

National Pollutant Discharge Elimination System Facilities (NPDES)

OFFICE: TALLAHASSEE NPDES STORMWATER

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National Pollutant Discharge Elimination System Facilities (NPDES)

MAP ID# 8

Distance from Property: 0 mi. (0 ft.) X
Elevation: 82 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: **FLR10RL19**
FACILITY NAME: **SERENO**
ADDRESS: **1734 SERENO DR**
DAVENPORT , FL
COUNTY: **POLK**

[Florida Oculus](#)

Some records may not have additional documentation available from the Oculus Website

FACILITY DETAILS

FACILITY TYPE: **CONSTRUCTION STORMWATER GP**
STATUS: **ACTIVE**
OWNERSHIP: **UNKNOWN**
COMPANY NAME: **DR HORTON INC**
RELATED PARTY NAME: **JENNIFER ROBERTS, PMTE**
RELATED PARTY ADDRESS: **6200 LEE VISTA BLVD**
ORLANDO FL 32822-4410
RELATED PARTY PHONE: **4074896277**
RELATED PARTY EMAIL: **JROBERTS1@DRHORTON.COM**
PERMIT TYPE: **GENERIC PERMIT**
DATE OF ISSUE: **10/28/2017**
DATE OF EXPIRATION: **10/27/2022**
NATURE OF BUSINESS: **NOT REPORTED**
TREATMENT: **NOT REPORTED**
CAPACITY: **NOT REPORTED**
DOMESTIC WASTEWATER FACILITY CLASS: **NOT REPORTED**
OFFICE: **TALLAHASSEE NPDES STORMWATER**

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National Pollutant Discharge Elimination System Facilities (NPDES)

MAP ID# 8

Distance from Property: 0 mi. (0 ft.) X
Elevation: 82 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: **FLR10RR57**
FACILITY NAME: **SERENO**
ADDRESS: **1734 SERENO DR**
DAVENPORT , FL
COUNTY: **POLK**

[Florida Oculus](#)

Some records may not have additional documentation available from the Oculus Website

FACILITY DETAILS

FACILITY TYPE: **CONSTRUCTION STORMWATER GP**
STATUS: **ACTIVE**
OWNERSHIP: **UNKNOWN**
COMPANY NAME: **CG LAND SERVICES, LLC**
RELATED PARTY NAME: **MIKE GALVIN, PMTE**
RELATED PARTY ADDRESS: **1901 ULMERTON RD, STE 475**
CLEARWATER FL 33760
RELATED PARTY PHONE: **7275194412**
RELATED PARTY EMAIL: **MIKE@CGLANDSERVICES.COM**
PERMIT TYPE: **GENERIC PERMIT**
DATE OF ISSUE: **2/24/2018**
DATE OF EXPIRATION: **2/23/2023**
NATURE OF BUSINESS: **NOT REPORTED**
TREATMENT: **NOT REPORTED**
CAPACITY: **NOT REPORTED**
DOMESTIC WASTEWATER FACILITY CLASS: **NOT REPORTED**
OFFICE: **TALLAHASSEE NPDES STORMWATER**

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National Pollutant Discharge Elimination System Facilities (NPDES)

MAP ID# 8

Distance from Property: 0 mi. (0 ft.) X
Elevation: 82 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: **FLR10RX93**
FACILITY NAME: **SERENO PHASE 4**
ADDRESS: **1734 SERENO DR**
DAVENPORT , FL
COUNTY: **POLK**

[Florida Oculus](#)

Some records may not have additional documentation available from the Oculus Website

FACILITY DETAILS

FACILITY TYPE: **CONSTRUCTION STORMWATER GP**
STATUS: **ACTIVE**
OWNERSHIP: **UNKNOWN**
COMPANY NAME: **DR HORTON**
RELATED PARTY NAME: **JENNIFER ROBERTS, PMTE**
RELATED PARTY ADDRESS: **6200 LEE VISTA BLVD**
ORLANDO FL 32822-4410
RELATED PARTY PHONE: **4074896227**
RELATED PARTY EMAIL: **JROBERTS1@DRHORTON.COM**
PERMIT TYPE: **GENERIC PERMIT**
DATE OF ISSUE: **6/11/2018**
DATE OF EXPIRATION: **6/10/2023**
NATURE OF BUSINESS: **NOT REPORTED**
TREATMENT: **NOT REPORTED**
CAPACITY: **NOT REPORTED**
DOMESTIC WASTEWATER FACILITY CLASS: **NOT REPORTED**
OFFICE: **TALLAHASSEE NPDES STORMWATER**

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Enforcement and Compliance History Information (ECHOR04)

MAP ID# 9

Distance from Property: 0 mi. (0 ft.) X

Elevation: 80 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: 110064409395

REGISTRY ID: 110064409395

NAME: CITRUS CENTER SUBSTATION

ADDRESS: UNKNOWN

DAVENPORT, FL 33896

COUNTY: NOT REPORTED

FACILITY LINK: [Facility Detail Report](#)

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Facility Registry System (FRSFL)

MAP ID# 9

Distance from Property: 0 mi. (0 ft.) X
Elevation: 80 ft. (Higher than TP)

FACILITY INFORMATION

REGISTRY ID: 110064409395

NAME: CITRUS CENTER SUBSTATION

LOCATION ADDRESS: UNKNOWN
DAVENPORT, FL 33896

COUNTY: NOT REPORTED

EPA REGION: 04

FEDERAL FACILITY: NOT REPORTED

TRIBAL LAND: NOT REPORTED

ALTERNATIVE NAME/S:

CITRUS CENTER SUBSTATION

PROGRAM/S LISTED FOR THIS FACILITY

NPDES - NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

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Integrated Compliance Information System National Pollutant Discharge Elimination System (ICISNPDES)

MAP ID# 9

Distance from Property: 0 mi. (0 ft.) X
Elevation: 80 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: FLR10OW62INPDES
NPDES ID: FLR10OW62 FACILITY #: 110064409395
NAME: CITRUS CENTER SUBSTATION
PHYSICAL ADDRESS: NOT REPORTED
DAVENPORT FL 33896
COUNTY: NOT REPORTED
FACILITY TYPE: NOT REPORTED
IMPAIRED WATERS: NOT REPORTED

STANDARD INDUSTRIAL CLASSIFICATION

- NOT REPORTED -

PERMITS

FACILITY TYPE INDICATOR: NON-POTABLE WATER
PERMIT TYPE: GENERAL PERMIT COVERED FACILITY
MAJOR MINOR FACILITY: MINOR DISCHARGER
PERMIT STATUS: TERMINATED
WATER BODY: NOT REPORTED
PERMIT NAME: DUKE ENERGY FLORIDA, INC.
AGENCY TYPE: STATE
ORIGINAL ISSUE DATE: 1/2/2015
ISSUE DATE: 1/2/2015
ISSUING AGENCY: FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
EFFECTIVE DATE: 1/2/2015
EXPIRATION DATE: 1/1/2020
RETIREMENT DATE: NOT REPORTED
TERMINATION DATE: 6/3/2016
PERMIT COMPLIANCE STATUS: YES
PERMIT SUBJECT TO DMR RUN: NOT REPORTED
REPORTABLE NONCOMPLIANCE TRACKING IS ON: YES

INSPECTIONS

- NO INSPECTIONS REPORTED -

HISTORIC COMPLIANCE

- NO HISTORIC COMPLIANCE REPORTED -

SINGLE EVENT VIOLATIONS

- NO SINGLE EVENT VIOLATIONS REPORTED -

FORMAL ENFORCEMENT ACTIONS

- NO FORMAL ENFORCEMENT ACTIONS REPORTED -

EFFLUENT VIOLATIONS

- NOT REPORTED -

EFFLUENT VIOLATIONS contd..

- NOT REPORTED -

EFFLUENT VIOLATIONS contd..

**Integrated Compliance Information System National Pollutant Discharge
Elimination System (ICISNPDES)**

- NOT REPORTED -

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National Pollutant Discharge Elimination System Facilities (NPDES)

MAP ID# 9

Distance from Property: 0 mi. (0 ft.) X
Elevation: 80 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: FLR100W62
FACILITY NAME: CITRUS CENTER SUBSTATION
ADDRESS: NOT REPORTED
DAVENPORT , FL
COUNTY: POLK

[Florida Oculus](#)

Some records may not have additional documentation available from the Oculus Website

FACILITY DETAILS

FACILITY TYPE: CONSTRUCTION STORMWATER GP
STATUS: ACTIVE
OWNERSHIP: UNKNOWN
COMPANY NAME: DUKE ENERGY FLORIDA, INC.
RELATED PARTY NAME: WAYNE RICHARDSON, LEAD PERMITTING SPECIALIST
RELATED PARTY ADDRESS: 101 CEMETARY RD
TARPON SPRINGS FL 34689-5118
RELATED PARTY PHONE: 7278205148
RELATED PARTY EMAIL: WAYNE.RICHARDSON2@DUKE-ENERGY.COM
PERMIT TYPE: GENERIC PERMIT
DATE OF ISSUE: 1/2/2015
DATE OF EXPIRATION: 1/1/2020
NATURE OF BUSINESS: NOT REPORTED
TREATMENT: NOT REPORTED
CAPACITY: NOT REPORTED
DOMESTIC WASTEWATER FACILITY CLASS: NOT REPORTED
OFFICE: TALLAHASSEE NPDES STORMWATER

FACILITY TYPE: CONSTRUCTION STORMWATER GP
STATUS: ACTIVE
OWNERSHIP: UNKNOWN
COMPANY NAME: DUKE ENERGY FLORIDA, INC.
RELATED PARTY NAME: WAYNE RICHARDSON, PMTE
RELATED PARTY ADDRESS: 101 CEMETARY RD
TARPON SPRINGS FL 34689-5118
RELATED PARTY PHONE: 7278205148
RELATED PARTY EMAIL: WAYNE.RICHARDSON2@DUKE-ENERGY.COM
PERMIT TYPE: GENERIC PERMIT
DATE OF ISSUE: 1/2/2015
DATE OF EXPIRATION: 1/1/2020
NATURE OF BUSINESS: NOT REPORTED
TREATMENT: NOT REPORTED
CAPACITY: NOT REPORTED
DOMESTIC WASTEWATER FACILITY CLASS: NOT REPORTED

National Pollutant Discharge Elimination System Facilities (NPDES)

OFFICE: TALLAHASSEE NPDES STORMWATER

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Enforcement and Compliance History Information (ECHOR04)

MAP ID# 10

Distance from Property: 0 mi. (0 ft.) X

Elevation: 82 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: 110006392199

REGISTRY ID: 110006392199

NAME: CUSTOM & CLASSIC AUTO SPECIALIST

ADDRESS: 6671 OSCEOLA POLK LINE RD

DAVENPORT, FL 33896

COUNTY: POLK

FACILITY LINK: [Facility Detail Report](#)

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Facility Registry System (FRSFL)

MAP ID# 10

Distance from Property: 0 mi. (0 ft.) X
Elevation: 82 ft. (Higher than TP)

FACILITY INFORMATION

REGISTRY ID: 110006392199

NAME: CUSTOM & CLASSIC AUTO SPECIALIST

LOCATION ADDRESS: 6671 OSCEOLA POLK LINE RD
DAVENPORT, FL 33896-8328

COUNTY: POLK

EPA REGION: 04

FEDERAL FACILITY: NOT REPORTED

TRIBAL LAND: NOT REPORTED

ALTERNATIVE NAME/S:

CUSTOM & CLASSIC AUTO SPECIALIST

PROGRAM/S LISTED FOR THIS FACILITY

FDM - FDM

RCRAINFO - RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

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Resource Conservation & Recovery Act - Generator (RCRAGR04)

MAP ID# 10

Distance from Property: 0 mi. (0 ft.) X
Elevation: 82 ft. (Higher than TP)

FACILITY INFORMATION

EPA ID#: FLR000026161

NAME: CUSTOM & CLASSIC AUTO SPECIALIST

ADDRESS: 6671 OSCEOLA POLK LINE RD
DAVENPORT, FL 33896-8328

CONTACT NAME: FABIOLA LOZANO

CONTACT ADDRESS: 6671 OSCEOLA POLK LINE RD
DAVENPORT FL 33896-8328

CONTACT PHONE: 850-245-8707

NON-NOTIFIER: NOT A NON-NOTIFIER

DATE RECEIVED BY AGENCY: 01/10/1996

CERTIFICATION - NO CERTIFICATION REPORTED -

INDUSTRY CLASSIFICATION (NAICS) - NO NAICS INFORMATION REPORTED -

CURRENT ACTIVITY INFORMATION

GENERATOR STATUS: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR** LAST UPDATED DATE: **06/23/2011**

SUBJECT TO CORRECTIVE ACTION UNIVERSE: **NO**

TDSFs POTENTIALLY SUBJECT TO CORRECTIVE ACTION UNDER 3004 (u)/(v) UNIVERSE: **NO**

TDSFs ONLY SUBJECT TO CORRECTIVE ACTION UNDER DISCRETIONARY AUTHORITIES UNIVERSE: **NO**

NON TDSFs WHERE RCRA CORRECTIVE ACTION HAS BEEN IMPOSED UNIVERSE: **NO**

CORRECTIVE ACTION WORKLOAD UNIVERSE: **NO**

IMPORTER: **NO**

UNDERGROUND INJECTION: **NO**

MIXED WASTE GENERATOR: **NO**

UNIVERSAL WASTE DESTINATION FACILITY: **NO**

RECYCLER: **NO**

TRANSFER FACILITY: **NO**

TRANSPORTER: **NO**

USED OIL FUEL BURNER: **NO**

ONSITE BURNER EXEMPTION: **NO**

USED OIL PROCESSOR: **NO**

FURNACE EXEMPTION: **NO**

USED OIL FUEL MARKETER TO BURNER: **NO**

USED OIL REFINER: **NO**

SPECIFICATION USED OIL MARKETER: **NO**

USED OIL TRANSFER FACILITY: **NO**

USED OIL TRANSPORTER: **NO**

COMPLIANCE, MONITORING AND ENFORCEMENT INFORMATION

EVALUATIONS - NO EVALUATIONS REPORTED -

VIOLATIONS - NO VIOLATIONS REPORTED -

ENFORCEMENTS - NO ENFORCEMENTS REPORTED -

HAZARDOUS WASTE

D001 IGNITABLE WASTE

UNIVERSAL WASTE - NO UNIVERSAL WASTE REPORTED -

CORRECTIVE ACTION AREA - NO CORRECTIVE ACTION AREA INFORMATION REPORTED -

CORRECTIVE ACTION EVENT

NO CORRECTIVE ACTION EVENT(S) REPORTED

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Enforcement and Compliance History Information (ECHOR04)

[MAP ID# 11](#)

Distance from Property: 0 mi. (0 ft.) X

Elevation: 87 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: 110070207632

REGISTRY ID:

NAME:

ADDRESS:

COUNTY:

FACILITY LINK: [Facility Detail Report](#)

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Facility Registry System (FRSFL)

[MAP ID# 11](#)

Distance from Property: 0 mi. (0 ft.) X
Elevation: 87 ft. (Higher than TP)

FACILITY INFORMATION

REGISTRY ID: 110070207632

NAME: SABAL TRAIL TRANSMISSION REUNION

LOCATION ADDRESS: 6781 OSCEOLA POLK LINE RD
DAVENPORT, FL 33896-8391

COUNTY: OSCEOLA

EPA REGION: 04

FEDERAL FACILITY: NOT REPORTED

TRIBAL LAND: NOT REPORTED

ALTERNATIVE NAME/S:

NO ALTERNATIVE NAME(S) LISTED FOR THIS FACILITY

PROGRAM/S LISTED FOR THIS FACILITY

RCRAINFO - RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

486210 - PIPELINE TRANSPORTATION OF NATURAL GAS.

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Facility Registry System (FRSFL)

[MAP ID# 11](#)

Distance from Property: 0 mi. (0 ft.) X
Elevation: 87 ft. (Higher than TP)

FACILITY INFORMATION

REGISTRY ID: 110070261669

NAME: REUNION

LOCATION ADDRESS: 6781 OSCEOLA POLK LINE RD
DAVENPORT, FL 33896

COUNTY: OSCEOLA COUNTY

EPA REGION: 04

FEDERAL FACILITY: NOT REPORTED

TRIBAL LAND: NOT REPORTED

ALTERNATIVE NAME/S:

NO ALTERNATIVE NAME(S) LISTED FOR THIS FACILITY

PROGRAM/S LISTED FOR THIS FACILITY

CEDRI - CEDRI

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

486210 - PIPELINE TRANSPORTATION OF NATURAL GAS.

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National Pollutant Discharge Elimination System Facilities (NPDES)

MAP ID# 11

Distance from Property: 0 mi. (0 ft.) X
Elevation: 87 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: **FLR20AS47**
FACILITY NAME: **SABAL TRAIL TRANSMISSION, LLC - REUNION COMPRESSOR**
ADDRESS: **6781 OSCEOLA POLK LINE RD**
DAVENPORT , FL
COUNTY: **OSCEOLA**

[Florida Oculus](#)

Some records may not have additional documentation available from the Oculus Website

FACILITY DETAILS

FACILITY TYPE: **CONSTRUCTION GENERIC DEWATERING**
STATUS: **ACTIVE**
OWNERSHIP: **PRIVATE**
COMPANY NAME: **SABAL TRAIL TRANSMISSION LLC**
RELATED PARTY NAME: **GEORGE A MCLACHLAN, ENVIRONMENTAL PROJECT MANAGER**
RELATED PARTY ADDRESS: **400 COLONIAL CENTER PKWY STE 300**
LAKE MARY FL 32746
RELATED PARTY PHONE: **3212498615**
RELATED PARTY EMAIL: **GAMCLACHLAN@SPECTRAENERGY.COM**
PERMIT TYPE: **GENERIC PERMIT**
DATE OF ISSUE: **5/23/2016**
DATE OF EXPIRATION: **5/22/2021**
NATURE OF BUSINESS: **NOT REPORTED**
TREATMENT: **NOT REPORTED**
CAPACITY: **NOT REPORTED**
DOMESTIC WASTEWATER FACILITY CLASS: **NOT REPORTED**
OFFICE: **TALLAHASSEE NPDES STORMWATER**

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Resource Conservation & Recovery Act - Generator (RCRAGR04)

MAP ID# 11

Distance from Property: 0 mi. (0 ft.) X
Elevation: 87 ft. (Higher than TP)

FACILITY INFORMATION

EPA ID#: FLR000225318

NAME: SABAL TRAIL TRANSMISSION REUNION

ADDRESS: 6781 OSCEOLA POLK LINE RD
DAVENPORT, FL 33896-8391

CONTACT NAME: DON HANEY

CONTACT ADDRESS: 6781 OSCEOLA POLK LINE RD
DAVENPORT FL 33896-8391

CONTACT PHONE: 713-989-8343

NON-NOTIFIER: NOT A NON-NOTIFIER

DATE RECEIVED BY AGENCY: 10/25/2017

OWNER TYPE: PRIVATE

OWNER NAME: SABAL TRAIL TRANSMISSION LLC

OPERATOR TYPE: PRIVATE

OPERATOR NAME: SABAL TRAIL TRANSMISSION LLC

CERTIFICATION

CERTIFICATION NAME:

CERTIFICATION TITLE:

CERTIFICATION SIGNED DATE:

DENISE MOREY

WASTE MGMT SUPERVISOR

10/23/2017

INDUSTRY CLASSIFICATION (NAICS)

486210 - PIPELINE TRANSPORTATION OF NATURAL GAS

CURRENT ACTIVITY INFORMATION

GENERATOR STATUS: **SMALL QUANTITY GENERATOR** LAST UPDATED DATE: **12/06/2018**

SUBJECT TO CORRECTIVE ACTION UNIVERSE: **NO**

TDSFs POTENTIALLY SUBJECT TO CORRECTIVE ACTION UNDER 3004 (u)/(v) UNIVERSE: **NO**

TDSFs ONLY SUBJECT TO CORRECTIVE ACTION UNDER DISCRETIONARY AUTHORITIES UNIVERSE: **NO**

NON TDSFs WHERE RCRA CORRECTIVE ACTION HAS BEEN IMPOSED UNIVERSE: **NO**

CORRECTIVE ACTION WORKLOAD UNIVERSE: **NO**

IMPORTER: **NO**

UNDERGROUND INJECTION: **NO**

MIXED WASTE GENERATOR: **NO**

UNIVERSAL WASTE DESTINATION FACILITY: **NO**

RECYCLER: **NO**

TRANSFER FACILITY: **NO**

TRANSPORTER: **NO**

USED OIL FUEL BURNER: **NO**

ONSITE BURNER EXEMPTION: **NO**

USED OIL PROCESSOR: **NO**

FURNACE EXEMPTION: **NO**

USED OIL FUEL MARKETER TO BURNER: **NO**

USED OIL REFINER: **NO**

SPECIFICATION USED OIL MARKETER: **NO**

USED OIL TRANSFER FACILITY: **NO**

USED OIL TRANSPORTER: **NO**

COMPLIANCE, MONITORING AND ENFORCEMENT INFORMATION

EVALUATIONS - **NO EVALUATIONS REPORTED** -

VIOLATIONS - **NO VIOLATIONS REPORTED** -

ENFORCEMENTS - **NO ENFORCEMENTS REPORTED** -

HAZARDOUS WASTE

D001 IGNITABLE WASTE

D008 LEAD

D018 BENZENE

D039 TETRACHLOROETHYLENE

Resource Conservation & Recovery Act - Generator (RCRAGR04)

- F002 THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
- F003 THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

UNIVERSAL WASTE - NO UNIVERSAL WASTE REPORTED -

CORRECTIVE ACTION AREA - NO CORRECTIVE ACTION AREA INFORMATION REPORTED -

CORRECTIVE ACTION EVENT

NO CORRECTIVE ACTION EVENT(S) REPORTED

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Facility Registry System (FRSFL)

MAP ID# 12

Distance from Property: 0 mi. (0 ft.) X
Elevation: 98 ft. (Higher than TP)

FACILITY INFORMATION

REGISTRY ID: 110027961962

NAME: MAJIK MART

LOCATION ADDRESS: 6021/6023 US HWY 17-92 NORTH
DAVENPORT, FL 33837

COUNTY: POLK

EPA REGION: 04

FEDERAL FACILITY: NOT REPORTED

TRIBAL LAND: NOT REPORTED

ALTERNATIVE NAME/S:

MAJIK MART (FORMERLY LOUGHMAN PLAZA LAUNDROMAT)

MAJIK MART

PROGRAM/S LISTED FOR THIS FACILITY

FDM - FDM

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

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Registered Leaking Storage Tanks (LUAST)

[MAP ID# 12](#)

Distance from Property: 0 mi. (0 ft.) X

Elevation: 98 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: 8840378LUAST

FACILITY ID: 8840378

FACILITY NAME: MAJIK MART

ADDRESS: 6021 HWY 17-92 N

LOUGHMAN , FL 33858 POLK COUNTY

FACILITY STATUS: CLOSED

FACILITY TYPE: A - RETAIL STATION

FACILITY PHONE: (863)427-7597

FACILITY CLEANUP RANK: NOT REPORTED

DISTRICT: SOUTHWEST DISTRICT

SCORE: NOT REPORTED

SCORE EFFECTIVE DATE: NOT REPORTED

SCORE WHEN RANKED: NOT REPORTED

OPERATOR: TOM VINCENT

NAME CHANGED: 04/26/2000

ADDRESS CHANGED: 08/28/2006

[Florida Oculus](#)

Some records may not have additional documentation available from the Oculus Website

RESPONSIBLE PARTY

NAME: HALVORSEN DEVELOPMENT CORP

ADDRESS: 33 SE 4TH ST #100

BOCA RATON , FL 33432

CONTACT: TOM VINCENT

PHONE: (561)367-9200

CONTAMINATED MEDIA INFORMATION

DISCHARGE DATE: 08/28/2006

CLEANUP REQUIRED: R - CLEANUP REQUIRED

CLEANUP WORK STATUS: COMPLETED

INFORMATION SOURCE: C - CLOSURE REPORT

SITE MANAGER: ELLSWORTH_GW

SCORE: NOT REPORTED

RANK: NOT REPORTED

CONTAMINATED DRINKING WELLS: NOT REPORTED

CONTAMINATED MONITORING WELLS: N

CONTAMINATED SOIL: Y

CONTAMINATED SURFACE WATER: N

CONTAMINATED GROUND WATER: Y

POLLUTANT: P - GENERIC GASOLINE

OTHER DESCRIPTION: NOT REPORTED

GALLONS DISCHARGED: NOT REPORTED

CLEANUP STATUS: NFA - NFA COMPLETE

CLEANUP STATUS DATE: 04/03/2008

TANK OFFICE: PCLP53 - FL DOH IN POLK COUNTY

OTHER SOURCE: NOT REPORTED

SITE MANAGER END DATE: 04/14/2008

SCORE EFFECTIVE DATE: NOT REPORTED

TASK INFORMATION

Registered Leaking Storage Tanks (LUAST)

SOURCE REMOVAL (SR) TASK ID: **NOT REPORTED**
SR COMPLETION DATE: **NOT REPORTED**
SR CLEANUP RESPONSIBLE: **NOT REPORTED**
SR SOIL REMOVAL: **NOT REPORTED**
SR FREE PRODUCT REMOVAL: **NOT REPORTED**
SR SOIL TREATMENT: **NOT REPORTED**
SR SOIL TONNAGE REMOVED: **NOT REPORTED**
SR SOIL TREATMENT: **NOT REPORTED**
SR OTHER TREATMENT: **NOT REPORTED**

SITE ASSESSMENT (SA) TASK ID: **82519**
SA COMPLETION DATE: **NOT REPORTED**
SA CLEANUP RESPONSIBLE: **NOT REPORTED**
SA FUNDING ELIGIBILITY TYPE: **NOT REPORTED**
SA ACTUAL COST: **NOT REPORTED**
SA PAYMENT DATE: **NOT REPORTED**

SITE REHABILITATION COMPLETION (SRC) ACTION TYPE: **NFA - REMEDIATION ACTION PLAN (RAP) TASK ID: NOT REPORTED**
NO FURTHER ACTION

SRC SUBMIT DATE: **03-06-2008**

SRC REVIEW DATE: **03-14-2008**

SRC ISSUE DATE: **04-03-2008**

SRC COMPLETION STATUS: **A - APPROVED**

SRC COMPLETION STATUS DATE: **03-14-2008**

SRC COMMENTS: **NOT REPORTED**

RAP COMPLETION DATE: **NOT REPORTED**

RAP CLEANUP RESPONSIBLE: **NOT REPORTED**

REMEDIATION ACTION (RA) TASK ID: **82550**

RA CLEANUP RESPONSIBLE: **NOT REPORTED**

DISCHARGE CLEANUP SUMMARY

DISCHARGE DATE: **08/28/2006**

CLEANUP REQUIRED: **R - CLEANUP REQUIRED**

DISCHARGE CLEANUP STATUS: **NFA - NFA COMPLETE**

DISCHARGE CLEANUP DATE: **04/03/2008**

CLEANUP WORK STATUS: **COMPLETED**

INFORMATION SOURCE: **C - CLOSURE REPORT**

OTHER SOURCE: **NOT REPORTED**

SCORE: **NOT REPORTED**

SCORE EFFECTIVE DATE: **NOT REPORTED**

RANK: **NOT REPORTED**

TANK OFFICE: **PCLP53 - FL DOH IN POLK COUNTY**

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Underground Storage Tanks (UST)

MAP ID# 12

Distance from Property: 0 mi. (0 ft.) X
Elevation: 98 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: 8840378
FACILITY NAME: MAJIK MART
ADDRESS: 6021 HWY 17-92 N
 LOUGHMAN , FL 33858
COUNTY: POLK
TYPE: A-RETAIL STATION
STATUS: CLOSED
CONTACT: TOM VINCENT
PHONE: (863) 427-7597

Florida Oculus

Some records may not have additional documentation available from the Oculus Website

TANK INFORMATION (NOTE: CONSTRUCTION, PIPING, AND MONITORING INFO NOT SHOWN FOR CLOSED TANKS)

TANK #:	SIZE:	CONTENT:	INSTALLED:	PLACEMENT:	STATUS/DATE:
1	10000	UNLEADED GAS	1-MAR-88	UNDERGROUND	REMOVED FROM SITE/28-AGOS-06
2	10000	UNLEADED GAS	1-MAR-88	UNDERGROUND	REMOVED FROM SITE/28-AGOS-06
3	10000	UNLEADED GAS	1-MAR-88	UNDERGROUND	REMOVED FROM SITE/28-AGOS-06

TANK CONSTRUCTION INFORMATION

- NO CONSTRUCTION INFORMATION REPORTED

TANK PIPING INFORMATION

- NO PIPING INFORMATION REPORTED

TANK MONITORING INFORMATION

- NO MONITORING INFORMATION REPORTED

OWNER INFORMATION

OWNER NAME: HALVORSEN DEVELOPMENT CORP
OWNER ADDRESS: NOT REPORTED
 BOCA RATON FL 33432

REGULATED MINERAL ACID TANKS INFORMATION

- NO MINERAL ACID TANKS INFORMATION REPORTED

DISCHARGE INFORMATION

DATE:	DESCRIPTION:	SCORE:	SCORE DATE:	STATUS DESCRIPTION:	STATUS DATE:
8/28/2006	CLEANUP REQUIRED	NOT REPORTED	NOT REPORTED	NFA COMPLETE	4/3/2008

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Registered Leaking Storage Tanks (LUAST)

MAP ID# 13

Distance from Property: 0 mi. (0 ft.) X
Elevation: 78 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: 9807327LUAST
FACILITY ID: 9807327
FACILITY NAME: RAMBO & SONS TRUCKING INC 04-41-0600
ADDRESS: HWY 17-92 & LABOR CAMP RD
DAVENPORT , FL 33896 POLK COUNTY
FACILITY STATUS: CLOSED
FACILITY TYPE: Q - EMERGENCY RESPONSE SPILL SITE
FACILITY PHONE: NOT REPORTED
FACILITY CLEANUP RANK: NOT REPORTED
DISTRICT: SOUTHWEST DISTRICT
SCORE: 30
SCORE EFFECTIVE DATE: 01/11/2006
SCORE WHEN RANKED: NOT REPORTED
OPERATOR: NOT REPORTED
NAME CHANGED: NOT REPORTED
ADDRESS CHANGED: NOT REPORTED

Florida Oculus

Some records may not have additional documentation available from the Oculus Website

RESPONSIBLE PARTY

NAME: RAMBO & SONES TRUCKING INC
ADDRESS: 2616 S STEWART ST
KISSIMMEE , FL 34746
CONTACT: NARINEDATH RAMNARINE
PHONE: (321)288-2255

CONTAMINATED MEDIA INFORMATION

DISCHARGE DATE: 12/15/2004
CLEANUP REQUIRED: R - CLEANUP REQUIRED
CLEANUP WORK STATUS: COMPLETED
INFORMATION SOURCE: R - EMERGENCY RESPONSE REPORT
SITE MANAGER: WISDOM_JM
SCORE: 30
RANK: NOT REPORTED
CONTAMINATED DRINKING WELLS: NOT REPORTED
CONTAMINATED MONITORING WELLS: NOT REPORTED
CONTAMINATED SOIL: Y
CONTAMINATED SURFACE WATER: NOT REPORTED
CONTAMINATED GROUND WATER: NOT REPORTED
POLLUTANT: D - VEHICULAR DIESEL
OTHER DESCRIPTION: ACCIDENT INVOLVING A DUMP TRUCK.
GALLONS DISCHARGED: 60

CLEANUP STATUS: NFA - NFA COMPLETE
CLEANUP STATUS DATE: 02/22/2006
TANK OFFICE: PCLP53 - FL DOH IN POLK COUNTY
OTHER SOURCE: BER
SITE MANAGER END DATE: 02/28/2006
SCORE EFFECTIVE DATE: 01/11/2006

TASK INFORMATION

Registered Leaking Storage Tanks (LUAST)

SOURCE REMOVAL (SR) TASK ID: **NOT REPORTED**
SR COMPLETION DATE: **NOT REPORTED**
SR CLEANUP RESPONSIBLE: **NOT REPORTED**
SR SOIL REMOVAL: **NOT REPORTED**
SR FREE PRODUCT REMOVAL: **NOT REPORTED**
SR SOIL TREATMENT: **NOT REPORTED**
SR SOIL TONNAGE REMOVED: **NOT REPORTED**
SR SOIL TREATMENT: **NOT REPORTED**
SR OTHER TREATMENT: **NOT REPORTED**

SITE ASSESSMENT (SA) TASK ID: **77229**
SA COMPLETION DATE: **NOT REPORTED**
SA CLEANUP RESPONSIBLE: **NOT REPORTED**
SA FUNDING ELIGIBILITY TYPE: **NOT REPORTED**
SA ACTUAL COST: **NOT REPORTED**
SA PAYMENT DATE: **NOT REPORTED**

SITE REHABILITATION COMPLETION (SRC) ACTION TYPE: **NFA - REMEDIATION ACTION PLAN (RAP) TASK ID: NOT REPORTED**
NO FURTHER ACTION

SRC SUBMIT DATE: **01-18-2006**

SRC REVIEW DATE: **01-24-2006**

SRC ISSUE DATE: **02-22-2006**

SRC COMPLETION STATUS: **A - APPROVED**

SRC COMPLETION STATUS DATE: **01-26-2006**

SRC COMMENTS: **NOT REPORTED**

RAP COMPLETION DATE: **NOT REPORTED**

RAP CLEANUP RESPONSIBLE: **NOT REPORTED**

REMEDIATION ACTION (RA) TASK ID: **78355**

RA CLEANUP RESPONSIBLE: **NOT REPORTED**

DISCHARGE CLEANUP SUMMARY

DISCHARGE DATE: **12/15/2004**

CLEANUP REQUIRED: **R - CLEANUP REQUIRED**

DISCHARGE CLEANUP STATUS: **NFA - NFA COMPLETE**

DISCHARGE CLEANUP DATE: **02/22/2006**

CLEANUP WORK STATUS: **COMPLETED**

INFORMATION SOURCE: **R - EMERGENCY RESPONSE REPORT**

OTHER SOURCE: **BER**

SCORE: **30**

SCORE EFFECTIVE DATE: **01/11/2006**

RANK: **NOT REPORTED**

TANK OFFICE: **PCLP53 - FL DOH IN POLK COUNTY**

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Registered Leaking Storage Tanks (LUAST)

MAP ID# 14

Distance from Property: 0 mi. (0 ft.) X
Elevation: 78 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: 9807014LUAST
FACILITY ID: 9807014
FACILITY NAME: REEDY CREEK LAND BANK - 3500 ACRE TRACT
ADDRESS: SR 54
 LOUGHMAN , FL 34758 OSCEOLA COUNTY
FACILITY STATUS: CLOSED
FACILITY TYPE: Q - EMERGENCY RESPONSE SPILL SITE
FACILITY PHONE: NOT REPORTED
FACILITY CLEANUP RANK: NOT REPORTED
DISTRICT: CENTRAL DISTRICT
SCORE: 40
SCORE EFFECTIVE DATE: 06/07/2005
SCORE WHEN RANKED: NOT REPORTED
OPERATOR: J A JURGENS
NAME CHANGED: NOT REPORTED
ADDRESS CHANGED: 07/12/2005

[Florida Oculus](#)

Some records may not have additional documentation available from the Oculus Website

RESPONSIBLE PARTY

NAME: AMERICAN EQUITIES LTD # 7
ADDRESS: 505 WEKIVA SPRING RD-STE 500
 LONGWOOD , FL 32779
CONTACT: J A JURGENS, PA
PHONE: NOT REPORTED

CONTAMINATED MEDIA INFORMATION

DISCHARGE DATE: 11/10/1999
CLEANUP REQUIRED: R - CLEANUP REQUIRED
CLEANUP WORK STATUS: COMPLETED
INFORMATION SOURCE: D - DISCHARGE NOTIFICATION
SITE MANAGER: WISDOM_JM
SCORE: 40
RANK: NOT REPORTED
CONTAMINATED DRINKING WELLS: 0
CONTAMINATED MONITORING WELLS: Y
CONTAMINATED SOIL: Y
CONTAMINATED SURFACE WATER: N
CONTAMINATED GROUND WATER: Y
POLLUTANT: D - VEHICULAR DIESEL
OTHER DESCRIPTION: NOT REPORTED
GALLONS DISCHARGED: NOT REPORTED

CLEANUP STATUS: NFA - NFA COMPLETE
CLEANUP STATUS DATE: 09/28/2005
TANK OFFICE: PCLP53 - FL DOH IN POLK COUNTY
OTHER SOURCE: NOT REPORTED
SITE MANAGER END DATE: 10/07/2005
SCORE EFFECTIVE DATE: 06/07/2005

TASK INFORMATION

Registered Leaking Storage Tanks (LUAST)

SOURCE REMOVAL (SR) TASK ID: **NOT REPORTED**
SR COMPLETION DATE: **NOT REPORTED**
SR CLEANUP RESPONSIBLE: **NOT REPORTED**
SR SOIL REMOVAL: **NOT REPORTED**
SR FREE PRODUCT REMOVAL: **NOT REPORTED**
SR SOIL TREATMENT: **NOT REPORTED**
SR SOIL TONNAGE REMOVED: **NOT REPORTED**
SR SOIL TREATMENT: **NOT REPORTED**
SR OTHER TREATMENT: **NOT REPORTED**

SITE ASSESSMENT (SA) TASK ID: **75755**
SA COMPLETION DATE: **NOT REPORTED**
SA CLEANUP RESPONSIBLE: **NOT REPORTED**
SA FUNDING ELIGIBILITY TYPE: **NOT REPORTED**
SA ACTUAL COST: **NOT REPORTED**
SA PAYMENT DATE: **NOT REPORTED**

SITE REHABILITATION COMPLETION (SRC) ACTION TYPE: **NFA - REMEDIATION ACTION PLAN (RAP) TASK ID: NOT REPORTED**
NO FURTHER ACTION

SRC SUBMIT DATE: **08-25-2005**

SRC REVIEW DATE: **09-02-2005**

SRC ISSUE DATE: **09-28-2005**

SRC COMPLETION STATUS: **A - APPROVED**

SRC COMPLETION STATUS DATE: **09-07-2005**

SRC COMMENTS: **NOT REPORTED**

RAP COMPLETION DATE: **NOT REPORTED**

RAP CLEANUP RESPONSIBLE: **NOT REPORTED**

REMEDIATION ACTION (RA) TASK ID: **75756**

RA CLEANUP RESPONSIBLE: **NOT REPORTED**

DISCHARGE CLEANUP SUMMARY

DISCHARGE DATE: **11/10/1999**

CLEANUP REQUIRED: **R - CLEANUP REQUIRED**

DISCHARGE CLEANUP STATUS: **NFA - NFA COMPLETE**

DISCHARGE CLEANUP DATE: **09/28/2005**

CLEANUP WORK STATUS: **COMPLETED**

INFORMATION SOURCE: **D - DISCHARGE NOTIFICATION**

OTHER SOURCE: **NOT REPORTED**

SCORE: **40**

SCORE EFFECTIVE DATE: **06/07/2005**

RANK: **NOT REPORTED**

TANK OFFICE: **PCLP53 - FL DOH IN POLK COUNTY**

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Registered Leaking Storage Tanks (LUAST)

MAP ID# 15

Distance from Property: 0 mi. (0 ft.) X

Elevation: 100 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: 9202760LUAST

FACILITY ID: 9202760

FACILITY NAME: US POSTAL SERVICE

ADDRESS: 511 CR 54

LOUGHMAN , FL 33858 POLK COUNTY

FACILITY STATUS: CLOSED

FACILITY TYPE: F - FEDERAL GOVERNMENT

FACILITY PHONE: (813)424-2362

FACILITY CLEANUP RANK: NOT REPORTED

DISTRICT: SOUTHWEST DISTRICT

SCORE: NOT REPORTED

SCORE EFFECTIVE DATE: NOT REPORTED

SCORE WHEN RANKED: NOT REPORTED

OPERATOR: GONZALES, FRED

NAME CHANGED: NOT REPORTED

ADDRESS CHANGED: NOT REPORTED

[Florida Oculus](#)

Some records may not have additional documentation available from the Oculus Website

RESPONSIBLE PARTY

NAME: US POSTAL SERVICE

ADDRESS: PO BOX 22725

TAMPA , FL 33622

CONTACT: MARILY WONG

PHONE: (813)877-0380

CONTAMINATED MEDIA INFORMATION

DISCHARGE DATE: 07/09/1992

CLEANUP REQUIRED: R - CLEANUP REQUIRED

CLEANUP WORK STATUS: COMPLETED

INFORMATION SOURCE: D - DISCHARGE NOTIFICATION

SITE MANAGER: EHLENBECK_D

SCORE: NOT REPORTED

RANK: NOT REPORTED

CONTAMINATED DRINKING WELLS: 0

CONTAMINATED MONITORING WELLS: N

CONTAMINATED SOIL: N

CONTAMINATED SURFACE WATER: N

CONTAMINATED GROUND WATER: Y

POLLUTANT: K - KEROSENE

OTHER DESCRIPTION: NOT REPORTED

GALLONS DISCHARGED: NOT REPORTED

CLEANUP STATUS: NFA - NFA COMPLETE

CLEANUP STATUS DATE: 03/29/2001

TANK OFFICE: PCLP53 - FL DOH IN POLK COUNTY

OTHER SOURCE: NOT REPORTED

SITE MANAGER END DATE: 06/11/2001

SCORE EFFECTIVE DATE: NOT REPORTED

TASK INFORMATION

Registered Leaking Storage Tanks (LUAST)

SOURCE REMOVAL (SR) TASK ID: **NOT REPORTED**

SR COMPLETION DATE: **NOT REPORTED**

SR CLEANUP RESPONSIBLE: **NOT REPORTED**

SR SOIL REMOVAL: **NOT REPORTED**

SR FREE PRODUCT REMOVAL: **NOT REPORTED**

SR SOIL TREATMENT: **NOT REPORTED**

SR SOIL TONNAGE REMOVED: **NOT REPORTED**

SR SOIL TREATMENT: **NOT REPORTED**

SR OTHER TREATMENT: **NOT REPORTED**

SITE ASSESSMENT (SA) TASK ID: **55757**

SA COMPLETION DATE: **07-08-1994**

SA CLEANUP RESPONSIBLE: **OTHER - OTHER**

SA FUNDING ELIGIBILITY TYPE: **NOT REPORTED**

SA ACTUAL COST: **NOT REPORTED**

SA PAYMENT DATE: **NOT REPORTED**

SITE REHABILITATION COMPLETION (SRC) ACTION TYPE: **NFA - REMEDIATION ACTION PLAN (RAP) TASK ID: 55758**
NO FURTHER ACTION

SRC SUBMIT DATE: **03-16-2001**

SRC REVIEW DATE: **03-21-2001**

SRC ISSUE DATE: **03-29-2001**

SRC COMPLETION STATUS: **A - APPROVED**

SRC COMPLETION STATUS DATE: **03-21-2001**

SRC COMMENTS: **NOT REPORTED**

RAP COMPLETION DATE: **06-30-1995**

RAP CLEANUP RESPONSIBLE: **OTHER - OTHER**

REMEDIATION ACTION (RA) TASK ID: **55759**

RA CLEANUP RESPONSIBLE: **OTHER - OTHER**

DISCHARGE CLEANUP SUMMARY

DISCHARGE DATE: **07/09/1992**

CLEANUP REQUIRED: **R - CLEANUP REQUIRED**

DISCHARGE CLEANUP STATUS: **NFA - NFA COMPLETE**

DISCHARGE CLEANUP DATE: **03/29/2001**

CLEANUP WORK STATUS: **COMPLETED**

INFORMATION SOURCE: **D - DISCHARGE NOTIFICATION**

OTHER SOURCE: **NOT REPORTED**

SCORE: **NOT REPORTED**

SCORE EFFECTIVE DATE: **NOT REPORTED**

RANK: **NOT REPORTED**

TANK OFFICE: **PCLP53 - FL DOH IN POLK COUNTY**

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Aboveground Storage Tanks (AST)

MAP ID# 16

Distance from Property: 0 mi. (0 ft.) X
Elevation: 94 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: 8624326
FACILITY NAME: LOUGHMAN SERVICE CENTER
ADDRESS: 6004 HWY N 17-92
LOUGHMAN, FL 33858
COUNTY: POLK
TYPE: A-RETAIL STATION
STATUS: CLOSED
CONTACT: WIL BYRD
PHONE: (863) 424-1074

Florida Oculus

Some records may not have additional documentation available from the Oculus Website

TANK INFORMATION (NOTE: CONSTRUCTION, PIPING, AND MONITORING INFO NOT SHOWN FOR CLOSED TANKS)

TANK #:	SIZE:	CONTENT:	INSTALLED:	PLACEMENT:	STATUS/DATE:
7	12000	UNLEADED GAS	1-HUN-93	ABOVEGROUND	CLOSED IN PLACE/13-OKT-11
8	12000	UNLEADED GAS	1-HUN-93	ABOVEGROUND	CLOSED IN PLACE/1-ABR-11
9	12000	UNLEADED GAS	1-HUN-93	ABOVEGROUND	CLOSED IN PLACE/1-ABR-11
10	2000	VEHICULAR DIESEL	1-OKT-96	ABOVEGROUND	CLOSED IN PLACE/1-EN-12

TANK CONSTRUCTION INFORMATION

- NO CONSTRUCTION INFORMATION REPORTED

TANK PIPING INFORMATION

- NO PIPING INFORMATION REPORTED

TANK MONITORING INFORMATION

- NO MONITORING INFORMATION REPORTED

OWNER INFORMATION

OWNER NAME: LOUGHMAN SERVICE CTR
OWNER ADDRESS: ATTN: WILMER D BYRD
LOUGHMAN FL 33858

REGULATED MINERAL ACID TANKS INFORMATION

- NO MINERAL ACID TANKS INFORMATION REPORTED

DISCHARGE INFORMATION

DATE:	DESCRIPTION:	SCORE:	SCORE DATE:	STATUS DESCRIPTION:	STATUS DATE:
6/12/1992	CLEANUP REQUIRED	46	21-OCT-08	RA ONGOING	3/25/1999
6/15/1993	NO CLEANUP REQUIRED	NOT REPORTED	2-DEC-98	CLEANUP NOT REQUIRED	8/10/2006

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Aboveground Storage Tanks (AST)

MAP ID# 16

Distance from Property: 0 mi. (0 ft.) X
Elevation: 94 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: 9300807
FACILITY NAME: HART STORAGE FACILITY-LOUGHMAN
ADDRESS: 6004 HWY 17-92
 LOUGHMAN , FL 33858
COUNTY: POLK
TYPE: A-RETAIL STATION
STATUS: CLOSED
CONTACT: DEBBY CROSBY
PHONE: (813) 967-8791

Florida Oculus

Some records may not have additional documentation available from the Oculus Website

TANK INFORMATION (NOTE: CONSTRUCTION, PIPING, AND MONITORING INFO NOT SHOWN FOR CLOSED TANKS)

TANK #:	SIZE:	CONTENT:	INSTALLED:	PLACEMENT:	STATUS/DATE:
1	12000	VEHICULAR DIESEL	1-HUN-93	ABOVEGROUND	REMOVED FROM SITE/1-PEB-95

TANK CONSTRUCTION INFORMATION

- NO CONSTRUCTION INFORMATION REPORTED

TANK PIPING INFORMATION

- NO PIPING INFORMATION REPORTED

TANK MONITORING INFORMATION

- NO MONITORING INFORMATION REPORTED

OWNER INFORMATION

OWNER NAME: ROBERT H HART & SONS INC
OWNER ADDRESS: NOT REPORTED
 AUBURNDALE FL 33823

REGULATED MINERAL ACID TANKS INFORMATION

- NO MINERAL ACID TANKS INFORMATION REPORTED

DISCHARGE INFORMATION

- NO DISCHARGE INFORMATION REPORTED

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Florida Department of Environmental Protection Cleanup Sites (DEPCLEANUP)

MAP ID# 16

Distance from Property: 0 mi. (0 ft.) X
Elevation: 94 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUEID: **8624326**
SOURCE DATABASE ID: **8624326**
BUSINESS NAME: **LOUGHMAN SERVICE CENTER**
ADDRESS: **6004 HWY N 17-92**
LOUGHMAN, FL
COUNTY: **NOT REPORTED**

FACILITY DETAILS

DEP CLEANUP SITE KEY: **57103974**
SOURCE DATABASE NAME: **STCM**
CPAC PROGRAM AREA ID: **TK**
CLCC CLEANUP CATEGORY KEY: **PETRO**
RSC2 REMEDIATION STATUS KEY: **ACTIVE**
DATA LOAD DATE: **2019-01-21T07:00:15.000Z**
OIC OBJECT OF INTEREST ID: **FACIL**
PC2 PROXIMITY ID: **EXACT**
CALC COORD ACCURACY LEVEL ID: **4**
CMC2 COORDINATE METHOD ID: **DPHO**
DC4 DATUM ID: **NAD83**
VSC1 VERIFICATION STATUS ID: **REVIEWED**
COLLECT USERNAME: **SACLARIDES_M**
COLLECT DATE: **2003-06-06T00:00:00.000Z**
COLLECT AFFILIATION: **TKPKPH**
VERIFIER USERNAME: **SACLARIDES_M53**
VERIFIER AFFILIATION: **COUNTY HEALTH DEPARTMENT**
VERIFICATION DATE: **2003-06-06T09:42:51.000Z**
VERIFIED COORDINATE METHOD ID: **DPHO**
COMMENTS: **NOT REPORTED**

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Registered Leaking Storage Tanks (LUAST)

MAP ID# 16

Distance from Property: 0 mi. (0 ft.) X
Elevation: 94 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **8624326LUAST**
FACILITY ID: **8624326**
FACILITY NAME: **LOUGHMAN SERVICE CENTER**
ADDRESS: **6004 HWY N 17-92**
LOUGHMAN , FL 33858 POLK COUNTY
FACILITY STATUS: **CLOSED**
FACILITY TYPE: **A - RETAIL STATION**
FACILITY PHONE: **(863)424-1074**
FACILITY CLEANUP RANK: **4**
DISTRICT: **SOUTHWEST DISTRICT**
SCORE: **46**
SCORE EFFECTIVE DATE: **08/28/2006**
SCORE WHEN RANKED: **110**
OPERATOR: **WIL BYRD**
NAME CHANGED: **NOT REPORTED**
ADDRESS CHANGED: **11/12/1996**

Florida Oculus

Some records may not have additional documentation available from the Oculus Website

RESPONSIBLE PARTY

NAME: **LOUGHMAN SERVICE CTR**
ADDRESS: **PO BOX 464**
LOUGHMAN , FL 33858
CONTACT: **WIL BYRD**
PHONE: **(863)424-1074**

CONTAMINATED MEDIA INFORMATION

DISCHARGE DATE: **06/12/1992**
CLEANUP REQUIRED: **R - CLEANUP REQUIRED**
CLEANUP WORK STATUS: **INACTIVE**
INFORMATION SOURCE: **D - DISCHARGE NOTIFICATION**
SITE MANAGER: **PABICH_M**
SCORE: **46**
RANK: **4**
CONTAMINATED DRINKING WELLS: **0**
CONTAMINATED MONITORING WELLS: **N**
CONTAMINATED SOIL: **Y**
CONTAMINATED SURFACE WATER: **N**
CONTAMINATED GROUND WATER: **N**
POLLUTANT: **Z - OTHER NON REGULATED**
OTHER DESCRIPTION: **UNKNOWN**
GALLONS DISCHARGED: **NOT REPORTED**

CLEANUP STATUS: **RA - RA ONGOING**
CLEANUP STATUS DATE: **03/25/1999**
TANK OFFICE: **PCLP53 - FL DOH IN POLK COUNTY**
OTHER SOURCE: **NOT REPORTED**
SITE MANAGER END DATE: **NOT REPORTED**
SCORE EFFECTIVE DATE: **08/28/2006**

Registered Leaking Storage Tanks (LUAST)

DISCHARGE DATE: **06/15/1993**
CLEANUP REQUIRED: **N - NO CLEANUP REQUIRED**
CLEANUP WORK STATUS: **COMPLETED**
INFORMATION SOURCE: **D - DISCHARGE NOTIFICATION**
SITE MANAGER: **SINBACK_GA**
SCORE: **46**
RANK: **4**

CLEANUP STATUS: **NREQ - CLEANUP NOT REQUIRED**
CLEANUP STATUS DATE: **08/10/2006**
TANK OFFICE: **PCLP53 - FL DOH IN POLK COUNTY**
OTHER SOURCE: **NOT REPORTED**
SITE MANAGER END DATE: **08/10/2006**
SCORE EFFECTIVE DATE: **08/28/2006**

CONTAMINATED DRINKING WELLS: **NOT REPORTED**
CONTAMINATED MONITORING WELLS: **NOT REPORTED**
CONTAMINATED SOIL: **NOT REPORTED**
CONTAMINATED SURFACE WATER: **NOT REPORTED**
CONTAMINATED GROUND WATER: **NOT REPORTED**
POLLUTANT: **Z - OTHER NON REGULATED**
OTHER DESCRIPTION: **UNKNOWN**
GALLONS DISCHARGED: **NOT REPORTED**

TASK INFORMATION

SOURCE REMOVAL (SR) TASK ID: **55871**
SR COMPLETION DATE: **NOT REPORTED**
SR CLEANUP RESPONSIBLE: **RP - RESPONSIBLE PARTY**
SR SOIL REMOVAL: **NOT REPORTED**
SR FREE PRODUCT REMOVAL: **NOT REPORTED**
SR SOIL TREATMENT: **NOT REPORTED**
SR SOIL TONNAGE REMOVED: **NOT REPORTED**
SR SOIL TREATMENT: **NOT REPORTED**
SR OTHER TREATMENT: **NOT REPORTED**

SITE ASSESSMENT (SA) TASK ID: **55872**
SA COMPLETION DATE: **NOT REPORTED**
SA CLEANUP RESPONSIBLE: **ST - STATE**
SA FUNDING ELIGIBILITY TYPE: **NOT REPORTED**
SA ACTUAL COST: **NOT REPORTED**
SA PAYMENT DATE: **NOT REPORTED**

SITE REHABILITATION COMPLETION (SRC) ACTION TYPE: **NOT REPORTED**
SRC SUBMIT DATE: **NOT REPORTED**
SRC REVIEW DATE: **NOT REPORTED**
SRC ISSUE DATE: **NOT REPORTED**
SRC COMPLETION STATUS: **NOT REPORTED**
SRC COMPLETION STATUS DATE: **NOT REPORTED**
SRC COMMENTS: **NOT REPORTED**

REMEDIATION ACTION PLAN (RAP) TASK ID: **55873**
RAP COMPLETION DATE: **09-01-2000**
RAP CLEANUP RESPONSIBLE: **ST - STATE**
REMEDIATION ACTION (RA) TASK ID: **55874**
RA CLEANUP RESPONSIBLE: **ST - STATE**

SOURCE REMOVAL (SR) TASK ID: **NOT REPORTED**
SR COMPLETION DATE: **NOT REPORTED**
SR CLEANUP RESPONSIBLE: **NOT REPORTED**
SR SOIL REMOVAL: **NOT REPORTED**
SR FREE PRODUCT REMOVAL: **NOT REPORTED**
SR SOIL TREATMENT: **NOT REPORTED**
SR SOIL TONNAGE REMOVED: **NOT REPORTED**
SR SOIL TREATMENT: **NOT REPORTED**

SITE ASSESSMENT (SA) TASK ID: **NOT REPORTED**
SA COMPLETION DATE: **NOT REPORTED**
SA CLEANUP RESPONSIBLE: **NOT REPORTED**
SA FUNDING ELIGIBILITY TYPE: **NOT REPORTED**
SA ACTUAL COST: **NOT REPORTED**
SA PAYMENT DATE: **NOT REPORTED**

Registered Leaking Storage Tanks (LUAST)

SR OTHER TREATMENT: **NOT REPORTED**

SITE REHABILITATION COMPLETION (SRC) ACTION TYPE: **NOT REPORTED** REMEDIATION ACTION PLAN (RAP) TASK ID: **NOT REPORTED**

SRC SUBMIT DATE: **NOT REPORTED**

RAP COMPLETION DATE: **NOT REPORTED**

SRC REVIEW DATE: **NOT REPORTED**

RAP CLEANUP RESPONSIBLE: **NOT REPORTED**

SRC ISSUE DATE: **NOT REPORTED**

SRC COMPLETION STATUS: **NOT REPORTED**

REMEDICATION ACTION (RA) TASK ID: **NOT REPORTED**

SRC COMPLETION STATUS DATE: **NOT REPORTED**

RA CLEANUP RESPONSIBLE: **NOT REPORTED**

SRC COMMENTS: **NOT REPORTED**

DISCHARGE CLEANUP SUMMARY

DISCHARGE DATE: **06/12/1992**

CLEANUP REQUIRED: **R - CLEANUP REQUIRED**

DISCHARGE CLEANUP STATUS: **RA - RA ONGOING**

DISCHARGE CLEANUP DATE: **03/25/1999**

CLEANUP WORK STATUS: **INACTIVE**

INFORMATION SOURCE: **D - DISCHARGE NOTIFICATION**

OTHER SOURCE: **NOT REPORTED**

SCORE: **46**

SCORE EFFECTIVE DATE: **08/28/2006**

RANK: **4**

TANK OFFICE: **PCLP53 - FL DOH IN POLK COUNTY**

DISCHARGE DATE: **06/15/1993**

CLEANUP REQUIRED: **N - NO CLEANUP REQUIRED**

DISCHARGE CLEANUP STATUS: **NREQ - CLEANUP NOT REQUIRED**

DISCHARGE CLEANUP DATE: **08/10/2006**

CLEANUP WORK STATUS: **COMPLETED**

INFORMATION SOURCE: **D - DISCHARGE NOTIFICATION**

OTHER SOURCE: **NOT REPORTED**

SCORE: **46**

SCORE EFFECTIVE DATE: **08/28/2006**

RANK: **4**

TANK OFFICE: **PCLP53 - FL DOH IN POLK COUNTY**

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Underground Storage Tanks (UST)

MAP ID# 16

Distance from Property: 0 mi. (0 ft.) X
Elevation: 94 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: 8624326
FACILITY NAME: LOUGHMAN SERVICE CENTER
ADDRESS: 6004 HWY N 17-92
LOUGHMAN, FL 33858
COUNTY: POLK
TYPE: A-RETAIL STATION
STATUS: CLOSED
CONTACT: WIL BYRD
PHONE: (863) 424-1074

Florida Oculus

Some records may not have additional documentation available from the Oculus Website

TANK INFORMATION (NOTE: CONSTRUCTION, PIPING, AND MONITORING INFO NOT SHOWN FOR CLOSED TANKS)

TANK #:	SIZE:	CONTENT:	INSTALLED:	PLACEMENT:	STATUS/DATE:
1	4000	LEADED GAS	NOT REPORTED UNDERGROUND		REMOVED FROM SITE/30-HUN-93
2	4000	UNLEADED GAS	NOT REPORTED UNDERGROUND		REMOVED FROM SITE/30-HUN-93
3	4000	UNLEADED GAS	NOT REPORTED UNDERGROUND		REMOVED FROM SITE/30-HUN-93
4	2000	VEHICULAR DIESEL	NOT REPORTED UNDERGROUND		REMOVED FROM SITE/30-HUN-93
5	2000	MISC PETROL-BASED PRODUCT	NOT REPORTED UNDERGROUND		REMOVED FROM SITE/NR
6	1000	WASTE OIL	NOT REPORTED UNDERGROUND		REMOVED FROM SITE/30-HUN-93

TANK CONSTRUCTION INFORMATION

- NO CONSTRUCTION INFORMATION REPORTED

TANK PIPING INFORMATION

- NO PIPING INFORMATION REPORTED

TANK MONITORING INFORMATION

- NO MONITORING INFORMATION REPORTED

OWNER INFORMATION

OWNER NAME: LOUGHMAN SERVICE CTR
OWNER ADDRESS: ATTN: WILMER D BYRD
LOUGHMAN FL 33858

REGULATED MINERAL ACID TANKS INFORMATION

- NO MINERAL ACID TANKS INFORMATION REPORTED

DISCHARGE INFORMATION

DATE:	DESCRIPTION:	SCORE:	SCORE DATE:	STATUS DESCRIPTION:	STATUS DATE:
6/12/1992	CLEANUP REQUIRED	46	21-OCT-08	RA ONGOING	3/25/1999
6/15/1993	NO CLEANUP REQUIRED	NOT REPORTED	2-DEC-98	CLEANUP NOT REQUIRED	8/10/2006

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National Pollutant Discharge Elimination System Facilities (NPDES)

[MAP ID# 17](#)

Distance from Property: 0 mi. (0 ft.) X
Elevation: 84 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: **FLR20CI69**

FACILITY NAME: **TIVOLI RESERVE SUBDIVISION**

ADDRESS: **NOT REPORTED**

DAVENPORT , FL

COUNTY: **POLK**

[Florida Oculus](#)

Some records may not have additional documentation available from the Oculus Website

FACILITY DETAILS

FACILITY TYPE: **CONSTRUCTION GENERIC DEWATERING**

STATUS: **ACTIVE**

OWNERSHIP: **PRIVATE**

COMPANY NAME: **KB HOME ORLANDO LLC**

RELATED PARTY NAME: **STEVE MCCONN, PMTE**

RELATED PARTY ADDRESS: **9102 S PARK CENTER LOOP STE 100**

ORLANDO FL 32819

RELATED PARTY PHONE: **4075873509**

RELATED PARTY EMAIL: **SMCCONN@KBHOME.COM**

PERMIT TYPE: **GENERIC PERMIT**

DATE OF ISSUE: **9/15/2018**

DATE OF EXPIRATION: **9/14/2023**

NATURE OF BUSINESS: **NOT REPORTED**

TREATMENT: **NOT REPORTED**

CAPACITY: **NOT REPORTED**

DOMESTIC WASTEWATER FACILITY CLASS: **NOT REPORTED**

OFFICE: **TALLAHASSEE NPDES STORMWATER**

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Facility Registry System (FRSFL)

MAP ID# 18

Distance from Property: 0 mi. (0 ft.) X
Elevation: 97 ft. (Higher than TP)

FACILITY INFORMATION

REGISTRY ID: 110027958841

NAME: **SUNLAKE TERRACE ESTATES WWTF**

LOCATION ADDRESS: **6555 OLD LAKE WILSON RD
DAVENPORT, FL 33896-8501**

COUNTY: **POLK**

EPA REGION: **04**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

SUNLAKE TERRACE ESTATES WWTF

PROGRAM/S LISTED FOR THIS FACILITY

FDM - FDM

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

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Facility Registry System (FRSFL)

MAP ID# 19

Distance from Property: 0 mi. (0 ft.) X

Elevation: 86 ft. (Higher than TP)

FACILITY INFORMATION

REGISTRY ID: 110027948005

NAME: 21 PALMS RV RESORT

LOCATION ADDRESS: 6951 STATE ROAD 532
DAVENPORT, FL 33837

COUNTY: POLK

EPA REGION: 04

FEDERAL FACILITY: NOT REPORTED

TRIBAL LAND: NOT REPORTED

ALTERNATIVE NAME/S:

21 PALMS RV RESORT

PROGRAM/S LISTED FOR THIS FACILITY

FDM - FDM

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

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Aboveground Storage Tanks (AST)

MAP ID# 20

Distance from Property: 0 mi. (0 ft.) X
Elevation: 77 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: 9807691
FACILITY NAME: POLK CNTY UTIL-OAK HILLS MASTER LIFT STATION
ADDRESS: 1650 KINNEY HARMON RD
DAVENPORT , FL 33836
COUNTY: POLK
TYPE: I-COUNTY GOVERNMENT
STATUS: OPEN
CONTACT: JAKE ROHRICH | KAREN MURPHY (AP)
PHONE: (863) 419-3159

Florida Oculus

Some records may not have additional documentation available from the Oculus Website

TANK INFORMATION (NOTE: CONSTRUCTION, PIPING, AND MONITORING INFO NOT SHOWN FOR CLOSED TANKS)

TANK #:	SIZE:	CONTENT:	INSTALLED:	PLACEMENT:	STATUS/DATE:
1	1800	EMERG GENERATOR DIESEL	1-AGOS-05	ABOVEGROUND	IN SERVICE/1-AGOS-05

TANK CONSTRUCTION INFORMATION

TANK #:	CONSTRUCTION:
1	C - STEEL
1	M - SPILL CONTAINMENT BUCKET
1	P - LEVEL GAUGES/ALARMS
1	I - DOUBLE WALL

TANK PIPING INFORMATION

TANK #:	PIPING:
1	A - ABV, NO SOIL CONTACT
1	I - SUCTION PIPING SYSTEM
1	Z - DEP APPROVED PIPING
1	A - ABV, NO SOIL CONTACT
1	I - SUCTION PIPING SYSTEM
1	Z - DEP APPROVED PIPING

TANK MONITORING INFORMATION

TANK #:	MONITORING:
1	Q - VISUAL INSPECTION OF ASTS
1	F - MONITOR DBL WALL TANK SPACE
1	1 - CONTINUOUS ELECTRONIC SENSING

OWNER INFORMATION

OWNER NAME: POLK CNTY UTIL OPER
OWNER ADDRESS: ATTN: STORAGE TANK REGIS
WINTER HAVEN FL 33880

REGULATED MINERAL ACID TANKS INFORMATION

- NO MINERAL ACID TANKS INFORMATION REPORTED

DISCHARGE INFORMATION

- NO DISCHARGE INFORMATION REPORTED

Aboveground Storage Tanks (AST)

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Enforcement and Compliance History Information (ECHOR04)

[MAP ID# 21](#)

Distance from Property: 0.002 mi. (11 ft.) W

Elevation: 100 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: 110043168700

REGISTRY ID: 110043168700

NAME: DOLLAR GENERAL AT LOUGHMAN

ADDRESS: UNKNOWN

DAVENPORT, FL 33896

COUNTY: POLK

FACILITY LINK: [Facility Detail Report](#)

[Back to Report Summary](#)

Facility Registry System (FRSFL)

[MAP ID# 21](#)

Distance from Property: 0.002 mi. (11 ft.) W
Elevation: 100 ft. (Higher than TP)

FACILITY INFORMATION

REGISTRY ID: 110043168700

NAME: DOLLAR GENERAL AT LOUGHMAN

LOCATION ADDRESS: UNKNOWN
DAVENPORT, FL 33896

COUNTY: POLK

EPA REGION: 04

FEDERAL FACILITY: NOT REPORTED

TRIBAL LAND: NOT REPORTED

ALTERNATIVE NAME/S:

DOLLAR GENERAL AT LOUGHMAN

PROGRAM/S LISTED FOR THIS FACILITY

NPDES - NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

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Integrated Compliance Information System National Pollutant Discharge Elimination System (ICISNPDES)

MAP ID# 21

Distance from Property: 0.002 mi. (11 ft.) W
Elevation: 100 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: FLR10JY86INPDES
NPDES ID: FLR10JY86 FACILITY #: 110043168700
NAME: DOLLAR GENERAL AT LOUGHMAN
PHYSICAL ADDRESS: NOT REPORTED
DAVENPORT FL 33896
COUNTY: POLK
FACILITY TYPE: PRIVATELY OWNED FACILITY
IMPAIRED WATERS: NOT REPORTED

STANDARD INDUSTRIAL CLASSIFICATION

- NOT REPORTED -

PERMITS

FACILITY TYPE INDICATOR: NON-POTABLE WATER
PERMIT TYPE: GENERAL PERMIT COVERED FACILITY
MAJOR MINOR FACILITY: MINOR DISCHARGER
PERMIT STATUS: TERMINATED
WATER BODY: NOT REPORTED
PERMIT NAME: DOLLAR GENERAL AT LOUGHMAN
AGENCY TYPE: STATE
ORIGINAL ISSUE DATE: 10/29/2010
ISSUE DATE: 10/29/2010
ISSUING AGENCY: NOT REPORTED
EFFECTIVE DATE: 11/1/2010
EXPIRATION DATE: 10/28/2015
RETIREMENT DATE: NOT REPORTED
TERMINATION DATE: 2/7/2012
PERMIT COMPLIANCE STATUS: YES
PERMIT SUBJECT TO DMR RUN: NOT REPORTED
REPORTABLE NONCOMPLIANCE TRACKING IS ON: YES

INSPECTIONS

- NO INSPECTIONS REPORTED -

HISTORIC COMPLIANCE

- NO HISTORIC COMPLIANCE REPORTED -

SINGLE EVENT VIOLATIONS

- NO SINGLE EVENT VIOLATIONS REPORTED -

FORMAL ENFORCEMENT ACTIONS

- NO FORMAL ENFORCEMENT ACTIONS REPORTED -

EFFLUENT VIOLATIONS

- NOT REPORTED -

EFFLUENT VIOLATIONS contd..

- NOT REPORTED -

EFFLUENT VIOLATIONS contd..

**Integrated Compliance Information System National Pollutant Discharge
Elimination System (ICISNPDES)**

- NOT REPORTED -

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National Pollutant Discharge Elimination System Facilities (NPDES)

MAP ID# 21

Distance from Property: 0.002 mi. (11 ft.) W
Elevation: 100 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: **FLR10JY86**
FACILITY NAME: **DOLLAR GENERAL AT LOUGHMAN**
ADDRESS: **NOT REPORTED**
DAVENPORT , FL 33896
COUNTY: **POLK**

[Florida Oculus](#)

Some records may not have additional documentation available from the Oculus Website

FACILITY DETAILS

FACILITY TYPE: **CONSTRUCTION STORMWATER GP**
STATUS: **ACTIVE**
OWNERSHIP: **PRIVATE**
COMPANY NAME: **MICHAEL PALANTI**
RELATED PARTY NAME: **JEREMY R ANDERSON, PMTE**
RELATED PARTY ADDRESS: **45713 HWY 27**
DAVENPORT FL 33897
RELATED PARTY PHONE: **3865664573**
RELATED PARTY EMAIL: **JANDERSON@ALDSENGINEERING.COM**
PERMIT TYPE: **GENERIC PERMIT**
DATE OF ISSUE: **10/29/2010**
DATE OF EXPIRATION: **10/28/2015**
NATURE OF BUSINESS: **N/A**
TREATMENT: **N/A**
CAPACITY: **N/A**
DOMESTIC WASTEWATER FACILITY CLASS: **N/A**
OFFICE: **TALLAHASSEE NPDES STORMWATER**

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National Pollutant Discharge Elimination System Facilities (NPDES)

MAP ID# 22

Distance from Property: 0.045 mi. (238 ft.) SSW
Elevation: 99 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: **FLR10Z234**
FACILITY NAME: **RIDGE AT OAK HILL**
ADDRESS: **17/92/HART RD**
N/A , FL 33837
COUNTY: **POLK**

[Florida Oculus](#)

Some records may not have additional documentation available from the Oculus Website

FACILITY DETAILS

FACILITY TYPE: **CONSTRUCTION STORMWATER GP**
STATUS: **ACTIVE**
OWNERSHIP: **PRIVATE**
COMPANY NAME: **TOM PHELPS C/O KIMLEY-HORN ASSOCIATES, INC**
RELATED PARTY NAME: **TOM PHELPS, OWNER\DEVELOPER**
RELATED PARTY ADDRESS: **4305 HIGHLAND PARK BLVD**
LAKELAND FL 33813-1671
RELATED PARTY PHONE: **8634209977**
RELATED PARTY EMAIL: **NOT REPORTED**
PERMIT TYPE: **GENERIC PERMIT**
DATE OF ISSUE: **2/2/2005**
DATE OF EXPIRATION: **2/1/2010**
NATURE OF BUSINESS: **N/A**
TREATMENT: **N/A**
CAPACITY: **N/A**
DOMESTIC WASTEWATER FACILITY CLASS: **N/A**
OFFICE: **TALLAHASSEE NPDES STORMWATER**

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National Pollutant Discharge Elimination System Facilities (NPDES)

MAP ID# 23

Distance from Property: 0.095 mi. (502 ft.) SW
Elevation: 106 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: **FLR10AL24**
FACILITY NAME: **AVIANA PHASE 2**
ADDRESS: **CORNER OF US 17-92 AND HART RD**
N/A , FL 33837
COUNTY: **POLK**

[Florida Oculus](#)

Some records may not have additional documentation available from the Oculus Website

FACILITY DETAILS

FACILITY TYPE: **CONSTRUCTION STORMWATER GP**
STATUS: **ACTIVE**
OWNERSHIP: **PRIVATE**
COMPANY NAME: **PARK SQUARE HOMES INC**
RELATED PARTY NAME: **CHARLES F CAVARETTA, PMTE**
RELATED PARTY ADDRESS: **5200 VINELAND RD STE 200**
ORLANDO FL 32811-7674
RELATED PARTY PHONE: **4075293068**
RELATED PARTY EMAIL: **NOT REPORTED**
PERMIT TYPE: **GENERIC PERMIT**
DATE OF ISSUE: **6/18/2005**
DATE OF EXPIRATION: **6/17/2010**
NATURE OF BUSINESS: **N/A**
TREATMENT: **N/A**
CAPACITY: **N/A**
DOMESTIC WASTEWATER FACILITY CLASS: **N/A**
OFFICE: **TALLAHASSEE NPDES STORMWATER**

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National Pollutant Discharge Elimination System Facilities (NPDES)

MAP ID# 23

Distance from Property: 0.095 mi. (502 ft.) SW
Elevation: 106 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: **FLR10DD81**
FACILITY NAME: **AVIANA - PHASE 2 LOT 33-42 & 124-143**
ADDRESS: **US 17 & HART RD**
DAVENPORT , FL 33837
COUNTY: **POLK**

[Florida Oculus](#)

Some records may not have additional documentation available from the Oculus Website

FACILITY DETAILS

FACILITY TYPE: **CONSTRUCTION STORMWATER GP**
STATUS: **ACTIVE**
OWNERSHIP: **PRIVATE**
COMPANY NAME: **MERITAGE HOMES**
RELATED PARTY NAME: **ROBERT A ROWLETTE, VICE PRESIDENT CONSTRUCTION**
RELATED PARTY ADDRESS: **1105 KENSINGTON PARK DR**
ALTAMONTE SPRINGS FL 32714-1939
RELATED PARTY PHONE: **4078690300**
RELATED PARTY EMAIL: **NOT REPORTED**
PERMIT TYPE: **GENERIC PERMIT**
DATE OF ISSUE: **10/14/2006**
DATE OF EXPIRATION: **10/13/2011**
NATURE OF BUSINESS: **N/A**
TREATMENT: **N/A**
CAPACITY: **N/A**
DOMESTIC WASTEWATER FACILITY CLASS: **N/A**
OFFICE: **TALLAHASSEE NPDES STORMWATER**

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National Pollutant Discharge Elimination System Facilities (NPDES)

MAP ID# 23

Distance from Property: 0.095 mi. (502 ft.) SW
Elevation: 106 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: **FLR10PL86**
FACILITY NAME: **AVIANA**
ADDRESS: **251 HART RD**
DAVENPORT , FL
COUNTY: **OSCEOLA**

[Florida Oculus](#)

Some records may not have additional documentation available from the Oculus Website

FACILITY DETAILS

FACILITY TYPE: **CONSTRUCTION STORMWATER GP**
STATUS: **ACTIVE**
OWNERSHIP: **UNKNOWN**
COMPANY NAME: **PARK SQUARE HOMES**
RELATED PARTY NAME: **VISHAAL GUPTA, PMTE**
RELATED PARTY ADDRESS: **5200 VINELAND RD STE 200**
ORLANDO FL 32811-7674
RELATED PARTY PHONE: **4075293000**
RELATED PARTY EMAIL: **NOT REPORTED**
PERMIT TYPE: **GENERIC PERMIT**
DATE OF ISSUE: **8/23/2015**
DATE OF EXPIRATION: **8/22/2020**
NATURE OF BUSINESS: **NOT REPORTED**
TREATMENT: **NOT REPORTED**
CAPACITY: **NOT REPORTED**
DOMESTIC WASTEWATER FACILITY CLASS: **NOT REPORTED**
OFFICE: **TALLAHASSEE NPDES STORMWATER**

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National Pollutant Discharge Elimination System Facilities (NPDES)

MAP ID# 23

Distance from Property: 0.095 mi. (502 ft.) SW
Elevation: 106 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: **FLR20CK94**
FACILITY NAME: **AVIANA PHASE 2**
ADDRESS: **NOT REPORTED**
DAVENPORT , FL
COUNTY: **POLK**

[Florida Oculus](#)

Some records may not have additional documentation available from the Oculus Website

FACILITY DETAILS

FACILITY TYPE: **CONSTRUCTION GENERIC DEWATERING**
STATUS: **ACTIVE**
OWNERSHIP: **PRIVATE**
COMPANY NAME: **PARK SQUARE ENTERPRISES, LLC**
RELATED PARTY NAME: **SCOTT JOHNSTON, PROJECT MANAGER**
RELATED PARTY ADDRESS: **5200 VINELAND RD, STE 200**
ORLANDO FL 32811-7674
RELATED PARTY PHONE: **4075293000**
RELATED PARTY EMAIL: **SJOHNSTON@PARKSQUAREHOMES.COM**
PERMIT TYPE: **GENERIC PERMIT**
DATE OF ISSUE: **10/26/2018**
DATE OF EXPIRATION: **10/25/2023**
NATURE OF BUSINESS: **NOT REPORTED**
TREATMENT: **NOT REPORTED**
CAPACITY: **NOT REPORTED**
DOMESTIC WASTEWATER FACILITY CLASS: **NOT REPORTED**
OFFICE: **TALLAHASSEE NPDES STORMWATER**

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Aboveground Storage Tanks (AST)

MAP ID# 24

Distance from Property: 0.222 mi. (1,172 ft.) WSW
Elevation: 108 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID: 8623362
FACILITY NAME: CITRUS ENTERPRISES INC
ADDRESS: HWY 547 & PALM STREET NORTH
 DAVENPORT , FL 33837
COUNTY: POLK
TYPE: C-FUEL USER/NON-RETAIL
STATUS: CLOSED
CONTACT: L.W.MCKNIGHT
PHONE: (863) 422-1131

Florida Oculus

Some records may not have additional documentation available from the Oculus Website

TANK INFORMATION (NOTE: CONSTRUCTION, PIPING, AND MONITORING INFO NOT SHOWN FOR CLOSED TANKS)

TANK #:	SIZE:	CONTENT:	INSTALLED:	PLACEMENT:	STATUS/DATE:
1	6000	VEHICULAR DIESEL	1-HUL-79	ABOVEGROUND	REMOVED FROM SITE/NR
2	10000	VEHICULAR DIESEL	1-HUL-79	ABOVEGROUND	REMOVED FROM SITE/NR
3	20000	VEHICULAR DIESEL	1-HUL-79	ABOVEGROUND	REMOVED FROM SITE/1-EN-08

TANK CONSTRUCTION INFORMATION

- NO CONSTRUCTION INFORMATION REPORTED

TANK PIPING INFORMATION

- NO PIPING INFORMATION REPORTED

TANK MONITORING INFORMATION

- NO MONITORING INFORMATION REPORTED

OWNER INFORMATION

OWNER NAME: CITRUS ENTERPRISES INC
OWNER ADDRESS: NOT REPORTED
 DAVENPORT FL 33837

REGULATED MINERAL ACID TANKS INFORMATION

- NO MINERAL ACID TANKS INFORMATION REPORTED

DISCHARGE INFORMATION

- NO DISCHARGE INFORMATION REPORTED

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Unlocated Sites Summary

This list contains sites that could not be mapped due to limited or incomplete address information.

Database Name	Site ID#	Site Name	Address	City/State/Zip/County
AST	8624125AST	INGRAM GROVE SERVICE INC	US 17 & 92 N	DAVENPORT, FL 33837 POLK
AST	9815691AST	RIDA DEVELOPMENT PROPERTY	CR 54 1.3 MI E OF US 27	LOUGHMAN, FL POLK
HMIRSR04	I-2001040972		HIGHWAY 17 & 92 N	DAVENPORT, FL POLK
HMIRSR04	I-1995030731		HWY 17 & 92	DAVENPORT, FL POLK
NPDESR04	FLR10I310*NPDES	SR 17		
NPDESR04	FLR10I127*NPDES	US 17		
UST	8624125UST	INGRAM GROVE SERVICE INC	US 17 & 92 N	DAVENPORT, FL 33837 POLK

Environmental Records Definitions - FEDERAL

AIRSAFS Aerometric Information Retrieval System / Air Facility Subsystem

VERSION DATE: 10/20/14

The United States Environmental Protection Agency (EPA) modified the Aerometric Information Retrieval System (AIRS) to a database that exclusively tracks the compliance of stationary sources of air pollution with EPA regulations: the Air Facility Subsystem (AFS). Since this change in 2001, the management of the AIRS/AFS database was assigned to EPA's Office of Enforcement and Compliance Assurance.

BRS Biennial Reporting System

VERSION DATE: 12/31/15

The United States Environmental Protection Agency (EPA), in cooperation with the States, biennially collects information regarding the generation, management, and final disposition of hazardous wastes regulated under the Resource Conservation and Recovery Act of 1976 (RCRA), as amended. The Biennial Report captures detailed data on the generation of hazardous waste from large quantity generators and data on waste management practices from treatment, storage and disposal facilities. Currently, the EPA states that data collected between 1991 and 1997 was originally a part of the defunct Biennial Reporting System and is now incorporated into the RCRAInfo data system.

CDL Clandestine Drug Laboratory Locations

VERSION DATE: 10/05/17

The U.S. Department of Justice ("the Department") provides this information as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments. The Department does not establish, implement, enforce, or certify compliance with clean-up or remediation standards for contaminated sites; the public should contact a state or local health department or environmental protection agency for that information.

DOCKETS EPA Docket Data

VERSION DATE: 12/22/05

The United States Environmental Protection Agency Docket data lists Civil Case Defendants, filing dates as far back as 1971, laws broken including section, violations that occurred, pollutants involved, penalties assessed and superfund awards by facility and location. Please refer to ICIS database as source of current data.

EC Federal Engineering Institutional Control Sites

VERSION DATE: 08/03/15

This database includes site locations where Engineering and/or Institutional Controls have been identified as part

Environmental Records Definitions - FEDERAL

of a selected remedy for the site as defined by United States Environmental Protection Agency official remedy decision documents. A site listing does not indicate that the institutional and engineering controls are currently in place nor will be in place once the remedy is complete; it only indicates that the decision to include either of them in the remedy is documented as of the completed date of the document. Institutional controls are actions, such as legal controls, that help minimize the potential for human exposure to contamination by ensuring appropriate land or resource use. Engineering controls include caps, barriers, or other device engineering to prevent access, exposure, or continued migration of contamination.

ECHOR04 Enforcement and Compliance History Information

VERSION DATE: 09/01/18

The EPA's Enforcement and Compliance History Online (ECHO) database, provides compliance and enforcement information for facilities nationwide. This database includes facilities regulated as Clean Air Act stationary sources, Clean Water Act direct dischargers, Resource Conservation and Recovery Act hazardous waste handlers, Safe Drinking Water Act public water systems along with other data, such as Toxics Release Inventory releases.

ERNSFL Emergency Response Notification System

VERSION DATE: 10/28/18

This National Response Center database contains data on reported releases of oil, chemical, radiological, biological, and/or etiological discharges into the environment anywhere in the United States and its territories. The data comes from spill reports made to the U.S. Environmental Protection Agency, U.S. Coast Guard, the National Response Center and/or the U.S. Department of Transportation.

FRSFL Facility Registry System

VERSION DATE: 10/09/18

The United States Environmental Protection Agency's Office of Environmental Information (OEI) developed the Facility Registry System (FRS) as the centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. The Facility Registry System replaced the Facility Index System or FINDS database.

HMIRSR04 Hazardous Materials Incident Reporting System

VERSION DATE: 09/30/18

The HMIRS database contains unintentional hazardous materials release information reported to the U.S. Department of Transportation located in EPA Region 4. This region includes the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

ICIS Integrated Compliance Information System (formerly DOCKETS)

VERSION DATE: 09/01/18

Environmental Records Definitions - FEDERAL

ICIS is a case activity tracking and management system for civil, judicial, and administrative federal Environmental Protection Agency enforcement cases. ICIS contains information on federal administrative and federal judicial cases under the following environmental statutes: the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Emergency Planning and Community Right-to-Know Act - Section 313, the Toxic Substances Control Act, the Federal Insecticide, Fungicide, and Rodenticide Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Safe Drinking Water Act, and the Marine Protection, Research, and Sanctuaries Act.

ICISNPDES Integrated Compliance Information System National Pollutant Discharge Elimination System

VERSION DATE: 07/09/17

Authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. This database is provided by the U.S. Environmental Protection Agency.

LUCIS Land Use Control Information System

VERSION DATE: 09/01/06

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

MLTS Material Licensing Tracking System

VERSION DATE: 06/29/17

MLTS is a list of approximately 8,100 sites which have or use radioactive materials subject to the United States Nuclear Regulatory Commission (NRC) licensing requirements. Disclaimer: Due to agency regulations and policies, this database contains applicant/licensee location information which may or may not be related to the physical location per MLTS site.

