-141	6	40	
4,4'-DDT	mg/kg	0.00056 U	0.021	0.021	0.027	0.025	133	121	57-159	9	40	
Aldrin	mg/kg	0.00042 U	0.021	0.021	0.020	0.019	99	95	70-136	4	40	
alpha-BHC	mg/kg	0.00042 U	0.021	0.021	0.021	0.020	103	100	67-136	4	40	
beta-BHC	mg/kg	0.00050 U	0.021	0.021	0.022	0.021	107	104	68-131	3	40	
delta-BHC	mg/kg	0.00021 U	0.021	0.021	0.025	0.024	121	116	58-120	4	40	J(M0)
Dieldrin	mg/kg	0.00051 U	0.021	0.021	0.021	0.020	105	99	63-145	6	40	
Endosulfan I	mg/kg	0.00047 U	0.021	0.021	0.021	0.020	102	98	66-129	4	40	
Endosulfan II	mg/kg	0.00049 U	0.021	0.021	0.023	0.021	114	104	59-130	9	40	
Endosulfan sulfate	mg/kg	0.00050 U	0.021	0.021	0.025	0.024	125	120	57-137	4	40	
Endrin	mg/kg	0.00048 U	0.021	0.021	0.023	0.022	113	107	67-147	6	40	
Endrin aldehyde	mg/kg	0.00053 U	0.021	0.021	0.020	0.019	100	96	54-144	5	40	
Endrin ketone	mg/kg	0.00053 U	0.021	0.021	0.029	0.028	143	137	60-139	4	40	J(M0)
gamma-BHC (Lindane)	mg/kg	0.00036 U	0.021	0.021	0.021	0.021	105	102	69-137	4	40	
Heptachlor	mg/kg	0.00044 U	0.021	0.021	0.020	0.019	99	95	68-135	4	40	
Heptachlor epoxide	mg/kg	0.00075 U	0.021	0.021	0.020	0.019	99	95	68-135	5	40	
Methoxychlor	mg/kg	0.00062 U	0.021	0.021	0.027	0.025	135	122	57-153	11	40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

# **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570004

MATRIX SPIKE & MATRIX S	PIKE DUPLIC	CATE: 3572	475		3572470	<del></del>						
	_		MS	MSD								
	3	5570004005	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Decachlorobiphenyl (S)	- <u> </u>						104	99	43-157			
Tetrachloro-m-xylene (S)	%						84	78	53-140			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

# **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full,

Date: 08/21/2020 04:35 PM



EPA 8270

Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

QC Batch: 656987

Analysis Method: QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave Short Spike

Pace Analytical Services - Ormond Beach Laboratory:

Associated Lab Samples: 35570004003

METHOD BLANK: 3572255 Matrix: Solid

Associated Lab Samples: 35570004003

,		Blank	Reporting				
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers	
1-Methylnaphthalene	mg/kg	0.013 U	0.040	0.013	08/14/20 16:49		
2-Methylnaphthalene	mg/kg	0.013 U	0.039	0.013	08/14/20 16:49		
Acenaphthene	mg/kg	0.012 U	0.036	0.012	08/14/20 16:49		
Acenaphthylene	mg/kg	0.011 U	0.034	0.011	08/14/20 16:49		
Anthracene	mg/kg	0.012 U	0.036	0.012	08/14/20 16:49		
Benzo(a)anthracene	mg/kg	0.0097 U	0.034	0.0097	08/14/20 16:49		
Benzo(a)pyrene	mg/kg	0.0084 U	0.034	0.0084	08/14/20 16:49		
Benzo(b)fluoranthene	mg/kg	0.0090 U	0.034	0.0090	08/14/20 16:49		
Benzo(g,h,i)perylene	mg/kg	0.0085 U	0.034	0.0085	08/14/20 16:49		
Benzo(k)fluoranthene	mg/kg	0.0090 U	0.034	0.0090	08/14/20 16:49		
Chrysene	mg/kg	0.011 U	0.034	0.011	08/14/20 16:49		
Dibenz(a,h)anthracene	mg/kg	0.0078 U	0.034	0.0078	08/14/20 16:49		
Fluoranthene	mg/kg	0.011 U	0.034	0.011	08/14/20 16:49		
Fluorene	mg/kg	0.012 U	0.037	0.012	08/14/20 16:49		
Indeno(1,2,3-cd)pyrene	mg/kg	0.0077 U	0.034	0.0077	08/14/20 16:49		
Naphthalene	mg/kg	0.012 U	0.035	0.012	08/14/20 16:49		
Phenanthrene	mg/kg	0.011 U	0.034	0.011	08/14/20 16:49		
Pyrene	mg/kg	0.011 U	0.034	0.011	08/14/20 16:49		
2-Fluorobiphenyl (S)	%	45	29-101		08/14/20 16:49		
Nitrobenzene-d5 (S)	%	48	24-98		08/14/20 16:49		
p-Terphenyl-d14 (S)	%	52	29-112		08/14/20 16:49		

LABORATORY CONTROL SAMPLE:	3572256					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1-Methylnaphthalene	mg/kg	1.7	0.80	48	38-115	
2-Methylnaphthalene	mg/kg	1.7	0.84	51	37-115	
Acenaphthene	mg/kg	1.7	0.80	48	30-127	
Acenaphthylene	mg/kg	1.7	0.89	54	29-129	
Anthracene	mg/kg	1.7	1.0	61	37-126	
Benzo(a)anthracene	mg/kg	1.7	1.1	64	37-130	
Benzo(a)pyrene	mg/kg	1.7	1.0	61	39-128	
Benzo(b)fluoranthene	mg/kg	1.7	0.98	59	38-128	
Benzo(g,h,i)perylene	mg/kg	1.7	1.1	68	34-136	
Benzo(k)fluoranthene	mg/kg	1.7	1.0	63	39-133	
Chrysene	mg/kg	1.7	1.1	66	39-125	
Dibenz(a,h)anthracene	mg/kg	1.7	1.1	68	37-127	
Fluoranthene	mg/kg	1.7	1.1	66	39-130	
Fluorene	mg/kg	1.7	0.94	56	35-125	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

# **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

LABORATORY CONTROL SAMPLE:	3572256					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.1	67	35-133	
Naphthalene	mg/kg	1.7	0.81	49	36-115	
Phenanthrene	mg/kg	1.7	1.0	60	35-128	
Pyrene	mg/kg	1.7	1.0	62	37-132	
2-Fluorobiphenyl (S)	%			51	29-101	
Nitrobenzene-d5 (S)	%			53	24-98	
-Terphenyl-d14 (S)	%			66	29-112	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 357227					3572275							
			MS	MSD								
	3	5569992001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1-Methylnaphthalene	mg/kg	0.014 U	1.7	1.8	1.1	1.0	62	56	38-115	9	40	
2-Methylnaphthalene	mg/kg	0.014 U	1.7	1.8	1.1	1.0	64	57	37-115	10	40	
Acenaphthene	mg/kg	0.013 U	1.7	1.8	1.1	1.0	61	56	30-127	8	40	
Acenaphthylene	mg/kg	0.012 U	1.7	1.8	1.2	1.1	67	60	29-129	9	40	
Anthracene	mg/kg	0.013 U	1.7	1.8	1.3	1.2	75	64	37-126	15	40	
Benzo(a)anthracene	mg/kg	0.011 U	1.7	1.8	1.4	1.2	80	67	37-130	16	40	
Benzo(a)pyrene	mg/kg	0.0091 U	1.7	1.8	1.4	1.2	79	64	39-128	19	40	
Benzo(b)fluoranthene	mg/kg	0.0098 U	1.7	1.8	1.3	1.1	75	64	38-128	15	40	
Benzo(g,h,i)perylene	mg/kg	0.0092 U	1.7	1.8	1.6	1.3	88	70	34-136	21	40	
Benzo(k)fluoranthene	mg/kg	0.0098 U	1.7	1.8	1.4	1.2	81	66	39-133	19	40	
Chrysene	mg/kg	0.012 U	1.7	1.8	1.5	1.2	82	69	39-125	17	40	
Dibenz(a,h)anthracene	mg/kg	0.0085 U	1.7	1.8	1.5	1.2	86	69	37-127	20	40	
Fluoranthene	mg/kg	0.012 U	1.7	1.8	1.5	1.3	83	70	39-130	16	40	
Fluorene	mg/kg	0.013 U	1.7	1.8	1.2	1.1	67	62	35-125	7	40	
Indeno(1,2,3-cd)pyrene	mg/kg	0.0084 U	1.7	1.8	1.5	1.2	86	69	35-133	21	40	
Naphthalene	mg/kg	0.013 U	1.7	1.8	1.1	0.98	62	55	36-115	11	40	
Phenanthrene	mg/kg	0.012 U	1.7	1.8	1.3	1.1	72	62	35-128	13	40	
Pyrene	mg/kg	0.012 U	1.7	1.8	1.3	1.1	75	64	37-132	15	40	
2-Fluorobiphenyl (S)	%						63	56	29-101			
Nitrobenzene-d5 (S)	%						65	56	24-98			
p-Terphenyl-d14 (S)	%						79	66	29-112			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

# **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570004

QC Batch: 656988 Analysis Method: EPA 8270

QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave Short Spike

Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35570004004

METHOD BLANK: 3572257 Matrix: Solid

Associated Lab Samples: 35570004004

Date: 08/21/2020 04:35 PM

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
I-Methylnaphthalene		0.013 U	0.040	0.013	08/15/20 01:05	
	mg/kg					
2-Methylnaphthalene	mg/kg	0.013 U	0.039	0.013	08/15/20 01:05	
Acenaphthene	mg/kg	0.012 U	0.036	0.012	08/15/20 01:05	
Acenaphthylene	mg/kg	0.011 U	0.034	0.011	08/15/20 01:05	
Anthracene	mg/kg	0.012 U	0.036	0.012	08/15/20 01:05	
Benzo(a)anthracene	mg/kg	0.0096 U	0.034	0.0096	08/15/20 01:05	
Benzo(a)pyrene	mg/kg	0.0084 U	0.034	0.0084	08/15/20 01:05	
Benzo(b)fluoranthene	mg/kg	0.0090 U	0.034	0.0090	08/15/20 01:05	
Benzo(g,h,i)perylene	mg/kg	0.0085 U	0.034	0.0085	08/15/20 01:05	
Benzo(k)fluoranthene	mg/kg	0.0090 U	0.034	0.0090	08/15/20 01:05	
Chrysene	mg/kg	0.011 U	0.034	0.011	08/15/20 01:05	
Dibenz(a,h)anthracene	mg/kg	0.0078 U	0.034	0.0078	08/15/20 01:05	
Fluoranthene	mg/kg	0.011 U	0.034	0.011	08/15/20 01:05	
Fluorene	mg/kg	0.012 U	0.037	0.012	08/15/20 01:05	
ndeno(1,2,3-cd)pyrene	mg/kg	0.0077 U	0.034	0.0077	08/15/20 01:05	
Naphthalene	mg/kg	0.012 U	0.035	0.012	08/15/20 01:05	
Phenanthrene	mg/kg	0.011 U	0.034	0.011	08/15/20 01:05	
Pyrene	mg/kg	0.011 U	0.034	0.011	08/15/20 01:05	
2-Fluorobiphenyl (S)	%	44	29-101		08/15/20 01:05	
Nitrobenzene-d5 (S)	%	30	24-98		08/15/20 01:05	
o-Terphenyl-d14 (S)	%	59	29-112		08/15/20 01:05	