NPDES04 National Pollutant Discharge Elimination System

VERSION DATE: 04/01/07

Authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The NPDES database was collected from the U.S. Environmental Protection Agency (EPA) from December 2002 through April 2007. Refer to the PCS and/or ICIS-NPDES database as source of current data. This database includes permitted facilities located in EPA Region 4. This region includes the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

PADS PCB Activity Database System

VERSION DATE: 09/14/18

Environmental Records Definitions - FEDERAL

PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the U.S. Environmental Protection Agency of such activities.

PCSR04 Permit Compliance System

VERSION DATE: 08/01/12

The Permit Compliance System is used in tracking enforcement status and permit compliance of facilities controlled by the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act and is maintained by the United States Environmental Protection Agency's Office of Compliance. PCS is designed to support the NPDES program at the state, regional, and national levels. This database includes permitted facilities located in EPA Region 4. This region includes the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee. PCS has been modernized, and no longer exists. National Pollutant Discharge Elimination System (ICIS-NPDES) data can now be found in Integrated Compliance Information System (ICIS).

RCRASC RCRA Sites with Controls

VERSION DATE: 11/21/18

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with institutional controls in place.

SEMSLIENS SEMS Lien on Property

VERSION DATE: 08/13/18

The U.S. Environmental Protection Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs. This is a listing of SEMS sites with a lien on the property.

SFLIENS CERCLIS Liens

VERSION DATE: 06/08/12

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which United States Environmental Protection Agency has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of

Environmental Records Definitions - FEDERAL

these sites and properties. This database contains those CERCLIS sites where the Lien on Property action is complete. Please refer to the SEMSLIENS database as source of current data.

SSTS Section Seven Tracking System

VERSION DATE: 02/01/17

The United States Environmental Protection Agency tracks information on pesticide establishments through the Section Seven Tracking System (SSTS). SSTS records the registration of new establishments and records pesticide production at each establishment. The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requires that production of pesticides or devices be conducted in a registered pesticide-producing or device-producing establishment. ("Production" includes formulation, packaging, repackaging, and relabeling.)

TRI Toxics Release Inventory

VERSION DATE: 12/31/16

The Toxics Release Inventory, provided by the United States Environmental Protection Agency, includes data on toxic chemical releases and waste management activities from certain industries as well as federal and tribal facilities. This inventory contains information about the types and amounts of toxic chemicals that are released each year to the air, water, and land as well as information on the quantities of toxic chemicals sent to other facilities for further waste management.

TSCA Toxic Substance Control Act Inventory

VERSION DATE: 12/31/12

The Toxic Substances Control Act (TSCA) was enacted in 1976 to ensure that chemicals manufactured, imported, processed, or distributed in commerce, or used or disposed of in the United States do not pose any unreasonable risks to human health or the environment. TSCA section 8(b) provides the United States Environmental Protection Agency authority to "compile, keep current, and publish a list of each chemical substance that is manufactured or processed in the United States." This TSCA Chemical Substance Inventory contains non-confidential information on the production amount of toxic chemicals from each manufacturer and importer site.

RCRAGR04 Resource Conservation & Recovery Act - Generator

VERSION DATE: 12/17/18

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities currently generating hazardous waste. EPA Region 4 includes the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

Environmental Records Definitions - FEDERAL

RCRANGR04

Resource Conservation & Recovery Act - Non-Generator

VERSION DATE: 12/17/18

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities classified as non-generators. Non-Generators do not presently generate hazardous waste. EPA Region 4 includes the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

ALTFUELS

Alternative Fueling Stations

VERSION DATE: 09/01/18

Nationwide list of alternative fueling stations made available by the U.S. Department of Energy's Office of Energy Efficiency & Renewable Energy. Includes Bio-diesel stations, Ethanol (E85) stations, Liquefied Petroleum Gas (Propane) stations, Ethanol (E85) stations, Natural Gas stations, Hydrogen stations, and Electric Vehicle Supply Equipment (EVSE).

FEMAUST

FEMA Owned Storage Tanks

VERSION DATE: 12/01/16

This is a listing of FEMA owned underground and aboveground storage tank sites. For security reasons, address information is not released to the public according to the U.S. Department of Homeland Security.

HISTPST

Historical Gas Stations

VERSION DATE: NR

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

ICISCLEANERS

Integrated Compliance Information System Drycleaners

VERSION DATE: 09/01/18

This is a listing of drycleaner facilities from the Integrated Compliance Information System (ICIS). The U.S. Environmental Protection Agency (EPA) tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

MRDS

Mineral Resource Data System

VERSION DATE: 03/15/16

Environmental Records Definitions - FEDERAL

MRDS (Mineral Resource Data System) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS.

MSHA Mine Safety and Health Administration Master Index File

VERSION DATE: 08/31/18

The Mine dataset lists all Coal and Metal/Non-Metal mines under MSHA's jurisdiction since 1/1/1970. It includes such information as the current status of each mine (Active, Abandoned, NonProducing, etc.), the current owner and operating company, commodity codes and physical attributes of the mine. Mine ID is the unique key for this data. This information is provided by the United States Department of Labor - Mine Safety and Health Administration (MSHA).

BF Brownfields Management System

VERSION DATE: 12/21/18

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. The United States Environmental Protection Agency maintains this database to track activities in the various brown field grant programs including grantee assessment, site cleanup and site redevelopment. This database included tribal brownfield sites.

DNPL Delisted National Priorities List

VERSION DATE: 11/14/18

This database includes sites from the United States Environmental Protection Agency's Final National Priorities List (NPL) where remedies have proven to be satisfactory or sites where the original analyses were inaccurate, and the site is no longer appropriate for inclusion on the NPL, and final publication in the Federal Register has occurred.

NLRRCRAT No Longer Regulated RCRA Non-CORRACTS TSD Facilities

VERSION DATE: 12/17/18

This database includes RCRA Non-Corrective Action TSD facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements. This listing includes facilities that formerly treated, stored or disposed of hazardous waste.

Environmental Records Definitions - FEDERAL

ODI Open Dump Inventory

VERSION DATE: 06/01/85

The open dump inventory was published by the United States Environmental Protection Agency. An "open dump" is defined as a facility or site where solid waste is disposed of which is not a sanitary landfill which meets the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944) and which is not a facility for disposal of hazardous waste. This inventory has not been updated since June 1985.

RCRAT Resource Conservation & Recovery Act - Non-CORRACTS Treatment, Storage & Disposal Facilities

VERSION DATE: 12/17/18

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities recognized as hazardous waste treatment, storage, and disposal sites (TSD).

SEMS Superfund Enterprise Management System

VERSION DATE: 12/12/18

The U.S. Environmental Protection Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs.

SEMSARCH Superfund Enterprise Management System Archived Site Inventory

VERSION DATE: 12/13/18

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System Archived Site Inventory (List 8R Archived) replaced the CERCLIS NFRAP reporting system in 2015. This listing reflects sites at which the EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program.

SMCRA Surface Mining Control and Reclamation Act Sites

VERSION DATE: 09/14/18

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by the Office of Surface Mining Reclamation and Enforcement (OSMRE) to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type,

Environmental Records Definitions - FEDERAL

and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

USUMTRCA Uranium Mill Tailings Radiation Control Act Sites

VERSION DATE: 03/04/17

The Legacy Management Office of the Department of Energy (DOE) manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The L.M. Office manages this database of sites registered under the Uranium Mill Tailings Control Act (UMTRCA).

DOD Department of Defense Sites

VERSION DATE: 12/01/14

This information originates from the National Atlas of the United States Federal Lands data, which includes lands owned or administered by the Federal government. Army DOD, Army Corps of Engineers DOD, Air Force DOD, Navy DOD and Marine DOD areas of 640 acres or more are included.

FUDS Formerly Used Defense Sites

VERSION DATE: 06/01/15

The Formerly Used Defense Sites (FUDS) inventory includes properties previously owned by or leased to the United States and under Secretary of Defense Jurisdiction, as well as Munitions Response Areas (MRAs). The remediation of these properties is the responsibility of the Department of Defense. This data is provided by the U.S. Army Corps of Engineers (USACE), the boundaries/polygon data are based on preliminary findings and not all properties currently have polygon data available. **DISCLAIMER:** This data represents the results of data collection/processing for a specific USACE activity and is in no way to be considered comprehensive or to be used in any legal or official capacity as presented on this site. While the USACE has made a reasonable effort to insure the accuracy of the maps and associated data, it should be explicitly noted that USACE makes no warranty, representation or guaranty, either expressed or implied, as to the content, sequence, accuracy, timeliness or completeness of any of the data provided herein. For additional information on Formerly Used Defense Sites please contact the USACE Public Affairs Office at (202) 528-4285.

FUSRAP Formerly Utilized Sites Remedial Action Program

VERSION DATE: 03/04/17

The U.S. Department of Energy (DOE) established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

Environmental Records Definitions - FEDERAL

NLRRCRAC No Longer Regulated RCRA Corrective Action Facilities

VERSION DATE: 12/17/18

This database includes RCRA Corrective Action facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements.

NMS Former Military Nike Missile Sites

VERSION DATE: 12/01/84

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites. During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

NPL National Priorities List

VERSION DATE: 11/14/18

This database includes United States Environmental Protection Agency (EPA) National Priorities List sites that fall under the EPA's Superfund program, established to fund the cleanup of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action.

PNPL Proposed National Priorities List

VERSION DATE: 11/14/18

This database contains sites proposed to be included on the National Priorities List (NPL) in the Federal Register. The United States Environmental Protection Agency investigates these sites to determine if they may present long-term threats to public health or the environment.

RCRAC Resource Conservation & Recovery Act - Corrective Action Facilities

VERSION DATE: 12/17/18

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems

Environmental Records Definitions - FEDERAL

that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with corrective action activity.

RCRASUBC Resource Conservation & Recovery Act - Subject to Corrective Action Facilities

VERSION DATE: 12/17/18

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities subject to corrective actions.

RODS Record of Decision System

VERSION DATE: 08/13/18

These decision documents maintained by the United States Environmental Protection Agency describe the chosen remedy for NPL (Superfund) site remediation. They also include site history, site description, site characteristics, community participation, enforcement activities, past and present activities, contaminated media, the contaminants present, and scope and role of response action.

Environmental Records Definitions - STATE (FL)

DEPCLEANUP

Florida Department of Environmental Protection Cleanup Sites

VERSION DATE: 01/21/19

The Cleanup Sites layer feeds the FDEP's Contamination Locator Map (CLM). It provides locations and document links for sites currently in the cleanup process and sites awaiting cleanup funding. Cleanup programs include: Brownfields, Petroleum, EPA Superfund (CERCLA), Drycleaning, Responsible Party Cleanup, State Funded Cleanup, State Owned Lands Cleanup and Hazardous Waste Cleanup.

GWCA

Ground Water Contamination Areas

VERSION DATE: 10/15/10

This Ground Water Contamination Areas database is provided by the Florida Department of Environmental Protection, showing the boundaries of delineated areas of known groundwater contamination pursuant to Chapter 62-524, F.A.C., New Potable Water Well Permitting In Delineated Areas. 38 Florida counties have been delineated primarily for the agricultural pesticide ethylene dibromide (EDB), and to a much lesser extent, volatile organic and petroleum contaminants. This data is intended to be used by regulatory agencies issuing potable water well construction permits in areas of ground water contamination to protect public health and the ground water resource. This dataset only indicates the presence or absence of specific groundwater contaminants and does not represent all known sources of groundwater contamination in the state of Florida.

ICEC

Engineering and Institutional Control Sites

VERSION DATE: 09/06/18

The Florida Department of Environmental Protection (FDEP) Division of Waste Management maintains this list of sites with institutional and engineering controls listed in the Institutional Controls Registry (ICR). The information in the ICR summarizes certain data about properties where institutional and engineering controls are used to control exposure and is, therefore, an incomplete analysis of the conditions on these properties. The ICR is periodically updated without notice. Additionally, due to data entry limitations, potential unauthorized access to the data or transmission errors, the ICR may contain errors and should not be exclusively relied upon. The department recommends that you contact the appropriate district or Tallahassee program office for more complete information regarding a property and the institutional control(s) that may be in place.

SPILLS

Spills Listing

VERSION DATE: 06/01/17

This listing of hazardous material spills is provided by the Florida Department of Environmental Protection's Law Enforcement Division. Spills reported since 2008 are included in this listing.

UIC

Underground Injection Control Wells

VERSION DATE: 09/21/18

This Class I Underground Injection Control (UIC) wells database is provided by the in Florida Department of

Environmental Records Definitions - STATE (FL)

Environmental Protection. These wells are currently or previously active. Class I UIC wells are used to inject nonhazardous waste, hazardous waste (new hazardous waste wells were banned in 1983), or municipal waste below the lowermost underground source of drinking water (USDW). A USDW is defined as an aquifer that contains a total dissolved solids concentration of less than 10,000 milligrams per liter.

CDV Cattle Dip Vats

VERSION DATE: NR

This list of located Cattle Dipping Vats is provided by the Florida Department of Environmental Protection (FDEP), Bureau of Waste Cleanup. According to the FDEP, from the 1910's through the 1950's, these vats were filled with an arsenic solution for the control and eradication of the cattle fever tick. Other pesticides such as DDT were also widely used. By State law, all cattle, horses, mules, goats, and other susceptible animals were required to be dipped every 14 days. Under certain circumstances, the arsenic and other pesticides remaining at the site may present an environmental or public health hazard. Some of the sites have been located and are currently under investigation. However, most of the listings are from old records of the State Livestock Board, which listed each vat as it was put into operation. In addition, some privately operated vats may have existed which were not listed by the Livestock Board. Some county boundaries may have changed since the vats were first listed.

NPDES National Pollutant Discharge Elimination System Facilities

VERSION DATE: 12/14/18

This National Pollutant Discharge Elimination System database is provided by the Florida Department of Environmental Protection and includes permitted Domestic, Industrial and Stormwater Facilities. Authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

AST Aboveground Storage Tanks

VERSION DATE: 11/02/18

The Storage Tank Regulation Section is part of the Bureau of Petroleum Storage Systems in the Florida Department of Environmental Protection's (FDEP) Division of Waste Management. This Section maintains all data for storage tank facilities registered with the Department and tracked for storage tanks, storage tank history, or petroleum cleanup activity. This listing only includes aboveground storage tank data.

CLEANERS Dry Cleaners

VERSION DATE: 11/21/18

The Florida Department of Environmental Protection (FDEP) maintains this database of registered dry cleaning facilities.

Environmental Records Definitions - STATE (FL)

HISTCLEANERS Historical Dry Cleaners

VERSION DATE: 08/02/13

The Florida Department of Environmental Protection (FDEP) provided this historical database of regulated and non-regulated dry cleaning facilities. These facilities were at one time tracked and registered by the FDEP OCULUS Electronic Document Management System as "drums" in the underground storage tank database. Please refer to the CLEANERS database as source of current data.

UST Underground Storage Tanks

VERSION DATE: 11/02/18

The Storage Tank Regulation Section is part of the Bureau of Petroleum Storage Systems in the Florida Department of Environmental Protection's (FDEP) Division of Waste Management. This Section maintains all data for storage tank facilities registered with the Department and tracked for storage tanks, storage tank history, or petroleum cleanup activity. This listing only includes underground storage tank data.

BF Brownfield Areas

VERSION DATE: 11/07/18

Brownfields are defined by the Florida Department of Environmental Protection (FDEP) as abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination. The primary goals of Florida's Brownfields Redevelopment Act (Ch. 97-277, Laws of Florida, codified at ss. 376.77-.85, F.S.) are to reduce health and environmental hazards on existing commercial and industrial sites that are abandoned or underused due to these hazards and create financial and regulatory incentives to encourage redevelopment and voluntary cleanup of contaminated properties. A "brownfield area" means a contiguous area of one or more brownfield sites, some of which may not be contaminated, that has been designated as such by a local government resolution. This data is intended to be used for general locational representation and should not be considered appropriate for legal and/or cadastral purposes.

BSRA Brownfields Site Rehabilitation Agreement Sites

VERSION DATE: 11/07/18

Brownfields are defined by the Florida Department of Environmental Protection (FDEP) as abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination. The primary goals of Florida's Brownfields Redevelopment Act (Ch. 97-277, Laws of Florida, codified at ss. 376.77-.85, F.S.) are to reduce health and environmental hazards on existing commercial and industrial sites that are abandoned or underused due to these hazards and create financial and regulatory incentives to encourage voluntary cleanup and redevelopment of sites. After a local municipality in Florida designates an area as a brownfield to encourage redevelopment and focus upon revitalization, a resolution is passed and property owners within that designated area optionally may remediate or redevelop their property. Executed Brownfield Site Rehabilitation Agreements (BSRAs) are voluntary cleanup

Environmental Records Definitions - STATE (FL)

agreements between a responsible party and FDEP or a delegated local pollution control program. This data is intended to be used for general locational representation and should not be considered appropriate for legal and/or cadastral purposes.

CLEANUPS Drycleaning Solvent Program Cleanup Sites

VERSION DATE: 11/20/18

The Florida Department of Environmental Protection (FDEP) provides this list of Drycleaning Solvent Program Cleanup Sites. These sites are eligible for state funding to cleanup contamination resulting from drycleaning facility operations or a wholesale supply company (Chapter 376, Florida Statutes). Drycleaners applied to participate in this program from 1995 to December 31, 1998. All sites have confirmed contamination above Contamination Target Levels and have complied with conditions set in the law. This data is intended to be used for general locational representation and should not be considered appropriate for legal and/or cadastral purposes.

LUAST Registered Leaking Storage Tanks

VERSION DATE: 11/16/18

The Petroleum Cleanup Program of the Florida Department of Environmental Protection encompasses the technical oversight, management, and administrative activities necessary to prioritize, assess, and cleanup sites contaminated by discharges of petroleum and petroleum products from stationary petroleum storage systems. These sites include those determined eligible for state funded cleanup using preapproval contractors designated by the property owner or responsible party and state lead contractors under direct contract with the Department, as well as non-program or voluntary cleanup sites that are funded by responsible parties.

SWF Solid Waste Facilities

VERSION DATE: 12/14/18

The Solid Waste Section of the Florida Department of Environmental Protection is responsible for rule development, solid waste policy, financial assurance compliance, and implementing Florida's solid waste management program. Technical assistance is provided to the district offices concerning the permitting, compliance, and enforcement activities associated with solid waste facilities. These facilities can include landfills, material recovery facilities, transfer stations, composting/processing facilities, and waste tire management sites.

VCS Voluntary Cleanup Sites

VERSION DATE: 11/26/18

The Florida Department of Environmental Protection's Waste Cleanup Program provides this list of voluntary cleanup sites. These sites are subject to the FDEP 62-780 Contaminated Site Cleanup Criteria regulations and may be included on this listing if a party wants to conduct voluntary cleanup for a site that is not already under enforcement; or if a property owner did not the cause the contamination, but by ownership is still responsible for the contamination and/or enters the process voluntarily.

Environmental Records Definitions - STATE (FL)

SHWS State Hazardous Waste Sites

VERSION DATE: 12/19/18

The Florida Department of Environmental Protection (FDEP), Division of Waste Management, Bureau of Waste Cleanup provides this listing of National Priorities List and State Funded Waste Cleanup Sites. The State-Funded cleanup program is designed to address sites where there are no viable responsible parties; the site poses an imminent hazard; and, the site does not qualify for Superfund or is a low priority for EPA. Remediation efforts are triggered when a FDEP District Office requests adoption of a site for state-funded cleanup. Funding for these remedial efforts comes from the Water Quality Assurance Trust Fund. Remedial activity may include contamination assessments, risk assessments, feasibility studies, design and construction of treatment systems, operation and maintenance of the installed treatment systems, and removal of contaminated media when necessary.

Environmental Records Definitions - TRIBAL

USTR04 Underground Storage Tanks On Tribal Lands

VERSION DATE: 05/08/18

Underground storage tanks on Tribal lands located in Region 4 include the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

LUSTR04 Leaking Underground Storage Tanks On Tribal Lands

VERSION DATE: 05/08/18

Leaking underground storage tanks on Tribal lands located in Region 4 include the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

ODINDIAN Open Dump Inventory on Tribal Lands

VERSION DATE: 11/08/06

This Indian Health Service database contains information about facilities and sites on tribal lands where solid waste is disposed of, which are not sanitary landfills or hazardous waste disposal facilities, and which meet the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944).

INDIANRES Indian Reservations

VERSION DATE: 01/01/00

The Department of Interior and Bureau of Indian Affairs maintains this database that includes American Indian Reservations, off-reservation trust lands, public domain allotments, Alaska Native Regional Corporations and Recognized State Reservations.



On time. On target. In touch.™

Historical Topographic Maps

[NEW: GeoLens by Geosearch](#)

Target Property:

CFX Poinciana Pkwy Extension

Highway 92

Poinciana, Polk, Florida 33837

Prepared For:

Kimley - Horn and Associates - Jacksonville

Order #: 121121

Job #: 276703

Project #:

Date: 2/3/2019

Target Property Summary

CFX Poinciana Pkwy Extension

Highway 92

Poinciana, Polk, Florida 33837

USGS Quadrangle: **Davenport, Intercession City**

Target Property Geometry: **Area**

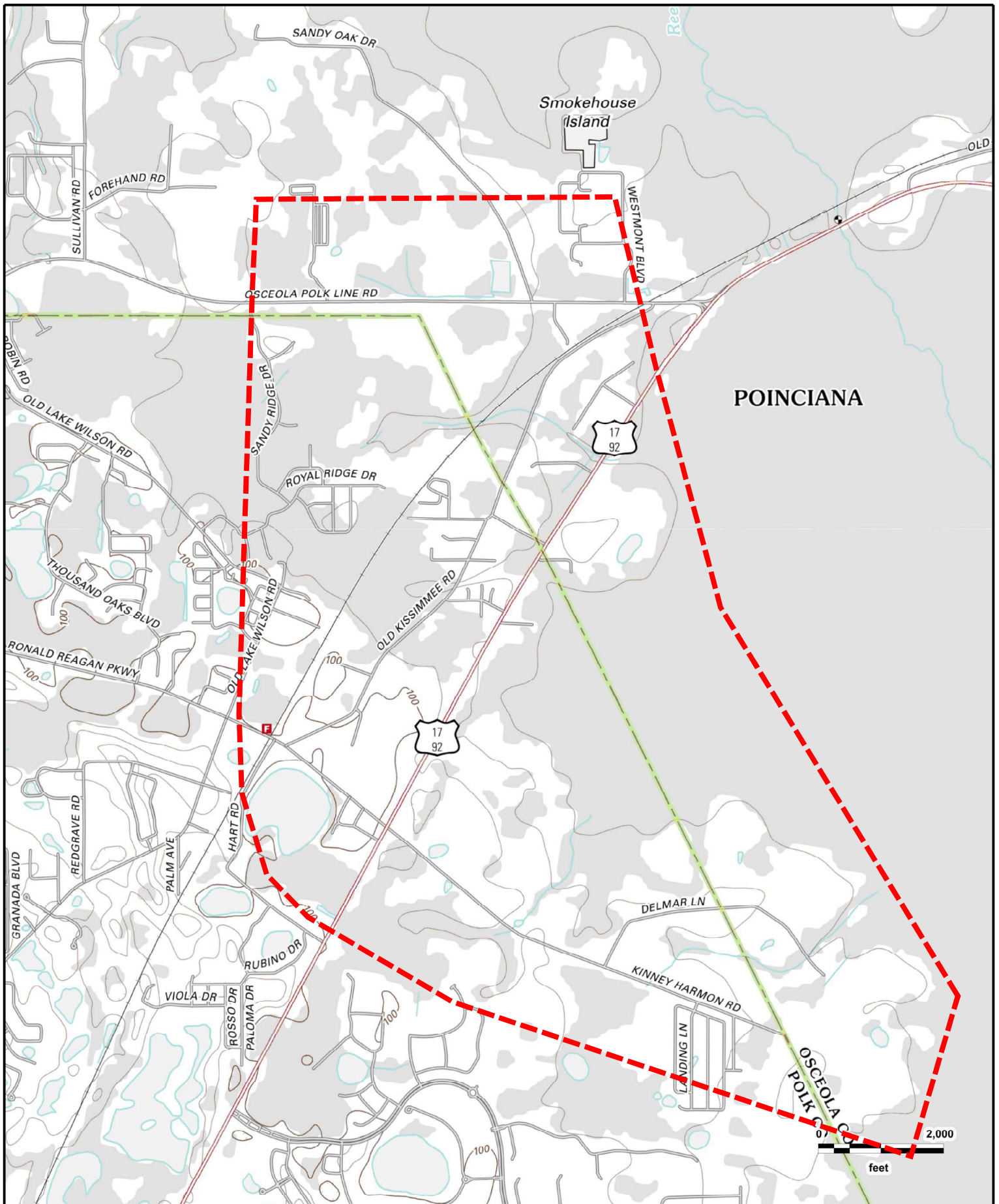
Target Property Longitude(s)/Latitude(s):

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(-81.545699247, 28.257096780), (-81.542489180, 28.246587524)

Topographic Map Summary

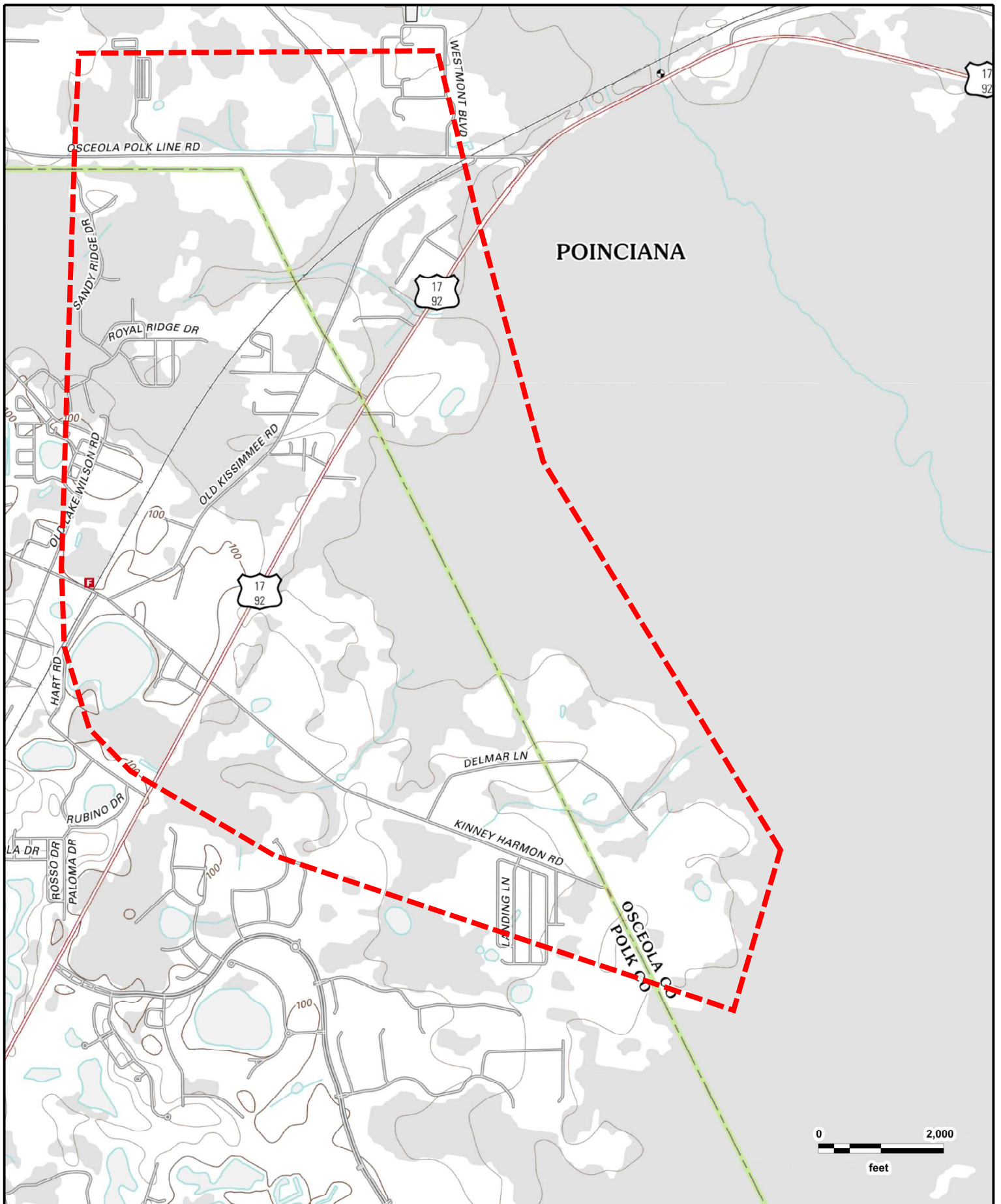
<u>Date</u>	<u>Quadrangle</u>	<u>Scale</u>
2012	Intercession City, FL (2012) Davenport, FL (2012)	1" = 2000'
2012	Intercession City, FL (2012) Davenport, FL (2012)	1" = 2000'
1953 PHOTOINSPECTED 1985	Intercession City, FL (1985) Davenport, FL (1985)	1" = 2000'
1953 PHOTOINSPECTED 1985	Intercession City, FL (1985) Davenport, FL (1985)	1" = 2000'
1953 PHOTOINSPECTED 1983	Intercession City, FL (1983) Davenport, FL (1985)	1" = 2000'
1953 PHOTOINSPECTED 1983	Intercession City, FL (1985) Davenport, FL (1985)	1" = 2000'
1953 PHOTOREVISED 1980	Intercession City, FL (1980) Davenport, FL (1980)	1" = 2000'
1953 PHOTOREVISED 1980	Intercession City, FL (1980) Davenport, FL (1980)	1" = 2000'
1953 PHOTOREVISED 1970	Intercession City, FL (1970) Davenport, FL (1970)	1" = 2000'
1953 PHOTOREVISED 1970	Intercession City, FL (1970) Davenport, FL (1970)	1" = 2000'
1953	Intercession City, FL (1953) Davenport, FL (1953)	1" = 2000'
1953	Intercession City, FL (1953) Davenport, FL (1953)	1" = 2000'

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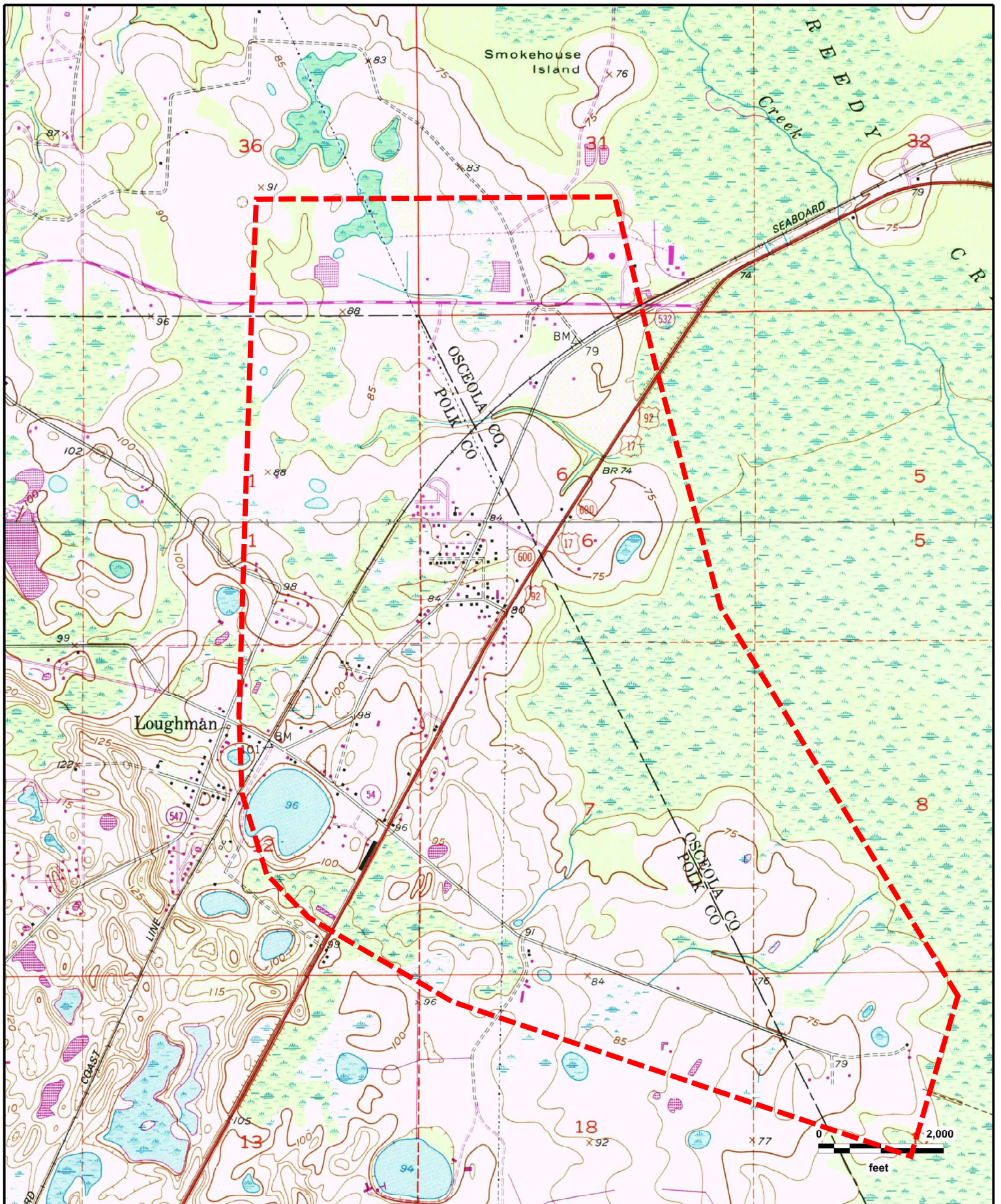
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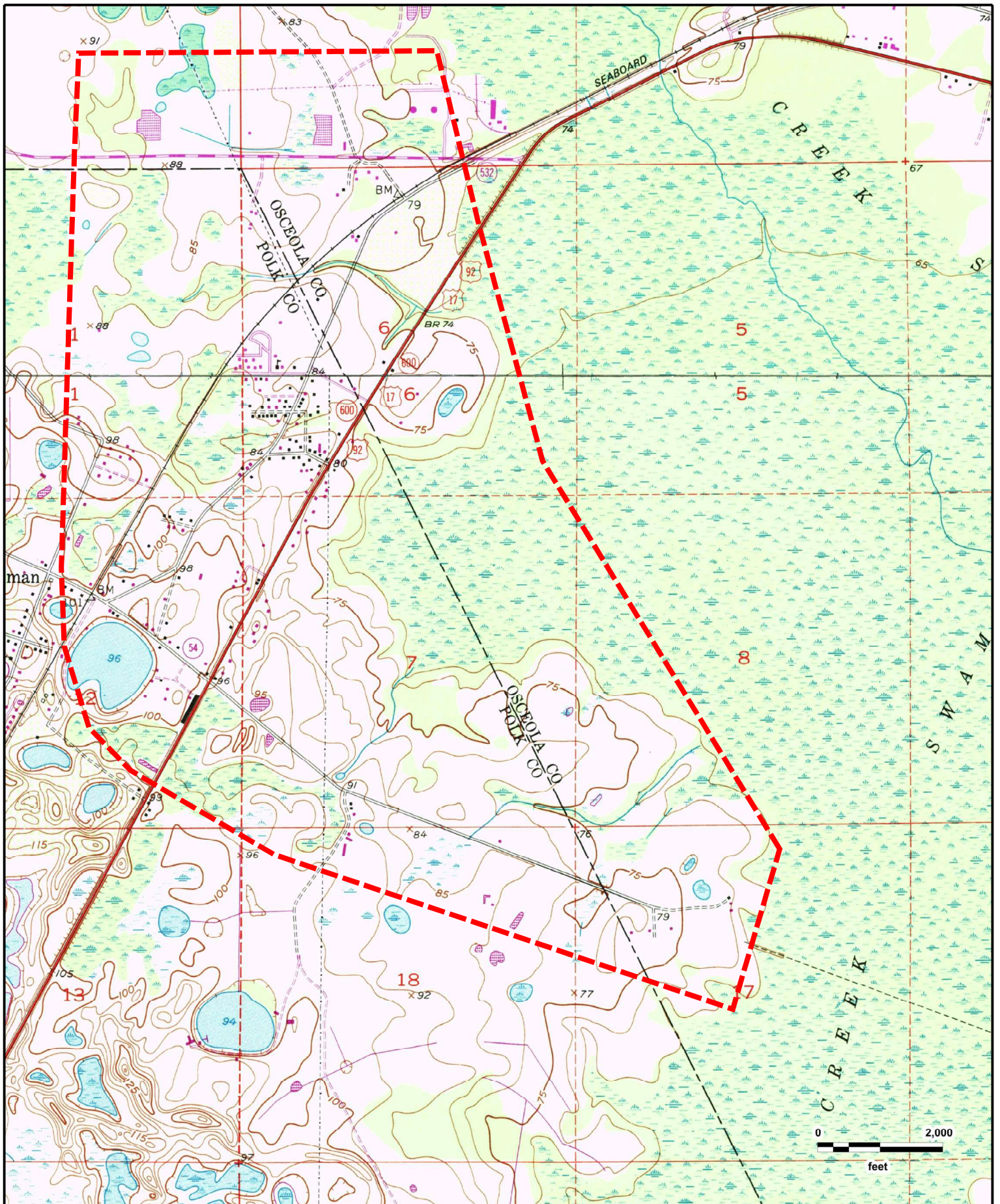
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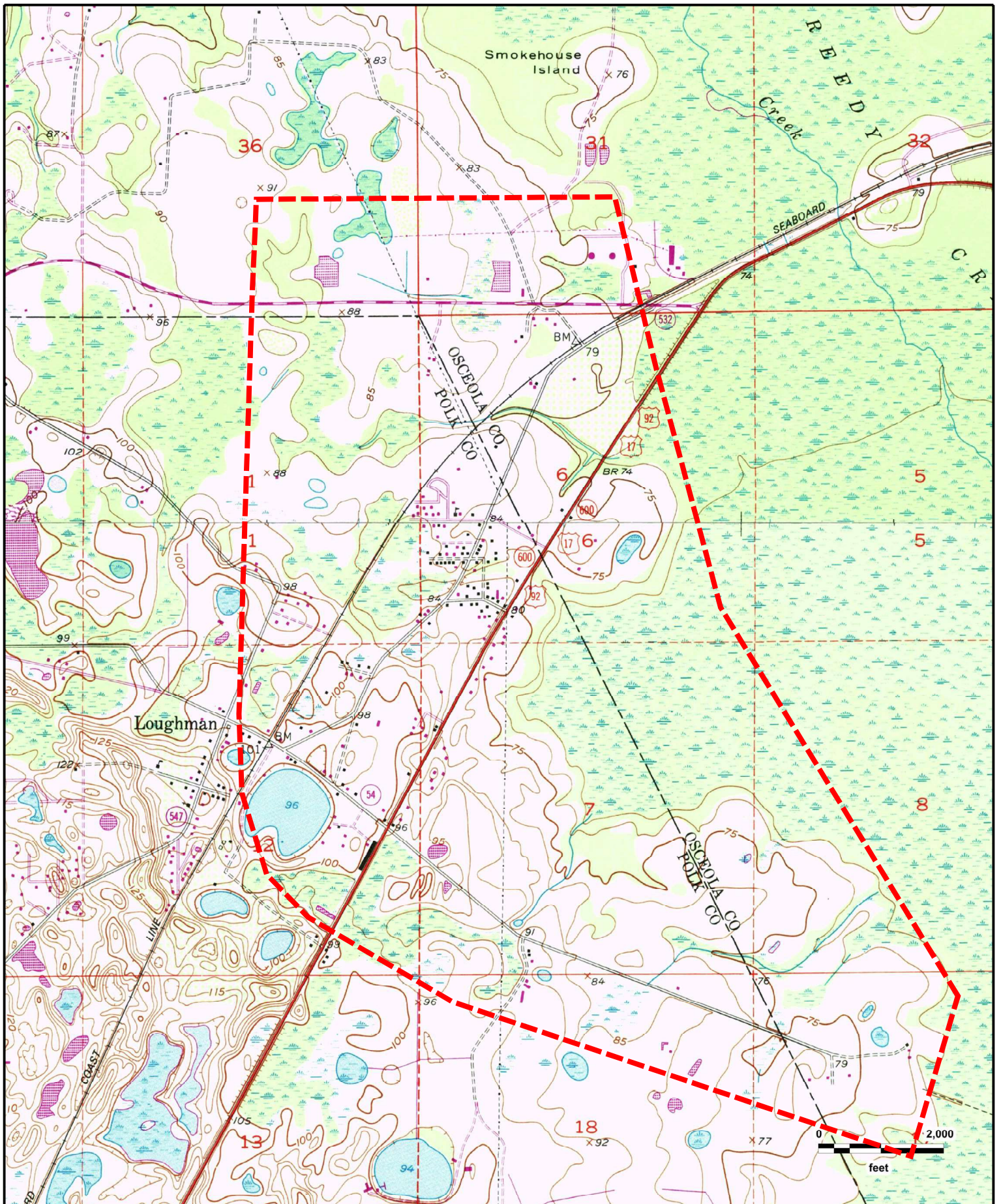
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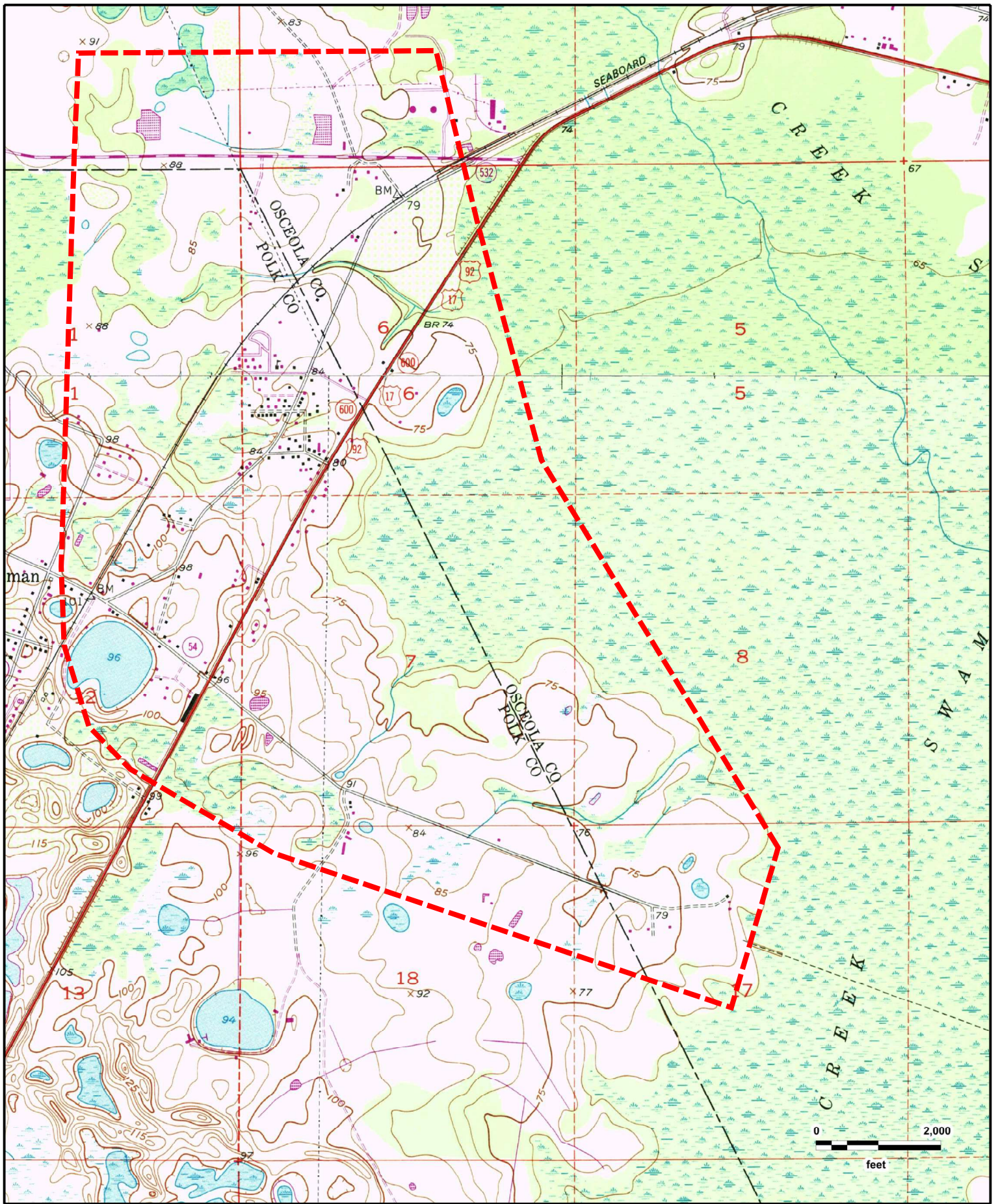
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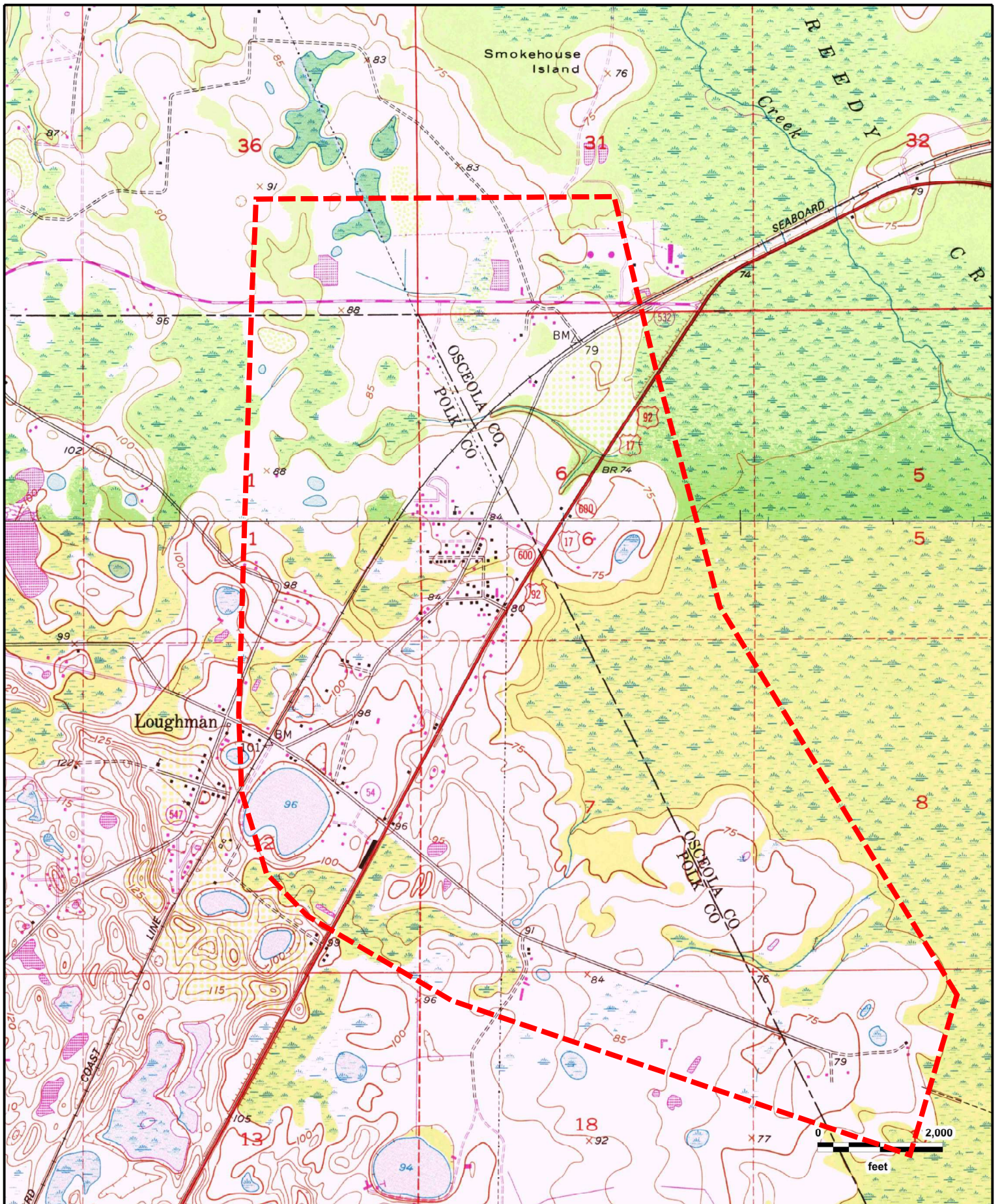
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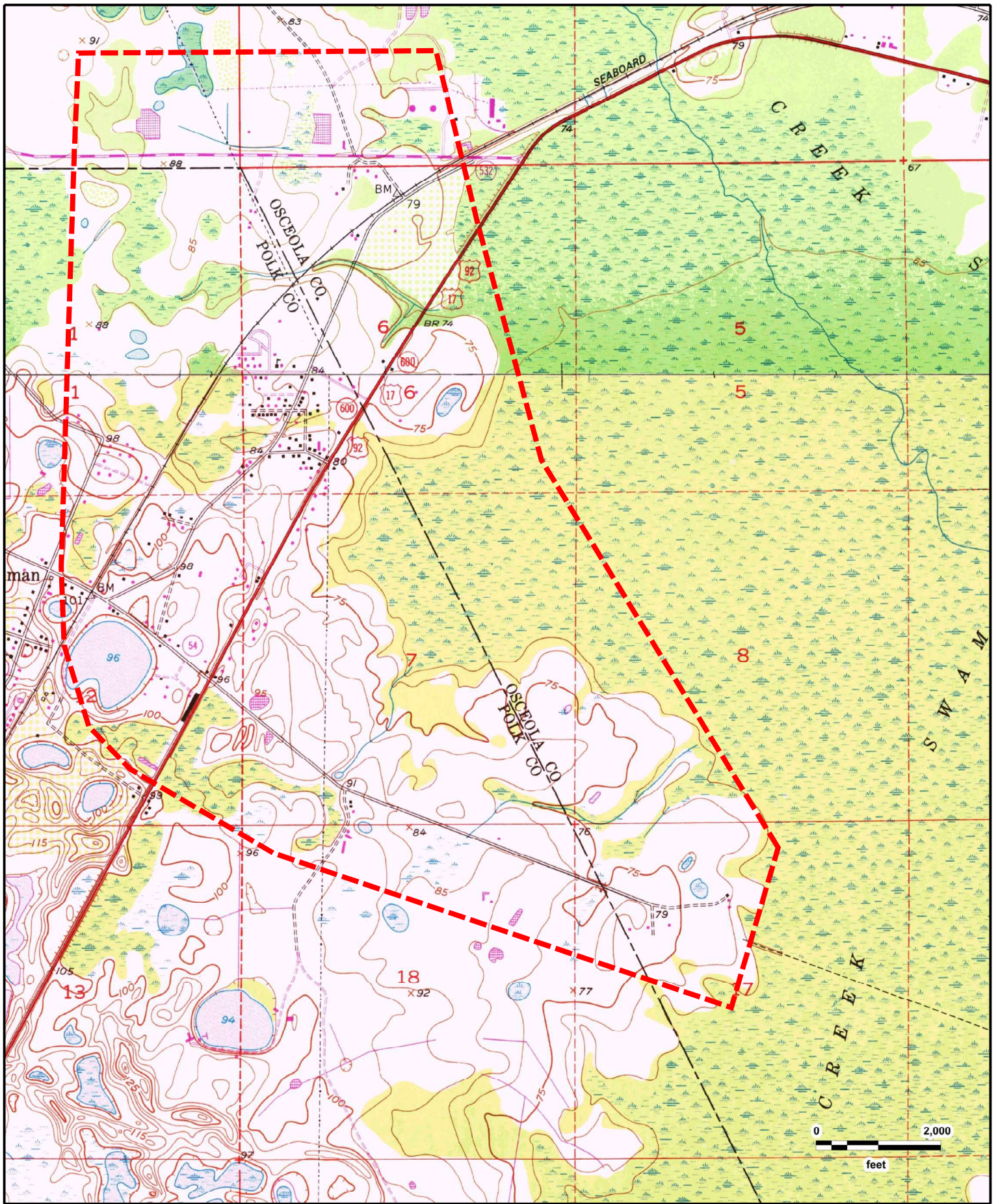
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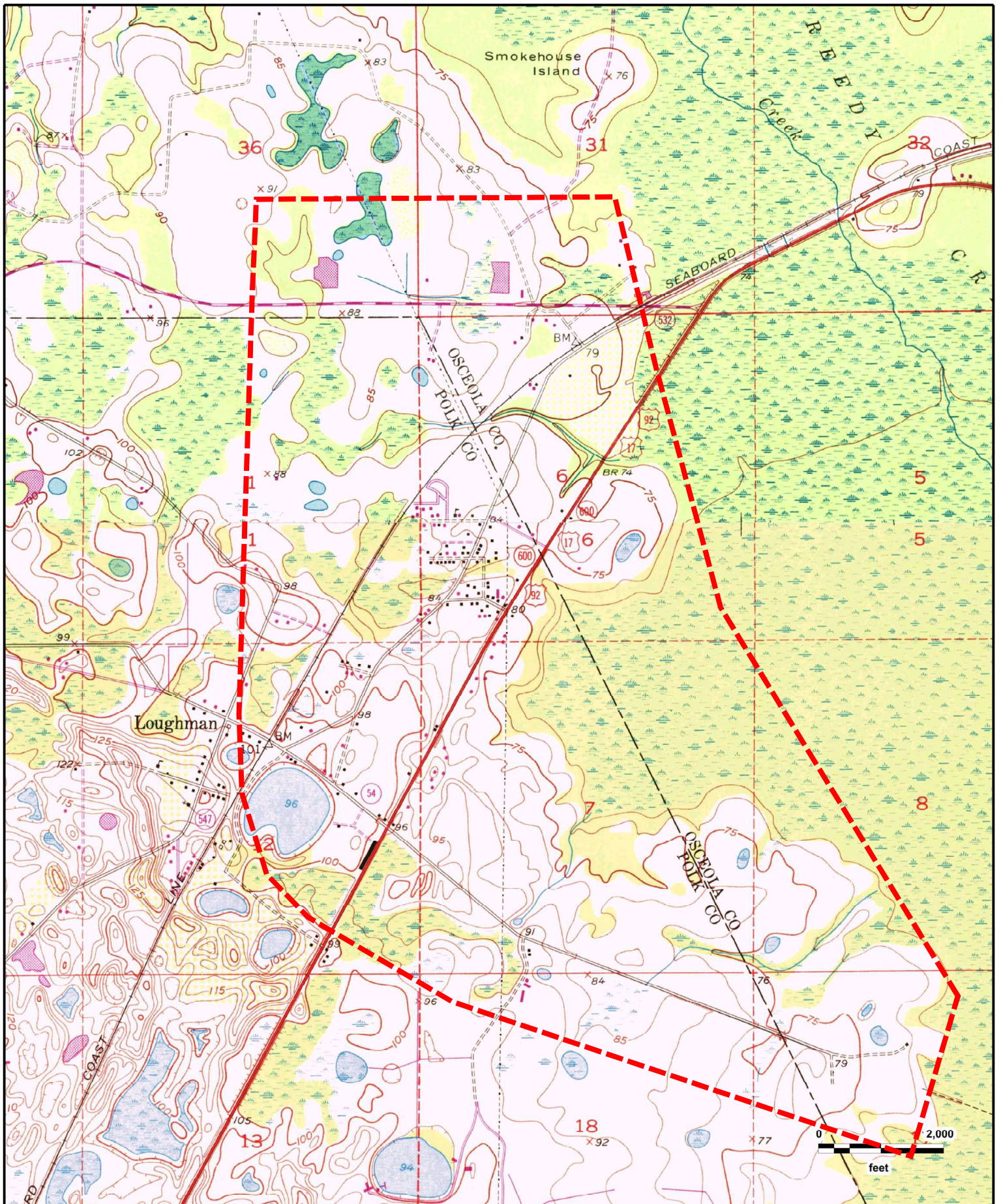
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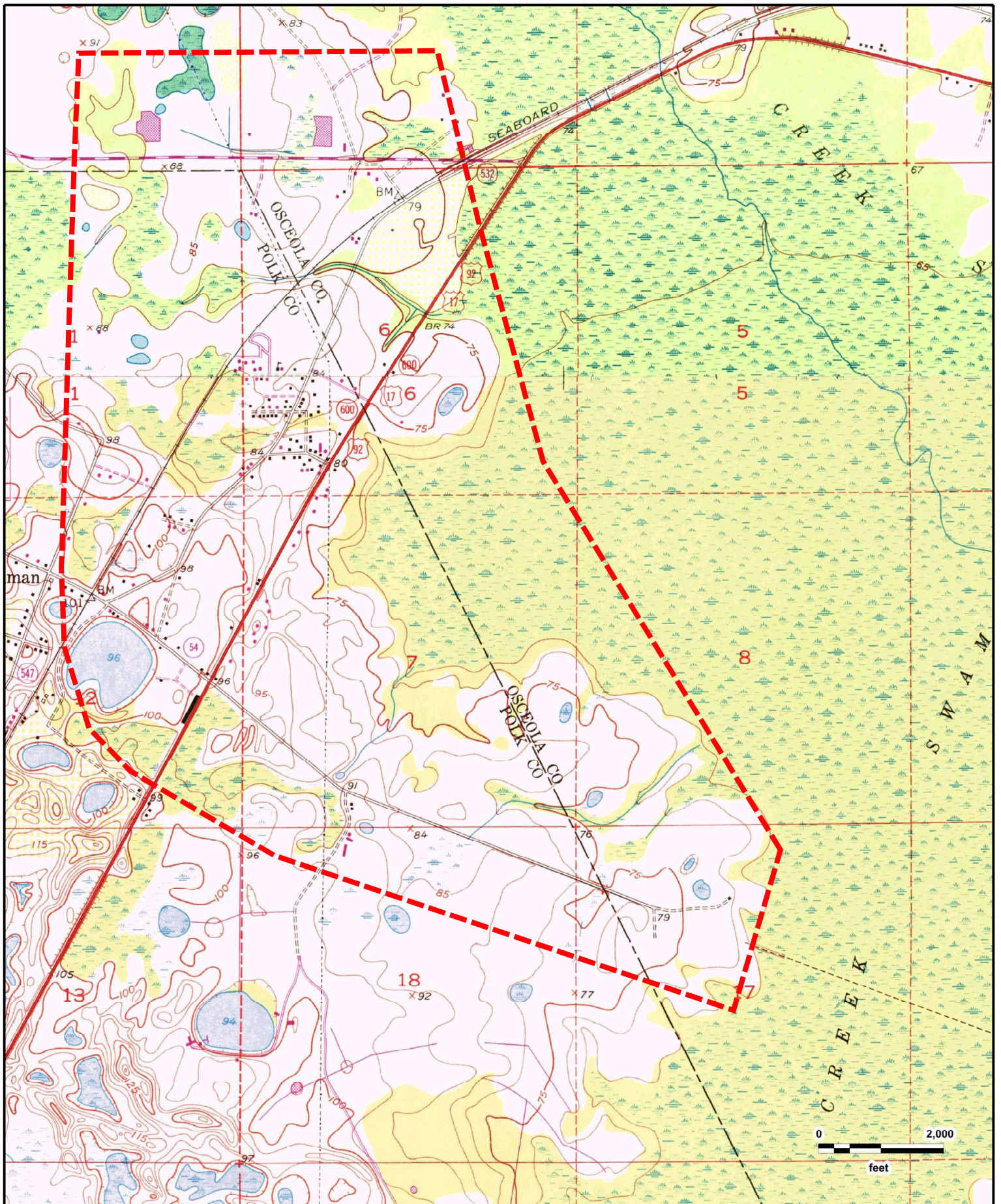
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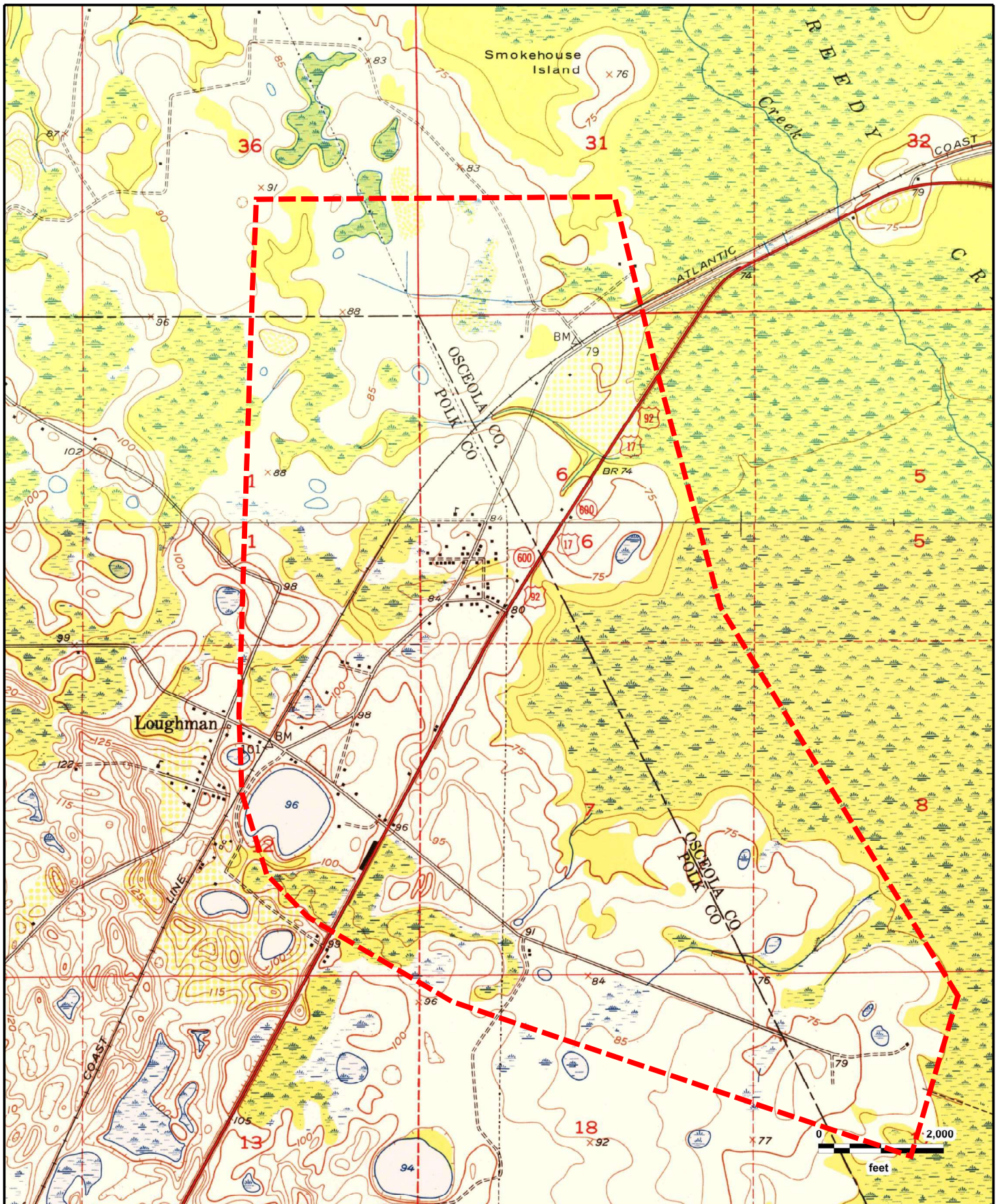
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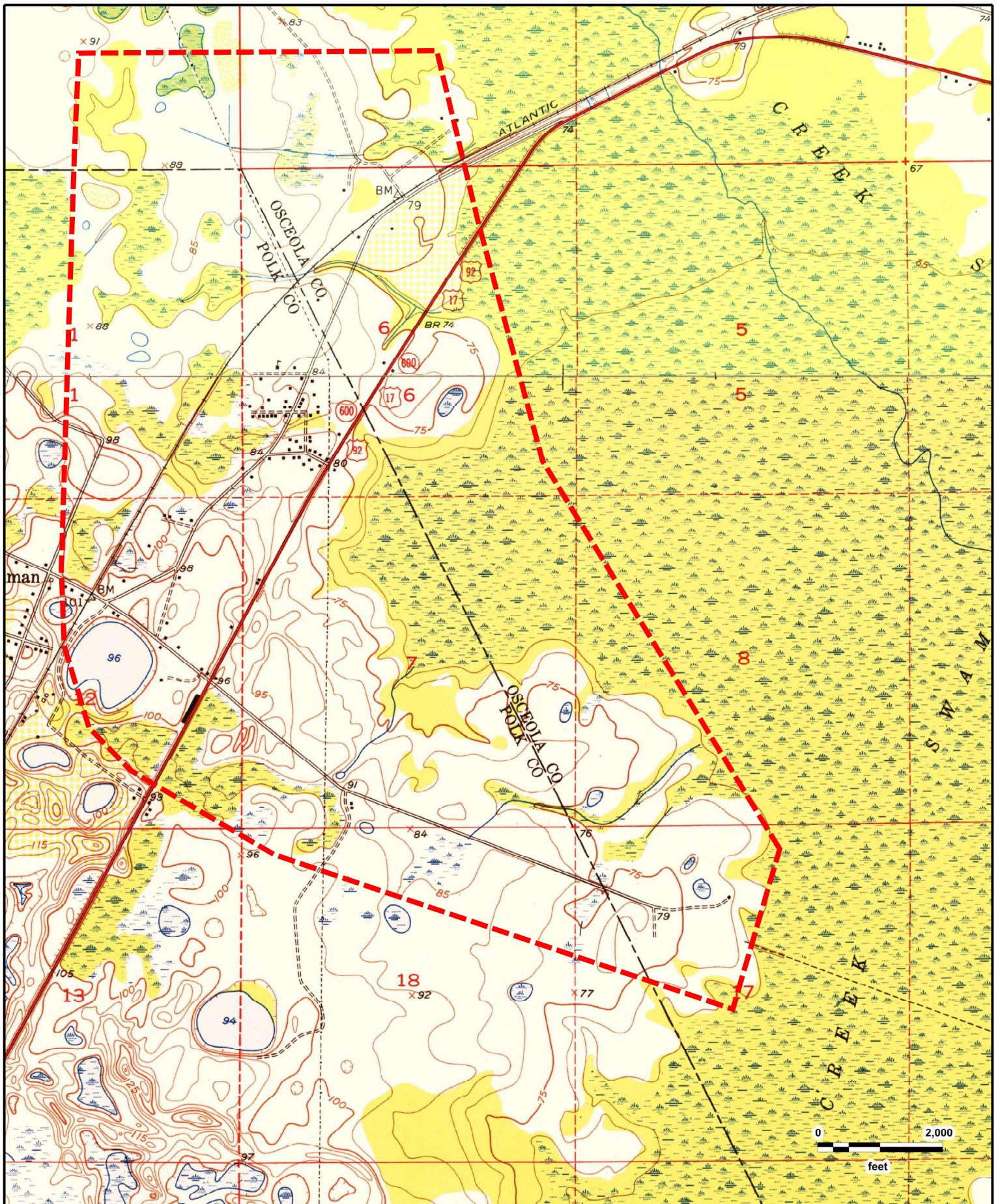
CFX Poinciana Pkwy Extension
 Intercession City, FL (1970), Davenport, FL (1970)





CFX Poinciana Pkwy Extension
 Intercession City, FL (1953), Davenport, FL (1953)





CFX Poinciana Pkwy Extension
 Intercession City, FL (1953), Davenport, FL (1953)



APPENDIX B

OCULUS Files

EZ Food Store #1



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

August 24, 2012

CERTIFIED MAIL #7011 2970 0004 1178 7834
RETURN RECEIPT REQUESTED

Ms. Jayne Davis
Co-Operative Enterprises, Inc.
620 Dundee Road
Dundee, Florida 33838

Subject: Site Rehabilitation Completion Order
EZ Food Store #1
5945 U.S. Highway 17-92 North
Davenport, Polk County
FDEP Facility ID# 538736165
Discharge Date: April 20, 1988 (EDI)
Discharge Score: 46

Dear Ms. Davis:

The Polk County Health Department Petroleum Cleanup Program (PCHDPCP), on behalf of the Florida Department of Environmental Protection (Department), has reviewed the Remedial Action Interim Report (RAI Report) dated February 14, 2012 (received February 16, 2012) and No Further Action Proposal (NFAP) dated March 16, 2012 (received March 21, 2012), and the Well Abandonment Report dated May 29, 2012 (received May 31, 2012), prepared and submitted by Advanced Environmental Technologies, LLC for the petroleum product discharge referenced above. Documentation submitted with the RAI Report/NFAP confirms that criteria set forth in Subsection 62-770.680(1) Florida Administrative Code (F.A.C.), have been met. Please refer to the attached map of the source property and analytical summary table. The RAI Report/NFAP is hereby incorporated by reference in this Site Rehabilitation Completion Order (Order). Therefore, you are released from any further obligation to conduct site rehabilitation at the facility for petroleum product contamination associated with the discharge referenced above, except as set forth below.

In the event concentrations of petroleum products' contaminants of concern increase above the levels approved in this Order, or if a subsequent discharge of petroleum or

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petroleum product occurs at the facility, the Department may require site rehabilitation to reduce concentrations of petroleum products' contaminants of concern to the levels approved in the RAI Report/NFAP or otherwise allowed by Chapter 62-770, F.A.C.

Legal Issues

The Department's Order shall become final unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, Florida Statutes (F.S.), within 21 days of receipt of this Order. The procedures for petitioning for an administrative hearing are set forth below.

Persons affected by this Order have the following options:

- (A) If you choose to accept the Department's decision regarding the RAI Report/NFAP you do not have to do anything. This Order is final and effective on the date filed with the Clerk of the Department, which is indicated on the last page of this Order.
- (B) If you choose to challenge the decision, you may do the following:
 - (1) File a request for an extension of time to file a petition for an administrative hearing with the Department's Agency Clerk in the Office of General Counsel within 21 days of receipt of this Order; such a request should be made if you wish to meet with the Department in an attempt to informally resolve any disputes without first filing a petition for an administrative hearing; or
 - (2) File a petition for an administrative hearing with the Department's Agency Clerk in the Office of General Counsel within 21 days of receipt of this Order.

Please be advised that mediation of this decision pursuant to Section 120.573, F.S., is not available.

How to Request an Extension of Time to File a Petition for an Administrative Hearing

For good cause shown, pursuant to Subsection 62-110.106(4), F.A.C., the Department may grant a request for an extension of time to file a petition for an administrative hearing. Such a request must be filed (received) by the Department's Agency Clerk in the Office of General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000, within 21 days of receipt of this Order. Petitioner, if

different from Co-Operative Enterprises, Inc., shall mail a copy of the request to Co-Operative Enterprises, Inc. at the time of filing. Timely filing a request for an extension of time tolls the time period within which a petition for an administrative hearing must be made.

How to File a Petition for an Administrative Hearing

A person whose substantial interests are affected by this Order may petition for an administrative hearing under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) by the Department's Agency Clerk in the Office of General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000, within 21 days of receipt of this Order. Petitioner, if different from Co-Operative Enterprises, Inc., shall mail a copy of the petition to Co-Operative Enterprises, Inc. at the time of filing. Failure to file a petition within this time period shall waive the right of anyone who may request an administrative hearing under Sections 120.569 and 120.57, F.S.

Pursuant to Subsection 120.569(2), F.S. and Rule 28-106.201, F.A.C., a petition for an administrative hearing shall contain the following information:

- (a) The name, address, and telephone number of each petitioner; the name, address, and telephone number of the petitioner's representative, if any; the facility owner's name and address, if different from the petitioner; the FDEP facility number, and the name and address of the facility;
- (b) A statement of when and how each petitioner received notice of the Department's action or proposed action;
- (c) An explanation of how each petitioner's substantial interests are or will be affected by the Department's action or proposed action;
- (d) A statement of the disputed issues of material fact, or a statement that there are no disputed facts;
- (e) A statement of the ultimate facts alleged, including a statement of the specific facts the petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the Department's action or proposed action; and

- (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the Department to take with respect to the Department's action or proposed action.

This Order is final and effective on the date filed with the Clerk of the Department, which is indicated on the last page of this Order. Timely filing a petition for an administrative hearing postpones the date this Order takes effect until the Department issues either a final order pursuant to an administrative hearing or an Order Responding to Supplemental Information provided to the Department pursuant to meetings with the Department.

Judicial Review

Any party to this Order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the Department's Agency Clerk in the Office of General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days after this Order is filed with the Department's clerk (see below).

Questions

Any questions regarding the PCHDPCP's review of your RAI Report/NFAP should be directed to George A. Sinback at (863) 413-3325 ext 18109. Questions regarding legal issues should be referred to the Department's Office of General Counsel at (850) 245-2242. Contact with any of the above does not constitute a petition for an administrative hearing or a request for an extension of time to file a petition for an administrative hearing.

Ms. Jayne Davis
FDEP Facility ID# 538736165
Page 5
August 24, 2012

The FDEP Facility Number for this facility is 538736165. Please use this identification on all future correspondence with the Department or the PCHDPCP.

Sincerely,

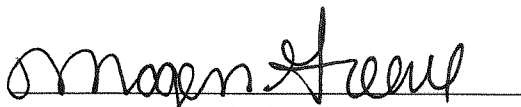


Robert C. Brown, P.E.
Chief, Bureau of Petroleum Storage Systems

RCB/gas

ec: Laurel Culbreth, FDEP Southwest District Office - Laurel.Culbreth@dep.state.fl.us
George Sinback, PCHDPCP, George_Sinback@doh.state.fl.us
Gerald Robinson, P.E., Advanced Environmental Technologies, LLC,
grobinsom@aetllc.com]
David Arnold, Southwest Florida Water Management District -
davidn.arnold@watermatters.org
FDEP File

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to
§120.52 Florida Statutes, with the
designated Department Clerk, receipt
of which is hereby acknowledged.


Clerk
(or Deputy Clerk)

8-28-12
Date


P.E. CERTIFICATION

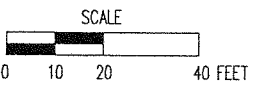
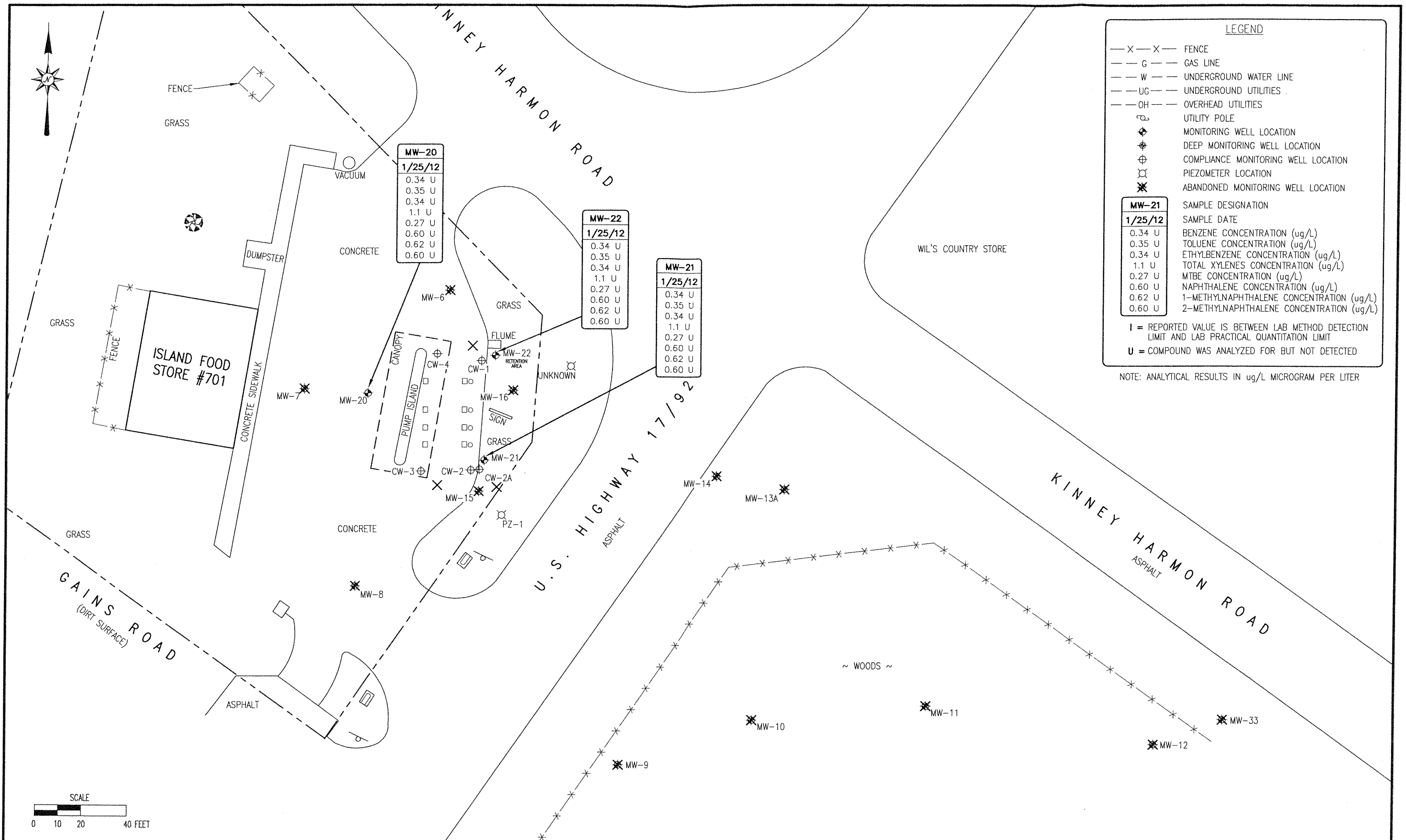
Remedial Action Interim Report dated February 14, 2012 (received February 16, 2012), No Further Action Proposal dated March 16, 2012 (received March 21, 2012), and Monitoring Well Abandonment Report dated May 29, 2012 (received May 31, 2012) for EZ Food Store #1, located at 5945 U.S. Highway 17-92 North, Davenport, Polk County, FDEP Facility ID# 538736165 prepared and submitted by Advanced Environmental Technologies, LLC.

I hereby certify that in my professional judgment, the components of the documents referenced above prepared for the April 20, 1988 petroleum product discharge discovered at the above-referenced facility satisfy the requirements set forth in Chapter 62-770, Florida Administrative Code (F.A.C.), and that the conclusions in this report on the effectiveness of the remedial action which has been conducted (confirmed by subsequent Post Active Remediation Monitoring) provide reasonable assurances that the site rehabilitation objectives stated in Chapter 62-770, F.A.C., have been met.

I personally completed this review.

This review was conducted by George A. Sinback working under my direct supervision.


Richard A. Spaulding, P.E.
Professional Engineer # 58180
Polk County Health Department
6/14/12
Date



ISLAND FOOD STORE No. 701
 5945 U.S. HIGHWAY 17-92 NORTH
 DAVENPORT, FLORIDA POLK COUNTY
 FDEP FAC. ID NO.: 53 8736165

GROUNDWATER ANALYTICAL MAP
 (JANUARY 25, 2012)

FIGURE
4
 PROJECT NO.
 22607.07

TABLE 3: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals

Facility ID#: 53/8736165

Facility Name: EZ Foods #1 (former Island Food Store #701)

See notes at end of table.

Sample		Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total VOAs	MTBE	EDB	1,2-Di-chloro-ethane	Total Arsenic	Total Cadmium	Total Chromium	Total Lead
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(%)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
CW-1	3/13/1991	<30	360	140	47	2200	<45						7
	8/4/1993	<0.6	<1.0	4.30	59	63	<5.0						
	11/12/1997	<1.0	<1.0	<1.0	<1.0	BDL	<10						
	3/11/1999	<0.5	<0.5	<0.5	<0.5	BDL	<.05						
	12/8/2000	<1.0	<1.0	<1.0	BDL	BDL	<1.0						
	10/3/2002	<1.0	<1.0	<1.0	<3.0	BDL	<1.0						
	1/25/2005	<1.0	<1.0	3	38.0	41	<1.0						
CW-2	3/13/1991	3700	24000	2700	16000	46400	<900						21
	8/4/1993	2400	36000	2300	13000	53700	<2500						
	5/2/1996	<10	800	360	1600	2760	<100						
	11/12/1997	<100	5700	4400	24000	34100	<1000						
	3/11/1999	19	12	680	4870	5581	20						20
	3/11/1999	16	14	600	4950	5580	29						
	11/12/1999	<100	3400	3400	21600	12700	<100						
	1/28/2000	<100	<100	1300	11400	12700	<100						
	12/8/2000	<50	120	150	4100	4370	450						
	8/30/2001	520	5100	3700	24700	34020	11000						
	7/12/2002	300	2000	1500	10000	13800	2200						
	10/3/2002												
	1/25/2005												
1/9/2006	<0.32	<0.30	<0.36	<1.36		<0.46							
CW-2A	7/12/2002	280	2700	1100	9300	13380	14000						
	10/3/2002	<500	740	1600	12000	14340	200						
	11/12/2003	4.1	52	1800	13000	14856.1	<1						
	1/25/2005	<2.5	4.3	160	1300	1465	<2.5						<5
	1/9/2006	<0.32	<0.30	<0.36	<1.36		<0.46						
	4/19/2006	<0.32	0.41 I V	<0.36	<1.36	0.41	<0.46						
	10/18/2006	<0.88	<0.44	<0.43	<1.27	<3.02	<0.2						
	1/25/2007	<0.88	<0.44	<0.43	<1.27	<3.02	<0.20						
	4/26/2007	0.88 U	0.44 U	0.43 U	1.27 U	3.02 U	0.20 U						
7/12/2007	0.88 U	0.44 U	0.43 U	1.27 U	3.02 U	0.32 I							
CW-3	3/13/1991	220	2500	420	3200	6340	<90						25
	8/4/1993	<6.0	970	720	5500	7190	<50						
	11/12/1997	<1.0	<1.0	14	140	154	<10						
	3/11/1999	0.64	1.4	<0.5	4.82	6.86	<0.5						78
	11/12/1999	<1.0	<1.0	3	24.6	28.0	<1.0						
	1/28/2000	<1.0	<1.0	1.2	21	22.2	<1.0						
	12/8/2000	<1.0	<1.0	<1.0	3.1	3.10	<1.0						
	8/30/2001	<1.0	4.6	3.4	36	44.0	11						
	7/12/2002	<1	0.4	<1	1	1.4	<1						
	10/3/2002	<1	<1	<1	2	2	<1						
	11/12/2003	<1	<1	<1	<1	<1	<1						
	1/26/2005	<1.0	<1.0	<1.0	1.2	1.2	<1.0						<5.0
CW-4	3/13/1991	1.7	3.4	4.6	47	56.7	<0.9						22
	8/4/1993	<0.6	<1.0	<0.98	<0.9	<1.0	<5.0						
	8/2/1996	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
	3/11/1999	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5						16
	12/8/2000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
	10/3/2002	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
	1/25/2005	<1.0	<1.0	1.8	24	26	<1.0						<5

TABLE 3: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals

Facility ID#: 53/8736165

Facility Name: EZ Foods #1 (former Island Food Store #701)

See notes at end of table.

Sample		Benzene	Toluene	Ethylbenzene	Total Xylenes	Total VOAs	MTBE	EDB	1,2-Dichloroethane	Total Arsenic	Total Cadmium	Total Chromium	Total Lead
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(%)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-5D	3/13/1991	<0.6	<1.0	<0.9	<0.9	<1.0	<0.9						<5
	8/4/1993	<0.6	<1.0	<0.9	<0.9	<1.0	<2500						
	5/2/1996	<1.0	<1.0	<1.0	<1.0	<1.0	<10						
	3/11/1999	<.05	<.05	<.05	<.05	<1.0	<1000						
	10/3/2002	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
MW-6 DUP-2	3/13/1991	<0.6	<1.0	<0.9	<0.9	<1.0	<0.9						5
	8/4/1993	<0.6	<1.0	<0.9	<0.9	<1.0	<5.0						
	5/2/1996	<1.0	<1.0	<1.0	<3.0	<1.0	<10						
	3/11/2012	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5						
	3/11/1999	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5						
	10/3/2002	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
	10/20/2005	<0.32	<0.30	<0.36	<1.36		<0.46						
	4/19/2006	<0.32	<0.30	<0.36	<1.36	<2.34	<0.46						
7/12/2007	0.88 U	0.44 U	0.43 U	1.27 U	3.02 U	0.20 U							
MW-7	3/13/1991	<0.6	<1.0	<0.9	<0.9	<1.0	<0.9						5
	8/4/1993	<0.6	<1.0	<0.9	<0.9	<1.0	<5.0						
	5/2/1996	<1.0	<1.0	<1.0	<3.0	<1.0	<10						
	3/11/1999	<0.5	<0.5	<0.5	<1.5	<1.0	<0.5						
	10/3/2002	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
	1/25/2005	<5	<5	170	1500	1670	<1.0						<5
	10/20/2005	<0.32	<0.30	<0.36	<1.36		<0.46						
	4/19/2006	0.49 I	1.4 V	<0.36	<1.36	1.89	<0.46						
7/12/2007	0.88 U	0.44 U	0.43 U	1.27 U	3.02 U	0.20 U							
MW-8	3/13/1991	<0.6	<1.0	<0.9	<0.9	<1.0	<0.9						8
	8/4/1993	<0.6	<1.0	<0.9	<0.9	<1.0	<5.0						
	5/2/1996	<1.0	<1.0	<1.0	<3.0	<1.0	<10						
	3/11/1999	<0.5	<0.5	<0.5	<1.5	<1.0	<0.5						
	10/3/2002	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
	1/25/2005	<5	<5	160	1400	1560	<5						<5
	10/20/2005	<0.32	<0.30	<0.36	<1.36		<0.46						
	4/19/2006	0.65 I	1.9 V	<0.36	<1.36	2.55	<0.46						
7/12/2007	0.88 U	0.44 U	0.43 U	1.27 U	3.02 U	0.20 U							
MW-9	3/13/1991	<0.6	<1.0	<0.9	47	<1.0	33						10
	8/4/1993	42	<1.0	1.1	1.2	44.3	28						
	5/2/1996	3.2	<1.0	3.9	13	20.1	<10						
	11/12/1997	<1.0	<1.0	<1.0	<1.0	<1.0	<10						
	3/11/1999	<0.5	<0.5	1.9	2.98	4.88	28						
	8/30/2001	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
	10/3/2002	<1.0	<1.0	<1.0	<3.0	<1.0	9.5						
	4/19/2006	0.34 I	1.2 V	<0.36	<1.36	1.54	<0.46						
MW-10	3/13/1991	<0.6	<1.0	<0.9	<0.9	<1.0	<250						6
	8/4/1993	1.6	<1.0	<0.9	<0.9	1.6	<5.0						
	5/2/1996	2.7	<1.0	<1.0	<1.0	2.7	<1000						
	3/11/1999	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5						
	12/8/2000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
	10/3/2002	12	23	52	440	527	310						
	11/12/2003	2.9	<1.0	4.4	4.0	11.3	31						
7/12/2007	0.88 U	0.44 U	0.43 U	1.27 U	3.02 U	0.20 U							
MW-11	3/13/1991	1.1	<1.0	<0.9	<0.9	1.1	34						
	8/4/1993	<0.6	<1.0	<0.9	<0.9	<1.0	<5.0						
	8/6/1996	<1.0	<1.0	<1.0	<1.0	<1.0	<10						
	11/12/1997	<1.0	<1.0	<1.0	<1.0	<1.0	<10						
	10/3/2002	<20	<20	<20	<60	<1.0	320						
11/12/2003	<1.0	<1.0	4	9.9	13.9	22							

TABLE 3: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals

Facility ID#: 53/8736165

Facility Name: EZ Foods #1 (former Island Food Store #701)

See notes at end of table.

Sample		Benzene	Toluene	Ethylbenzene	Total Xylenes	Total VOAs	MTBE	EDB	1,2-Dichloroethane	Total Arsenic	Total Cadmium	Total Chromium	Total Lead
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(%)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-13A	8/6/1996	<5.0	6.4	88	500	594.4	<50						
	8/23/1996	<5.0	<5.0	170	730	900	<50						
	11/12/1997	<1.0	<1.0	<1.0	<1.0	<1.0	<10						
	3/11/1999	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5						
	10/3/2002	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0						
	1/26/2005	<1	<1	<1	1.1	1.1	<1						<5
MW-15	8/22/2005	<0.32	0.34	0.57	<1.36		<0.46						
	10/20/2005	<0.32	<0.30	<0.36	<1.36		<0.46						
	1/9/2006	<0.32	<0.30	0.39	<1.36		<0.46						
	4/19/2006	0.85 I	2.5 V	<0.36	<1.36	3.35	<0.46						
	10/18/2006	<0.88	<0.44	<0.43	0.92 I	0.92	<0.20						
	1/25/2007	<0.88	<0.44	<0.43	1.27 U	3.02 U	0.20 U						
	4/26/2007	0.88 U	0.44 U	0.43 U	1.27 U	3.02 U	0.20 U						
	7/12/2007	0.88 U	0.44 U	0.43 U	1.27 U	3.02 U	0.20 U						
MW-16	8/22/2005	<0.32	0.34	0.57	<1.36		<0.46						
	10/20/2005	<0.32	<0.30	<0.36	<1.36		<0.46						
	1/9/2006	<0.32	<0.30	0.39	<1.36		<0.46						
	4/19/2006	<0.32	<0.30	<0.36	<1.36	<2.34	<0.46						
	10/18/2006	<0.88	<0.44	<0.43	<1.27	<3.02	<0.20						
	1/25/2007	<0.88	<0.44	<0.43	<1.27	<3.02	<0.20						
	4/26/2007	0.88 U	0.44 U	0.43 U	1.27 U	3.02 U	0.20 U						
	7/12/2007	0.88 U	0.44 U	0.43 U	1.27 U	3.02 U	0.20 U						
MW-20	1/25/2012	0.34 U	0.35 U	0.34 U	1.1 U	1.1 U	0.27 U						2.8 U
MW-21	1/25/2012	0.34 U	0.35 U	0.34 U	1.1 U	1.1 U	0.27 U						2.8 U
MW-22	1/25/2012	0.34 U	0.35 U	0.34 U	1.1 U	1.1 U	0.27 U						2.8 U
MW-33	8/6/1996	66	14	1.6	30.0	99.0	<10						
	11/12/1997	13	<1.0	<1.0	19	32	<10						
	8/30/2001	DESTROYED											
GCTLs		1**	40**	30**	20**	NA	20	0.02**	3**	10**	5**	100**	15**
NADCs		100	400	300	200	NA	200	2	300	100	50	1,000	150

Notes: NA = Not Available.
 NS = Not Sampled.
 GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C.
 NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C.
 ** = As provided in Chapter 62-550, F.A.C.
 U = Compound was analyzed for but not detected.

If an analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].
 Freshwater Surface Water (FSW), Marine Surface Water (MSW) and Groundwater of Low Yield/Poor Quality (LY/PQ) CTLs should be added to the base of the table as applicable.

TABLE 3: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs and TRPHs

See notes at end of table.

Facility ID#: 53/8736165 Facility Name: EZ Foods #1 (former Island Food Store #701)

Location	Sample	Date	TRPHs (µg/L)	Naphthalene (µg/L)	1-Methyl- naphthalene (µg/L)	2-Methyl- naphthalene (µg/L)	Acenaphthene (µg/L)	Acenaphthylene (µg/L)	Anthracene (µg/L)	Benzo (g,h,i,l) perylene (µg/L)	Fluoranthene (µg/L)	Fluorene (µg/L)	Phenanthrene (µg/L)	Pyrene (µg/L)	Benzo (e) pyrene (µg/L)	Benzo (a) anthracene (µg/L)	Benzo (b) fluoranthene (µg/L)	Benzo (k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz (a,h) anthracene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)
CW-1		3/13/1991																			
		8/4/1993																			
		11/12/1997																			
		3/11/1999																			
		12/8/2000		<2.2	<1.7	<1.7	<1.7														
		10/3/2002		<2.2	<1.7	<1.7															
CW-2		1/25/2005		6.2	<5.0	<5.0															
		3/13/1991																			
		8/4/1993																			
		5/2/1996																			
		11/12/1997																			
		3/11/1999																			
		11/12/1999																			
		1/28/2000		1100																	
		12/8/2000		1000																	
		8/30/2001		62	17	32															
CW-2A		7/12/2002		660	120	240															
		10/3/2002																			
		1/25/2005		<0.36	<0.26	<0.24															
		7/12/2002																			
		10/3/2002																			
		1/25/2005																			
		7/12/2002																			
		10/3/2002																			
		1/25/2005																			
	CW-3		7/12/2002		<2.0	<1.5	>1.5														
		10/3/2002		820	170	280															
		11/12/2003		234	45	80															
		1/25/2005		163	59	95															
		1/9/2006		<0.36	<0.26	<0.24															
		4/19/2006		<0.36	<0.26	<0.24															
		10/18/2006		<0.43	<0.75	<0.45															
		1/25/2007																			
		4/26/2007		<0.43 U	0.75 U	0.45 U															
		7/12/2007		<0.43 U	0.75 U	0.45 U															
CW-3		3/13/1991																			
		8/4/1993																			
		11/12/1997																			
		3/11/1999																			
		11/12/1999		80																	
		1/28/2000		13																	
		12/8/2000		<2.2	<1.6	<1.6															
		8/30/2001																			
		7/12/2002		820	220	370															
		10/3/2002		3.7	<1.6	<1.6															
	11/12/2003		<1	<1	<1																
	1/26/2005		<5	<5	<5																

TABLE 3: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs and TRPHs

Facility ID#: 53/8736165 Facility Name: EZ Foods #1 (former Island Food Store #701) See notes at end of table.

Location	Sample Date	TRPHs (µg/L)	Naphthalene (µg/L)	1-Methylnaphthalene (µg/L)	2-Methylnaphthalene (µg/L)	Acenaphthene (µg/L)	Acenaphthylene (µg/L)	Anthracene (µg/L)	Benzo (g,h,i)perylene (µg/L)	Fluoranthene (µg/L)	Fluorene (µg/L)	Phenanthrene (µg/L)	Pyrene (µg/L)	Benzo (a)pyrene (µg/L)	Benzo (a)anthracene (µg/L)	Benzo (b)fluoranthene (µg/L)	Benzo (k)fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz (a,h)anthracene (µg/L)	Indeno (1,2,3-cd)pyrene (µg/L)	
CW-4	3/13/1991																				
	8/4/1993																				
	8/2/1996																				
	3/11/1999																				
	12/8/2000		<2.2	<1.6	<1.6																
10/3/2002		<2.4	<1.8	<1.8																	
1/25/2005		6	<5	<5																	
MW-5D	3/13/1991																				
	8/4/1993																				
	5/2/1996																				
	3/11/1999																				
	10/3/2002		<2.4	<1.8	<1.8																
MW-6 DUP-2	3/13/1991																				
	8/4/1993																				
	5/2/1996																				
	3/11/2012																				
	3/11/1999																				
	10/3/2002		2	<1.6	<1.6																
	10/20/2005		NS	NS	NS																
4/19/2006		<0.36	<0.26	<0.24																	
7/12/2007		0.43 U	0.75 U	0.45 U																	
MW-7	3/13/1991																				
	8/4/1993																				
	5/2/1996																				
	3/11/1999																				
	10/3/2002		<2.2	<1.7	<1.7																
	1/25/2005		NS	NS	NS																
	10/20/2005		<0.36	<0.26	<0.24																
4/19/2006		<0.36	<0.26	<0.24																	
7/12/2007		0.43 U	0.75 U	0.45 U																	
MW-8	3/13/1991																				
	8/4/1993																				
	5/2/1996																				
	3/11/1999																				
	10/3/2002		2.8	<1.6	<1.6																
	1/25/2005		214	64	107																
	10/20/2005		<0.36	<0.26	<0.24																
4/19/2006		<0.36	<0.26	<0.24																	
7/12/2007		0.43 U	0.75 U	0.45 U																	

TABLE 3: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs and TRPHs

Facility ID#: 53/8736165 Facility Name: EZ Foods #1 (former Island Food Store #701) See notes at end of table.

Location	Sample Date	TRPHs (µg/L)	Naphthalene (µg/L)	1-Methyl-naphthalene (µg/L)	2-Methylnaphthalene (µg/L)	Acenaphthene (µg/L)	Acenaphthylene (µg/L)	Anthracene (µg/L)	Benzo (g,h,i)perylene (µg/L)	Fluoranthene (µg/L)	Phenanthrene (µg/L)	Pyrene (µg/L)	Benzo (a)pyrene (µg/L)	Benzo (e)anthracene (µg/L)	Benzo (b)fluoranthene (µg/L)	Benzo (k)fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz (a,h)anthracene (µg/L)	Indeno (1,2,3-cd)pyrene (µg/L)	
MW-9	3/13/1991																			
	8/4/1993																			
	5/2/1996																			
	11/12/1997																			
	3/11/1999																			
	8/30/2001																			
MW-10	10/3/2002		<2.2	<1.7	<1.7															
	4/19/2006		<0.36	<0.26	<0.24															
	3/13/1991																			
	8/4/1993																			
	5/2/1996																			
MW-11	3/11/1999																			
	12/8/2000		<4.0	<3.0	<3.0															
	10/3/2002		<2.1	<1.6	<1.6															
	11/12/2003		<1.0	<1.0	<1.0															
	7/12/2007		0.43 U	0.75 U	0.45 U															
MW-13A	3/13/1991																			
	8/4/1993																			
	8/6/1996																			
	11/12/1997																			
	10/3/2002		1	<1.6	<1.6															
	11/12/2003		<1.0	<1.0	<1.0															
MW-15	8/6/1996																			
	8/23/1996																			
	11/12/1997																			
	3/11/1999																			
	10/3/2002		<2.2	<1.7	<1.7															
	1/26/2005		<5	<5	<5															
MW-15	8/22/2005		<0.36	<0.26	<0.24															
	10/20/2005		<0.36	<0.26	<0.24															
	1/9/2006		<0.36	<0.26	<0.24															
	4/19/2006		<0.36	<0.26	<0.24															
	10/18/2006		0.44 U	<0.75	<0.45															
	1/25/2007		<0.43 U	0.75 U	<0.45															
4/26/2007		<0.43 U	0.75 U	<0.45																
7/12/2007																				

TABLE 3: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs and TRPHs

Facility ID#: 53/8736165 Facility Name: EZ Foods #1 (former Island Food Store #701) See notes at end of table.

Location	Sample	Date	TRPHs (µg/L)	Naph- thalene (µg/L)	1-Methyl- naph- thalene (µg/L)	2-Methyl- naph- thalene (µg/L)	Acen- aph- thylene (µg/L)	Acen- aph- thene (µg/L)	Anthra- cene (µg/L)	Benzo (g,h,i) pery- lene (µg/L)	Fluoran- thene (µg/L)	Fluor- ene (µg/L)	Phenan- threne (µg/L)	Pyrene (µg/L)	Benzo (a) pyrene (µg/L)	Benzo (a) anthra- cene (µg/L)	Benzo (b) fluoran- thene (µg/L)	Benzo (k) fluoran- thene (µg/L)	Chry- sene (µg/L)	Dibenz (e,h) anthra- cene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)	
MW-16		8/22/2005		<0.36	<0.26	<0.24																
		10/20/2005		<0.36	<0.26	<0.24																
		1/9/2006		<0.36	<0.26	<0.24																
		4/19/2006		<0.36	<0.26	<0.24																
		10/19/2006		<0.43	<0.75	<0.45																
		1/25/2007																				
		4/26/2007			<0.43 U	0.75 U	<0.45															
	7/12/2007			<0.43 U	0.75 U	<0.45																
MW-20		1/25/2012	64 U	0.60 U	0.62 U	0.60 U	0.38 U	0.56 U	0.51 U	0.51 U	0.51 U	0.44 U	0.45 U	0.51 U	0.076 U	0.15 U	0.036 U	0.066 U	0.49 U	0.041 U	0.046 U	
		1/25/2012		0.60 U	0.62 U	0.60 U	0.38 U	0.58 U	0.51 U	0.51 U	0.51 U	0.44 U	0.45 U	0.51 U	0.076 U	0.15 U	0.036 U	0.066 U	0.49 U	0.041 U	0.046 U	
MW-21		1/25/2012	64 U	0.60 U	0.62 U	0.60 U	0.38 U	0.56 U	0.51 U	0.51 U	0.51 U	0.44 U	0.45 U	0.51 U	0.076 U	0.15 U	0.036 U	0.066 U	0.49 U	0.041 U	0.046 U	
		1/25/2012		0.60 U	0.62 U	0.60 U	0.38 U	0.56 U	0.51 U	0.51 U	0.51 U	0.44 U	0.45 U	0.51 U	0.076 U	0.15 U	0.036 U	0.066 U	0.49 U	0.041 U	0.046 U	
MW-33		8/6/1996																				
		11/12/1997																				
		8/30/2001																				
	GCTLs		5,000	14	28	28	20	210	2,100	210	280	280	210	210	0.2**	0.05*	0.05*	0.5	4.8	0.005*	0.05*	
	NADCs		50,000	140	280	280	200	2,100	21,000	2,100	2,800	2,800	2,100	2,100	20	5	5	50	480	0.5	5	

Notes:
 NA = Not Available.
 NS = Not Sampled.
 GCTLs = Groundwater Cleanup Target Levels specified in Table 1 of Chapter 62-777, F.A.C.
 NADCs = Natural Attenuation Default Source Concentrations specified in Table Y of Chapter 62-777, F.A.C.
 ** = As provided in Chapter 62-550, F.A.C.
 * = See the October 12, 2004 "Guidance for the Selection of Analytical Methods and for the Evaluation of Practical Quantitation Limits" to determine how to evaluate data when the CTL is lower than the PQL.
 U = Compound was analyzed for but not detected.
 If an analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].
 Freshwater Surface Water (FSW), Marine Surface Water (MSW) and Groundwater of Low Yield/Poor Quality (L/Y/PQ) CTLs should be added to the base of the table as applicable.

Florida Department of Environmental Protection
Bureau of Petroleum Storage Systems
Storage Tank/Contaminated Facility
Name & Address Search


Facility ID#: 8736165

Name: Ez Food Store #1

5945 Hwy 17-92 N

Davenport, FL 33857

Contact: Brian Patel

Phone: 863-651-2408 

District: SWD

County: 53 - Polk

Type: A-Retail Station

Status: Open

Latitude: 28:14:13.0000

Longitude: 81:33:34.0000

LL Method: DPHO-Autonomous GPS

Account Owner: Shri Ramji Llc

Tank #	Size	Content	Installed	Placement	Status	Construction	Piping	Monitoring
5	20000	Vehicular Diesel	05/01/2009	UNDER	In Service	A - Ball Check Valve C - Steel L - Compartmented M - Spill Containment Bucket O - Tight Fill P - Level Gauges/Alarms R - Double Wall - Tank Jacket	C - Fiberglass F - Double Wall J - Pressurized Piping System K - Dispenser Liners	1 - Continuous Electronic Sensing 2 - Visual Inspect Pipe Sumps 4 - Visual Inspect Dispenser Liners F - Monitor Dbl Wall Tank Space H - Mechanical Line Leak Detector K - Monitor Dbl Wall Pipe Space
1	8000	Unleaded Gas	07/01/1987	UNDER	Removed from Site			
2	8000	Unleaded Gas	07/01/1987	UNDER	Removed from Site			
3	4000	Unleaded Gas	07/01/1987	UNDER	Removed from Site			
4	4000	Vehicular Diesel	07/01/1987	UNDER	Removed from Site			

***Note:

Construction, Piping, and Monitoring Info not shown for CLOSED tanks
(Status A: Closed in Place, B: Removed from the site).

Hart Storage



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

DER Form # 17-781.90029
 Form Title: Storage Tank Registration Form
 Issue Date: December 10, 1990
 DER Approval No. _____ (Filed in by DER)

02 JUL 14 PM 2:51

Storage Tank Registration Form

DATA ENTERED

Please Print or Type - Review Instructions Before Completing Form

STORAGE TANK REGULATION

1. DER Facility ID Number: NEW #539300807 2. Facility Type: A
3. New Registration New Owner Data Facility Revision Tank(s) Revision
4. County and Code of tank(s) location: POLK / 53

5. Facility Name: HART STORAGE FACILITY
 Tank(s) Address: 6004 HIGHWAY 17/92
 City/State/Zip: LOUGHMAN, FLORIDA 33858
 Contact Person: CHASE MADDOX Telephone: (813) 967-8791

6. Financial Responsibility Type: F.P.L.I.P.A.

7a. Tank(s) Owner: ROBERT H. HART & SONS, INC.
 Owner Mailing Address: P.O. BOX 592
 City/State/Zip: WINTER HAVEN, FLORIDA 33882-0592
 Contact Person: CHASE MADDOX Telephone: (813) 967-8791

7b. New Owner Signature/Change Date: _____ / ____/____

8. Location (optional) Latitude: 28°14'18" Longitude: 81°33'30" Section _____ Township _____ Range _____

Complete One Line For Each Tank At This Facility (Use Codes - See Instructions)

Complete 9 - 16 for tanks in use; 9 - 19 for tanks out of use

9	10	11	12	13	14	15	16	17	18	19
1	12,000	D	6/93	A	CK	NMJK	ZK	U		

20. ROBERT H. W. HART
 Certified Contractor*

DPR# PCC052639
 Department of Professional Regulation License Number*

*For new tank installation or tank removal

To the best of my knowledge and belief all information submitted on this form is true, accurate and complete.

ROBERT H.W. HART / PRESIDENT
 Print name & title of owner or authorized person

[Signature] 6-15-93
 Signature Date

Northwest District
 180 Governmental Center
 Pensacola, Florida 32501-5784
 904-436-8300

Northeast District
 7825 Barmesdowns Way, Suite B 200
 Jacksonville, Florida 32207
 904-798-4200

Central District
 3319 Maguire Blvd, Suite 232
 Orlando, Florida 32803-3707
 407-894-7555

Southwest District
 4520 Oak Fair Blvd.
 Tampa, Florida 33610-7347
 813-823-5681

South District
 2289 Bay St.
 Fort Myers, Florida 33901-2896
 813-332-8875

Southeast District
 1900 S. Congress Ave., Suite A
 West Palm Beach, Florida 33406
 407-433-2650

Loughman Service Center



January 8, 2019

Mr. Matthew Pabich, Environmental Specialist II
Florida Department of Health - Polk County
2090 E. Clower St.
Bartow, Florida 33830

Tel: (863) 578-2038
Email: matthew.pabich@flhealth.gov

**Re: Task 2 Deliverable – Pre-drilling Teleconference Notes
Loughman Service Center
6004 US Highway 17/92
Loughman, Polk County, Florida
FDEP Facility ID# 53/8624326
PO # B44B38**

Dear Mr. Pabich:

EnviroTrac Ltd. (EnviroTrac) is pleased to provide the Polk County Health Department (PCHD) with this Task 2 Deliverable for the completion of supplemental site assessment at the above referenced facility. These items were prepared in general accordance with the Attachment A: Scope of Work (SOW) issued with Purchase Order No. B44B38.

As part of the preparation of this deliverable, EnviroTrac completed a Pre-drilling Teleconference on January 8, 2019. The notes from the teleconference and a Communication Log are included in **Appendix A**.

If you have any questions or require additional information regarding this submittal, please feel free to contact the undersigned at (813) 626-8443 x.113 or kmiller@envirotrac.com.

Sincerely,
EnviroTrac Ltd.

A handwritten signature in blue ink, appearing to read "Kristi Miller", is written over a light blue horizontal line.

Kristi Miller
Project Manager

Attachment: Communication Log, Notes

APPENDIX A

COMMUNICATION LOG

Facility ID: 53/8924326
 Facility Name: Loughman Service Center
 Facility Address: 6004 US Hwy 17/92
Loughman, Polk Co. FL

Current PO#: B44B38
 Site Manager: Matthew Pabich
 Team Leader: Kristina Miller
 Team/LP: EnviroTrac, Ltd

Discharge(s):	Date	Program	Score
	6/15/1992	ATRP	46

Owner/Responsible Party Information	
Person 1	Current Owner?
Name & Title:	Wilmer Byrd
Company:	Owner representative
Address:	
Phone:	863-557-1267
Email:	

Contact Attempts			
Date	Person Contacted	Method	Conversation Details
1/4/2019	Wilmer Byrd	Phone	Did not answer or call back, I left VM inviting him on call
1/8/2019	Kristina Miller	Phone	See attached teleconference notes
1/8/2019	Matthew Pabich	Phone	See attached teleconference notes
1/8/2019	Chad Campbell	Phone	See attached teleconference notes

<p>Reviewed by <u>Kristina Miller</u> : <input type="checkbox"/></p> <p style="margin-left: 100px;">Team Leader</p> <p>Review Date:</p>

Loughman Service Center Pre-Drilling Teleconference

Fac ID 53/8624326 PO # B44B38 Task 2

Date 1/8/19

Time 11 AM EST

Location Teleconf. 813-626-8443

Attendees Kristi Miller - EnviroTrac

Matthew Pabich - Polk County 863-570-2038

Chad Campbell - PDS 727-561-7477

Scope: 3 borings to 12' b/s, soil sample at each, grab gw at each

Discussion: Open field away from ROW drilling
at 3 locations MW-19, 30-35R

MW-19, 35R were not abandoned because
consultant could not find wells due to 6' fill
material in east portion of site.

We will attempt to locate missing wells with
a metal detector.

Utilities not an issue

Matt last visited site in November - No cattle
but historically was cattle on site

Gated - owner will open very accommodating

Not sure of grass maintenance - track rig
will go through tall grass.

Collect soil 1 foot above water table if NO OVA hits

Bracket water table with drill rod screens

1113 complete Groundwater is expected ~ 7' b/s
- Kristi Miller



December 15, 2017

Matthew Pabich, Environmental Specialist II
Florida Department of Health - Polk County
Environmental Engineering
2090 E. Clower Street
Bartow, Florida 33830

**Re: Task 4 - Supplemental Site Assessment Report
Loughman Service Center
6004 US Highway 17-92
Loughman, Polk County, Florida
FDEP Facility ID# 53/8624326
PO # B16891
Discharge Date: June 15, 1992**

Dear Mr. Pabich:

EnviroTrac Ltd. Inc. (EnviroTrac) is pleased to provide the Polk County Environmental Engineering Division with this Supplemental Site Assessment Report (SSAR) for the above-referenced facility. This report addresses confirmatory soil analysis required following remedial activities to obtain site closure associated with the June 15, 1992 discharge. The ensuing investigation, summarized in the following, was conducted in accordance with the requirements of Chapter 62-780 Florida Administrative Code (FAC) Contaminated Site Cleanup Criteria Rule and Section 376.3071, F.S. A copy of the June 15, 1992 Discharge Notification Form (DNF) is provided in **Appendix A**.

The scope of work completed by EnviroTrac on November 13, 2017, included the advancement of three (3) shallow soil borings and the collection of three (3) confirmatory soil samples for laboratory analysis of benzene, toluene, ethylbenzene and total xylenes (BTEX) and methyl-tert butyl ether (MTBE), polynuclear aromatic hydrocarbons (PAHs), and total recoverable petroleum hydrocarbons (TRPH). A review of local, state, and federal databases and previous site assessment documents through the Florida Department of Environmental Protection's (FDEP) OCULUS database system was also performed during the preparation of this report.

Facility Description

The approximate 1.38-acre subject site is currently a vacant lot bounded by Ronald Reagan Parkway/Kinney Harmon Road to the southwest followed by undeveloped wooded land and S. Orange Blossom Trail/Hwy 17-92 to the northwest followed by undeveloped vacant land (Oakhill Estates, formerly Koch Oil). EZ Food (Island Foods) gasoline station is located due west, across the highway intersection and the site is bounded by undeveloped wooded land to the northeast, east, and southeast. Dissolved-phase petroleum product plumes associated with the up-gradient Koch Oil and Island Foods facilities were identified during previous assessments and determined to co-mingle with the plume identified at Loughman Service Center. Due to recent road widening activities any remaining plume is likely located beneath Hwy 17-92. Directly adjacent properties are shown on the 2017 Google Aerial Site Map, provided in **Appendix B**.

Location Maps of the United States Geological Survey (USGS), Davenport, FL 7.5-minute quadrangle indicate that the site is located in Section 12 of Township 27 South and Range 29 East in a rural area and at an elevation of approximately 85-95 feet NGVD. The nearest surface water body is a lake located approximately 1,200 feet west/northwest of the site. A copy of the USGS topographic map identifying the location of the subject site is included in **Appendix B**.

Facility History

Based on review of regulatory documents maintained on the FDEP's online Oculus database, the subject site was originally developed prior to 1953 as a retail gasoline station and automotive repair facility dispensing leaded and unleaded gasoline and diesel fuel. The facility operated one (1) 4,000-gallon leaded gasoline underground storage tank (UST), two (2) 4,000-gallon unleaded gasoline USTs, one (1) 2,000-gallon diesel fuel UST, one (1) 1,000-gallon used oil UST, and one (1) 2,000-gallon miscellaneous petroleum-based product UST until 1993 when the USTs were removed and replaced with three (3) 12,000-gallon unleaded gasoline aboveground storage tanks (ASTs). The ASTs were located in a separate area of the subject site away from the area of the eligible discharge. The former site layout is depicted on the Value Environmental Services, Inc. (VES)-generated figures in **Appendix C**.

Assessment activities were performed on the subject site and west-adjointing co-mingled releases intermittently between 1990 and 1999. By 1999, the now single plume was approximately 1.6 acres in size and had migrated beneath the Loughman Service Center property. Again due to recent road-widening activities the majority of the former facility's service/UST area and documented plume is located within the Hwy 17-92 right-of-way. A biological remedial action plan (RAP) was approved by the FDEP in September 2000. During baseline sampling conducted on March 14, 2001, approximately 2.5 feet of free phase floating product was detected in two subject site monitoring wells (MW-12 and MW-25). An air sparging/soil vapor extraction (AS/SVE) remediation system was installed and operated until April 2007 when deeper sparge wells were installed at that time. The remedial system was shut down on December 15, 2008 following Year 6, 4th Quarter sampling results and Post Active Remedial Monitoring (PARM) was initiated in 2009. The groundwater quality was variable from 2009 through 2013 with various compounds detected exceeding groundwater cleanup target levels (GCTLs), but within natural attenuation default concentrations (NADCs). The last sampling event occurred on October 8, 2013 when total xylenes and naphthalene were reported above GCTLs at MW-12R. No other contaminants of concern were reported exceeding GCTLs. On January 8, 2014, forty-two (42) wells (monitoring, air sparge and SVE) were abandoned. Road widening activities west and south of the subject site and encompassing portions of the site commenced on January 9, 2014.

EnviroTrac September 2017 Assessment

Per the Scope of Work authorized under Purchase Order # B16891 and to obtain site closure, Polk County required confirmatory groundwater sampling for BTEX/MTBE, PAHs, TRPH, total lead, and EDB analysis at three locations in the vicinity of the former impacted monitor wells at the subject site.

On September 19, 2017, EnviroTrac oversaw the installation of three (3) shallow monitoring wells at the subject site due to historic total xylenes and naphthalene groundwater plumes documented up-gradient of these locations. The monitoring wells (MW-37 through MW-39) were installed by Florida-licensed water well contractor, Preferred Drilling Solutions Inc. of Largo, Florida (Preferred) via direct-push technology. The monitoring wells were installed to a total depth of fourteen (14) feet (ft) below land surface (bls) and constructed with ten (10)-foot sections of machine-slotted Poly-vinyl chloride (PVC) well screen (2-inch diameter, Schedule 40 PVC, 0.010-inch screen slot size) flush threaded to four (4) ft of solid PVC risers. The annuli were sand-packed with 20/30 silica sand to one foot above the screen interval followed by 2-foot seals of fine sand. The remaining annular spaces were grouted with 1-foot surface seals and completed with flush-mounted road boxes formed in 2.0' by 2.0' concrete pads. The monitoring wells

were subsequently developed with a centrifugal pump until the discharged effluent flowed clear. Monitoring well locations are depicted on **Figures 1-3**. Copies of the Boring Logs, Well Construction and Development Logs, Well Completion Reports, and field notes are provided in **Appendix D**. Per the direction of Polk County, soil screening, lithology, and moisture content were not collected during the shallow well installations since soil assessment was historically completed in this area of the site; therefore, the boring logs were not completed to depth.

On September 22, 2017, EnviroTrac mobilized to the site to collect groundwater samples from the newly installed monitoring wells, MW-37, MW-38, and MW-39. EnviroTrac personnel performed a top-of-casing (TOC) survey relative to the three (3) monitoring wells, using MW-39 as the benchmark with an arbitrary 100.00 ft elevation. Prior to the collection of groundwater samples, depth-to-water measurements were collected from the three monitoring wells using a water level meter. On September 22, 2017, depth to groundwater ranged from 6.13-ft to 6.44-ft bls and groundwater flow direction in the upper zone of the surficial aquifer was towards the east-southeast, consistent with historical groundwater elevation data. Monitoring well gauging and elevation data is summarized on **Table 3**, and a Groundwater Elevation Map is included as **Figure 2**.

Depth-to-water measurements and total well depths were used to calculate well volumes. EnviroTrac used a variable speed peristaltic pump to purge the monitoring wells in accordance with the procedures outlined in FDEP Standard Operating Procedure (SOP) 001/01, FS2200 (revised March 1, 2014) and SOP PCS-005 (Variances and Clarifications to the Groundwater Sampling Standard Operating Procedure for Bureau of Petroleum Storage Systems Sites; May 2, 2005). Field stabilization parameters (temperature, conductivity, dissolved oxygen, pH and turbidity) were collected as listed on groundwater sampling logs. The groundwater samples collected from MW-37, MW-38, and MW-39 were submitted to Pace Analytical Laboratories, Inc. for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl tert-butyl ether (MTBE) by EPA Method 8260, polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270, total recoverable petroleum hydrocarbons (TRPH) by the FL PRO Method, total lead by EPA Method 6010 and ethylene dibromide (EDB) by EPA Method 8011. Copies of the groundwater sampling logs, field calibration forms, and field notes are provided in **Appendix D**.

Laboratory analysis of the groundwater samples collected from monitoring wells MW-37, MW-38 and MW-39 did not yield any contaminants of concern (COC) at concentrations above method detection limits (MDLs) with the exception of total lead detected at 2.9-micrograms per liter ($\mu\text{g/L}$) at MW-37, 1.7- $\mu\text{g/L}$ at MW-38, and 2.5- $\mu\text{g/L}$ at MW-39, all well below the GCTL of 15- $\mu\text{g/L}$. The current groundwater analytical data is summarized on **Tables 4A-4B**. The full laboratory report, including the chain of custody form, is provided in **Appendix E** and the Groundwater Concentration Map is included as **Figure 3**. EnviroTrac notes that the subject site has been altered due to recent road widening activities on the west and south sides of the site since the previous assessment work conducted in 2013. Many of the former monitoring well locations are now in the Highway 17 right-of-way. EnviroTrac's current figures reflect the site boundary changes.

To obtain site closure, the FDEP indicated that confirmatory soil sampling and analysis was required in proximity to former soil borings where TRPH contamination was identified. Due to road widening, some of the former soil boring locations are located in the right-of-way; therefore, EnviroTrac chose locations along the property boundary.

Area Land Use and Potential Sources of Offsite Contamination

The subject site is bounded by Ronald Reagan Parkway/Kinney Harmon Road to the southwest followed by undeveloped wooded land and S. Orange Blossom Trail/Hwy 17-92 to the northwest followed by undeveloped vacant land (Oakhill Estates, formerly Koch Oil). EZ Food (Island Foods) gasoline station is located due west, across the highway intersection and the site is bounded by undeveloped wooded land

to the northeast, east and southeast. Dissolved-phase petroleum product plumes associated with the up-gradient Koch Oil and Island Foods facilities were identified during previous assessments and determined to co-mingle with the plume identified at Loughman Service Center, which due to recent road widening activities, is located beneath Hwy 17-92.

The FDEP Map Direct Galleries (<https://ca.dep.state.fl.us/mapdirect/>) were queried for regulated/contaminated facilities located within a one-half (0.5)-mile radius of the subject site. This query indicated that four (4) FDEP Storage Tank Contamination Monitoring (STCM) facilities are present within 0.5-miles of Loughman Service Center, including the Hart Storage Facility (former AST facility) located at the same parcel. Nearby properties of potential concern to the subject site are shown on the Map Direct Contamination Locator map and listed in **Appendix F**. The facilities identified are as follows: Hart Storage Facility-Loughman (FAC# 9300807) located at 6004 Highway 17-92 (AST storage facility at the subject site), EZ Food Store #1 at 5945 Highway 17-92 (west-adjointing), Oakhill Estates/Koch Oil at CR 54 and Highway 17-92 (west-northwest-adjointing) and Majik Mart at 6021 Highway 17-92 (north-northwest-adjointing).

Regional Geology and Hydrogeology

Polk County is located in the Florida Central Highlands physiographic province of central Florida. The area is characterized by north-south trending ridges which are separated by flat lowlands. The site is physiographically located on the Wicomoco Terrace at an approximate elevation of 90-100 feet above NGVD. A small stream runs along the eastern side of the subject site property and the regional drainage trend is toward the east-northeast. Most of the Loughman area is underlain by a veneer of unconsolidated surficial sediments composed of sand and organic detritus material. These sediments are generally about 75 feet thick in the area of the site. Annual fluctuations in individual wells as much as 4-10 feet have been reported. The top of the surficial aquifer is usually located in the undifferentiated surficial sands and extends from the water table to the upper parts of the Hawthorn Group. The base of the system is formed from low to moderately permeable clay layers of the Arcadia Formation of the Hawthorn Group.

An intermediate aquifer is not present in the Loughman area. Sediments from the lower Hawthorn Group are generally comprised of thick, low permeability gray, blue gray, and greenish gray sandy, calcareous clays. These clays hydraulically separate the undifferentiated sediments from the underlying limestones of the Ocala Group. These limestones range from white and tan colored to gray. Locally, hard dolomite and chert zones may occur as well as soft chalky zones. The Upper Floridan aquifer potentiometric surface is encountered at approximately 90 feet above sea level (with 10 feet bls at the subject site). The Floridan aquifer is artesian with an upward hydraulic gradient, which should limit the downward migration of contaminants. Eastern Polk County is an area of very low recharge to the Floridan aquifer. Most of Loughman potable wells are screened into the Floridan aquifer.

Site Specific Geology and Hydrogeology

Regional subsurface geology and that of the site is highly variable due to construction and filling activities. As a result, surface soils (0-6 ft bls) ranged from very fine-grained sugar sands to highly organic peat soils. Soils greater than 6 ft bls are considered native and consist of fine-grained, silty sands, with increasing silt and organics with depth. Peat was encountered in the deep well borings at 23-24 ft bls to at least 32 ft bls. Peat was encountered from the surface to at least 12 ft bls on the east side of the Loughman Service Center facility. The depths and formational materials encountered during the investigation correspond to Pleistocene surficial deposits.

The depth-to-water in the surficial aquifer during the September 22, 2017 sampling event ranged from 6.13 to 6.44 feet bls and the groundwater elevation had a minimal range of 0.11 feet (relative elevation of 93.49 to 93.60 feet NGVD). Monitoring well gauging data suggested a groundwater flow direction to the

west-southwest. The hydraulic gradient was also calculated from water table elevations in monitoring wells MW-37 and MW-38 on September 22, 2017. Based on the change in water table elevation between the two (2) monitoring wells (0.11 foot) and the measured distance (sixty-five [65] feet), the hydraulic gradient was 0.0017 ft/ft. A Groundwater Elevation Contour Map is included as **Figure 2**.

Potable Well Information and Physical Features

The most recent Florida Department of Health (FDOH) Bureau of Water Programs Well Survey available on the FDEP OCULUS website was completed on November 19, 2013. The results identified no large public supply wells (greater than 150,000 gallons per day) within one-half (0.5)-mile radius and eight (8) small potable wells within one-quarter (0.25)-mile radius of the subject site. Analytical results of the small potable wells sampled on November 5, 2013 indicated, "all results were below detection for this analysis." On August 10, 2010, the potable well located at the subject site was sampled and chloroethane (0.54- $\mu\text{g/L}$), MTBE (0.44- $\mu\text{g/L}$), and naphthalene (0.50- $\mu\text{g/L}$) were detected in the water well sample. These concentrations are well below their respective GCTLs. The potable well information obtained during the preparation of this report is included in **Appendix F**.

Recent Site Assessment Activities

Soil Sampling & Analysis

To obtain completed site closure, confirmatory soil sampling and analysis was required in proximity to historic BTEX, naphthalene and TRPH detections along the south/west site boundaries (SB-1 through SB-5 collected in March 2001 by VES). On November 13, 2017, EnviroTrac mobilized to the site to conduct three (3) shallow hand-auger borings and collect three (3) confirmatory soil samples for laboratory analysis. Hand-auger borings (SB-6, SB-7, and SB-8) were installed at locations in proximity to areas which exhibited the greatest petroleum impacts in 2001. The borings were manually installed to two (2) feet into the water table or an approximate depth of 8 feet bls. Soil samples were collected continuously for field screening at one (1) foot intervals to the total depth of the borings. The recovered soil samples were field-screened with a MiniRAE 3000 Organic Vapor Analyzer/Photo Ionization Detector (OVA/PID), which was calibrated prior to use with an Isobutylene 100 parts per million (ppm) standard in accordance with manufacturer specifications. Screening for petroleum vapors was conducted using the headspace reading procedure specified in Rule 62.770.200(19) of the FAC. Positive OVA/PID responses were not measured in the soil samples collected at SB-6, SB-7 or SB-8 as all OVA responses were recorded as 0-ppm. A summary of the OVA/PID vapor survey results is provided on the Soil Screening Summary **Table 1** and on **Figure 4**.

Soil samples were collected for laboratory analysis from SB-6 at 2' bls, SB-7 at 3' bls, and SB-8 at 4' bls and submitted to Pace for laboratory analysis by EPA Method 8260 (BTEX/MTBE), 8270 (PAHs) and TRPH (FL PRO). The current and historical Soil Analytical data is provided in **Table 1**. Soil Boring Logs, calibration form, and field notes are provided in **Appendix G**.

Laboratory analysis of the three (3) soil samples collected on November 13, 2017 did not yield any contaminants of concern in exceedance of the SCTLs published in Chapter 62-777, FAC (effective August 5, 1999, revised April 17, 2005). All analytes were reported as undetected with the exception of TRPH which was reported at a concentration of 25.6 milligrams per kilogram (mg/kg) at SB-6@2', 5.0-mg/kg at SB-8@4' and 3.8-mg/kg at SB-7@3'. All TRPH concentrations are well below the SCTL of 340 mg/kg. A complete copy of the laboratory analytical report, including the Chain of Custody and QA/QC data, is provided in **Appendix H**.

Investigative Derived Waste

Investigative derived waste was not generated during the groundwater and/or soil assessment. Due to the absence of OVA responses greater than 0-ppm, soil cuttings were used to backfill the soil borings and were spread onsite during well installations.

Conclusions / Recommendations

On November 13, 2017, EnviroTrac mobilized to the site to conduct three (3) shallow hand-auger borings and collect three (3) confirmatory soil samples for laboratory analysis. Laboratory analysis of the three (3) soil samples collected did not yield any contaminants of concern in exceedance of the Chapter 62-777, FAC SCTLs.

Based on the results of the previous groundwater investigations and current soil assessment, summarized in this Supplemental Site Assessment Report, EnviroTrac recommends properly abandoning the three (3) existing monitoring wells followed by the issuance of a Site Rehabilitation Completion Order (SRCO) for the facility. Please feel free to contact the undersigned with any questions or comments regarding this submittal.

Sincerely,
EnviroTrac Ltd.



Kristina Miller
Project Manager

Attachments:

TABLE 1: Soil Screening Summary
TABLE 2: Soil Analytical Summary
TABLE 3: Groundwater Elevation Table
TABLE 4A/B: Groundwater Monitoring Well Analytical Summary

FIGURE 1: Site Diagram
FIGURE 2: Groundwater Elevation Map (9/22/2017)
FIGURE 3: Groundwater Concentration Map
FIGURE 4: Soil Boring Location & OVA/PID Results Map
FIGURE 5: Soil Concentration Map

APPENDIX A: 1997 DRF
APPENDIX B: 2017 Aerial and Topographic Map
APPENDIX C: Historic VES Figures
APPENDIX D: September 2017 Assessment Logs, Field Notes, Calibration Forms
APPENDIX E: Groundwater Analytical Report
APPENDIX F: Offsite Sources and Potable Water Well Map
APPENDIX G: November 2017 Soil Assessment Logs, Field Notes, Calibration Forms
APPENDIX H: Soil Analytical Report

PROFESSIONAL GEOLOGIST'S CERTIFICATION

I certify that I have reviewed the technical aspects of this:

Supplemental Site Assessment Report (December 15, 2017), for Loughman Service Center, 6004 Highway 17/92, Loughman, Polk County, Florida, Florida Department of Environmental Protection (FDEP) Facility ID# 41/86243262,

with information gathered from qualified personnel who properly evaluated the information submitted. The applicable portions of this technical document and associated work comply with standard professional practices, rules of the FDEP and any other laws and rules governing the profession. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Reviewed and Certified By:

EnviroTrac Ltd Inc.

Name

Date

John Ferrill, P.G.
Florida P.G. License No. 1953
Florida Engineering Certificate of Authorization No. 00008333

TABLES

TABLE 1: SOIL SCREENING SUMMARY

Facility Name: Loughman Service Center
 Facility Address: 6004 US Hwy 17/92, Loughman, Polk County, Florida

Facility ID#: 53/8624326

SAMPLE				OVA SCREENING RESULTS	
BORING NO.	DATE	DEPTH WATER (FT)	SAMPLE INTERVAL (FBLs)	TOTAL READING (ppm)	COMMENTS
SB-1	03/06/01	9.0	0-1	> 5000	Front of store in parking spot
			1-2	1000	
			2-4	1100	Collected Soil-1 @ 2-3'
			4-6	> 5000	
			6-8	> 4980	
			8-10	> 4000	
			10-12	> 4100	
SB-2	03/06/01	9.0	0-1	> 5000	West side of former dispenser island
			1-2	> 5000	
			2-4	> 5000	Collected Soil-2 @ 2-3'
			4-6	> 5000	
			6-8	> 4975	
			8-10	> 4750	
			10-12	> 4600	
SB-3	03/06/01	9.0	0-1	5	East end of diesel dispenser
			1-2	5	
			2-4	15	
			4-6	6	
			6-8	12	
			8-10	19	
			10-12	25	
SB-4	03/06/01	9.0	0-1	> 5000	East end of gasoline dispenser
			1-2	> 5000	
			2-4	> 5000	Collected Soil-3 @ 3-4'
			4-6	> 4990	
			6-8	> 4975	
			8-10	> 4725	
			10-12	> 4500	
SB-5	03/06/01	9.0	0-1	600	Back of store by back door
			1-2	1500	
			2-4	1100	Collected Soil-4 @ 3-4'
			4-6	> 5000	
			6-8	> 5000	
			8-10	> 5000	
			10-12	> 5000	

TABLE 1: SOIL SCREENING SUMMARY

Facility Name: Loughman Service Center
 Facility Address: 6004 US Hwy 17/92, Loughman, Polk County, Florida

Facility ID#: 53/8624326

SAMPLE				OVA SCREENING RESULTS	
BORING NO.	DATE	DEPTH WATER (FT)	SAMPLE INTERVAL (FBL)	TOTAL READING (ppm)	COMMENTS
SB-6	11/13/17		0-1	0	
			1-2	0	Collected SB-6 @ 2'
			2-3	0	
			3-4	0	
			4-5	0	
			5-6	0	Moist
			6-7	0	Saturated
			7-8	0	Saturated
SB-7	11/13/17		0-1	0	
			1-2	0	
			2-3	0	Collected SB-7 @ 3'
			3-4	0	
			4-5	0	
			5-6	0	Moist
			6-7	0	Saturated
			7-8	0	Saturated
SB-8	11/13/17		0-1	0	
			1-2	0	
			2-3	0	Collected SB-8 @ 4'
			3-4	0	
			4-5	0	
			5-6	0	Moist
			6-7	0	Saturated
			7-8	0	Saturated

Notes:

ppm = parts per million

FBL = feet below land surface

TABLE 2: SOIL ANALYTICAL SUMMARY

Facility Name: Loughman Service Center
 Facility Address: 6004 US Hwy 17/92, Loughman, Polk County, Florida

Facility ID#: 53/8624326

Sample				OVA	Laboratory Analyses												
Soil Sample	Date Collected	Depth to Water (ft)	Sample Interval (fbls)	Net OVA Reading (ppm)	Benzene	Ethyl-benzene	Toluene	Total Xylenes	Total VOAs	MTBE	Acenaph-thene	Acenaph-ethylene	Anthra-cene	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(k)
					(mg/kg)												
WCS/Soil-1 (SB-1@2-3')	3/6/2001	9	2-3	1100	<0.0066	0.0078	0.019	0.43	0.46	< 0.066	ND	ND	ND	ND	ND	ND	ND
WCS/Soil-2 (SB-2@2-3')	3/6/2001	9	2-3	> 5,000	< 0.0066	0.032	< 0.0066	1.5	1.53	< 0.066	ND	ND	0.017	0.0099	ND	ND	ND
WCS/Soil-3 (SB-4@3-4')	3/6/2001	9	3-4	> 5,000	< 0.54	28	9.5	27.54	37.5	< 5.4	ND	ND	ND	ND	ND	ND	ND
WCS/Soil-4 (SB-5@3-4')	3/6/2001	9	3-4	1100	< 0.0076	< 0.0076	< 0.0076	< 0.0076	ND	< 0.076	ND	ND	ND	ND	ND	ND	ND
SB-6@2'	11/13/17	6-7	2'	0	0.0031 U	0.0034 U	0.0033 U	0.0062 U	ND	0.0030 U	0.012 U	0.011 U	0.010 U	0.0099 U	0.0040 U	0.026 U	0.0074 U
SB-7@3'	11/13/17	6-7	3'	0	0.0031 U	0.0034 U	0.0032 U	0.0062 U	ND	0.0030 U	0.012 U	0.010 U	0.010 U	0.0097 U	0.0039 U	0.025 U	0.0073 U
SB-8@4'	11/13/17	6-7	4'	0	0.0032 U	0.0035 U	0.0031 U	0.0064 U	ND	0.0031 U	0.013 U	0.011 U	0.010 U	0.0099 U	0.0040 U	0.026 U	0.0074 U
Soil Cleanup Target Levels (April 17, 2005)					0.007	0.6	0.5	0.2	-	0.09	2	27	2,500	0.8	8	2.4	24
Residential Direct Exposure (April 17, 2005)					1.2	1,500	7,500	130	-	4,400	2,400	1,800	21,000	-	0.1	-	-
Industrial Direct Exposure (April 17, 2005)					1.7	9,200	60,000	700	-	24,000	20,000	20,000	300,000	-	0.7	-	-

Sample				OVA	Laboratory Analyses												
Soil Sample	Date Collected	Depth to Water (ft)	Sample Interval (fbls)	Net OVA Reading (ppm)	Benzo(g,h,i) perylene	Chrysene	Dibenz(a,h) anthracene	Fluor-anthene	Fluorene	Indeno-pyrene	Naph-thalene	1-Methyl naphthalene	2-Methyl naphthalene	Phen-anthrene	Pyrene	TRPHs	Benzo (a) pyrene
					(mg/kg)												
WCS/Soil-1 (SB-1@2-3')	3/6/2001	9	2-3	1100	ND	ND	ND	ND	ND	ND	0.120	0.140	0.250	0.0045	ND	< 12	-
WCS/Soil-2 (SB-2@2-3')	3/6/2001	9	2-3	> 5,000	ND	0.005	ND	ND	0.020	ND	0.150	0.230	0.410	0.035	0.016	12	-
WCS/Soil-3 (SB-4@3-4')	3/6/2001	9	3-4	> 5,000	ND	ND	ND	ND	ND	ND	10	4.3	8.8	ND	ND	1,900	-
WCS/Soil-4 (SB-5@3-4')	3/6/2001	9	3-4	1100	ND	ND	ND	ND	ND	ND	0.11	0.16	0.28	ND	ND	< 12	-
SB-6@2'	11/13/17	6-7	2'	0	0.012 U	0.012 U	0.017 U	0.011 U	0.015 U	0.017 U	0.014 U	0.012 U	0.014 U	0.013 U	0.017 U	25.6	ND
SB-7@3'	11/13/17	6-7	3'	0	0.012 U	0.012 U	0.017 U	0.011 U	0.015 U	0.017 U	0.011 U	0.012 U	0.014 U	0.013 U	0.017 U	3.8 I	ND
SB-8@4'	11/13/17	6-7	4'	0	0.012 U	0.012 U	0.017 U	0.011 U	0.015 U	0.017 U	0.011 U	0.012 U	0.014 U	0.013 U	0.017 U	5.0	ND
Soil Cleanup Target Levels (April 17, 2005)					32,000	77	0.7	1,200	160	6.6	1.2	3.1	8.5	250	880	340	8
Residential Direct Exposure (April 17, 2005)					2,500	-	-	3,200	2,600	-	55	200	210	2,200	2,400	460	0.1
Industrial Direct Exposure (April 17, 2005)					52,000	-	-	59,000	33,000	-	300	1,800	2,100	36,000	45,000	2,700	0.7

Notes:
 fbls = Feet below land surface
 mg/kg = milligram per kilogram
 ppm = parts per million
 U = Compound was analyzed for, but not detected
 Less Than Reporting Limit = <RL

TABLE 3: GROUNDWATER ELEVATION TABLE

Facility Name: Loughman Service Center

Facility ID#:

Facility Address: 6004 US Hwy 17/92, Loughman, Polk County, Florida

53/8624326

WELL NO.	MW-37			MW-38			MW-39		
DIAMETER	2-inch			2-inch			2-inch		
WELL DEPTH	14'			14'			14'		
SCREEN INTERVAL	4-10'			4-10'			4-10'		
TOC ELEVATION	99.65			99.73			100.00		
DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
9/22/2017	93.49	6.16	-	93.60	6.13	-	93.56	6.44	-

Notes:

All Measurements = Feet

Not Measured = NM

Top of Casing = TOC

Elevation = ELEV

Depth to water = DTW

Free product = FP

TABLE 4A: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY (VOAs, TRPH, Pb, EDB)

Facility Name: Loughman Service Center

Facility ID#:

Facility Address: 6004 US Hwy 17/92, Loughman, Polk County, Florida

53/8624326

Analytical Results = ppb

Sample Location	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total BTEX	MTBE	TRPH	Total Lead	EDB
FDEP GCTLs		1	40	30	20	NA	20	5,000	15	0.02
FDEP NADCs		100	400	300	200	NA	200	50,000	150	2
MW-37	09/22/17	0.10 U	0.50 U	0.50 U	1.5 U	<RL	0.50 U	800 U	2.9 I	0.0072 U
MW-38	09/22/17	0.10 U	0.50 U	0.50 U	1.5 U	<RL	0.50 U	800 U	1.7 I	0.0071 U
MW-39	09/22/17	0.10 U	0.50 U	0.50 U	1.5 U	<RL	0.50 U	800 U	2.5 I	0.0071 U

"I" flag indicates that the reported value is between the lab method detection limit and the lab practical quantification limit.

"U" flag indicates compound was analyzed for, but not detected.

Bold value indicates compound was detected above FDEP GCTL.

"<RL" indicates less than reporting limit

GCTL = Groundwater Cleanup Target Level per Chapter 62-777, F.A.C

NADC = Natural Attenuation Default Concentration per Chapter 62-777, F.A.C

TABLE 4B: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY (PAHs)

Facility Name: Loughman Service Center

Facility ID#:

Analytical Results = ppb

Facility Address: 6004 US Hwy 17/92, Loughman, Polk County, Florida

53/8624326

Sample Location	Sample Date	Acenaph-thene	Acenaph-thylene	Anthracene	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b) Fluoranthene	Benzo (g,h,i) Perylene	Benzo (k) Fluoranthene	Dibenz (a,h) Anthracene
FDEP GCTLs		20	210	2,100	0.05	0.2	0.05	210	0.5	0.005
FDEP NADCs		200	2,100	21,000	5	20	5	2,100	50	5
MW-36	09/22/17	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.028 U	0.025 U	0.034 U
MW-37	09/22/17	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.028 U	0.025 U	0.034 U
MW-38	09/22/17	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.028 U	0.025 U	0.034 U

Sample Location	Sample Date	Chrysene	Fluorene	Fluor-anthene	Indeno-Pyrene	Naphthalene	1-Methyl-naphthalene	2-Methyl-naphthalene	Phen-anthrene	Pyrene
FDEP GCTLs		4.8	280	280	0.05	14	28	28	210	210
FDEP NADCs		480	2,800	2,800	5	140	280	280	2,100	2,100
MW-36	09/22/17	0.025 U	0.025 U	0.025 U	0.029 U	1.0 U	1.0 U	1.0 U	0.050 U	0.025 U
MW-37	09/22/17	0.025 U	0.025 U	0.025 U	0.029 U	1.0 U	1.0 U	1.0 U	0.050 U	0.025 U
MW-38	09/22/17	0.025 U	0.025 U	0.025 U	0.029 U	1.0 U	1.0 U	1.0 U	0.050 U	0.025 U

"I" flag indicates that the reported value is between the lab method detection limit and the lab practical quantification limit.

"U" flag indicates compound was analyzed for, but not detected.

Bold value indicates compound was detected above FDEP GCTL.

"<RL" indicates less than reporting limit

GCTL = Groundwater Cleanup Target Level per Chapter 62-777, F.A.C

NADC = Natural Attenuation Default Concentration per Chapter 62-777, F.A.C

FIGURES

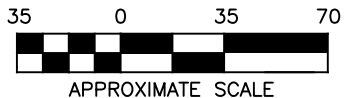
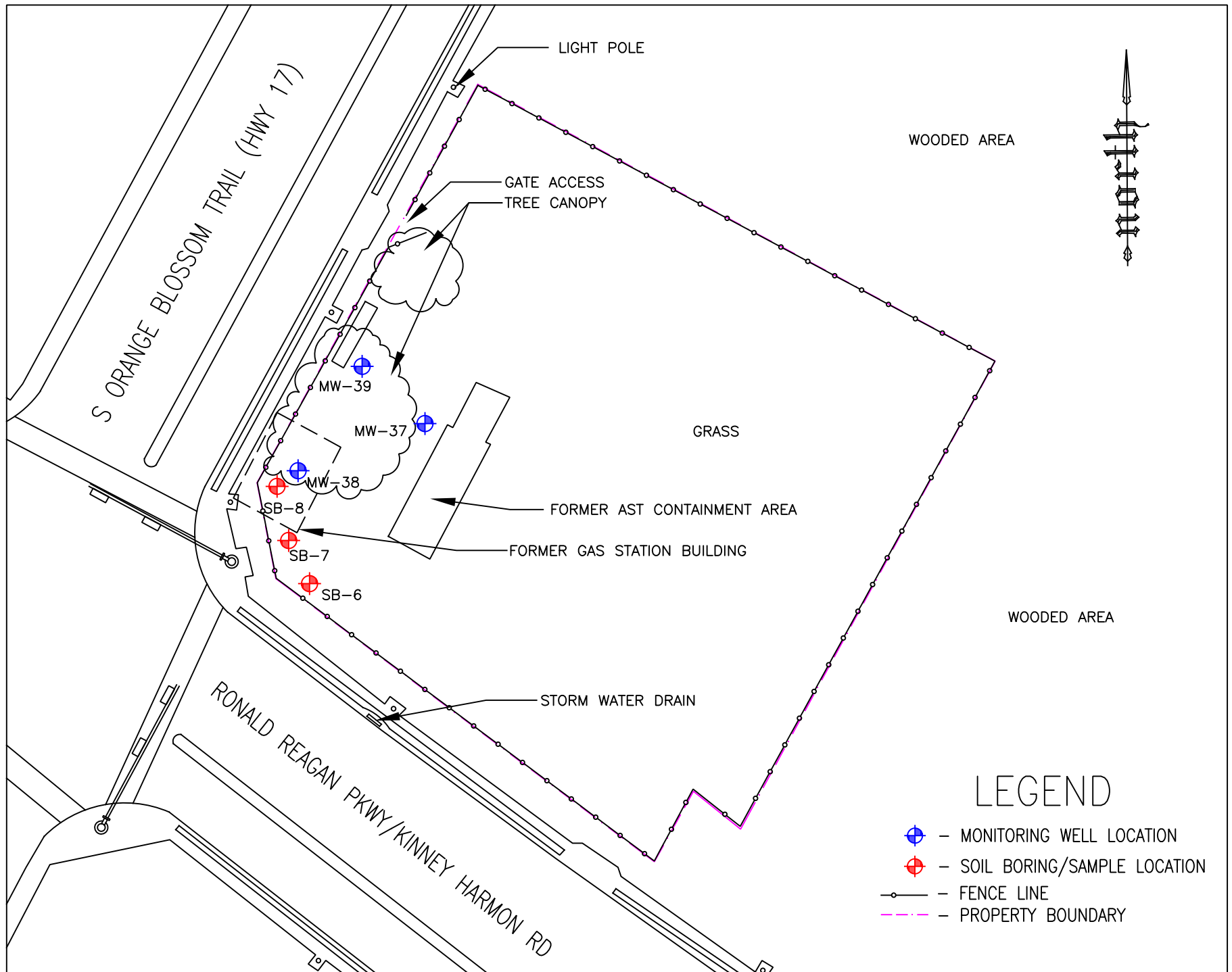
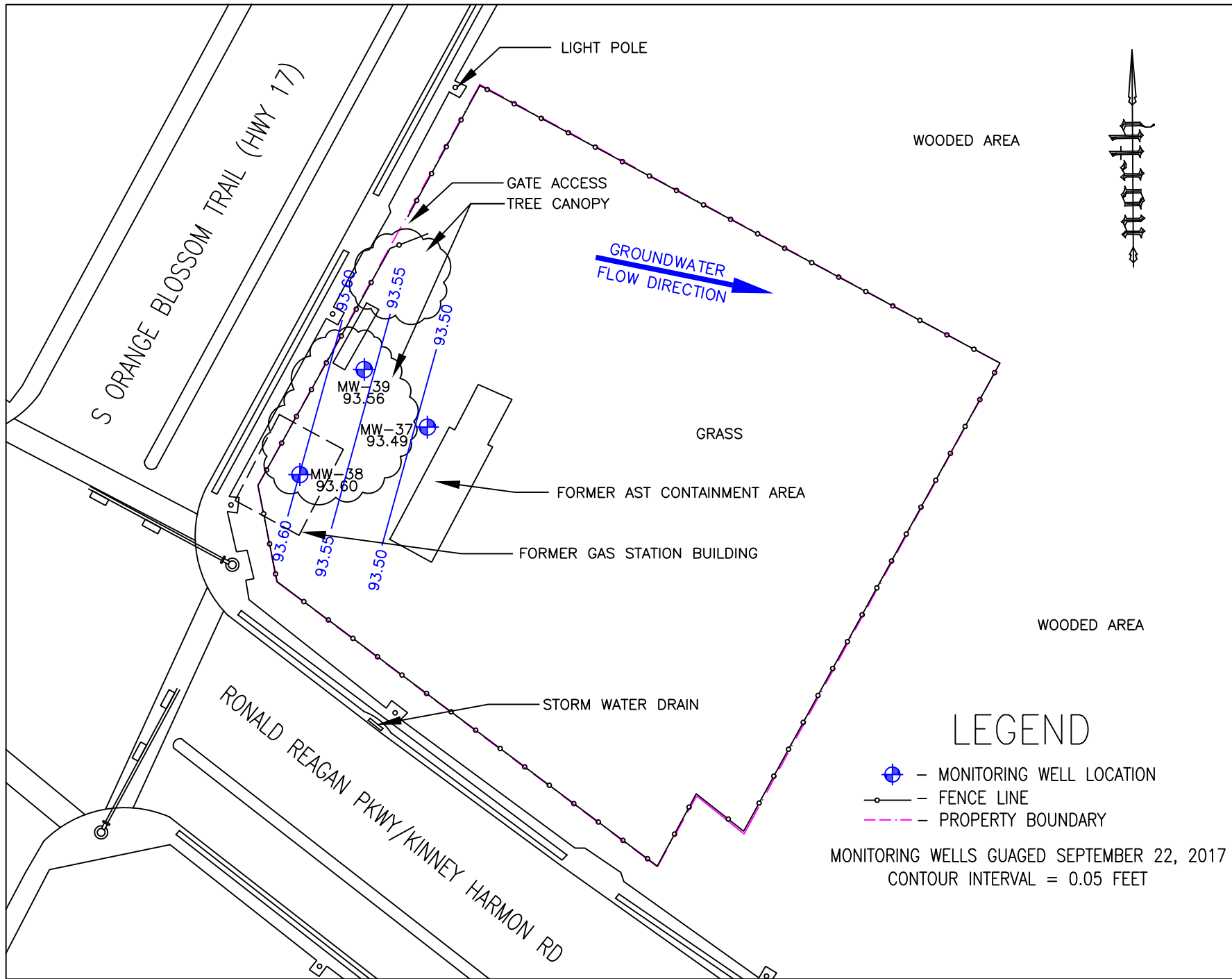


FIGURE #
1

SITE DIAGRAM		
REVISED BY: KM DATE: OCT. 11, 2017	SCALE IS APPROXIMATE	DRAWN BY: S.P. DATE: OCT. 5, 2017

LOUGHMANS SERVICE CENTER
6004 HIGHWAY 17/92 NORTH
LOUGHMAN, POLK COUNTY, FLORIDA
FDEP ID: 53/8624326

5309 56TH COMMERCE PARK BLVD., TAMPA, FL
PHONE: (813) 626-8443 / FAX: (813) 628-8479



MONITORING WELLS GAUGED SEPTEMBER 22, 2017
 CONTOUR INTERVAL = 0.05 FEET

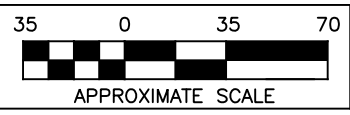
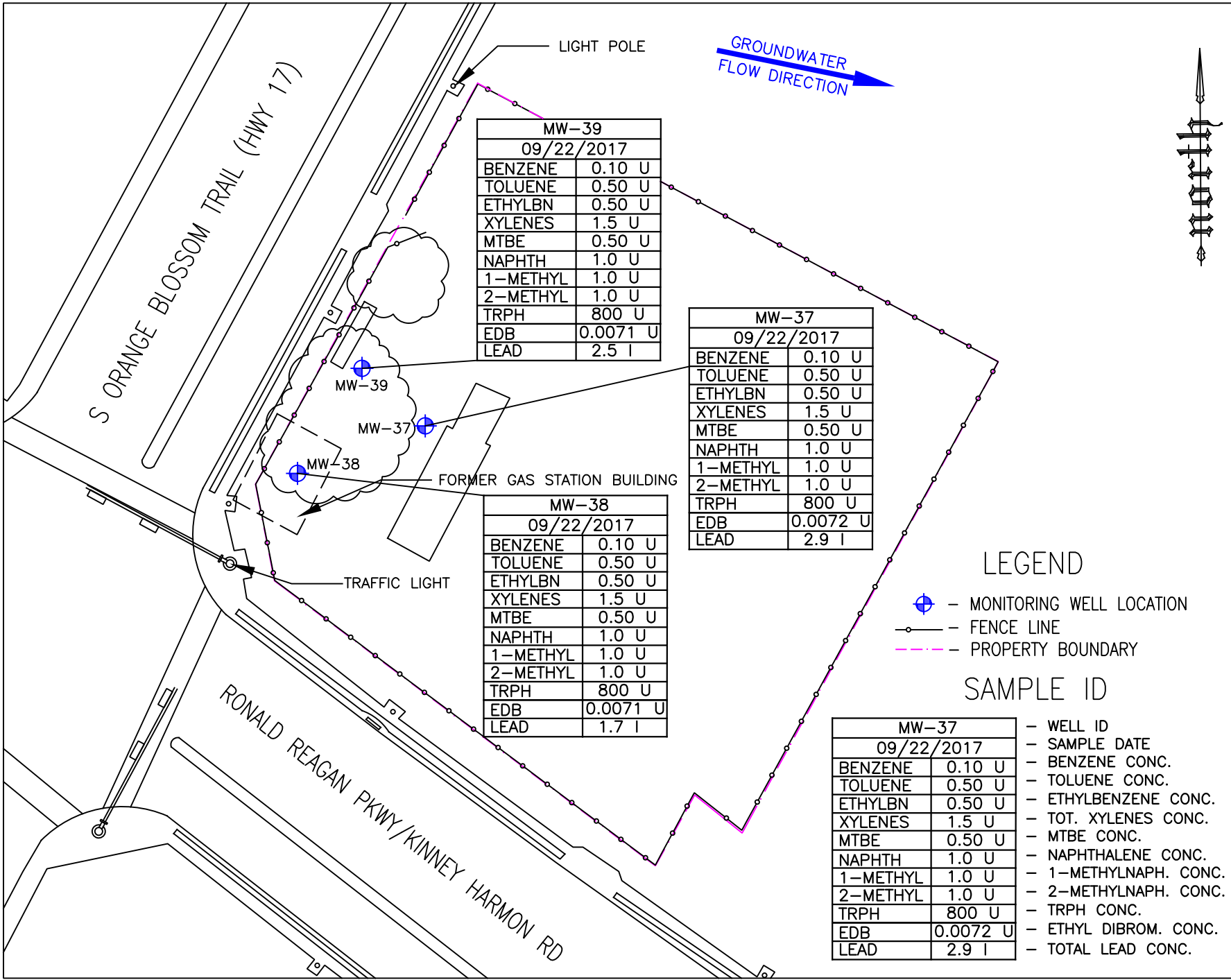


FIGURE # 2	GROUNDWATER ELEVATION MAP (9/22/2017)		
	REVISED BY: KM DATE: OCT. 11, 2017	SCALE IS APPROXIMATE	DRAWN BY: S.P. DATE: OCT. 5, 2017

LOUGHMANS SERVICE CENTER
 6004 HIGHWAY 17/92 NORTH
 LOUGHMAN, POLK COUNTY, FLORIDA
 FDEP ID: 53/8624326

5309 56TH COMMERCE PARK BLVD., TAMPA, FL
 PHONE: (813) 626-8443 / FAX: (813) 628-8479



MW-39	
09/22/2017	
BENZENE	0.10 U
TOLUENE	0.50 U
ETHYLBN	0.50 U
XYLENES	1.5 U
MTBE	0.50 U
NAPHTH	1.0 U
1-METHYL	1.0 U
2-METHYL	1.0 U
TRPH	800 U
EDB	0.0071 U
LEAD	2.5 I

MW-37	
09/22/2017	
BENZENE	0.10 U
TOLUENE	0.50 U
ETHYLBN	0.50 U
XYLENES	1.5 U
MTBE	0.50 U
NAPHTH	1.0 U
1-METHYL	1.0 U
2-METHYL	1.0 U
TRPH	800 U
EDB	0.0072 U
LEAD	2.9 I

MW-38	
09/22/2017	
BENZENE	0.10 U
TOLUENE	0.50 U
ETHYLBN	0.50 U
XYLENES	1.5 U
MTBE	0.50 U
NAPHTH	1.0 U
1-METHYL	1.0 U
2-METHYL	1.0 U
TRPH	800 U
EDB	0.0071 U
LEAD	1.7 I

LEGEND

- MONITORING WELL LOCATION
- FENCE LINE
- PROPERTY BOUNDARY

SAMPLE ID

MW-37		
09/22/2017		
BENZENE	0.10 U	- WELL ID
TOLUENE	0.50 U	- SAMPLE DATE
ETHYLBN	0.50 U	- BENZENE CONC.
XYLENES	1.5 U	- TOLUENE CONC.
MTBE	0.50 U	- ETHYLBENZENE CONC.
NAPHTH	1.0 U	- TOT. XYLENES CONC.
1-METHYL	1.0 U	- MTBE CONC.
2-METHYL	1.0 U	- NAPHTHALENE CONC.
TRPH	800 U	- 1-METHYLNAPH. CONC.
EDB	0.0072 U	- 2-METHYLNAPH. CONC.
LEAD	2.9 I	- TRPH CONC.
		- ETHYL DIBROM. CONC.
		- TOTAL LEAD CONC.

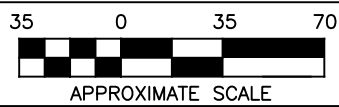


FIGURE #
3

GROUNDWATER CONCENTRATION MAP

REVISED BY: KM	SCALE IS APPROXIMATE	DRAWN BY: S.P.
DATE: OCT. 11, 2017		DATE: OCT. 5, 2017

LOUGHMANS SERVICE CENTER
6004 HIGHWAY 17/92 NORTH
LOUGHMAN, POLK COUNTY, FLORIDA
FDEP ID: 53/8624326

5309 56TH COMMERCE PARK BLVD., TAMPA, FL
PHONE: (813) 626-8443 / FAX: (813) 628-8479

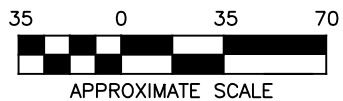
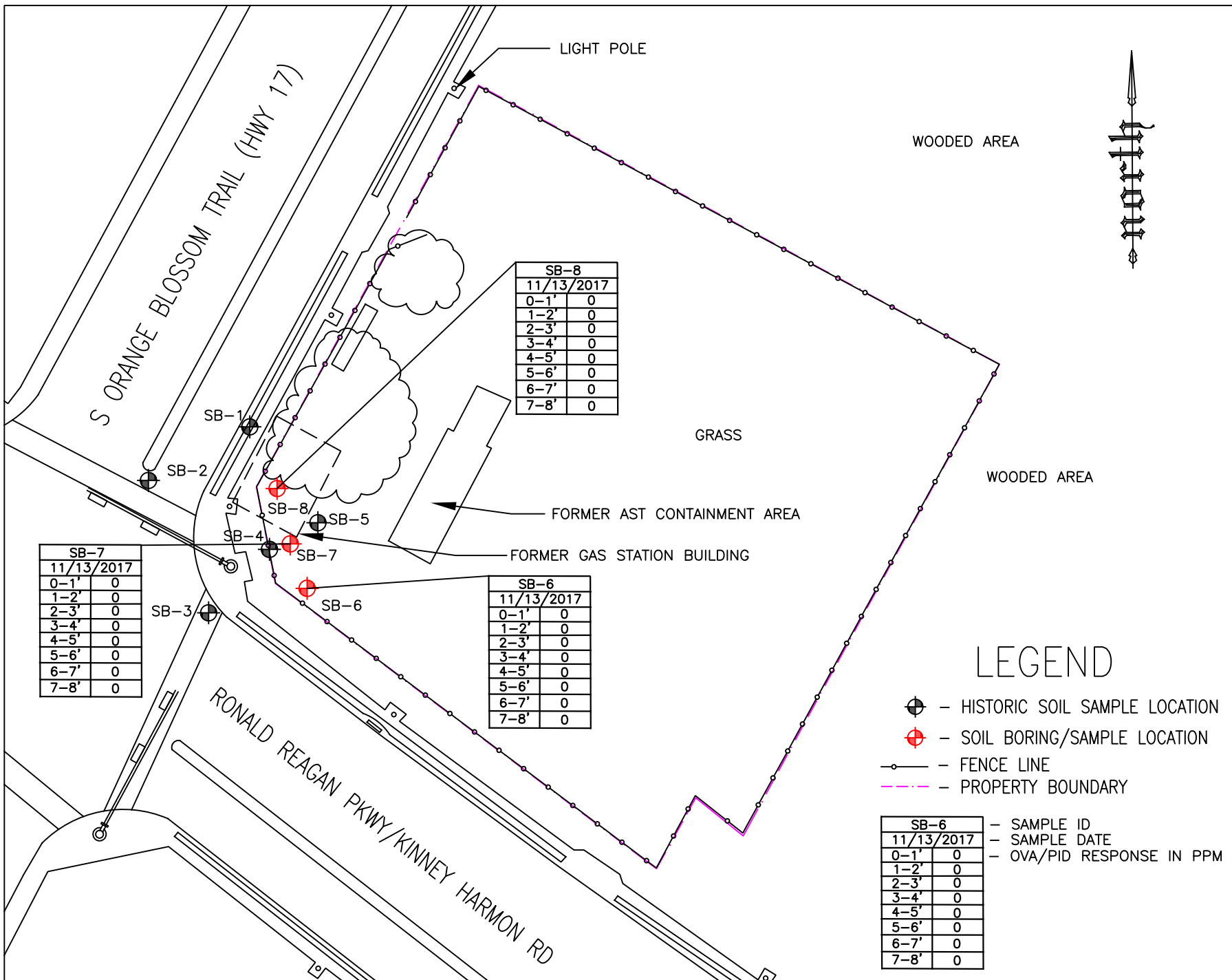
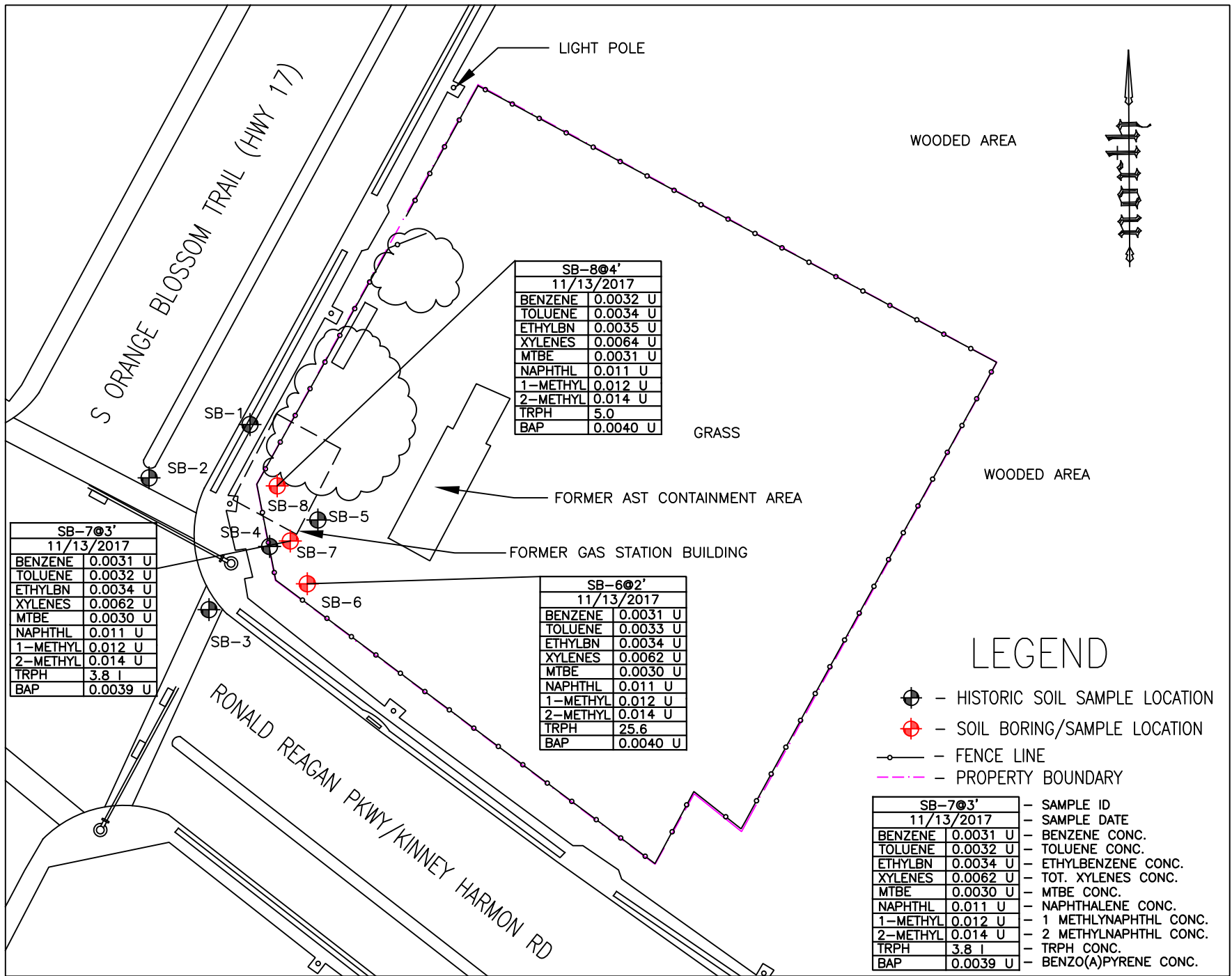


FIGURE #
4
SOIL BORING LOCATION & OVA/PID RESULTS MAP
REVISED BY: KM
DATE: NOV. 28, 2017
SCALE IS APPROXIMATE
DRAWN BY: S.P.
DATE: OCT. 5, 2017

LOUGHMANS SERVICE CENTER
6004 HIGHWAY 17/92 NORTH
LOUGHMAN, POLK COUNTY, FLORIDA
FDEP ID: 53/8624326



LEGEND

- HISTORIC SOIL SAMPLE LOCATION
 - SOIL BORING/SAMPLE LOCATION
 - FENCE LINE
 - PROPERTY BOUNDARY
- | | |
|------------------|-------------------------|
| SB-7@3' | - SAMPLE ID |
| 11/13/2017 | - SAMPLE DATE |
| BENZENE 0.0031 U | - BENZENE CONC. |
| TOLUENE 0.0032 U | - TOLUENE CONC. |
| ETHYLBN 0.0034 U | - ETHYLBENZENE CONC. |
| XYLENES 0.0062 U | - TOT. XYLENES CONC. |
| MTBE 0.0030 U | - MTBE CONC. |
| NAPHTHL 0.011 U | - NAPHTHALENE CONC. |
| 1-METHYL 0.012 U | - 1 METHYLNAPHTHL CONC. |
| 2-METHYL 0.014 U | - 2 METHYLNAPHTHL CONC. |
| TRPH 3.8 I | - TRPH CONC. |
| BAP 0.0039 U | - BENZO(A)PYRENE CONC. |

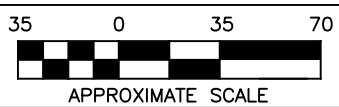


FIGURE #
5

SOIL CONCENTRATION MAP

REVISED BY: KM	SCALE IS APPROXIMATE	DRAWN BY: S.P.
DATE: NOV. 28, 2017		DATE: OCT. 5, 2017

LOUGHMANS SERVICE CENTER
6004 HIGHWAY 17/92 NORTH
LOUGHMAN, POLK COUNTY, FLORIDA
FDEP ID: 53/8624326



APPENDIX A

F:3633-001

Department of Environmental Regulation
Discharge Notification Form

Form 17-61.090(2)

RECEIVED
ON 31
MAY 12
REGISTRATION

Use this form to notify the Department of Environmental Regulation of:

- 1. Results of tank testing which reveal a discharge within 3 working days of testing.
- 2. Discharges exceeding 100 gallons on pervious surfaces as described in Section 17-81.06(4)(b) within 3 working days of discovery.
- 3. Positive response of a detection device, monitoring well test of sample or laboratory report within 3 working days of discovery.

Mail to the DER District Office in your district.

PLEASE PRINT OR TYPE
Put "X" where answer is unknown.