LABORATORY CONTROL SAMPLE:	3572258					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1-Methylnaphthalene	mg/kg	1.7	0.80	48	38-115	
2-Methylnaphthalene	mg/kg	1.7	0.82	49	37-115	
Acenaphthene	mg/kg	1.7	0.85	51	30-127	
Acenaphthylene	mg/kg	1.7	0.92	55	29-129	
Anthracene	mg/kg	1.7	1.0	63	37-126	
Benzo(a)anthracene	mg/kg	1.7	1.2	70	37-130	
Benzo(a)pyrene	mg/kg	1.7	1.1	69	39-128	
Benzo(b)fluoranthene	mg/kg	1.7	1.1	67	38-128	
Benzo(g,h,i)perylene	mg/kg	1.7	1.1	67	34-136	
Benzo(k)fluoranthene	mg/kg	1.7	1.2	71	39-133	
Chrysene	mg/kg	1.7	1.2	70	39-125	
Dibenz(a,h)anthracene	mg/kg	1.7	1.2	70	37-127	
Fluoranthene	mg/kg	1.7	1.1	67	39-130	
Fluorene	mg/kg	1.7	0.95	58	35-125	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

# **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

LABORATORY CONTROL SAMPLE:	3572258					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.1	67	35-133	
Naphthalene	mg/kg	1.7	0.76	46	36-115	
Phenanthrene	mg/kg	1.7	1.0	62	35-128	
Pyrene	mg/kg	1.7	1.1	67	37-132	
2-Fluorobiphenyl (S)	%			51	29-101	
Nitrobenzene-d5 (S)	%			32	24-98	
p-Terphenyl-d14 (S)	%			66	29-112	

MATRIX SPIKE & MATRIX S	SPIKE DUPLIC	ATE: 3572	365		3572366							
			MS	MSD								
	3	5570080001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1-Methylnaphthalene	mg/kg	0.015 U	1.8	2	1.1	1.3	57	67	38-115	19	40	
2-Methylnaphthalene	mg/kg	0.015 U	1.8	2	1.1	1.3	57	69	37-115	22	40	
Acenaphthene	mg/kg	0.013 U	1.8	2	1.1	1.3	58	68	30-127	18	40	
Acenaphthylene	mg/kg	0.012 U	1.8	2	1.2	1.5	64	75	29-129	19	40	
Anthracene	mg/kg	0.014 U	1.8	2	1.2	1.5	62	76	37-126	23	40	
Benzo(a)anthracene	mg/kg	0.011 U	1.8	2	1.2	1.5	63	79	37-130	26	40	
Benzo(a)pyrene	mg/kg	0.0097 U	1.8	2	1.2	1.5	61	77	39-128	26	40	
Benzo(b)fluoranthene	mg/kg	0.010 U	1.8	2	1.2	1.5	61	76	38-128	24	40	
Benzo(g,h,i)perylene	mg/kg	0.0098 U	1.8	2	1.1	1.5	57	75	34-136	29	40	
Benzo(k)fluoranthene	mg/kg	0.010 U	1.8	2	1.2	1.6	65	81	39-133	25	40	
Chrysene	mg/kg	0.012 U	1.8	2	1.2	1.6	63	80	39-125	26	40	
Dibenz(a,h)anthracene	mg/kg	0.0090 U	1.8	2	1.1	1.5	60	79	37-127	30	40	
Fluoranthene	mg/kg	0.013 U	1.8	2	1.2	1.6	65	84	39-130	28	40	
Fluorene	mg/kg	0.014 U	1.8	2	1.2	1.5	64	75	35-125	18	40	
Indeno(1,2,3-cd)pyrene	mg/kg	0.0089 U	1.8	2	1.1	1.5	59	77	35-133	29	40	
Naphthalene	mg/kg	0.013 U	1.8	2	1.0	1.3	55	65	36-115	20	40	
Phenanthrene	mg/kg	0.013 U	1.8	2	1.2	1.5	64	78	35-128	22	40	
Pyrene	mg/kg	0.012 U	1.8	2	1.2	1.5	61	75	37-132	24	40	
2-Fluorobiphenyl (S)	%						59	67	29-101			
Nitrobenzene-d5 (S)	%						41	50	24-98			
p-Terphenyl-d14 (S)	%						59	73	29-112			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

# **REPORT OF LABORATORY ANALYSIS**

Qualifiers



#### **QUALITY CONTROL DATA**

Project:

FIU 236-08

Pace Project No.:

35570004

QC Batch:

656990

Analysis Method:

Laboratory:

FL-PRO

QC Batch Method: EPA 3546 Analysis Description:

FL-PRO Soil Pace Analytical Services - Ormond Beach

Associated Lab Samples:

35570004003, 35570004004

METHOD BLANK:

3572261

Matrix: Solid

Associated Lab Samples:

35570004003, 35570004004

Blank Reporting

Result MDL Parameter Units Limit Analyzed Petroleum Range Organics 5.1 U 5.9 5.1 08/14/20 11:59 mg/kg N-Pentatriacontane (S) % 98 42-159 08/14/20 11:59 o-Terphenyl (S) % 97 66-136 08/14/20 11:59

LABORATORY CONTROL SAMPLE:

Parameter

Petroleum Range Organics

N-Pentatriacontane (S)

Date: 08/21/2020 04:35 PM

o-Terphenyl (S)

3572262

Units

mg/kg

%

%

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers 85 201 172 65-119 103 42-159 105 66-136

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

3572339

		35570065001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Petroleum Range Organics	mg/kg	6.5 U	313	287	268	241	85	83	39-181	11	25	
N-Pentatriacontane (S)	%						103	106	42-159			
o-Terphenyl (S)	%						107	105	66-136			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

# **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08
Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

QC Batch: 658033 Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35570004001, 35570004002, 35570004003, 35570004004, 35570004005, 35570004006, 35570004007,

35570004	800					
SAMPLE DUPLICATE: 3578064  Parameter	Units	35568097022 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	19.2	19.7	3	10	
SAMPLE DUPLICATE: 3578065	l la ita	35569992002	Dup	DDD	Max	Qualificare
Parameter Percent Moisture	Units %	Result	Result 3.6	RPD _	RPD 10	Qualifiers
SAMPLE DUPLICATE: 3578066		35569998007	Dun		Max	
Parameter	Units	Result	Dup Result	RPD	RPD	Qualifiers
Percent Moisture	%	31.9	28.2	12	10	J(D6)
SAMPLE DUPLICATE: 3578067						
Parameter	Units	35569998015 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	10.3	9.3	10	10	
SAMPLE DUPLICATE: 3578068						
Parameter	Units	35570065001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	5.6	5.9	5	10	
SAMPLE DUPLICATE: 3578069						
Parameter	Units	35570065008 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	4.5	4.2	8	10	
SAMPLE DUPLICATE: 3578070		35570473001	Dup		Max	
Parameter	Units	Result	Dup Result	RPD	RPD	Qualifiers
Percent Moisture	%	18.1	17.9	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

# **REPORT OF LABORATORY ANALYSIS**



Project: FIU 236-08 Pace Project No.: 35570004

SAMPLE DUPLICATE: 3578071

		35570486003	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
Percent Moisture	<del></del> %	12.0	11.3	5	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

# **REPORT OF LABORATORY ANALYSIS**



#### **QUALIFIERS**

Project: FIU 236-08 Pace Project No.: 35570004

#### **DEFINITIONS**

- DF Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
- ND Not Detected at or above adjusted reporting limit.
- TNTC Too Numerous To Count
- MDL Adjusted Method Detection Limit.
- PQL Practical Quantitation Limit.
- RL Reporting Limit The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
- S Surrogate
- 1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

**DUP - Sample Duplicate** 

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

#### **ANALYTE QUALIFIERS**

Date: 08/21/2020 04:35 PM

1	The reported value is between the laboratory	method detection limit and the laboratory practical quantitation limit.

- U Compound was analyzed for but not detected.
- CU The continuing calibration for this analyte is above laboratory acceptance limits. Analyte was not detected above the reporting limit in any of the associated samples.
- J(C2) Estimated Value. Relative percent difference between results from each column was greater than 40%. The lower of the two results was reported.
- J(D6) Estimated Value. The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
- J(L1) Estimated Value. Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
- J(M0) Estimated Value. Matrix spike recovery was outside laboratory control limits.
- P1 Routine initial sample volume or weight was not used for extraction, resulting in elevated reporting limits.

#### REPORT OF LABORATORY ANALYSIS



# **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: FIU 236-08 Pace Project No.: 35570004

Date: 08/21/2020 04:35 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35570004001	SB-8 (0-6")	EPA 3546	656985	EPA 8081	657030
35570004002	SB-9 (0-6")	EPA 3546	656985	EPA 8081	657030
35570004003	SB-10 (0-6")	EPA 3546	656985	EPA 8081	657030
35570004004	SB-11 (0-6")	EPA 3546	656985	EPA 8081	657030
35570004005	SB-12 (0-6")	EPA 3546	656985	EPA 8081	657030
35570004006	SB-13 (0-6")	EPA 3546	656985	EPA 8081	657030
35570004007	SB-14 (0-6")	EPA 3546	656985	EPA 8081	657030
35570004008	SB-15 (0-6")	EPA 3546	656985	EPA 8081	657030
35570004003	SB-10 (0-6")	EPA 3546	656990	FL-PRO	657019
35570004004	SB-11 (0-6")	EPA 3546	656990	FL-PRO	657019
35570004001	SB-8 (0-6")	EPA 3050	657503	EPA 6010	657600
35570004002	SB-9 (0-6")	EPA 3050	657503	EPA 6010	657600
35570004003	SB-10 (0-6")	EPA 3050	657503	EPA 6010	657600
35570004004	SB-11 (0-6")	EPA 3050	657503	EPA 6010	657600
35570004005	SB-12 (0-6")	EPA 3050	657503	EPA 6010	657600
35570004006	SB-13 (0-6")	EPA 3050	657503	EPA 6010	657600
35570004007	SB-14 (0-6")	EPA 3050	657503	EPA 6010	657600
35570004008	SB-15 (0-6")	EPA 3050	657503	EPA 6010	657600
35570004003	SB-10 (0-6")	EPA 3546	656987	EPA 8270	657043
35570004004	SB-11 (0-6")	EPA 3546	656988	EPA 8270	657259
35570004001	SB-8 (0-6")	ASTM D2974-87	658033		
35570004002	SB-9 (0-6")	ASTM D2974-87	658033		
35570004003	SB-10 (0-6")	ASTM D2974-87	658033		
5570004004	SB-11 (0-6")	ASTM D2974-87	658033		
5570004005	SB-12 (0-6")	ASTM D2974-87	658033		
35570004006	SB-13 (0-6")	ASTM D2974-87	658033		
35570004007	SB-14 (0-6")	ASTM D2974-87	658033		
35570004008	SB-15 (0-6")	ASTM D2974-87	658033		