1. Facility Number: 538624326 2. Tank Number: X 3. Date: 6/15/92

4. Facility Name: Loughman Service Center

Facility Operator: Wil Byrd

Facility Address: U.S. Highway 17-92, Loughman, FL

Telephone Number: { 813 } 424-1074 Country: Polk

Mailing Address: P. O. Box 464, Loughman, FL 33858

5. Date of test or discovery: 6/12/92 month/day/year

6. Method of initial discovery. (circle one only)
- | | |
|---|---|
| A. Automatic detector in ground, monitoring well, or containment. | D. Emptying and inspection. |
| B. NFPA 329 test (underground tanks only). | E. Inventory control. |
| C. Manual test of monitoring well(s). <u>X</u> | F. Odor or visible signs at facility or in vicinity. |
| | G. Other: <u>While conducting discovery in (explain) DOAH Case 92-1302, a new tank was mentioned,</u> |

7. Estimated number of gallons lost: _____

8. What part of the storage system is leaking? (circle all that apply) a trip to the facility, and some digging conf

A. Dispenser B. Pipe C. Fitting D. Tank E. Unknown

9. If a tank is leaking, circle the choices which describe the type.
- | | | |
|-------------------|---------------------------------|--|
| A. Aboveground | <u>D</u> Underground | H. Sacrificial anode type |
| B. Factory welded | E. Bare or asphalt-coated steel | I. Impressed current type |
| C. Field erected | F. Fiberglass-clad steel | J. Double walled |
| | G. Fiberglass | M. Other or Unknown <u>Unknown materials</u> (explain) |

10. Type of pollutant discharged. (circle one)
- | | |
|--|---------------------------------------|
| A. Leaded Gasoline. | E. Aviation fuel. |
| B. Unleaded gasoline. | <u>Y</u> Other <u>probably diesel</u> |
| C. Gasohol or alcohol-enriched gasoline. | Z. Unknown _____ (explain) |

11. Cause of leak. (circle all that apply)
- | | | |
|------------------|---------------------|-------------------------|
| <u>A</u> Unknown | <u>Piping</u> | <u>Tank</u> |
| | B. Split | G. Split |
| | C. Loose connection | H. Corrosion |
| | D. Other _____ | I. Puncture |
| | | J. Installation failure |
| | | P. Other _____ |

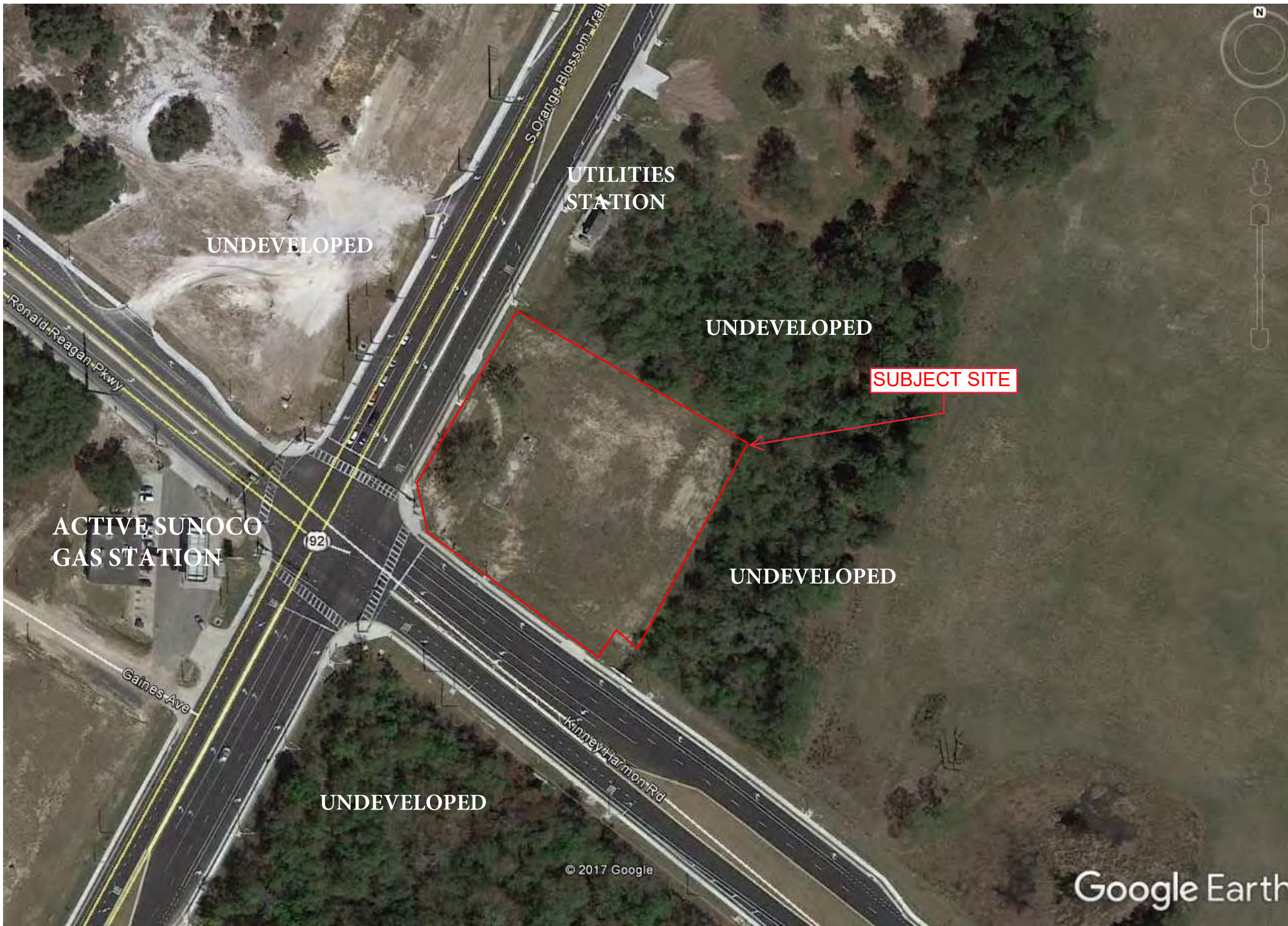
12. TO THE BEST OF MY KNOWLEDGE AND BELIEF ALL INFORMATION SUBMITTED ON THIS FORM IS TRUE, ACCURATE, AND COMPLETE.

Wil Byrd
Name of Owner, Operator or Authorized Representative

Wil Byrd
Signature of Owner, Operator, or Authorized Representative

KEEP A COPY OF THIS FORM FOR YOUR RECORDS.

APPENDIX B



UNDEVELOPED

UTILITIES
STATION

UNDEVELOPED

SUBJECT SITE

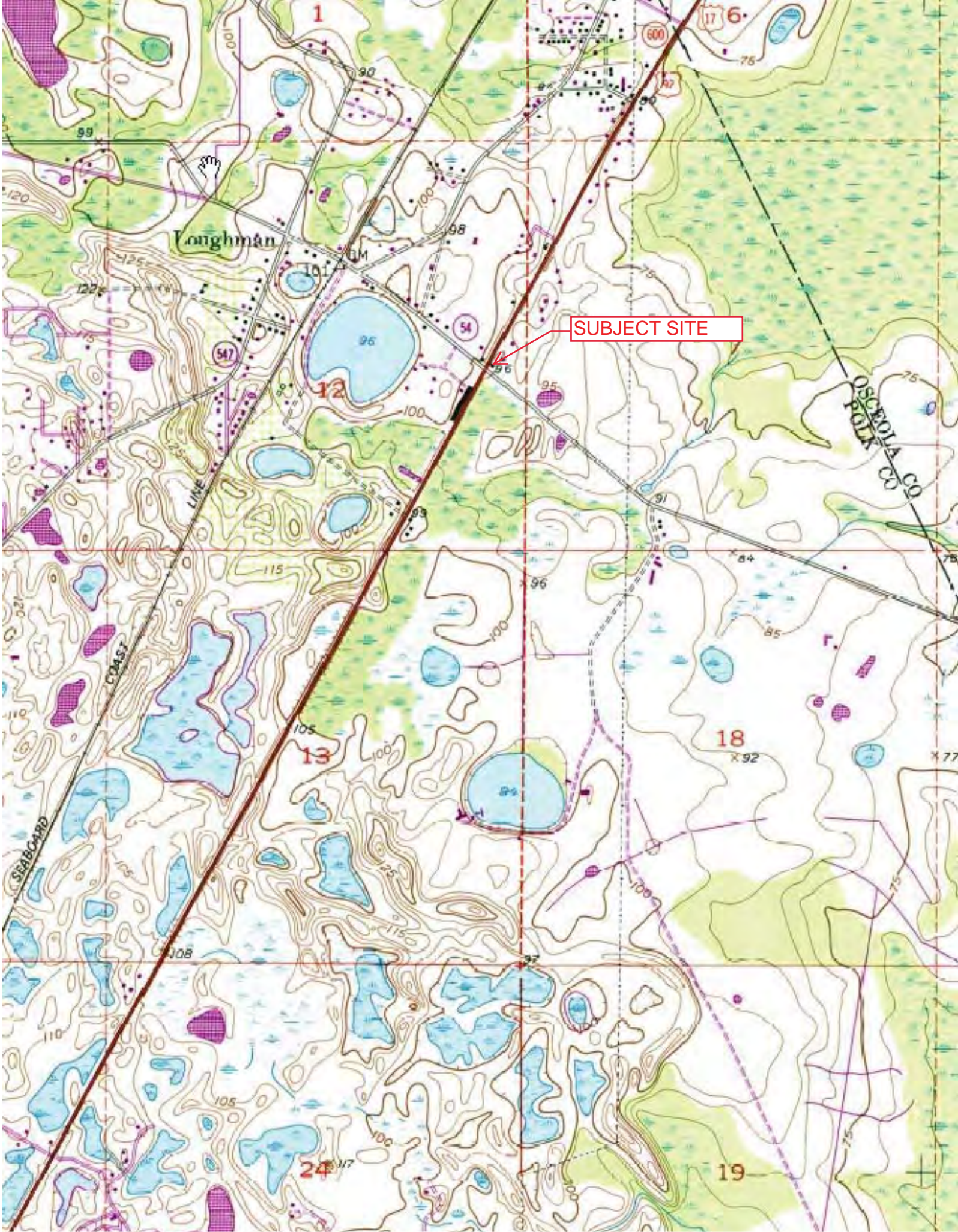
ACTIVE SUNOCO
GAS STATION

UNDEVELOPED

UNDEVELOPED

© 2017 Google

Google Earth



DAVENPORT, FLA TOPOGRAPHIC MAP, DATED 1953 PHOTOREVISED 1980

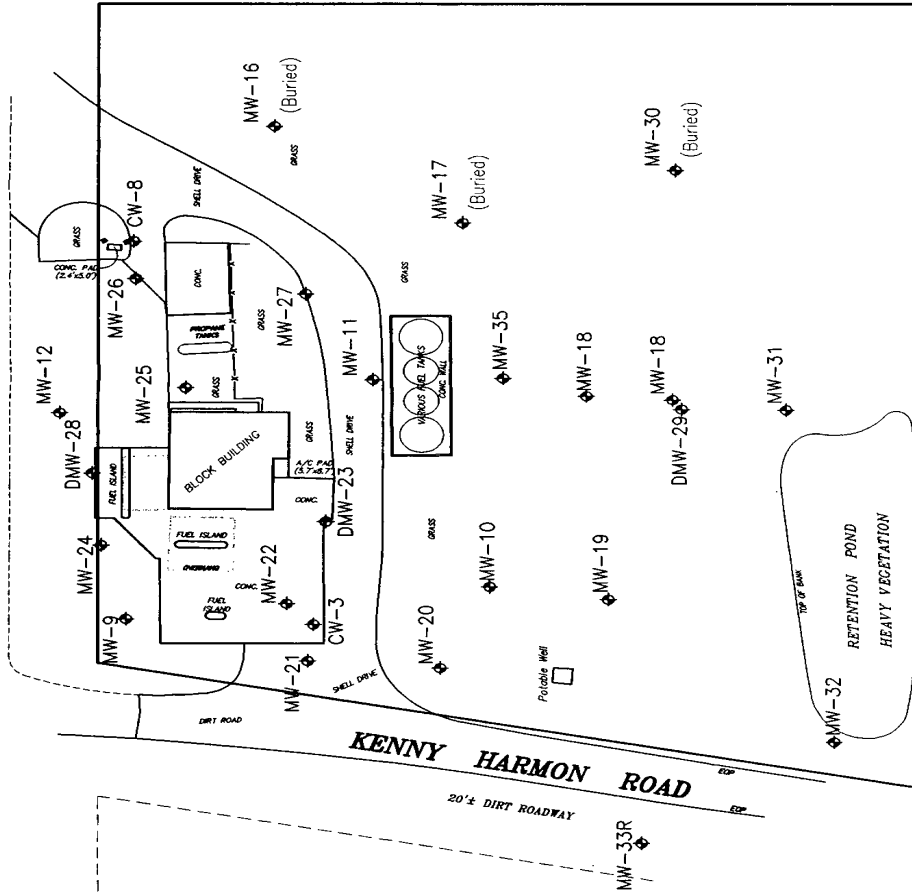
APPENDIX C



0 10 20 30 40 50
SCALE 1"=50'

HIGHWAY 17/92
42'± ASPHALT PAVEMENT

MW-X



60' RIGHT OF WAY (P)

Legend

- Monitoring Well Location
- Compliance Well Location
- Deep Monitoring Well Location

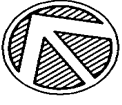
Figure 1
GENERAL SITE PLAN
Wils County Store
6004 U.S. HWY 17-92, Kenny Harmon Road
Loughman, Florida 33858

Site Manager:	M. Hamsher
Drawn by:	M. Hamsher
Date:	4/09/01 Scale: 1"=50'
Project No.:	VES-01004



HIGHWAY 17/92

42' ± ASPHALT PAVEMENT



SCALE 1" = 30'

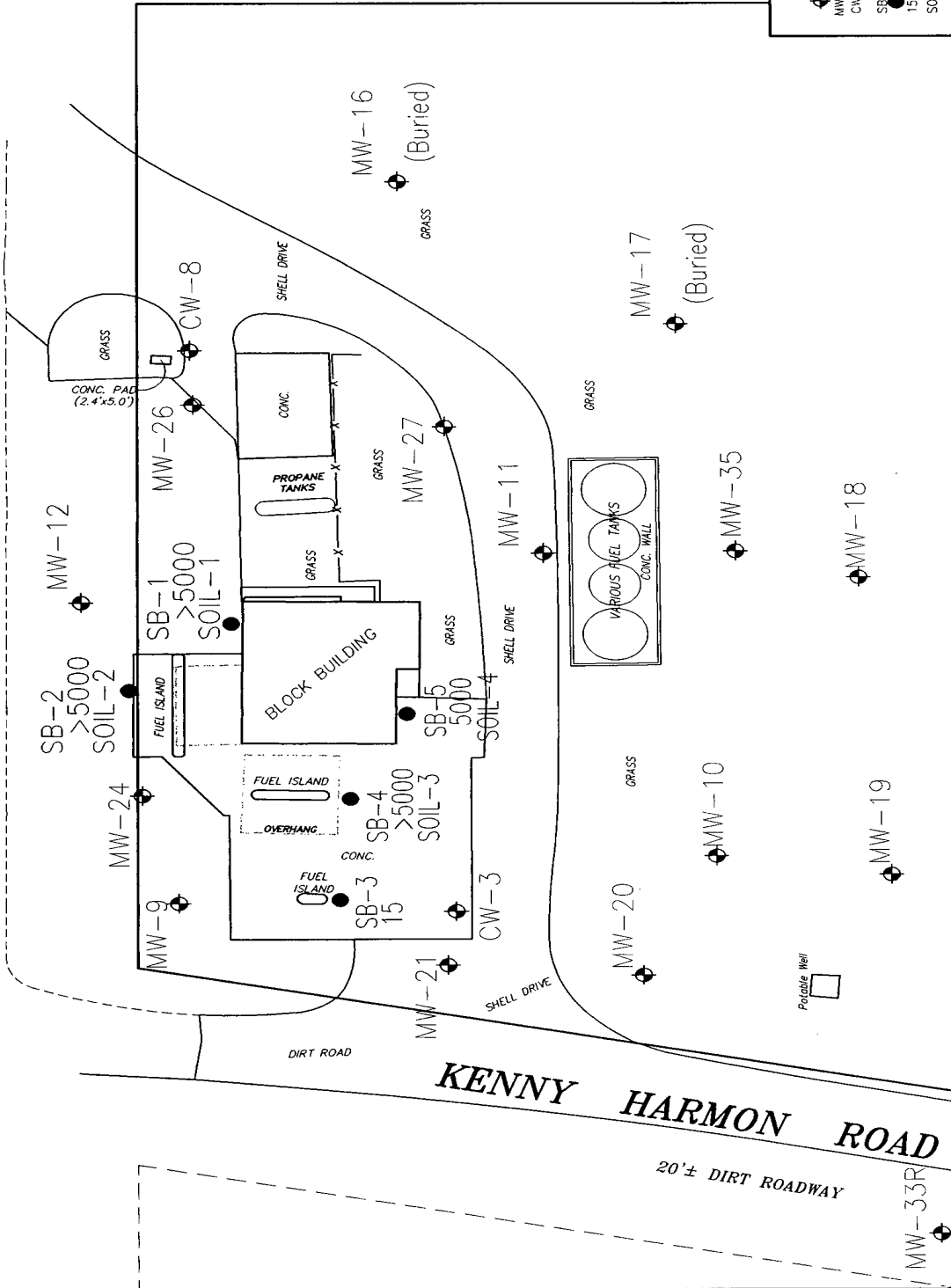
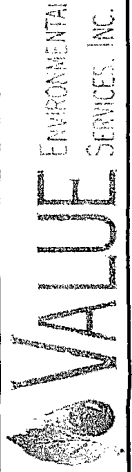


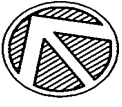
Figure 2

SOIL BORING LOCATIONS & OVA VALUES (3/6/01)

Wils Country Store
6004 U.S. HWY 17-92, Kenny Harmon Road
Loughman, Florida 33858

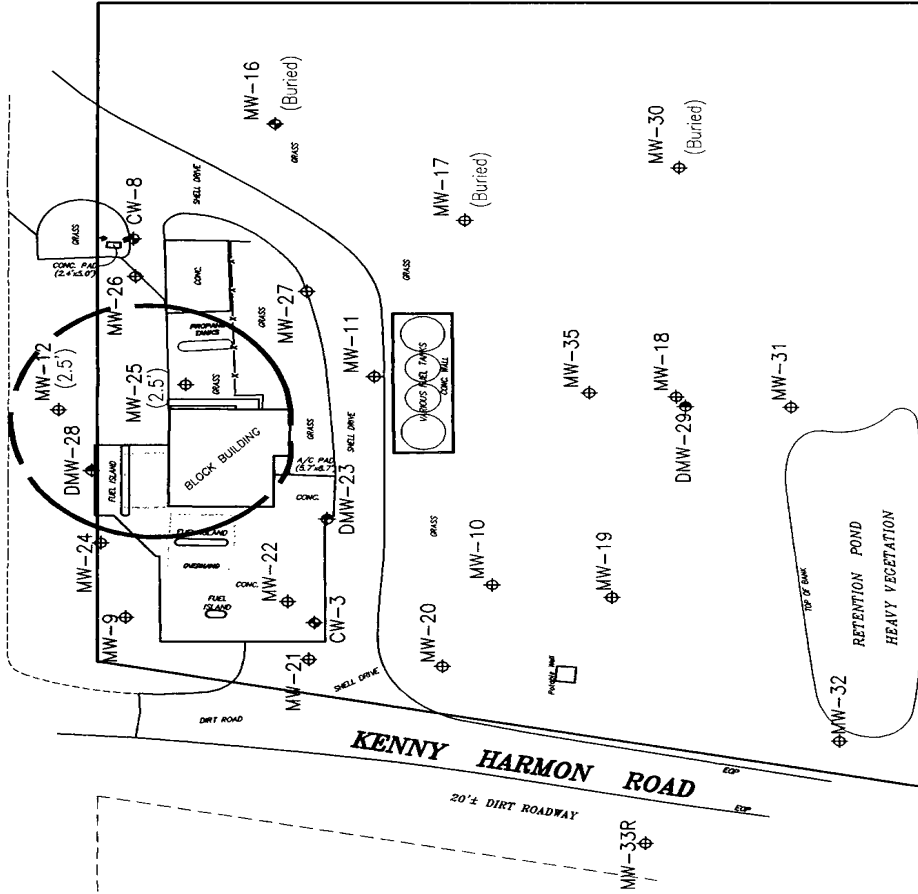


Site Manager:	M. Hamsher
Drawn by:	M. Hamsher
Date:	4/09/01 Scale: 1" = 30'
Project No.:	VES-01004



0 10 20 50
SCALE: 1"=50'

HIGHWAY 17/02
42"± ASPHALT PAVEMENT



Legend:
 MW-1 Monitoring Well Location
 2.5 Free Product Thickness in feet
 CW-1 Compliance Well Location
 DMW-23 Deep Monitoring Well Location
 Free Product 1 unit contour (Dashed where inferred)

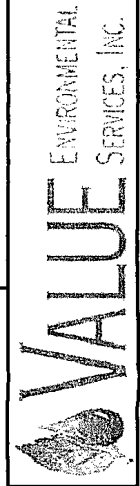
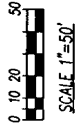


Figure 3
FREE PRODUCT LOCATIONS (3/14/01)
 Wis Country Store
 6004 U.S. HWY 17-92, Kenny Harmon Road
 Loughman, Florida 33858

Site Manager:	M. Hamsher
Drawn by:	M. Hamsher
Date:	4/09/01 Scale: 1"=50'
Project No.:	VES-01004



Legend

- Monitoring Well Location
- Compliance Well Location
- Deep Monitoring Well Location
- (6.1) Benzene Concentration in ug/l
- (<1.0) Less than Lab Method Detection Limit
- 1 ug/l Benzene Isocontour (Dashed where inferred)
- (NS) NOT SAMPLED
- (FP) FREE PRODUCT

HIGHWAY 17/92
42'± ASPHALT PAVEMENT

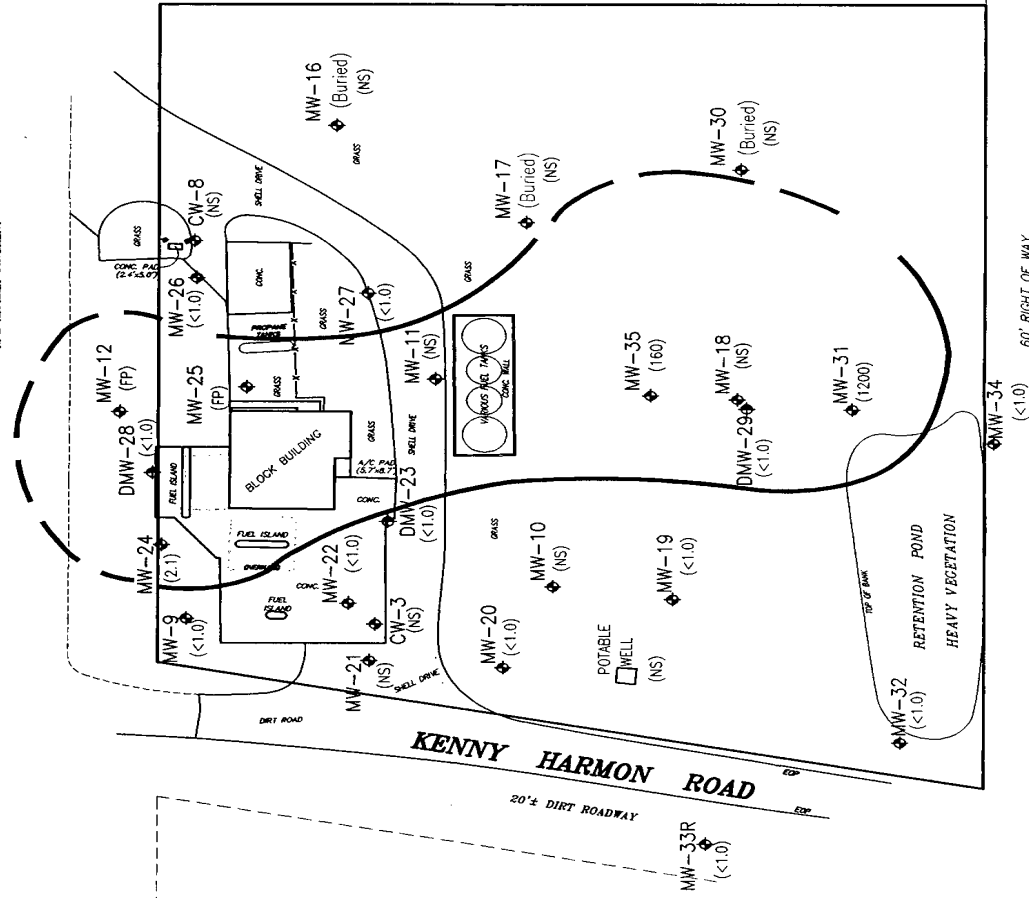
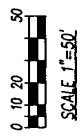


Figure 4
BENZENE CONCENTRATIONS (3/14/01)
 Wils Country Store
 6004 U.S. HWY 17-92, Kenny Harmon Road
 Loughman, Florida 33858

Site Manager:	M. Hamsher
Drawn by:	M. Hamsher
Date:	4/09/01 Scale: 1"=50'
Project No.:	VES-01004





Legend

- ◆ MW-1 Monitoring Well Location
- ◆ CW-1 Compliance Well Location
- ◆ DMW-23 Deep Monitoring Well Location
- (7.4) Naphthalene Concentration in ug/l
- (<1.0) Less than Lab Method Detection Limit
- 20 ug/l Naphthalene Isocontour (Dashed where inferred)
- (NS) NOT SAMPLED
- (FP) FREE PRODUCT

HIGHWAY 17/92
42'± ASPHALT PAVEMENT

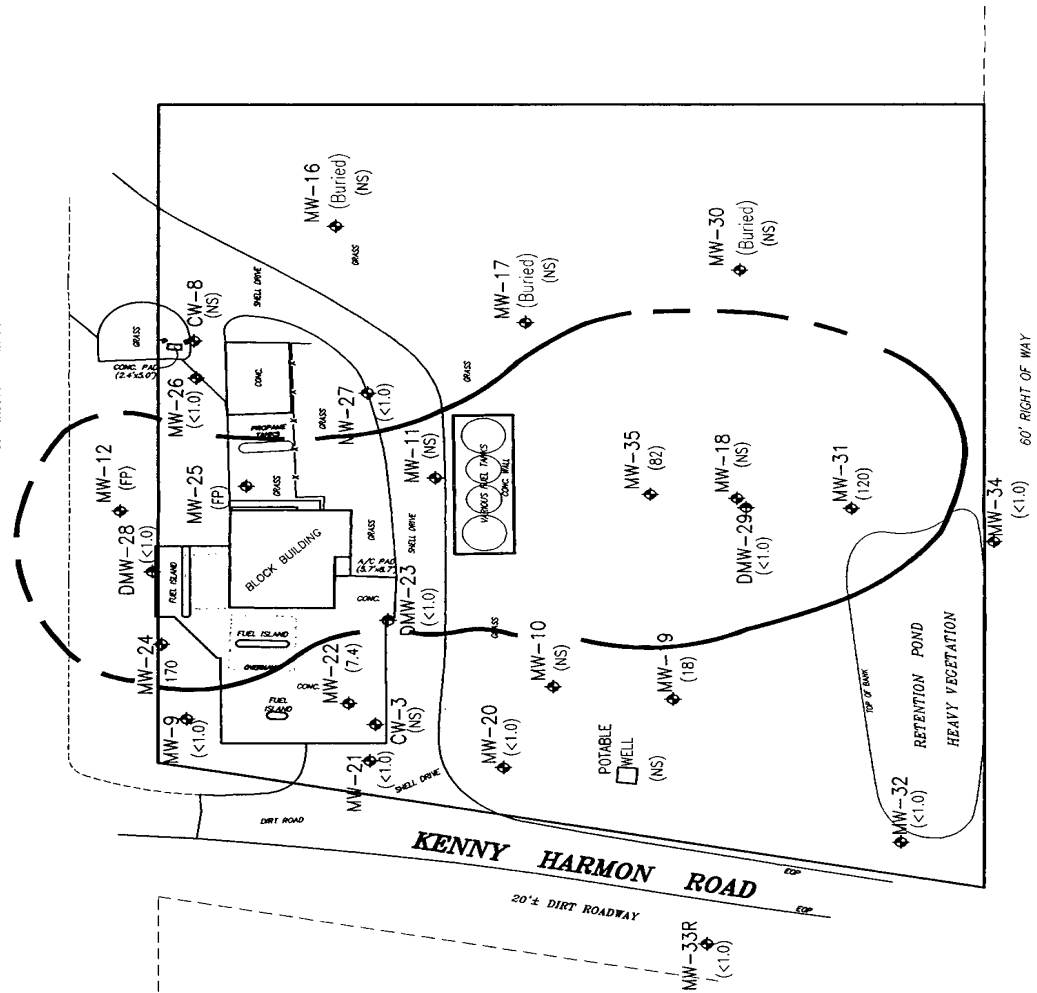
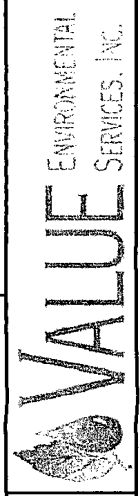


Figure 5
NAPHTHALENE CONCENTRATIONS (3/14/01)
 Wils Country Store
 6004 U.S. HWY 17-92, Kenny Harmon Road
 Loughman, Florida 33858



Site Manager:	M. Hamscher
Drawn by:	M. Hamscher
Date:	4/09/01 Scale: 1"=50'
Project No.:	VES-01004



0 10 20 50
SCALE 1"=50'

Legend

- Monitoring Well Location
- Compliance Well Location
- Deep Monitoring Well Location
- 90.40' Contourline Elevation
- 90.42 Top of Casing Elevations
- Ground Water Flow Direction

HIGHWAY 17/92
42% ASPHALT PAVEMENT

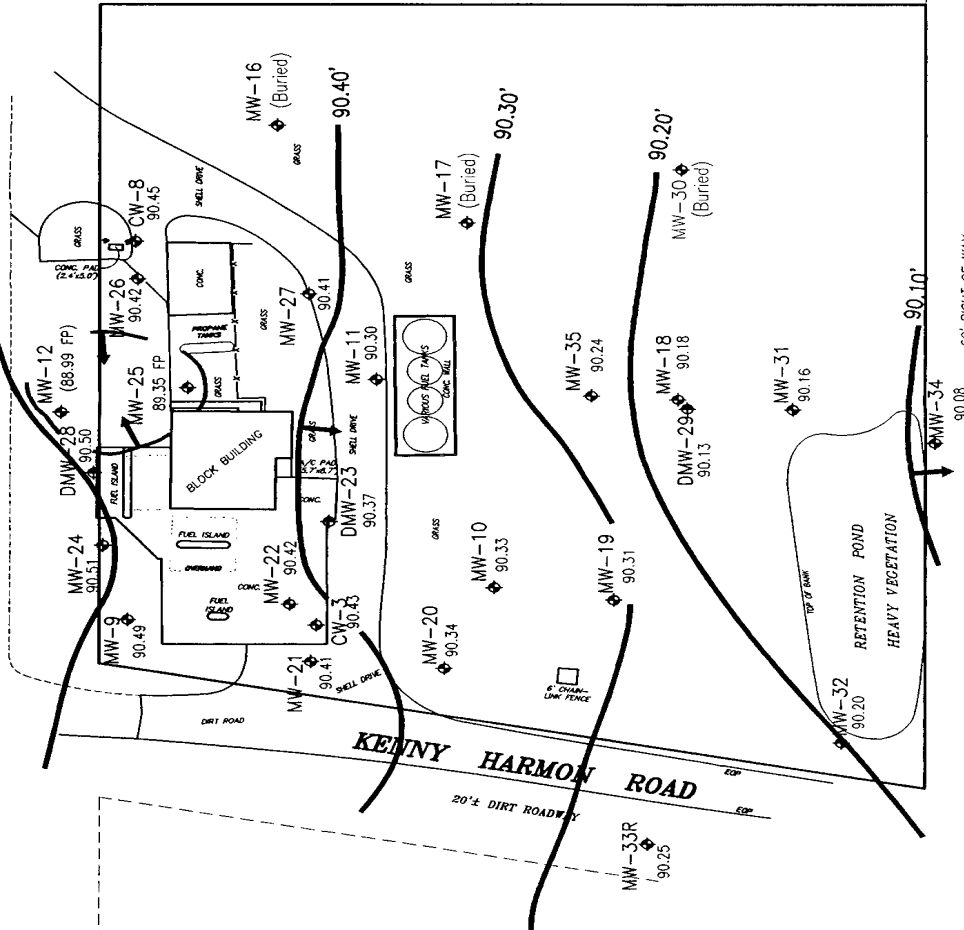
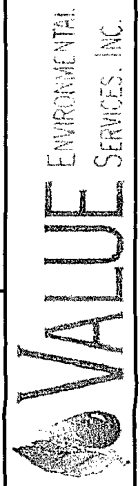
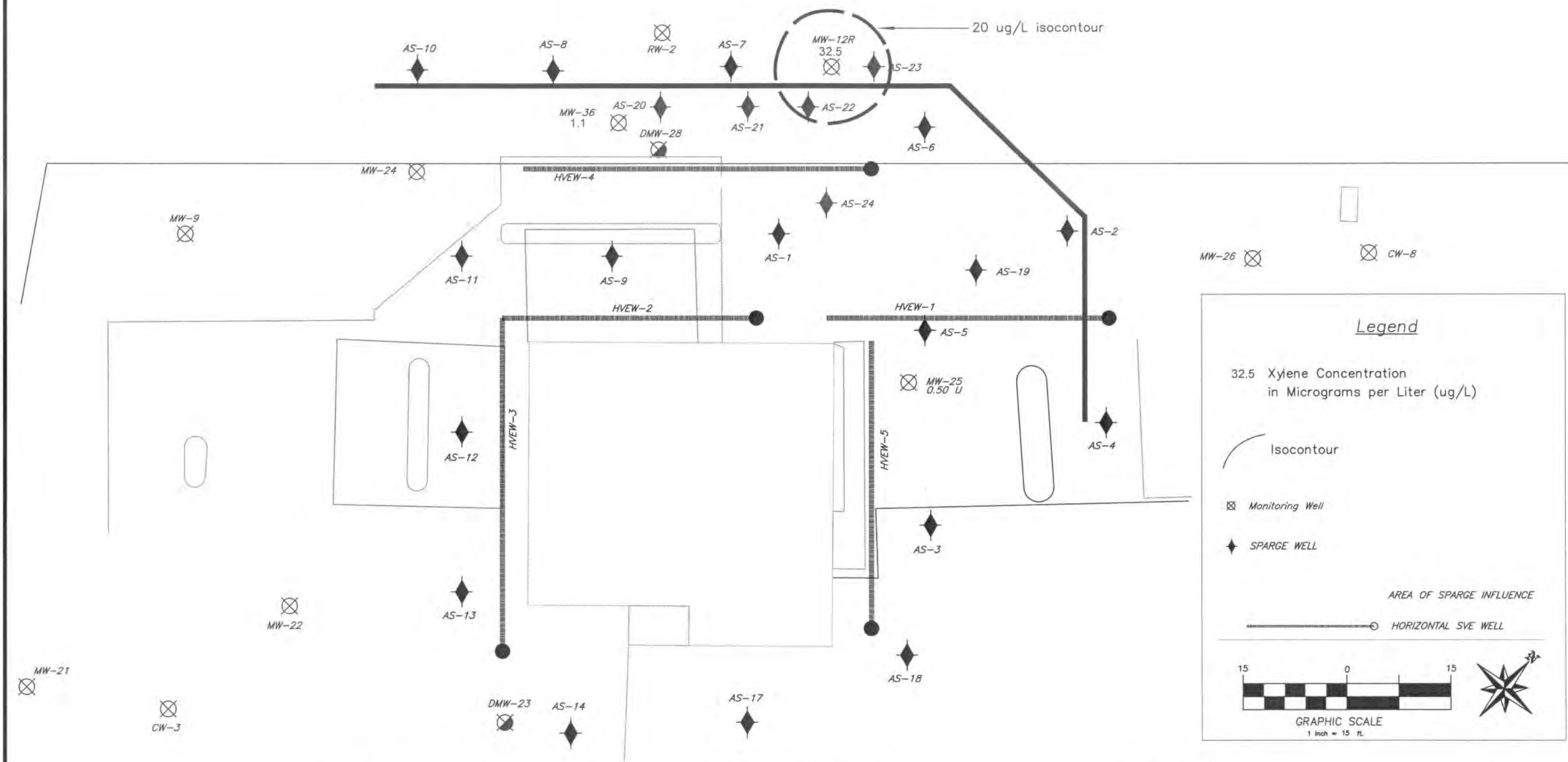


Figure 6
GROUNDWATER FLOW (3/14/01)
 Wils Country Store
 6004 U.S. HWY 17-92, Kenny Harmon Road
 Loughman, Florida 33858



Site Manager:	M. Hamsher
Drawn by:	M. Hamsher
Date:	4/09/01 Scale: 1"=50'
Project No.:	VES-01004

HIGHWAY 17/92



Legend

32.5 Xylene Concentration in Micrograms per Liter (ug/L)

— Isocontour

⊗ Monitoring Well

◆ SPARGE WELL

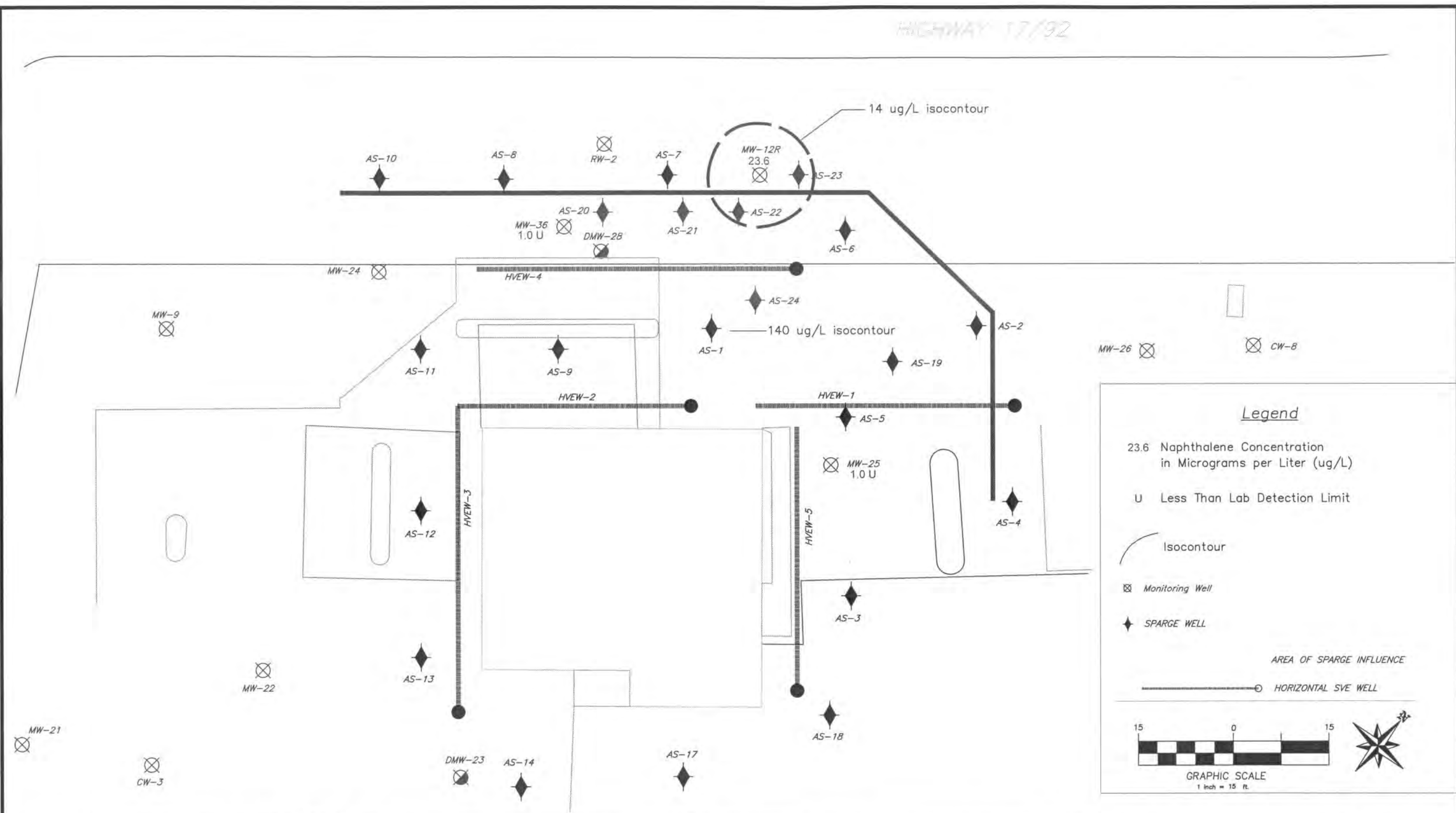
—○— AREA OF SPARGE INFLUENCE

—○— HORIZONTAL SVE WELL

GRAPHIC SCALE
1 inch = 15 ft.

REVISIONS	BY	DATE	SURVEY BK.	PG.	CLIENT Value Environmental Services, Inc. 9608 128th Terrace N Largo, Florida 33773	PROJECT NAME Loughman Service Center Loughman, Florida	DATE 10/24/2013
							FILE NAME WCS Xylene 100813
			CALC.				PROJECT NO.
			DESIGN				SHEET
			DRAWN				4 of 5
		APPROVED			Date		

HIGHWAY 17/92



Legend

23.6 Naphthalene Concentration in Micrograms per Liter (ug/L)

U Less Than Lab Detection Limit

— Isocontour

⊗ Monitoring Well

◆ SPARGE WELL

—○— HORIZONTAL SIVE WELL

AREA OF SPARGE INFLUENCE

GRAPHIC SCALE
1 inch = 15 ft.

REVISIONS	BY	DATE	SURVEY BK.	PG.	CLIENT Value Environmental Services, Inc. 9608 128th Terrace N Largo, Florida 33773	PROJECT NAME Loughman Service Center Loughman, Florida	DATE 10/24/2013
							FILE NAME WCS Naphthalene 100813
			CALC.				PROJECT NO.
			DESIGN				SHEET
			DRAWN				5 of 5
		APPROVED			Date	PLAN Figure 5 Naphthalene Concentration Map (10/8/2013)	

APPENDIX D

7-19-17
Tues.

Loughman Service Center
Continue

9-19-17
Thurs.

skel

l

MW-37	Depth	Litho
Start	1	Fine Brown Sands w/ Large Gravel
925	2	SAA
Gross/Depth	3	Fine Lt. Gray Sands w/ med Gravel
Done	4	SAA
950	5	SAA

- Well installed @
- 2" Sch 40 PVC 14' total
- 10' of Screen, 4' Riser
- 20/30 Sands: 14'-3"
- 30/65 Sands: 3'-1"
- Grout: 1'-0"
- DTW Before: 6.02
- DTW During: 11.28
- DTW After: 6.08
- Gpm: 20 gpm
- Min: 20 min
- Total Cals: 40 gals

MW-38	Depth	Litho
Start	1	Fine Brown Sands
1000	2	Fine Lt. Brown Sands
Gross/Depth	3	SAA
Done	4	SAA
1100	5	SAA

- Well installed @
- 2" Sch 40 PVC 14' total
- 10' screen, 4' Riser
- 20/30 Sands: 14'-3"
- 30/65 Sands: 3'-1"
- Grout: 1'-0"
- DTW Before: 6.04
- DTW During: 11.16
- DTW After: 6.04
- Gpm: 2.0
- Min: 20
- Cals: 40

- 1100 am finished 2x2 well pads, Developing wells, Clean up, Etc.
- 1230 Everyone off site - Locked Gate.
- 1430 Office + Done

Loughman Service Center
 6004 US Hwy. 17/92 North
 Loughman, Polk County, Fl.
 PDEP ID# 53/8624326
 OFFice: 600 am (Load + Travel)
 On Site: 730 am

9-19-17
 Tues.

Loughman S
 Continue

Weather: Cloudy, 75
 Per: R.B. (ULT)
 Veh: (1) F-150 #91 ETL Owned Vehicle
 Scope: Install (3) G.W. wells.

- Preferred on site at 8:15 am Josh, Justin, + Joskel
 - With DPT Rig (Trailer) + Box Truck.

- Signed H+S

Started on MW-36

MW-36	Depth	Litho
Start	1	Fine Brown Sand w/ Large Gravel
845	2	SAA
Dirt/Gross	3	SAA
	4	Fine Lt. Brown Sand w/ Large Gravel
Done	5	SAA

- Well installed @ 9:23 am.
 - 2" Sch 40 pvc 14' total
 - 10' of Screen 4' Riser
 - 20/30 Sand : 14' - 3'
 - 30/65 Sand : 3' - 1'
 - Grout : 7' - 0'
 - DTW Before : 6.55
 - DTW During : 11.20
 - DTW After : 6.53
 - GPM : 2.0 spm.
 - Min : 20 min.
 - Total Gals : 40 gals.

MW-37 | Depth

Start	1
925	2
Gross/Dirt	3
Done	4
950	5

- Well instl
- 2" Sch 40
- 10' of Screen
- 20/30 Sand
- 30/65 Sand
- Grout
- DTW Before
- DTW During
- DTW After
- GPM
- Min
- Total Gals

MW-38 | Depth

Start	1
1000	2
Gross/Dirt	3
Done	4
1100	5

- Well instl
- 2" Sch 40
- 10' screen
- 20/30 Sand
- 30/65 Sand
- Grout
- DTW Before
- DTW During
- DTW After
- 1100 am
- 1230 EV
- 1430 OF

BORING LOG

Boring/Well Number: MW-37		Permit Number:		FDEP Facility Identification Number: 53/8624326	
Site Name: Loughman Service Center		Borehole Start Date: 9-19-17 End Date: 9-19-17		Borehole Start Time: 9:25 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM End Time: 9:50 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	
Environmental Contractor: Envirotron Ltd.		Geologist's Name: Kristi M.		Environmental Technician's Name: R.B.	
Drilling Company: Preferred Drilling		Pavement Thickness (inches): Grass/Dirt	Borehole Diameter (inches): 4"		Borehole Depth (feet): 14'
Drilling Method(s): HA / DP	Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): 6.02		OVA (list model and check type): <input type="checkbox"/> FID <input type="checkbox"/> PID
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input checked="" type="checkbox"/> Spread <input type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other (describe if other or multiple items are checked):					
Borehole Completion (check one): <input checked="" type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA		12"					1	Fine Brown Sands w/ large gravel			
							2	SIAA			
							3	Fine Lt. Grey Sands w/ med gravel			
							4	SIAA			
							5	SIAA			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Boring/Well Number: MW-38		Permit Number:		FDEP Facility Identification Number: 53/8624326	
Site Name: Loughman Service Center		Borehole Start Date: 9-19-17 End Date: 9-19-17		Borehole Start Time: 10:00 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM End Time: 11:00 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	
Environmental Contractor: Envirotrace Ltd.		Geologist's Name: Kristi M.		Environmental Technician's Name: R.B.	
Drilling Company: Preferred Drilling		Pavement Thickness (inches): Guess/Don't	Borehole Diameter (inches): 4"		Borehole Depth (feet): 14'
Drilling Method(s): HA / DP	Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): 6.04		OVA (list model and check type): <input type="checkbox"/> FID <input type="checkbox"/> PID
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input checked="" type="checkbox"/> Spread <input type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other <i>(describe if other or multiple items are checked):</i>					
Borehole Completion (check one): <input checked="" type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description <small>(include grain size based on USCS, odors, staining, and other remarks)</small>	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples <small>(list sample number and depth or temporary screen interval)</small>
HA		12"					1	Fine Brown Sands.			
							2	Fine Lt. Brown Sands.			
							3	SAA			
							4	SAA			
							5	SAA			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Boring/Well Number: MW-39		Permit Number:		FDEP Facility Identification Number: 53/8624326	
Site Name: Loughman Service Center		Borehole Start Date: 9-19-17	Borehole Start Time: 8:45 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	End Date: 9-19-17	End Time: 9:23 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM
Environmental Contractor: Envirotrac Ltd.		Geologist's Name: Kristi M.		Environmental Technician's Name: R.B.	
Drilling Company: Preferred Drilling	Pavement Thickness (inches): Grass / Dirt	Borehole Diameter (inches): 4"		Borehole Depth (feet): 14'	
Drilling Method(s): HA / DP	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): 6.55	OVA (list model and check type): <input type="checkbox"/> FID <input type="checkbox"/> PID		
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input checked="" type="checkbox"/> Spread <input type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other <i>(describe if other or multiple items are checked):</i>					
Borehole Completion (check one): <input checked="" type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA		12"					1	Fine Brown Sand w/ Large Gravel			
							2	SAA			
							3	SAA			
							4	Fine Lt. Brown Sand w/ Large Gravel			
							5	SAA			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: MW-37		Site Name: Loughman Service Center		FDEP Facility I.D. Number: 53/8624326	Well Install Date(s): 9-19-17
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input type="checkbox"/> Above Grade (AG) <input type="checkbox"/> Flush-to-Grade If AG, list feet of riser above land surface:			Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)		Well Install Method: DPT
Borehole Depth (feet): 14'	Well Depth (feet): 14'	Borehole Diameter (inches): 8"	Manhole Diameter (inches): 8"	Well Pad Size: 2 feet by 2 feet	
Riser Diameter and Material: 2" Sch 40 PVC		Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-Threaded <input type="checkbox"/> Other (describe)		Riser Length: 4 feet from 4 feet to 0 feet	
Screen Diameter and Material: 2" Sch 40 PVC		Screen Slot Size: 0.010		Screen Length: 10 feet from 14 feet to 4 feet	
1 st Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		1 st Surface Casing I.D. (inches):		1 st Surface Casing Length: _____ feet from 0 feet to _____ feet	
2 nd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		2 nd Surface Casing I.D. (inches):		2 nd Surface Casing Length: _____ feet from 0 feet to _____ feet	
3 rd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		3 rd Surface Casing I.D. (inches):		3 rd Surface Casing Length: _____ feet from 0 feet to _____ feet	
Filter Pack Material and Size: 20/30 Sandz		Prepacked Filter Around Screen (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Filter Pack Length: 11 feet from 14 feet to 3 feet	
Filter Pack Seal Material and Size: 30/65 Sandz				Filter Pack Seal Length: 2 feet from 3 feet to 1 feet	
Surface Seal Material: Grout				Surface Seal Length: 1 feet from 1 feet to 0 feet	

WELL DEVELOPMENT DATA			
Well Development Date: 9-19-17		Well Development Method (check one): <input type="checkbox"/> Surge/Pum <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)	
Development Pump Type (check): <input checked="" type="checkbox"/> Centrifugal <input type="checkbox"/> Peristaltic <input type="checkbox"/> Submersible <input type="checkbox"/> Other (describe)		Depth to Groundwater (before developing in feet): 6.02	
Pumping Rate (gallons per minute): 2 gpm		Maximum Drawdown of Groundwater During Development (feet): 11.28	Well Purged Dry (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Pumping Condition (check one): <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	Total Development Water Removed (gallons): 40	Development Duration (minutes): 20	Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Water Appearance (color and odor) At Start of Development: Brown / No		Water Appearance (color and odor) At End of Development: Clear / No	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: <i>MW-38</i>		Site Name: <i>Loughman Servia Center</i>		FDEP Facility I.D. Number: <i>53/8624326</i>	Well Install Date(s): <i>9-19-17</i>
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input type="checkbox"/> Above Grade (AG) <input type="checkbox"/> Flush-to-Grade ----- If AG, list feet of riser above land surface:			Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)		Well Install Method: <i>DPT</i>
Well Pad Size: <i>2</i> feet by <i>2</i> feet	Borehole Depth (feet): <i>14'</i>	Well Depth (feet): <i>14'</i>	Borehole Diameter (inches): <i>8"</i>	Manhole Diameter (inches): <i>8"</i>	Surface Casing Install Method:
Riser Diameter and Material: <i>2" Sch 40 PVC</i>		Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-Threaded <input type="checkbox"/> Other (describe)		Riser Length: <i>4</i> feet from <i>4</i> feet to <i>0</i> feet	
Screen Diameter and Material: <i>2" sch 40 PVC</i>		Screen Slot Size: <i>0.010</i>		Screen Length: <i>10</i> feet from <i>14</i> feet to <i>4</i> feet	
1 st Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		1 st Surface Casing I.D. (inches):		1 st Surface Casing Length: _____ feet from <i>0</i> feet to _____ feet	
2nd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		2nd Surface Casing I.D. (inches):		2nd Surface Casing Length: _____ feet from <i>0</i> feet to _____ feet	
3 rd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		3 rd Surface Casing I.D. (inches):		3 rd Surface Casing Length: _____ feet from <i>0</i> feet to _____ feet	
Filter Pack Material and Size: <i>20/30 Sand</i>		Prepacked Filter Around Screen (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Filter Pack Length: <i>11</i> feet from <i>14</i> feet to <i>3</i> feet	
Filter Pack Seal Material and Size: <i>30/65 Sand</i>				Filter Pack Seal Length: <i>2</i> feet from <i>3</i> feet to <i>1</i> feet	
Surface Seal Material: <i>Grout</i>				Surface Seal Length: <i>1</i> feet from <i>1</i> feet to <i>0</i> feet	

WELL DEVELOPMENT DATA			
Well Development Date: <i>9-15-17</i>		Well Development Method (check one): <input type="checkbox"/> Surge/Pum <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)	
Development Pump Type (check): <input checked="" type="checkbox"/> Centrifugal <input type="checkbox"/> Peristaltic <input type="checkbox"/> Submersible <input type="checkbox"/> Other (describe)		Depth to Groundwater (before developing in feet): <i>6.04</i>	
Pumping Rate (gallons per minute): <i>2 gpm</i>		Maximum Drawdown of Groundwater During Development (feet): <i>11.16</i>	Well Purged Dry (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Pumping Condition (check one): <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	Total Development Water Removed (gallons): <i>40</i>	Development Duration (minutes): <i>20</i>	Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Water Appearance (color and odor) At Start of Development: <i>Brown / no</i>		Water Appearance (color and odor) At End of Development: <i>Clear / no</i>	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: <u>MW-39</u>		Site Name: <u>Loughman Service Center</u>		FDEP Facility I.D. Number: <u>53/8624326</u>	Well Install Date(s): <u>9-19-17</u>
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input type="checkbox"/> Above Grade (AG) <input type="checkbox"/> Flush-to-Grade			Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)		Well Install Method: <u>DPT</u>
If AG, list feet of riser above land surface:					Surface Casing Install Method:
Borehole Depth (feet): <u>14'</u>	Well Depth (feet): <u>14'</u>	Borehole Diameter (inches): <u>8"</u>	Manhole Diameter (inches): <u>8"</u>	Well Pad Size: <u>2</u> feet by <u>2</u> feet	
Riser Diameter and Material: <u>2" sch 40 PVC</u>		Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-Threaded <input type="checkbox"/> Other (describe)	Riser Length: <u>4</u> feet from <u>4</u> feet to <u>0</u> feet		
Screen Diameter and Material: <u>2" sch 40 PVC</u>		Screen Slot Size: <u>0.010</u>	Screen Length: <u>10</u> feet from <u>14</u> feet to <u>4</u> feet		
1 st Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		1 st Surface Casing I.D. (inches):	1 st Surface Casing Length: _____ feet from <u>0</u> feet to _____ feet		
2nd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		2nd Surface Casing I.D. (inches):	2nd Surface Casing Length: _____ feet from <u>0</u> feet to _____ feet		
3 rd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		3 rd Surface Casing I.D. (inches):	3 rd Surface Casing Length: _____ feet from <u>0</u> feet to _____ feet		
Filter Pack Material and Size: <u>20/30 Sands</u>	Prepacked Filter Around Screen (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Filter Pack Length: <u>11</u> feet from <u>14</u> feet to <u>3</u> feet		
Filter Pack Seal Material and Size: <u>30/65 Sands</u>		Filter Pack Seal Length: <u>2</u> feet from <u>3</u> feet to <u>1</u> feet			
Surface Seal Material: <u>Grout</u>		Surface Seal Length: <u>1</u> feet from <u>1</u> feet to <u>0</u> feet			

WELL DEVELOPMENT DATA			
Well Development Date: <u>9-19-17</u>		Well Development Method (check one): <input type="checkbox"/> Surge/Pum <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)	
Development Pump Type (check): <input checked="" type="checkbox"/> Centrifugal <input type="checkbox"/> Peristaltic <input type="checkbox"/> Submersible <input type="checkbox"/> Other (describe)		Depth to Groundwater (before developing in feet): <u>6.53</u>	
Pumping Rate (gallons per minute): <u>2 gpm</u>	Maximum Drawdown of Groundwater During Development (feet): <u>11.20</u>		Well Purged Dry (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Pumping Condition (check one): <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	Total Development Water Removed (gallons): <u>40</u>	Development Duration (minutes): <u>20</u>	Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Water Appearance (color and odor) At Start of Development: <u>Brown / NO</u>		Water Appearance (color and odor) At End of Development: <u>Clear / NO</u>	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

9/24/17 Houghman Service Center 900
 6007 Hwy 17/92 W, Logansport, IN Sun
 Dept # 53 / 2624326

6:30 travel Dam Watts UT
 7:45 on site map Elevation around F150 #50 Frontpage
 locate 7-gage . m/s
 Sunny
 Calibrate 1/61 550 / 1/24 200

TOC

mw-37	4.83	99.65	
mw-39	4.48	100	+ 104.48
mw-38	4.75	99.73	

ID	Draw	pump stat	Sample hr
mw-37	6:16	10:15	10:45
mw-39	6:44	9:33	10:02
mw-38	6:13	8:50	9:20

11:10 off site

11:40 travel



DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Loughman Service Center (Facility ID: 53/8624326)	SITE LOCATION: 6004 US Hwy 17/92 N, Loughman, Polk County, Florida
WELL NO: MW-37	SAMPLE ID: MW-37 DATE: 9/22/17

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 4 feet to 14 feet	STATIC DEPTH TO WATER (feet): 6.16	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (14 feet - 6.16 feet) X 1.16 gallons/foot = 1.25 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 8.16	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 8.16	PURGING INITIATED AT: 10:15	PURGING ENDED AT: 10:34	TOTAL VOLUME PURGED (gallons): 1.8							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
10:28	1.3	1.3	.1	6.27	6.92	28.5	510	.91	12.6	Clear	None
10:31	.3	1.5	.1	6.27	6.93	28.5	512	.90	9.9	u y u y	u y
10:34	.3	1.8	.1	6.27	6.95	28.5	512	.87	8.4	- -	- -
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: 8.16	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 10:34	SAMPLING ENDED AT: 10:45						
PUMP OR TUBING DEPTH IN WELL (feet): 8.16	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	FILTRATION EQUIPMENT TYPE: _____						
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	TUBING Y <input checked="" type="checkbox"/> N <input type="checkbox"/> (replaced)	DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>							
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-37	3	AG	40ml	HCl			8260-BTEX/MTBE	APP	200ml
MW-37	1	AG	250ml	None			8270-PAH		
MW-37	2	AG	125ml	H2SO4			TRPH-FL PRO		
MW-37	2	LV	40ml	None			EDB		
MW-37	1	PL	250ml	HNO3			Total Lead		
REMARKS: ORP: -75.9									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)									
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)									

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)



DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Loughman Service Center (Facility ID: 53/8624326) SITE LOCATION: 6004 US Hwy 17/92 N, Loughman, Polk County, Florida
WELL NO: MW-38 SAMPLE ID: MW-38 DATE: 9/22/17

PURGING DATA

WELL DIAMETER (inches): 2 TUBING DIAMETER (inches): 0.25 WELL SCREEN INTERVAL DEPTH: 4 feet to 14 feet STATIC DEPTH TO WATER (feet): 6.13 PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY = (14 feet - 6.13 feet) X 0.16 gallons/foot = 1.25 gallons
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME = gallons + (gallons/foot X feet) + gallons = gallons
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 8.13 FINAL PUMP OR TUBING DEPTH IN WELL (feet): 8.13 PURGING INITIATED AT: 8:50 PURGING ENDED AT: 9:09 TOTAL VOLUME PURGED (gallons): 1.9
Table with columns: TIME, VOLUME PURGED (gallons), CUMUL. VOLUME PURGED (gallons), PURGE RATE (gpm), DEPTH TO WATER (feet), pH (standard units), TEMP. (°C), COND. (circle units) μmhos/cm or μS/cm, DISSOLVED OXYGEN (circle units) mg/L or % saturation, TURBIDITY (NTUs), COLOR (describe), ODOR (describe)
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Watts / ETRF SAMPLER(S) SIGNATURE(S): [Signature] SAMPLING INITIATED AT: 9:09 SAMPLING ENDED AT: 9:20
PUMP OR TUBING DEPTH IN WELL (feet): 8.13 TUBING MATERIAL CODE: HDPE FIELD-FILTERED: Y N FILTER SIZE: μm
FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N
SAMPLE CONTAINER SPECIFICATION: SAMPLE ID CODE, # CONTAINERS, MATERIAL CODE, VOLUME, PRESERVATIVE USED, TOTAL VOL ADDED IN FIELD (mL), FINAL pH, INTENDED ANALYSIS AND/OR METHOD, SAMPLING EQUIPMENT CODE, SAMPLE PUMP FLOW RATE (mL per minute)
REMARKS: ORP: 25.6
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)



DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Loughman Service Center (Facility ID: 53/8624326)		SITE LOCATION: 6004 US Hwy 17/92 N, Loughman, Polk County, Florida	
WELL NO: MW-36 <i>mw-39</i>	SAMPLE ID: MW-1036 <i>mw-39</i>	DATE: 9/22/17	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 4 feet to 14 feet	STATIC DEPTH TO WATER (feet): 6.44	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (14 feet - 6.44 feet) X 116 gallons/foot = 1.20 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 8.44	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 8.44	PURGING INITIATED AT: 9:33	PURGING ENDED AT: 9:51	TOTAL VOLUME PURGED (gallons): 1.7							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
9:45	1.2	1.2	11	6.71	7.18	28.3	358	1.12	17.9	clear	None
9:48	.3	1.5	11	6.71	7.18	28.3	359	1.14	14.2	" "	" "
9:51	.3	1.7	11	6.71	7.17	28.3	361	1.16	13.6	" "	" "
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Watts / ETRF				SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>			SAMPLING INITIATED AT: 9:51	SAMPLING ENDED AT: 10:02	
PUMP OR TUBING DEPTH IN WELL (feet): 8.44				TUBING MATERIAL CODE: HDPE		FIELD-FILTERED: Y <input checked="" type="checkbox"/>	FILTER SIZE: 1 μm		
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> TUBING Y <input checked="" type="checkbox"/> (replaced)				DUPLICATE: Y <input checked="" type="checkbox"/>					
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-36	3	CU	40ml	HCl			8260-BTEX/MTBE	APP	200ml
MW-36	1	AG	250ml	None			8270-PAH	↓	↓
MW-36	2	AG	125ml	H2SO4			TRPH-FL PRO	↓	↓
MW-36	2	CU	40ml	None			EDB	↓	↓
MW-36	1	PC	250ml	HNO3			Total Lead	↓	↓
REMARKS: ORP: -18.6									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)									
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)									

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)
 62-160.800 F.A.C. Revision Date: March 1, 2014

Boldly "X" this box if there is qualified data on this page.

Form FD9000-8 CALIBRATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000) 11-10-05

Project/Site: Loughman Service Station Date: 9/22/17 Meter # X555671

Temperature (Quarterly) For Date of Last Temperature Verification see in log book

Disolved Oxygen	DEP SOP FT 1500	Initials	Date	Time	Probe Charge	Probe Gain	mg/L	Temp °C	% DO	Saturation mg/L (from chart)	Pass or Fail
CAL ICV CCV		DW	9/22/17	8:30			7.92	27.3			P
CAL ICV CCV				8:33			7.90	27.3			P
CAL ICV CCV				10:55			7.84	28.7			P
CAL ICV CCV											P
CAL ICV CCV											P
CAL ICV CCV											P
CAL ICV CCV											P

Acceptance Criteria: +/- 0.3mg/l

Specific Conductance	DEP SOP FT 1200	Initials	Date	Time	Standard μ mhos/cm	Exp. Date	Lot #	Bottle #	Cell Constant	Reading μ mhos/cm	Pass or Fail
CAL ICV CCV		DW	9/22/17	8:37	1413	04/2018	170327B	1		1413	P
CAL ICV CCV				8:40						1412	P
CAL ICV CCV				11:00						1410	P
CAL ICV CCV											P
CAL ICV CCV											P
CAL ICV CCV											P
CAL ICV CCV											P

Acceptance Criteria: +/- 5%

pH	DEP SOP FT 1100	Initials	Date	Time	Standard SU	Exp. Date	Lot #	Bottle #	Slope	Reading SU	Pass or Fail
CAL ICV CCV		DW	9/22	8:42	4.00	02/2018	170213D	1		4.00	P
CAL ICV CCV				8:45	7.00	08/2018	170213G	1		7.00	P
CAL ICV CCV				8:47	10.00	12/2018	170525C	1		10.00	P
CAL ICV CCV				8:49	7.00					7.00	P
CAL ICV CCV				11:05	6.97					6.97	P
CAL ICV CCV											P
CAL ICV CCV											P
CAL ICV CCV											P
CAL ICV CCV											P

Acceptance Criteria: +/- 0.2 SU

Maintenance: Weekly pH Slope: _____ Specific Conductance Probe Cleaned? Yes No Dissolved Oxygen Membrane Changed: Yes No

Notes:
 Perform only in Calibrate Mode: CAL - Calibrate -
 Perform only in Run Mode: ICV - Initial Calibration Verification
 Perform only in Run Mode: CCV - Continuing Calibration Verification

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) hanna 7070 INSTRUMENT # 1

PARAMETER: [check only one]

- TEMPERATURE CONDUCTIVITY SALINITY pH ORP
 TURBIDITY RESIDUAL CI DO OTHER _____

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A 0.02 NTU Exp 02/2019 0.02 lot 70401

Standard B 10.0 NTU Exp 06/2018 10.0 lot 2689840c

Standard C _____

DATE (mm/dd/yy)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
9/22/17	8:20	A	0.02	0.02		Y	Init	DU
	8:21	B	10.0	10.0		Y	Init	DU
	8:22	B	10.0	10.0		N	cont	DU
	10:50	B	10.0	9.97		N	Final	DU



STATE OF FLORIDA WELL COMPLETION REPORT

Date Stamp

- Southwest
Northwest
St. Johns River
South Florida
Suwannee River
DEP
Delegated Authority (If Applicable)

PLEASE, FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

Official Use Only

1.*Permit Number NA *CUP/WUP Number *DID Number 62-524 Delineation No.

2.*Number of permitted wells constructed, repaired, or abandoned 1 *Number of permitted wells not constructed, repaired, or abandoned 0

3.*Owner's Name Byrd Wilmer D 4.*Completion Date 9-19-17 5. Florida Unique ID

6. 6004 US Highway 17/92, Loughman FL 33858
*Well Location - Address, Road Name or Number, City, ZIP

7.*County Polk *Section 12 Land Grant *Township 27 *Range 26

8. Latitude Longitude

9. Data Obtained From: GPS X Map Survey Datum: NAD 27 NAD 83 WGS 84

10.*Type of Work: X Construction Repair Modification Abandonment

11.*Specify Intended Use(s) of Well(s):
Domestic Landscape Irrigation Agricultural Irrigation Site Investigation
Bottled Water Supply Recreation Area Irrigation Livestock Monitoring
Public Water Supply (Limited Use/DOH) Nursery Irrigation Test
Public Water Supply (Community or Non-Community/DEP) Commercial/Industrial Earth-Coupled Geothermal
Class I Injection Golf Course Irrigation HVAC Supply
Class V Injection: Recharge Commercial/Industrial Disposal Aquifer Storage and Recovery Drainage
Remediation: Recovery Air Sparge Other (Describe)
Other (Describe)

12.*Drill Method: Auger Cable Tool Rotary Combination (Two or More Methods) Jetted Sonic
Horizontal Drilling X Hydraulic Point (Direct Push) Other

13.*Measured Static Water Level 6 ft. Measured Pumping Water Level ft. After Hours at GPM

14.*Measuring Point (Describe) Which is ft. Above Below Land Surface *Flowing: Yes No

15.*Casing Material: Black Steel Galvanized X PVC Stainless Steel Not Cased Other

16.*Total Well Depth 14 ft. Cased Depth 4 ft. *Open Hole: From To ft. *Screen: From 4 To 14 ft. Slot Size .010

17.*Abandonment: Other (Explain)
From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other

18.*Surface Casing Diameter and Depth:
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other

19.*Primary Casing Diameter and Depth:
Dia 2 in. From 0 ft. To 4 ft. No. of Bags 51 Seal Material (Check One): X Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other

20.*Liner Casing Diameter and Depth:
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other

21.*Telescope Casing Diameter and Depth:
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other

22. Pump Type (If Known): Centrifugal Jet Submersible Turbine
Horsepower Pump Capacity (GPM)
Pump Depth ft. Intake Depth ft.
23. Chemical Analysis (When Required):
Iron ppm Sulfate ppm Chloride ppm
Laboratory Test Field Test Kit

24. Water Well Contractor:
*Contractor Name Gregory Campbell *License Number 2613 E-mail Address greg@pds-florida.com
*Contractor's Signature Greg Campbell *Driller's Name (Print or Type) Josh Welch
(I certify that the information provided in this report is accurate and true.)

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
 2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
 PHONE: (352) 796-7211 or (800) 423-1476
 WWW.SWFWMD.STATE.FL.US

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
 P.O. BOX 24680
 3301 GUN CLUB ROAD
 WEST PALM BEACH, FL 33416-4680
 PHONE: (561) 686-8800
 WWW.SFWMD.GOV

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
 4049 REID STREET, PALATKA, FL 32178-1429
 PHONE: (386) 329-4500
 WWW.SJRWMD.COM

SUWANNEE RIVER WATER MANAGEMENT DISTRICT
 9225 CR 49
 LIVE OAK, FL 32060
 PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
 WWW.MYSUWANNEERIVER.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
 152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
 (U.S. Highway 90, 10 miles west of Tallahassee)
 PHONE: (850) 539-5999
 WWW.NWFWMD.STATE.FL.US

*DRILL CUTTINGS LOG (Examine cuttings every 20 ft. or at formation changes. Note cavities and depth to producing zone. Grain Size: F=Fine, M=Medium, and C=Coarse)

From	ft.	To	ft.	Color	Grain Size (F, M, C)	Material	
From	0	To	14	Color	Brown	F	Sand
From		To		Color			
From		To		Color			
From		To		Color			
From		To		Color			
From		To		Color			
From		To		Color			
From		To		Color			
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From		To		Color			
From		To		Color			
From		To		Color			
From		To		Color			
From		To		Color			

Comments: 1-2" 14" well
 # 1 of 3





STATE OF FLORIDA WELL COMPLETION REPORT

- Southwest
Northwest
St. Johns River
South Florida
Suwannee River
DEP
Delegated Authority (If Applicable)

PLEASE, FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

Date Stamp
Official Use Only

1.*Permit Number NA *CUP/WUP Number *DID Number 62-524 Delineation No.
2.*Number of permitted wells constructed, repaired, or abandoned 1 *Number of permitted wells not constructed, repaired, or abandoned 0
3.*Owner's Name Byrd Wilmer D 4.*Completion Date 9-19-17 5. Florida Unique ID
6. 6004 US Highway 17/92, Loughman FL 33858
*Well Location - Address, Road Name or Number, City, ZIP
7.*County Polk *Section 12 Land Grant *Township 27 Range 26
8. Latitude Longitude
9. Data Obtained From: GPS X Map Survey Datum: NAD 27 NAD 83 WGS 84

10.*Type of Work: X Construction Repair Modification Abandonment
11.*Specify Intended Use(s) of Well(s):
Domestic Landscape Irrigation Agricultural Irrigation Site Investigation
Bottled Water Supply Recreation Area Irrigation Livestock Monitoring
Public Water Supply (Limited Use/DOH) Nursery Irrigation Test
Public Water Supply (Community or Non-Community/DEP) Commercial/Industrial Earth-Coupled Geothermal
Class I Injection Golf Course Irrigation HVAC Supply
Class V Injection: Recharge Commercial/Industrial Disposal Aquifer Storage and Recovery Drainage
Remediation: Recovery Air Sparge Other (Describe)
Other (Describe)

12.*Drill Method: Auger Cable Tool Rotary Combination (Two or More Methods) Jetted Sonic
Horizontal Drilling X Hydraulic Point (Direct Push) Other
13.*Measured Static Water Level 6 ft. Measured Pumping Water Level ft. After Hours at GPM
14.*Measuring Point (Describe) Which is ft. Above Below Land Surface *Flowing: Yes No
15.*Casing Material: Black Steel Galvanized X PVC Stainless Steel Not Cased Other
16.*Total Well Depth 14 ft. Cased Depth 4 ft. *Open Hole: From To ft. *Screen: From 4 To 14 ft. Slot Size .010

17.*Abandonment: Other (Explain)
From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other

18.*Surface Casing Diameter and Depth:
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other

19.*Primary Casing Diameter and Depth:
Dia 2 in. From 0 ft. To 4 ft. No. of Bags .51 Seal Material (Check One): X Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other

20.*Liner Casing Diameter and Depth:
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other

21.*Telescope Casing Diameter and Depth:
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other

22. Pump Type (If Known): Centrifugal Jet Submersible Turbine
Horsepower Pump Capacity (GPM)
Pump Depth ft. Intake Depth ft.
23. Chemical Analysis (When Required):
Iron ppm Sulfate ppm Chloride ppm
Laboratory Test Field Test Kit

24. Water Well Contractor:
*Contractor Name Gregory Campbell *License Number 2613 E-mail Address grey@pds-florida.com
*Contractor's Signature Greg Campbell *Driller's Name (Print or Type) Josh Welch
(I certify that the information provided in this report is accurate and true.)

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
 2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
 PHONE: (352) 796-7211 or (800) 423-1476
 WWW.SWFWMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
 4049 REID STREET, PALATKA, FL 32178-1429
 PHONE: (386) 329-4500
 WWW.SJRWMD.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
 152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
 (U.S. Highway 90, 10 miles west of Tallahassee)
 PHONE: (850) 539-5999
 WWW.NWFWMD.STATE.FL.US

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 P.O. BOX 24680
 3301 GUN CLUB ROAD
 WEST PALM BEACH, FL 33416-4680
 PHONE: (561) 686-8800
 WWW.SFWMD.GOV

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 9225 CR 49
 LIVE OAK, FL 32060
 PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
 WWW.MYSUWANNEERIVER.COM

*DRILL CUTTINGS LOG (Examine cuttings every 20 ft. or at formation changes. Note cavities and depth to producing zone. Grain Size: F=Fine, M=Medium, and C=Coarse)

From	ft.	To	ft.	Color	Grain Size (F, M, C)	Material
From	0	To	14	Color	Brown	Material
From	ft.	To	ft.	Color	F	Sand
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		
From	ft.	To	ft.	Color		

Comments: 1-2' 7/16" well
 #2 of 3





STATE OF FLORIDA WELL COMPLETION REPORT

Date Stamp

- Southwest
 - Northwest
 - St. Johns River
 - South Florida
 - Suwannee River
 - DEP
 - Delegated Authority (If Applicable) _____
- PLEASE, FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

Official Use Only

1.*Permit Number NA *CUP/WUP Number _____ *DID Number _____ 62-524 Delineation No. _____

2.*Number of permitted wells constructed, repaired, or abandoned 1 *Number of permitted wells not constructed, repaired, or abandoned 0

3.*Owner's Name Byrd Wilmer D 4.*Completion Date 9-19-17 5. Florida Unique ID _____

6. 6004 US Highway 17/92, Loughman FL 33858
*Well Location - Address, Road Name or Number, City, ZIP

7.*County Polk *Section 12 Land Grant _____ *Township 27 *Range 26

8. Latitude _____ Longitude _____

9. Data Obtained From: GPS Map Survey Datum: NAD 27 NAD 83 WGS 84

10.*Type of Work: Construction Repair Modification Abandonment

11.*Specify Intended Use(s) of Well(s):

<input type="checkbox"/> Domestic	<input type="checkbox"/> Landscape Irrigation	<input type="checkbox"/> Agricultural Irrigation	<input type="checkbox"/> Site Investigation
<input type="checkbox"/> Bottled Water Supply	<input type="checkbox"/> Recreation Area Irrigation	<input type="checkbox"/> Livestock	<input checked="" type="checkbox"/> Monitoring
<input type="checkbox"/> Public Water Supply (Limited Use/DOH)	<input type="checkbox"/> Commercial/Industrial	<input type="checkbox"/> Nursery Irrigation	<input type="checkbox"/> Test
<input type="checkbox"/> Public Water Supply (Community or Non-Community/DEP)	<input type="checkbox"/> Golf Course Irrigation	<input type="checkbox"/> Earth-Coupled Geothermal	<input type="checkbox"/> HVAC Supply
<input type="checkbox"/> Class I Injection		<input type="checkbox"/> HVAC Return	

Class V Injection: Recharge Commercial/Industrial Disposal Aquifer Storage and Recovery Drainage
Remediation: Recovery Air Sparge Other (Describe) _____
Other (Describe) _____

12.*Drill Method: Auger Cable Tool Rotary Combination (Two or More Methods) Jetted Sonic
 Horizontal Drilling Hydraulic Point (Direct Push) Other _____

13.*Measured Static Water Level 6 ft. Measured Pumping Water Level _____ ft. After _____ Hours at _____ GPM

14.*Measuring Point (Describe) _____ Which is _____ ft. Above _____ Below Land Surface *Flowing: Yes No

15.*Casing Material: Black Steel Galvanized PVC Stainless Steel Not Cased Other _____

16.*Total Well Depth 14 ft. Cased Depth 4 ft. *Open Hole: From _____ To _____ ft. *Screen: From 4 To 14 ft. Slot Size 010

17.*Abandonment: Other (Explain) _____

From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____

18.*Surface Casing Diameter and Depth:

Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____

19.*Primary Casing Diameter and Depth:

Dia <u>2</u> in. From <u>0</u> ft. To <u>4</u> ft. No. of Bags <u>51</u>	Seal Material (Check One): <input checked="" type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____

20.*Liner Casing Diameter and Depth:

Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____

21.*Telescope Casing Diameter and Depth:

Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____

22. Pump Type (If Known): Centrifugal Jet Submersible Turbine
Horsepower _____ Pump Capacity (GPM) _____
Pump Depth _____ ft. Intake Depth _____ ft.

23. Chemical Analysis (When Required):
Iron _____ ppm Sulfate _____ ppm Chloride _____ ppm
Laboratory Test _____ Field Test Kit _____

24. Water Well Contractor:
*Contractor Name Gregory Campbell *License Number 2613 E-mail Address greg@pds-florida.com
*Contractor's Signature Greg Campbell *Driller's Name (Print or Type) Josh Welch
(I certify that the information provided in this report is accurate and true.)

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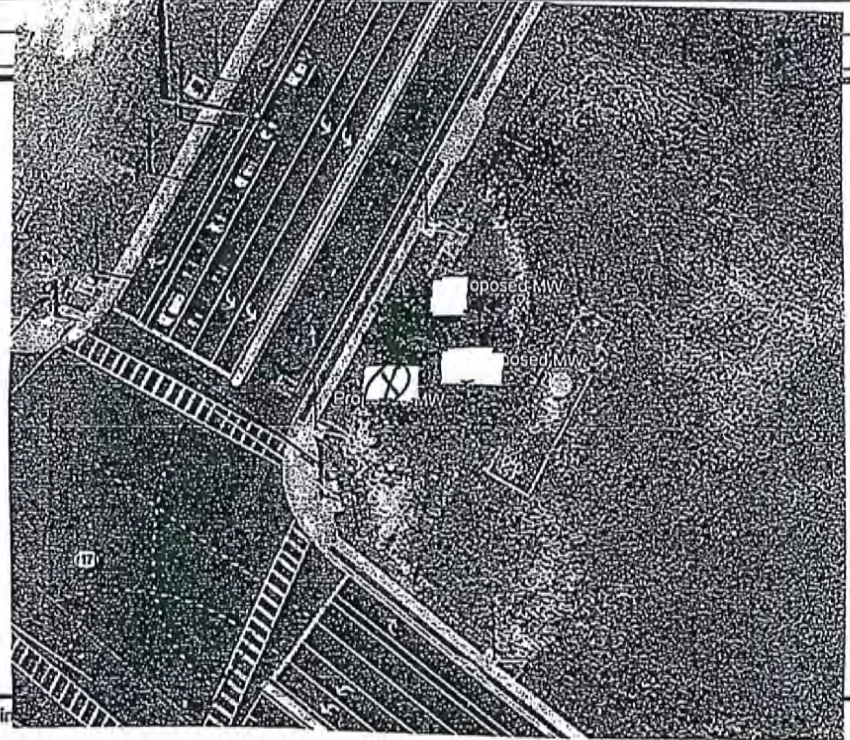
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*DRILL CUTTINGS LOG (Examine cuttings every 20 ft. or at formation changes. Note cavities and depth to producing zone. Grain Size: F=Fine, M=Medium, and C=Coarse)

From	ft.	To	ft.	Color	Grain Size (F, M, C)	Material		
From	0	To	14	Color	Brown	F	Material	Sand
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
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From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	
From		To		Color			Material	

Comments: 1-2-74 well
 # 3 of 3



APPENDIX E

October 03, 2017

Kristi Miller
EnviroTrac
5309 56th Commerce Park Blvd.
Tampa, FL 33610

RE: Project: Loughman Service Center
Pace Project No.: 35337147

Dear Kristi Miller:

Enclosed are the analytical results for sample(s) received by the laboratory on September 22, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

The correct sample ID for 003 is MW-39, per Ms. Miller.

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

Sincerely,



Lori Palmer
lori.palmer@pacelabs.com
(813)881-9401
Project Manager

Enclosures

cc: Ms. Carrie Lawson, EnviroTrac Ltd. (Tampa)
Accounts Payable, EnviroTrac



REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: Loughman Service Center

Pace Project No.: 35337147

New Orleans Certification IDs

California Env. Lab Accreditation Program Branch:
11277CA

Florida Department of Health (NELAC): E87595

Illinois Environmental Protection Agency: 0025721

Kansas Department of Health and Environment (NELAC):
E-10266

Louisiana Dept. of Environmental Quality (NELAC/LELAP):
02006

Pennsylvania Dept. of Env Protection (NELAC): 68-04202

Texas Commission on Env. Quality (NELAC):
T104704405-09-TX

U.S. Dept. of Agriculture Foreign Soil Import: P330-10-
00119

Commonwealth of Virginia (TNI): 480246

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174

Alabama Certification #: 41320

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

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

Nevada Certification: FL NELAC Reciprocity

New Jersey Certification #: FL022

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710

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

Wyoming Certification: FL NELAC Reciprocity

West Virginia Certification #: 9962C

Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Loughman Service Center

Pace Project No.: 35337147

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35337147001	MW-37	Water	09/22/17 10:45	09/22/17 16:10
35337147002	MW-38	Water	09/22/17 09:20	09/22/17 16:10
35337147003	MW-39	Water	09/22/17 10:02	09/22/17 16:10

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Loughman Service Center

Pace Project No.: 35337147

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35337147001	MW-37	EPA 8011	SMH	1	PASI-O
		FL-PRO	JGW	3	PASI-O
		EPA 6010	MHB1	1	PASI-N
		EPA 8270 by SIM	TWB	20	PASI-O
		EPA 8260	BTN	8	PASI-O
35337147002	MW-38	EPA 8011	SMH	1	PASI-O
		FL-PRO	JGW	3	PASI-O
		EPA 6010	MHB1	1	PASI-N
		EPA 8270 by SIM	TWB	20	PASI-O
		EPA 8260	BTN	8	PASI-O
35337147003	MW-39	EPA 8011	SMH	1	PASI-O
		FL-PRO	JGW	3	PASI-O
		EPA 6010	MHB1	1	PASI-N
		EPA 8270 by SIM	TWB	20	PASI-O
		EPA 8260	BTN	8	PASI-O

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Loughman Service Center

Pace Project No.: 35337147

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
35337147001	MW-37					
	Field pH	6.95	Std. Units		09/22/17 10:45	
	Field Temperature	28.5	deg C		09/22/17 10:45	
	Field Specific Conductance	512	umhos/cm		09/22/17 10:45	
	Oxygen, Dissolved	.87	mg/L		09/22/17 10:45	
	REDOX	-75.9	mV		09/22/17 10:45	
	Turbidity	8.4	NTU		09/22/17 10:45	
	Water Level(NGVD)	93.49	feet		09/22/17 10:45	
EPA 6010	Lead	2.9 l	ug/L	5.0	09/28/17 10:37	
35337147002	MW-38					
	Field pH	6.67	Std. Units		09/22/17 09:20	
	Field Temperature	27.3	deg C		09/22/17 09:20	
	Field Specific Conductance	191	umhos/cm		09/22/17 09:20	
	Oxygen, Dissolved	.99	mg/L		09/22/17 09:20	
	REDOX	25.6	mV		09/22/17 09:20	
	Turbidity	8.1	NTU		09/22/17 09:20	
	Water Level(NGVD)	93.60	feet		09/22/17 09:20	
EPA 6010	Lead	1.7 l	ug/L	5.0	09/28/17 10:52	
35337147003	MW-39					
	Field pH	7.17	Std. Units		09/22/17 10:02	
	Field Temperature	28.3	deg C		09/22/17 10:02	
	Field Specific Conductance	361	umhos/cm		09/22/17 10:02	
	Oxygen, Dissolved	1.16	mg/L		09/22/17 10:02	
	REDOX	-18.6	mV		09/22/17 10:02	
	Turbidity	13.6	NTU		09/22/17 10:02	
	Water Level(NGVD)	93.56	feet		09/22/17 10:02	
EPA 6010	Lead	2.5 l	ug/L	5.0	09/28/17 10:56	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Loughman Service Center

Pace Project No.: 35337147

Sample: MW-37 **Lab ID: 35337147001** Collected: 09/22/17 10:45 Received: 09/22/17 16:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method:									
Field pH	6.95	Std. Units			1		09/22/17 10:45		
Field Temperature	28.5	deg C			1		09/22/17 10:45		
Field Specific Conductance	512	umhos/cm			1		09/22/17 10:45		
Oxygen, Dissolved	.87	mg/L			1		09/22/17 10:45	7782-44-7	
REDOX	-75.9	mV			1		09/22/17 10:45		
Turbidity	8.4	NTU			1		09/22/17 10:45		
Water Level(NGVD)	93.49	feet			1		09/22/17 10:45		
8011 GCS EDB and DBCP									
Analytical Method: EPA 8011 Preparation Method: EPA 8011									
1,2-Dibromoethane (EDB)	0.0072 U	ug/L	0.0096	0.0072	1	09/23/17 11:45	09/25/17 13:20	106-93-4	
FL-PRO Water, Low Volume									
Analytical Method: FL-PRO Preparation Method: EPA 3510									
Petroleum Range Organics	0.80 U	mg/L	1.0	0.80	1	09/27/17 12:45	09/28/17 14:20		
Surrogates									
o-Terphenyl (S)	111	%	82-142		1	09/27/17 12:45	09/28/17 14:20	84-15-1	
N-Pentatriacontane (S)	95	%	42-159		1	09/27/17 12:45	09/28/17 14:20	630-07-09	
6010 Metals, Total									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Lead	2.9 I	ug/L	5.0	1.3	1	09/27/17 05:53	09/28/17 10:37	7439-92-1	
8270 MSSV PAHLV by SIM									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510									
Acenaphthene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 19:40	83-32-9	
Acenaphthylene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 19:40	208-96-8	
Anthracene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 19:40	120-12-7	
Benzo(a)anthracene	0.025 U	ug/L	0.10	0.025	1	09/27/17 21:00	10/02/17 19:40	56-55-3	
Benzo(a)pyrene	0.025 U	ug/L	0.10	0.025	1	09/27/17 21:00	10/02/17 19:40	50-32-8	
Benzo(b)fluoranthene	0.025 U	ug/L	0.10	0.025	1	09/27/17 21:00	10/02/17 19:40	205-99-2	
Benzo(g,h,i)perylene	0.028 U	ug/L	0.50	0.028	1	09/27/17 21:00	10/02/17 19:40	191-24-2	J(L1)
Benzo(k)fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 19:40	207-08-9	
Chrysene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 19:40	218-01-9	
Dibenz(a,h)anthracene	0.034 U	ug/L	0.10	0.034	1	09/27/17 21:00	10/02/17 19:40	53-70-3	
Fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 19:40	206-44-0	
Fluorene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 19:40	86-73-7	
Indeno(1,2,3-cd)pyrene	0.029 U	ug/L	0.10	0.029	1	09/27/17 21:00	10/02/17 19:40	193-39-5	
1-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/27/17 21:00	10/02/17 19:40	90-12-0	
2-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/27/17 21:00	10/02/17 19:40	91-57-6	
Naphthalene	1.0 U	ug/L	2.0	1.0	1	09/27/17 21:00	10/02/17 19:40	91-20-3	
Phenanthrene	0.050 U	ug/L	0.50	0.050	1	09/27/17 21:00	10/02/17 19:40	85-01-8	
Pyrene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 19:40	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	57	%	33-101		1	09/27/17 21:00	10/02/17 19:40	321-60-8	
Terphenyl-d14 (S)	59	%	38-115		1	09/27/17 21:00	10/02/17 19:40	1718-51-0	
8260 MSV									
Analytical Method: EPA 8260									
Benzene	0.10 U	ug/L	1.0	0.10	1		09/26/17 19:25	71-43-2	

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ANALYTICAL RESULTS

Project: Loughman Service Center

Pace Project No.: 35337147

Sample: MW-37 **Lab ID: 35337147001** Collected: 09/22/17 10:45 Received: 09/22/17 16:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Ethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/26/17 19:25	100-41-4	
Methyl-tert-butyl ether	0.50 U	ug/L	1.0	0.50	1		09/26/17 19:25	1634-04-4	
Toluene	0.50 U	ug/L	1.0	0.50	1		09/26/17 19:25	108-88-3	
Xylene (Total)	1.5 U	ug/L	3.0	1.5	1		09/26/17 19:25	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	94	%	89-111		1		09/26/17 19:25	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	75-135		1		09/26/17 19:25	17060-07-0	
Toluene-d8 (S)	102	%	89-112		1		09/26/17 19:25	2037-26-5	

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ANALYTICAL RESULTS

Project: Loughman Service Center

Pace Project No.: 35337147

Sample: MW-38 **Lab ID: 35337147002** Collected: 09/22/17 09:20 Received: 09/22/17 16:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method:									
Field pH	6.67	Std. Units			1		09/22/17 09:20		
Field Temperature	27.3	deg C			1		09/22/17 09:20		
Field Specific Conductance	191	umhos/cm			1		09/22/17 09:20		
Oxygen, Dissolved	.99	mg/L			1		09/22/17 09:20	7782-44-7	
REDOX	25.6	mV			1		09/22/17 09:20		
Turbidity	8.1	NTU			1		09/22/17 09:20		
Water Level(NGVD)	93.60	feet			1		09/22/17 09:20		
8011 GCS EDB and DBCP									
Analytical Method: EPA 8011 Preparation Method: EPA 8011									
1,2-Dibromoethane (EDB)	0.0071 U	ug/L	0.0095	0.0071	1	09/23/17 11:45	09/25/17 13:35	106-93-4	
FL-PRO Water, Low Volume									
Analytical Method: FL-PRO Preparation Method: EPA 3510									
Petroleum Range Organics	0.80 U	mg/L	1.0	0.80	1	09/27/17 15:10	09/28/17 18:53		
Surrogates									
o-Terphenyl (S)	97	%	82-142		1	09/27/17 15:10	09/28/17 18:53	84-15-1	
N-Pentatriacontane (S)	106	%	42-159		1	09/27/17 15:10	09/28/17 18:53	630-07-09	
6010 Metals, Total									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Lead	1.7 I	ug/L	5.0	1.3	1	09/27/17 05:53	09/28/17 10:52	7439-92-1	
8270 MSSV PAHLV by SIM									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510									
Acenaphthene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:03	83-32-9	
Acenaphthylene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:03	208-96-8	
Anthracene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:03	120-12-7	
Benzo(a)anthracene	0.025 U	ug/L	0.10	0.025	1	09/27/17 21:00	10/02/17 20:03	56-55-3	
Benzo(a)pyrene	0.025 U	ug/L	0.10	0.025	1	09/27/17 21:00	10/02/17 20:03	50-32-8	
Benzo(b)fluoranthene	0.025 U	ug/L	0.10	0.025	1	09/27/17 21:00	10/02/17 20:03	205-99-2	
Benzo(g,h,i)perylene	0.028 U	ug/L	0.50	0.028	1	09/27/17 21:00	10/02/17 20:03	191-24-2	J(L1)
Benzo(k)fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:03	207-08-9	
Chrysene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:03	218-01-9	
Dibenz(a,h)anthracene	0.034 U	ug/L	0.10	0.034	1	09/27/17 21:00	10/02/17 20:03	53-70-3	
Fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:03	206-44-0	
Fluorene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:03	86-73-7	
Indeno(1,2,3-cd)pyrene	0.029 U	ug/L	0.10	0.029	1	09/27/17 21:00	10/02/17 20:03	193-39-5	
1-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/27/17 21:00	10/02/17 20:03	90-12-0	
2-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/27/17 21:00	10/02/17 20:03	91-57-6	
Naphthalene	1.0 U	ug/L	2.0	1.0	1	09/27/17 21:00	10/02/17 20:03	91-20-3	
Phenanthrene	0.050 U	ug/L	0.50	0.050	1	09/27/17 21:00	10/02/17 20:03	85-01-8	
Pyrene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:03	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	53	%	33-101		1	09/27/17 21:00	10/02/17 20:03	321-60-8	
Terphenyl-d14 (S)	53	%	38-115		1	09/27/17 21:00	10/02/17 20:03	1718-51-0	
8260 MSV									
Analytical Method: EPA 8260									
Benzene	0.10 U	ug/L	1.0	0.10	1		09/26/17 19:51	71-43-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Loughman Service Center

Pace Project No.: 35337147

Sample: MW-38 **Lab ID: 35337147002** Collected: 09/22/17 09:20 Received: 09/22/17 16:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Ethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/26/17 19:51	100-41-4	
Methyl-tert-butyl ether	0.50 U	ug/L	1.0	0.50	1		09/26/17 19:51	1634-04-4	
Toluene	0.50 U	ug/L	1.0	0.50	1		09/26/17 19:51	108-88-3	
Xylene (Total)	1.5 U	ug/L	3.0	1.5	1		09/26/17 19:51	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	89-111		1		09/26/17 19:51	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	75-135		1		09/26/17 19:51	17060-07-0	
Toluene-d8 (S)	105	%	89-112		1		09/26/17 19:51	2037-26-5	

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ANALYTICAL RESULTS

Project: Loughman Service Center

Pace Project No.: 35337147

Sample: MW-39 **Lab ID: 35337147003** Collected: 09/22/17 10:02 Received: 09/22/17 16:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method:									
Field pH	7.17	Std. Units			1		09/22/17 10:02		
Field Temperature	28.3	deg C			1		09/22/17 10:02		
Field Specific Conductance	361	umhos/cm			1		09/22/17 10:02		
Oxygen, Dissolved	1.16	mg/L			1		09/22/17 10:02	7782-44-7	
REDOX	-18.6	mV			1		09/22/17 10:02		
Turbidity	13.6	NTU			1		09/22/17 10:02		
Water Level(NGVD)	93.56	feet			1		09/22/17 10:02		
8011 GCS EDB and DBCP									
Analytical Method: EPA 8011 Preparation Method: EPA 8011									
1,2-Dibromoethane (EDB)	0.0071 U	ug/L	0.0095	0.0071	1	09/23/17 11:45	09/25/17 13:50	106-93-4	
FL-PRO Water, Low Volume									
Analytical Method: FL-PRO Preparation Method: EPA 3510									
Petroleum Range Organics	0.80 U	mg/L	1.0	0.80	1	09/27/17 15:10	09/28/17 19:24		
Surrogates									
o-Terphenyl (S)	88	%	82-142		1	09/27/17 15:10	09/28/17 19:24	84-15-1	
N-Pentatriacontane (S)	89	%	42-159		1	09/27/17 15:10	09/28/17 19:24	630-07-09	
6010 Metals, Total									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Lead	2.5 I	ug/L	5.0	1.3	1	09/27/17 05:53	09/28/17 10:56	7439-92-1	
8270 MSSV PAHLV by SIM									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510									
Acenaphthene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:25	83-32-9	
Acenaphthylene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:25	208-96-8	
Anthracene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:25	120-12-7	
Benzo(a)anthracene	0.025 U	ug/L	0.10	0.025	1	09/27/17 21:00	10/02/17 20:25	56-55-3	
Benzo(a)pyrene	0.025 U	ug/L	0.10	0.025	1	09/27/17 21:00	10/02/17 20:25	50-32-8	
Benzo(b)fluoranthene	0.025 U	ug/L	0.10	0.025	1	09/27/17 21:00	10/02/17 20:25	205-99-2	
Benzo(g,h,i)perylene	0.028 U	ug/L	0.50	0.028	1	09/27/17 21:00	10/02/17 20:25	191-24-2	J(L1)
Benzo(k)fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:25	207-08-9	
Chrysene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:25	218-01-9	
Dibenz(a,h)anthracene	0.034 U	ug/L	0.10	0.034	1	09/27/17 21:00	10/02/17 20:25	53-70-3	
Fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:25	206-44-0	
Fluorene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:25	86-73-7	
Indeno(1,2,3-cd)pyrene	0.029 U	ug/L	0.10	0.029	1	09/27/17 21:00	10/02/17 20:25	193-39-5	
1-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/27/17 21:00	10/02/17 20:25	90-12-0	
2-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/27/17 21:00	10/02/17 20:25	91-57-6	
Naphthalene	1.0 U	ug/L	2.0	1.0	1	09/27/17 21:00	10/02/17 20:25	91-20-3	
Phenanthrene	0.050 U	ug/L	0.50	0.050	1	09/27/17 21:00	10/02/17 20:25	85-01-8	
Pyrene	0.025 U	ug/L	0.50	0.025	1	09/27/17 21:00	10/02/17 20:25	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	64	%	33-101		1	09/27/17 21:00	10/02/17 20:25	321-60-8	
Terphenyl-d14 (S)	54	%	38-115		1	09/27/17 21:00	10/02/17 20:25	1718-51-0	
8260 MSV									
Analytical Method: EPA 8260									
Benzene	0.10 U	ug/L	1.0	0.10	1		09/26/17 20:16	71-43-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Loughman Service Center

Pace Project No.: 35337147

Sample: MW-39 **Lab ID: 35337147003** Collected: 09/22/17 10:02 Received: 09/22/17 16:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Ethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/26/17 20:16	100-41-4	
Methyl-tert-butyl ether	0.50 U	ug/L	1.0	0.50	1		09/26/17 20:16	1634-04-4	
Toluene	0.50 U	ug/L	1.0	0.50	1		09/26/17 20:16	108-88-3	
Xylene (Total)	1.5 U	ug/L	3.0	1.5	1		09/26/17 20:16	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	89-111		1		09/26/17 20:16	460-00-4	J(HS)
1,2-Dichloroethane-d4 (S)	109	%	75-135		1		09/26/17 20:16	17060-07-0	
Toluene-d8 (S)	98	%	89-112		1		09/26/17 20:16	2037-26-5	

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QUALITY CONTROL DATA

Project: Loughman Service Center

Pace Project No.: 35337147

QC Batch: 90172 Analysis Method: EPA 6010

QC Batch Method: EPA 3010 Analysis Description: 6010 MET

Associated Lab Samples: 35337147001, 35337147002, 35337147003

METHOD BLANK: 387237 Matrix: Water

Associated Lab Samples: 35337147001, 35337147002, 35337147003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	ug/L	1.3 U	5.0	1.3	09/28/17 10:29	

LABORATORY CONTROL SAMPLE: 387238

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	1000	1040	104	84-118	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 387239 387240

Parameter	Units	35337147001		387239		387240		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec				
Lead	ug/L	2.9 I	1000	1000	980	1020	98	102	80-120	4	20

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QUALITY CONTROL DATA

Project: Loughman Service Center
Pace Project No.: 35337147

QC Batch: 394923 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 35337147001, 35337147002, 35337147003

METHOD BLANK: 2152317 Matrix: Water
Associated Lab Samples: 35337147001, 35337147002, 35337147003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzene	ug/L	0.10 U	1.0	0.10	09/26/17 11:16	
Ethylbenzene	ug/L	0.50 U	1.0	0.50	09/26/17 11:16	
Methyl-tert-butyl ether	ug/L	0.50 U	1.0	0.50	09/26/17 11:16	
Toluene	ug/L	0.50 U	1.0	0.50	09/26/17 11:16	
Xylene (Total)	ug/L	1.5 U	3.0	1.5	09/26/17 11:16	
1,2-Dichloroethane-d4 (S)	%	107	75-135		09/26/17 11:16	
4-Bromofluorobenzene (S)	%	92	89-111		09/26/17 11:16	
Toluene-d8 (S)	%	97	89-112		09/26/17 11:16	

LABORATORY CONTROL SAMPLE: 2152318

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.7	103	70-130	
Ethylbenzene	ug/L	20	19.3	97	70-130	
Methyl-tert-butyl ether	ug/L	20	21.9	109	64-133	
Toluene	ug/L	20	19.7	99	70-130	
Xylene (Total)	ug/L	60	59.7	99	70-130	
1,2-Dichloroethane-d4 (S)	%			103	75-135	
4-Bromofluorobenzene (S)	%			95	89-111	
Toluene-d8 (S)	%			96	89-112	

MATRIX SPIKE SAMPLE: 2153758

Parameter	Units	35336997001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	0.10 U	20	18.7	93	70-130	
Ethylbenzene	ug/L	0.50 U	20	17.5	88	70-130	
Methyl-tert-butyl ether	ug/L	0.56 I	20	18.4	89	64-133	
Toluene	ug/L	0.50 U	20	17.9	89	70-130	
Xylene (Total)	ug/L	1.5 U	60	52.8	88	70-130	
1,2-Dichloroethane-d4 (S)	%				103	75-135	
4-Bromofluorobenzene (S)	%				98	89-111	
Toluene-d8 (S)	%				95	89-112	

SAMPLE DUPLICATE: 2153759

Parameter	Units	35336997002 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	0.10 U	0.10 U		40	

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QUALITY CONTROL DATA

Project: Loughman Service Center

Pace Project No.: 35337147

SAMPLE DUPLICATE: 2153759

Parameter	Units	35336997002 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethylbenzene	ug/L	0.50 U	0.50 U		40	
Methyl-tert-butyl ether	ug/L	0.50 U	0.50 U		40	
Toluene	ug/L	0.50 U	0.50 U		40	
Xylene (Total)	ug/L	1.5 U	1.5 U		40	
1,2-Dichloroethane-d4 (S)	%	108	109	1	40	
4-Bromofluorobenzene (S)	%	91	91	0	40	
Toluene-d8 (S)	%	99	99	0	40	

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QUALITY CONTROL DATA

Project: Loughman Service Center

Pace Project No.: 35337147

QC Batch: 394446

Analysis Method: EPA 8011

QC Batch Method: EPA 8011

Analysis Description: 8011 EDB DBCP

Associated Lab Samples: 35337147001, 35337147002, 35337147003

METHOD BLANK: 2149275

Matrix: Water

Associated Lab Samples: 35337147001, 35337147002, 35337147003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.0075 U	0.010	0.0075	09/25/17 11:38	

LABORATORY CONTROL SAMPLE: 2149276

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.25	0.25	99	60-140	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2149547 2149548

Parameter	Units	35337111001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec					
1,2-Dibromoethane (EDB)	ug/L	<0.0076	.44	.44	0.68	0.74	155	170	60-140	9	40	J(M1)	

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QUALITY CONTROL DATA

Project: Loughman Service Center
Pace Project No.: 35337147

QC Batch: 395231 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAHLV by SIM MSSV
Associated Lab Samples: 35337147001, 35337147002, 35337147003

METHOD BLANK: 2154346 Matrix: Water
Associated Lab Samples: 35337147001, 35337147002, 35337147003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	1.0 U	2.0	1.0	10/02/17 14:03	
2-Methylnaphthalene	ug/L	1.0 U	2.0	1.0	10/02/17 14:03	
Acenaphthene	ug/L	0.025 U	0.50	0.025	10/02/17 14:03	
Acenaphthylene	ug/L	0.025 U	0.50	0.025	10/02/17 14:03	
Anthracene	ug/L	0.025 U	0.50	0.025	10/02/17 14:03	
Benzo(a)anthracene	ug/L	0.025 U	0.10	0.025	10/02/17 14:03	
Benzo(a)pyrene	ug/L	0.025 U	0.10	0.025	10/02/17 14:03	
Benzo(b)fluoranthene	ug/L	0.025 U	0.10	0.025	10/02/17 14:03	
Benzo(g,h,i)perylene	ug/L	0.028 U	0.50	0.028	10/02/17 14:03	
Benzo(k)fluoranthene	ug/L	0.025 U	0.50	0.025	10/02/17 14:03	
Chrysene	ug/L	0.025 U	0.50	0.025	10/02/17 14:03	
Dibenz(a,h)anthracene	ug/L	0.034 U	0.10	0.034	10/02/17 14:03	
Fluoranthene	ug/L	0.025 U	0.50	0.025	10/02/17 14:03	
Fluorene	ug/L	0.025 U	0.50	0.025	10/02/17 14:03	
Indeno(1,2,3-cd)pyrene	ug/L	0.029 U	0.10	0.029	10/02/17 14:03	
Naphthalene	ug/L	1.0 U	2.0	1.0	10/02/17 14:03	
Phenanthrene	ug/L	0.050 U	0.50	0.050	10/02/17 14:03	
Pyrene	ug/L	0.025 U	0.50	0.025	10/02/17 14:03	
2-Fluorobiphenyl (S)	%	50	33-101		10/02/17 14:03	
Terphenyl-d14 (S)	%	51	38-115		10/02/17 14:03	

LABORATORY CONTROL SAMPLE: 2154347

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/L	5	2.4	49	33-118	
2-Methylnaphthalene	ug/L	5	2.1	42	34-104	
Acenaphthene	ug/L	5	2.5	50	38-109	
Acenaphthylene	ug/L	5	3.2	64	31-115	
Anthracene	ug/L	5	3.1	62	38-111	
Benzo(a)anthracene	ug/L	5	3.7	74	36-110	
Benzo(a)pyrene	ug/L	5	3.7	75	27-107	
Benzo(b)fluoranthene	ug/L	5	3.7	73	32-119	
Benzo(g,h,i)perylene	ug/L	5	5.5	111	10-109 J(L1)	
Benzo(k)fluoranthene	ug/L	5	4.0	79	28-118	
Chrysene	ug/L	5	4.6	92	33-130	
Dibenz(a,h)anthracene	ug/L	5	4.8	97	10-104	
Fluoranthene	ug/L	5	3.2	63	45-115	
Fluorene	ug/L	5	2.4	49	41-114	
Indeno(1,2,3-cd)pyrene	ug/L	5	4.6	92	10-104	
Naphthalene	ug/L	5	2.5	49	38-100	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Loughman Service Center
Pace Project No.: 35337147

LABORATORY CONTROL SAMPLE: 2154347

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/L	5	2.9	59	41-106	
Pyrene	ug/L	5	2.8	57	45-115	
2-Fluorobiphenyl (S)	%			40	33-101	
Terphenyl-d14 (S)	%			50	38-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2154348 2154349

Parameter	Units	35336997002		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	Result	MSD Result	% Rec	% Rec					
1-Methylnaphthalene	ug/L	1.0 U	5	5	3.3	2.8	66	56	33-118	16	40		
2-Methylnaphthalene	ug/L	1.0 U	5	5	3.0	2.7	60	54	34-104	11	40		
Acenaphthene	ug/L	0.025 U	5	5	3.6	3.2	71	65	38-109	9	40		
Acenaphthylene	ug/L	0.025 U	5	5	4.0	3.8	80	75	31-115	7	40		
Anthracene	ug/L	0.025 U	5	5	3.8	3.9	76	77	38-111	1	40		
Benzo(a)anthracene	ug/L	0.025 U	5	5	4.0	4.3	80	86	36-110	6	40		
Benzo(a)pyrene	ug/L	0.025 U	5	5	3.9	4.2	78	83	27-107	7	40		
Benzo(b)fluoranthene	ug/L	0.025 U	5	5	3.7	4.4	73	88	32-119	18	40		
Benzo(g,h,i)perylene	ug/L	0.028 U	5	5	5.3	5.7	106	113	10-109	6	40	J(M0)	
Benzo(k)fluoranthene	ug/L	0.025 U	5	5	4.3	4.4	86	88	28-118	2	40		
Chrysene	ug/L	0.025 U	5	5	4.6	4.8	92	95	33-130	3	40		
Dibenz(a,h)anthracene	ug/L	0.034 U	5	5	4.5	5.0	90	99	10-104	10	40		
Fluoranthene	ug/L	0.025 U	5	5	3.6	3.8	71	75	45-115	5	40		
Fluorene	ug/L	0.025 U	5	5	3.6	3.4	72	68	41-114	6	40		
Indeno(1,2,3-cd)pyrene	ug/L	0.029 U	5	5	4.6	5.0	91	100	10-104	9	40		
Naphthalene	ug/L	1.0 U	5	5	3.3	3.0	66	59	38-100	11	40		
Phenanthrene	ug/L	0.050 U	5	5	4.0	3.9	80	79	41-106	2	40		
Pyrene	ug/L	0.025 U	5	5	3.3	3.4	65	69	45-115	5	40		
2-Fluorobiphenyl (S)	%						58	55	33-101				
Terphenyl-d14 (S)	%						51	57	38-115				

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Loughman Service Center
Pace Project No.: 35337147

QC Batch: 395096 Analysis Method: FL-PRO
QC Batch Method: EPA 3510 Analysis Description: FL-PRO Water Low Volume
Associated Lab Samples: 35337147001

METHOD BLANK: 2153537 Matrix: Water
Associated Lab Samples: 35337147001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Petroleum Range Organics	mg/L	0.80 U	1.0	0.80	09/28/17 08:07	
N-Pentatriacontane (S)	%	76	42-159		09/28/17 08:07	
o-Terphenyl (S)	%	83	82-142		09/28/17 08:07	

LABORATORY CONTROL SAMPLE: 2153538

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Petroleum Range Organics	mg/L	5	4.2	85	55-118	
N-Pentatriacontane (S)	%			100	42-159	
o-Terphenyl (S)	%			112	82-142	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2154093 2154094

Parameter	Units	35337153001		2154093		2154094		% Rec	% Rec	% Rec Limits	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Petroleum Range Organics	mg/L	0.94 I	5	5	4.7	5.4	75	90	41-101	15	20	
N-Pentatriacontane (S)	%						92	97	42-159			
o-Terphenyl (S)	%						103	94	82-142			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Loughman Service Center

Pace Project No.: 35337147

QC Batch: 395098

Analysis Method: FL-PRO

QC Batch Method: EPA 3510

Analysis Description: FL-PRO Water Low Volume

Associated Lab Samples: 35337147002, 35337147003

METHOD BLANK: 2153545

Matrix: Water

Associated Lab Samples: 35337147002, 35337147003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Petroleum Range Organics	mg/L	0.80 U	1.0	0.80	09/28/17 18:22	
N-Pentatriacontane (S)	%	95	42-159		09/28/17 18:22	
o-Terphenyl (S)	%	89	82-142		09/28/17 18:22	

LABORATORY CONTROL SAMPLE: 2153546

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Petroleum Range Organics	mg/L	5	5.1	102	55-118	
N-Pentatriacontane (S)	%			125	42-159	
o-Terphenyl (S)	%			133	82-142	

MATRIX SPIKE SAMPLE: 2154553

Parameter	Units	35337147002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Petroleum Range Organics	mg/L	0.80 U	5	4.1	80	41-101	
N-Pentatriacontane (S)	%				87	42-159	
o-Terphenyl (S)	%				95	82-142	

SAMPLE DUPLICATE: 2154555

Parameter	Units	35337202004 Result	Dup Result	RPD	Max RPD	Qualifiers
Petroleum Range Organics	mg/L	0.80 U	0.80 U		20	
N-Pentatriacontane (S)	%	88	61	36		
o-Terphenyl (S)	%	103	58	55		J(S0)

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Loughman Service Center
Pace Project No.: 35337147

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.
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.

LABORATORIES

PASI-N Pace Analytical Services - New Orleans
PASI-O Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U Compound was analyzed for but not detected.
J(HS) Estimated Value. Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
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.
J(M1) Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
J(S0) Estimated Value. Surrogate recovery outside laboratory control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Loughman Service Center
Pace Project No.: 35337147

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35337147001	MW-37				
35337147002	MW-38				
35337147003	MW-39				
35337147001	MW-37	EPA 8011	394446	EPA 8011	394589
35337147002	MW-38	EPA 8011	394446	EPA 8011	394589
35337147003	MW-39	EPA 8011	394446	EPA 8011	394589
35337147001	MW-37	EPA 3510	395096	FL-PRO	395317
35337147002	MW-38	EPA 3510	395098	FL-PRO	395318
35337147003	MW-39	EPA 3510	395098	FL-PRO	395318
35337147001	MW-37	EPA 3010	90172	EPA 6010	90178
35337147002	MW-38	EPA 3010	90172	EPA 6010	90178
35337147003	MW-39	EPA 3010	90172	EPA 6010	90178
35337147001	MW-37	EPA 3510	395231	EPA 8270 by SIM	395913
35337147002	MW-38	EPA 3510	395231	EPA 8270 by SIM	395913
35337147003	MW-39	EPA 3510	395231	EPA 8270 by SIM	395913
35337147001	MW-37	EPA 8260	394923		
35337147002	MW-38	EPA 8260	394923		
35337147003	MW-39	EPA 8260	394923		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

MO# : 35337147



35337147

Section A Required Client Information: **Section B** Required Project Information: **Section C** Invoice Information:

Company: EnviroTrac Tampa (for non-Sunoco work only)	Report To: Kristi Miller	Attention:	Company Name:	Regulatory Agency:
Address: 5309 56th Commerce Park Blvd Tampa, FL 33610	Copy To:	Address:	Pace Quote:	State / Location:
Email: kmiller@envirotrac.com	Purchase Order #:	Address:	Pace Project Manager: Lori Palmer@paceclabs.com	FL
Phone: 813-626-8443	Project Name: Loughman Service Center	Address:	Pace Profile #: 9128 Line 1	
Requested Due Date:	Project #:			

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample IDs must be unique	MATRIX Drinking Water Water Waste Water Product Semi-solid Oil Wipe Air Other Tissue	CODE DW WT WW P SL OL WP AR OT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analyses Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	TEMP in C	SAMPLE CONDITIONS				
						START DATE	END DATE			Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol						Other	BTEX/MTBE	PAH by 8270 SIM (low vol)	TRPH FL-PRO (low vol)	PAH MS/MSD
1	MW-37			WT6		9/22/17	10:05	9	X	X	X	X	X	X	X	X	X	X	X	X	1203	X	N	Y		
2	MW-38			WT6		9/22/17	14:00	9	X	X	X	X	X	X	X	X	X	X	X	X	1610	X	N	Y		
3	MW-36			WT6		9/22/17	16:10	9	X	X	X	X	X	X	X	X	X	X	X	X	1610	X	N	Y		
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Empty Containers	[Signature]	9-27-17	09:30	[Signature]	9/27/17	15:28	1203	X	N	Y
	[Signature]	9/22/17	16:10	[Signature]	9/22/17	16:10	0.1	X	N	Y

SAMPLER NAME AND SIGNATURE		DATE Signed:	
PRINT Name of SAMPLER:	[Signature]	9/22/17	
SIGNATURE of SAMPLER:	[Signature]		

PRP - Requires ADAPT: FAC ID# 8624326



Document Name:
Sample Condition Upon Receipt Form
Document No.:
F-FL-C-007 rev. 12

Document Revised:
August 2, 2017
Issuing Authority:
Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project # WO# : 35337147
Project Manager: PM: LAP **Due Date:** 09/29/17
Client: CLIENT: 37-ENVTRA

Date and Initials of person:
 Examining/contents: mm
 Label: 9/22/17
 Deliver: _____
 pH: _____

Thermometer Used: T-203 Date: 9-22-17 Time: 1610 Initials: LON

State of Origin: FL

Cooler #1 Temp.°C 0.4 (Visual) 0.0 (Correction Factor) 0.4 (Actual)
 Cooler #2 Temp.°C _____ (Visual) _____ (Correction Factor) _____ (Actual)
 Cooler #3 Temp.°C _____ (Visual) _____ (Correction Factor) _____ (Actual)
 Cooler #4 Temp.°C _____ (Visual) _____ (Correction Factor) _____ (Actual)
 Cooler #5 Temp.°C _____ (Visual) _____ (Correction Factor) _____ (Actual)
 Cooler #6 Temp.°C _____ (Visual) _____ (Correction Factor) _____ (Actual)

- Samples on ice, cooling process has begun
- Samples on ice, cooling process has begun
- Samples on ice, cooling process has begun
- Samples on ice, cooling process has begun
- Samples on ice, cooling process has begun
- Samples on ice, cooling process has begun

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Shipping Method: First Overnight Priority Overnight Standard Overnight Ground International Priority
 Other _____

Billing: Recipient Sender Third Party Credit Card Unknown

Tracking # _____

Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No Ice: Wet Blue Dry None

Packing Material: Bubble Wrap Bubble Bags None Other _____

Samples shorted to lab (If Yes, complete) Shorted Date: _____ Shorted Time: _____ Qty: _____

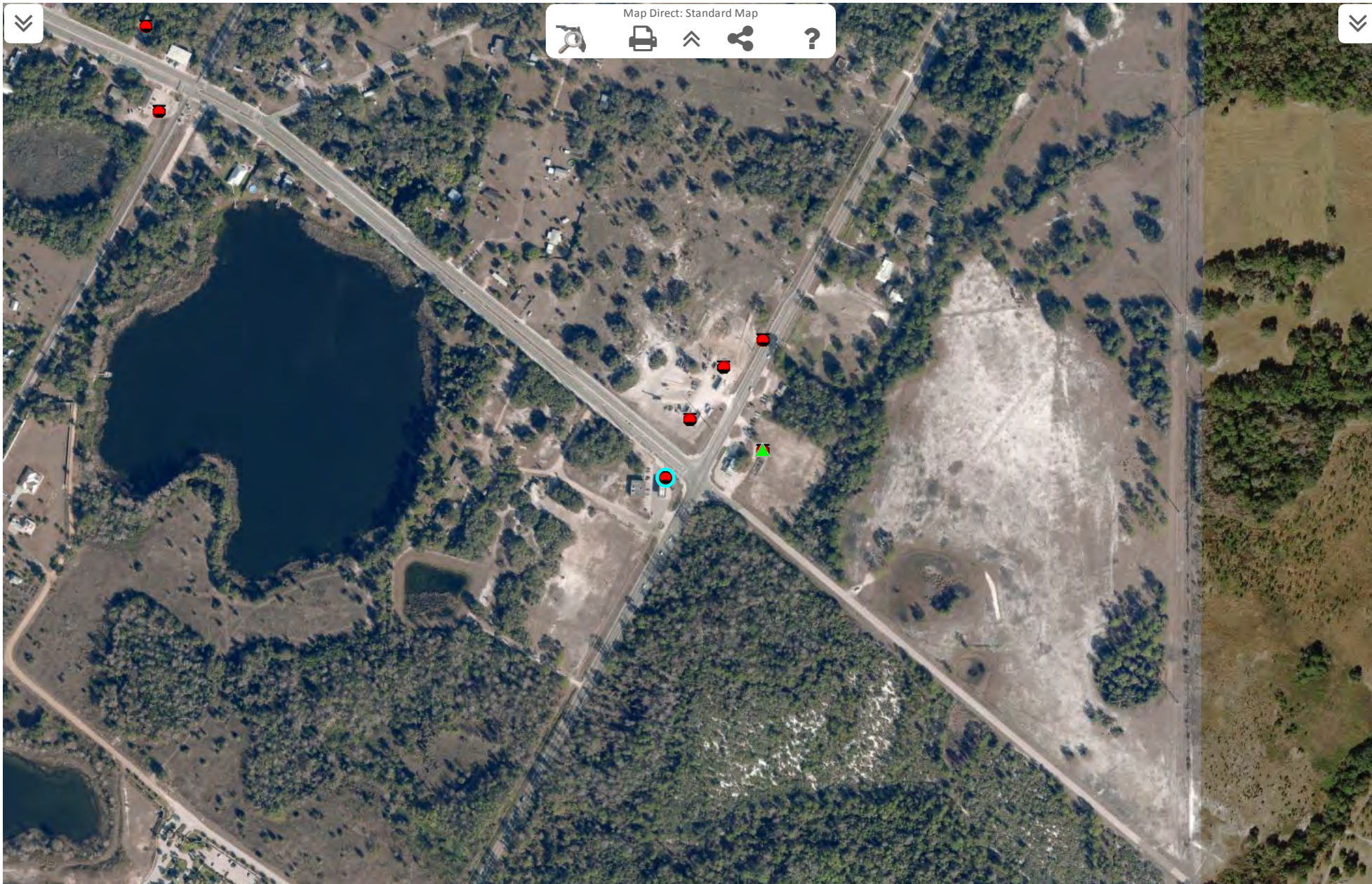
Comments:

Chain of Custody Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Chain of Custody Filled Out	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Relinquished Signature & Sampler Name COC	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Samples Arrived within Hold Time	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Rush TAT requested on COC	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Sufficient Volume	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Correct Containers Used	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Sample Labels match COC (sample IDs & date/time of collection)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
All containers needing acid/base preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Preservative: _____ Lot #/Trace #: _____ Date: _____ Time: _____ Initials: _____
All Containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: VOA, Coliform, TOC, O&G, Carbamates	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Headspace in VOA Vials? (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	

Client Notification/ Resolution:
 Person Contacted: _____ Date/Time: _____

Comments/ Resolution (use back for additional comments):

APPENDIX F



Show Basemaps ⓘ ⌂

Showing Aerial Imagery 2014

0 150 300ft




⌂ Ⓧ --Show County--

28.23982395 x -81.55102123
28°14'23.3662" x -81°33'3.6764"


Map Direct Search Results
Mon Aug 14 2017 15:53:54 GMT-0400 (Eastern Daylight Time)

Search Made:
Search Box 31 feet wide at
28.23696473 x -81.55945946
28°14'13.0730" x -81°33'34.0541"

Search Results: 4


 Storage Tank Contamination Monitoring (STCM)

 EZ FOOD STORE #1

 Facility# 8736165

 [Documents](#)

 5945 HWY 17-92 N
DAVENPORT 33857
Polk County


 Retail Station

 Facility is OPEN

 Southwest Regulatory District





 Registered Tanks from STCM

 EZ FOOD STORE #1

 Facility# 8736165


 [Documents](#)

 5945 HWY 17-92 N
DAVENPORT 33857
Polk County

-  Retail Station Facility
-  Facility is OPEN
-  Facility is Regulated
-  Cleanup Status: COMPLETED
08/28/2012


* Petroleum Contamination Monitoring (PCTS) Discharges from STCM


 EZ FOOD STORE #1


 Facility# 8736165
Discharge# 24633


 [Documents](#)


 5945 HWY 17-92 N
DAVENPORT 33857
POLK County


 Facility is type Retail Station


 The Tanks at this Facility are OPEN (in operation)


 Facility is Eligible for Funding under EDI

 This facility is in closure

 Discharge Reported on 04/20/1988
by the responsible party; there cannot be more than one discharge per day per facility


 Discharge Score: 46
The score is determined by several criteria developed by the Petroleum Restoration Program (PRP), such as proximity to potable water systems, homes, etc. The valid range of scores is between 1 and 251. The higher the score, the worse the spill.

 SRCR COMPLETE Site Rehabilitation Completion Report has been approved as of 08/24/2012
Discharge Cleanup Status

 Last Report Received on 08/24/2012 was in COMPLETED (COMPLETED) Subphase of COMPLETED (COMPLETED) Phase


 FL DOH IN POLK COUNTY was assigned to the site management of the discharge

Lat: 28° 14' 13"

 Lon: 81° 33' 34"

 Fuel Facilities

 EZ FOOD STORE #1

 Facility# 8736165

 5945 HWY 17-92 N
DAVENPORT 33857
POLK County

 Facility Contact:
BRIAN PATEL
863-651-2408

 Related Party Owner:
SHRI RAMJI LLC
 5945 US WHY 17-92 NORTH
DAVENPORT FL 33837

 Related Party Contact:
BRIJESH PATEL
863-424-2352
EZFOOD1@YAHOO.COM

 Owner Facilities: 1

Item	Count
Gas Tanks	
Gas Gallons	
Diesel Tanks	1
Diesel Gallons	20000
Total Tanks	1
Total Gallons	20000

Generator Status	
Onsite	N
Status	
Capacity	
Permanence	
Portability	

Supplies



Other Facility Details	
Port. Pumps	N
Port. Pumps Avail.	
Pre Wire	N
Access to Gen.	N
Declined	N
Gen. Ready	N
Num. Dispensers	2
Size	3
HB7121	N



Proximity to Evacua on Route	
1/2 Mile	Y
1 Mile	Y
2 Miles	Y
3 Miles	Y
Proximity	0.025002 Miles
Route	17
Road Name	US Hwy 17

[Documents](#)

Lat: 28° 14' 13"

Lon: 81° 33' 34"

No Results Found in:

- Waste Cleanup INACTIVE Responsible Party Sites
 - Waste Cleanup CLOSED Responsible Party Sites
 - Waste Cleanup OPEN Responsible Party Sites
 - State Funded Cleanup Sites
 - Superfund Waste Cleanup Sites
 - Site Investigation Section Sites
 - Florida Institutional Controls Registry
 - Drycleaning Solvent Program Cleanup Sites
 - DEP Cleanup Sites
 - Brownfield Sites
-



Potable Well Survey

Florida Department of Health Bureau of Environmental Health

Facility ID: **8624326** County: POLK GPS Date / Method: 4/27/2004 DGPS
 Request: 59984 Decimal Degrees: 28.237234 -81.558656
 Name: LOUGHMAN SERVICE CENTER Deg Min Sec: 28 14 14.0424 81 33 31.1616
 Address: 6004 HWY 1792 N
 LOUGHMAN, FL 33837

Large (>150,000 gpd) Public Supply Wells within 1/2 mile: 0
 Small potable wells within 1/4 mile: 8

Sent to CHD: 8/13/2013
 Received: 10/28/2013

FAVA*: (MV: More Vulnerable; V: Vulnerable; LV: Less Vulnerable)
 Surficial: MV Intermediate: No Data Floridan: MV

Comment: *Mark Pritz*

* Florida Aquifer Vulnerability Assessment (FAVA) data obtained from the Florida Department of Environmental Protection. The Florida Department of Health does not guarantee this data to be free from errors or inaccuracies and disclaims any responsibility or liability for interpretations or decisions based thereon.

DOH / Private Wells

	Well Address	Location / GPS Method	Distance from Facility	
AAF2645	GUY BYRD	28.239209	293.38 m	962.51 ft
Well Type: LIMITED USE	6022 HWY 1792 N	-81.556667		
Status: ACTIVE	LOUGHMAN, FL 33837	DGPS		

Latest Sample ID (VOC): TLH-2013-11-06-50-01
 Sample Date: 11/5/2013 10:0
All Results were Below Detection for this Analysis

AAF2647	CHARLES RENFROW	28.238849	297.75 m	976.85 ft
Well Type: PRIVATE	228 RONALD REAGAN PKWY	-81.561083		
Status: ACTIVE	LOUGHMAN, FL 33896	DGPS		

Latest Sample ID (VOC): TLH-2013-11-06-50-02
 Sample Date: 11/5/2013 10:2
All Results were Below Detection for this Analysis

AAF2648	EVA EARLEY	28.23902	310.91 m	1020.05 ft
Well Type: PRIVATE	234 CR 54	-81.561101		
Status: ACTIVE	LOUGHMAN, FL 33896	DGPS		

Latest Sample ID (VOC): TLH-2013-11-06-50-03
 Sample Date: 11/5/2013 10:3
All Results were Below Detection for this Analysis

AAM9630	KWIECIEN	28.239407	380.35 m	1247.84 ft
Well Type: PRIVATE	302 RONALD REGAN PKWY	-81.561658		
Status: ACTIVE	LOUGHMAN, FL 33896	DGPS		

Latest Sample ID (VOC): TLH-2013-11-06-50-06
 Sample Date: 11/5/2013 11:5
All Results were Below Detection for this Analysis

Potable Well Survey

Comments: OWNER'S HOME

AAM9631	KWIECIEN	28.239552	372.21 m	1221.16 ft
Well Type: PRIVATE	302 RONALD REGAN PKWY	-81.561401		
Status: INACTIVE	LOUGHMAN, FL 33896	DGPS		

Latest Sample ID (VOC): No Sample for this Analysis

Comments: STILL NOT WORKING,SOME PIPES ARE DISCONNECTED. (CHD 11/5/2013)

AAM9632	EDWARDS	28.240187	388.09 m	1273.23 ft
Well Type: PRIVATE	274 RONALD REGAN PKWY	-81.560773		
Status: ACTIVE	LOUGHMAN, FL 33896	DGPS		

Latest Sample ID (VOC): TLH-2013-11-06-50-05

Sample Date: 11/5/2013 11:1

All Results were Below Detection for this Analysis

AAM9633	DESLAVRIERS	28.23975	356.34 m	1169.09 ft
Well Type: PRIVATE	276 RONALD REGAN PKWY	-81.560913		
Status: ACTIVE	LOUGHMAN, FL 33896	DGPS		

Latest Sample ID (VOC): TLH-2013-11-06-50-04

Sample Date: 11/5/2013 10:5

All Results were Below Detection for this Analysis

DEP PWS Wells

	Well Address	Location / GPS Method	Distance from Facility
AAC3873	LOUGHMAN SERVICE CENTER	28.236673	66.67 m 218.74 ft
Well Type: NON-COMMUNITY	6004 HWY 17-92	-81.558414	
Status: INACTIVE	LOUGHMAN, FL 33837	DGPS	
Permit Number: 6530644			
Design Capacity: 14400			

Latest Sample ID (VOC): 100728-060

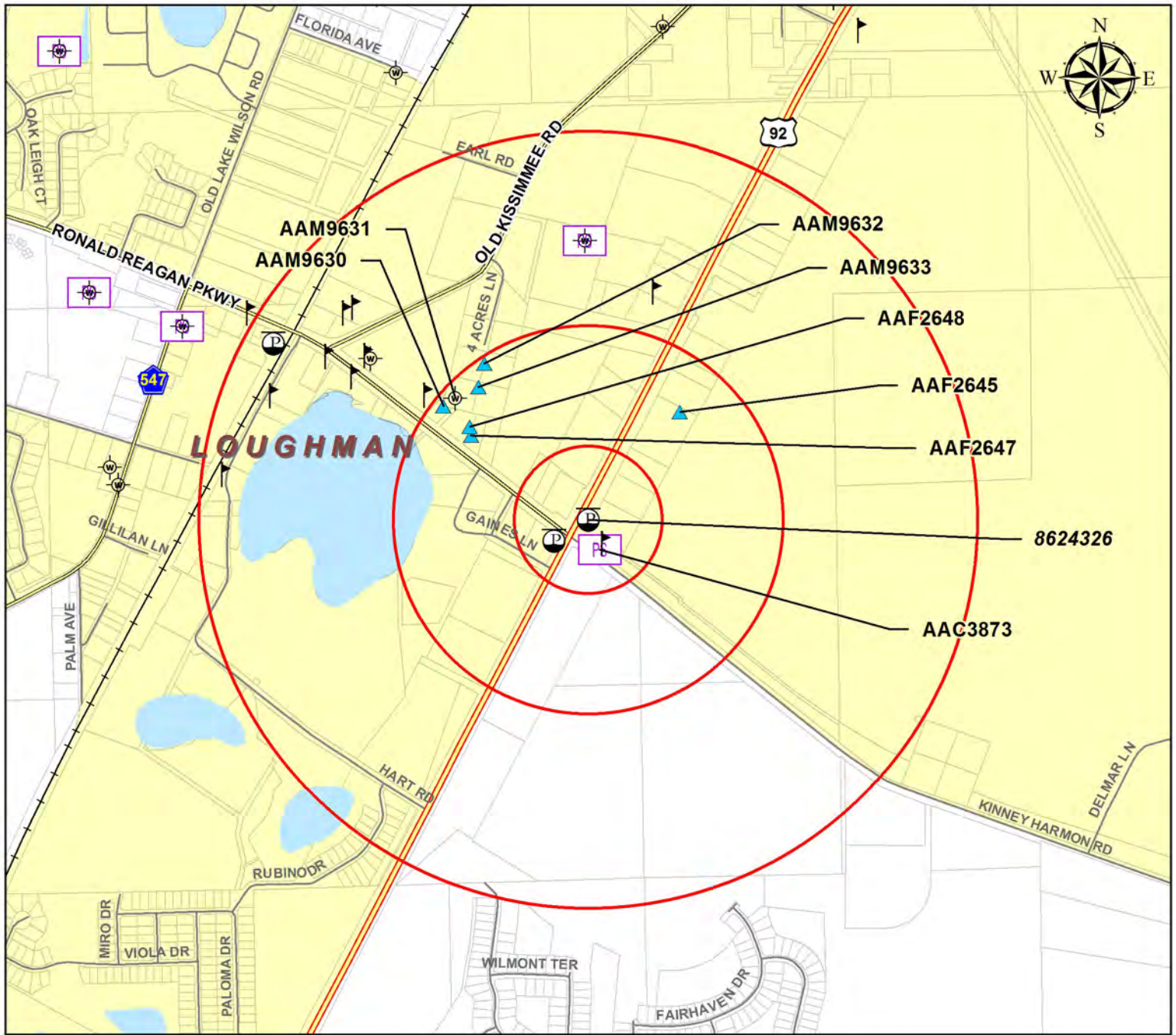
Sample Date: 8/10/2010

CHLOROETHANE	0.54	ug/L	
METHYL-TERT-BUTYL-ETHER (MTBE)	0.44	ug/L	I
NAPHTHALENE	0.60	ug/L	#,J3

Comments: SITE IS CLOSED SINCE 2012. (CHD 11/5/2013)

8624326
 LOUGHMAN SERVICE CENTER
 6004 HWY 1792 N
 LOUGHMAN, FL 33837

Latitude/Longitude: 28.237234 -81.558656
 DDMSS: 28 14 14.0424 81 33 31.1616
 Number of large public wells (>150,000 gpd) within the 1/2 mile: 0
 Number of small public and private wells within the 1/4 mile: 8



Sample Results--Petroleum*



- ★ >1/2 MCL/HAL
- <1/2 MCL/HAL
- <1/4 MCL/HAL
- ▲ Sampled, no detect
- ┆ Not sampled within last year (3 years if large Community PWS)
- ⊕ No sample found for this analysis

- SDWA PWS Wells**
- PS Design Capacity <150,000 gpd
 - P150 Design Capacity ≥150,000 gpd

- Facility Type**
- Ⓟ Petroleum
 - Ⓟ Proximity Threat
 - Ⓟ Drycleaner
 - Ⓟ Toxics
 - Ⓟ Other
 - Ⓟ Cattle Dip Vat



**Florida Department of Health
 Bureau of Environmental Health**

Disclaimer
 This product is for reference purposes only and is not to be construed as a legal document. Any reliance on the information contained herein is at the user's own risk. The Florida Department of Health and its agents assume no responsibility for any use of the information contained herein or any loss resulting therefrom.

* The following chemicals were used for the Petroleum Indicator analysis: Benzene, Ethylbenzene, Toluene, Xylenes (Total), Naphthalene, and Methyl-Tert-Butyl-Ether (MTBE)

APPENDIX G

11/13/17

Loughman Service Center
6001 US Hwy 17/92 North
Loughman, Polk County FL
Flap # 53/2624326

10FZ
870
Sunny

6:00

off

Daniel White (MET)

7:45

Travel

1100 Fertilizer and 1150# 50 Fertilizer

9:00

on site

Calibrate Minirae 2000

Mark out SB-locations

ID

Depth

CNT

Lithology

Moisture

SB-6

1

0

Tan FUS

2

0

SAN

Start 9:30

3

0

Grey FUS

4

0

Light Grey FUS

5

0

SAN

End 9:55

6

0

SAN

AWD

7

0

SAN

SAT

8

0

SAN

SAT

Sample @ 10:00 @ 2 Feet

SB-7

1

0

Tan FUS

Dry

2

0

SAN

Dry

Start 10:10

3

0

SAN

Dry

4

0

SAN

Dry

5

0

SAN

Dry

End 10:20

6

0

SAN

Dry

7

0

SAN

SAT

8

0

SAN

SAT

Sample @ 10:35 @ BFF

ID
SB-8

Start 11:00

End 11:20

12:00
13:15

WfZ

820
Sung

Loughman Siree Lake 209
6004 usky 17/92 usky
Loughman - polk county FL
F Rep # 53/8624322

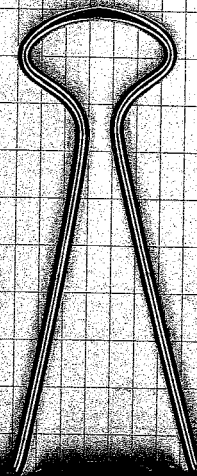
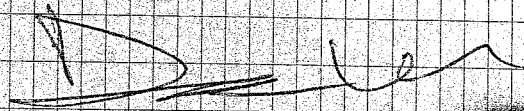
ID	Depth	ORA	Lithology	moist
SB-8	1	0	white FCS	Dry
	2	0	SAA	Dry
Start 11:00	3	0	SAA	Dry
→	4	0	SAA	Dry
End	5	0	SAA	Dry
11:25	6	0	light grey FCS	Damp
	7	0	SAA	Sat
	8	0	SAA	Sat

Sample @ 11:35 @ YET
End cal

12:00 travel

13:15 OFF

Paperwork Drop off Samples



to Kintyre

isture

Damp

Sat
Sat

Dry

Dry

Dry

Dry

Dry

mp

Sat

Sat

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) Mini Roe 3000 **INSTRUMENT #** 1

PARAMETER: [check only one]

- TEMPERATURE CONDUCTIVITY SALINITY pH ORP
 TURBIDITY RESIDUAL Cl DO OTHER _____

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A 100ppm ISO Butylene lot# H&Q-2248-100-24

Standard B _____

Standard C _____

DATE (mm/dd/yy)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
11/13/17	9:10	A	100ppm	100ppm		Y	Init	DW
↓	9:12	A	100ppm	100ppm		N	Cont	↓
↓	11:50	A	100ppm	99.4ppm		N	End	↓

BORING LOG

Boring/Well Number: SB-6		Permit Number:		FDEP Facility Identification Number: 53/8624326	
Site Name: Loughman Service Ctr.		Borehole Start Date: 11/13/17 End Date: 11/13/17		Borehole Start Time: 9:30 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM End Time: 9:55 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	
Environmental Contractor: Envirotrak LTD		Geologist's Name:		Environmental Technician's Name: Darrin Watts	
Drilling Company:		Pavement Thickness (inches): None		Borehole Diameter (inches): 4	
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): 6		Measured Well DTW (in feet after water recharges in well):	
Disposition of Drill Cuttings [check method(s)]: <i>(describe if other or multiple items are checked):</i>		<input type="checkbox"/> Drum <input type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill		<input type="checkbox"/> Stockpile <input type="checkbox"/> Other	
Borehole Completion (check one):		<input type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite		<input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)	

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	12		0				1	Tan FGS		Dry	
			0				2	SAA		Dry	*
			0				3	Grey FGS		Dry	
			0				4	Light Grey FGS		Dry	
			0				5	SAA		Dry	
			0				6	SAA		M	
			0				7	SAA		S	
			0				8	SAA		S	

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Boring/Well Number: SB-7		Permit Number:		FDEP Facility Identification Number: 53/8624326	
Site Name: Loughman Service Ctr		Borehole Start Date: 11/13/17	Borehole Start Time: 10:10 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	End Date: 11/13/17	End Time: 10:30 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM
Environmental Contractor: Envirotrak LTD		Geologist's Name:		Environmental Technician's Name: Dawn Watts	
Drilling Company:		Pavement Thickness (inches): None	Borehole Diameter (inches): 4		Borehole Depth (feet): 8
Drilling Method(s): H/A	Apparent Borehole DTW (in feet from soil moisture content): 6	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): min. RaeJoo <input type="checkbox"/> FID <input checked="" type="checkbox"/> PID		
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other <i>(describe if other or multiple items are checked):</i>					
Borehole Completion (check one): <input type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA		12"		0			1	Tan FGS		D	
				0			2	SAA		D	
				0			3	SAA		D	*
				0			4	SAA		D	
				0			5	SAA		P	
				0			6	SAA		M	
				0			7	SAA		S	
				0			8	SAA		S	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
 Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-8		Permit Number:		FDEP Facility Identification Number: 53/8624326	
Site Name: Loughman Service Ctr.		Borehole Start Date: 11/13/17	Borehole Start Time: 11:00 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	End Date: 11/13/17	End Time: 11:25 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM
Environmental Contractor: Envirovac		Geologist's Name:		Environmental Technician's Name: Darrn Watts	
Drilling Company:		Pavement Thickness (inches): None	Borehole Diameter (inches): 4		Borehole Depth (feet): 8
Drilling Method(s): H/A	Apparent Borehole DTW (in feet from soil moisture content): 6	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): mini Roe 3000 <input type="checkbox"/> FID <input checked="" type="checkbox"/> PID		
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other <i>(describe if other or multiple items are checked):</i>					
Borehole Completion (check one): <input type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
H/A		12"		0			1	white FGS		D	
				0			2	SAA		D	
				0			3	SAA		D	
				0			4	SAA		D	*
				0			5	SAA		D	
				0			6	Light Grey FGS		M	
				0			7	SAA		S	
				0			8	SAA		S	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
 Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

APPENDIX H

November 21, 2017

Kristi Miller
EnviroTrac
5309 56th Commerce Park Blvd.
Tampa, FL 33610

RE: Project: Loughman Service Center
Pace Project No.: 35348025

Dear Kristi Miller:

Enclosed are the analytical results for sample(s) received by the laboratory on November 14, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Lori Palmer
lori.palmer@pacelabs.com
(813)881-9401
Project Manager

Enclosures

cc: Ms. Carrie Lawson, EnviroTrac Ltd. (Tampa)
Accounts Payable, EnviroTrac



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Loughman Service Center

Pace Project No.: 35348025

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
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
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
Nevada Certification: FL NELAC Reciprocity
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
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
Wyoming Certification: FL NELAC Reciprocity
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: Loughman Service Center

Pace Project No.: 35348025

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35348025001	SB-6 @2	Solid	11/13/17 10:00	11/14/17 11:40
35348025002	SB-7 @3	Solid	11/13/17 10:35	11/14/17 11:40
35348025003	SB-8 @4	Solid	11/13/17 11:35	11/14/17 11:40

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SAMPLE ANALYTE COUNT

Project: Loughman Service Center

Pace Project No.: 35348025

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35348025001	SB-6 @2	FL-PRO	SMB	3	PASI-O
		EPA 8270	TWB	21	PASI-O
		EPA 8260	QMC	8	PASI-O
		ASTM D2974-87	RAK	1	PASI-O
35348025002	SB-7 @3	FL-PRO	SMB	3	PASI-O
		EPA 8270	TWB	21	PASI-O
		EPA 8260	QMC	8	PASI-O
		ASTM D2974-87	RAK	1	PASI-O
35348025003	SB-8 @4	FL-PRO	SMB	3	PASI-O
		EPA 8270	TWB	21	PASI-O
		EPA 8260	QMC	8	PASI-O
		ASTM D2974-87	RAK	1	PASI-O

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Loughman Service Center

Pace Project No.: 35348025

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
35348025001	SB-6 @2					
FL-PRO	Petroleum Range Organics	25.6	mg/kg	4.2	11/20/17 17:19	
ASTM D2974-87	Percent Moisture	3.0	%	0.10	11/21/17 09:43	
35348025002	SB-7 @3					
FL-PRO	Petroleum Range Organics	3.8	mg/kg	4.1	11/20/17 17:19	
ASTM D2974-87	Percent Moisture	1.8	%	0.10	11/21/17 09:43	
35348025003	SB-8 @4					
FL-PRO	Petroleum Range Organics	5.0	mg/kg	4.2	11/20/17 17:43	
ASTM D2974-87	Percent Moisture	3.3	%	0.10	11/21/17 09:43	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Loughman Service Center

Pace Project No.: 35348025

Sample: SB-6 @2 **Lab ID: 35348025001** Collected: 11/13/17 10:00 Received: 11/14/17 11:40 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
FL-PRO Soil Microwave Analytical Method: FL-PRO Preparation Method: EPA 3546									
Petroleum Range Organics	25.6	mg/kg	4.2	2.6	1	11/19/17 20:47	11/20/17 17:19		
Surrogates									
o-Terphenyl (S)	71	%	62-109		1	11/19/17 20:47	11/20/17 17:19	84-15-1	
N-Pentatriacontane (S)	0	%	42-159		1	11/19/17 20:47	11/20/17 17:19	630-07-09	J(S0)
8270 MSSV Short List Microwave Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Acenaphthene	0.012 U	mg/kg	0.034	0.012	1	11/16/17 17:19	11/17/17 03:13	83-32-9	
Acenaphthylene	0.011 U	mg/kg	0.034	0.011	1	11/16/17 17:19	11/17/17 03:13	208-96-8	
Anthracene	0.010 U	mg/kg	0.034	0.010	1	11/16/17 17:19	11/17/17 03:13	120-12-7	
Benzo(a)anthracene	0.0099 U	mg/kg	0.034	0.0099	1	11/16/17 17:19	11/17/17 03:13	56-55-3	
Benzo(a)pyrene	0.0040 U	mg/kg	0.034	0.0040	1	11/16/17 17:19	11/17/17 03:13	50-32-8	
Benzo(b)fluoranthene	0.026 U	mg/kg	0.034	0.026	1	11/16/17 17:19	11/17/17 03:13	205-99-2	
Benzo(g,h,i)perylene	0.012 U	mg/kg	0.034	0.012	1	11/16/17 17:19	11/17/17 03:13	191-24-2	
Benzo(k)fluoranthene	0.0074 U	mg/kg	0.034	0.0074	1	11/16/17 17:19	11/17/17 03:13	207-08-9	
Chrysene	0.012 U	mg/kg	0.034	0.012	1	11/16/17 17:19	11/17/17 03:13	218-01-9	
Dibenz(a,h)anthracene	0.017 U	mg/kg	0.034	0.017	1	11/16/17 17:19	11/17/17 03:13	53-70-3	
Fluoranthene	0.011 U	mg/kg	0.034	0.011	1	11/16/17 17:19	11/17/17 03:13	206-44-0	
Fluorene	0.015 U	mg/kg	0.034	0.015	1	11/16/17 17:19	11/17/17 03:13	86-73-7	
Indeno(1,2,3-cd)pyrene	0.017 U	mg/kg	0.034	0.017	1	11/16/17 17:19	11/17/17 03:13	193-39-5	
1-Methylnaphthalene	0.012 U	mg/kg	0.034	0.012	1	11/16/17 17:19	11/17/17 03:13	90-12-0	
2-Methylnaphthalene	0.014 U	mg/kg	0.034	0.014	1	11/16/17 17:19	11/17/17 03:13	91-57-6	
Naphthalene	0.011 U	mg/kg	0.034	0.011	1	11/16/17 17:19	11/17/17 03:13	91-20-3	
Phenanthrene	0.013 U	mg/kg	0.034	0.013	1	11/16/17 17:19	11/17/17 03:13	85-01-8	
Pyrene	0.017 U	mg/kg	0.034	0.017	1	11/16/17 17:19	11/17/17 03:13	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	67	%	16-123		1	11/16/17 17:19	11/17/17 03:13	4165-60-0	
2-Fluorobiphenyl (S)	86	%	32-129		1	11/16/17 17:19	11/17/17 03:13	321-60-8	
p-Terphenyl-d14 (S)	101	%	38-138		1	11/16/17 17:19	11/17/17 03:13	1718-51-0	
8260 MSV 5035 Analytical Method: EPA 8260 Preparation Method: EPA 5035									
Benzene	0.0031 U	mg/kg	0.0060	0.0031	1	11/17/17 09:21	11/17/17 14:08	71-43-2	
Ethylbenzene	0.0034 U	mg/kg	0.0060	0.0034	1	11/17/17 09:21	11/17/17 14:08	100-41-4	
Methyl-tert-butyl ether	0.0030 U	mg/kg	0.0060	0.0030	1	11/17/17 09:21	11/17/17 14:08	1634-04-4	
Toluene	0.0033 U	mg/kg	0.0060	0.0033	1	11/17/17 09:21	11/17/17 14:08	108-88-3	
Xylene (Total)	0.0062 U	mg/kg	0.018	0.0062	1	11/17/17 09:21	11/17/17 14:08	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	93	%	55-148		1	11/17/17 09:21	11/17/17 14:08	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	80-131		1	11/17/17 09:21	11/17/17 14:08	17060-07-0	
Toluene-d8 (S)	100	%	84-117		1	11/17/17 09:21	11/17/17 14:08	2037-26-5	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	3.0	%	0.10	0.10	1		11/21/17 09:43		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Loughman Service Center

Pace Project No.: 35348025

Sample: SB-7 @3 **Lab ID: 35348025002** Collected: 11/13/17 10:35 Received: 11/14/17 11:40 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
FL-PRO Soil Microwave Analytical Method: FL-PRO Preparation Method: EPA 3546									
Petroleum Range Organics	3.8 I	mg/kg	4.1	2.6	1	11/19/17 20:47	11/20/17 17:19		
Surrogates									
o-Terphenyl (S)	62	%	62-109		1	11/19/17 20:47	11/20/17 17:19	84-15-1	
N-Pentatriacontane (S)	57	%	42-159		1	11/19/17 20:47	11/20/17 17:19	630-07-09	
8270 MSSV Short List Microwave Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Acenaphthene	0.012 U	mg/kg	0.034	0.012	1	11/16/17 17:19	11/17/17 00:14	83-32-9	
Acenaphthylene	0.010 U	mg/kg	0.034	0.010	1	11/16/17 17:19	11/17/17 00:14	208-96-8	
Anthracene	0.010 U	mg/kg	0.034	0.010	1	11/16/17 17:19	11/17/17 00:14	120-12-7	
Benzo(a)anthracene	0.0097 U	mg/kg	0.034	0.0097	1	11/16/17 17:19	11/17/17 00:14	56-55-3	
Benzo(a)pyrene	0.0039 U	mg/kg	0.034	0.0039	1	11/16/17 17:19	11/17/17 00:14	50-32-8	
Benzo(b)fluoranthene	0.025 U	mg/kg	0.034	0.025	1	11/16/17 17:19	11/17/17 00:14	205-99-2	
Benzo(g,h,i)perylene	0.012 U	mg/kg	0.034	0.012	1	11/16/17 17:19	11/17/17 00:14	191-24-2	
Benzo(k)fluoranthene	0.0073 U	mg/kg	0.034	0.0073	1	11/16/17 17:19	11/17/17 00:14	207-08-9	
Chrysene	0.012 U	mg/kg	0.034	0.012	1	11/16/17 17:19	11/17/17 00:14	218-01-9	
Dibenz(a,h)anthracene	0.017 U	mg/kg	0.034	0.017	1	11/16/17 17:19	11/17/17 00:14	53-70-3	
Fluoranthene	0.011 U	mg/kg	0.034	0.011	1	11/16/17 17:19	11/17/17 00:14	206-44-0	
Fluorene	0.015 U	mg/kg	0.034	0.015	1	11/16/17 17:19	11/17/17 00:14	86-73-7	
Indeno(1,2,3-cd)pyrene	0.017 U	mg/kg	0.034	0.017	1	11/16/17 17:19	11/17/17 00:14	193-39-5	
1-Methylnaphthalene	0.012 U	mg/kg	0.034	0.012	1	11/16/17 17:19	11/17/17 00:14	90-12-0	
2-Methylnaphthalene	0.014 U	mg/kg	0.034	0.014	1	11/16/17 17:19	11/17/17 00:14	91-57-6	
Naphthalene	0.011 U	mg/kg	0.034	0.011	1	11/16/17 17:19	11/17/17 00:14	91-20-3	
Phenanthrene	0.013 U	mg/kg	0.034	0.013	1	11/16/17 17:19	11/17/17 00:14	85-01-8	
Pyrene	0.017 U	mg/kg	0.034	0.017	1	11/16/17 17:19	11/17/17 00:14	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	61	%	16-123		1	11/16/17 17:19	11/17/17 00:14	4165-60-0	
2-Fluorobiphenyl (S)	84	%	32-129		1	11/16/17 17:19	11/17/17 00:14	321-60-8	
p-Terphenyl-d14 (S)	99	%	38-138		1	11/16/17 17:19	11/17/17 00:14	1718-51-0	
8260 MSV 5035 Analytical Method: EPA 8260 Preparation Method: EPA 5035									
Benzene	0.0031 U	mg/kg	0.0060	0.0031	1	11/17/17 09:21	11/17/17 14:31	71-43-2	
Ethylbenzene	0.0034 U	mg/kg	0.0060	0.0034	1	11/17/17 09:21	11/17/17 14:31	100-41-4	
Methyl-tert-butyl ether	0.0030 U	mg/kg	0.0060	0.0030	1	11/17/17 09:21	11/17/17 14:31	1634-04-4	
Toluene	0.0032 U	mg/kg	0.0060	0.0032	1	11/17/17 09:21	11/17/17 14:31	108-88-3	
Xylene (Total)	0.0062 U	mg/kg	0.018	0.0062	1	11/17/17 09:21	11/17/17 14:31	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	94	%	55-148		1	11/17/17 09:21	11/17/17 14:31	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	80-131		1	11/17/17 09:21	11/17/17 14:31	17060-07-0	
Toluene-d8 (S)	101	%	84-117		1	11/17/17 09:21	11/17/17 14:31	2037-26-5	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	1.8	%	0.10	0.10	1		11/21/17 09:43		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Loughman Service Center

Pace Project No.: 35348025

Sample: SB-8 @4 **Lab ID: 35348025003** Collected: 11/13/17 11:35 Received: 11/14/17 11:40 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
FL-PRO Soil Microwave Analytical Method: FL-PRO Preparation Method: EPA 3546									
Petroleum Range Organics	5.0	mg/kg	4.2	2.6	1	11/19/17 20:47	11/20/17 17:43		
Surrogates									
o-Terphenyl (S)	85	%	62-109		1	11/19/17 20:47	11/20/17 17:43	84-15-1	
N-Pentatriacontane (S)	96	%	42-159		1	11/19/17 20:47	11/20/17 17:43	630-07-09	
8270 MSSV Short List Microwave Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Acenaphthene	0.013 U	mg/kg	0.034	0.013	1	11/16/17 17:19	11/17/17 03:35	83-32-9	
Acenaphthylene	0.011 U	mg/kg	0.034	0.011	1	11/16/17 17:19	11/17/17 03:35	208-96-8	
Anthracene	0.010 U	mg/kg	0.034	0.010	1	11/16/17 17:19	11/17/17 03:35	120-12-7	
Benzo(a)anthracene	0.0099 U	mg/kg	0.034	0.0099	1	11/16/17 17:19	11/17/17 03:35	56-55-3	
Benzo(a)pyrene	0.0040 U	mg/kg	0.034	0.0040	1	11/16/17 17:19	11/17/17 03:35	50-32-8	
Benzo(b)fluoranthene	0.026 U	mg/kg	0.034	0.026	1	11/16/17 17:19	11/17/17 03:35	205-99-2	
Benzo(g,h,i)perylene	0.012 U	mg/kg	0.034	0.012	1	11/16/17 17:19	11/17/17 03:35	191-24-2	
Benzo(k)fluoranthene	0.0074 U	mg/kg	0.034	0.0074	1	11/16/17 17:19	11/17/17 03:35	207-08-9	
Chrysene	0.012 U	mg/kg	0.034	0.012	1	11/16/17 17:19	11/17/17 03:35	218-01-9	
Dibenz(a,h)anthracene	0.017 U	mg/kg	0.034	0.017	1	11/16/17 17:19	11/17/17 03:35	53-70-3	
Fluoranthene	0.011 U	mg/kg	0.034	0.011	1	11/16/17 17:19	11/17/17 03:35	206-44-0	
Fluorene	0.015 U	mg/kg	0.034	0.015	1	11/16/17 17:19	11/17/17 03:35	86-73-7	
Indeno(1,2,3-cd)pyrene	0.017 U	mg/kg	0.034	0.017	1	11/16/17 17:19	11/17/17 03:35	193-39-5	
1-Methylnaphthalene	0.012 U	mg/kg	0.034	0.012	1	11/16/17 17:19	11/17/17 03:35	90-12-0	
2-Methylnaphthalene	0.014 U	mg/kg	0.034	0.014	1	11/16/17 17:19	11/17/17 03:35	91-57-6	
Naphthalene	0.011 U	mg/kg	0.034	0.011	1	11/16/17 17:19	11/17/17 03:35	91-20-3	
Phenanthrene	0.013 U	mg/kg	0.034	0.013	1	11/16/17 17:19	11/17/17 03:35	85-01-8	
Pyrene	0.017 U	mg/kg	0.034	0.017	1	11/16/17 17:19	11/17/17 03:35	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	68	%	16-123		1	11/16/17 17:19	11/17/17 03:35	4165-60-0	
2-Fluorobiphenyl (S)	86	%	32-129		1	11/16/17 17:19	11/17/17 03:35	321-60-8	
p-Terphenyl-d14 (S)	102	%	38-138		1	11/16/17 17:19	11/17/17 03:35	1718-51-0	
8260 MSV 5035 Analytical Method: EPA 8260 Preparation Method: EPA 5035									
Benzene	0.0032 U	mg/kg	0.0062	0.0032	1	11/17/17 09:21	11/17/17 16:29	71-43-2	
Ethylbenzene	0.0035 U	mg/kg	0.0062	0.0035	1	11/17/17 09:21	11/17/17 16:29	100-41-4	
Methyl-tert-butyl ether	0.0031 U	mg/kg	0.0062	0.0031	1	11/17/17 09:21	11/17/17 16:29	1634-04-4	
Toluene	0.0034 U	mg/kg	0.0062	0.0034	1	11/17/17 09:21	11/17/17 16:29	108-88-3	
Xylene (Total)	0.0064 U	mg/kg	0.019	0.0064	1	11/17/17 09:21	11/17/17 16:29	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	94	%	55-148		1	11/17/17 09:21	11/17/17 16:29	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	80-131		1	11/17/17 09:21	11/17/17 16:29	17060-07-0	
Toluene-d8 (S)	101	%	84-117		1	11/17/17 09:21	11/17/17 16:29	2037-26-5	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	3.3	%	0.10	0.10	1		11/21/17 09:43		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Loughman Service Center

Pace Project No.: 35348025

QC Batch: 406420 Analysis Method: EPA 8260
 QC Batch Method: EPA 5035 Analysis Description: 8260 MSV 5035
 Associated Lab Samples: 35348025001, 35348025002, 35348025003

METHOD BLANK: 2218958 Matrix: Solid

Associated Lab Samples: 35348025001, 35348025002, 35348025003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzene	mg/kg	0.0026 U	0.0050	0.0026	11/17/17 11:52	
Ethylbenzene	mg/kg	0.0028 U	0.0050	0.0028	11/17/17 11:52	
Methyl-tert-butyl ether	mg/kg	0.0025 U	0.0050	0.0025	11/17/17 11:52	
Toluene	mg/kg	0.0027 U	0.0050	0.0027	11/17/17 11:52	
Xylene (Total)	mg/kg	0.0051 U	0.015	0.0051	11/17/17 11:52	
1,2-Dichloroethane-d4 (S)	%	103	80-131		11/17/17 11:52	
4-Bromofluorobenzene (S)	%	96	55-148		11/17/17 11:52	
Toluene-d8 (S)	%	100	84-117		11/17/17 11:52	

LABORATORY CONTROL SAMPLE: 2218959

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	mg/kg	.02	0.020	99	70-130	
Ethylbenzene	mg/kg	.02	0.022	112	70-130	
Methyl-tert-butyl ether	mg/kg	.02	0.018	90	70-130	
Toluene	mg/kg	.02	0.022	108	70-130	
Xylene (Total)	mg/kg	.06	0.064	106	70-130	
1,2-Dichloroethane-d4 (S)	%			102	80-131	
4-Bromofluorobenzene (S)	%			98	55-148	
Toluene-d8 (S)	%			112	84-117	

MATRIX SPIKE SAMPLE: 2219062

Parameter	Units	35347554007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	mg/kg	0.0029 U	.023	0.027	114	24-141	
Ethylbenzene	mg/kg	0.0032 U	.023	0.026	113	30-130	
Methyl-tert-butyl ether	mg/kg	0.0028 U	.023	0.024	101	31-156	
Toluene	mg/kg	0.0030 U	.023	0.029	124	24-137	
Xylene (Total)	mg/kg	0.0058 U	.07	0.069	99	26-130	
1,2-Dichloroethane-d4 (S)	%				103	80-131	
4-Bromofluorobenzene (S)	%				88	55-148	
Toluene-d8 (S)	%				97	84-117	

SAMPLE DUPLICATE: 2219063

Parameter	Units	35348025002 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	mg/kg	0.0031 U	0.0030 U		40	

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QUALITY CONTROL DATA

Project: Loughman Service Center

Pace Project No.: 35348025

SAMPLE DUPLICATE: 2219063

Parameter	Units	35348025002 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethylbenzene	mg/kg	0.0034 U	0.0033 U		40	
Methyl-tert-butyl ether	mg/kg	0.0030 U	0.0029 U		40	
Toluene	mg/kg	0.0032 U	0.0032 U		40	
Xylene (Total)	mg/kg	0.0062 U	0.0060 U		40	
1,2-Dichloroethane-d4 (S)	%	103	106	0	40	
4-Bromofluorobenzene (S)	%	94	96	0	40	
Toluene-d8 (S)	%	101	102	1	40	

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QUALITY CONTROL DATA

Project: Loughman Service Center

Pace Project No.: 35348025

QC Batch: 405793 Analysis Method: EPA 8270
QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave Short Spike
Associated Lab Samples: 35348025001, 35348025002, 35348025003

METHOD BLANK: 2215391 Matrix: Solid

Associated Lab Samples: 35348025001, 35348025002, 35348025003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	0.012 U	0.033	0.012	11/16/17 23:51	
2-Methylnaphthalene	mg/kg	0.013 U	0.033	0.013	11/16/17 23:51	
Acenaphthene	mg/kg	0.012 U	0.033	0.012	11/16/17 23:51	
Acenaphthylene	mg/kg	0.010 U	0.033	0.010	11/16/17 23:51	
Anthracene	mg/kg	0.010 U	0.033	0.010	11/16/17 23:51	
Benzo(a)anthracene	mg/kg	0.0096 U	0.033	0.0096	11/16/17 23:51	
Benzo(a)pyrene	mg/kg	0.0039 U	0.033	0.0039	11/16/17 23:51	
Benzo(b)fluoranthene	mg/kg	0.025 U	0.033	0.025	11/16/17 23:51	
Benzo(g,h,i)perylene	mg/kg	0.012 U	0.033	0.012	11/16/17 23:51	
Benzo(k)fluoranthene	mg/kg	0.0071 U	0.033	0.0071	11/16/17 23:51	
Chrysene	mg/kg	0.012 U	0.033	0.012	11/16/17 23:51	
Dibenz(a,h)anthracene	mg/kg	0.017 U	0.033	0.017	11/16/17 23:51	
Fluoranthene	mg/kg	0.011 U	0.033	0.011	11/16/17 23:51	
Fluorene	mg/kg	0.015 U	0.033	0.015	11/16/17 23:51	
Indeno(1,2,3-cd)pyrene	mg/kg	0.017 U	0.033	0.017	11/16/17 23:51	
Naphthalene	mg/kg	0.011 U	0.033	0.011	11/16/17 23:51	
Phenanthrene	mg/kg	0.012 U	0.033	0.012	11/16/17 23:51	
Pyrene	mg/kg	0.017 U	0.033	0.017	11/16/17 23:51	
2-Fluorobiphenyl (S)	%	92	32-129		11/16/17 23:51	
Nitrobenzene-d5 (S)	%	77	16-123		11/16/17 23:51	
p-Terphenyl-d14 (S)	%	105	38-138		11/16/17 23:51	

LABORATORY CONTROL SAMPLE: 2215392

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/kg	1.7	1.3	78	27-123	
2-Methylnaphthalene	mg/kg	1.7	1.3	76	16-137	
Acenaphthene	mg/kg	1.7	1.4	83	37-120	
Acenaphthylene	mg/kg	1.7	1.5	87	41-120	
Anthracene	mg/kg	1.7	1.4	85	45-120	
Benzo(a)anthracene	mg/kg	1.7	1.4	82	44-120	
Benzo(a)pyrene	mg/kg	1.7	1.5	88	44-123	
Benzo(b)fluoranthene	mg/kg	1.7	1.4	87	37-124	
Benzo(g,h,i)perylene	mg/kg	1.7	1.5	91	42-125	
Benzo(k)fluoranthene	mg/kg	1.7	1.5	91	44-126	
Chrysene	mg/kg	1.7	1.5	92	45-120	
Dibenz(a,h)anthracene	mg/kg	1.7	1.5	91	43-124	
Fluoranthene	mg/kg	1.7	1.4	87	45-120	
Fluorene	mg/kg	1.7	1.4	87	42-120	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.5	92	43-123	

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QUALITY CONTROL DATA

Project: Loughman Service Center
Pace Project No.: 35348025

LABORATORY CONTROL SAMPLE: 2215392

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	mg/kg	1.7	1.3	79	40-120	
Phenanthrene	mg/kg	1.7	1.4	84	36-125	
Pyrene	mg/kg	1.7	1.4	86	41-123	
2-Fluorobiphenyl (S)	%			87	32-129	
Nitrobenzene-d5 (S)	%			65	16-123	
p-Terphenyl-d14 (S)	%			97	38-138	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2217740 2217741

Parameter	Units	35348025002		MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	U	Spike Conc.	Conc.	Result	Result	% Rec	% Rec						
1-Methylnaphthalene	mg/kg	0.012	U	1.7	1.7	1.3	1.4	79	81	27-123	3	40			
2-Methylnaphthalene	mg/kg	0.014	U	1.7	1.7	1.3	1.3	76	76	16-137	1	40			
Acenaphthene	mg/kg	0.012	U	1.7	1.7	1.4	1.4	81	84	37-120	4	40			
Acenaphthylene	mg/kg	0.010	U	1.7	1.7	1.4	1.5	85	86	41-120	2	40			
Anthracene	mg/kg	0.010	U	1.7	1.7	1.4	1.5	82	88	45-120	8	40			
Benzo(a)anthracene	mg/kg	0.0097	U	1.7	1.7	1.4	1.4	81	84	44-120	4	40			
Benzo(a)pyrene	mg/kg	0.0039	U	1.7	1.7	1.5	1.5	87	89	44-123	2	40			
Benzo(b)fluoranthene	mg/kg	0.025	U	1.7	1.7	1.4	1.4	80	83	37-124	4	40			
Benzo(g,h,i)perylene	mg/kg	0.012	U	1.7	1.7	1.5	1.5	88	91	42-125	4	40			
Benzo(k)fluoranthene	mg/kg	0.0073	U	1.7	1.7	1.6	1.6	95	97	44-126	2	40			
Chrysene	mg/kg	0.012	U	1.7	1.7	1.5	1.6	90	92	45-120	3	40			
Dibenz(a,h)anthracene	mg/kg	0.017	U	1.7	1.7	1.5	1.6	90	93	43-124	4	40			
Fluoranthene	mg/kg	0.011	U	1.7	1.7	1.5	1.5	86	91	45-120	6	40			
Fluorene	mg/kg	0.015	U	1.7	1.7	1.4	1.5	84	86	42-120	3	40			
Indeno(1,2,3-cd)pyrene	mg/kg	0.017	U	1.7	1.7	1.5	1.6	90	93	43-123	4	40			
Naphthalene	mg/kg	0.011	U	1.7	1.7	1.3	1.3	77	79	40-120	3	40			
Phenanthrene	mg/kg	0.013	U	1.7	1.7	1.4	1.5	84	87	36-125	5	40			
Pyrene	mg/kg	0.017	U	1.7	1.7	1.4	1.5	85	87	41-123	3	40			
2-Fluorobiphenyl (S)	%							85	85	32-129					
Nitrobenzene-d5 (S)	%							62	64	16-123					
p-Terphenyl-d14 (S)	%							94	98	38-138					

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,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: Loughman Service Center

Pace Project No.: 35348025

QC Batch: 406632 Analysis Method: FL-PRO
 QC Batch Method: EPA 3546 Analysis Description: FL-PRO Soil
 Associated Lab Samples: 35348025001, 35348025002, 35348025003

METHOD BLANK: 2220518 Matrix: Solid

Associated Lab Samples: 35348025001, 35348025002, 35348025003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Petroleum Range Organics	mg/kg	2.5 U	4.0	2.5	11/20/17 10:57	
N-Pentatriacontane (S)	%	80	42-159		11/20/17 10:57	
o-Terphenyl (S)	%	80	62-109		11/20/17 10:57	

LABORATORY CONTROL SAMPLE: 2220519

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Petroleum Range Organics	mg/kg	200	131	65	63-153	
N-Pentatriacontane (S)	%			60	42-159	
o-Terphenyl (S)	%			64	62-109	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2220603 2220604

Parameter	Units	35347554001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Petroleum Range Organics	mg/kg	18.0	402	402	314	281	74	65	51-215	11	25	
N-Pentatriacontane (S)	%						72	51	42-159			
o-Terphenyl (S)	%						82	66	62-109			

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

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QUALITY CONTROL DATA

Project: Loughman Service Center
Pace Project No.: 35348025

QC Batch: 407124 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 35348025001, 35348025002, 35348025003

SAMPLE DUPLICATE: 2222839

Parameter	Units	35346324001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	81.1	81.5	0	5	

SAMPLE DUPLICATE: 2222847

Parameter	Units	35347995002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	19.7	19.8	1	5	

SAMPLE DUPLICATE: 2222848

Parameter	Units	35348100001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	19.1	21.1	10	5	J(D6)

SAMPLE DUPLICATE: 2222849

Parameter	Units	35348100010 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	84.7	84.4	0	5	

SAMPLE DUPLICATE: 2222850

Parameter	Units	35348100019 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	25.9	45.3	54	5	J(D6)

SAMPLE DUPLICATE: 2222851

Parameter	Units	35348128008 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.3	13.4	1	5	

SAMPLE DUPLICATE: 2222852

Parameter	Units	35348459004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	9.0	9.0	0	5	

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

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QUALIFIERS

Project: Loughman Service Center

Pace Project No.: 35348025

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.

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.

LABORATORIES

PASI-O Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

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

U Compound was analyzed for but not detected.

J(D6) Estimated Value. The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

J(S0) Estimated Value. Surrogate recovery outside laboratory control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Loughman Service Center
Pace Project No.: 35348025

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35348025001	SB-6 @2	EPA 3546	406632	FL-PRO	406791
35348025002	SB-7 @3	EPA 3546	406632	FL-PRO	406791
35348025003	SB-8 @4	EPA 3546	406632	FL-PRO	406791
35348025001	SB-6 @2	EPA 3546	405793	EPA 8270	406280
35348025002	SB-7 @3	EPA 3546	405793	EPA 8270	406280
35348025003	SB-8 @4	EPA 3546	405793	EPA 8270	406280
35348025001	SB-6 @2	EPA 5035	406420	EPA 8260	406452
35348025002	SB-7 @3	EPA 5035	406420	EPA 8260	406452
35348025003	SB-8 @4	EPA 5035	406420	EPA 8260	406452
35348025001	SB-6 @2	ASTM D2974-87	407124		
35348025002	SB-7 @3	ASTM D2974-87	407124		
35348025003	SB-8 @4	ASTM D2974-87	407124		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Docu
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be c

MO# : 35348025
35348025

Section A
Required Client Information:
Company: EnviroTrac-Tampa (for non-Sunoco work only)
Address: 5309 56th Commerce Park Blvd.
Tampa, FL 33610
Section B
Required Project Information:
Report To: Kristi Miller
Copy To:
Purchase Order #:
Project Name: Loughman Service Center
Section C
Invoice Information:
Attention:
Company Name:
Address:
Pace Quote:
Pace Project Manager: Lori.palmer@paceclabs.com
Pace Profile #: 9128-3
Regulatory Agency:
State / Location: FL

Table with columns: ITEM #, SAMPLE ID, MATRIX, CODE, MATRIX CODE, SAMPLE TYPE, COLLECTED (START/END DATE/TIME), PRESERVATIVES (H2SO4, HNO3, HCl, NaOH, Na2S2O3, Methanol, Other), ANALYSES TEST (TRPH, PAH, BTEX/MTBE), Residual Chlorine (Y/N), and SAMPLE CONDITIONS (Received on Ice, Custody Sealed, Samples Intact).