# **REPORT OF LABORATORY ANALYSIS**

Compare   Comp	Pace Anal /tical C	CHAIN-OF-CU	CHAIN-OF-CUSTODY Analytical Request		Document	LAB USE ON	LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here	ist Pace Workorder Number or re
The contrast because the con	Company:	Chain-of-Custody	is a LEGAL DOCUMENT Billing Information:	T - Complete all relevent	fields			
	CRB Greelogical						ALL SHADED AREAS are for	AB USE ONLY
The control of the	Siv (33			1.6		Container P		ject Manager:
Since Control (1) of the control of			Email To:	CABINE		reservative Types: (1) nit nethanol, (7) sodium bist	tric acid, (2) sulfuric acid, (3) hydrochloric acid, ( ulfate, (8) sodium thiosulfate, (9) hexane, (4) as	t) sodium hydroxide, (5) zinc acetate, orbic acid, (8) ammonium sulfate,
State   CountyCor   The Zone Collected   The Zone	N	200	Site Collection Info/A		(C)	immonium hydroxide, (C	0) TSP, (U) Unpreserved, (O) Other  Analyses	file/line.
Collective Discusses Signature Research 7 is 100 MVHS DF.  Control Mouth of Collection Signature Research 7 is 100 MVHS DF.  Control Collection Signature Research 7 is 100 MVHS DF.  Control Collection Signature Research 7 is 100 MVHS DF.  Control Collection Signature Research 7 is 100 MVHS DF.  Control Collection Signature Research 7 is 100 MVHS DF.  Control Collection Signature Research 7 is 100 MVHS DF.  Control Collection Signature Research 7 is 100 MVHS DF.  Control Collection Signature Research 7 is 100 MVHS DF.  Control Collection Signature Research 7 is 100 MVHS DF.  Control Collection Signature Research 8 is 100 MVHS DF.  Control Collection Signature Research 8 is 100 MVHS DF.  Control Collection Signature Research 8 is 100 MVHS DF.  Control Collection Signature Research 8 is 100 MVHS DF.  Control Collection Signature Research 8 is 100 MVHS DF.  Control Collection Signature Research 8 is 100 MVHS DF.  Control Collection Signature Research 8 is 100 MVHS DF.  Control Collection Signature Research 8 is 100 MVHS DF.  Control Collection Signature Research 8 is 100 MVHS DF.  Control Collection Signature Research 8 is 100 MVHS DF.  Control Collection Signature Research 8 is 100 MVHS DF.  Control Collection Signature Research 8 is 100 MVHS DF.  Control Collection Signature Research 8 is 100 MVHS DF.  Control Collection Signature Research Re	Sustomer Project Name/Number:			Time Zor [ ] PT [	cted: ]CT [ ]ET		1800 C'10	Receipt Checklist:
Composition		Facility ID #:	10	Compliance Monitoring	0.		CUS1 COLST	*****
### Sequence   Market   Market	3y (print):	hase Order #: te #:	d ner	DW PWS ID #: DW Location Code:			Suff	K K K F
1 Save Day   1 Noct Day   1 N		around Date Requir	.eq:	Immediately Packed on			mps	ble KN
Nativity— Grand (CM), Wastewater (WW), Mastewater (WW), Coronard Water (CM), Wastewater (WW), Coronard Water (CM), Coronard Water (CM), Coronard (CM), Coron	opriate [ ] Return	[ ] s	1 %	Field Fittered (if applicated)   1 Yes   1 No Analysis:	ole):		Sami	ing Time Y N ne Present Y N Lable Y N
Matrix Comp Collected for Composite End of Cins State End of Cins End of	Matrix Codes (Insert in Matrix box belo Product (P), Soil/Solic (SL), Oil (OL), Wig	ow): Drinking Water pe (WP), Air (AR), Ti	(DW), Ground Water (ssue (TS), Bioassay (B),	GW), Wastewater (WW), Vapor (V), Other (OT)		\ 5	CA, (	Z H
Date   Time   Date   Time   N	Customer Sample ID M	Comp /	Collected (or Composite Start)	Composite End	Res # of Cl Ctns	A 1A9 7.87		Sample # / Comments:
1000   1000			Date Time		-			
10000   100000   10000   10000   10000   10000   10000   10000   10000   100000   100000   100000   100000   100000   100000   100000   100000   100000   100000   100000   100000   100000   100000   1000000   100000   100000   100000   100000   100000   1000000   1000000   1000000   1000000   1000000   1000000   10000000   100000000	(0-40)	SC			×	×		
1035	9-0)		ild id	1 0430	× -	×		
1030   X X X X X X   355 0004	$\sim$			toot	×	×		70007
11.05   11.0	60-6			1035	×	×		1000
Not Conformance(s)   Note of Ice Used:   Note Used:   Note Of Ice Used:   Note Of Ice Used:   Note Use	9-0)21-	le le		1105	×	×		
12.00   12.0	70)			OZII	×	×		
Packing Material Used:   None   SHORT HOLDS PRESENT (<72 hours): Y N N/A   Lab Sample Temperature Info: Them Blank Received: Y N N/A   Temp Blank Received: Y N N/A   Table #: Cooler 1 Them Upon Receipt: Cooler 1 Temp Upon Received: Y N N/A   Table #: Cooler 1 Temp Upon Received: Y N N/A   Template: Comments: Cooler 1 Temp Upon Received: Y N N/A   Template: Cooler 1 Temp Upon Received: Y N N/A   Template: Cooler 1 Temp Upon Received: Y N N/A   Template: Cooler 1 Temp Upon Received: Y N N/A   Template: Cooler 1 Template: Cooler 1 Temp Upon Received: Y N N/A   Template: Cooler 1 Template	7			1, 1135	×	×	35570004	
Packing Material Used:  Radchem sample(s) screened (<500 cpm, 7 m N/A   Packing #: 2464767   Cooler 1 Temp Blank Received: Y N N/A   Temp Blank Received: Y N/A   Temp Blank Bla	0-6	>		V (120)	>	×		
Packing Material Used: Wet Blue Dry None   SHORT HOLDS PRESENT (<72 hours): Y N N/A   Temp Blank Received: Y N N/A   Temp Blank B								
Packing Material Used:   Packing Material Us	Customer Remarks / Special Conditions /	Possible Hazards:	Type of Ice Used:	Blue	None	SHORT HOLDS PRE	N ×	Lab Sample Temperature Info:
Radchem sample(s) screened (<500 cpm, Y Received via:  Received by Company (Signature)  Date/Time:  Date/Time: Dat			Packing Material Use	ij.	7	Lab Tracking #:	2464767	Received: Y N N/
Received by/Company/Signature) Date/Time: Da			Radchem sample(s) s	creened (<500 cpm/	AN A	Samples received v FEDEX UPS	Client Courier	or:
Date/Time: Received by/Companys/signature) Date/Time: Trip Blank Received: Y N HCL MeOH TSP Other Date/Time: Received by/Company; Wignature) Date/Time: Page: Non Conformance(s): Page: VEX. Non Conformance(s): Page: VEX. NO. Conformance(s): Page: VE	(elinquished by/Company: (Signature)	Pat Dat	130	11/2	Sature of San	E	113 MTJL LA	Comments:
Received by/Company; organization (A)	Rei®quished by/Company: (Signature)	Dat	100	Received by/Company4	Signature)	fime:		Blank Received: Y N MeOH TSP Other
	Relinquished by/Company; (Signature)	Dat			Signature)	Gate/Time:		



# Document Name: Sample Condition Upon Receipt Form Document No.; F-FL-C-007 rev. 13

Document Revised: May 30, 2018 Issuing Authority: Pace Florida Quality Office

Physical Addition		
Project Manager:	PM: CTR Due Date: 08/19/	20 Date and Initials of person;
i i ojoot managen.	CLIENT: 36-CRBGEO	Examining contents:
Client:		Label:Deliver:
	$\sim$ / $\sim$	pH:
Thermometer Used:	538 Date 3/12/20 T	ime: 23/8 Initials: JM
State of Origin:	For WV projects, all co	ntainers verified to ≤6 °C
Cooler #1 Temp. C (Visual)	4.3 (Correction Factor) // (A	ctual) Samples on ice, cooling process has beg
Cooler #2 Temp. 'C(Visual)	(Correction Factor)(A	ctual) Samples on ice, cooling process has beg
Cooler #3 Temp. C(Visual)	(Correction Factor)(A	ctual) Samples on ice, cooling process has beg
Cooler #4 Temp. C(Visual)	(Correction Factor)(A	ctual) Samples on ice, cooling process has beg
Cooler #5 Temp. °C(Visual)	(Correction Factor)(A	ctual) Samples on ice, cooling process has beg
Cooler #6 Temp. °C(Visual)	(Correction Factor)(A	ctual) Samples on ice, cooling process has beg
	S USPS Client Commercial	Pace Other
	☐ Priority Overnight ☐ Standard Overnight	☐ Ground ☐ International Priority
□ Other		
Billing: ☐ Recipient	☐ Sender ☐ Third Party ☐ Credit C	ard 🛘 Unknown
Tracking #Custody Seal on Cooler/Box Present: Packing Material: □Bubble Wrap	☐Yes ☐No Seals Intact: ☐ Ye	s No Ice: Wet Blue Dry None
Fracking #Custody Seal on Cooler/Box Present:  Packing Material: □Bubble Wrap	☐Yes ☐No Seals Intact: ☐ Yes ☐Bubble Bags ☐None ☐Other	s No Ice: Wet Blue Dry None  Shorted Time: Qty:
Fracking #	Yes No Seals intact: ☐ Ye Bubble Bags ☐ None ☐ Other te) Shorted Date: Comments	s No Ice: Wet Blue Dry None  Shorted Time: Qty:
Fracking #Custody Seal on Cooler/Box Present:  Packing Material: □ Bubble Wrap  Samples shorted to lab (If Yes, comple	□Yes □No Seals intact: □ Yes □ None □ Other	s No Ice: Wet Blue Dry None  Shorted Time: Qty:
Custody Seal on Cooler/Box Present:  Cacking Material: Bubble Wrap  Camples shorted to lab (If Yes, completion of Custody Present  Chain of Custody Filled Out	Yes	s No Ice: Wet Blue Dry None  Shorted Time: Qty:
Custody Seal on Cooler/Box Present:  Packing Material: Bubble Wrap  Camples shorted to lab (If Yes, comple  Chain of Custody Present  Chain of Custody Filled Out  Telinquished Signature & Sampler Name	Yes	s No Ice: Wet Blue Dry None  Shorted Time: Qty:
Custody Seal on Cooler/Box Present:  Packing Material: Bubble Wrap  Samples shorted to lab (If Yes, complete)  Chain of Custody Present  Chain of Custody Filled Out  elinquished Signature & Sampler Name  amples Arrived within Hold Time	□Yes □No Seals intact: □ Yes □ None □Other	s No Ice: Wet Blue Dry None  Shorted Time: Qty:
Custody Seal on Cooler/Box Present: Packing Material: Bubble Wrap Examples shorted to lab (If Yes, completion of Custody Present Exhain of Custody Filled Out The inquished Signature & Sampler Name That requested on COC	Yes   No   Seals intact:   Yes   Bubble Bags   None   Other_te)   Shorted Date:   Comments   Other   Comments   Other   Comments   Other   O	s No Ice: Wet Blue Dry None  Shorted Time: Qty:
Custody Seal on Cooler/Box Present:  Packing Material: Bubble Wrap  Samples shorted to lab (If Yes, comple  Chain of Custody Present  Chain of Custody Filled Out  Stellinguished Signature & Sampler Name  samples Arrived within Hold Time  sush TAT requested on COC  ufficient Volume	Yes	s No Ice: Wet Blue Dry None  Shorted Time: Qty:
Custody Seal on Cooler/Box Present: Packing Material: Bubble Wrap Samples shorted to lab (If Yes, comple Chain of Custody Present Chain of Custody Filled Out Relinquished Signature & Sampler Name Samples Arrived within Hold Time Rush TAT requested on COC ufficient Volume orrect Containers Used ontainers Intact	Yes	s No Ice: Wet Blue Dry None  Shorted Time: Qty:
Custody Seal on Cooler/Box Present:  Packing Material: Bubble Wrap  Chain of Custody Present  Chain of Custody Filled Out  Relinquished Signature & Sampler Name  amples Arrived within Hold Time  rush TAT requested on COC  ufficient Volume  orrect Containers Used  ontainers Intact  ample Labels match COC (sample IDs & date	Yes	s No Ice: Wet Blue Dry None Shorted Time: Qty:
Custody Seal on Cooler/Box Present:  Packing Material: Bubble Wrap  Chain of Custody Present  Chain of Custody Present  Chain of Custody Filled Out  delinquished Signature & Sampler Name  amples Arrived within Hold Time  ush TAT requested on COC  ufficient Volume  orrect Containers Used  ontainers Intact  timple Labels match COC (sample IDs & date  llection)  containers needing acid/base preservation if	Yes	s No Ice: Wet Blue Dry None  Shorted Time: Qty:  Shorted Time:  Shorted Time:  Shorted Time:
Custody Seal on Cooler/Box Present:  Packing Material: Bubble Wrap  Samples shorted to lab (If Yes, comple  Chain of Custody Present  Chain of Custody Filled Out  Telinquished Signature & Sampler Name  amples Arrived within Hold Time  ush TAT requested on COC  ufficient Volume  Direct Containers Used  Containers Intact  Imple Labels match COC (sample IDs & date  lection)  containers needing acid/base preservation fecked.	Yes	Shorted Time: Qty:  Shorted Time: Qty:  Shorted Time: Qty:  Preservation Information:  Preservative:
Custody Seal on Cooler/Box Present:  Packing Material: Bubble Wrap  Samples shorted to lab (If Yes, comple  Chain of Custody Present  Chain of Custody Filled Out  Itelinquished Signature & Sampler Name  amples Arrived within Hold Time  ush TAT requested on COC  ufficient Volume  orrect Containers Used  ontainers Intact  umple Labels match COC (sample IDs & date  llection)  containers needing acid/base preservation recked.  Containers needing preservation are found impliance with EPA recommendation:	Yes	Shorted Time: Qty:
Custody Seal on Cooler/Box Present:  Packing Material: Bubble Wrap  Chain of Custody Present  Chain of Custody Present  Chain of Custody Filled Out  delinquished Signature & Sampler Name  amples Arrived within Hold Time  ush TAT requested on COC  ufficient Volume  orrect Containers Used  ontainers Intact  imple Labels match COC (sample IDs & date  llection)  containers needing acid/base preservation fecked.  Containers needing preservation are found to  mpliance with EPA recommendation:  Exceptions: VOA, Coliform, To	Yes	Shorted Time: Qty:  Shorted Time: Qty:  Shorted Time: Qty:  Preservation Information: Preservative:
Custody Seal on Cooler/Box Present: Packing Material: Bubble Wrap Samples shorted to lab (If Yes, complete in a co	Yes	Shorted Time: Qty:  Shorted Time: Qty:  Shorted Time: Qty:  Preservation Information:  Preservative: Out #/Trace #: Date: Time: Date: Time: Date: Time: Date: Time: Date: Time: Date: Time: Date: Date: Date: Date: Date: Date: Date: Date: Date:

Comments/ Resolution (use back for additional comments):\_ Project Manager Review: Date: Page 30 of 31



#### Document Name: Sample Condition Upon Receipt Form Document No.: F-Ft-C-007 rev. 13

Document Revised: May 30, 2018 Issuing Authority: Pace Florida Quality Office

# Sample Condition Upon Receipt Form (SCUR)

Project #			Date and Initials of person:
Project Manager:			Examining contents: RD
Client:			Label:
onent.			Deliver: pH:
Thermometer Used:	Date: <u>\$/12/2</u>	<u> </u>	Initials: RD
State of Origin:	☐ For WV p	rojects, all containers ver	ified to ≤6 °C
Cooler#1 Temp.*C 4.9 (Visual) -0	Correction Factor)	1.8 (Actual)	Samples on ice, cooling process has begun
Cooler #2 Temp.°C(Visual)	(Correction Factor)	(Actual)	<ul> <li>Samples on ice, cooling process has begun</li> </ul>
Cooler #3 Temp.°C(Visual)			Samples on ice, cooling process has begur
Cooler #4 Temp.°C(Visual)	(Correction Factor)	(Actual)	Samples on ice, cooling process has begur
Cooler #5 Temp. C(Visual)	(Correction Factor)	(Actual)	Samples on ice, cooling process has begun
Cooler #6 Temp.°C(Visual)	(Correction Factor)	(Actual)	Samples on ice, cooling process has begun
	USPS ☐ Client ☐ Cor	^	Other
Shipping Method:	riority Overnight	Overnight   Groun	nd □ International Priority
Billing: ☐ Recipient ☐ Send	der ☐ Third Party	☐ Credit Card	□ Unknown
Tracking #	·		
Custody Seal on Cooler/Box Present:	es INo Seals Int	tact: Yes No	Ice: Wet Blue Dry None
Packing Material: ☐Bubble Wrap ☐ Bubb Samples shorted to lab (If Yes, complete)		herShoi	rted Time: Qty:
	c	comments:	
Chain of Custody Present	AYes □ No □N/A		
Chain of Custody Filled Out	ZIYes □ No □N/A		
Relinquished Signature & Sampler Name COC	TYES ONO ON/A	Courier a	id not relinquish
Samples Arrived within Hold Time	ZYes □ No □N/A		
Rush TAT requested on COC	□Yes No □N/A		
Sufficient Volume	□Yes □ No □N/A		
Correct Containers Used	□Yes □ No □N/A		
Containers Intact	□Yes □ No □N/A		
Sample Labels match COC (sample IDs & date/time or collection)	□Yes □ No □N/A		
All containers needing acid/base preservation have be checked.	en □Yes □ No □N/A	2.00	Preservation Information:
All Containers needing preservation are found to be in		Preservativ Lot #/Trace	) #:
compliance with EPA recommendation: Exceptions: VOA, Coliform, TOC, O8	☐Yes ☐ No ☐N/A	Date: Initials:	Time:
Headspace in VOA Vials? ( >6mm):	□Yes □ No □N/A		
Trip Blank Present:	□Yes □ No □N/A		
Client Notification/ Resolution:	•	5.4.5	
Person Contacted:  Comments/ Resolution (use back for addition	nal comments):	-	
Project Manager Review:			Date:





# TERM SHEET Redland Ahead, Inc.

# Florida Non-Profit Corporation since 06/27/2013. FEIN 46-3449308

1. Agreement: License for the use by Redland Ahead, Inc. of 23.9 acres of land at the FIU Possum Trot site for the purpose of operating an orchard of rare tropical fruit for commercial purposes. Licensee must operate and maintain the as a chemical-free orchard and may seek organic certification at licensee's own expense. FIU reserves the right to use the land for workshops and research on a schedule and with scope to be mutually agreed upon with Licensee. Licensee may receive use fees from any grant-funded programs mutually engaged in by the parties, as applicable.

# 2. Agreement Term:

- a. <u>Effective Date</u>: October 1, 2020, contingent upon BOT approval of gift and BOG approval of application for New Educational Site
- b. Initial Term: 5 years
- c. <u>Renewal Term(s)</u>: One 5-year renewal by mutual agreement with the opportunity to renegotiate License Fee and Commission.

# 3. License Fee/Payment Terms:

- a. <u>To FIU</u>: \$450 per acre annually paid upon the Commencement date and thereafter annually at the beginning of each anniversary. Revenue share of 0.5% of gross revenue (excluding revenues from grants) beginning in the second year and continuing for the duration of the Term.
- **4. Condition of the Premises:** FIU will install fencing on all unfenced property boundaries. FIU has the right to approve any improvements to the premises proposed by licensee, the specific details of such improvements to be documented in separate agreements.
- **5. Maintenance/Repair:** Licensee is responsible for all repairs and maintenance including the newly installed fence for the duration of the license period.

#### 6. Safety and Health:

- a. <u>Licensee Insurance</u>: Licensee is required to provide proof of the following insurance with FIU-BOT named as additional insureds:
  - i. farm liability insurance: \$1,000,000 per occurrence, \$2,000,000 aggregate
  - ii. workers compensation insurance
  - iii. employer's liability Insurance: \$1,000,000 each employee and each accident
  - iv. commercial automobile liability insurance: \$1,000,000 each accident
  - v. farm property insurance written on a special form (including windstorm & flood coverage) for loss or damage to property on the Premises for the replacement value with FIU-BOT named as loss payee.
- b. <u>FIU Insurance</u>: FIU is not required to purchase additional liability insurance for this property under the license agreement.

- c. <u>Compliance</u>: Licensee must comply with all present and future laws, ordinances, requirements, rules and regulations of governmental authorities having jurisdiction pertaining to the operation and safety of the Use, as well as with all applicable FIU regulations, policies, procedures.
- d. Equipment: N/A
- e. Fire and Public Safety Assessment: N/A
- 7. Indemnification: The licensee indemnifies FIU from all damages, losses, claims, suits, liens, debts, judgments, liabilities or expenses including legal costs from Licensee or its agents': (a) operation of its business; (b) use of the Licensed Premises; (c) performance of the License terms; (d) misconduct or negligence; (e) breach of the License terms; (f) statutory or common law liens arising from their work or services; and (g) environmental claims.
- 8. Utilities: Licensee is responsible for utilities, separately metered
- 9. Termination:
  - a. **For Convenience:** By either party with 180 days' notice
  - b. For Cause: By FIU, with 90 days' notice and a 30-day opportunity to cure

#### LICENSE AGREEMENT REDLAND AHEAD

This **LICENSE AGREEMENT** (the "<u>License</u>") is made and entered into as of the date last signed below (the "<u>Effective Date</u>"), by and between **THE FLORIDA INTERNATIONAL UNIVERSITY BOARD OF TRUSTEES**, whose principal business address is 11200 S.W. 8<sup>th</sup> Street, Miami, Florida 33199 ("<u>FIU</u>" the "<u>University</u>") and **REDLAND AHEAD, INC.** a Florida 501(c)(3) non-profit organization whose principal address is 22290 SW 266 Street, Homestead, Florida 33031 ("Licensee").

#### RECITALS

**WHEREAS**, Licensor owns that certain portion of real property located at 14901 SW 216<sup>th</sup> Street, Miami, FL 33170, Folios 30-6909-000-0220, 30-6909-000-0305, 30-6909-000-0211, 30-6909-000-0400 and 30-6909-000-0207, consisting of approximately twenty-three and nine/tenths (23.9) acres, as is more specifically described on Exhibit "A" attached hereto (the "Premises"), which is currently used by FIU as a research site for agroecology, botany and other related disciplines ("FIU Research and Education");

**WHEREAS**, Licensee desires to use a portion of the Premises (the "<u>Licensed Premises</u>") to operate and manage an organic fruit and vegetable farm planting operation for the production of plants, fruits, vegetables and other products for off-premise sale to consumers (the "<u>Services</u>");

**WHEREAS**, Licensee is willing to license the Licensed Premises from Licensor, and FIU has agreed to authorize Licensee to use the Licensed Premises to provide the Services pursuant to the terms and conditions set forth herein.

**NOW THEREFORE**, in consideration of the mutual covenants of the parties set forth in this License, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties, the parties agree as follows:

#### A. GENERAL TERMS.

**Recitals**. The above recitals are true and correct and incorporated herein.

# 2. <u>License</u>.

- (a) Subject to the terms and conditions contained herein, FIU shall make the Licensed Premises available for Licensee's use, as set forth below. This Agreement is not a lease. Licensee is granted only a revocable license to occupy and use the Licensed Premises, subject to the terms and conditions of this Agreement. Licensee shall have no leasehold right or interest or any other right, title or interest in the Licensed Premises assigned for Licensee's use.
- (b) Licensee acknowledges and agrees that the Licensed Premises shall continue to be used by FIU faculty, staff, students, researchers and agents as a research site for agroecology, botany, or any other use determined by FIU, in its sole and absolute discretion; provided, however, that Licensee shall not bear any cost or expense related to any such use by FIU.
- 3. <u>License Term</u>. The License shall be effective on the Effective Date. The term of this License shall commence on October 1, 2020 and shall continue for a period of five (5) years thereafter ("<u>Initial Term</u>"). This License may be renewed for one (1) additional five (5) year term, subject to the mutual written agreement of the parties ("<u>Renewal Term</u>"). "<u>License Term</u>" shall mean, collectively, the Initial Term and the Renewal Term, if any. A "<u>Contract Year</u>" shall mean the annual period beginning on the Effective Date of this License and on each anniversary thereof.
- **License Fee.** Licensee shall pay to FIU an annual license fee and commission payment as set forth below.
- (a) License Fee. For the first Contract Year, an annual license fee shall be paid to FIU equal to the product of (i) \$450 per acre; and (ii) 23.9 acres, and thereafter such License Fee shall be increased by two percent (2%) per Contract Year thereafter.