ADDITIONAL COMMENTS: Empty Containers
RELINQUISHED BY / AFFILIATION: [Signature], DATE: 11-7-17, TIME: 11:00
ACCEPTED BY / AFFILIATION: [Signature], DATE: 11/14/17, TIME: 10:30
SAMPLER NAME AND SIGNATURE: DARRIN WATTS, DATE Signed: 11-13-17
TEMP in C: 1.3



Document Name:
Sample Condition Upon Receipt Form
Document No.:
F-FL-C-007 rev. 12

Document Revised:
August 2, 2017
Issuing Authority:
Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project # WO# : 35348025
Project Manager: PM: LNF **Due Date:** 11/21/17
Client: CLIENT: 37-ENVTRA

Date and Initials of person:
 Examining contents: mvl
 Label: 11/14/17
 Deliver: [initials]
 pH: 7.1

Thermometer Used: T-203 Date: 11/14/17 Time: 1140 Initials: mvl

State of Origin: FL

Cooler #1 Temp. °C 1.3 (Visual) 0.0 (Correction Factor) 1.3 (Actual)
 Cooler #2 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)
 Cooler #3 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)
 Cooler #4 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)
 Cooler #5 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)
 Cooler #6 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)

- Samples on ice, cooling process has begun
- Samples on ice, cooling process has begun
- Samples on ice, cooling process has begun
- Samples on ice, cooling process has begun
- Samples on ice, cooling process has begun
- Samples on ice, cooling process has begun

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____
Shipping Method: First Overnight Priority Overnight Standard Overnight Ground International Priority
 Other _____

Billing: Recipient Sender Third Party Credit Card Unknown

Tracking # _____

Custody Seal on Cooler/Box Present: Yes No **Seals intact:** Yes No **Ice:** Wet Blue Dry None

Packing Material: Bubble Wrap Bubble Bags None Other _____

Samples shorted to lab (If Yes, complete) Shorted Date: _____ Shorted Time: _____ Qty: _____

Comments:

Chain of Custody Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Chain of Custody Filled Out	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Relinquished Signature & Sampler Name COC	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Samples Arrived within Hold Time	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Rush TAT requested on COC	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Sufficient Volume	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Correct Containers Used	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Sample Labels match COC (sample IDs & date/time of collection)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
All containers needing acid/base preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Preservation Information: Preservative: _____ Lot #/Trace #: _____ Date: _____ Time: _____ Initials: _____
All Containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: VOA, Coliform, TOC, O&G, Carbamates	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Headspace in VOA Vials? (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

Client Notification/ Resolution:
 Person Contacted: _____ Date/Time: _____


Comments/ Resolution (use back for additional comments):

Florida Department of Environmental Protection
Bureau of Petroleum Storage Systems
Storage Tank/Contaminated Facility
Name & Address Search

Facility ID#: 8624326

Name: Loughman Service Center
6004 Hwy N 17-92
Loughman, FL 33858

Contact: Wil Byrd

Phone: 863-424-1074 

District: SWD

County: 53 - Polk

Type: A-Retail Station

Status: Closed

Latitude: 28:14:14.0000

Longitude: 81:33:30.0000

LL Method: DPHO-Autonomous GPS

Account Owner: Loughman Service Ctr

Tank #	Size	Content	Installed	Placement	Status	Construction	Piping	Monitoring
1	4000	Leaded Gas		UNDER	Removed from Site			
2	4000	Unleaded Gas		UNDER	Removed from Site			
3	4000	Unleaded Gas		UNDER	Removed from Site			
4	2000	Vehicular Diesel		UNDER	Removed from Site			
5	2000	Misc Petrol-Based Product		UNDER	Removed from Site			
6	1000	Waste Oil		UNDER	Removed from Site			
10	2000	Vehicular Diesel	10/01/1996	ABOVE	Closed In Place			
7	12000	Unleaded Gas	06/01/1993	ABOVE	Closed In Place			
8	12000	Unleaded Gas	06/01/1993	ABOVE	Closed In Place			
9	12000	Unleaded Gas	06/01/1993	ABOVE	Closed In Place			

***Note:

Construction, Piping, and Monitoring Info not shown for CLOSED tanks
(Status A: Closed in Place, B: Removed from the site).

Oak Hills Estates

D. E. R.
DEC 15 1989
SOUTHWEST DISTRICT
TAMPA

POST CLOSURE ASSESSMENT
Vacant Lot
U. S. 17-92 and SR 54
Loughman, Florida

539046109

Prepared For
KOCH OIL COMPANY
Sebring, Florida

Prepared by
IMPERIAL TESTING LABORATORIES
Water Resource Consultants
Lakeland, Florida

November 28, 1989

Table of Contents

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Introduction	1
Authorization	1
Objective	1
Soil Testing and Analysis	1
Monitor Well Installation	2
Groundwater Sampling and Analysis	4
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Table 1 - OVA Results	3

POST CLOSURE ASSESSMENT

Introduction

This report represents the results of a Post Closure Assessment for the Koch Oil Company. The vacant site is located at the corner of U. S. 17-92 and State Road 54, Loughman, Florida.

The scope and investigation activities are in accord with DER Southwest District - Environmental Assessment required for Change-in-Service and Closure of Underground Storage Tanks.

Authorization

Authorization to perform this assessment was in the form of a verbal project acceptance given on October 15, 1989 from Clarence Polston, Vice President of Koch Oil Company to Imperial Testing Laboratories (ITL).

Objective

The objective of this assessment is to determine if any soil or groundwater contamination exists at the site as a result of the underground storage of petroleum products.

Soil Testing and Analysis

A total of ^{Six} five underground petroleum storage tanks were removed from the site's two tank areas. A site plan is included in the Appendix. During the tank removal, a strong petroleum odor was detected in the soils of tank area 1. Soils from tank area 2 had no detectable odor. A composite soil sample from each tank area was collected from the bottom of the excavations and delivered to

Phoslab, Inc. for analysis of gasoline class parameters (EPA Method 5030/8020).

The laboratory analysis results from tank area 1 indicated the presence of volatile organic aromatic hydrocarbons (VOAs) indicative of petroleum products, while tank area 2 analysis results were below the detectable limits of the methods.

Soil samples were collected from additional soil borings to further delineate the total area of soil contamination for a possible initial remedial action. These soil samples collected from the borings were tested in accord with FAC 17-70.003(3) using a Riken GL-103 Organic Vapor Analyzer (OVA) equipped with a Flame Ionization Detector (FID). A total of 25 soil samples were collected from soil borings A through L. The soil OVA results summarized in Table 1 indicate the presence of soil contamination. A map depicting the approximate areas of excessive soil contamination (500 ppm) and soil contamination (10 ppm) is included in the Appendix.

Monitor Well Installation

ITL constructed a monitor well in each of the tank excavation areas per the requirements of FAC 17-61. Well locations are shown on the site plan included in the Appendix.

Sampling per FAC 17-61 indicated a petroleum odor in monitor well 1 (tank area 1). No petroleum odor was detected in monitor well 2 (tank area 2).

Table 1 - OVA Results

Boring	Highest Soil OVA in Interval		
	0 - 2	2 - 4	4-Water* and Below
A	BDL	BDL	10
B	BDL	BDL	7
C	2,500	10,000	---
D	10,000	10,000	---
E	700	2,500	---
F	7	1	---
G	2,500	40	---
H	3,200	10,000	---
I	3,100	400	---
J	9	4	---
K	BDL	BDL	---
L	9	BDL	---

All values are expressed in parts per million methane

BDL - below detectable limits

* Water level was approximately 4.5 feet below land surface

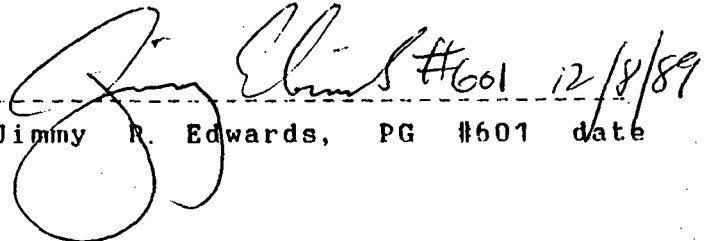
on 11/9/89

Groundwater Sampling and Analysis

Groundwater samples were collected from monitor wells in both tank areas in accord with ITL's generic quality assurance plan and delivered to Phoslab, Inc. for analysis of gasoline class parameters (EPA Method 602). The groundwater analysis results indicate Volatile Organic Chemical (VOC) levels of monitor well 1 in excess of individual/or combined maximum contaminant levels (MCL's) of FAC 17-70.011(5)(c). The analysis results for monitor well 2 were below the detectable limits of the method. QA sampling forms, sample custody forms and Phoslab analysis results are included in the Appendix.

Report Certification

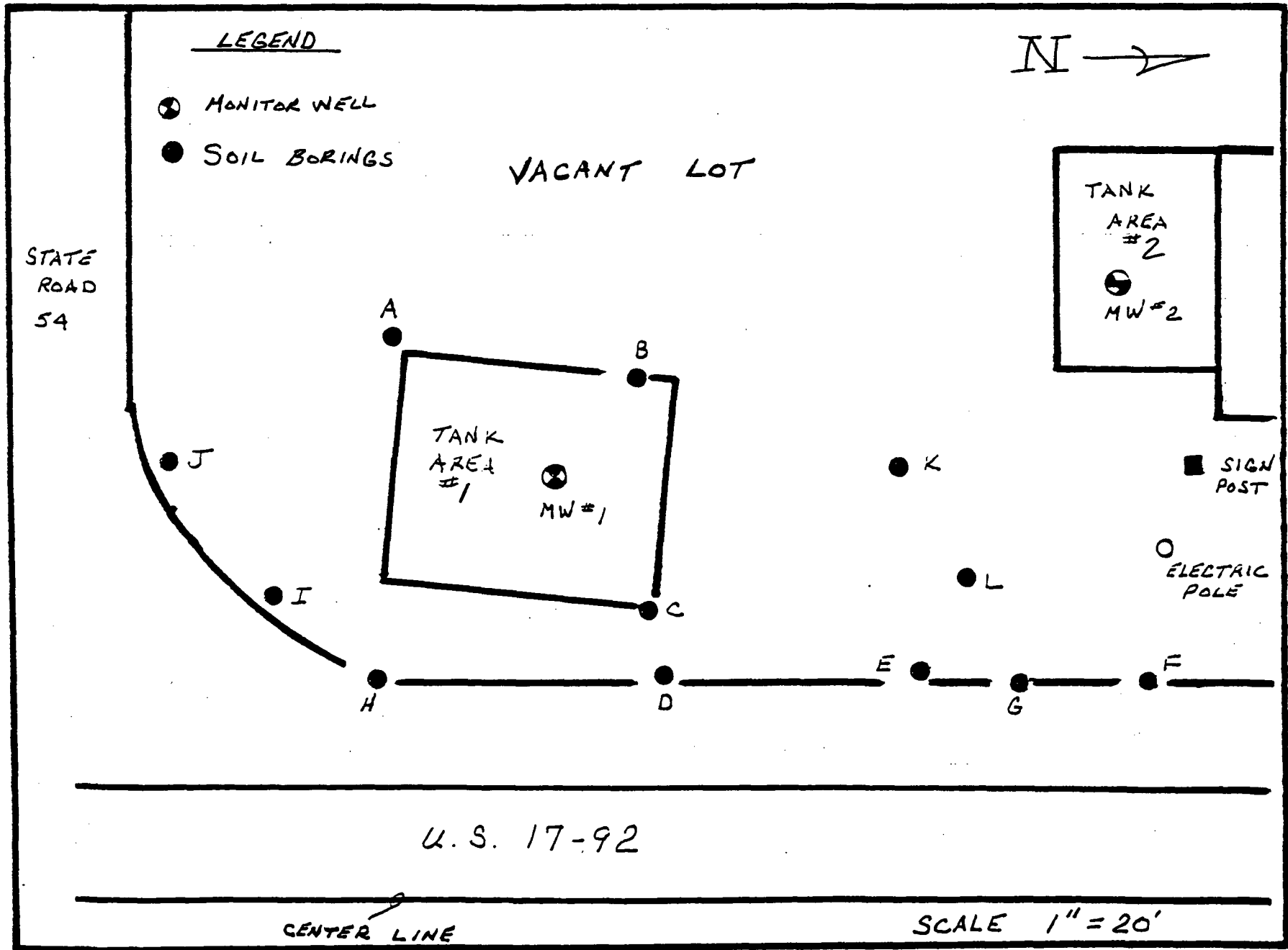
I have prepared or supervised the preparation of the attached report and believe the results were obtained using generally accepted and approved professional practice in the fields of hydrogeology and environmental geology. In the performance of subsurface explorations, specific information is obtained at specific locations at specific times. It is a well-known fact that variations in soil and sediment conditions exist on most sites between well/boring locations, and also such situations as groundwater levels vary from time to time of investigation. The information contained herein is true and correct to the best of my knowledge.



Jimmy R. Edwards, PG #601 date 12/8/89

Appendix

SITE PLAN



AREA OF SOIL CONTAMINATION

LEGEND

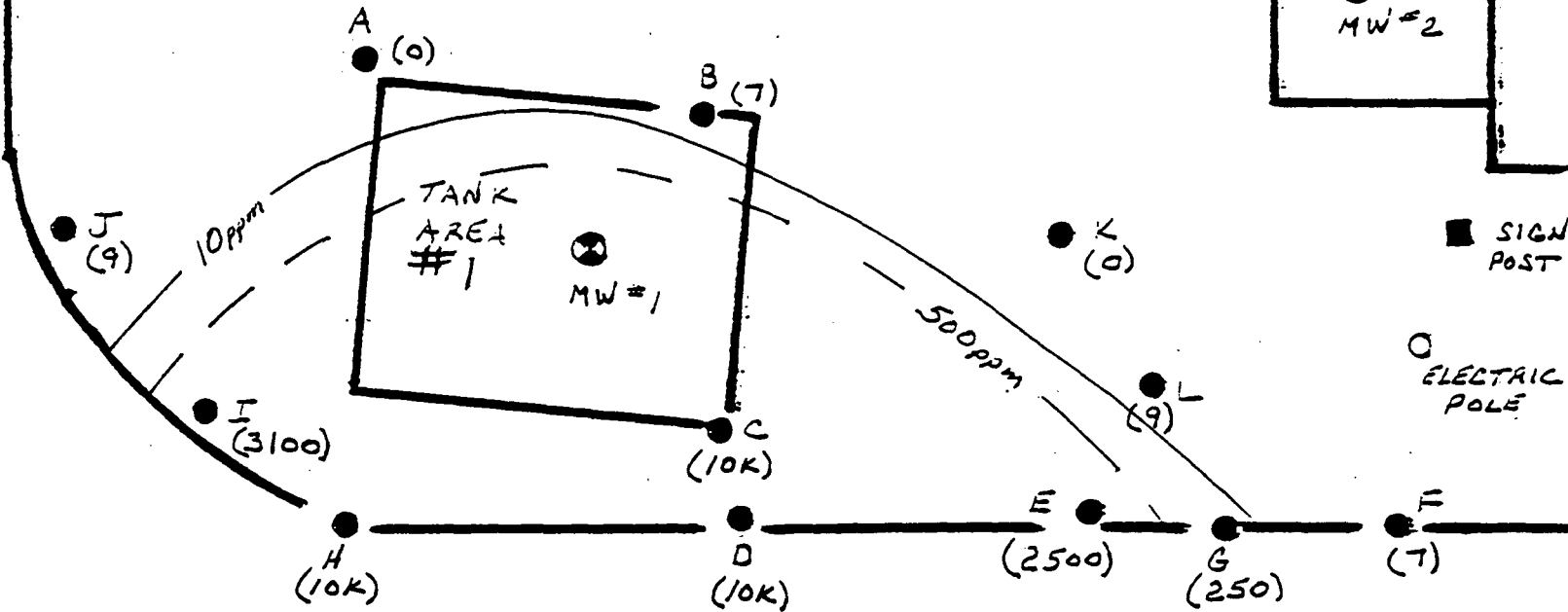
⊗ MONITOR WELL

● SOIL BORING

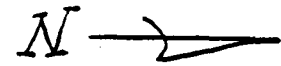
(10K) OVA VALUE (IN PPM)

VACANT LOT

STATE ROAD 54



U.S. 17-92



Scale 1" = 20'

CENTER LINE

2224

#3154

PHOSLAB, INC.

806 WEST BEACON ROAD
LAKELAND, FL 33803
813 - 682-5897
FLORIDA DER QA/QC #87308G

TO: Imperial Testing Labs
P. O. Box 947
Lakeland, FL 33802

ATTN: Mr. Glen Deaton

SITE: Loughman Post Closure (Koch Oil)

REFERENCE: Project #2224

SAMPLED BY: G. Deaton

SAMPLE DATE: 10-10-89 TIME: 1130

DATE RECEIVED: 10-10-89

ANALYZED BY: G. Fernandez

ANALYSIS DATE: 10-11-89

CERTIFICATE OF ANALYSIS

VOLATILE ORGANICS
 EPA METHOD 602 8020 5030

	#1 #2	#2 #1		MDL, ug/L
MTBE	BDL	*		0.20
Benzene	BDL	*		0.20
Toluene	BDL	71.70		0.20
Ethylbenzene	BDL	11.40		0.20
Xylenes	BDL	170.70		0.20
Total VOA	---	253.80		

MISCELLANEOUS
 EPA METHOD 239.2

Lead

1.00

* Concentrated samples were not used to determine MTBE & Benzene levels due to heavy contamination from diesel fuel

Note: Total Recoverable Hydrocarbons: 458 mg/kg

*BDL - Below Detectable Limits

SEAL

Al Crawford
 CHEMIST



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Send Copy To: HRS Polk County Stationary Tank Program
2090 East Clover Street, Bartow, FL 33830

DER Form #	17-781.900(2)
Form Title	Storage Tank Registration Form
Effective Date	December 10, 1990
DER Application No.	AUG-7 PM 3:05

Storage Tank Registration Form

STORAGE TANK
REGULATION

Please Print or Type - Review Instructions Before Completing Form

1. DER Facility ID Number: 539046109 2. Facility Type: _____
3. New Registration New Owner Data Facility Revision Tank(s) Revision
4. County and Code of tank(s) location: _____ / _____

5. Facility Name: _____

Tank(s) Address: _____

City/State/Zip: _____

Contact Person: _____ Telephone: (____) _____

6. Financial Responsibility Type: _____

7a. Tank(s) Owner: OAK HILLS ESTATES, O.H.E., INC.

Owner Mailing Address: _____

City/State/Zip: _____

Contact Person: _____ Telephone: (____) _____

7b. New Owner Signature/Change Date: _____ / ____/____

8. Location (optional) Latitude: 28°14'10" Longitude: 81°32'32" Section _____ Township _____ Range _____

Complete One Line For Each Tank At This Facility (Use Codes - See Instructions)

Complete 9 - 16 for tanks in use; 9 - 19 for tanks out of use

9	10	11	12	13	14	15	16	17	18	19

20. _____ DPR# _____
 Certified Contractor* Department of Professional Regulation License Number*

*For new tank installation or tank removal

To the best of my knowledge and belief all information submitted on this form is true, accurate and complete.

D. P. NEWBERG POLK/53 7-7-92
 Print name & title of owner or authorized person Signature Date

Florida Department of Environmental Protection
Bureau of Petroleum Storage Systems
Storage Tank/Contaminated Facility
Name & Address Search

Facility ID#: 9046109

Name: Oakhills Estates

Cr 54 & 17 92

Loughman, FL 33837

Contact: Oakhills Estates

Phone: --

District: SWD

County: 53 - Polk

Type: A-Retail Station

Status: Closed

Latitude: 28:14:15.1300

Longitude: 81:33:33.0100

LL Method: DPHO-Unverified

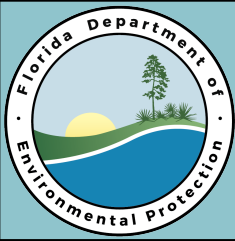
Account Owner: Oakhills Estates O H E Inc

Tank #	Size	Content	Installed	Placement	Status	Construction	Piping	Monitoring
1	10000	Leaded Gas	UNDER	Removed from Site				
2	1000	Leaded Gas	UNDER	Removed from Site				
3	550	Leaded Gas	UNDER	Removed from Site				
4	550	Leaded Gas	UNDER	Removed from Site				
5	550	Leaded Gas	UNDER	Removed from Site				
6	280	Leaded Gas	UNDER	Removed from Site				

***Note:

Construction, Piping, and Monitoring Info not shown for CLOSED tanks
(Status A: Closed in Place, B: Removed from the site).

Oak Hills Master Lift Station



Florida Department of Environmental Protection
Twin Towers Office Bldg. 2600 Blair Stone Road, Tallahassee, Florida, 32399-2400
Division of Waste Management
Petroleum Storage Systems
Storage Tank Facility Annual Compliance Site Inspection Report

Facility Information:

Facility ID: 9807691 County: POLK Inspection Date: 04/21/2017
Facility Type: I - County Government
Facility Name: POLK CNTY UTIL-OAK HILLS MASTER LIFT # of Inspected ASTs: 1
1650 KINNEY HARMON RD USTs: 0
DAVENPORT, FL 33836 Mineral Acid Tanks: 0
Latitude: 28° 13' 22.55"
Longitude: 81° 32' 31.7"
LL Method: DPHO

Inspection Result:

Result: In Compliance

Also Performed:

Financial Responsibility:

Financial Responsibility: INSURANCE
Insurance Carrier: ILLINOIS UNION
Effective Date: 10/01/2016 Expiration Date: 10/01/2017

Findings:

Signatures:

TKPKPH - POLK COUNTY HEALTH DEPARTMENT

Storage Tank Program Office

(863) 519-8330

Storage Tank Program Office Phone Number

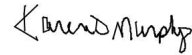
Facility ID: 9807691

Lacey E Glenn

Karen D. Murphy

Inspector NAME

Representative NAME



Inspector Signature

Representative Signature

Completed System Tests

Type	Date Completed	Results	Reviewed	Next Due Date	Comment
Annual Operability Test	06/30/2015	Passed	05/09/2017	06/30/2016	Pneumercator panel and sensor
Annual Operability Test	06/30/2016	Passed	05/09/2017	06/30/2017	Pneumercator panel and sensor

Reviewed Records

Record Category	Record Type	From Date	To Date	Reviewed Record Comment
Two Years	Certificate of Financial Responsibility	04/21/2017	04/21/2017	Coverage Period: 10/01/2015 - 10/01/2016
Two Years	Monthly Maint. Visual Examinations and Results	09/30/2014	03/29/2017	
Two Years	Certificate of Financial Responsibility	04/21/2017	04/21/2017	Coverage Period: 10/01/2016 - 10/01/2017
Two Years	Electronic Release Detection Equip. Monthly Checks	09/30/2014	03/29/2017	

Record Category	Record Type	From Date	To Date	Reviewed Record Comment
-----------------	-------------	-----------	---------	-------------------------

Site Visit Comments

04/21/2017

04/21/2017 12:15hrs., LG/TCI – Lacey Glenn, Florida Department of Health in Polk County, met Karen Murphy, Polk County Utilities Division, on site for a Routine Compliance Inspection of an aboveground storage tank (AST) system for a Generac emergency generator.

Inspection Comments

04/21/2017

Note: Chapter 62-762 Florida Administrative Code (F.A.C.), Aboveground Storage Tank Systems, has been revised with an effective date of January 11, 2017.

- The revised rule and forms can be viewed at the Florida Department of Environmental Protection’s (FDEP) Storage Tank Compliance web site under rules and related laws:
<http://www.dep.state.fl.us/waste/categories/tanks/pages/rules.htm>.

Release Detection:

- Visual inspection of tank system and components;
- Electronic monitoring of tank interstice;
- Pneumercator LC 1000 alarm panel checked - no alarms noted;
- Test button pushed - visual and audible alarms functional;

Tank/Piping:

- (1) 1,800-gallon, JRS Custom Fabrications, Inc., double-walled, steel AST containing diesel for a Generac emergency generator resting on a concrete pad (see photo) and is equipped with:
- Product label;
 - Normal and emergency vents (including emergency venting for tank interstice);
 - Tank exterior coating appears to be in good condition;
 - Top mounted fill located inside of a spill containment bucket;
 - Spill containment bucket was clean and dry;
 - Overfill protection – Krueger Sentry At-A-Glance fuel level site gauge next to the fill port; tank also equipped with a high fuel level alarm sensor wired to the Pneumercator LC 1000 panel.
 - Supply and return lines are all aboveground, single-walled, flexible, synthetic hoses connected directly to the generator and tank within the generator housing.
 - Manual & anti-siphon valves are not required as the Emergency Generator rests on top of the tank and therefore, does not produce a gravity head.
 - Electrical grounding wire was present;
 - No obvious signs of leakage noted;

Records:

- Current Storage Tank Registration Placard present – (1) tank;
- Facility registration information must be updated to reflect the correct contact information.
- Either complete the attached storage tank registration form and return it to the Department or complete the updates on the FDEP Storage Tank Registration Section’s web site:
<http://www.dep.state.fl.us/waste/categories/tanks/pages/registration.htm>;

Facility ID: 9807691

- Financial Responsibility: Illinois Union Insurance Company, single year coverage periods are 10/01/2015 to 10/01/2016 and 10/01/2016 to 10/01/2017;
- Certification of Financial Responsibility Forms (CFR) – present, complete and accurate;

* New Financial Responsibility Mechanism For Insurance Policies, Effective 01/11/2017: Facilities that renew or replace existing Storage Tank Third Party Pollution Liability insurance policies or update the tank/facility list on existing policies after January 11, 2017 must submit the following portions of The Financial Mechanisms for Storage Tanks, January 2017, 62-761.900(3) along with a signed copy of the policy: the updated CFR form (Part P) along with either Part C or Part D (not both) completed by the insurance provider.

- Monthly release detection monitoring records reviewed: 09/30/2014 to 03/29/2017; records include:
 - Visual inspections of tank system and components including electronic monitoring of tank interstice;
 - No issues noted; inspections performed once a month but not greater than 35 days apart.

Note: Per the Rule revision, effective January 11, 2017, a record or summary of the alarm history, sensor status and testing results shall be printed from the device and kept for 3 years. If the device does not have print capability, then a manual log must be maintained.

- An annual operability test of the Pneumercator LC 1000 alarm panel and electronic sensor in the tank interstice was performed by Mike Bateman, Hy-Tech Petroleum Maintenance, Inc., on 06/30/2015 and 06/30/2016, with passing results; next test due by 06/30/2017.

Note: Per the Rule revision, effective January 11, 2017, all overfill protection equipment must be tested for operability annually at intervals not exceeding 12 months to ensure proper operation. Initial operability testing for overfill protection devices shall be conducted by January 11, 2018.

Final inspection report e-mailed to Karen Murphy at: karenmurphy@polk-county.net.

Inspection Photos

Added Date 05/09/2017

2017-04-21 Facility AST.



Facility ID: 9807691

Polk County Providence Water Facility

Florida Department of Environmental Protection
Bureau of Petroleum Storage Systems
Storage Tank/Contaminated Facility
Name & Address Search


Facility ID#: 9811362

Name: Polk Cnty - Providence Wtr Prod Fac

601 Kinney-Harmon Rd

Loughman, FL 33896

Contact: Steve Whidden

Phone: 863-271-0309 

District: SWD

County: 53 - Polk

Type: I-County Government

Status: Open

Latitude: 28:13:49.4400

Longitude: 81:33:08.6400

LL Method: DPHO-

Account Owner: Polk Cnty Util Oper

Tank #	Size	Content	Installed	Placement	Status	Construction	Piping	Monitoring
1	3000	Emerg Generator Diesel	05/01/2009	ABOVE	In Service	C - Steel I - Double Wall M - Spill Containment Bucket	A - Abv, No Soil Contact B - Steel/Galvanized Metal D - External Protective Coating	6 - External Piping Monitoring D - Spcc Plan F - Monitor Dbl Wall Tank Space Q - Visual Inspection Of Asts R - Monitor Tank Bottom Space

***Note:

Construction, Piping, and Monitoring Info not shown for CLOSED tanks
(Status A: Closed in Place, B: Removed from the site).

Rambo Trucking

Florida Department of Environmental Protection
Bureau of Petroleum Storage Systems
Storage Tank/Contaminated Facility
Name & Address Search

Facility ID#: 9807327

District: SWD

Name: Rambo & Sons Trucking Inc 04-4i-0600

County: 53 - Polk

Hwy 17-92 & Labor Camp Rd

Type: Q-Emergency Response
Spill

Davenport, FL 33896

Status: Closed

Contact:

Latitude: 28:14:57.9010

Phone: --

Longitude: 81:33:04.2816

LL Method: DPHO-

No Tank Information found!

Reedy Creek Land Bank

Florida Department of Environmental Protection
Bureau of Petroleum Storage Systems
Storage Tank/Contaminated Facility
Name & Address Search

Facility ID#: 9807014

Name: Reedy Creek Land Bank - 3500 Acre
Tract

Sr 54

Loughman, FL 34758

Contact: J A Jurgens

Phone: --

District: CD

County: 49 - Osceola

Type: Q-Emergency Response
Spill

Status: Closed

Latitude: 28:13:34.4172

Longitude: 81:32:02.3208

LL Method: DPHO-

Account Owner: American Equities Ltd # 7

No Tank Information found!

Sabal Trail Transmission Reunion

From: [Pandley, Robin](#)
To: ["don.haney@enbridge.com"](mailto:don.haney@enbridge.com)
Cc: [EPOST_HWreg](#)
Subject: Notification Letter 8700-12 FL for Sabal Trail Transmission Reunion
Date: Friday, January 12, 2018 3:34:00 PM
Attachments: [Sabal Trail Transmission Reunion_Davemport.pdf](#)

Dear Mr. Haney:

Please find attached the Notification of Regulated Waste Activity status based on information you submitted to the Florida Department of Environmental Protection (DEP). This letter provides your EPA Identification Number and, if applicable, your current registration and/or permit statuses.

Please note that pending program registrations, certifications or permits will be mailed to you separately.

We ask that you verify receipt of this document by sending a "reply" message to EPOST_HWreg@dep.state.fl.us. If your email address has changed or you anticipate that it will change in the future, please advise accordingly in your reply. You may also update this information by contacting EPA ID Notification Coordinator at (850) 245-8772.

You may check your current facility status at our website at:

http://fldepdevloc.dep.state.fl.us/www_RCRA/Reports/handler_sel.asp using your EPAID number from the attached notification letter.

Address any changes in your notification status (generator status, activities or contact information) on form 8700-12FL and submit by U.S. mail. The 8700-12FL form can be downloaded at [http://www.dep.state.fl.us/waste/quick_topics/forms/pages/62-730.htm#62-730.900\(1\)\(b\)](http://www.dep.state.fl.us/waste/quick_topics/forms/pages/62-730.htm#62-730.900(1)(b)). Submit by U.S. mail to:

EPA ID Notification Coordinator
Hazardous Waste Regulation Section MS 4560
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

There are a number of web resources available to help you comply with regulations and implement best management practices.

1. The Hazardous Waste Regulation Section home page and additional compliance assistance help in your geographic area can be found here:
 - <http://www.dep.state.fl.us/waste/categories/hwRegulation/default.htm>
 - http://www.dep.state.fl.us/waste/categories/hazardous/pages/state_contacts.htm
2. Florida's Handbook for Small Quantity Generators of Hazardous Waste, A Summary of Hazardous Waste Regulations and other hazardous waste, universal waste and used oil publications can be found here:
 - <http://www.dep.state.fl.us/waste/categories/hazardous/pages/publications.htm>
 - <http://www.dep.state.fl.us/waste/categories/hwRegulation/pages/FLEHazInstructions.htm>

EPA ID Notification Coordinator
Hazardous Waste Regulation Section
850-245-8772
E-mail Address: EPOST_HWreg@dep.state.fl.us

APPENDIX C

Site Photographs



Site 1A – EX Food Store #1, 5945 Hwy 17-92, Davenport, FL, Operational gas station, leaking USTs – MEDIUM RISK

SITE RECONNAISSANCE PHOTOS

SR 659 (Combee Road) PD&E Study
 From US-98 to North Crystal Lake Drive
 FPID: 440274-1-22-01
 Polk County, Florida





Site 1B – Oak Hills Estates, CR 54 & Hwy 17-92 intersection; Leaking USTs with NFA, property currently under development

SITE RECONNAISSANCE PHOTOS

SR 659 (Combee Road) PD&E Study
 From US-98 to North Crystal Lake Drive
 FPID: 440274-1-22-01
 Polk County, Florida





Site 2 – Polk County - Providence Water Production Facility, 601 Kinney Harmon Road; ASTs observed outside of 500-ft. buffer.

SITE RECONNAISSANCE PHOTOS

SR 659 (Combee Road) PD&E Study
 From US-98 to North Crystal Lake Drive
 FPID: 440274-1-22-01
 Polk County, Florida





Site 3 – Sabal Trail Transmission Reunion, 6781 Osceola Polk Line Road; RCRA Generator with no reported RCRA violations

SITE RECONNAISSANCE PHOTOS

SR 659 (Combee Road) PD&E Study
 From US-98 to North Crystal Lake Drive
 FPID: 440274-1-22-01
 Polk County, Florida





Site 4 – Rambo & Sons Trucking, Inc., Intersection of Labor Camp Road and Hwy 17-92; Emergency spill located at the intersection; received NFA in February 2006

SITE RECONNAISSANCE PHOTOS

SR 659 (Combee Road) PD&E Study
 From US-98 to North Crystal Lake Drive
 FPID: 440274-1-22-01
 Polk County, Florida



APPENDIX D

Surface Water Maps and Drainage District Maps

TECHNICAL MEMORANDUM

**AN ATLAS OF THE UPPER KISSIMMEE
SURFACE WATER MANAGEMENT BASINS**

by

Mariano Guardo

February 1992

DRE 309

**Water Resources Engineering Division
Department of Research and Evaluation
South Florida Water Management District**

AN ATLAS OF UPPER KISSIMMEE RIVER SURFACE WATER MANAGEMENT BASINS

EXECUTIVE SUMMARY

This atlas contains information about the surface water management basins in the Upper Kissimmee River watershed (UKRW). Sections of the following four counties in Central Florida comprise the UKRW:

- Orange County (northern part of the UKRW)
- Lake County (a small section of northwestern UKRW)
- Osceola County (eastern and northwestern part of the UKRW, approximately 50 percent of the UKRW total area)
- Polk County (central and southwestern part of UKRW)

The South Florida Water Management District (District) and the U.S. Army Corps of Engineers (COE) have primary authority over water management in these basins. Other agencies involved in water management exist within the UKRW. The District has sponsored publication of this atlas so that up-to-date, nontechnical descriptions of the surface water management basins in the Upper Kissimmee River watershed are available to District personnel, to local governments in Osceola County, Polk County, Orange County, and Lake County, and to other interested persons.

The surface water management basins of the UKRW were first studied in the mid 1950s by the COE in their General Design Memoranda (GDM) for the Central and Southern Florida Project (Project) for flood control and other purposes. Based on the hydrology of the basins, the COE designed and constructed a conveyance system consisting mainly of canals and control structures to provide flood protection for southern and central Florida. Mean sea level (m.s.l.) datum was used by the COE in its designs, NGVD is used in this atlas. For practical purposes, elevations from m.s.l. and NGVD are the same in this area. The Project is dynamic to meet the changing needs of the involved area. New structures are being constructed and existing ones modified to improve the system. Most of the works under the Project are now under the management of the District.

By text, maps, and tables of information, the following 18 basins are described in this atlas: Alligator Lake, Lake Gentry, S-63A, Canoe Creek, Lake Cypress, Lake Myrtle, Lake Hart, Boggy Creek, East Lake Tohopekaliga, Shingle Creek, Lake Tohopekaliga, Reedy Creek, Horse Creek, Lake Pierce, Lake Hatchineha, Lake Marian, Lake Weohyakapka, and Lake Kissimmee. The total area of the Upper Kissimmee River watershed is 1,596 square miles.

The Project canals in the UKRW serve a variety of functions. The canals together with the lakes form the chain that conveys the water from the entire Upper Kissimmee River watershed to Lake Kissimmee. This basin represents a major contribution to Lake Okeechobee through the Kissimmee River (C-38). The primary function of all the canals is to provide flood protection for the basins in which they are located. Secondary uses of the canals are to enable regulation of connected lakes for environmental and recreational purposes, and as well as to provide land drainage from the adjacent areas.

The Project control structures in the UKRW regulate the flow of water in the canals and in the lakes. Their primary use is to discharge excess water from the lakes during flooding, to provide environmentally desirable fluctuations, and to maintain minimum water levels in the canals and lakes to prevent overdrainage.

A bibliography is included in this atlas listing publications concerning hydrology, hydraulics, water use, water quality and land use in the Upper Kissimmee River watershed. For the reader unfamiliar with some of the concepts and terms used in these descriptions, the appendices contain a discussion of some basic hydraulic and hydrologic concepts, and a glossary of terms.

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ABSTRACT

An atlas of the surface water management basins in the Upper Kissimmee River watershed (UKRW) covering part of Osceola, Polk, Orange and Lake counties in Central Florida, is presented. The UKRW yields a major contribution to Lake Okeechobee and consists of 18 basins. These basins are described together with their canals and control structures. Description and discussion of the water works within the UKRW are limited to those constructed for the Central and Southern Flood Control District (Project). Information with regard to operation and management of the system is also provided.

ACKNOWLEDGMENTS

The author is thankful to many people who contributed to the completion of this publication: to Jorge Marban, Jim Lane, Ron Mierau, and Shawn Sculley for their suggestions and comments; to Nettie Winograd for preparing the text for publication; to Joan Stockum for developing the land use map; to Bob Macartney for drawing the DOT map; to Grace Colon and Jane Walters for the Lake Regulation Schedule graphs and figure titles; to Charles Gove for providing some of the references used in this publication. Special thanks are due to Madhav Pandey for creating the location and basin maps supporting this atlas.

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AN ATLAS OF UPPER KISSIMMEE RIVER SURFACE WATER MANAGEMENT BASINS

INTRODUCTION

This atlas contains information about the surface water management basins in the Upper Kissimmee River watershed (UKRW). Sections of the following four counties in Central Florida make up the UKRW:

- Orange County (northern part of the UKRW)
- Lake County (a small section of northwestern UKRW)
- Osceola County (eastern and northwestern part of the UKRW
approximately 50 percent of the UKRW total area)
- Polk County (central and southwestern part of UKRW)

The South Florida Water Management District (District) and the U.S. Army Corps of Engineers (COE) have primary authority over water management in these basins. However, other agencies also are involved in water management within the UKRW.

There are several drainage districts located in this region; the most important are:

1. Reedy Creek Improvement District which includes Walt Disney World. This district, within the Reedy Creek basin occupies a major part of the northwestern area of the UKRW in southwestern Orange County and northwestern Osceola County. This is the most heavily populated and intensely developed area of the entire Kissimmee River watershed, which also includes the southern half of the city of Orlando. This district operates and maintains a system of canals and control structures for water management purposes.

2. The Valencia Water Control District, located in the Shingle Creek basin area, consists of a 7.2 square-mile tract in southwestern Orange County; its primary water quality management strategy involves the Blue Stone Tract. This is a two-square mile parcel where a cypress strand is used to receive water prior to entering Shingle Creek.

3. The Haines City Drainage District, established in 1925, is located in Polk County within the Lake Hatchineha basin at the western boundary of the UKRW.

Major cities of the UKRW include Kissimmee and St. Cloud. Kissimmee is the hub of the cattle industry in central Florida, and is in the Lake Tohopekaliga basin. The city of Kissimmee does not have surface water management regulations. St. Cloud, located in the East Lake Tohopekaliga basin, is just south of East Lake Tohopekaliga. Both Kissimmee and St. Cloud are located in Osceola County.

The District has sponsored publication of this atlas so that up-to-date, non-technical descriptions of the surface water management basins in the UKRW are available to District personnel, to local governments in the counties of Osceola, Polk, Orange and Lake, and to other interested persons. By text, maps, figures, and tables, the basins are described and located within the UKRW. The canals and control

structures within each basin are managed by the District and the COE. They are described in detail in this atlas.

The surface water management basins of the UKRW were first delineated in the mid-1950s by the COE in their General Design Memoranda (GDM) for the Central and Southern Florida Project (Project) for flood control and other purposes. Presented in the GDM were the COE's hydrologic analysis of each basin and an assessment of the flood risk for a storm of specified duration and intensity. Based on the hydrology of the basins, the COE designed and constructed a conveyance system consisting mainly of canals and control structures to provide flood protection for each basin. Designs of these works were presented in the GDM and in the Detailed Design Memoranda for the Project. Most of the hydraulic works constructed under the Project are now under the management of the District.

The Project has evolved to meet the needs caused by population growth, land use development, and increased water demands. A current land use map is included in this publication (refer to pocket of flyleaf). Some parts of the original Project were never constructed, other parts were rebuilt or modified, and, as the need arose, new structures were designed and constructed to improve the system. In some instances, the basins themselves have been redefined. This atlas includes the new boundary between Alligator Lake basin and Lake Myrtle basin. This boundary was redefined based on the location of S-58, which regulates part of the flow from Alligator Lake basin to Lake Myrtle basin.

This atlas describes the 18 surface water management basins that form the UKRW, and the Project works associated with each. The UKRW in the counties of Osceola, Polk, Orange and Lake covers an area of 1,596 square miles.

The lakes are an important feature of the UKRW. The eastern chain of lakes may flow either north from Alligator Lake to Lake Mary Jane or south to Lake Gentry. The chain of lakes flowing north consists of Alligator Lake, Lake Lizzie, Coon Lake, Trout Lake, Lake Joel, Lake Myrtle, and Lake Mary Jane, which connects to Lake Hart. The chain flowing south consists of Alligator Lake and Lake Gentry, which connects to Cypress Lake. The western chain begins with Lake Hart, continues with Ajay Lake, East Lake Tohopekaliga and Lake Tohopekaliga, discharging into Cypress Lake. From Cypress Lake the chain continues with Lake Hatchineha and, finally, Lake Kissimmee. These last three lakes and their tributaries were previously known as the Middle Kissimmee River basin. The Department of Transportation (DOT) map prepared by the District shows all the pertinent features in the UKRW (refer to pocket of flyleaf). All the major lakes in this basin are shallow, with mean depths varying from 6 to 13 feet.

A considerable number of lakes in this watershed are identified as priority water bodies in the Surface Water Improvement and Management (SWIM) Plan. Some of them, such as Lake Tohopekaliga, East Lake Tohopekaliga and Lake Weohyakapka, are considered of high priority in the SWIM Plan development process.

Since 1971, extreme drawdowns have been used to improve aquatic habitat in some of the UKRW lakes. Basic results included consolidation of bottom sediments and expansion of rooted aquatic vegetation communities. Following flooding, fish food organisms increased tremendously. Three extreme drawdowns have been conducted in Lake Tohopekaliga, one in 1971, one in 1979, and one in 1987.

Extreme drawdowns took place in Lake Kissimmee in 1977 and in East Lake Tohopekaliga in 1990.

Although the basin descriptions are not technical, the reader unfamiliar with the hydrology within the UKRW and with basic water resources engineering may find some words and concepts unfamiliar. When this happens, the reader is referred to the appendices. Appendix 1, which contains definitions of **BASIC CONCEPTS**, discusses the important concepts the reader should be familiar with to understand basin descriptions. Appendix 2 is a glossary of terms, abbreviations and acronyms used in these descriptions.

Using the Basin Description

Surface water management basins (referred to as drainage basins) in the UKRW are identified by the major lake, creek, or Project water control structure. For example, Lake Kissimmee represents the final confluence of the entire UKRW. The basin is named Lake Kissimmee basin and has the largest drainage area. Reedy Creek is the longest creek and has the second largest drainage area. The drainage basin is named Reedy Creek basin. S-63A is a control structure located on the Canoe Creek canal (C-34), and further regulates stages in that canal before discharging into Cypress Lake. The S-63A basin is, in this case, the only example of a basin named for a water control structure.

The drainage basins in the UKRW are shown in the DOT map (placed in pocket of the flyleaf). The map shows the basin boundaries, lakes, creeks, canals, and water control structures relative to local roads and landmarks, and should be referred to precisely locate basin boundaries and District and Project works within the UKRW. A color map is included showing current land use within UKRW and District boundaries.

The **Basin Description** provides general information about each of the 18 basins, including drainage area, relative location, and other hydrologic characteristics of its water bodies. When applicable, a complete description of the canals and control structures is included under **District Canals and Structures**. **Comments on Historic Operation** provides information about the regulation schedules of the major lakes and their tributaries that form this system. These are: Alligator Lake (S-58 and S-60), Lake Gentry (S-63), Lake Myrtle (S-57), Lake Hart (S-62), East Lake Tohopekaliga (S-59), Lake Tohopekaliga (S-61), and Lake Kissimmee (S-65). Figures showing these regulation schedules are provided. Lake Rosalie is partially regulated by G-103 and Lake Marian is partially regulated by G-113.

Table A contains information about the control structures within the UKRW, and provides a physical description of each structure, i.e., type of structure, location, regulation schedule, pertinent dimensions and elevations, and the recorded maximum daily mean stages and discharges. Where a structure has been designed to pass a specific discharge under specified conditions of upstream and downstream water levels, the information is included as the design discharge, design headwater stage, and design tailwater stage, respectively. The specified discharge is commonly the flood discharge obtained from the **Design Storm** (included in **Basic Concepts**).

Table A. Control Structures in the Upper Kissimmee River Watershed

Structure (Completion)	Location	Regulation Schedule	Type	Design*			Recorded Maximum Daily Mean		
				HW Stage (ft msl)	TW Stage (ft msl)	Discharge (cfs)	HW Stage (ft msl)	TW Stage (ft msl)	Discharge (cfs)
S-58 (Oct 1969)	C-32C, L. Myrtle Basin	Alligator Lake (North)	Culvert 2-54 in x 70 ft CMP invert elev = 54.5 ft	64.8 62.9	63.0 61.3	160 105	66.05 (Aug 27, 1978)	63.06 (Dec 2, 1987)	N/A
S-60 (Dec 1966)	Alligator-Gentry Canal (C-33) Alligator L. Basin	Alligator Lake (South)	Gated Spillway, RC 1 gate 9.1 ft high x 12.8 ft wide Net crest lgth = 12.0 ft Crest elev = 55.0 ft msl	64.2 62.3	63.3 61.7	450 450	64.54 (Mar 14, 1988)	62.90 (Mar 15, 1988)	399 (Apr 8, 1987)
S-57 (Sept 1969)	C-30, L. Myrtle Basin	Lake Myrtle	Culvert 2-54 in x 80 ft CMP invert elev = 52.5 ft msl	62.8 60.7	61.6 60.2	170 110	63.64 (Oct 8, 1969)	63.09 (Dec 2, 1987)	172 (Aug 23, 1989)
S-62 (Oct 1969)	C-29, L. Hart Basin	Lake Hart	Gated Spillway, RC 1 gate 6.8 ft high x 14.8 ft Net crest lgth = 14.0 ft Crest elev = 55.3 ft msl	61.3 59.6	60.1 58.8	640 410	69.63 (Apr 29, 1980)	59.36 (Feb 18, 1983)	528 (Jun 21, 1982)
S-59 (Apr 1963)	St. Cloud Canal (C-31), East L. Tohopekaliga Basin	East Lake Tohopekaliga	Gated Spillway, RC 1 gate 8.9 ft high x 18.0 ft wide Net crest lgth = 18.0 ft Crest elev = 49.1 ft msl	57.5 55.8	56.9 55.3	820 590	58.82 (Mar 5, 1966)	57.59 (Feb 17, 1983)	1,097 (Apr 15, 1987)
S-61** (Oct 1963)	South Port Canal, L. Tohopekaliga Basin	Lake Tohopekaliga	Gated Spillway, RC 1 gate 18.1 ft high x 27.8 ft wide Net crest lgth = 27 ft Crest elev = 36.9 ft msl	54.7 53.1	54.3 52.8	2,300 1,570	56.09 (Mar 4, 1966)	53.71 (Feb 22, 1983)	2,383 (Jan 12, 1986)
S-63 (May 1967)	Canoe Creek Canal (C-34), L. Gentry Basin	Lake Tohopekaliga	Gated Spillway, RC 1 gate 8.1 ft high x 15.8 ft wide Net crest lgth = 15 ft Crest elev = 54.0 ft msl	62.8 60.5	57.5 57.7	715 715	63.44 (July 31, 1967)	57.36 (Aug 20, 1975)	824 (Mar 22, 1988)

in = inches
 ft = feet
 cfs = cubic feet per second
 lgth = length
 HW = head water
 TW = tailwater
 CMP = corrugated metal pipe
 RC = reinforced concrete
 ft msl = feet relative to mean sea level (ft NGVD)

* The first values for HW Stage, TW Stage, and Discharge (Design) refer to peak stage (or upper limit); the second for the same variables refer to lower profile (or lower limit). Peak stage is based on lake operation for design flood which allows 2.0 feet of storage above historic average levels. Lower profile is based on no rise in lake levels from historic average. Actual operation will probably be closer to lower profile for the design flood.

** S-61 and S-65 have lock structures.

*** Maximum releases ranging from 3,000 cfs to 11,000 cfs can be handled by S-65, depending on inflow between S-65 and S-65A in such a way that flow at S-65A does not exceed 11,000 cfs.

Table A. Control Structures in the Upper Kissimmee River Watershed

Structure (Completion)	Location	Regulation Schedule	Type	Design*			Recorded Maximum Daily Mean		
				HW Stage (ft msl)	TW Stage (ft msl)	Discharge (cfs)	HW Stage (ft msl)	TW Stage (ft msl)	Discharge (cfs)
S-63A (May 1967)	Canoe Creek Canal (C-34), S-63A Basin	None	Gated Spillway, RC 2 gates 7.7 ft high x 15.8 ft wide Net crest lgth = 30.0 ft Crest elev = 49.4 ft msl	57.0 57.0	53.8 53.2	870 2,000	57.54 (Jul 21, 1983)	53.24 (Feb 22, 1983)	1,519 (Mar 31, 1987)
S-65** (Aug 1964)	Kissimmee River (C-38), L. Kissimmee Basin	Lake Kissimmee	Gated Spillway, RC 3 gates 14.2 ft high x 27.8 ft wide Net crest lgth = 81.0 ft Crest elev = 39.3 ft msl	52.1 51.0	46.4 46.4	3,000 3,000***	54.07 (Oct 8, 1969)	51.44 (Oct 10, 1969)	12,100 (Feb 24, 1988)

in = inches
 ft = feet
 cfs = cubic feet per second
 lgth = length
 HW = head water
 TW = tailwater
 CMP = corrugated metal pipe
 RC = reinforced concrete
 ft msl = feet relative to mean sea level (ft NGVD)

*The first values for HW Stage, TW Stage, and Discharge (Design) refer to peak stage (or upper limit); the second for the same variables refer to lower profile (or lower limit). Peak stage is based on lake operation for design flood which allows 2.0 feet of storage above historic average levels. Lower profile is based on no rise in lake levels from historic average. Actual operation will probably be closer to lower profile for the design flood.

**S-61 and S-65 have lock structures.

***Maximum releases ranging from 3,000 cfs to 11,000 cfs can be handled by S-65, depending on inflow between S-65 and S-65A in such a way that flow at S-65A does not exceed 11,000 cfs.

ALLIGATOR LAKE BASIN

Description of the Basin

The Alligator Lake basin, located in Osceola County, has an area of 46.8 square miles (Figure 1A), and is in the central-eastern part of the UKRW (Figure 1B). The surface water features of this basin include the chain of lakes formed by Alligator Lake, Lake Lizzie, Coon Lake and Trout Lake; Live Oak Lake, Sardine Lake, and Buck Lake are tributaries of Alligator Lake; Lake Center, a tributary of Coon Lake; Bay Lake, a tributary of Lake Lizzie, as well as a series of short connecting channels. These nine lakes represent 22.5 percent of the total area of the basin.

Alligator Lake has an area of 5.3 square miles at a stage of 63.5 feet NGVD, and is the uppermost lake in the UKRW. It receives surface inflow from several tributary lakes: Buck Lake and Live Oak Lake through Sardine Lake. The lake also receives runoff from its direct watershed and, at times, from the Lake Lizzie area. Outflow from Alligator Lake can go either north through Lake Lizzie, Coon Lake, Trout Lake, Lake Joel, Lake Myrtle, Lake Mary Jane, Lake Hart and Ajay Lake, to East Lake Tohopekaliga, or south through Lake Gentry. In both cases, the water will end up in Cypress Lake. Because of the limited capacity of the lakes north of Alligator Lake, major discharges occur primarily south to Lake Gentry.

An extensive forested wetland, which still remains relatively undisturbed, exists on the southwest shore of Alligator Lake near its outlet.

District Canals and Structures

Water from Alligator Lake can be released either north or south. Most of the water from Alligator Lake is discharged to the south into Lake Gentry through the Alligator-Gentry Canal (C-33). This canal is 2.6 miles long, of which the first 1.1 miles are in the Alligator Lake basin. These 1.1 miles extend from the outlet of Alligator Lake to S-60. Its design flood water surface varies from 64.6 feet NGVD to 64.2 feet NGVD (upper limit), and from 63.0 feet NGVD to 62.3 feet NGVD (lower limit) in Alligator Lake and upstream of S-60, respectively. Its design slope is 2.32 feet per mile and its design bottom width is 5 feet.

S-60 is a reinforced concrete, fixed-crest gated spillway with discharge controlled by a stem-operated vertical lift gate. The gate is currently controlled manually in accordance with seasonal operational criteria. The structure is located on C-33 about 1,500 feet upstream of State Road 534 and 3,700 feet downstream of Alligator Lake. The purposes of this structure are: (1) to maintain optimum upstream water control stages in C-33 and in Alligator Lake, (2) to convey the design flood (30 percent of the SPF) without exceeding the upstream flood design stage, and to restrict downstream flood stages and channel velocities to nondamaging levels, and (3) to pass sufficient discharge during low-flow periods to maintain downstream stages when water is available. The water level which will bypass this structure is 71.0 feet NGVD.

Outflow from Alligator Lake drains north to Lake Lizzie by means of C-32G, and runs northeast crossing U.S. Highway 441. The length of C-32G from the shoreline of Alligator Lake to Lake Lizzie is 1,050 feet. C-32G maintains a constant design floodwater stage between 64.8 feet NGVD (upper limit) and 62.9 feet NGVD (lower limit). Its ground-surface slope is nearly flat, and its design bottom width is 5 feet.

Lake Lizzie and Coon Lake are connected by C-32F, which is 0.6 miles long. Its design floodwater surface elevation is 64.8 and 62.9 feet NGVD (upper and lower limits respectively). Its design slope is nearly flat, and its design bottom width is 5 feet.

C-32D connecting Coon Lake to Trout Lake is 0.3 miles in length. Its design floodwater surface elevation is 64.8 feet NGVD (upper limit), and 62.9 feet NGVD (lower limit). Its design slope is nearly flat and its design bottom width is 5 feet.

C-32C connects Trout Lake to Lake Joel which lies within the Myrtle Lake basin. The canal is 2.1 miles in length, with a design bottom width of 5 feet. Its design floodwater surface elevation varies from 64.8 feet NGVD to 63.0 feet NGVD (upper limit), and 62.9 feet NGVD to 61.0 feet NGVD (lower limit).

S-58 which controls Alligator Lake is located on C-32C, 3,700 feet (0.7 miles) downstream of Trout Lake. This structure is a double-barreled, corrugated metal pipe culvert, controlled by stem-operated vertical lift gates. The gates are controlled manually in accordance with the seasonal operational criteria. The purposes of this structure are: (1) To maintain optimum upstream water control stages in C-32 and in Alligator Lake, Lake Lizzie, Coon Lake, Lake Center, and Trout Lake; (2) to pass the design flood (30 percent of the SPF) without exceeding the upstream flood design stage, restricting downstream flood stages and channel velocities to nondamaging levels; (3) to prevent overtopping of the structure by breaking waves from Trout Lake during the design storm and windy tide, and (4) to pass sufficient discharge during low-flow periods to maintain downstream stages. The water level which will bypass this structure is 70.0 feet NGVD.

Comments on Historic Operation

S-58 is operated in accordance with the Lake Alligator regulation schedule. This schedule represents the desirable water level throughout the year, and ranges between 62.0 and 64.0 feet NGVD. Flood operation is followed if the water-surface elevation is above the prescribed level. Low-water operation is followed if the water-surface elevation is below the prescribed level. The operation also depends on hydraulic and structural limitations of the structure.

S-60 is operated in accordance with the Alligator Lake regulation schedule, which ranges between 62.0 and 64.0 feet NGVD, and indicates the desirable water level throughout the year. Flood operation is followed if the water-surface elevation is above the prescribed level. Low-water operation is followed if the water-surface elevation is below the prescribed level. The operation also depends on hydraulic and structural limitations of the structure.

Flood Control Operations: S-58 controls the discharge north from Alligator Lake, and S-60 controls the discharge south from Alligator Lake. Consequently, discharges from both S-58 and S-60 must be considered to establish release schedules. When the water level in Alligator Lake is within 0.5 feet above the prescribed level, a release schedule, based on forecasted inflow, is established to return the lake to that level within 15 days. When the lake stage is over 0.5 feet from the prescribed level, maximum releases subject to hydraulic and structural limitations are made.

Low-Water Operation: Whenever the lake level is below the prescribed level, minimum releases from S-60 are made to satisfy downstream demands. No releases are made from S-58 when the lake level is below the prescribed level.

Structural Limitations: The maximum water level drop across the S-60 is 7 feet, and the headwater elevation cannot exceed 68.0 feet NGVD. The maximum water level drop across S-58 is 2 feet; the headwater elevation cannot exceed 64.0 feet NGVD.

Hydraulic Limitations: The gate opening for S-60 is controlled in accordance with the "Maximum Allowable Gate Opening Curve" to prevent damage from high velocities. Before large discharges are made, the gate has to be opened gradually to allow tailwater stages to rise.

S-60 and C-33 were completed in December 1966 for the purpose of providing some regulatory control; however, it was not until the completion of S-58 in October 1969 that full control was possible. The current regulation schedule is shown in Figure 1C.

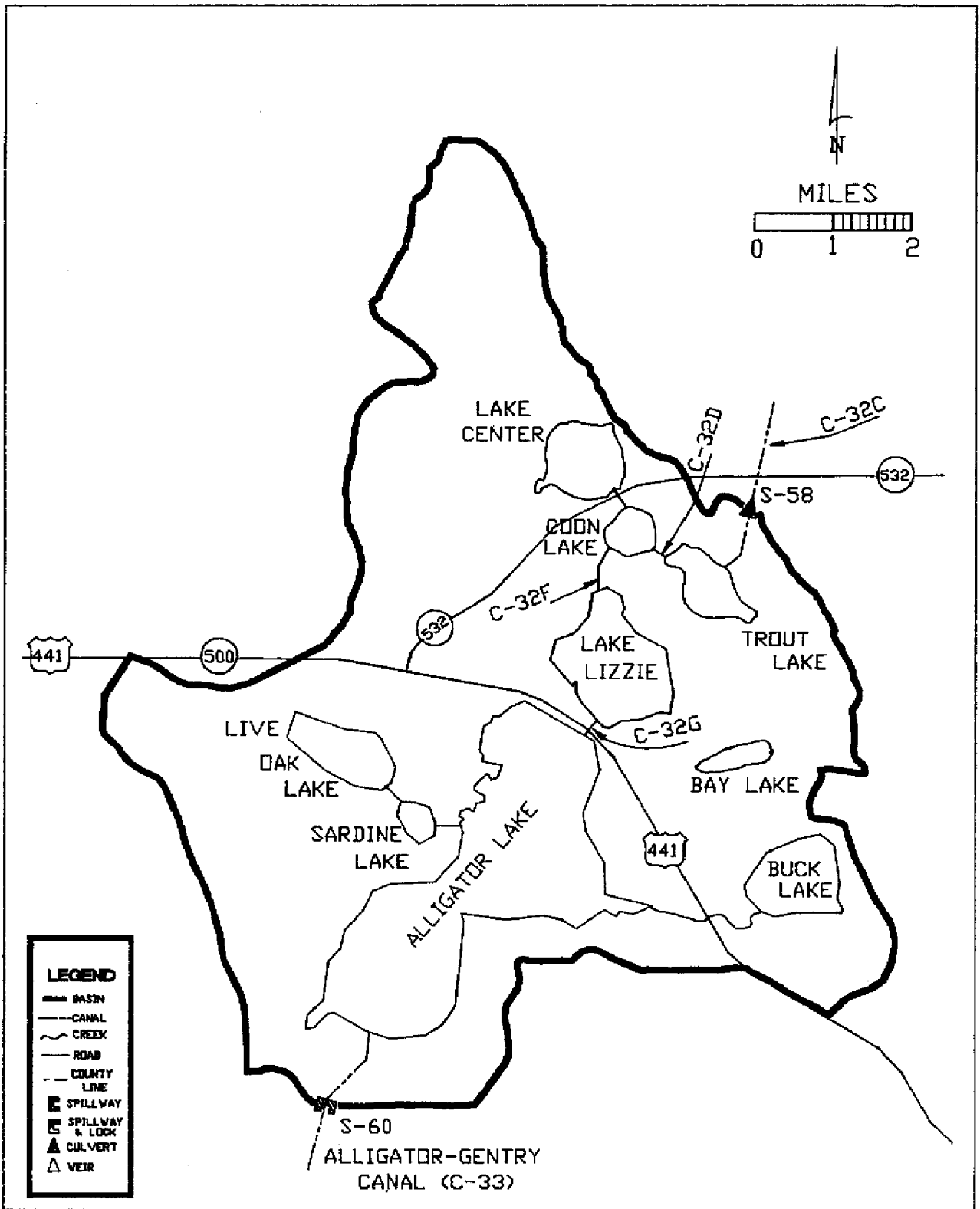


FIGURE 1A. Alligator Lake Basin (29,985 acres).

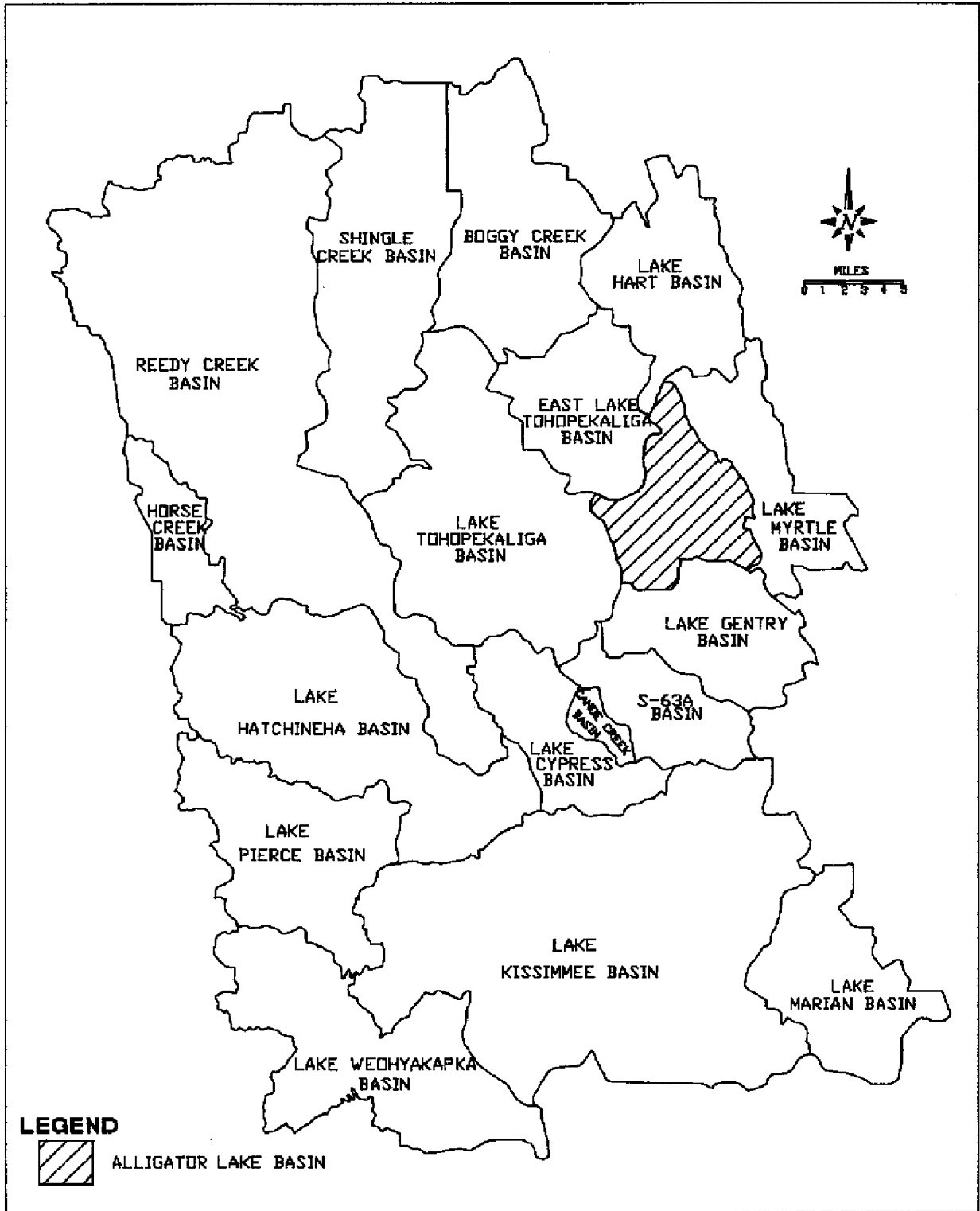
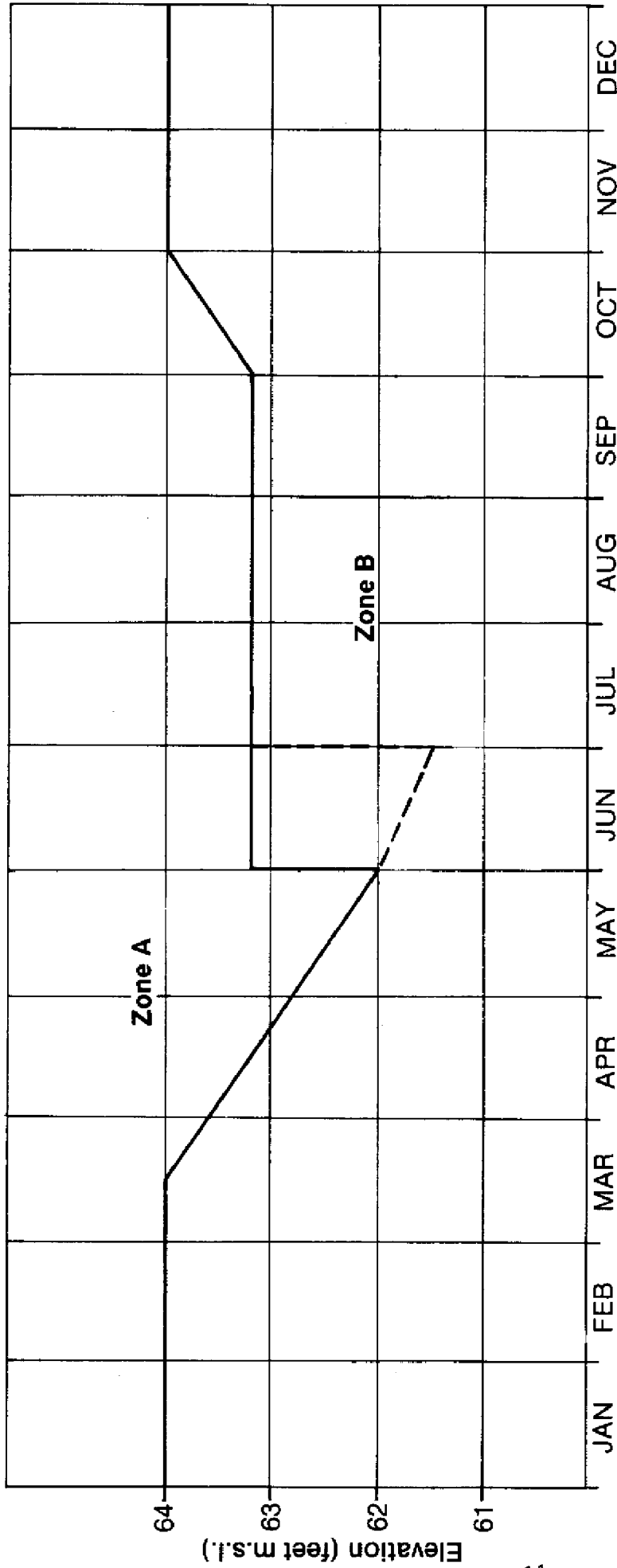


FIGURE 1B. Relative Location of Alligator Lake Basin within the UKRW.



Zone

A At design capacity (610 cfs) except when the lake is within 0.5 feet of desired stage. Forecasts will then be made and releases started to bring the lake back to schedule within 15 days.

B To maintain minimum flows.

Note: --- Use this schedule one year in three.

Releases S-58 & S-60

FIGURE 1C. Alligator Lake Regulation Schedule.

LAKE GENTRY BASIN

Description of the Basin

The Lake Gentry basin, located in Osceola County, has an area of 51.7 square miles (Figure 2A). This basin is in the central-eastern part of the UKRW (Figure 2B). Lake Gentry has an approximate area of 2.8 square miles at a stage of 61.8 feet NGVD.

Most of the water from Alligator Lake discharges into Lake Gentry through C-33 and S-60. Brick Lake (1.2 square miles) and Pearl Lake (80 acres), which are northeast of Lake Gentry, drain southward through the Big Bend Swamp.

District Canals and Structures

The section of C-33 (Alligator-Gentry Canal) from S-60 to Lake Gentry is in the Lake Gentry basin. This reach of C-33 is 1.8 miles long. Its design floodwater surface level varies from 63.3 feet NGVD to 63.0 feet NGVD (upper limit), and from 61.7 feet NGVD to 61.0 feet NGVD (lower limit) downstream of S-60. Its design slope is nearly flat, and its design bottom width varies from 10 to 20 feet.

S-63, which is the outlet of Lake Gentry, is on the Canoe Creek Canal (C-34). Water levels in C-34, downstream of S-63, are further stepped down by S-63A before discharging into Lake Cypress.

S-63 is a reinforced concrete, gated spillway controlled by a stem operated, vertical lift gate. This gate is operated according to seasonal operation criteria. The structure is located 0.6 miles east of State Road 523 and 0.3 miles from Lake Gentry. The purposes of this structure are: (1) To maintain optimum upstream water control stages in C-34 and in Lake Gentry, (2) to pass the design flood (30 percent of the SPF) without exceeding the upstream flood design stage, and to restrict downstream flood stages and channel velocities to non-damaging levels, and (3) to pass sufficient discharge during low-flow periods to maintain downstream stages. The water level which will bypass this structure is 68.5 feet NGVD.

Comments on Historic Operation

S-63 is operated in accordance with Lake Gentry's regulation schedule, which ranges between 59.5 and 61.5 feet NGVD, and indicates the desirable water level throughout the year. Flood operation is followed if the water-surface elevation is above the prescribed level. Low-water operation is followed if the water-surface elevation is below the prescribed level. The operation depends also on hydraulic and structural limitations of the structure.

Flood Control Operation: When the water level in Lake Gentry is less than 0.5 feet above the prescribed level, a release schedule, based on the forecasted inflow, is established to return the lake to that level within 15 days. When the lake stage is 0.5 feet above the prescribed level, maximum releases subject to hydraulic and structural limitations are made.

Low-Water Operation: Whenever the lake level is below the prescribed level, minimum releases are made to satisfy downstream demands.

Structural Limitations: The maximum water level drop across the structure is 11 feet, if the upstream water surface elevation is below 64.0 feet NGVD, or 10 feet, if the upstream water surface elevation is over 62.8 feet NGVD. The headwater elevation cannot exceed 67.0 feet NGVD.

Hydraulic Limitations: To prevent damage from high channel velocities, the gate opening is in accordance with the "Maximum Allowable Gate Opening Curve". The gate also has to be opened gradually to allow tailwater stages to rise before large discharges are made.

S-63 is the structure that regulates Lake Gentry. This structure is located at the south end of the lake on the Canoe Creek Canal (C-34). Water levels in C-34, downstream of S-63, are further stepped down by S-63A before discharging into Lake Cypress. After completion of S-63, S-63A, and C-34, regulation of Lake Gentry began in May 1967. The current regulation schedule is shown in Figure 2C .

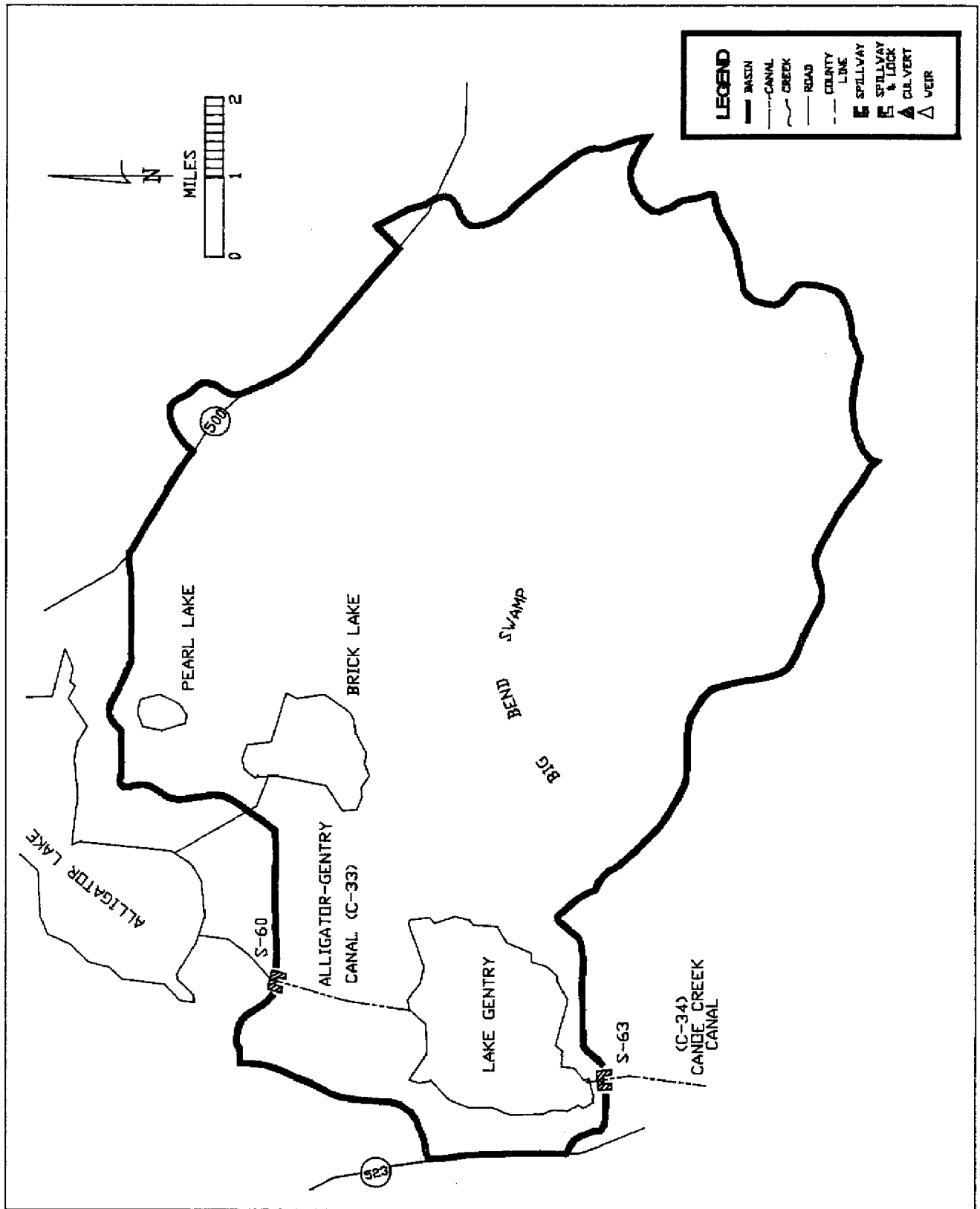


FIGURE 2A. Lake Gentry Basin (33,115 acres).

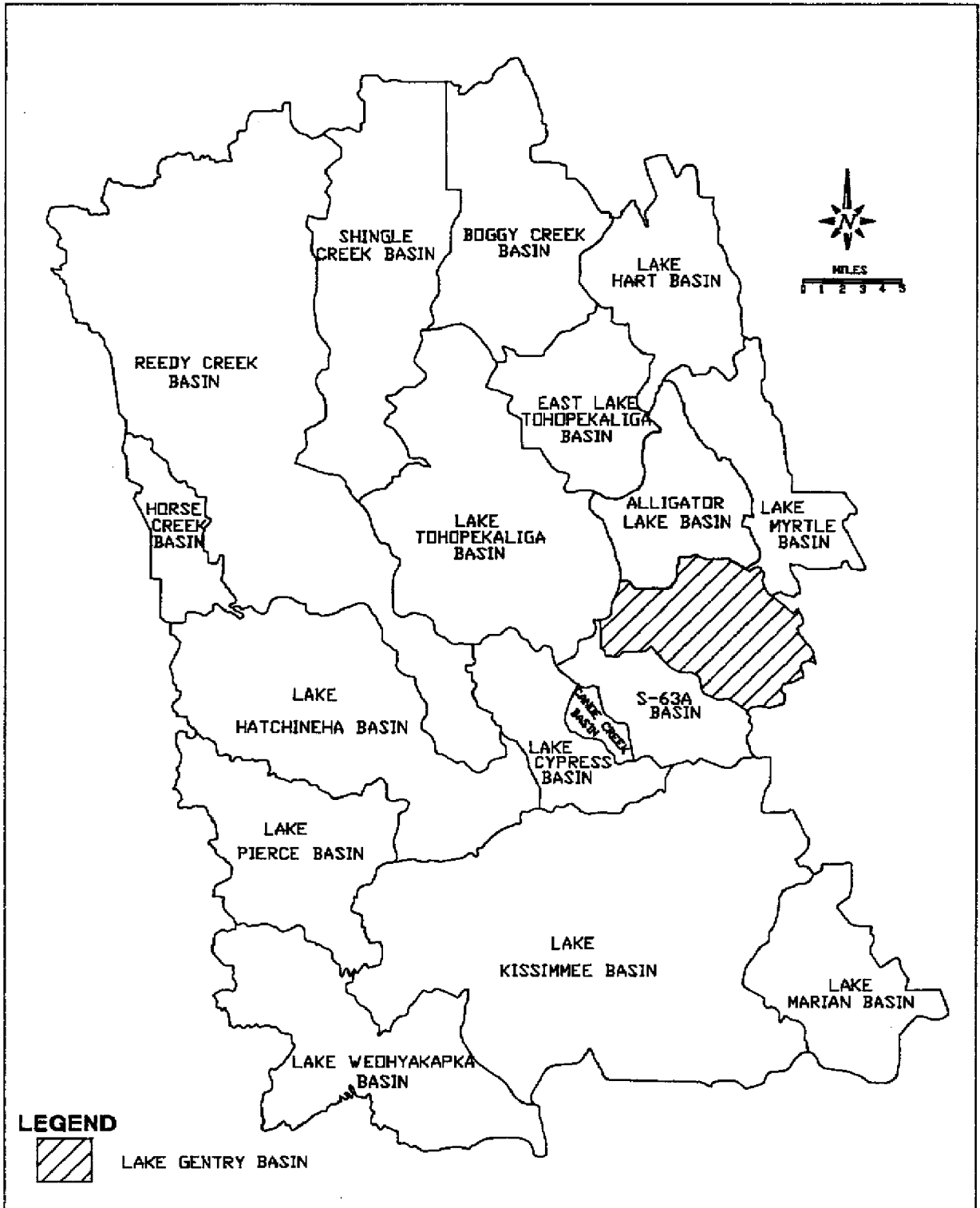
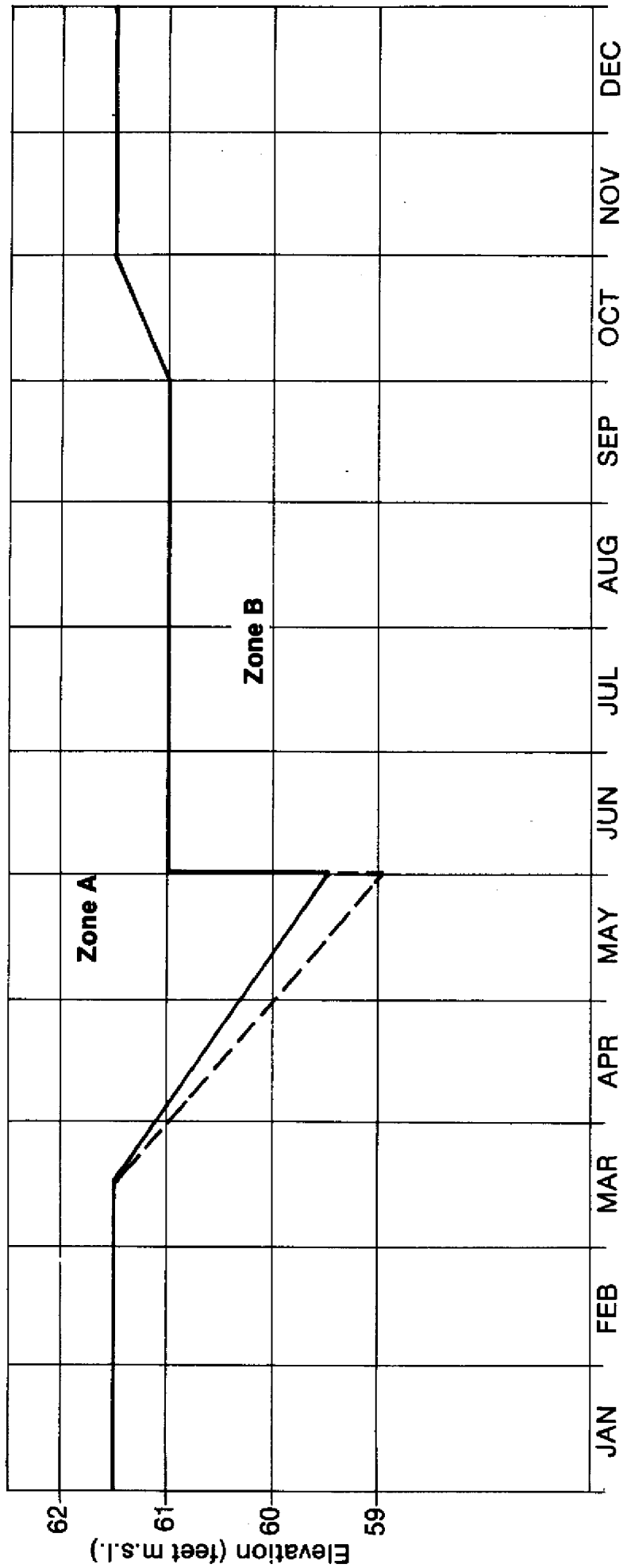


FIGURE 2B. Relative Location of Lake Gentry Basin within the UKRW.



Zone

A At design capacity (715 cfs) except when the lake is within 0.5 feet of desired stage. Forecasts will then be made and releases started to bring the lake back to schedule within 15 days.

B To maintain minimum flows.

Note: — — — Use this schedule one year in three.

Releases S-63

FIGURE 2C. Lake Gentry Regulation Schedule.

S-63A BASIN

Description of the Basin

The S-63A basin has an area of 35.3 square miles (Figure 3A), and is located in Osceola County. Its relative location within the UKRW is shown in Figure 3B. This basin is upstream of Canoe Creek basin, and contains 3.4 miles of Canoe Creek Canal (C-34) connecting Lake Gentry with Cypress Lake. The portion of C-34 which is part of this basin extends from S-63 (outlet of Lake Gentry) to S-63A (that is half way between Lake Gentry and Cypress Lake).

District Canals and Structures

Approximately 2.8 miles of Canoe Creek Canal (C-34) extending from S-63 to S-63A are within the S-63A basin. This canal connects Lake Gentry to Cypress Lake. Its design floodwater-surface elevation varies from 57.5 feet NGVD to 57.0 feet NGVD downstream of S-63 and upstream of S-63A, respectively. In this section, C-34 has a ground design slope of 1.74 feet per mile, and design bottom widths of 20, 40, and 60 feet.

S-63A is a reinforced concrete, fixed-crest, gated spillway with discharge controlled by two stem-operated vertical lift gates. The two gates are automatically controlled in accordance with the seasonal operation criteria. The structure is located on the Canoe Creek Canal (C-34), approximately 500 feet upstream of State Road 523 and 2.8 miles upstream from Lake Cypress. The purposes of this structure are: (1) To maintain optimum upstream water control stages in C-34, (2) to convey the design flood without exceeding the upstream flood design stage, (3) to restrict downstream flood stages and channel velocities to nondamaging levels, and (4) to pass sufficient discharge during low-flow periods to maintain downstream stages.