(b) The first Licensee Fee payment shall be payable as set forth in Section 5 below and all subsequent License Fee payments shall be paid on or before the first day of each year thereafter. Any partial year shall be prorated accordingly.

# 5. <u>Commission.</u>

- (a) Beginning in the second Contract Year, and continuing throughout the remainder of the License Term, Licensee shall pay to FIU a percentage of its Gross Revenue (the "Commission") per Contract Year at a rate of one-half percent (0.5%). Licensee shall pay the Commission to FIU, plus applicable taxes, on an annual basis. The Commission shall be paid in full no later than fifteen (15) days after the end of each Contract Year. A report detailing sales, revenues and expenses, including detailed sales report by product type, by month for the full Contract Year shall be submitted with the payment. FIU shall have the right to audit and inspect any and all books and records of Licensee related in any respect to the calculation of the Commission.
- (b) For purposes of this Section, "Gross Revenue" means the total revenue received by Licensee for sale of all goods and services at or from the Licensed Premises, but specifically excludes income received in connection with grants or other FIU projects.
- **Payment Terms.** Each License Fee and Commission, plus applicable taxes, fees and costs due and payable by Licensee under this License, shall be due and payable and received by FIU no later than fifteen (15) days after the end of each Contract Year ("<u>Date Due</u>"), without demand, notice or setoff. The License Fee and Commission shall bear interest from the fifth (5<sup>th</sup>) day after the Date Due and continue until paid at the lesser of (i) twelve percent (12%) per annum or (ii) the maximum interest rate per annum allowed by law.

FIU may require Licensee to pay by EFT. However, should FIU approve payment by checks, the payee for all checks will be "Florida International University" and checks shall be delivered to:

#### Florida International University

Office of Business Services 11200 Southwest 8<sup>th</sup> Street, DC 120 Miami, Florida 33199 Attention: OBS Finance

On the termination or expiration of this License, Licensee must pay to FIU all License Fee and Commissions owed up to and including the final day of Licensee's operations pursuant to the payment terms hereof. Any other amounts owed to FIU, if any, must be paid within thirty (30) days after the date of invoice.

#### B. LICENSED PREMISES.

- 1. <u>"AS-IS" Condition of Licensed Area</u>. Licensee accepts the Licensed Premises and all of its plumbing, electric, water, fixtures, equipment, parking and common areas in "AS-IS, WHERE-IS, WITH ALL FAULTS" condition.
- **Uses Authorized.** Licensee is authorized to use the Licensed Premises solely to provide the Services as detailed in Exhibit C and for no other purposes, unless mutually agreed to in writing by the parties (the "Use"). Licensee acknowledges and agrees that Licensee shall not receive any rights of exclusivity for the Use and that FIU may allow or enter into agreements with other licensees who may offer a similar service, or license space from FIU for the same or a similar service. Licensee agrees that it shall not provide those excluded services set forth on **Exhibit "B"**. Licensee shall ensure that the Use shall be conducted in a lawful and orderly manner. Licensee shall be solely responsible for obtaining all necessary approvals and permits for the Use. Licensee shall comply with all present and future laws, ordinances, requirements, rules and regulations of governmental authorities having jurisdiction pertaining to the operation and safety of the Use, as well as with all applicable FIU regulations, policies, procedures and/or any other applicable FIU requirements. FIU is a non-smoking university and smoking is prohibited indoors and outdoors. No dangerous or hazardous substances shall be located in the Licensed Premises. Licensee shall not store, use, or dispose of any hazardous material on the Licensed Premises or any other part of the Premises. Licensee shall neither conduct nor allow any activity or condition in the Licensed Premises that is unlawful, that in FIU's reasonable judgment, is contrary to applicable law, increases the risk of harm to any person or the Licensed Premises beyond the minimal risk normally associated with activities similar

to the Use, that would create a nuisance or trespass, that would disturb or impair the use or operation of the Licensed Premises, or that, in any manner, would vitiate the insurance or increase the rate of insurance on the Licensed Premises or any part thereof.

3. <u>Utilities</u>. Licensee will be responsible for all utilities and services necessary for continued use and enjoyment of the Licensed Premises, such as heat, water, electric power, telephone, computer, copier, equipment, technology services, gas, appliances, garbage collection, sewer, or other costs related to use of the Licensed Premises (collectively, "Utilities").

Licensee utility use shall be recorded on a dedicated meter(s) in Licensee's name and paid directly to the utility company by Licensee.

Licensee will make every effort to continue its operations in the event of an interruption in utilities, but it may be deemed necessary to close the Licensed Premises under certain circumstances. In those instances, Licensee will exercise its best efforts to re-open for normal business operations as promptly as possible.

- 4. Garbage. Licensee will dispose of all garbage appropriately and in accordance with all applicable laws and community standards. All trash and waste products shall be secure from all vermin and rodents. Licensee shall ensure a clean, safe, insect, vermin and rodent free environment free of foul smells and odors and not permit any perishable or other refuse to accumulate in the trash room for any unreasonable length of time. Licensee shall not allow trash to accumulate. Without limiting FIU's rights and remedies hereunder, if Licensee fails to comply with this obligation, as determined in the sole, but reasonable discretion of FIU, and such failure continues for five (5) calendar days after written notice from FIU, FIU may, but is not obligated to, perform or hire the necessary contractor to perform, such obligation, and Licensee will pay FIU for the costs thereof within ten (10) days from receipt of written demand from FIU. If a cost is incurred for garbage associated with the trash receptacle for the Licensee Premises, Licensee will pay a proportion of the cost based upon the share of the receptacle used by the Licensee, as determined by FIU.
- **Security/Supervision**. Licensee is solely responsible for providing and maintaining, at its sole cost and expense, all security and supervision necessary for its provision of Services and the use of the Licensed Premises in a safe and secure manner. FIU shall have no responsibility whatsoever for providing security for the Licensed Premises or its contents. Licensee, its employees and/or security representatives, agents and/or contractors, shall at all times comply with any and all Laws.
- 6. Maintenance and Repair. Throughout the Licensee Term, Licensee shall maintain and repair the Licenseed Premises in good clean order, condition and repair. Licensee shall provide all daily housekeeping, janitorial cleaning, maintenance, and sanitation services (collectively referred to as "Maintenance and Repairs"). Additionally, as part of Licensee's Maintenance and Repair obligation, Licensee shall maintain, repair and replace, as necessary: the Licensed Premises, including the equipment therein; all systems installed by Licensee, including but not limited to electricity systems; broken glass of the Licensed Premises; and the non-structural portions of the Licensed Premises as well as roadways and compost areas. Licensee shall be responsible for, at its own expense, monthly pest control and extermination services in order to maintain sanitary standards and cleanliness in the Licensed Premises. If Licensee fails to make, maintain, or keep the Licensed Premises in good condition or fails to perform the necessary Maintenance and Repairs, and such failure continues for five (5) calendar days after written notice from FIU, FIU may, but is not obligated to, perform or hire the necessary contractor to perform, any such Maintenance and Repairs, and Licensee will pay FIU for the costs thereof.
- 7. <u>Alterations/Improvements to the Licensed Premises</u>. Licensee is not permitted to make any capital improvements and/or alterations, including the installation of irrigation, greenhouses or other agricultural systems to the Licensed Premises ("Improvements") without first receiving FIU's prior written approval. If Licensee desires to make any Improvements, the parties shall enter into an agreement outlining the terms of Licensee performing such Improvements. However, FIU is not obligated to approve or allow Licensee to make any Improvements, and can refuse such permission in its sole discretion.
- **8.** Radon Gas Disclosure Per Florida Statute 404.056(5). RADON Gas: Radon is a naturally occurring radioactive gas that, when it has accumulated in a building in sufficient quantities, may present health risks to persons who are exposed to it over time. Levels of radon that exceed federal and state guidelines have been found in buildings in Florida. Additional information regarding radon and radon testing may be obtained from your county health department.

- **Governmental Approvals; Permits and Licenses**. Prior to commencing the operation, Licensee, at its own expense, shall obtain all required approvals, including, but not limited to, any governmental approvals and any permits or licenses to operate and facilitate the Services contemplated herein. Licensee also represents and warrants that Licensee has obtained all customary and/or required governmental approvals, including, but not limited to, permits and licenses. Licensee shall provide FIU with copies of any and all documentation filed and/or received in connection with the foregoing requirements.
- 10. No Liens or Encumbrances. Licensee shall not allow any liens or any other encumbrances of any type to the filed against the FIU campuses, the Licensed Premises. If any such liens or encumbrances are filed against the Licensed Premises as a result of Licensee or its officers, employees, agents, invitees or other representatives, or other affiliated persons or entities use or activities on the FIU campuses, the Licensed Premises, Licensee shall, within seven (7) days after notice of the filing thereof, cause the same to be discharged of record by payment, deposit, bond or order of a court of competent jurisdiction.
- Insurance. Liability & Property Insurance. Licensee shall provide FIU with proof of insurance sufficient to cover the operations and activities to be carried out on the Premises. Throughout the term of the Agreement, Licensee shall maintain, at its sole expense, the following minimum insurance coverage: (i) farm liability insurance with minimum limits of \$1,000,000 per occurrence and \$2,000,000 aggregate that includes coverage for premises liability, operations liability, farm product liability and pollution liability (specifying the location and description of the property) and (ii) workers compensation insurance as required by all applicable workers compensation laws, for its protection and the protection of the Licensor and (iii) employer's liability Insurance in an amount not less than \$1,000,000 each employee and each accident and (iv) commercial automobile liability insurance applicable to any auto, including but not limited to all owned, hired and non-owned vehicles, used in the performance of this Agreement and in an amount not less than \$1,000,000 each accident and (v) farm property insurance written on a special form (including windstorm & flood coverage) for loss or damage to property in an amount equal to the full insurable replacement value of any buildings, structures, improvements, equipment and inventory on, in, or about the Premises. The farm liability and auto liability policies shall carry endorsements which names FIU, the State of Florida, the FIU Board of Trustees, the Florida Board of Governors, and their respective trustees, directors, officers, agents and employees as additional insureds. The farm property insurance policy shall carry an endorsement which names the FIU BOT as additional insured and loss payee. Any insurance carried by Licensor shall be noncontributing. Certificate(s) of such insurances shall be provided by Licensee to Licensor at the time of their execution of this Agreement, and annually thereafter, specifically providing that the insurance shall not be modified or canceled by the insurer until a 30-day advance written notice is given to Licensor. Licensee shall do nothing that will adversely affect Licensor, in any way, including increasing risks, insurance premiums or liability. The absence of a demand for any type of insurance certificates or policy shall not be construed as a waiver of the Licensee's obligations to carry and maintain the appropriate insurances at limits that are appropriate to the liability exposure associated with this Agreement, and to ensure that its agents/subcontractors maintain appropriate insurance at all times. Licensee shall assume all risk and responsibility for the actions of its agents and/or subcontractors on the Premises. Licensor does not represent that coverage and the limits specified herein will necessarily be adequate to cover Licensee's liability. Licensee's procuring of the required insurance shall not relieve the Licensee of any obligation or liability assumed in this Agreement, including specifically the indemnity obligations. The Licensee may carry, at his/her own expense, such additional insurance, as Licensee deems necessary. Licensor recommends that the Licensee obtain and maintain multi-peril crop insurance and/or business interruption insurance. The Licensee shall assist and cooperate in every manner possible in connection with the adjustment of all claims arising out of Licensee's operations within the scope provided for under this Agreement, and shall cooperate in all litigated claims and demands, arising from said operations, which its insurance carrier or carriers are requested to respond. Licensor, upon request, reserves the right to obtain a copy of the policies requested above.
- **12.** Regulations Pertaining to Licensed Premises. Licensee shall abide by all Florida International University regulations and applicable Laws, as may be amended from time to time, governing the Licensed Premises. Licensee shall require all of its officers, representatives, and invitees to abide by these regulations while using the Licensed Premises.
- 13. <u>Environmental</u>. Except as otherwise agreed to by Licensor, Licensee shall not, and shall not use the Licensed Premises to, store, use, or dispose of any Hazardous Substance or Materials (as defined hereafter) on the Licensed Premises or on FIU's campuses generally, or any other common or public areas thereon. Further, Licensee shall not violate any applicable Environmental Laws (as defined hereafter) in carrying out its operations hereunder. The Licensed Premises is subject to inspections by the State Fire Marshall and Licensee is responsible

for maintaining the Licensed Premises in compliance with fire safety codes and assuring timely correction of any conditions identified by the authority having jurisdiction.