Comments on Historic Operation

S-63A is operated, subject to hydraulic and structural constraints, to maintain an optimum headwater elevation of 56.5 feet NGVD, insofar as possible, using automatic control.

Flood Control Operation: When the headwater elevation rises to 57.25 feet NGVD, the gates will open at 6 inches per minute; when the headwater elevation rises or falls to 56.5 feet NGVD, the gates will become stationary; and when the headwater elevation falls 56.19 feet NGVD, the gates will close at six inches per minute.

Low-Water Operation: Minimum releases to satisfy requirements will be made during low-water periods. These requirements will be met from Lake Gentry, and eventually without any control changes in S-63A.

Structural Limitations: The maximum water level drop across the structure is 11 feet, if the upstream water elevation is below 58.0 feet NGVD, or 10 feet if the upstream water elevation is over 58.0 feet NGVD. The headwater elevation cannot be higher than 62.0 feet NGVD.

Hydraulic Limitations: The gate opening is limited in accordance with the "Maximum Allowable Gate Opening Curve" for either automatic or manual operation in order to avoid damage from high velocity discharges.

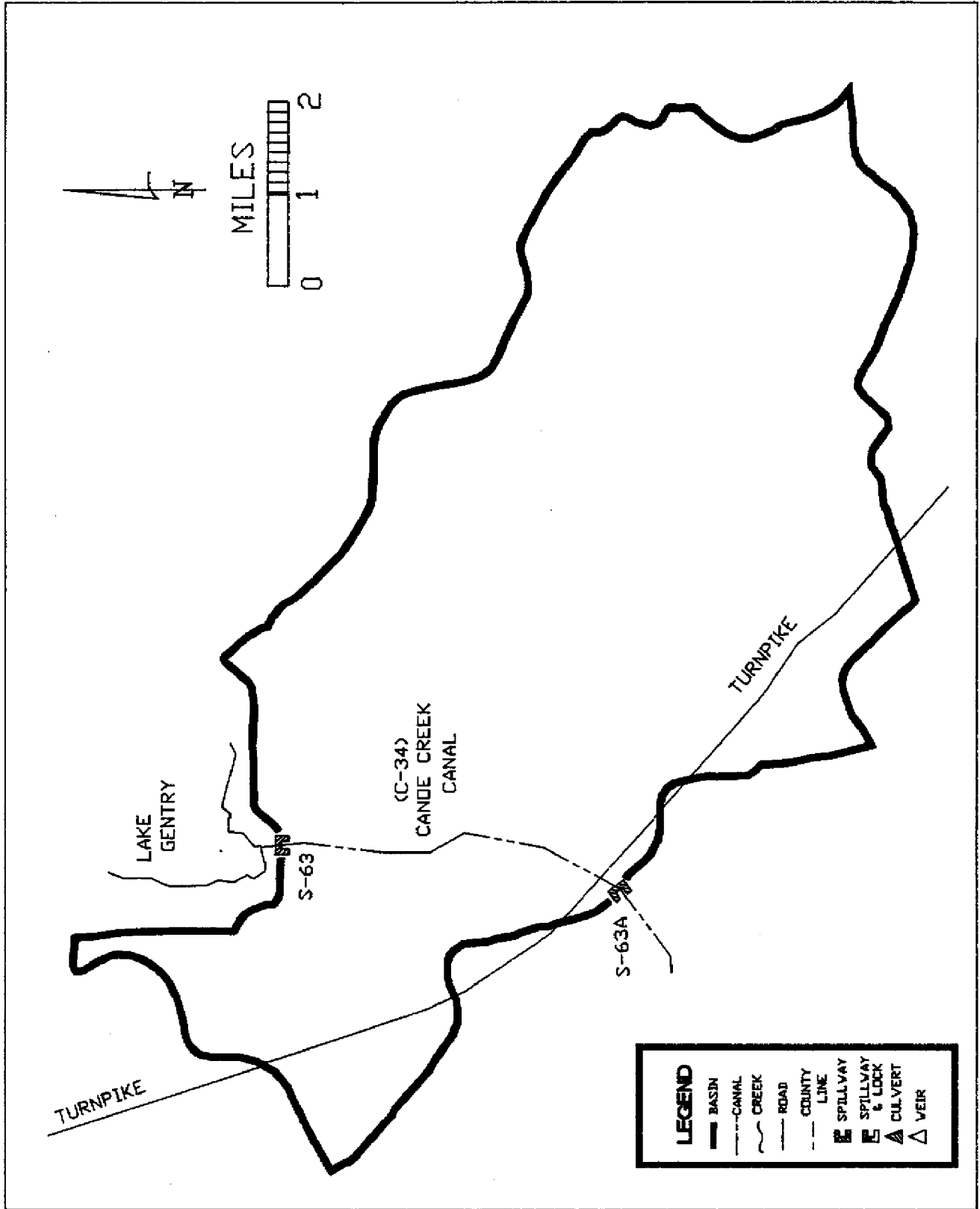


FIGURE 3A. S-63A Basin (22,570 acres).

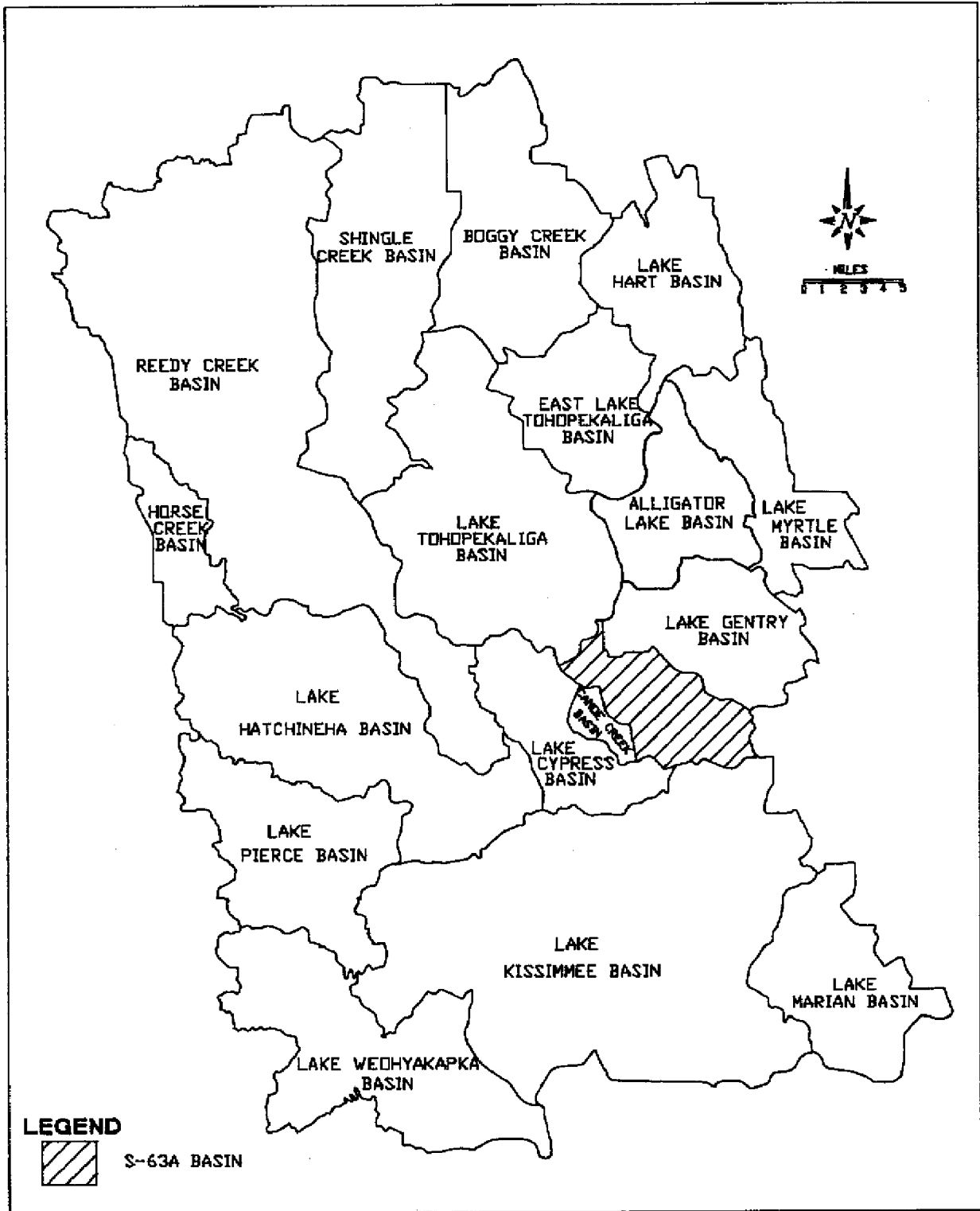


FIGURE 3B. Relative Location of S-63A Basin within the UKRW.

CANOE CREEK BASIN

Description of the Basin

The Canoe Creek basin has an area of 6.9 square miles (Figure 4A), and is located in Osceola County. This basin is in the central part of the UKRW (Figure 4B).

Canoe Creek Canal (C-34) is 6.4 miles long and conveys water from Lake Gentry to Cypress Lake. This basin contains the last 2.9 miles of Canoe Creek Canal, running toward the west from S63-A to the inlet of Cypress Lake.

District Canals and Structures

The last 2.9 miles of Canoe Creek Canal (C-34) are in the Canoe Creek basin. Its design floodwater surface elevation varies from 53.8 feet NGVD to 53.3 feet NGVD (upper limit), and from 53.2 feet NGVD to 51.5 feet NGVD (lower limit) downstream of S-63A and in Cypress Lake. Its ground-surface slope is nearly flat, and the design bottom widths are 60 and 70 feet, with the transition located 1.4 miles downstream from S-63A.

S-63A is located 2.8 miles upstream from Lake Cypress and maintains optimum upstream water control stages in C-34. Its design characteristics are described in the section corresponding to the S-63A basin.

This basin does not contain any water control structures.

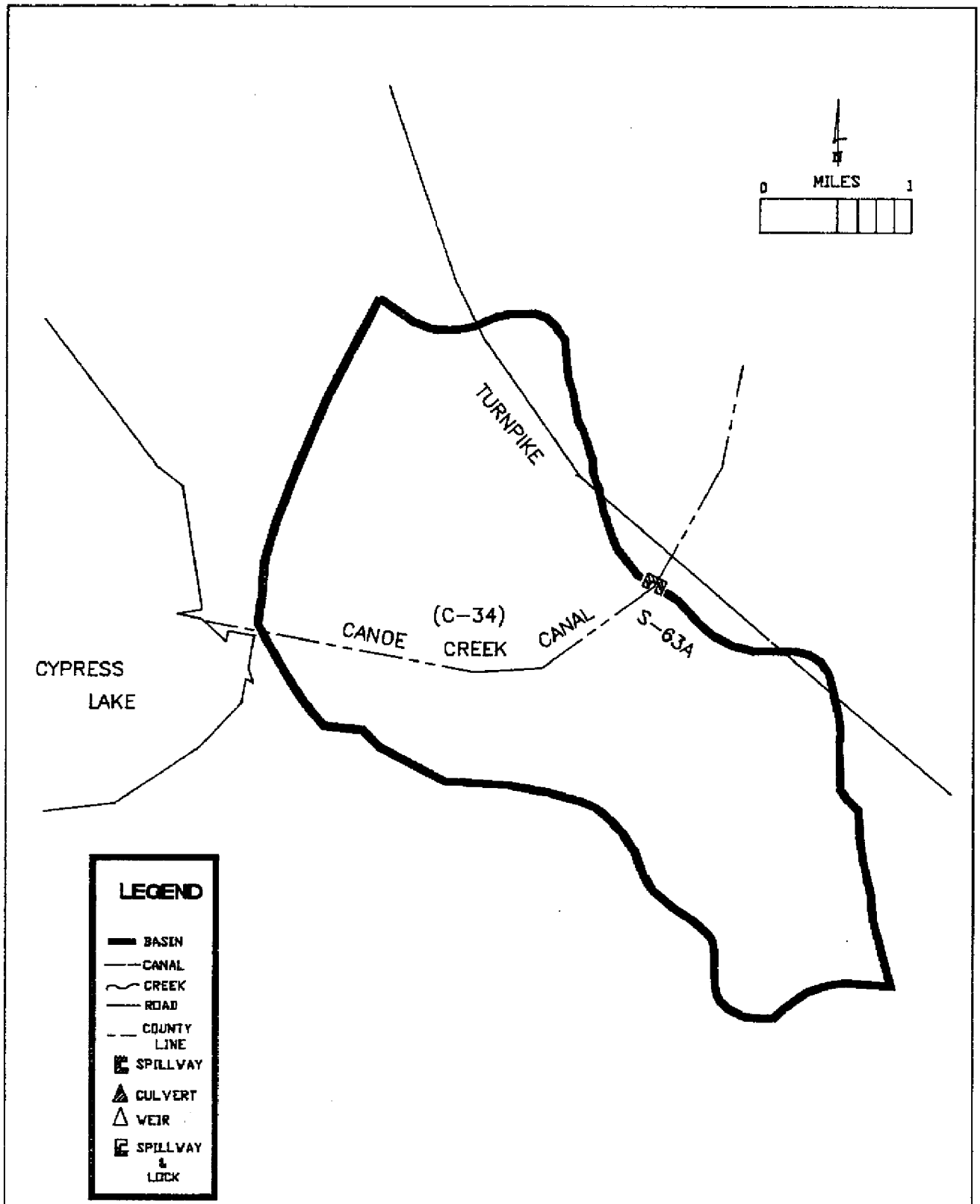


FIGURE 4A. Canoe Creek Basin (4,440 acres).

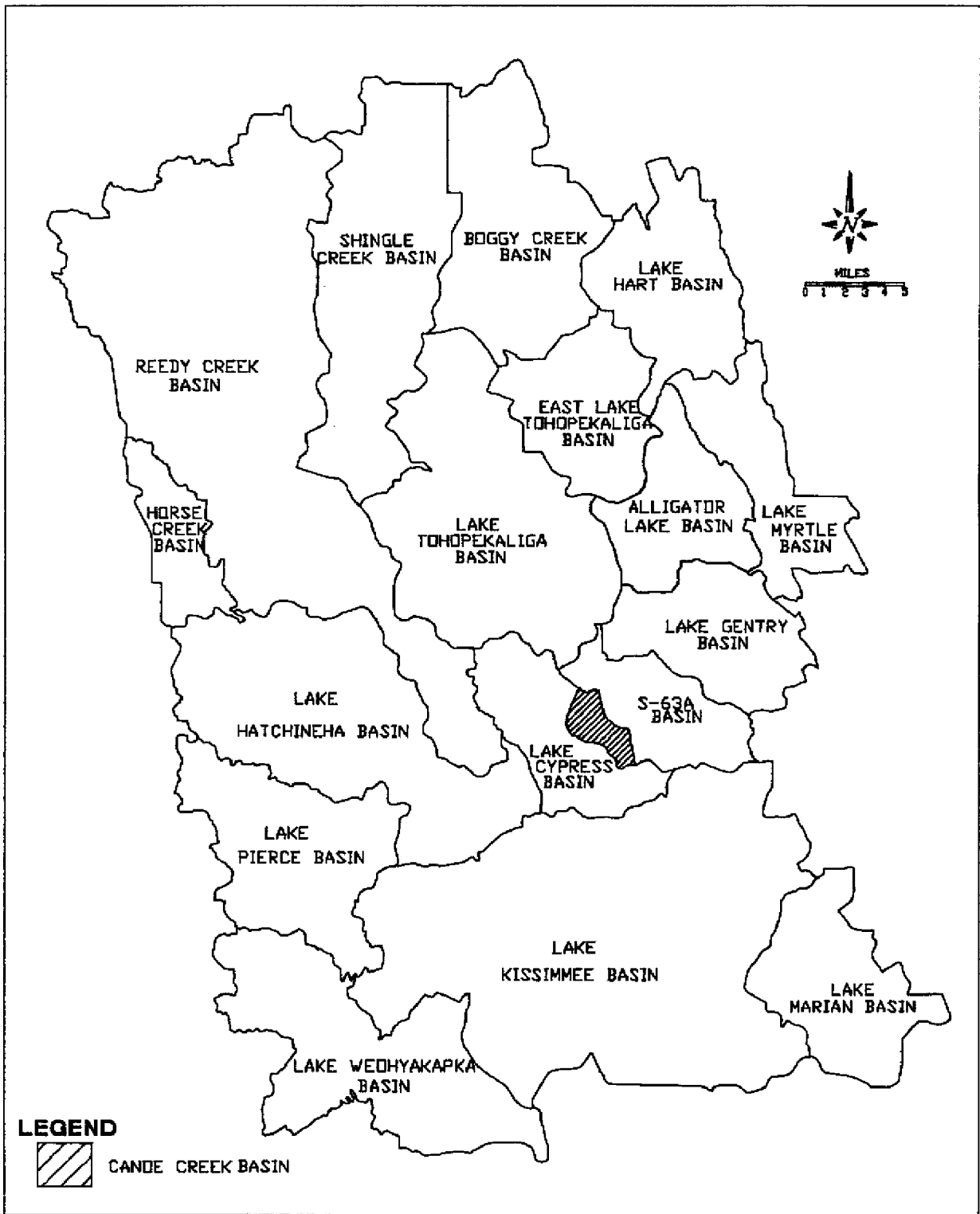


FIGURE 4B. Relative Location of Canoe Creek Basin within the UKRW.

LAKE CYPRESS BASIN

Description of the Basin

The Lake Cypress basin has an area of 42.4 square miles (Figure 5A), located in Osceola County; a small area of the basin, west of Lake Cypress, is located in Polk County. This is one of the basins occupying the central part of the UKRW (Figure 5B).

Lake Cypress has an area of 6.4 square miles at a stage of 52.0 feet NGVD. Flows from Lake Gentry and from Lake Tohopekaliga converge at Lake Cypress through Canoe Creek canal and South Port Canal (C-34 and C-35, respectively). Lake Cypress receives approximately 30 percent of the flow from Reedy Creek.

District Canals and Structures

The South Port Canal (C-35), 4.5 miles long, connecting Lake Tohopekaliga with Lake Cypress, is in the Lake Cypress basin. Its design water-surface elevation varies from 54.7 feet NGVD in Lake Tohopekaliga, to 53.6 feet NGVD in Lake Cypress. Its design slope is 1.37 feet per mile. C-35 has design bottom widths of 27 and 20 feet; its transition is approximately 600 feet from the outlet of Lake Tohopekaliga, just downstream of S-61.

S-61 regulates Lake Tohopekaliga. Its characteristics are described in the Lake Tohopekaliga basin. Lake Cypress, together with Lake Hatchineha and Lake Kissimmee, is regulated by S-65. This structure is located at the outlet of Lake Kissimmee in the Kissimmee River (C-38), and is described in the section covering Lake Kissimmee basin.

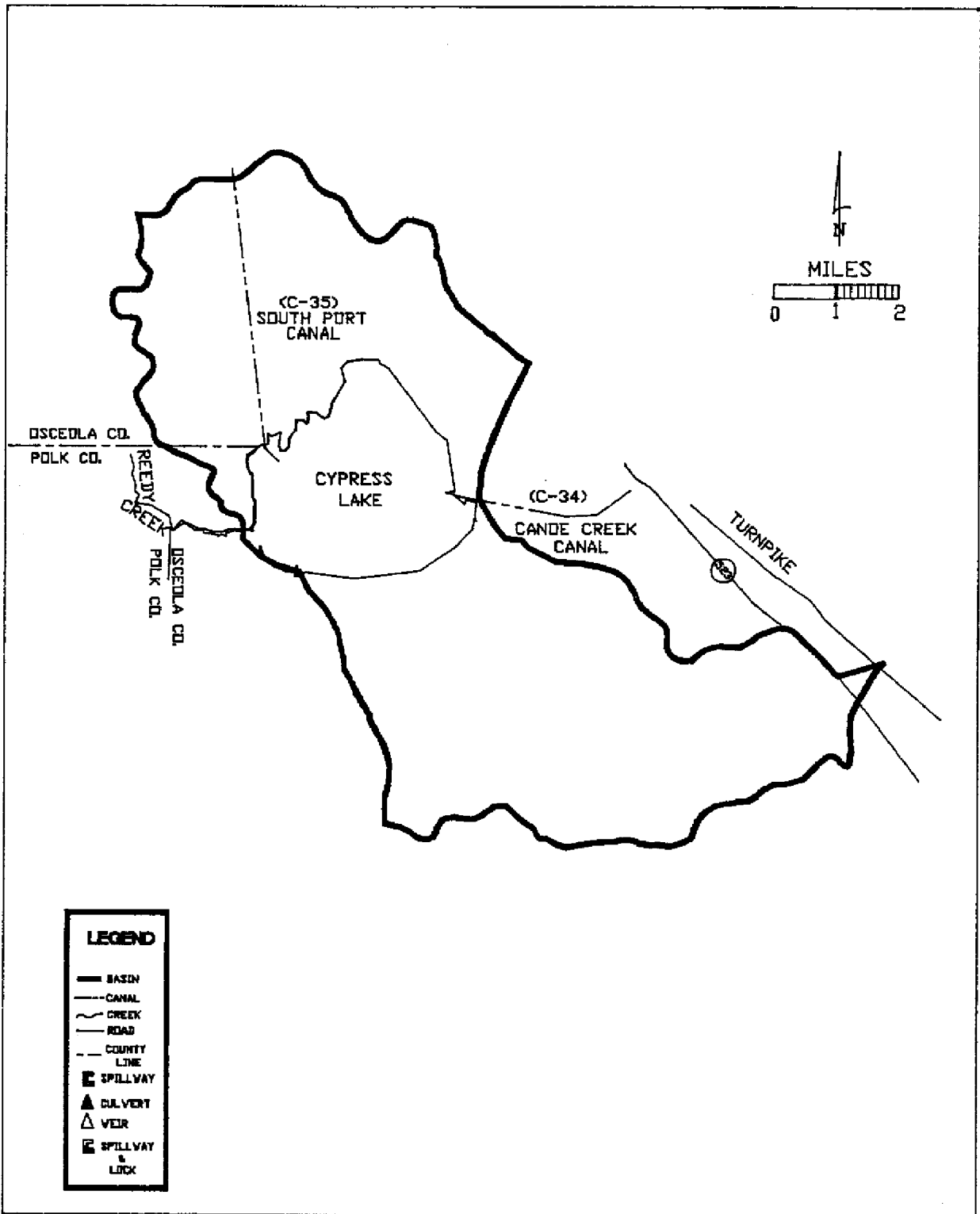


FIGURE 5A. Lake Cypress Basin (27,170 acres).

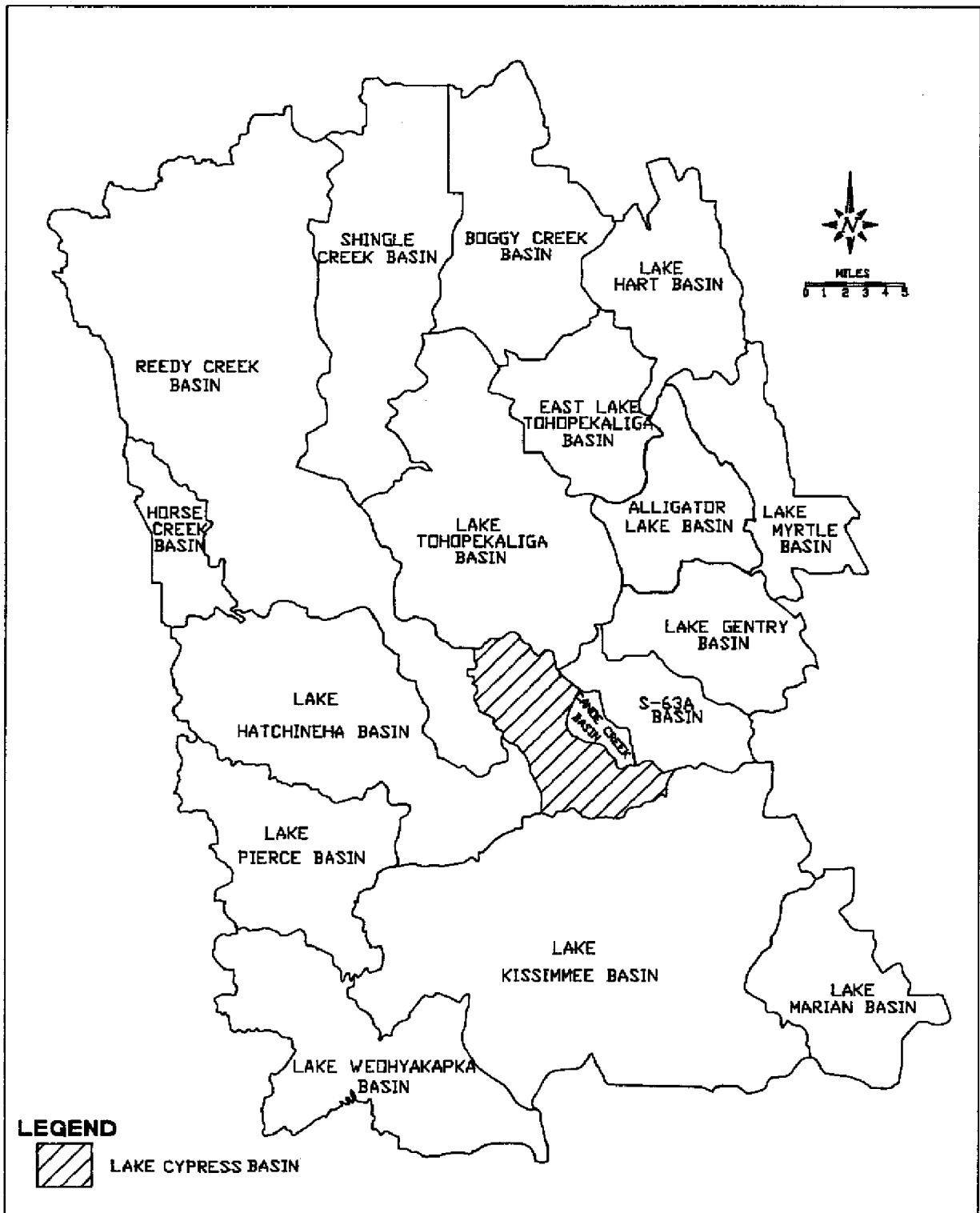


FIGURE 5B. Relative Location of Lake Cypress Basin within the UKRW.

LAKE MYRTLE BASIN

Description of the Basin

The Lake Myrtle basin has an area of 47.5 square miles (Figure 6A). Except for a small area of this basin located in the northeast corner of Orange County, the greater portion is located in Osceola County. Its relative location within the UKRW is shown in Figure 6B. On occasion, Lake Myrtle basin receives water from Alligator Lake basin (through Lake Lizzie). These releases from Alligator Lake basin to Lake Myrtle basin occur when large discharges cannot be handled through C-33 to Lake Gentry. A 1985 COE study indicated that during a 1 in 10 year flood, water will flow from Lake Myrtle basin to Alligator Lake. This study indicates that the peak will occur in Lake Myrtle at stage 65.3 feet NGVD.

Lake Joel, which receives water from Trout Lake (Alligator Lake basin) through S-58, has an area of 220 acres and is upstream of Lake Myrtle. In addition to these lakes, another chain formed by Cat Lake, Lake Conlin, and Lake Preston discharges into Lake Myrtle. Lake Myrtle, which is the last lake in this basin, is nearly one square mile at a stage of 61.0 feet NGVD and discharges into Lake Mary Jane (Lake Hart basin) by means of C-30. These five major lakes (in the basin) account for 10.5 percent of the total area of the basin.

District Canals and Structures

C-32B which connects Lake Joel to Lake Myrtle 0.4 miles long. Its design floodwater surface elevation is 62.9 feet NGVD and 60.9 feet NGVD (upper and lower limits, respectively). Its design slope is nearly flat and its design bottom width is 5 feet.

Also, 1.4 miles of C-30, extending from the outlet of Lake Myrtle to S-57, are within this basin. C-30 connects Lake Myrtle (Lake Myrtle basin) with Lake Mary Jane (Lake Hart basin). In this section of C-30, its design floodwater surface elevation is 62.8 feet NGVD (upper limit) and 60.8 feet NGVD (lower limit). Its ground-surface slope is nearly flat, and its design bottom width is 5 feet.

S-57 is located on C-30, 1.2 miles downstream from Lake Myrtle. This structure is a double-barreled corrugated metal pipe culvert, with discharge controlled by stem operated vertical gates. The two gates are controlled manually according with the seasonal operational criteria. The purposes of this structure are: (1) To maintain optimum upstream water control stages in C-30 and in Lake Myrtle, Lake Preston and Lake Joel; (2) to pass the design flood (30 percent of the SPF) without exceeding the upstream flood design stage; (3) to restrict downstream flood stages and channel velocities to nondamaging levels; (4) to prevent overtopping of the structure by waves, from Lake Myrtle, breaking against the structure during the design storm and wind tide; and (5) to pass sufficient discharge during low flow periods to maintain downstream stages. The water level which will bypass this structure is 69.0 feet NGVD.

Comments on Historic Operation

S-57 is operated in accordance with the Lake Myrtle regulation schedule. This schedule, which ranges between 60.0 and 62.0 feet NGVD represents the desirable water level throughout the year. The flood operation procedure is followed if the water-surface elevation is above the prescribed level. Low-water operation

procedure is followed if the water-elevation is below the prescribed level. The operation depends also on hydraulic and structural limitations of the structure.

Flood Control Operation: When the water level in Lake Alligator is within 0.5 feet of the present level, a release schedule, based on forecasted inflow, is established to return the lake to that level within 15 days. When the lake stage is over 0.5 feet from the prescribed level, maximum releases are made, subject to hydraulic and structural limitations.

Low-Water Operation: Whenever the lake level is below the prescribed level, releases are not allowed.

Structural Limitations: The maximum water level drop across the structure is 2.2 feet.

S-57, located in C-30 connecting Lake Myrtle to Lake Mary Jane (Lake Hart basin), regulates Lake Myrtle, Lake Preston, and Lake Joel. Regulation began in September 1969 upon completion of C-30 and S-57. The current schedule is shown in Figure 6C.

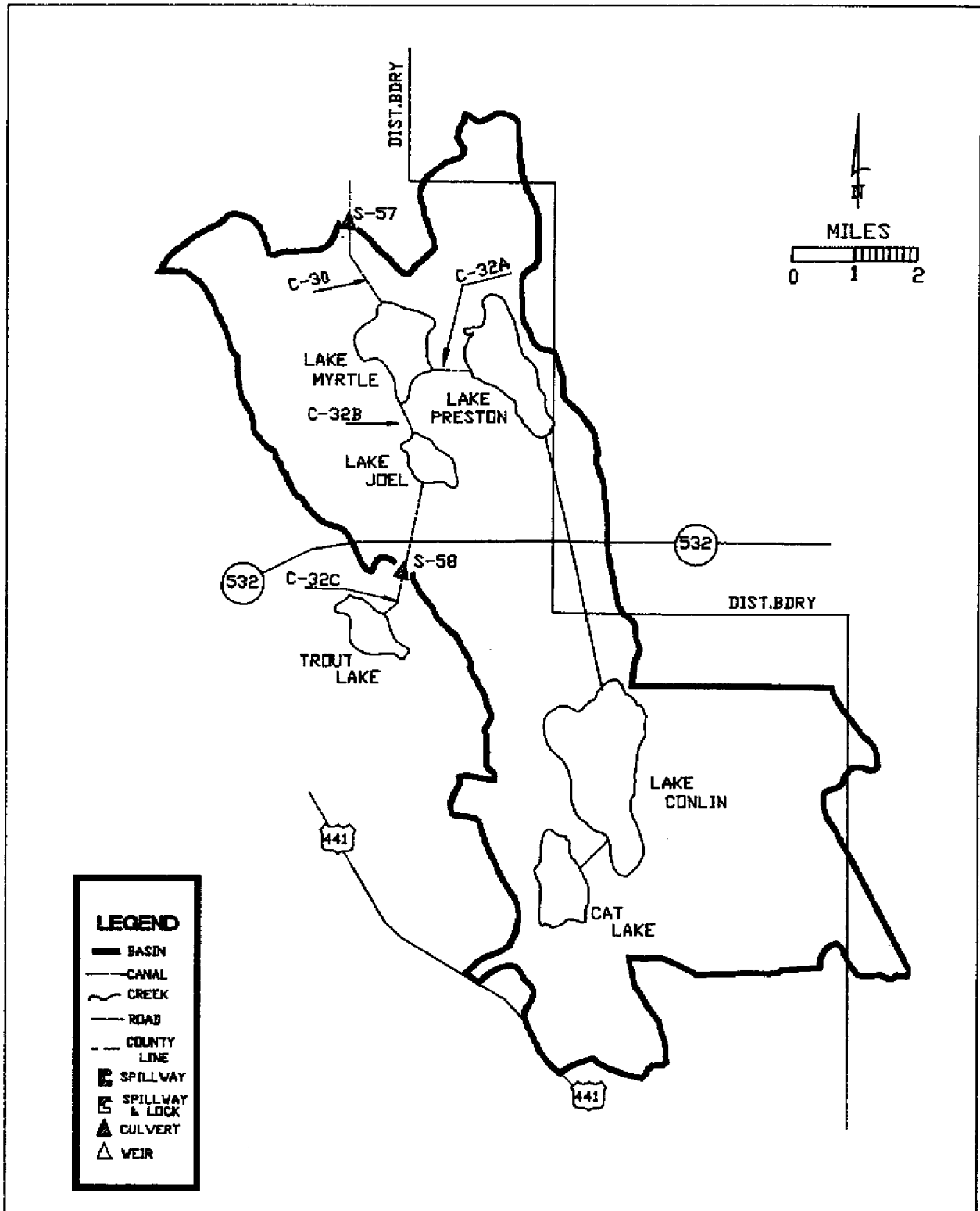


FIGURE 6A. Lake Myrtle Basin (30,435 acres).

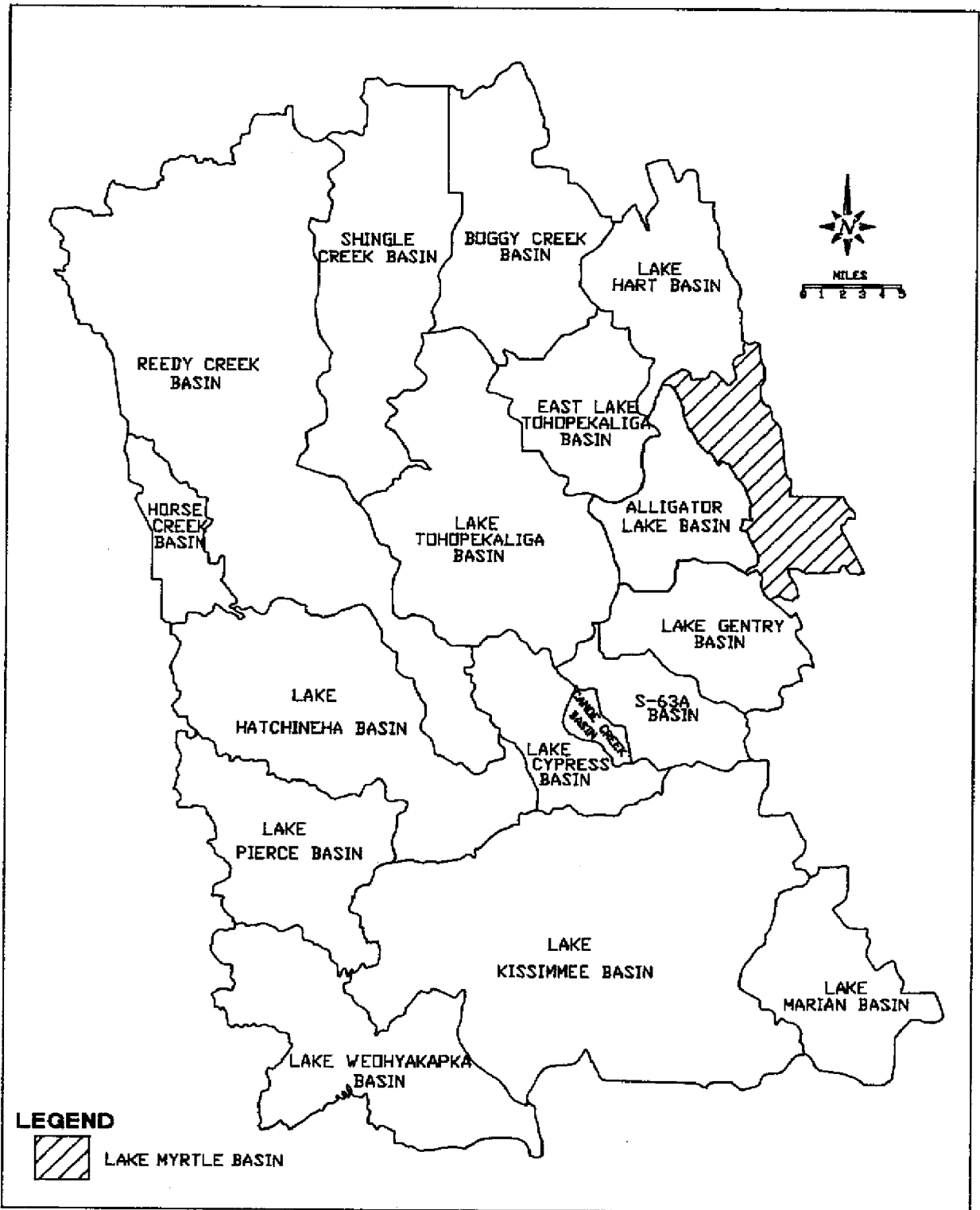
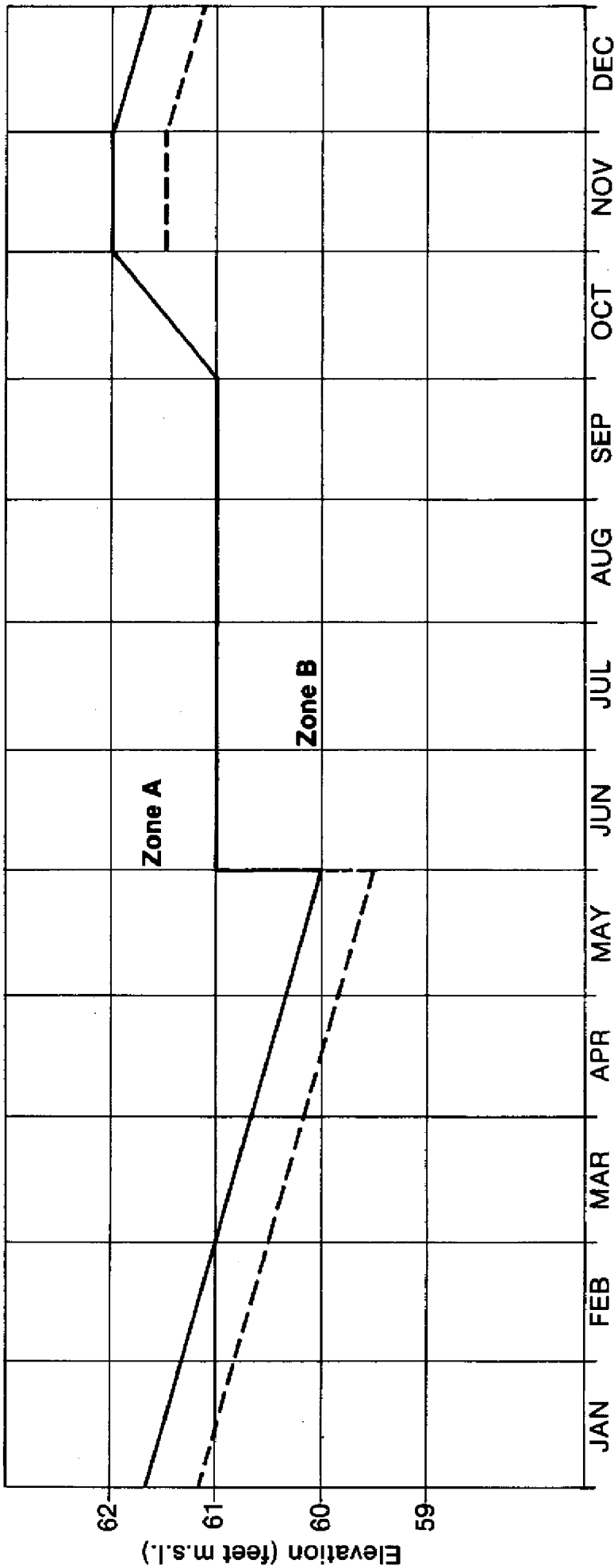


FIGURE 6B. Relative Location of Lake Myrtle Basin within the UKRW.



Zone

A At design capacity (170 cfs) except when the lake is within 0.5 feet of desired stage. Forecasts will then be made and releases started to bring the lake back down to schedule within 15 days.

B To maintain minimum flows.

Notes:

1. — Use this schedule if 1 November stage is 61.5 feet or above.
2. - - Use this schedule if 1 November stage is below 61.5 feet.
3. Regulation to be such that drawdown to 59.5 feet occurs at least twice but not more than three times in any six-year period.
4. Between 1 June and 30 September the stage may be raised to 61.0 feet as water is available.

Releases S-57

FIGURE 6C. Lake Myrtle Regulation Schedule.

LAKE HART BASIN

Description of the Basin

The Lake Hart basin covers 60.1 square miles (Figure 7A), of which 55.2 square miles are in Orange County and 4.9 square miles in Osceola County. This basin occupies the northeastern corner of the UKRW, except for 16.9 percent of the area which is outside the District boundary (Figure 7B).

C-29 serves as a connection between Lake Hart and Lake Mary Jane, which are 2.9 and 1.8 square miles in area at stages of 59.0 and 60.0 feet NGVD, while C-29A connects Ajay Lake (150 acres) with Lake Hart. In addition, Barton Lake (330 acres), located to the west of Lake Hart, is connected to that lake by means of a short channel. A chain formed by Lake Nona-Red Lake-Buck Lake (620, 230 and 135 acres, respectively) is also connected to Lake Hart through Myrtle Bay. Ajay Lake, the last lake in this basin, connects to East Lake Tohopekaliga (Fells Cove) by means of C-29B. Lakes in this basin accounts for 11.7 percent of the total area.

District Canals and Structures

Approximately one mile of C-30 connecting Lake Myrtle with Lake Mary Jane is in the Lake Hart basin which extends from S-57 to Lake Mary Jane. C-29 (between Lake Mary Jane and Lake Hart) and C-29A (connecting Lake Hart with Ajay Lake), plus a small section of C-29B (downstream from Ajay Lake), are also in this basin.

The last 1.1 miles of C-30, downstream of S-57, have a design floodwater surface elevation of 61.6 feet NGVD (upper limit) and varies from 60.1 feet NGVD to 59.9 feet NGVD (lower limit) downstream of S-57 and in Lake Mary Jane. Its ground-surface slope is nearly flat and its bottom width is 5 feet.

C-29 is 1.1 miles long, but most of its length is within the inundated area of Lake Mary Jane and Lake Hart. Nearly 2,000 feet of this canal separates both lakes at normal elevations. Its design floodwater surface varies from 61.7 feet NGVD to 61.4 feet NGVD (upper limit), and from 59.8 feet NGVD to 59.7 feet NGVD (lower limit) in Lake Mary Jane and in Lake Hart, respectively. Its ground-surface slope is nearly flat, and its bottom width is 5 feet.

C-29A is 1.5 miles in length and connects Lake Hart with Ajay Lake. Its design floodwater surface varies from 61.4 feet NGVD to 58.8 feet NGVD (upper limit), and from 59.7 feet NGVD to 57.1 feet NGVD (lower limit) in Lake Hart and in Lake Ajay respectively. Its ground-surface slope is 2.16 feet per mile, and its bottom width is 10 feet.

The design characteristics of the small section C-29B located in Lake Hart basin are described in **District Canals and Structures, East Lake Tohopekaliga Basin**.

S-62 is located on C-29A at the outlet of Lake Hart. This structure is a reinforced concrete, gated spillway controlled by a cable operated, vertical lift gate. Operation of the gate is manually controlled in accordance with seasonal operational criteria. The purposes of this structure are: (1) to maintain optimum upstream water control stages in C-29, in Lake Hart and in Lake Mary Jane, (2) to pass the design flood (30 percent of the SPF) without exceeding the upstream flood design stage, and to restrict downstream flood stages and channel velocities to nondamaging levels, (3)

to prevent overtopping of the structure by breaking waves from Lake Hart during the design storm and wind tide, and (4) to pass sufficient discharge during low-flow periods to maintain downstream stages. The water level which will bypass this structure is 68.6 feet NGVD.

Comments on Historic Operation

S-62 is operated in accordance with the Lake Hart regulation schedule, which ranges between 59.5 and 61.0 feet NGVD, indicating the desirable water level throughout the year. Flood operation is followed if the water-surface elevation is above the prescribed level. Low-water operation is followed if the water-surface elevation is below the prescribed level. The operation depends also on hydraulic and structural limitations of the structure.

Flood Control Operation: When the water level in Lake Hart and Lake Mary Jane is less than 0.5 feet above of the prescribed level, a release schedule, based on the forecasted inflow, is established to return the lake to that level within 15 days. When the lake stage is over 0.5 feet from the prescribed level, maximum releases subject to hydraulic and structural limitations are made.

Low-Water Operation: Whenever the lake level is below the prescribed level, minimum releases are made to satisfy downstream.

Structural Limitations: The maximum head on the structure is 7.2 feet.

Hydraulic Limitations: The gate opening is limited in accordance with the "Maximum Allowable Gate Opening Curve". To prevent damage from high velocities, the gate also has to be opened gradually to allow tailwater stages to rise before large discharges are released.

Lake Hart and Lake Mary Jane are regulated by S-62 located in C-29A, which discharges into Ajay Lake. Regulation began in May 1970 after completion of S-62 and C-29 in October 1969. The current regulation schedule is shown in Figure 7C.

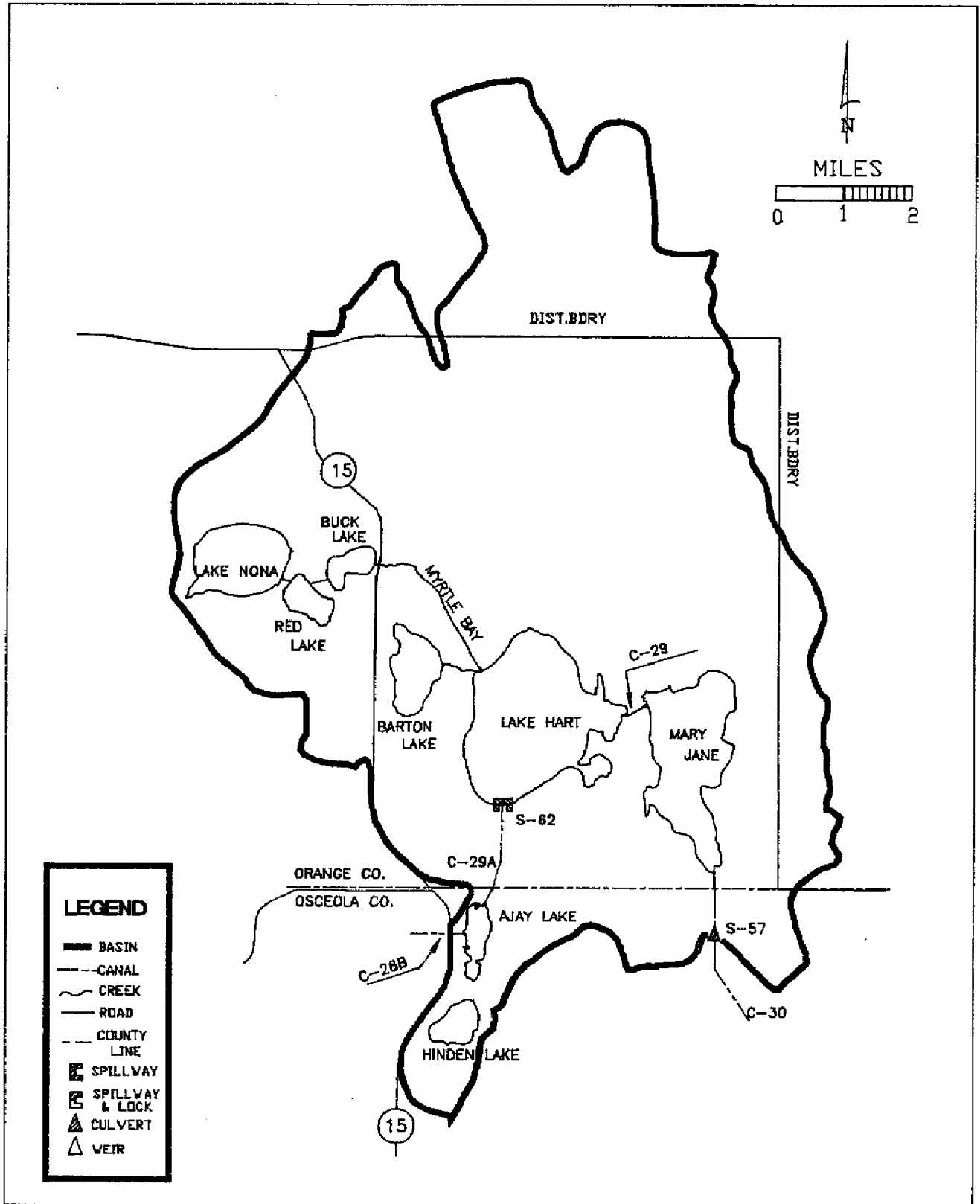


FIGURE 7A. Lake Hart Basin (38,530 acres).

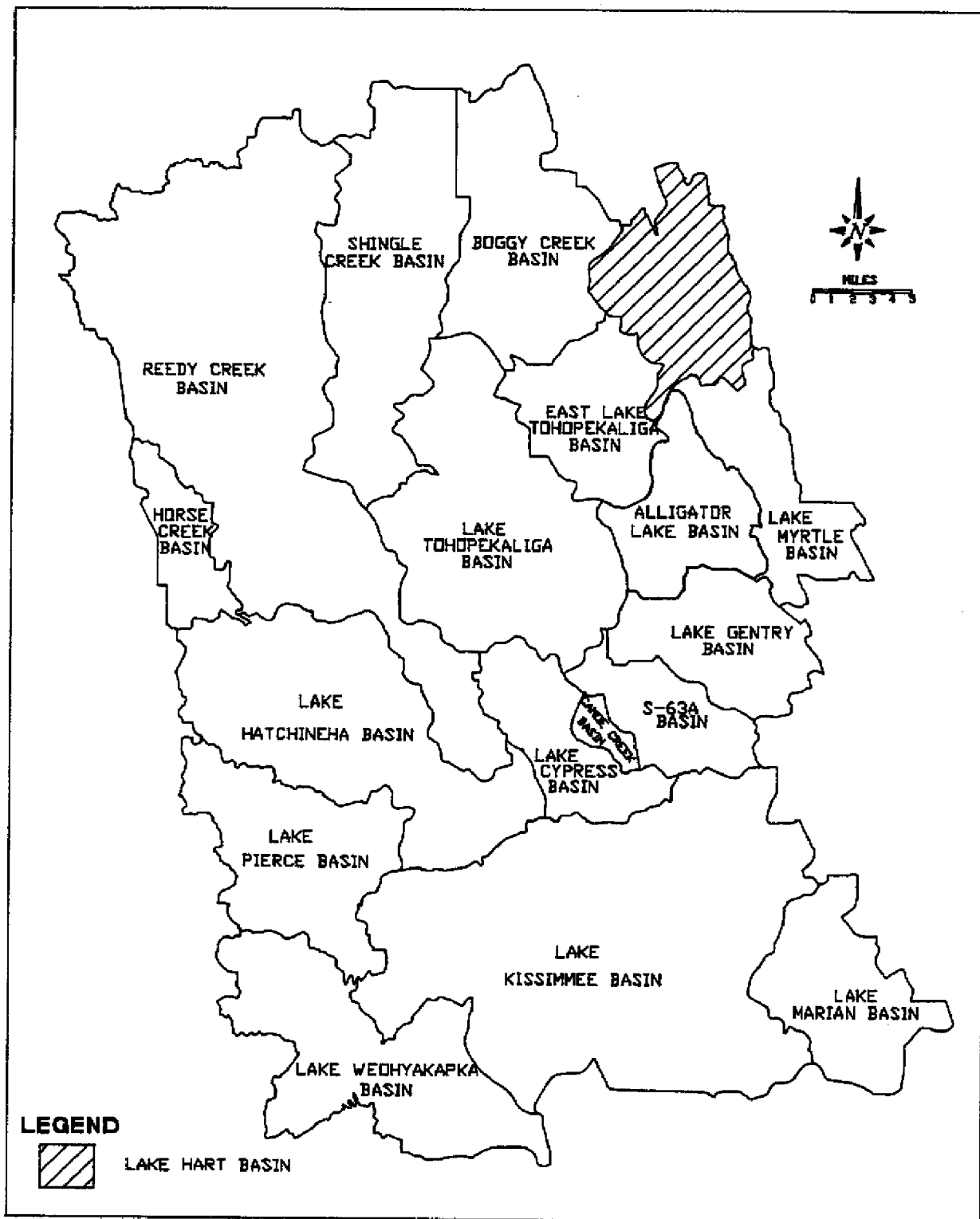
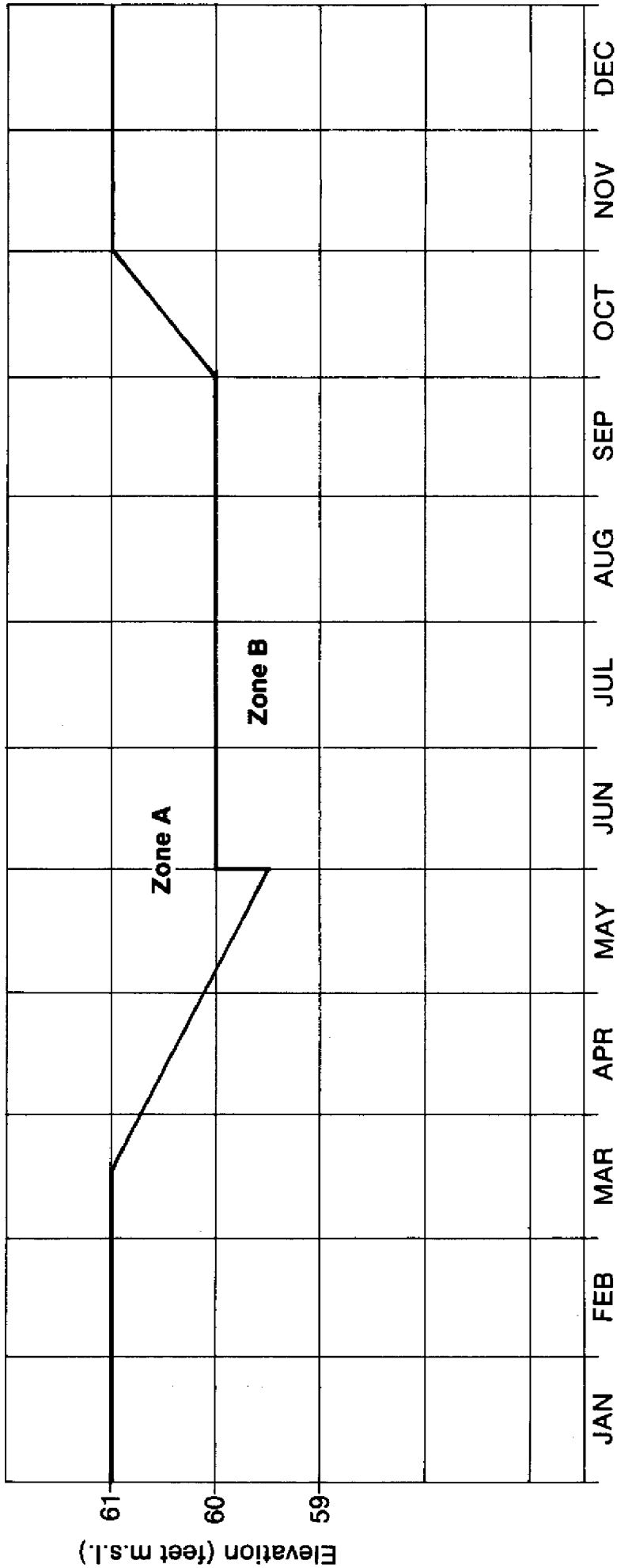


FIGURE 7B. Relative Location of Lake Hart Basin within the UKRW.



Zone

A At design capacity (640 cfs) except when the lake is within 0.5 feet of desired stage. Forecasts will then be made and releases started to bring the lake back to schedule within 15 days.

B To maintain minimum flows.

Releases S-62

FIGURE 7C. Lake Hart Regulation Schedule.

BOGGY CREEK BASIN

Description of the Basin

The Boggy Creek basin has a drainage area of 86.8 square miles (Figure 8A), and is located in central-western Orange County, east of Florida's Turnpike. Its drainage area extends southward from the center of the city of Orlando to the boundary between Osceola and Orange counties, and has the largest inflow to East Lake Tohopekaliga. The relative location of the Boggy Creek basin within UKRW is shown in Figure 8B. Twenty-four named lakes whose areas vary from 8 acres (Lake Farrar) to 1.7 square miles (Lake Conway) are located in Boggy Creek basin, and many of these are in the northern part of the basin. Of the 24 lakes only three, Mud (240 acres) located one mile east of the Boggy Creek swamp, Gatlin (65 acres) located just upstream of Lake Conway, and Warren (130 acres) located 4,000 feet east of Lake Conway, are not landlocked at normal stages.

The main water-course of Boggy Creek, also known as the east branch, is 12 miles long. Its headwaters originate in the southern lobe of Lake Conway, where a canal on the east side of the lake flows east to Lake Warren (Mare Prairie). This upper portion of the basin is within the general urban area of Orlando, and is characterized by numerous small lakes surrounded by gently rolling land. From here, the creek follows a channelized course southward passing under the Beeline Expressway, flowing through the Orlando International Airport property, and passing under Boggy Creek Road. Downstream of this point the creek is no longer channelized. This lower portion of the basin has a number of depressions and swamps, many of which are connected to the main stream by natural sloughs or small drainage ditches. The largest of these is known as the Boggy Creek Swamp, which covers nearly two square miles acting as a natural retention area of runoff from the basin. Upon leaving the swamp, the creek is well-defined to its outlet, located on the northwestern shore of East Lake Tohopekaliga.

The west branch of Boggy Creek, which is channelized in certain sections, extends from Lake Jessamine (306 acres) to Boggy Creek swamp. Due to Orange County's obstruction of the culverts under Oak Ridge Road on the west branch, there is no flow under normal as well as frequent flood events from the area north of Oak Ridge Road. Therefore, during moderate and severe flood events, the flow travels north over Oak Ridge Road into Lake Jessamine, causing the lake to drain into Lake Conway, flowing into the east branch of Boggy Creek. Lake Jessamine's water surface elevation is 5 feet higher than that of Lake Conway.

Boggy Creek traverses both lands remaining in agricultural use (16 percent of the basin) and lands which have undergone heavy urban development *which includes* the Orlando International Airport (43 percent of the basin). Boggy Creek swamp, together with other wetlands, lakes, and ponds, accounts for 18 percent of the basin. The remainder of the basin, which has no control structures, consists of forest uplands and recreational lands.

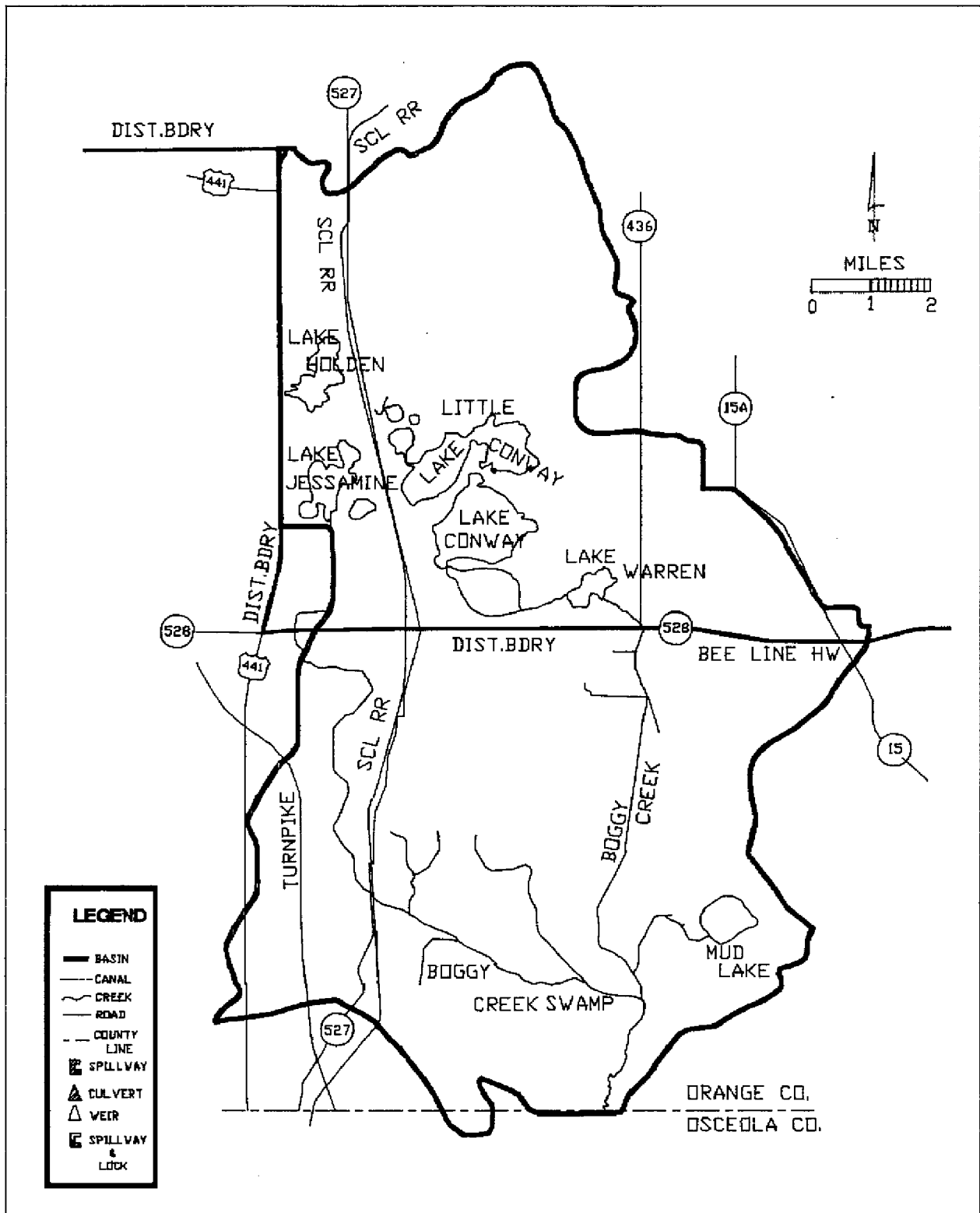


FIGURE 8A. Bogy Creek Basin (55,600 acres).

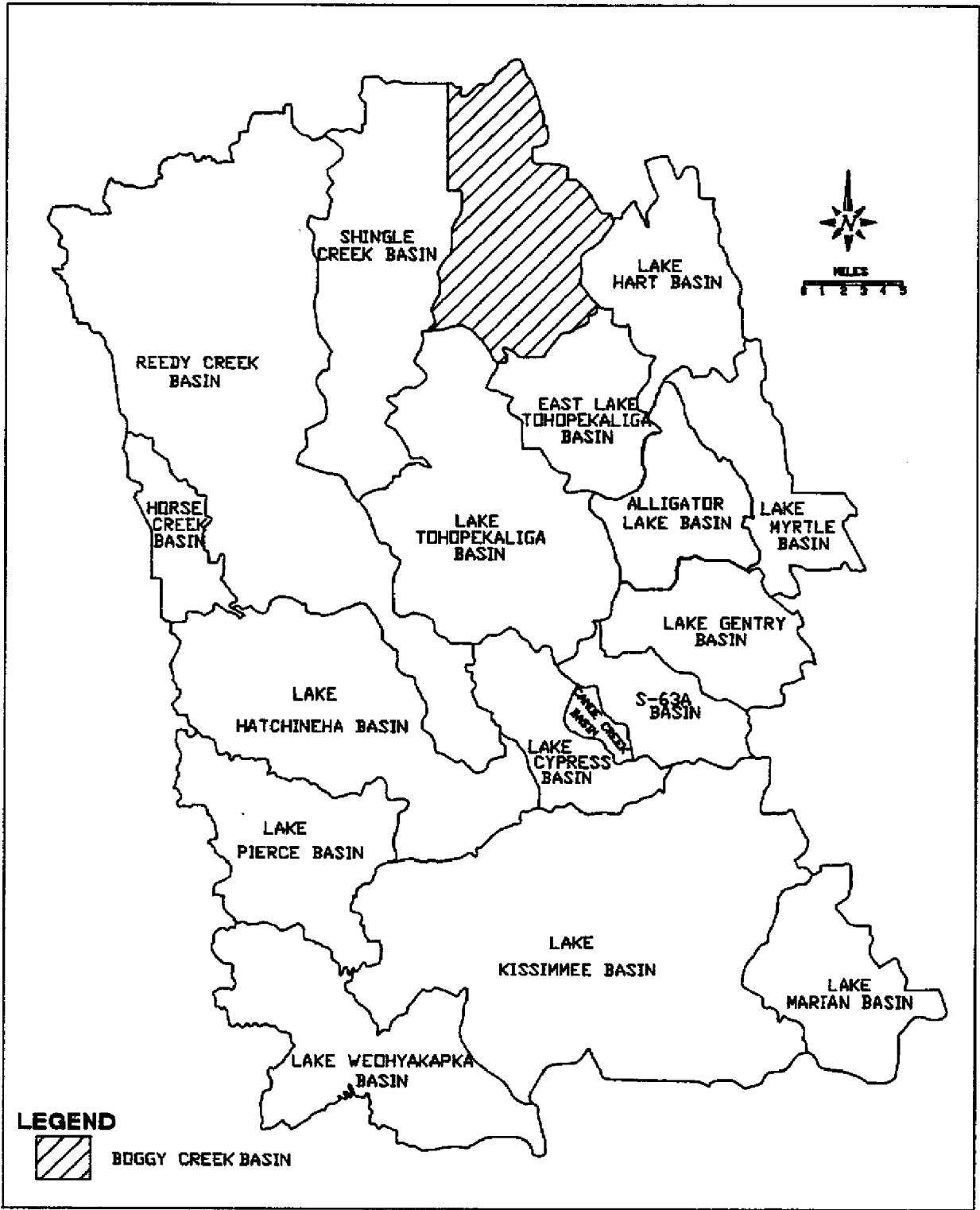


FIGURE 8B. Relative Location of Boggy Creek Basin within the UKRW.

EAST LAKE TOHOPEKALIGA BASIN

Description of the Basin

The East Lake Tohopekaliga basin has an area of 50.8 square miles (Figure 9A), of which approximately 7.6 square miles belong to Orange County and 43.2 square miles to Osceola County. Its relative location within UKRW is shown in Figure 9B. East Lake Tohopekaliga is 19.9 square miles in area at a stage of 56.3 feet NGVD. Lake Runnymede has an approximate area of 300 acres, and is located about 1,500 feet southeast of East Lake Tohopekaliga. Runnymede Canal connects Lake Runnymede with East Lake Tohopekaliga.

Boggy Creek discharges into the northwestern shore of East Lake Tohopekaliga. Lake Hart basin also discharges into this lake at Fells Cove through the C-29B from Ajay Lake. Boggy Creek and Lake Hart basins contribute most of the surface flow to East Lake Tohopekaliga. Two other basins, (Lake Myrtle and Alligator Lake) are indirect contributors to East Lake Tohopekaliga. Flows released from East Lake Tohopekaliga to Lake Tohopekaliga are conveyed by the St. Cloud Canal (C-31) through S-59.

District Canals and Structures

Most of the 1.1 miles of C-29B connecting Ajay Lake with Fells Cove (East Lake Tohopekaliga) are in the East Lake Tohopekaliga basin. Its design flood water surface elevation varies from 58.8 feet NGVD to 58.2 feet NGVD. (upper limit) and from 57.1 feet NGVD to 56.5 feet NGVD (lower limit) in Ajay Lake and in Fells Cove, respectively. Its ground-surface slope is nearly flat; its bottom width is 10 feet.

S-59 is the outlet of East Lake Tohopekaliga. This structure is a reinforced concrete-gated spillway controlled by a cable operated, vertical lift gate. The gate is currently controlled manually in accordance with seasonal operational criteria. In January 1979, a fixed weir at 51.0 feet NGVD. was installed downstream of S-59 to increase tailwater elevation. The purposes of S-59 are: (1) to maintain optimum upstream water control stages in C-31 and in East Lake Tohopekaliga, (2) to convey the design flood (30 percent of the SPF) without exceeding the upstream flood design stage, (3) to restrict downstream flood stages and channel velocities to non-damaging levels, (4) to prevent overtopping of the structure from East Lake Tohopekaliga during the design storm and wind tide, and (5) to pass sufficient discharge during low-flow periods to maintain downstream stages. The water level which will bypass this structure is 65.0 feet NGVD.

Comments on Historic Operation

S-59 is operated in accordance with the East Lake Tohopekaliga regulation schedule, which ranges between 55.0 and 58.0 feet NGVD and indicates the desirable water level throughout the year. Flood operation is followed if the water-surface elevation is above the prescribed level. Low-water operation is followed if the water-surface elevation is below the prescribed level. The operation also depends upon the hydraulic and structural limitations of the structure.

Flood Control Operation: When the water level in East Lake Tohopekaliga is within 0.5 feet of the prescribed level, a release schedule, based on the forecasted inflow, is established to return the lake to that level within 15 days. When the lake stage is

over 0.5 feet from the prescribed level, maximum releases subject to hydraulic and structural limitations are made.

Low-Water Operation: Whenever the lake level is below the prescribed level, minimum releases may be made to satisfy downstream demands.

Structural Limitations: The maximum water level drop across the structure is 8.0 feet if the upstream water surface elevation is below 62.8 feet NGVD. The water level drop will not exceed 8.0 feet if the upstream water surface elevation is higher than 62.8 feet NGVD.

Hydraulic Limitations: To prevent damage from high velocities, the gate opening is limited in accordance with the "Maximum Allowable Gate Opening Curve." The gate also has to be opened gradually to allow tailwater stages to rise before large discharges are released.

East Lake Tohopekaliga and its small tributary Ajay Lake (Lake Hart basin) (see or refer to Lake Hart basin) are regulated by S-59, located in the St. Cloud Canal (C-31). Contingent upon the completion of construction of S-59 and C-31 in April 1963, and completion of Lake Tohopekaliga's outlet works, in late 1963, regulation did not begin until 1964. This regulation schedule was modified in 1967 and was used until 1981, when the existing schedule was introduced. The current regulation schedule is shown in Figure 9C.

Water quality studies conducted since 1980 in the UKRW lakes showed that phosphorus and nitrogen concentration, as well as chlorophylla levels in East Lake Tohopekaliga, have been the lowest for all major lakes. The vegetated zone of this lake comprises 30 percent of the total surface area at a regulation stage of 58.0 feet NGVD. Restricted water level fluctuations had contributed to the deterioration of aquatic habitat in East Lake Tohopekaliga. A low water berm had developed along the shoreline at an approximate elevation of 55.0 feet NGVD. Organic sediments had been continually deposited in this area, and had not been exposed to long-term drying and compaction for at least 22 years. An extreme drawdown would help reverse plant succession, allowing physical removal of heavy organic bands within the littoral zone. The Florida Game and Fresh Water Fish Commission implemented the extreme drawdown for East Lake Tohopekaliga, which was executed during the spring of 1990 to reestablish native aquatic vegetation and improve lake habitat.

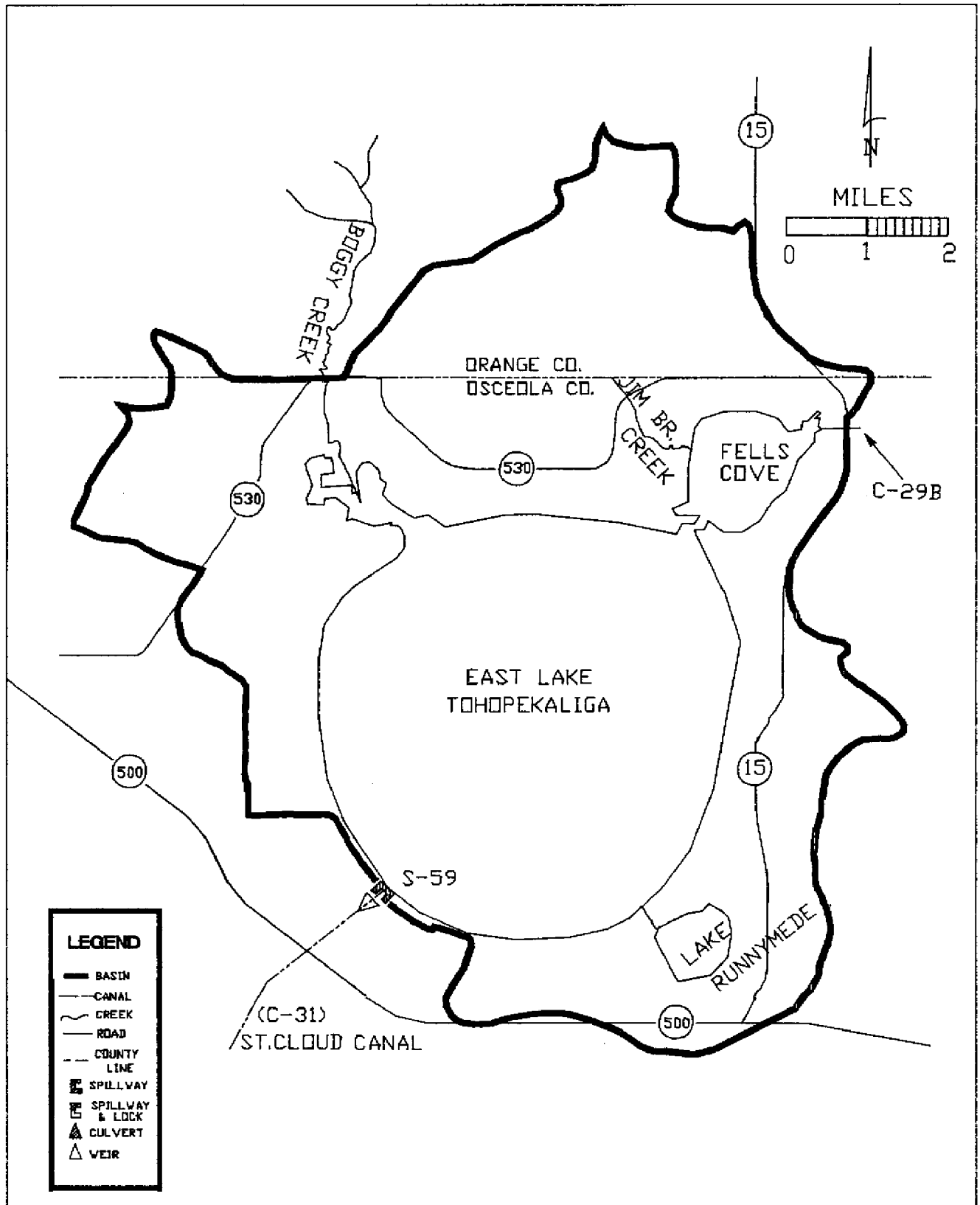


FIGURE 9A. East Lake Tohopekaliga Basin (32,540 acres).

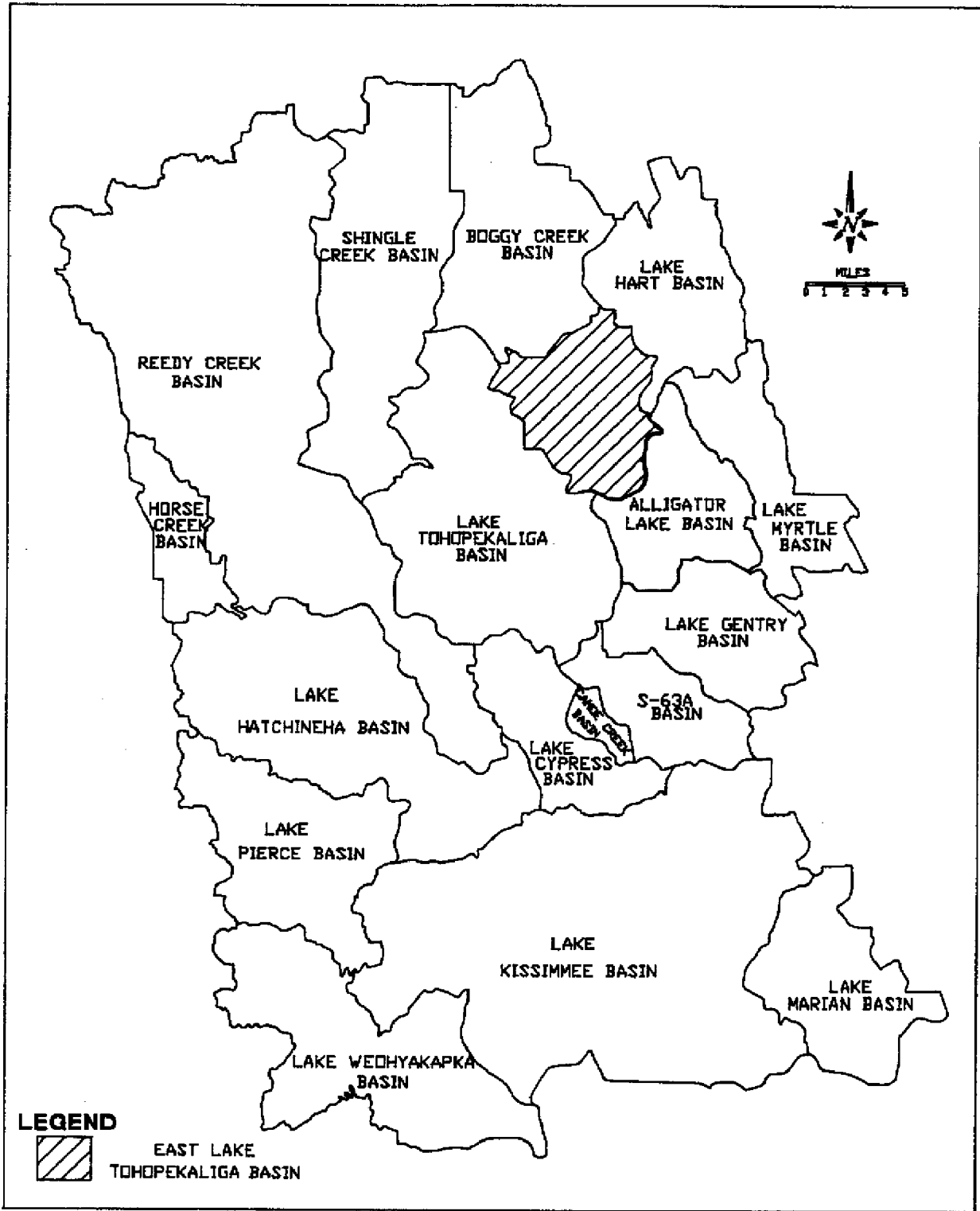
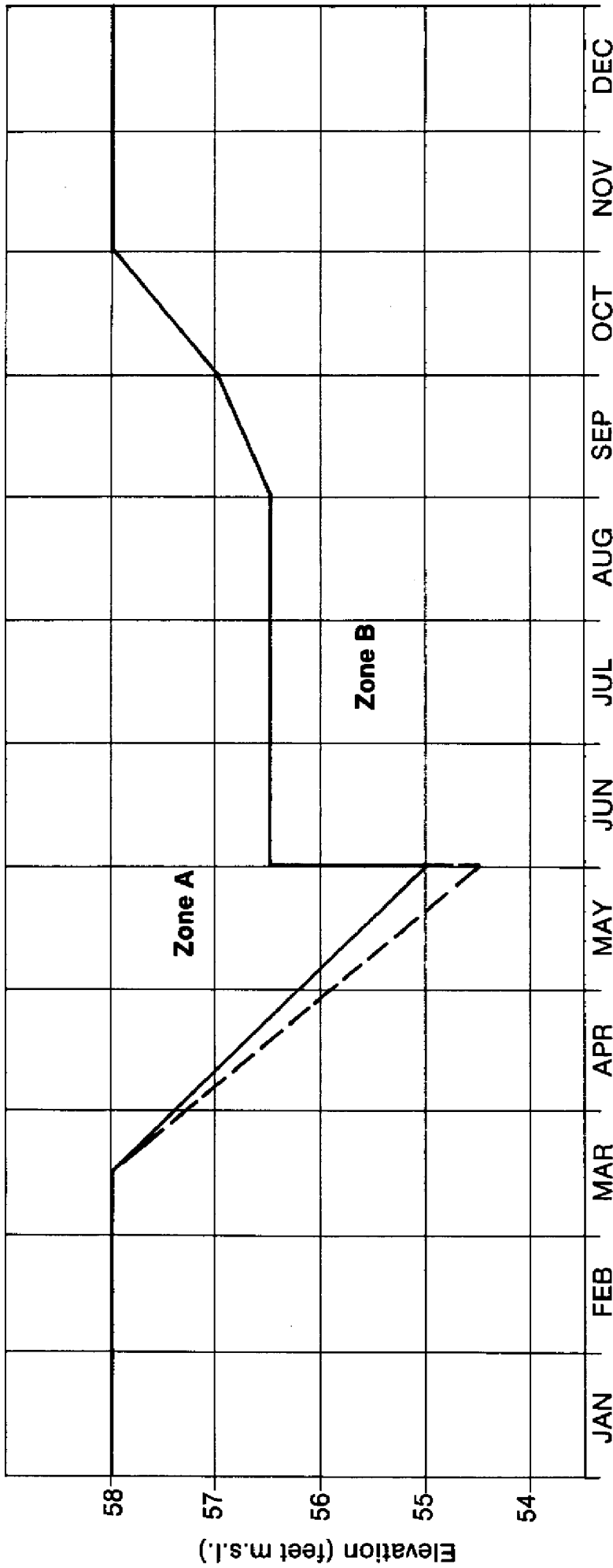


FIGURE 9B. Relative Location of East Lake Tohopekaliga Basin within the UKRW.



Zone

A At design capacity (820 cfs) except when the lake is within 0.5 feet of desired stage. Forecasts will then be made and releases started to bring the lake back to schedule within 15 days.

B To maintain minimum flows.

Note: --- Use this schedule one year in three.

Releases S-59

FIGURE 9C. East Lake Tohopekaliga Regulation Schedule.

SHINGLE CREEK BASIN

Description of the Basin

The Shingle Creek basin has an area of 111.4 square miles (Figure 10A), of which 29.4 square miles are contained in Orange County and 82 square miles in Osceola County. This basin occupies the northcentral part of the Upper Kissimmee River basin, bounded by Reedy Creek basin to the west and Boggy Creek basin to the east (Figure 10B).

Inflow from Shingle Creek frequently is a major component of the total inflow to Lake Tohopekaliga. It may exceed 50 percent during the fall and winter months. Shingle Creek itself begins at the Westside Manor pumping station (east of Turkey Lake) and receives water from Clear Lake. In its headwaters, this creek receives water from a populated area west of Orlando. The inflow then proceeds southward for 24 miles to its outlet on the northwestern shore of Lake Tohopekaliga. The northern one-third of the basin, in south Orlando, has been subjected to major residential development. The part of Shingle Creek that is within this area has been channelized.

The southern one-third of the basin, south of the Orange County and Osceola County line, consists of limited wetland areas with citrus and pasture land usage.

There are 22 named lakes in this basin with surface areas ranging from 10 acres to 1.7 square miles (Big Sand Lake). Many of them are located in the north and northwestern sections of the basin. Most of these lakes are landlocked at normal stages, although several lakes are directly connected to Shingle Creek. In this latter category are included Lake Mann, Clear Lake, Lake Cain, Turkey Lake, Rattlesnake Lake and Lake Catherine. Also included in the Shingle Creek drainage area is that portion of Reedy Creek swamp, east of the Disney Outfall Canal levee, from which surface flow now discharges to Shingle Creek through its tributary the Brown's Farm Canal.

When the outflow from the Reedy Creek Improvement District exceeds 800 to 900 cfs, water will flow east to Shingle Creek.

A plan of improvement for providing flood control and water management in the Shingle Creek basin between Clear Lake and Lake Tohopekaliga has already been authorized by the COE. The areas of greatest concern are that portion of the basin north of the Florida Turnpike, the south Orlando area, and the development areas along the creek immediately south of the city of Kissimmee. The network of canals and ditches in the upper part of this basin, which extends north of Sand Lake Road, offers less than 1 in 10 year flood protection throughout most of the basin. Flooding in the south Orlando area would be caused by insufficient downstream conveyance of a fast peaking storm runoff from this highly urbanized area. Most of the flood damage would occur to residential areas between the Florida Turnpike and the Old Winter Garden Road. The middle basin area from the Florida Turnpike south to the Old Tampa Highway at Kissimmee has experienced almost no development within the historic floodplain. Flood levels up to and beyond the 1 in 10 year frequency will not cause damage to residential properties; however, some damage could occur to pastures and groves in this area. Shingle Creek has been identified in the past as a major source of pollution which was accelerating the eutrophication of Lake Tohopekaliga. Any proposed project in this area should, therefore, seek to address this problem.