- (a) **Definitions:** For purposes hereof, the following definitions shall apply:
  - i. "Environmental Law" means and includes the Comprehensive Environmental Response Compensation and Liability Act ("CERCLA" or the Federal Superfund Act) as amended by the Superfund Amendments and Reauthorization Act of 1986 ("SARA") 42 U.S.C., Sections 9601- 9675; the Federal Resource Conservation and Recovery Act of 1876 ("RCRA"); the Clean Water Act, 33 U.S.C., Section 1321, et seq.; the Clean Air Act, 42 U.S.C., Section 7401, et seq., all environmental compliance requirements as imposed by the Department of Environmental Resources Management ("DERM") or the Department of Environmental Protection ("DEP"), all as the same may be from time to time amended and any other federal, state, county, municipal, local or other statute, law, ordinance or regulation which may relate to or deal with human health or the environment, including, without limitation, all regulations promulgated by a regulatory body pursuant to any such statute, law or ordinance.
  - ii. "Hazardous Substance or Materials" means asbestos, urea formaldehyde, polychlorinated biphenyls, nuclear fuel or materials, chemical waste, radioactive materials, explosives, known carcinogens, petroleum products or other dangerous, toxic, or hazardous pollutant, contaminant, chemical, material or substance defined as hazardous or as a pollutant or contaminant in, or the release or disposal of which is regulated by, any Environmental Law.
- (b) Environmental Compliance Requirements: Licensee represents that the Licensed Premises will remain free from contamination by Hazardous Substance or Materials in excess of amounts permitted by Environmental Laws and that the Licensed Premises and the activities conducted or to be conducted thereon do not and will not violate any Environmental Laws. Licensee shall not cause or permit the Licensed Premises to be used for the generation, handling, storage, transportation, disposal or release of any Hazardous Substance or Materials except as specifically exempted or permitted at all times under applicable Environmental Laws. Licensee shall not cause or permit the Licensed Premises or any activities conducted thereon to be in violation of any current and future applicable Environmental Laws. Licensee will promptly notify FIU of any violation by Licensee or its agents, contractors, invitees, employees, or assigns of any Environmental Laws or the release or suspected release of Hazardous Substance or Materials in, under or about the Licensed Premises, in violation of Environmental Laws, and Licensee shall promptly deliver to FIU a copy of any notices, filings or permits sent or received by Licensee or on behalf of Licensee with respect to the foregoing. Licensee shall have the right to direct decisions regarding remediation activities affecting the Licensed Premises which are the responsibility of Licensee under this License all of which shall be performed at Licensee's cost, but FIU shall have reasonable input into decisions regarding remediation activities. The issuance by applicable government authorities having jurisdiction over the Licensed Premises of a "No Further Action" letter shall be deemed to fulfill Licensee's obligation to perform remediation activities under this License. Notwithstanding the foregoing, in no event shall Licensee be entitled to agree to any lesser clean-up standard than is required by Environmental Law (without reliance on any risk based corrective action measures) or to any limitation on use that would bind the Licensed Premises following the expiration of the License Term without FIU's written consent. Should Licensee generate any Hazardous Substance or Materials waste, Licensee shall, at Licensee's own cost and expense, obtain the required licensing and/or permitting related thereto and shall dispose of it in accordance with Environmental Law. Licensee understands and agrees that FIU will not dispose of nor arrange for the disposal of any such Hazardous Substance or Materials waste generated by Licensee. In the event FIU suffers any claims or loss pursuant to this provision, Licensee shall immediately pay FIU hereunder. Licensee's liability under this provision shall survive the expiration or any termination of this License.
- **FIU's Lien**. To secure the payment of all fees due and to become due under this License and the faithful performance of the License terms, Licensee grants FIU a valid security interest in all personal property, fixtures, furnishings, or merchandise which may be placed in or on the Licensed Premises. All exemption laws, if any, are hereby waived by Licensee.
- **15. FIU's Entry on Premises.** FIU has the right to enter, upon reasonable notice, the Licensed Premises to inspect or examine the Licensed Premises, to permit FIU to make such repairs or improvements to the Licensed Premises (to the extent that Licensee has failed to make as provided herein), to determine whether Licensee is complying with this License, to serve any notices pursuant to this License, or for any other reason in FIU's reasonable discretion. In the event of an emergency, FIU has the immediate right to enter the Licensed Premises

to address the emergency. FIU shall not in any event be liable for inconvenience, annoyance, disturbance, loss of business or other damage claim by Licensee by reason of FIU's entry into the Licensed Premises, provided that FIU shall use commercially reasonable efforts to avoid interference with Licensee's permitted use of the Licensed Premises as outlined herein.

- 16. Surrender of Licensed Premises/Holding Over. Upon expiration or termination of this License, Licensee shall surrender the Licensed Premises free of debris and in good order, condition, and repair, reasonable wear and tear excepted. In the absence of any written agreement to the contrary, if Licensee, with FIU's consent remains in occupancy of the Licensed Premises after expiration of the License Term, it shall so remain as a Licensee from month-to-month and all provisions of this License applicable to Licensee shall remain in full force and effect. If, however, FIU shall give Licensee notice to vacate the Licensed Premises at the end of the License Term, or at the end of any month following termination, and Licensee shall fail to vacate the Licensed Premises, then Licensee shall pay to FIU double the prorated daily Commission paid during the last month of this License for each day that Licensee continues to occupy the Licensed Premises from and after the termination date. If Licensee fails to remove any of Licensee's materials, equipment or belongings from the Licensed Premises, FIU Campuses or FIU generally (hereinafter known as "Abandoned Materials"), FIU shall have all rights in and ownership to such Abandoned Materials and FIU may use, hold, sell, lease or otherwise dispose of the Abandoned Materials and retain any proceeds related to such. This provision shall survive expiration of this License.
- **17. Damage or Destruction/Condemnation**. In the event the Licensed Premises is totally or partially damaged or destroyed, Licensee shall be required to remediate the premises from applicable insurance proceeds. In addition, FIU has the right to terminate this License upon seven (7) days prior written notice. If the Licensed Premises is taken or condemned by any governmental or quasi-governmental authority for any public purpose, then this License shall terminate on the day prior to the effective date of the taking. All awards, damages, or other compensation shall belong to FIU, and Licensee assigns to FIU all rights to such awards.

# C. OPERATION OF BUSINESS

Licensee understands and agrees that there may be situations in which FIU closes campus. Licensee agrees to follow FIU's reasonable instructions when ordered to vacate the Licensed Premises/campus and/or safely secure all equipment and belongings, until Licensee receives instructions from FIU that states otherwise.

- 1. Taxes and Assessments. In addition to the fees and other charges provided herein, Licensee agrees to pay, during the License Term, all taxes, assessments, and any other impositions or charges, levied, assessed or imposed on the Licensed Premises (collectively referred to as "taxes or assessments") from and after the Effective Date of this License. Licensee shall pay all such taxes or assessments directly to the taxing authorities not later than the due date. If Licensee fails to pay any taxes or assessments when due, FIU may, but is not obligated to, pay such taxes or assessments and the costs thereof and Licensee shall immediately reimburse FIU. FIU is a tax immune sovereign and exempt from the payment of sales, use or excise taxes. The Licensee shall pay all personal property taxes on leased equipment and all taxes based upon net income.
- 2. Operational Standards. Licensee and any other employees, agents or other representatives of Licensee that shall be working with Licensee in providing the Services or related activities on behalf of Licensee on FIU's Premises pursuant to this License shall be required to complete a Level 2 screening which complies with the terms and requirements of Florida Statutes 435.04, a search on the sexual offender/predator registry, and any other required background screening required by law. Licensee represents and warrants that all of Licensee's employees, agents, or other representatives involved in this activity have successfully undergone the required screening or will be screened prior to prior to its provision of the Services under this License. While operating on FIU's Premises, Licensee represents and warrants that it will provide the Services using the best practices for its industry especially as it relates to caring for the disabled and/or minors.
- (a) **Quarterly Review Meetings**. The Licensee will meet with the FIU CASE and Business Services Representatives face-to-face, on a quarterly basis, to discuss the Licensed Premises, the Services, and related marketing initiatives, to review the sales and growth objectives, and to set sales and growth objectives for the next quarter.

- (b) Communications with FIU. The Licensee will advise the FIU CASE and Business Services Representatives in writing of any property damage, theft, or any safety hazard immediately upon discovery, and include actions taken as well as overall solutions. If applicable, the Licensee will notify the FIU Business Services Representatives in writing of any critical or adverse safety or health violation or inspection, and/or employee safety or health violation or inspection, immediately upon discovery. The Licensee will also advise how it will take action to correct these problems in a written action plan, when requested, to be forwarded to FIU Representatives within twenty-four (24) hours (or sooner, if necessary); and discuss all pertinent issues, solutions and time constraints involved with FIU Representatives.
- 7. <u>Signage and Advertising</u>. Any and all of Licensee's signage and advertising on the Licensed Premises must be pre-approved by FIU and subject to FIU's continued permission and approval. All signage and advertising shall be at Licensee's sole expense, except that FIU agrees, as applicable, to include Licensee in FIU's standard and customary directories, promotional circulars and social media advertisements, as applicable to the services, at no additional cost. All such signage must comply with applicable Laws and FIU's color schemes and standards
- 8. Accounting Records, Access Auditing, Periods, and Reports. Licensee must maintain complete and accurate accounts and records in accordance with the nationally-accepted industry standards, and must promptly deliver these accounts and records, or allow access to such, to FIU upon request or demand for purposes of confirming Commission amounts and the amount of capital investments, if any. Licensee must also provide supporting documentation as requested by FIU. Licensee agrees to use a point of sale ("POS") system (the "System"). FIU will be granted "view" access to the System and shall be able to access reports from the System. Licensee must provide to FIU a complete and detailed operating statement for each month of the FIU fiscal year (July 1 through June 30). The operating statement for each monthly period, and the cumulative year to date information, will be in a format which is mutually agreed to by FIU and Licensee. These statements must be submitted to FIU no later than thirty (30) days following the close of each month. Within ninety (90) days after the end of each fiscal year (July 1 through June 30) Licensee must provide the FIU Office of Business Services with an audited year-end operating statement prepared by an independent certified public accounting firm acceptable to FIU. Such certified public accounting firm must also certify the accuracy of the total Commission paid to FIU for each fiscal year of operation. Licensee will cooperate with FIU to provide specific records and/or access to all of Licensee's records which may be related to the Services under this License and/or its use of the Licensed Premises for purposes of conducting an audit or investigation; provided, however, Licensee will not be obligated to disclose any information that would constitute "material non-public information," as such term is defined by applicable federal securities laws. FIU will provide Licensee with reasonable written notice of the need for such records or access. Licensee's failure to provide FIU with timely and accurate records and information shall be cause for termination of this License pursuant to the terms of Section D.14 (Default), below.

# D. MISCELLANEOUS TERMS

- 1. <u>Binding Effect/No Assignment</u>. This License shall be binding upon and inure to the benefit of the parties hereto and their respective permitted successors and assigns. This License and any interest therein may not be assigned, whether by merger, consolidation, dissolution, operation of law or otherwise, by Licensee to any person or entity without the prior written consent of FIU. Any purported assignment of this License or any parts thereof in violation of this License shall be void and of no effect. Any permitted assignee shall assume all obligations of its assignor under this License.
- **Brokerage**. Licensee represents that it has not dealt with a broker acting on its behalf for this transaction, and FIU shall not be responsible for the payment of a commission to any broker. Licensee agrees to indemnify and hold FIU harmless for any other brokerage commission claimed by a broker claiming to have dealt with this Licensee for the Licensed Premises.
- **3. Sovereign Immunity.** Nothing in this License shall be construed as an indemnification of the Licensee by FIU or as a waiver of sovereign immunity beyond that provided in Florida Statutes §768.28. Nothing hereby shall be construed by Licensor to be sued by third parties in any manner arising out of this License.
- **4.** Governing Law; Venue. This License is governed by the laws of the State of Florida and exclusive venue of any actions arising out of this License shall be in the courts in Miami-Dade County, Florida.
- **5.** Relationship of the Parties. The Licensee is an independent contractor, and neither the Licensee nor the Licensee's employees, agents, or other representatives shall be considered FIU's employees or agents.

Licensee has no authority to act as agent for, or on behalf of, FIU, or to represent FIU, or bind FIU in any manner. Nothing contained in this License shall be construed to create the relationship of principal and agent, partnership or joint venture, or any other fiduciary relationship. The Licensee shall not use FIU's name, trademarks, logos, or marks without FIU's prior written approval. The Licensee represents and warrants that it is not on the Convicted Vendor List (see Fla. Stat. § 287.133(2)(a)). Each party hereby assumes any and all risk of personal injury and property damage attributable to the willful or negligent acts or omissions of that party and the officers, employees, and agents thereof. The Licensee also assumes such risk with respect to the willful or negligent acts or omissions of the Licensee's subcontractors or persons otherwise acting or engaged to act at the instance of the Licensee in furtherance of the Licensee fulfilling the Licensee's obligations under the Licensee.

- **Confidentiality of Information**. Licensee agrees to keep the terms of this License and all related information strictly confidential, to the extent permissible by law, unless specifically agreed to in writing by both parties. In the event the Licensee is required by subpoena or other judicial or administrative process or by law to disclose such records, the Licensee shall (i) provide FIU with prompt notice thereof; (ii) consult with FIU on the advisability of taking steps to resist or narrow such disclosure; (iii) furnish only that portion of the information that is responsive to the request; (iv) comply with the requirements of all applicable state and federal privacy laws; and (v) reasonably cooperate with FIU in any attempt that FIU may make to obtain an order or other reliable assurance that confidential treatment will be accorded the records. This provision shall survive the termination or expiration of this License.
- Compliance with Public Records Law. FIU is subject to Chapter 119 of Florida Statutes, commonly known as the Florida Public Records Law. This License and any related documents and correspondence Licensee submits to FIU shall also become a public record subject to the Public Records Law. FIU will respond to public records requests without providing Licensee any notice. Additionally, if Licensee is a "contractor" as defined under s. 119.0701, Florida Statutes, it shall comply with all applicable public records laws. Specifically, Licensee shall: (1) keep and maintain public records required by FIU to perform the service; (2) Upon request from FIU's custodian of public records, provide FIU with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in that section or as otherwise provide by law; (3) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if Licensee does not transfer the records to FIU; (4) upon completion of the contract, transfer, at no cost, to FIU all public records in possession of Licensee or keep and maintain public records required by FIU to perform the Service. If Licensee transfers all public records to FIU upon completion of the License, Licensee shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If Licensee keeps and maintains public records upon completion of the contract, Licensee shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to FIU, upon request by FIU's public records custodian, in a format that is compatible with FIU's information technology systems. If FIU receives a request for public records, and FIU does not possess such records, FIU shall immediately notify Licensee of such request, and Licensee must provide them to FIU or allow the records to be inspected or copied within a reasonable time. If Licensee does not comply with the request for records, FIU shall enforce the terms of the contract, and Licensee may be subject to civil action under s. 119.0701, F.S., and the penalties outlined under s. 119.10, F.S. IF THE LICENSEE HAS OUESTIONS REGARDING THE APPLICATION OF CHAPTER 119. FLORIDA STATUTES, TO THE LICENSEE'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS LICENSE, CONTACT THE CUSTODIAN BYOF PUBLIC RECORDS AT (305)348-1377, recordsmanagement@fiu.edu, OR BY MAIL AT 11200 SW 8th ST., GL 460. MIAMI, FLORIDA 33199.

FIU may unilaterally cancel this License for Licensee's refusal to allow public access to all public records that were made or received in conjunction with this License. This provision shall survive termination or expiration of the License.

**8.** Compliance with Laws. In the performance of this License, Licensee shall, at its own expense, at all times during the License Term, comply with all applicable federal, state, and local laws, rules, regulations (including all applicable FIU regulations, policies and procedures), and ordinances and all other governmental requirements, which shall specifically mean to include, but is not limited to, the Americans with Disabilities Act.

Licensee acknowledges and agrees that Licensee has and will at all times during the License Term maintain all applicable governmental permits, licenses, consents, and approvals necessary to perform its obligations under this License. Licensee agrees to abide by the provisions of the following related to equal employment opportunity, to the extent applicable, which are incorporated herein by reference: 41 C.F.R. §§ 60-1.4(a), 60-300.5(a), 60-741.5(a), 61-300.10, Executive Orders 11246 and 13465, and Appendix A to Subpart A of Executive Order 13496. As applicable, FIU and Licensee shall abide by the requirements of 41 CFR § 60-741.5(a). This regulation prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified individuals with disabilities. FIU and Licensee shall abide by the requirements of 41 CFR § 60-300.5(a). This regulation prohibits discrimination against qualified protected veterans and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified protected veterans. Such non-discrimination obligations, including, but not limited to, those based on race, religion, sex, sexual orientation, national origin, age or disability, shall also apply to Customers or entrants into the Licensed Premises, and Licensee shall indemnify FIU against any claims related thereto. Licensee shall further require its officers, employees, representatives, agents and employees to abide by these terms while providing the Services or using the Licensed Premises. This provision shall survive the expiration or termination of the License.

- **Force Majeure.** If, as a result of an act of force majeure, including without limitation, an act of God, war, riot, labor dispute, strike or threat thereof, intervention of a governmental agency or the occurrence beyond the control of either party, the obligations of this License cannot be carried out, then, either party, upon notifying the other, shall have the right to suspend performance until the event of force majeure has passed; provided, however, that the provisions hereof shall in no event be applicable with respect to the payment of money from Licensee to FIU.
- **Indemnification**. Licensee shall release, indemnify and hold harmless FIU, the State of Florida, the Florida Board of Governors, Florida International University and their respective boards, officers, agents, and/or representatives from and against any and all claims, demands, actions, suits, liabilities, judgments, damages, losses, costs, and expenses whatsoever (including, but not limited to, attorneys' fees and costs, incurred at all tribunal levels), arising from or connected in any way with this License, including, but not limited to: (a) Licensee's operation of its business, its provision of Services, or the furtherance of providing the Services; (b) the use by Licensee and/or Licensee's employees, visitors, contractors, representatives, or any other patrons of the Licensed Premises and the parking areas and common or public areas on FIU's campus (including all areas related to access to and from the Licensed Premises); (c) Licensee, its officers, employees, contractors, agents and/or other representatives performance of the License terms; (d) any act, omission, misconduct or negligence of Licensee, its officers, employees, contractors, agents and/or other representatives; (e) Licensee's breach of the License terms; (f) materialmen, mechanics, laborer, or other statutory or common law liens arising from Improvements, or other work or materials provided to or performed by Licensee in connection with its use of the Licensed Premises; and (g) environmental claims arising out of Licensee's operations and use of the Licensed Premises. The provisions of this Section shall survive expiration or earlier termination of this License.
- 11. Trademark or Copyright Infringement. Licensee will, at its expense, defend any suit brought against FIU and will indemnify FIU against an award of damages and costs made against FIU by settlement or final judgment of a court that is based on a claim that the use of the Licensee's product infringes a trademark or copyright of a third party; provided that FIU notifies Licensee in writing of the suit Licensee any claim of infringement within thirty (30) days after receiving notice thereof, and further provided that Licensee is permitted to control the defense in any litigation or settlement of the suit. FIU will provide reasonable cooperation in the defense of the suit at Licensee's expense. Such defense and indemnity shall survive termination or expiration of this License.

#### 12. Termination.

- (a) Termination for Convenience: Either party may terminate this License for any reason whatsoever upon providing the other party with at least one hundred and eighty (180) days prior written notice of termination.
- (b) Termination for Cause: FIU may terminate this License for due cause ("Due Cause") by providing Licensee with at least ninety (90) days prior written notice of FIU's intention to terminate, by registered or certified mail. Due Cause shall mean a material breach of the Licensee by the Licensee that remains substantially uncured for a period of thirty (30) days after FIU written notice to Licensee describing the material breach in sufficient detail to allow Licensee to cure such material breach.

- 13. <u>Default</u>. In the event of a default by either party under this License, the other party may pursue any and all rights available at law or in equity in the event such default is not cured, within ten (10) days after receipt of written notice thereof, by the defaulting party.
- 14. <u>Notice</u>. All notices hereunder must be in writing and shall be deemed validly given if sent by certified mail, return receipt requested or by commercial courier, provided the courier's regular business is delivery service and provided further that it guarantees delivery to the addressee by the end of the next business day following the courier's receipt from the sender, addressed as follows (or any other address that the party to be notified may have designated to the sender by like notice.

If to Licensee: REDLANDS AHEAD

22290 SW 266 Street Homestead, FL 33031 Attn: John Mills

Telephone: 305.987.5049

Email: johnmills@redlandahead.net

**If to FIU:** Florida International University

Office of Business Services 11200 S.W. 8th Street, DC 120

Miami, Florida 33199

Attn: Assistant Vice-President, Office of Business Services

With a copy to: Florida International University

Modesto A. Maidique Campus Office of the General Counsel 11200 Southwest 8<sup>th</sup> Street, PC 511

Miami, Florida 33199

- **Conflict of Interest.** Licensee represents that it has no employee who has, or whose relative has, a relationship with FIU, in a manner that will violate the Code of Ethics for Public Officers and Employees, including, but not limited to, Florida Statute, Sections 112.313(3) and (7), and Florida Statute, Section 112.3185(6), thereof, by reason of Licensee entering into this License.
- **16.** Availability of Funds. FIU's performance and obligation to pay under this License, to the extent applicable, is contingent upon an annual appropriation by the Florida Legislature.
- 17. <u>No counterparts; facsimile/electronic signatures allowed</u>. This License may not be executed in counterparts. To the extent permissible under Florida law, a facsimile or electronically submitted signature shall have the same legal force and effect as an original signature and the receiving party may rely on the receipt of such document so executed and delivered by facsimile or electronically transmitted signature as if the original had been received.
- **18.** Entire License. This License and any documents specifically incorporated herein by reference represent the entire agreement between the parties and supersede all prior oral or written statements or agreements.
- **19.** Amendments. This License may be amended only by written amendments duly executed by the parties hereto.
- **20. Severability**. In the event that any provision contained in this License or the application thereto to any circumstance is for any reason held to be invalid or unenforceable, such provision shall be ineffective to the minimum extent of such invalidity or unenforceability, and the remainder of this License will remain valid and enforceable according to its terms with respect to all other circumstances.
- **21. Waiver**. The waiver by either party of a breach or a violation of any provision of this License shall not operate as or be construed to be a waiver of any subsequent breach thereof.

- **22. Section Headings**. The titles to the paragraphs of this License are solely for the convenience of the parties and shall not be used to explain, modify, simplify, or aid in the interpretation of the provisions of this License.
- **23.** Authority to Execute. Licensee represents and warrants that that he or she is duly authorized and has legal capacity to execute and deliver this License, and this License has been duly authorized, executed, and delivered by and on behalf of Licensee and constitutes a valid, binding and enforceable agreement of Licensee in accordance with the terms hereof.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

# [SIGNATURE PAGE FROM LICENSE AGREEMENT]

The parties have caused this License to be executed by their authorized representatives as of the Effective Date, by signing below.

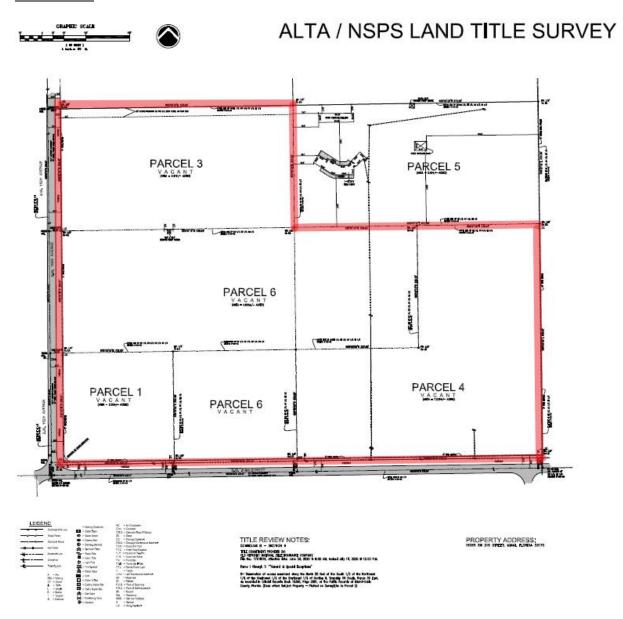
LICENSEE: REDLAND AHEAD, INC.	FIU: THE FLORIDA INTERNATIONAL UNIVERSITY BOARD OF TRUSTEES
By:Name: John Mills Title: President	By: Name: Title:
Date:	Date:
	Approved as to form and legality:
	FIU ATTORNEY Date:

# EXHIBIT "A" LICENSED PREMISES

# **Folios**

- 30-6909-000-0305
- 30-6909-000-0211
- 30-6909-000-0400
- 30-6909-000-0207

# Aerial View



#### **EXHIBIT "B"**

# FIU LICENSEE SALES RESTRICTIONS

Licensee may not sell (or operate) the following in the Licensed Premises:

- Guns, firearms, explosives or related products;
- Alcoholic spirits and/or beverages (excludes beer, malt beverages with an alcohol content of no more than 6.243% by volume or 5% by weight, still wine and sparkling wine);
- Any tobacco or tobacco-related products;
- Pornographic, obscene, or profane materials;
- An adult entertainment bar or club;
- Pari-mutuel betting facility, casino or other gambling operations (excludes state lottery);
- Educational textbooks including new, used rental or e-book formats and related educational supplies, notebooks, stationery, desk accessories, class rings and jewelry;
- Beverage and snack vending machines;
- Food services (*i.e.*, restaurants, coffee shops, etc.) that serve prepared hot and/or cold food;
- Medical services, specifically including but not limited to urgent care medical services, minute clinics and/or physicians, except for those specifically outlined in the License;
- Banking services to students, faculty and staff, including but not limited to checking accounts, loans, and related branch banking services;
- Credit cards offers or affiliations to students; and
- Beverages outside of those included in FIU's core list of beverages, as defined in its Pepsi Pouring and Vending Contract.\*

Pepsi has exclusive marketing rights with regards to the above categories of Core Beverages sold on FIU campuses. Therefore, only Pepsi's Core Beverages may be marketed, promoted, or given away on FIU campuses. Further, only Pepsi is allowed to represent that Pepsi, or any of Pepsi's Core Beverages, is "the beverage sponsor of FIU," "the exclusive drink of FIU," "A proud sponsor of FIU," "the Official drink of FIU," or be permitted by FIU to use any other similar Finase of representation.

Pepsi is the exclusive provider of Core Beverages sold, promoted and marketed on FIU campuses. Core Beverages include the following categories: carbonated and non-carbonated soft drinks; 100% shelf-stable fruit juices (e.g., Dole and Ocean Spray) and juice drinks (less than 100% fruit juice); sports drinks, prepackaged value-added protein drinks (e.g., Muscle Milk); energy drinks; coconut water-based drinks; milk-based drinks which contain less than 50% milk; pre-packaged protein drinks; ready-to-drink tea; ready-to-drink coffee products; packaged water; enhanced water; and flavored water. Note, this exclusivity does not extend to milk, dairy and yogurt drinks, specialty name branded flavored milk (i.e., 2% skimmed, chocolate milk and flavored milk), or hot beverage items (i.e., hot teas, hot coffee, hot soups and specialty flavored hot coffee type offerings).

# **EXHIBIT "C"**

#### **SERVICES**

Rare Tropical Fruit Farming (the "Business")

Redlands Ahead (the "Licensee") will operate and maintain the Business as currently being conducted on the Licensed Premises with strict adherence to a chemical-free methodology. Emphasis will be placed on integrating the existing production methods with commercial operational efficiencies. The production strategy the Licensee shall implement is to divide the Licensed Premises into zones. Licensee will keep one of the zones exactly as currently being operated. The remaining acreage will be operated in phases, prorated toward modern commercial farming methods.

The zones will be maintained accordingly for the initial term to fully evaluate production outcomes and return on investment. Should the parties agree to renew for an additional five-years, Licensee shall propose a production strategy to Licensor and the parties will agree on the production strategy to be implemented for the renewal term.

Licensee may operate and maintain the land in such a way as to qualify for organic certification upon Licensor's written consent, which consent shall not be unreasonably withheld, and licensee may seek such organic certification during the initial term. Both the organic operation and the organic certification shall be at Licensee's sole cost.

FY 10FY 2029-30

FY 2028-29 FY9

61,489

79,129

8,223

7,971 957 70,201 \$79,129

\$61,489

28,163 2,663

33,567 2,623 9,725 15,100

8,421 11,500

52,309

957

				FIU @ Possum Trot	rot				
		FY 1	FY 2	ro roimia FY 3	FY 4	FY 5	FY 6	FY 7	FY 8
		FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
Revenues									
Auxiliary Revenues (License Fees and Workshop Fees)	kshop Fees)	14,718	49,129	62,899	58,061	77,175	60,510	78,639	066'09
License Fees <sup>1</sup>	\$450	6,755	6,770	6,780	6,783	7,011	7,244	7,481	7,724
Revenue Share <sup>2</sup>	0.5%	508	835	806	256	957	957	957	256
Workshops' Net Revenue <sup>3</sup>		7,455	41,524	60,212	50,321	69,207	52,309	70,201	52,309
Total Revenues		\$14,718	\$49,129	668'29\$	\$58,061	\$77,175	\$60,510	\$78,639	066′09\$
Expenses									
Direct Expenses		32,854	27,857	31,031	27,475	33,185	28,009	33,490	28,085
Salaries and Benefits 4		6,665	6,765	2,399	2,435	2,472	2,509	2,546	2,585
OPS payroll <sup>5</sup>		1,825	7,509	9,725	8,421	9,725	8,421	9,725	8,421
Materials and Supplies <sup>6</sup>		1,500	9,330	13,090	11,100	14,900	11,500	15,100	11,500
Contractual & Professional Services 7		15,639	0	0	0	0	0	0	0
Marketing <sup>8</sup>		2,000	3,000	4,000	4,000	4,000	4,000	4,000	4,000
Other Operating Costs <sup>9</sup>		225	1,253	1,817	1,519	2,089	1,579	2,119	1,579
Indirect Operating Costs		1,793	3,773	5,359	4,510	6,047	4,663	6,124	4,663
College Overhead <sup>10</sup>	%9	450	2,507	3,635	3,038	4,178	3,158	4,238	3,158
Shared Services Fee <sup>11</sup>	7%	1,343	1,266	1,724	1,473	1,870	1,505	1,886	1,505
Total Expenses		\$34,647	\$31,630	\$36,390	\$31,986	\$39,233	\$32,671	\$39,614	\$32,747
Required Capital Improvements <sup>12</sup>		\$58,500	0\$	0\$	0\$	0\$	0\$	0\$	0\$
Fence installation		\$58,500	0\$	0\$	0\$	0\$	0\$	0\$	0\$
Net Cash Flow <sup>13</sup>		(\$78,430)	\$17,500	\$31,509	\$26,075	\$37,942	\$27,838	\$39,026	\$28,242
Terminal Value of Facility <sup>14</sup>		\$2,575,000							
Discounted Payback Period <sup>15</sup>		4.21 Years							
Net Present Value*	2.5%	\$160,543							

1,579 4,663

2,119

6,124 4,238 1,886 \$39,691

3,158 1,505

4,000

4,000

\$32,825

\$0

\$0

\$0

\$

\$28,663

\$39,438

Office of Auxiliary Enterprise Development

Page 149 of 150

# Notes:

- 1 License Fee is \$450 per acre annually with a 2% escalation, less abatement for tenant improvements, less Tenant Improvement Allowances
  - $^{2}$  Revenue share of 0.5% on Licensee's Gross Revenues
- <sup>3</sup> Revenue net of bad debt from 6 workshops, 3 of which are new and account for 59% of 5-Yr Workshop Revenues. Some workshops are held every other year.
  - $^4$  Administrators 0.05 FIE are needed to license the property to a third party and oversee non-credit workshops
    - $^{5}\,$  Workshop facilitators on an "as needed" basis
      - <sup>6</sup> Workshop materials
- $^{7}\,$  Property appraisal, Environmental Assessment and recording fees
- $^8$  Marketing & Promotion of workshops is 6.88% of revenues on average, and includes an additional \$5,000 for outreach events in Y1
  - <sup>9</sup> Credit Card fees on Workshops
- $^{10}$  College Overhead Rate is 6% of Revenues
- 11 Share Services Rate is 7% of Operating Expenses
- <sup>12</sup> Fence installation. The pro rata value will be recouped in the annual License Fees for the duration of the license agreement
- There is no irrigation on the property except for that which serves the nursery. FIU may install additional irrigation or ask Licensee to install it with rent abatement. Licensee will maintain such irrigation at its own cost.
- There is an existing well in good condition so no additional investment or maintenance costs are reflected here.

The land drains outside of the property so no drainage installation or maintenance costs are reflected in this pro forma

- The Licensee's electricity use will be managed on an existing separate electricity meter related to the licensed premises and paid directly to the utility by Licensee
  - 13 Negative cashflows are funded by the College's discretionary auxiliary activity number
    - <sup>14</sup> Terminal Value is based on resale at appraised value of \$2,575,000
      - <sup>15</sup> Discounted Payback Period is 4.21 years discounted at 2.5%
        - <sup>16</sup> NPV is \$160,543.48 discounted at 2.5% over 10 years
- $^{17}$  This pro forma does not include potential sponsored research awards

Page 150 of 150