The major sewage treatment facilities previously discharging into Shingle Creek were converted to a no discharge disposal method during 1987; however, discharges from the intensively developed urban areas of the upper basin remain a major concern. The lower basin has experienced development between the Old Tampa Highway and SR-531. This development consists of residential homes and a large retirement housing complex. The existing creek channel can handle 1 in 10 year flood protection to this area. It is expected that extensive flood damage due to storms which exceed that frequency may occur.

Shingle Creek Swamp covers approximately 4.7 square miles west of Shingle Creek in southern Orange County (Figure 10A). The swamp receives much of the storm water runoff from areas south and southwest of the city of Orlando, as well as storm water runoff from the Valencia Water Control District. Except for its connection with Single Creek, which runs along the eastern portion of the swamp, Shingle Creek Swamp is largely isolated. The northeastern corner of the swamp area has been divided by two powerline easements and service roads. The importance of the swamp is in water management, flood attenuation, and water quality improvement. The COE proposed project could cause environmental problems by restricting the water flow into the eastern portion of the swamp. For this reason, some modifications will have to be made to the COE plan to restore more overland flow to the eastern portion of the swamp. Valencia Water Control District has already begun to remove canal berms to increase overland flow to that portion of the swamp.

This basin does not contain any water control structures.

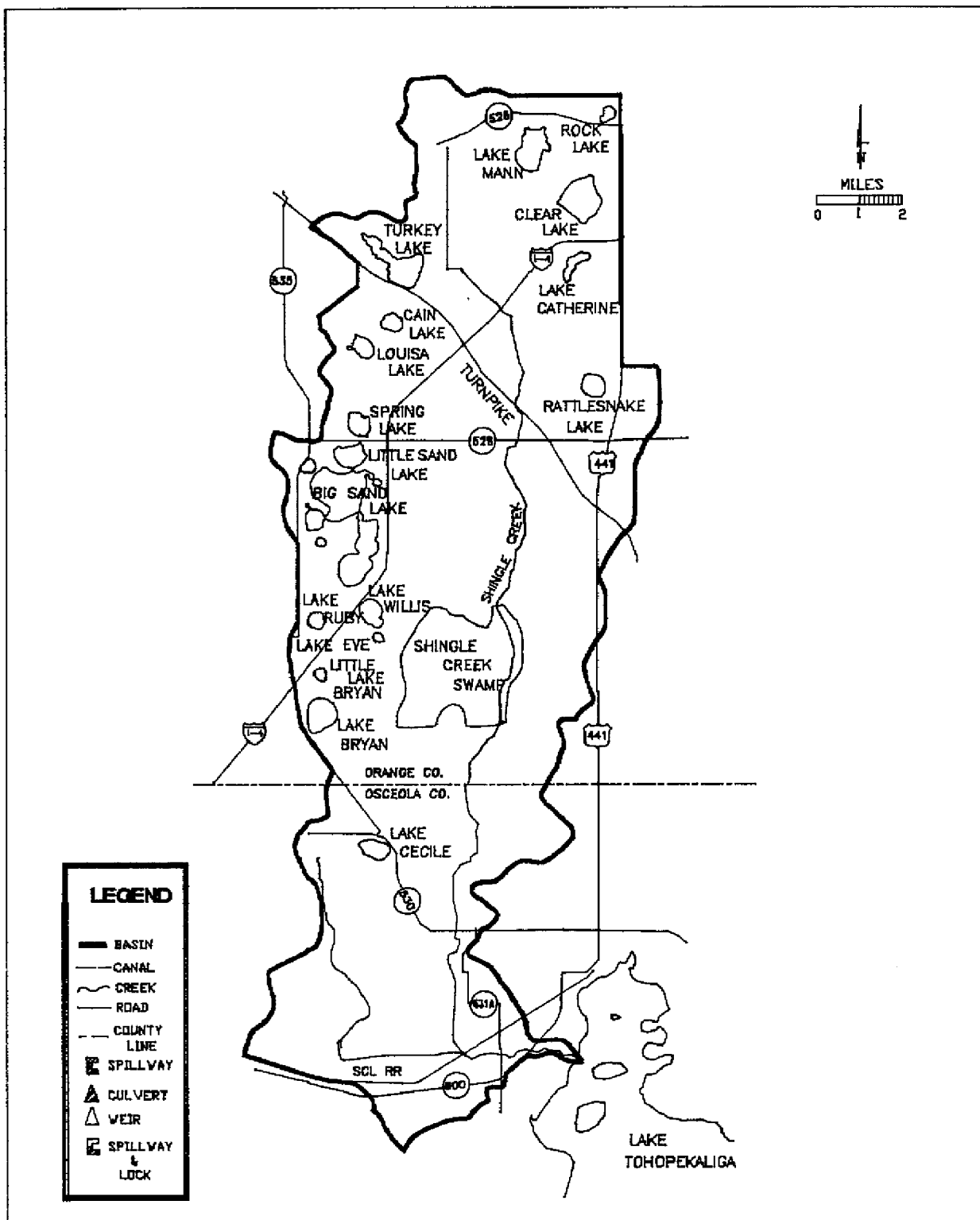


FIGURE 10A. Shingle Creek Basin (71,310 acres).

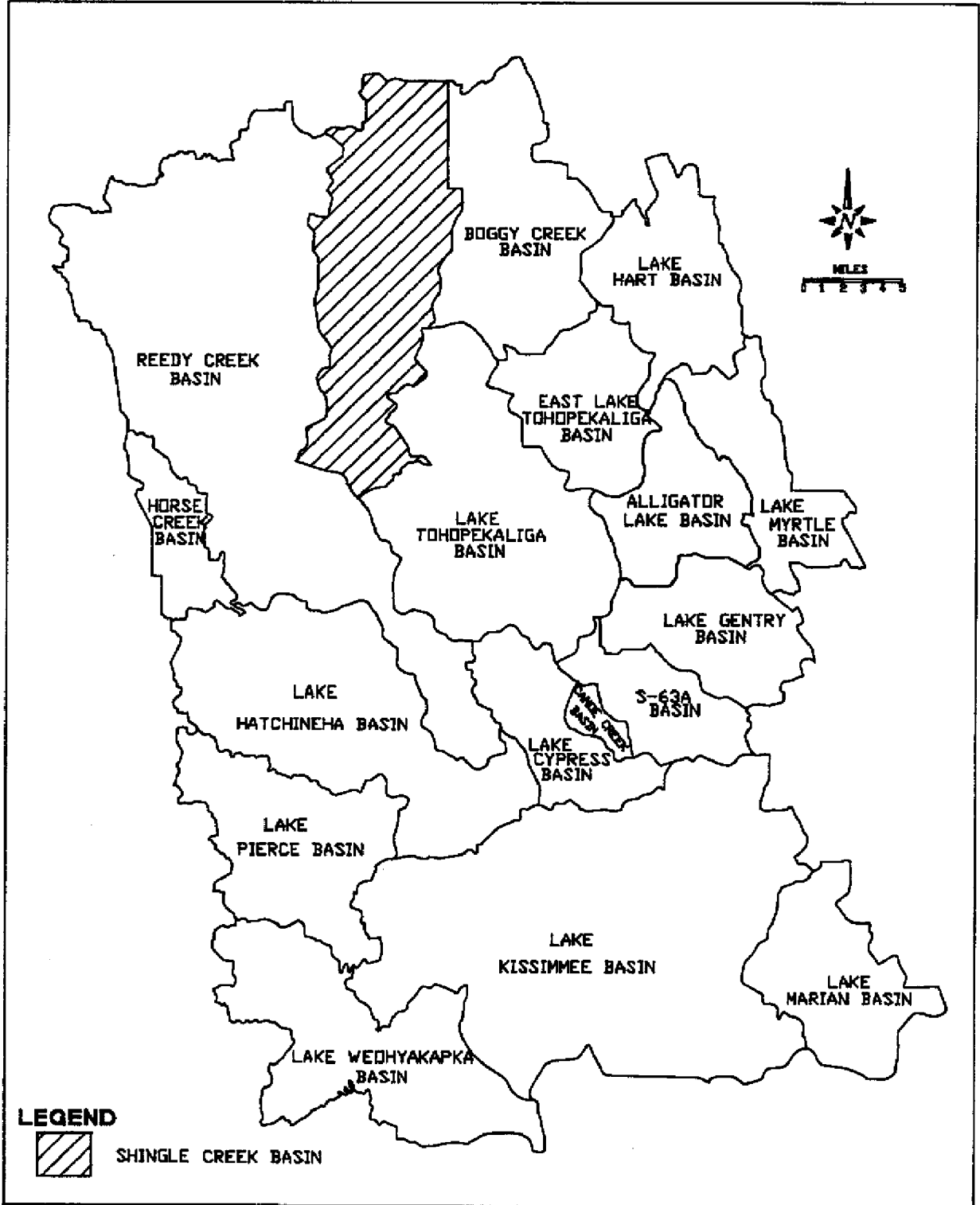


FIGURE 10B. Relative Location of Shingle Creek Basin within the UKRW.

LAKE TOHOPEKALIGA BASIN

Description of the Basin

The Lake Tohopekaliga basin has an area of 131.4 square miles (Figure 11A). Most of this basin is located in Osceola County except for the northernmost part which is in Orange County. This basin occupies the central part of the UKRW (Figure 11B). The southernmost point of Lake Tohopekaliga is the outlet of this basin discharging into Cypress Lake through C-35.

Lake Tohopekaliga, which has an area of 30.2 square miles at a normal stage of 53.7 feet NGVD, receives inflows from two major sources: Shingle Creek and St. Cloud Canal (C-31) from East Lake Tohopekaliga. Lake Tohopekaliga is a shallow lake having a mean depth of 7.0 feet at the maximum regulation stage of 55.0 feet NGVD. This lake alone represents approximately 23 percent of the entire area of the basin. Fish Lake, a 220-acre lake located west of the St. Cloud Canal (C-31) and northeast of Lake Tohopekaliga, discharges into Lake Tohopekaliga through an excavated canal. Although it does not contribute flow to Lake Tohopekaliga, Brown Lake, a 140-acre lake located to the southwest of Lake Tohopekaliga, is also part of this basin. Discharges from Lake Tohopekaliga are conveyed by the South Port Canal (C-35) to Lake Cypress through S-61.

District Canals and Structures

The St. Cloud Canal (C-31) connecting East Lake Tohopekaliga to Lake Tohopekaliga is 3.9 miles long. S-59, which controls East Lake Tohopekaliga, is located on C-31, 1,100 feet downstream of this lake. Its design water surface elevation varies from 57.7 feet NGVD in East Lake Tohopekaliga to 54.8 feet NGVD in Lake Tohopekaliga. C-31 has a ground-surface slope of 0.84 feet per mile, and a bottom width of 20 feet.

S-61 controls Lake Tohopekaliga on the South Port Canal (C-35) at the outlet of Lake Tohopekaliga on its southern shore. This structure is a reinforced concrete-gated spillway controlled by a cable operated vertical lift gate. Operation of the spillway gate is manually controlled in accordance with seasonal operational criteria. This structure also includes a reinforced concrete lock with two pairs of sector gates. The purposes of S-61 are: (1) To maintain optimum upstream water control stages in Lake Tohopekaliga, (2) to pass the design flood without exceeding the upstream flood design stage, and to restrict downstream flood stages and channel velocities to nondamaging levels, (3) to prevent overtopping of the structure by wind tide from Lake Tohopekaliga, and (4) to pass sufficient discharge during low-flow periods to maintain downstream stages. The water level which will bypass this structure is 62.0 feet NGVD.

The lock structure is 30 feet wide by 90 feet long with the invert elevation at 43.0 feet NGVD. The lock has hydraulically operated sector gates which allows passage of vessels with a draft of less than 6 feet between the Kissimmee River (C-38) and Lake Tohopekaliga.

Comments on Historic Operation

S-61 is operated according with the Lake Tohopekaliga regulation schedule. This schedule ranges between elevations 52.0 and 55.0 feet NGVD and represents

the desirable water level throughout the year. If the level is above the prescribed level, flood operation is required. If the level is below the prescribed level, low-water operation is required. The operation is also dependent on hydraulic and structural limitations of the structure.

Flood Control Operation: When the water level in Lake Tohopekaliga is less than 0.5 feet above the prescribed level, a release schedule based on forecasted inflow is established to return the lake to that level within 15 days. When the lake stage is over 0.5 feet above the prescribed level, maximum releases subject to hydraulic and structural limitations are made.

Low-Water Operation: Whenever the lake level is below the prescribed level, minimum releases are made to satisfy downstream demands.

Structural Limitations: The maximum water level drop across the structure is 10 feet, if the upstream water elevation is below 55.0 feet NGVD; 6.0 feet if the upstream water elevation is between 55.0 and 59.9 feet MGVD; and less than 6.0 feet if the upstream water elevation is above 60.0 feet NGVD.

Hydraulic Limitations: The gate opening is limited in accordance with the "Maximum Allowable Gate Opening Curve," to prevent damage from high velocities. The gate also has to be opened gradually to allow tailwater stages to rise before large discharges are released.

The schedule of lock operation is based on the River and Harbor Act of August 8, 1917, established by the COE.

Construction of S-61 and C-35 was completed in October 1963 and regulation of Lake Tohopekaliga began in early 1964. Because of environmental considerations, the regulation schedules for East Lake Tohopekaliga, Lake Tohopekaliga, Cypress Lake, Lake Hatchineha, and Lake Kissimmee were modified in 1971 and in 1979. The current regulation schedule is shown in Figure 11C.

Preliminary investigations conducted on Lake Tohopekaliga in 1968-69 indicated that desirable aquatic habitat was deteriorating. Major factors contributing to this deterioration were water level stabilization and pollution associated with watershed development, compounded by rapid population growth. To completely eliminate these problems, alternate methods of maintaining desirable aquatic habitat was explored. An extreme drawdown of Lake Tohopekaliga was recommended in 1969 as an experimental management effort to reduce, moderate, or reverse symptoms of habitat degradation. The extreme drawdown would cause a temporary negative impact on residents, merchants, and recreational users of the lake, but long-term benefits to the lake would far outweigh any short-term inconvenience. By early 1970 a basic program had been developed, and was accepted by the community and controlling governmental agencies.

The drawdown consisted of a 7-foot vertical drop in water level from high regulation stage of 55.0 feet NGVD to a drawdown stage of 48.0 feet NGVD. The lake elevation remained low for six months, from March to September 1971, with approximately 50 percent of the lake bottom exposed. As a result of the drought, refilling to low regulation stage of 52.0 feet NGVD was delayed until March 1972. A high regulation stage of 55.0 feet NGVD was achieved in March 1973. Beneficial changes occurred as a result of the drawdown yielding a significant improvement in fish population. Two years after the 1971 Lake Tohopekaliga extreme drawdown,

fish population in the vegetated areas of the lake more than doubled the pre-drawdown population.

Subsequent extreme drawdowns were achieved in 1979 and 1987. During the 1987 extreme drawdown of Lake Tohopekaliga, muck removal operations were first implemented. Aquatic habitat was restored and improved along 12 miles of shoreline during the three-month low water period. Over 215,000 cubic yards of organic debris were scraped from 217 acres of prime sport fish spawning, feeding, and rearing habitat. Fish population surveys completed in the spring of 1988 indicated that there was a 400 percent increase in the number of harvestable bass found off the scraped areas when compared to adjacent sites that were not scraped.

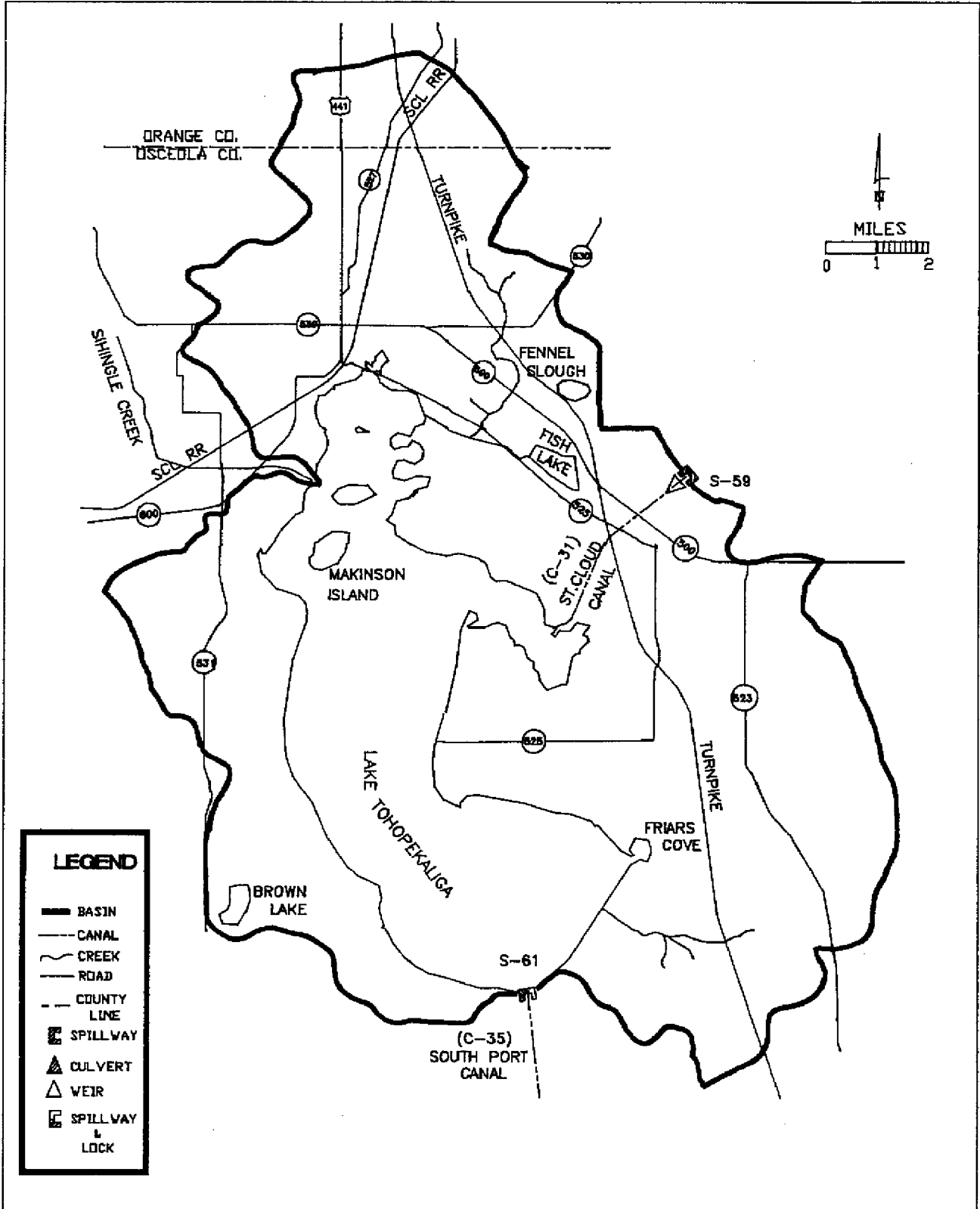


FIGURE 11A. Lake Tohopekaliga Basin (84,130 acres).

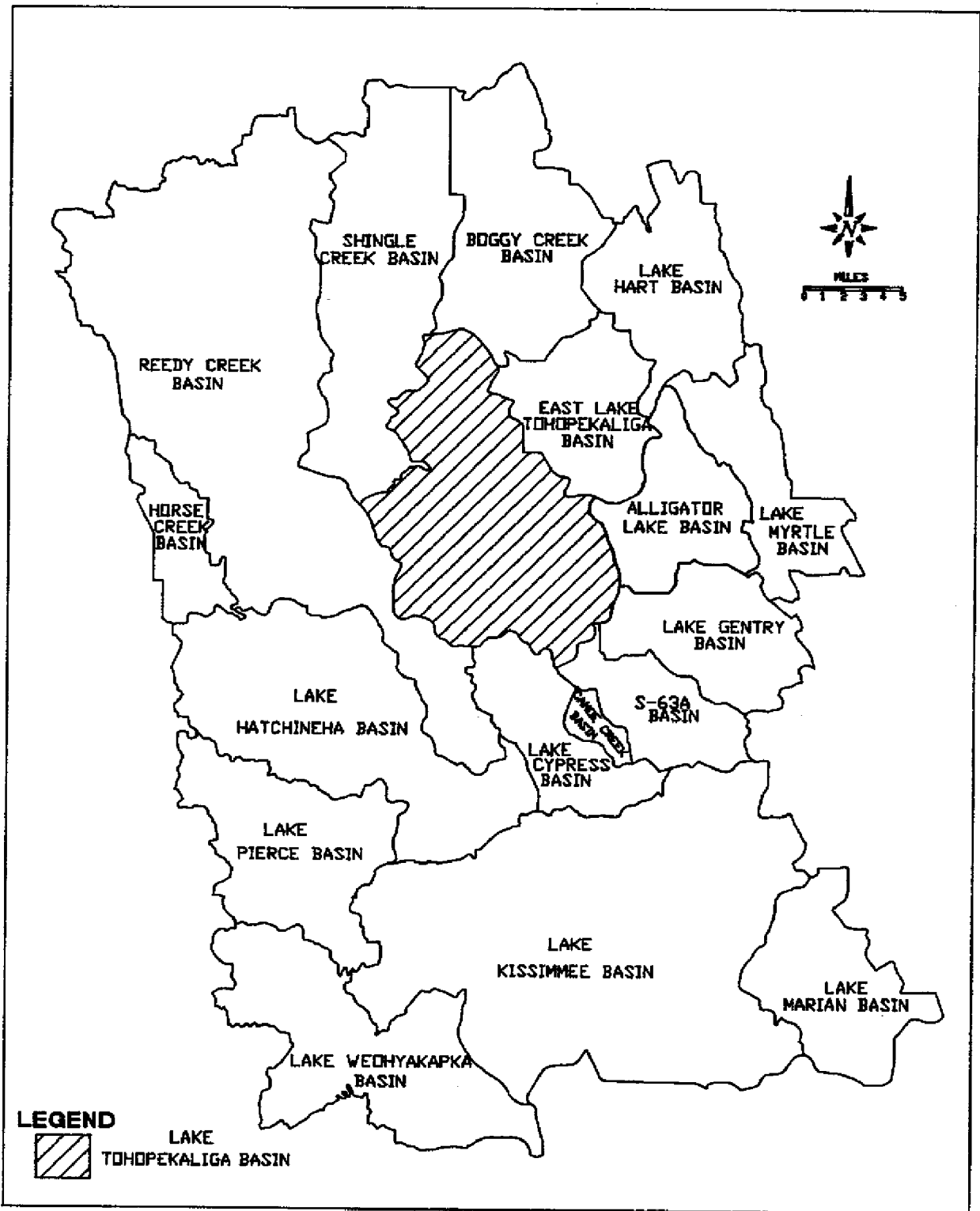
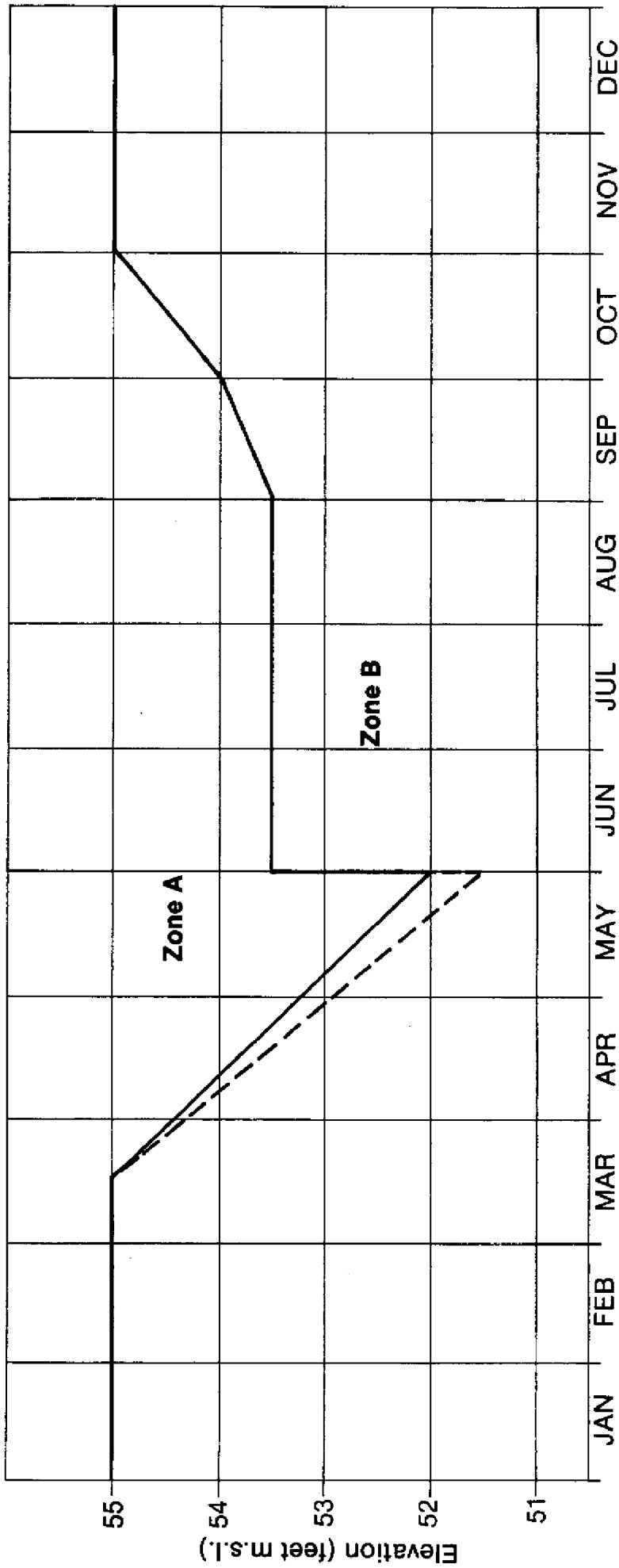


FIGURE 11B. Relative Location of Lake Tohopekaliga Basin within the UKRW.



Zone

Releases S-61

- A At design capacity (2300 cfs) except when the lake is within 0.5 feet of desired stage. Forecasts will then be made and releases started to bring the lake back to schedule within 15 days.
- B To maintain minimum flows.

Note: — — — Use this schedule one year in three.

FIGURE 11C. Lake Tohopekaliga Regulation Schedule.

REEDY CREEK BASIN

Description of the Basin

The Reedy Creek basin has an area of 269.0 square miles (Figure 12A), of which 25.1 square miles are in Lake County, 26.6 square miles in Polk County, 105.7 square miles in Orange County, and 111.6 square miles in Osceola County. This basin occupies the northwest corner of the Upper Kissimmee River basin, and its entire north area has a significant number of relatively small lakes. The Reedy Creek basin's relative location within UKRW is shown in Figure 12B.

Walt Disney World located in the Reedy Creek Improvement District is bordered on the north, west, and south by Reedy Creek and the northwest portion of Bay Lake. Reedy Creek runs southeast for 29 miles before splitting into two branches near Cypress Lake. One branch enters Cypress Lake and the other one, known as the Dead River, enters Lake Hatchineha. Historically 70 percent of the flow has gone to Lake Hatchineha. Reedy Creek forms Lake Russell, which has an area of 725 acres, and is located 7 miles upstream of Cypress Lake.

During extreme rainfall events, water from Reedy Creek north of Highway 600 can flow to Shingle Creek through the Reedy Creek swamp.

The portion of Reedy Creek basin operated by the District does not contain any water control structures; however, there are several structures within this basin that are operated by Walt Disney World.

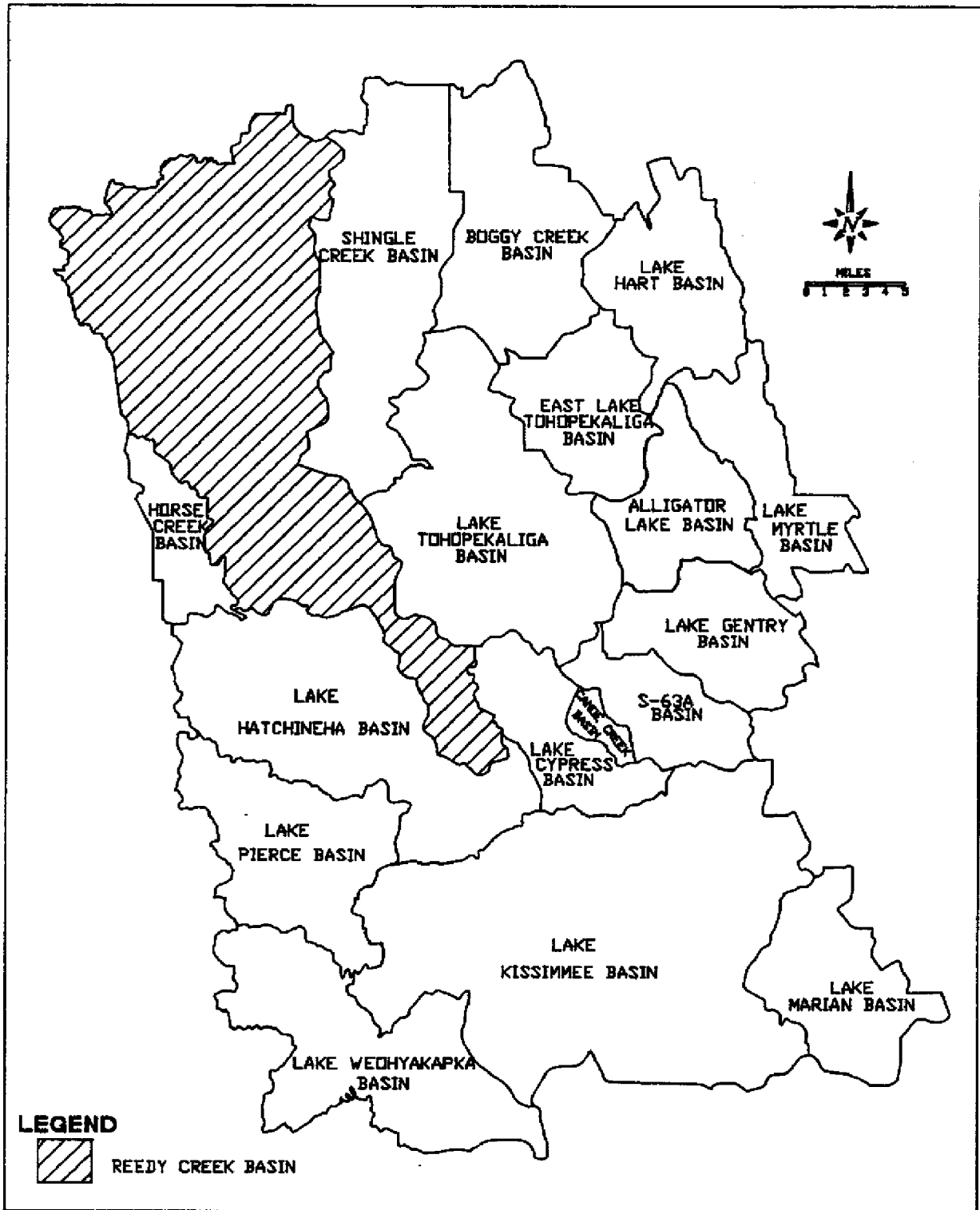


FIGURE 12B. Relative Location of Reedy Creek Basin within the UKRW.

HORSE CREEK BASIN

Description of the Basin

Horse Creek basin, which is in the western part of UKRW (Figure 13A) has an area of 26.5 square miles (Figure 13B). Only 11 percent of this area, located in Osceola County, is within the District's boundary line. Over 88 percent is in Polk County, and a small part of the basin is in Lake County.

This basin does not contain any water control structures.

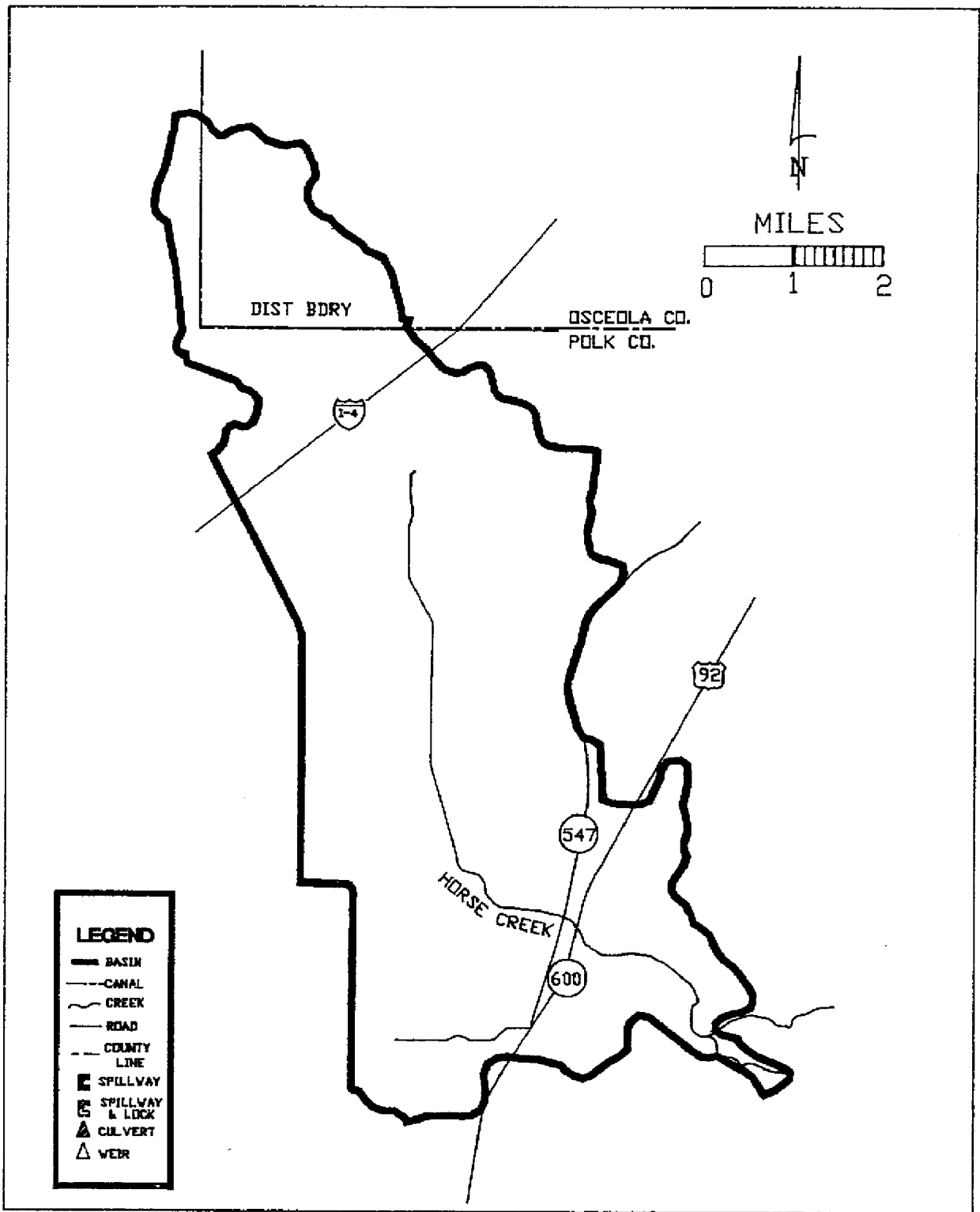


FIGURE 13A. Horse Creek Basin (16,960 acres).

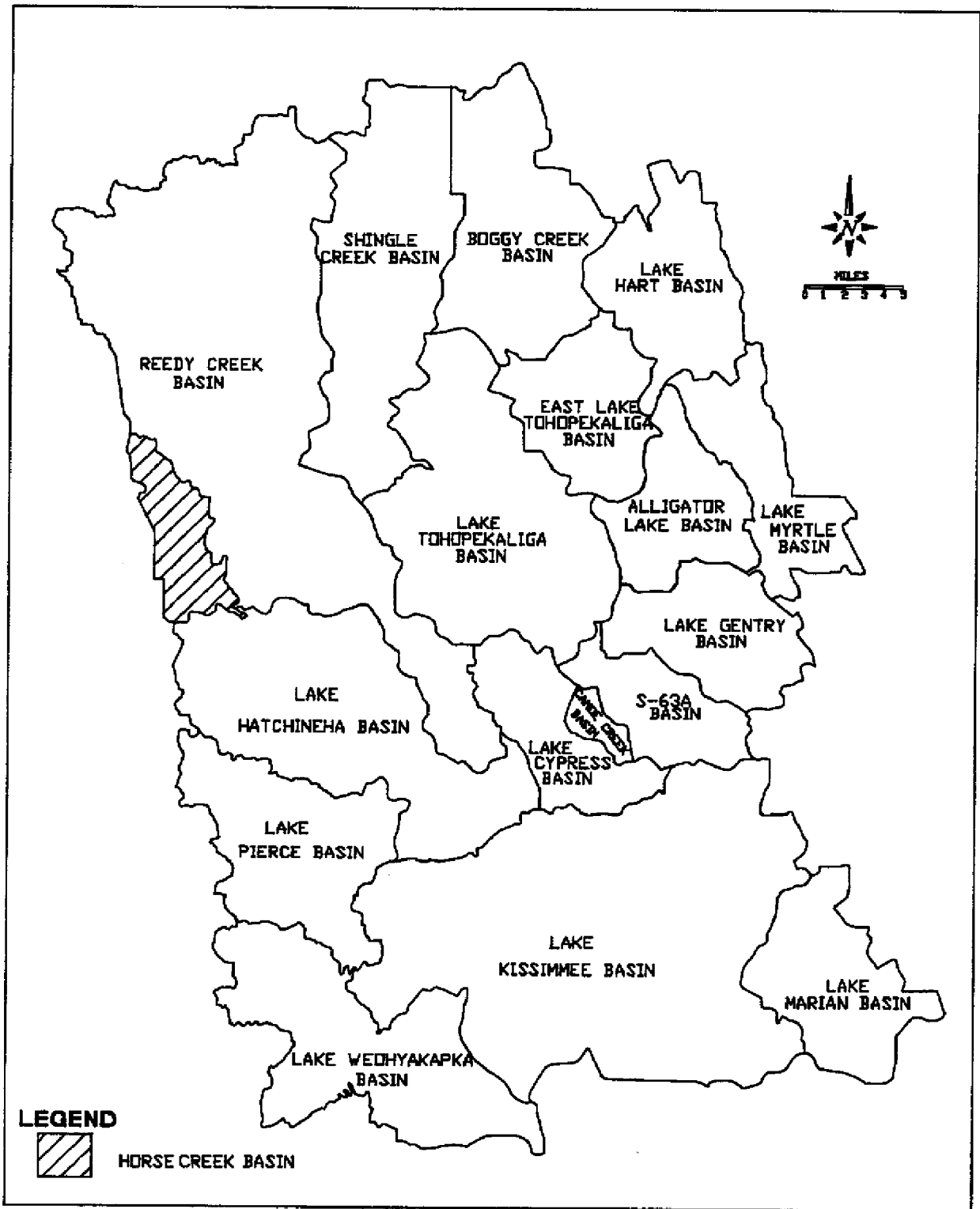


FIGURE 13B. Relative Location of Horse Creek Basin within the UKRW.

LAKE PIERCE BASIN

Description of the Basin

The Lake Pierce basin has an area of 75.9 square miles in area (Figure 14A), and is located in Polk County. This basin is located in the southwest portion of the UKRW (Figure 14B). Water from Lake Pierce, which has an approximate area of 6.1 square miles (at a stage of 76.0 feet NGVD), flows into Lake Hatchineha through Catfish Creek.

Saddlebag Lake, Thomas Lake, Parks Lake, Cypress Lake, Little Gum Lake and Big Gum Lake, which range from 25 to 170 acres in area, are in the southeast part of this basin.

This basin does not contain any water control structures.

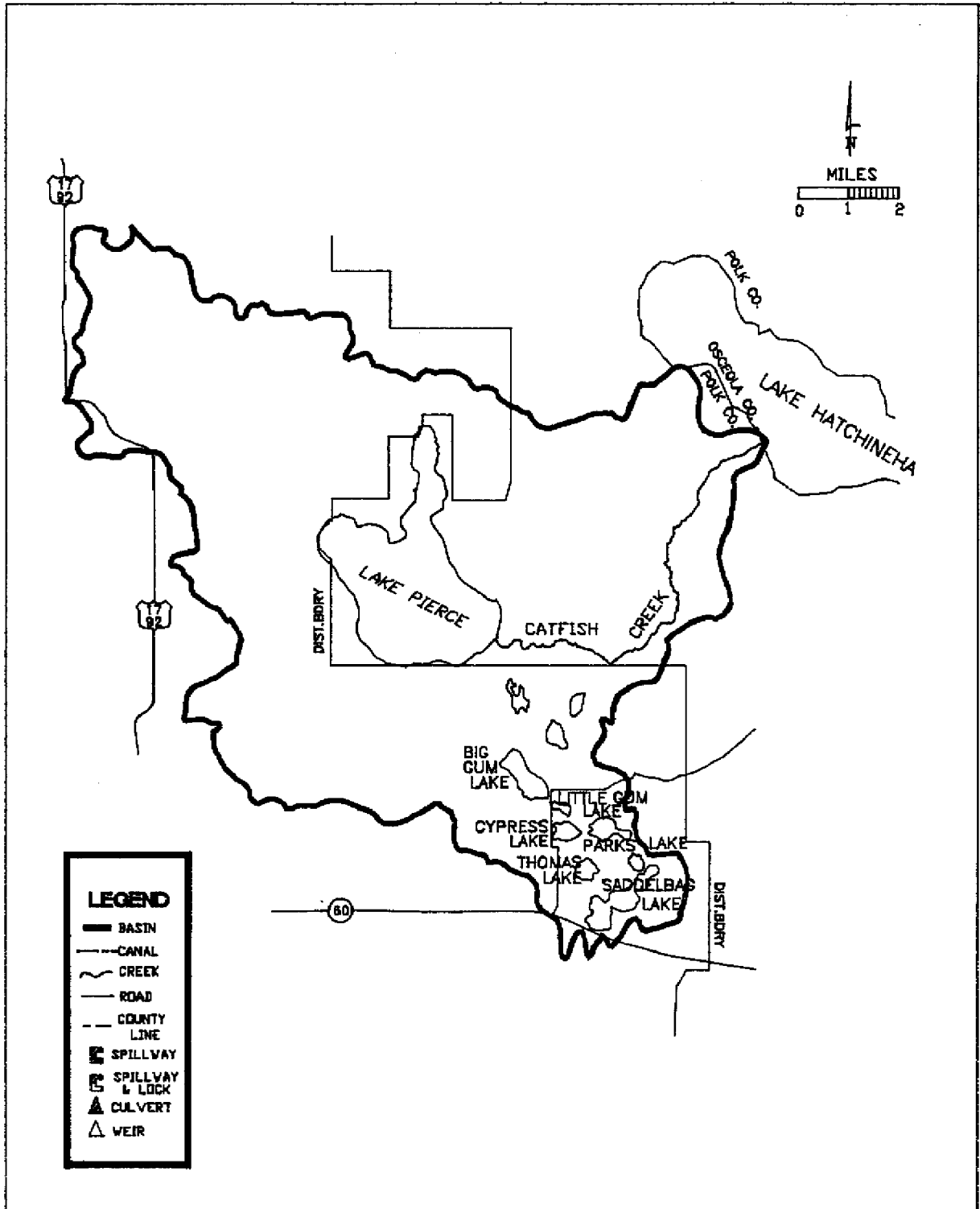


FIGURE 14A. Lake Pierce Basin (48,610 acres).

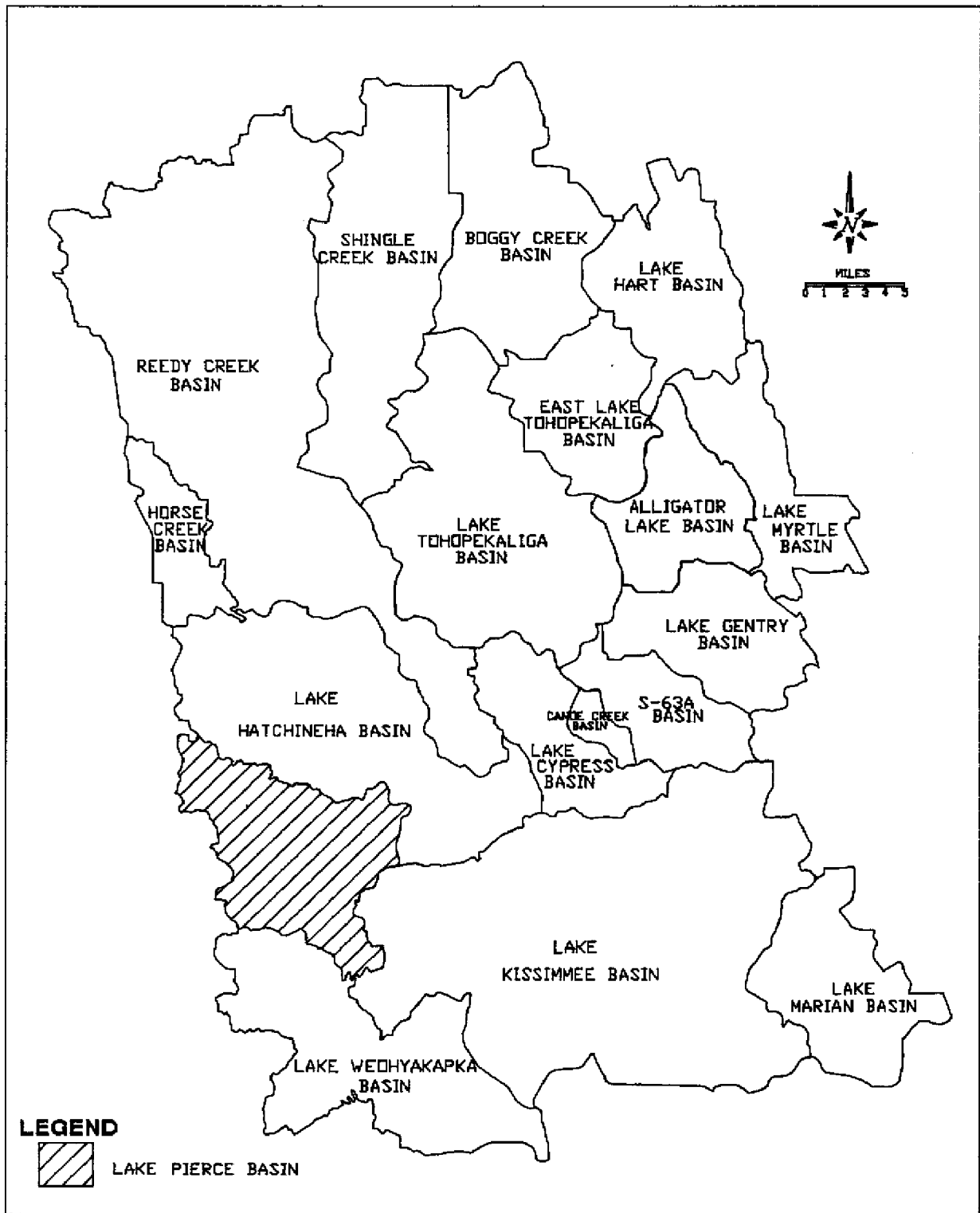


FIGURE 14B. Relative Location of Lake Pierce Basin within the UKRW.

LAKE HATCHINEHA BASIN

Description of the Basin

The Lake Hatchineha basin has an area of 128.5 square miles (Figure 15A), of which 33.3 square miles are located in Osceola County and 95.2 square miles in Polk County. This basin occupies the central-western portion of the UKRW (Figure 15B).

Lake Hatchineha is approximately 14.8 square miles at a stage of 51.8 feet NGVD, and most of its perimeter defines the boundary between Osceola County and Polk County. A considerable amount of the western part of this basin drains to Lake Marion which is approximately 5.4 square miles in area at 67.0 feet NGVD. Water from Lake Marion to Lake Hatchineha is conveyed by Lake Marion Creek. Snell Creek joins Lake Marion Creek just downstream of Lake Marion.

District Canals and Structures

Cypress-Hatchineha Canal (C-36) and part of Hatchineha-Kissimmee Canal (C-37) are in the Lake Hatchineha basin.

C-36 is 3.1 miles long connecting Cypress Lake to Lake Hatchineha. Its design floodwater surface varies from 53.6 feet NGVD to 53.3 feet NGVD (upper limit), and from 52.3 feet NGVD to 52.0 feet NGVD (lower limit) in Cypress Lake and in Lake Hatchineha, respectively. Its design slope is nearly flat, and its design bottom width is 20 feet.

Approximately half of C-37, which connects Lake Hatchineha to Lake Kissimmee, is within this basin. C-37 is 4.4 miles in length and has a design bottom width of 40 feet. Its design floodwater surface varies from 53.3 feet NGVD to 52.6 feet NGVD (upper limit), and from 52.0 feet NGVD to 51.5 feet NGVD (lower limit) in Lake Hatchineha and in Lake Kissimmee respectively. Its design slope is nearly flat.

S-65, located at the outlet of Lake Kissimmee on the Kissimmee River (C-38), regulates Lake Hatchineha together with Cypress Lake and Lake Kissimmee.

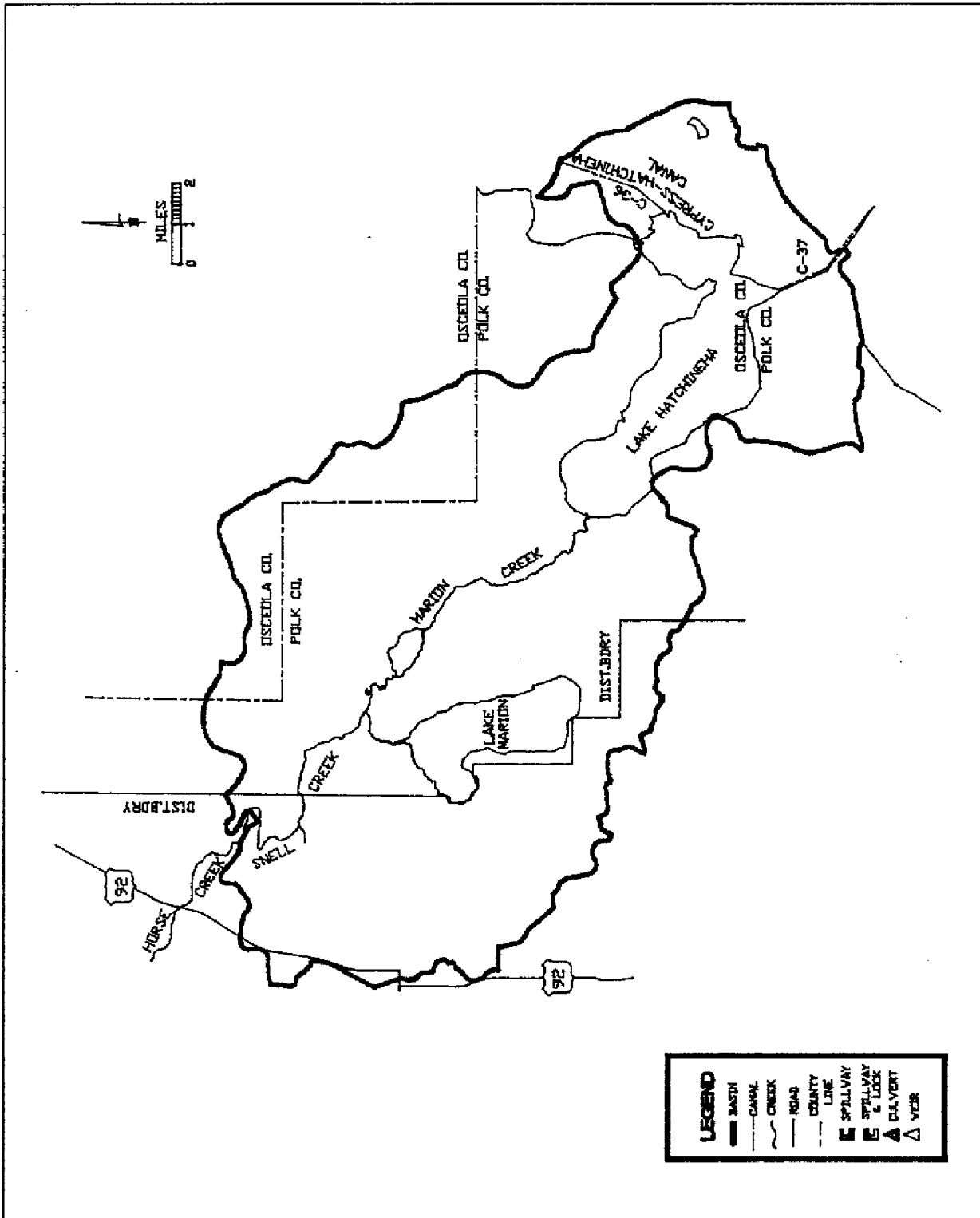


FIGURE 15A. Lake Hatchineha Basin (82,250 acres).

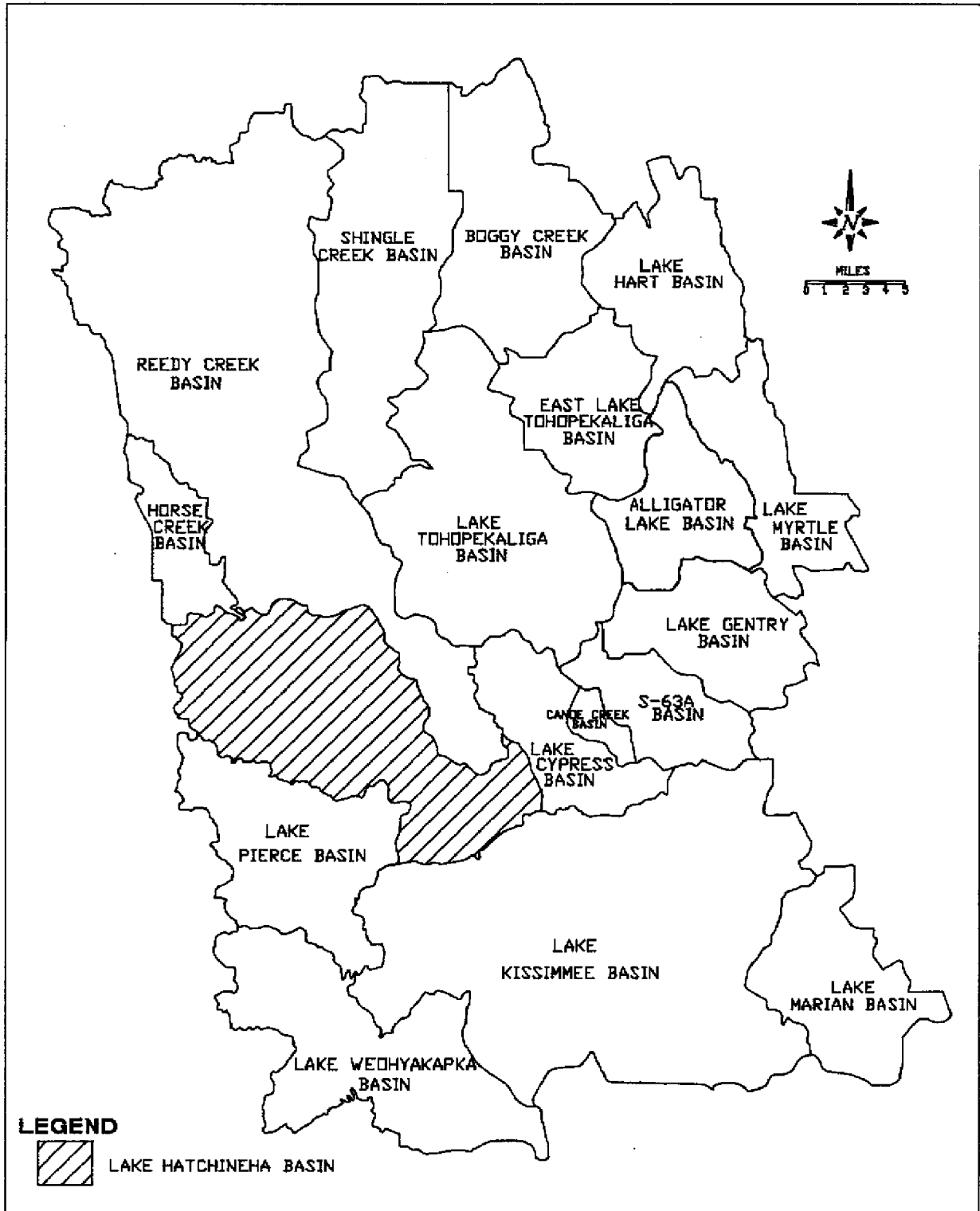


FIGURE 15B. Relative Location of Lake Hatchineha Basin within the UKRW.

LAKE MARIAN BASIN

Description of the Basin

Lake Marian basin, located in Osceola County, has an area of 57.9 square miles (Figure 16A) and occupies the southeast corner of the UKRW (Figure 16B). Lake Marian has a surface area of 7.9 square miles at a stage of 59.1 feet NGVD.

Lake Marian is connected to Lake Jackson by a channel less than 2 miles long. G-113 is located in this channel, 3,000 feet from the outlet of Lake Marian. This structure is a triple-barreled corrugated metal pipe culvert, 72 inches in diameter, which controls the discharge from Lake Marian to Lake Jackson. By means of the Jackson Canal, water from Lake Jackson discharges into Lake Kissimmee. This culvert is under an unimproved dirt road running southwest approximately 2.8 miles from its intersection with Canoe Creek Road (523).

Comments on Historic Operation

The principal outlet for Lake Marian has historically been Fodderstack Slough which connects with Jackson Canal. When water surface elevation at Lake Marian reaches 59.0 feet NGVD, water begins to flow into Lake Kissimmee through Fodderstack Slough.

The structure prevents overdraining Lake Marian and maintains optimum lake stages between 58.0 and 60.5 feet NGVD. When water surface elevation upstream of G-113 exceed 59.0 feet NGVD, water begins flowing to Lake Jackson. The stop logs on G-113 are set at an elevation of 59.0 feet NGVD under normal conditions. The number of boards in the risers are adjusted to regulate the lake stage within the optimum range.

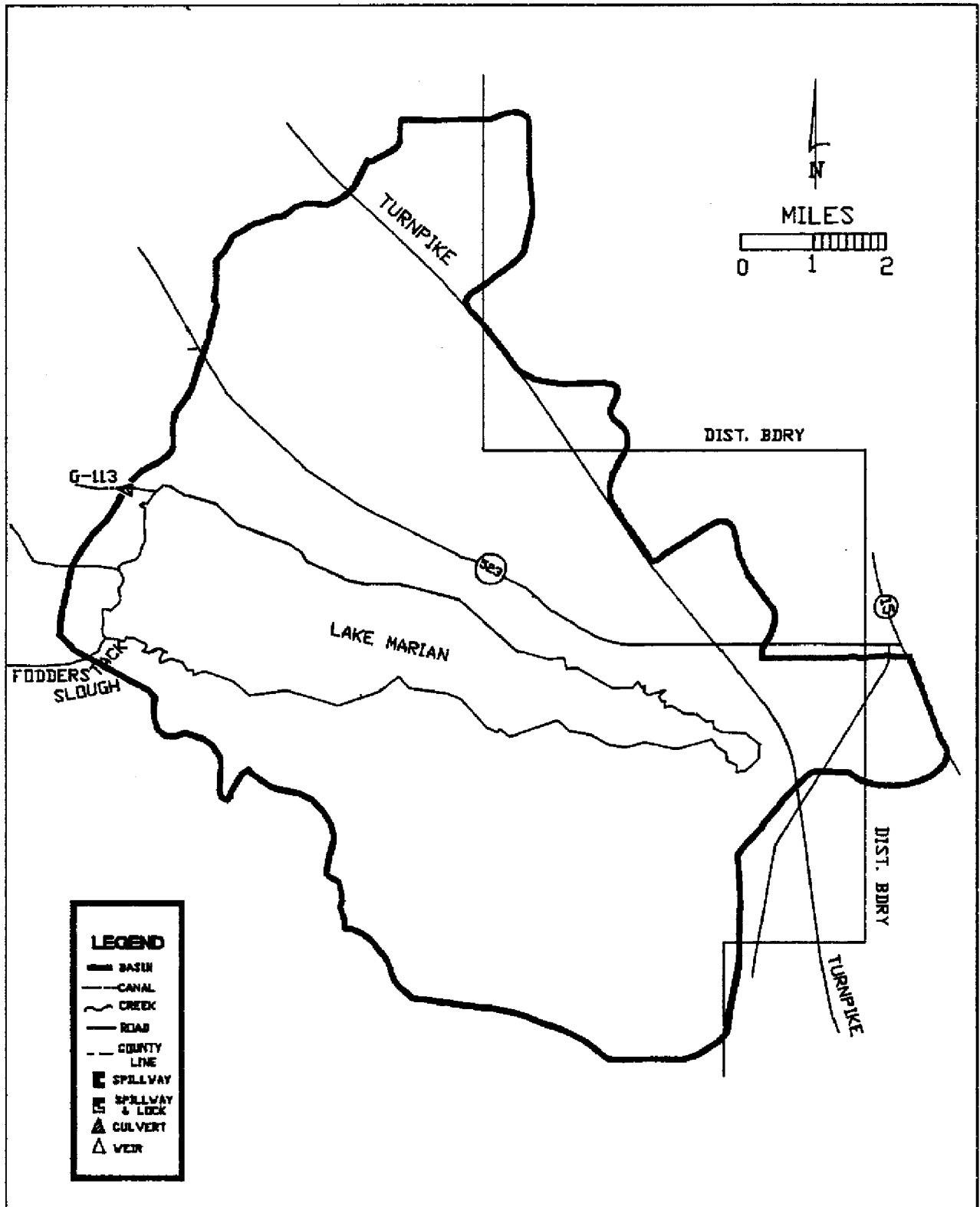


FIGURE 16A. Lake Marian Basin (37,040 acres).

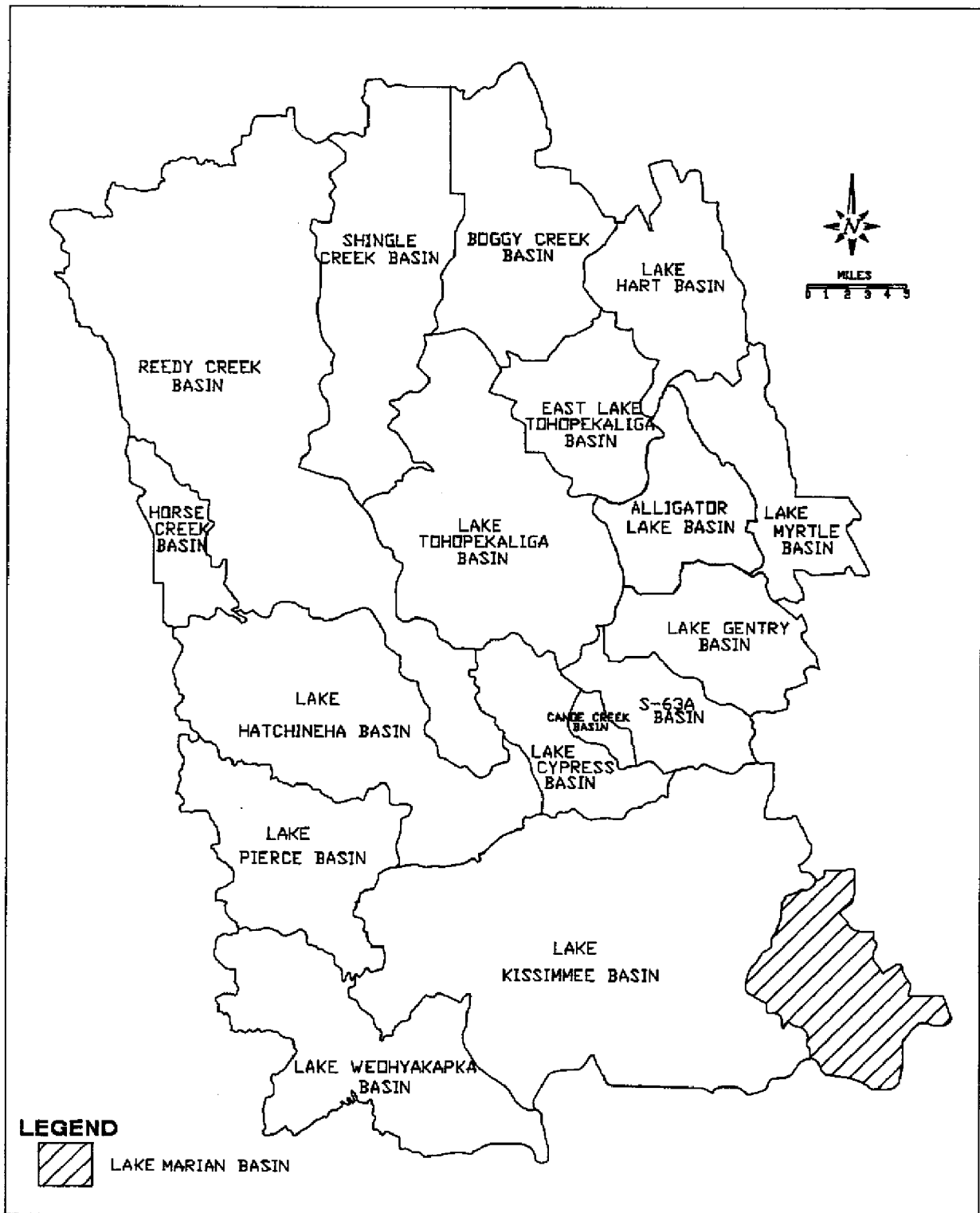


FIGURE 16B. Relative Location of Lake Marian Basin within the UKRW.

LAKE WEOHYAKAPKA BASIN

Description of the Basin

The Lake Weohyakapka basin, located in Polk County, has an area of 97.8 square miles (Figure 17A). This basin occupies the southwest corner of the UKRW (Figure 17B). Approximately 50 percent of Lake Weohyakapka basin (western section) is outside of the District's boundary line. Lake Weohyakapka is 11.9 square miles in area at a stage of 60.0 feet NGVD, and is connected to Lake Rosalie by Weohyakapka Creek, which is 4.5 miles long. Lake Wales, Lake Easy, Lake Leonore and Lake Moody which average 320 acres in size, are located along the western boundary of this basin.

When the stage at Lake Weohyakapka is above 63.5 feet NGVD, water may also flow through Blue Jordan Swamp to Lake Arbuckle, located outside of the UKRW.

This basin does not contain any water control structures.

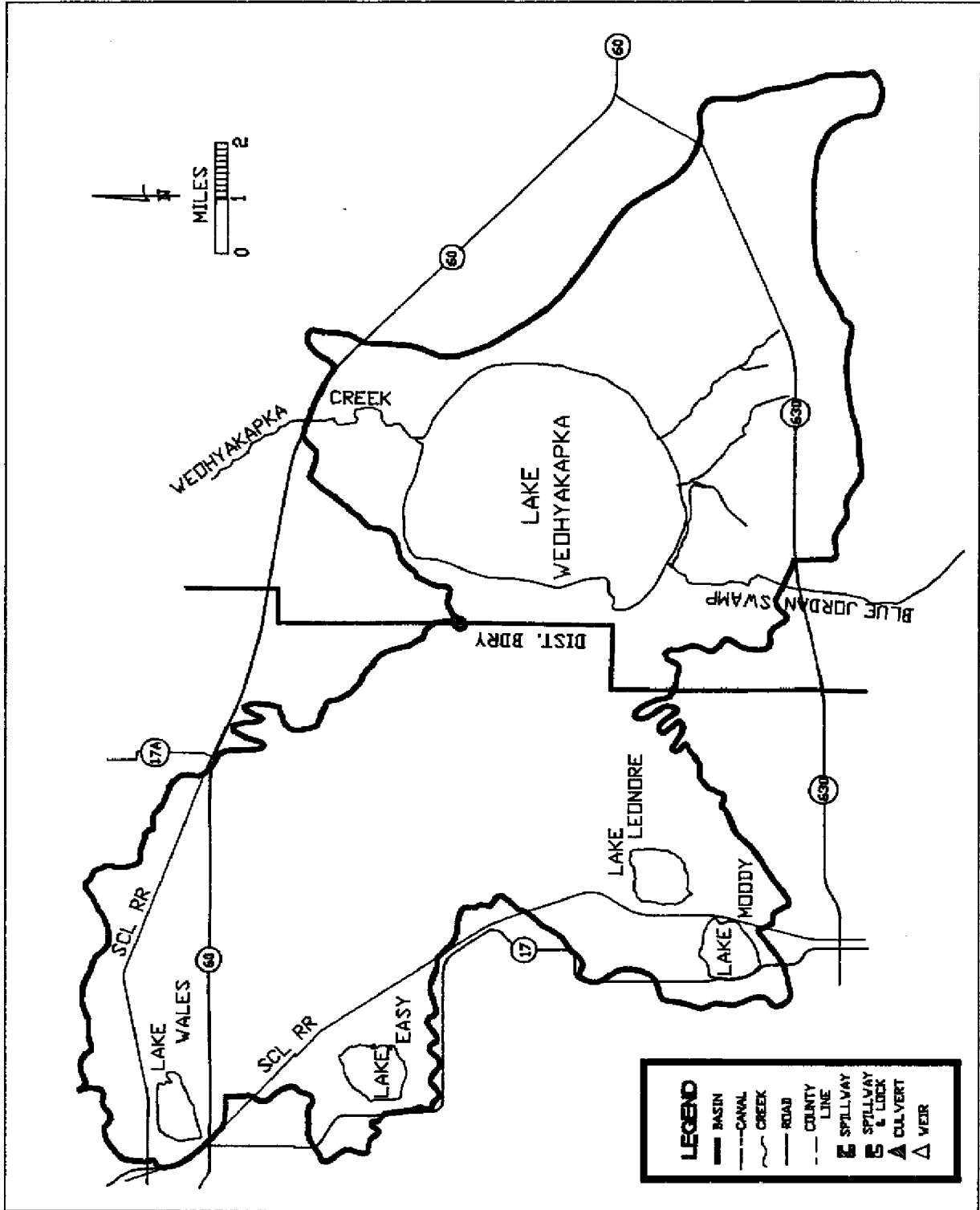


FIGURE 17A. Lake Weohyakapka Basin (62,600 acres).

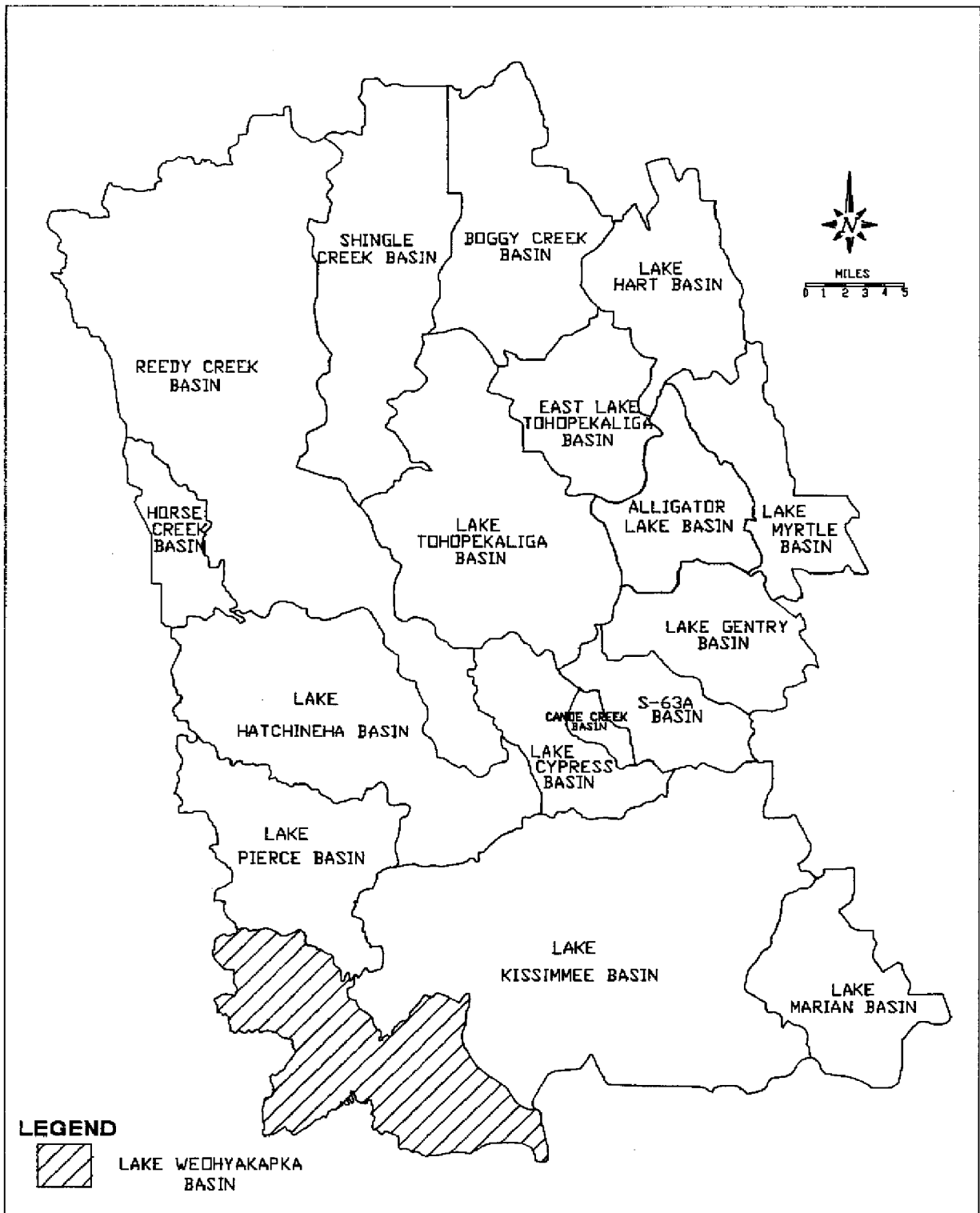


FIGURE 17B. Relative Location of Lake Weohyakapka Basin within the UKRW.

LAKE KISSIMMEE BASIN

Description of the Basin

The Lake Kissimmee basin has an area of 269.1 square miles (Figure 18A), of which 175 square miles is located in Osceola County and 94.1 square miles in Polk County. This basin occupies a considerable portion of the southern area of the UKRW (Figure 18B). The west side of Lake Kissimmee forms the boundary between Osceola County and Polk County.

Four major lakes are in this basin: Lake Kissimmee (55.5 square miles at a stage of 50.8 feet NGVD); Lake Jackson (1.6 square miles at 51.0 feet NGVD) located in Osceola County; Lake Rosalie (9.1 square miles at 53.5 feet NGVD); and Tiger Lake (4.8 square miles at 51.0 feet NGVD) located in Polk County. Lake Jackson receives water from Lake Marian basin by G-113. Jackson Canal conveys water from Lake Jackson and Lake Marian to Lake Kissimmee. Lake Rosalie discharges into Tiger Lake by means of Rosalie Creek, and Tiger Lake discharges into Lake Kissimmee through Tiger Creek. Also, Lake Rosalie is connected directly to Lake Kissimmee by Zipprer Canal located in Kissimmee Park. Lake Kissimmee is the largest lake of the UKRW. The S-65 structure located at the outlet of Lake Kissimmee represents the discharge outlet point for surface flows leaving the entire UKRW.

District Canals and Structures

The downstream half of C-37 connecting Lake Hatchineha to Lake Kissimmee is in the Lake Kissimmee basin. The characteristics of C-37 are described in the section on Lake Hatchineha basin.

G-103, located at the northern end of the lake on the Zipprer Canal, regulates Lake Rosalie. The structure is a steel sheet pile weir with flashboard control and controls, in part, the level of Lake Rosalie. The natural outlet of Lake Rosalie, however, is Rosalie Creek, at the south end of the lake, which discharges into Tiger Lake.

S-65 regulates Cypress Lake, Lake Hatchineha and Lake Kissimmee. This structure is on the Kissimmee River (C-38) at the outlet of Lake Kissimmee. The structure is a reinforced concrete, three-gated spillway controlled by three cable-operated, vertical lift gates. The spillway is manually controlled in accordance with seasonal operational criteria. This structure also contains a reinforced concrete lock with two pairs of sector gates. The purposes of S-65 are: (1) to maintain optimum upstream water control stages in Lake Kissimmee, (2) to pass the design flood (30 percent of the SPF) without exceeding the upstream flood design stage, and to restrict downstream flood stages and channel velocities to nondamaging levels, (3) to prevent overtopping of the structure by wave action from Lake Kissimmee during the design storm and wind tide, and (4) to pass sufficient discharge during low-flow periods to maintain downstream stages. The lock structure is 30 feet wide by 90 feet long with downstream invert elevation at 38.0 feet NGVD and upstream invert elevation at 40.5 feet NGVD.

Comments on Historic Operation

G-103 is operated whenever Lake Rosalie is above schedule (54.0 to 54.5 feet NGVD). Required discharges are calculated to bring the lake to regulation schedule within two weeks by appropriate manipulation of the flashboards and uncontrolled flows in Rosalie Creek. The water level which will bypass the structure is 57.0 feet NGVD.

S-65 is operated in accordance with the Lake Kissimmee regulation schedule, which ranges between 49.0 and 52.5 feet NGVD, and indicates the desirable water level throughout the year. Flood operation is followed if the water surface elevation is above the prescribed level. Low-water operation is followed if the water-surface elevation is below the prescribed level. The operation depends also on hydraulic and structural limitations of the structure.

Flood Control Operation: When the water level in Lake Kissimmee is less than 0.5 feet above the prescribed level, a release schedule based on forecasted inflow is established to return the lake to that level within 15 days. When the lake stage is over 0.5 feet from the prescribed level, maximum releases are made, subject to hydraulic and structural limitations. Maximum releases range from 3,000 cfs to 11,000 cfs, and depending on inflow between S-65 and S-65A, the flow at S-65A is regulated in such a way that it does not exceed 11,000 cfs. S-65A is located on the Kissimmee River (C-38) nearly 10.6 miles downstream of S-65.

Low-Water Operation: Whenever the lake level is below the prescribed level, minimum releases are made to satisfy downstream navigation demands.

Structural Limitations: The maximum water level drop across the structure is 10 feet.

Hydraulic Limitations: The gate opening is limited in accordance with the "Maximum Allowable Gate Opening Curve," to prevent damage from high velocities. The gate also has to be opened gradually to allow tailwater stages to rise before large discharges are released.

The schedule of lock operation is based on the River and Harbor Act of August 8, 1917, established by the COE.

Lake Hatchineha and Cypress Lake, together with Lake Kissimmee, are regulated by S-65 located at the outlet of Lake Kissimmee. The original GDM called for Lake Hatchineha and Cypress Lake to be regulated together, and independent of Lake Kissimmee by a structure in C-37 located between Lake Hatchineha and Lake Kissimmee. Water elevations in Hatchineha and Cypress lakes were to be one foot higher than that for Lake Kissimmee; however, it was determined feasible to combine the regulation schedules of all three lakes, whereby the upper level of the Kissimmee regulation schedule would be raised by 0.5 feet, and the Hatchineha and Cypress lakes' upper level of their regulation schedules would be lowered by 0.5 feet. Regulation began in August 1964 once construction of S-65 was completed. The current regulation schedule is shown in Figure 18C.

The extreme drawdown of Lake Kissimmee was completed in October 1977. Its main purpose was to restore and maintain quality aquatic habitat in the lake to stimulate sport fish populations. All major sport fish species were positively affected by this drawdown. Bottom sediments were consolidated and coverage of vegetation communities was improved. The effects of the drawdown were further

documented by fish population studies and creel survey which were continued through 1982. Rainfall patterns and lake stages recorded throughout this four-year study (1979-1982) were erratic. In late summer of 1979, two tropical disturbances affected the Kissimmee River Valley and nearly 20 inches of rainfall was recorded in the city of Kissimmee. Lakes in the UKRW exceeded their high regulation stages and remained high during the winter. In the summer of 1980, normal rainfall did not occur; unusually dry weather continued throughout 1980 and 1981. The District determined that this deficit rainfall period had produced a drought with a frequency of 1 in 200 years. Water stages in Lake Kissimmee dropped steadily throughout 1980, and the lake levels fluctuated barely 1 foot during the drought.

Public concern over the drought focused attention on the practice of overdraining the lakes in the UKRW by June 1 of each year in anticipation of the rainy season. Regulation schedules dictate discharges throughout the normal rainy season (June-August). By premature overdraining for the rainy season and possible hurricanes, water is removed from Lake Kissimmee and seldom recovered in late summer when the lake stages are scheduled to rise. In fact, from 1970 through 1982, Lake Kissimmee had reached a high regulation stage (52.5 feet NGVD) only three times. Prior data from 1943 to 1960 indicated that Lake Kissimmee reached an elevation of 52.5 feet NGVD in 9 of 18 years.

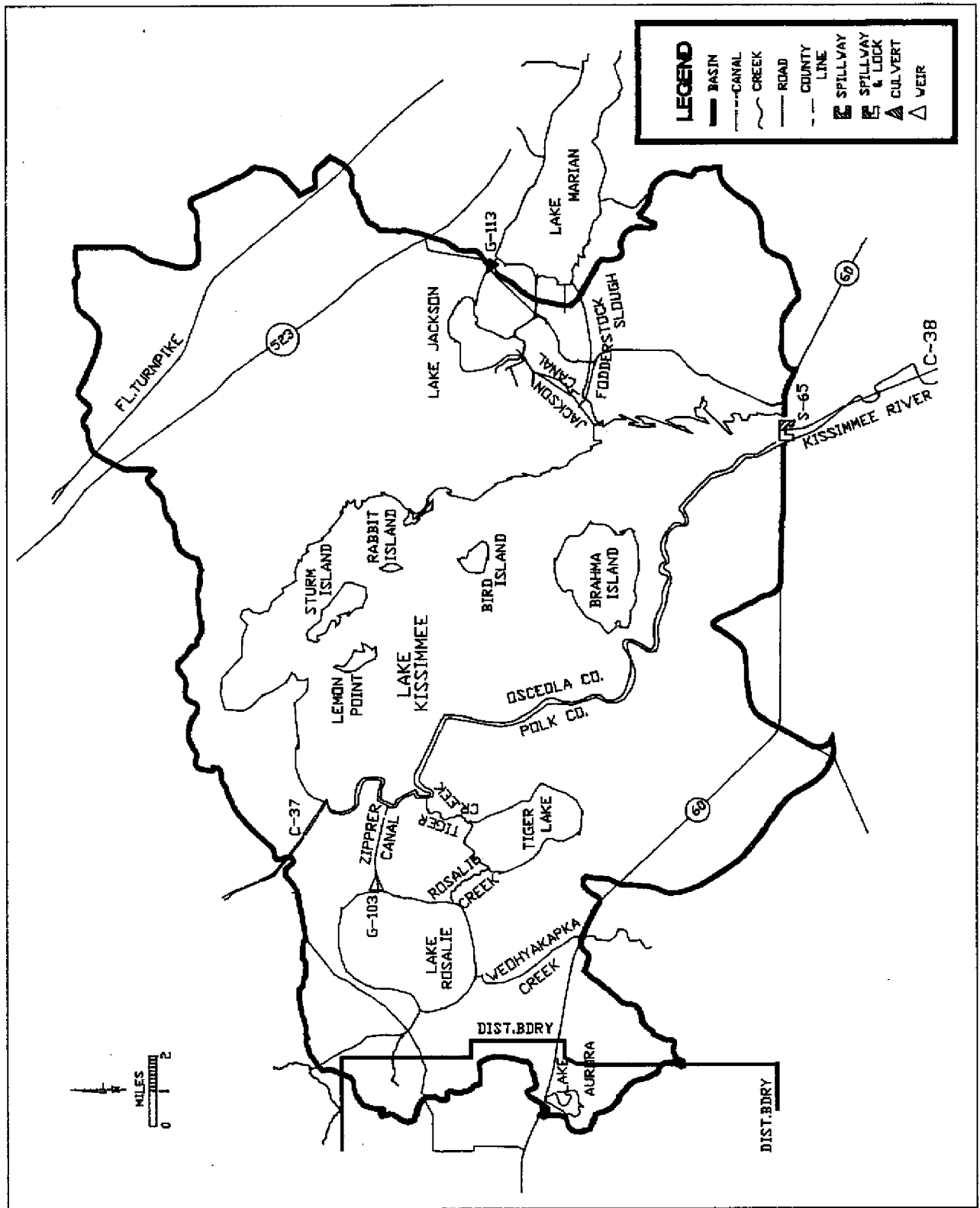


FIGURE 18A. Lake Kissimmee Basin (172,300 acres).

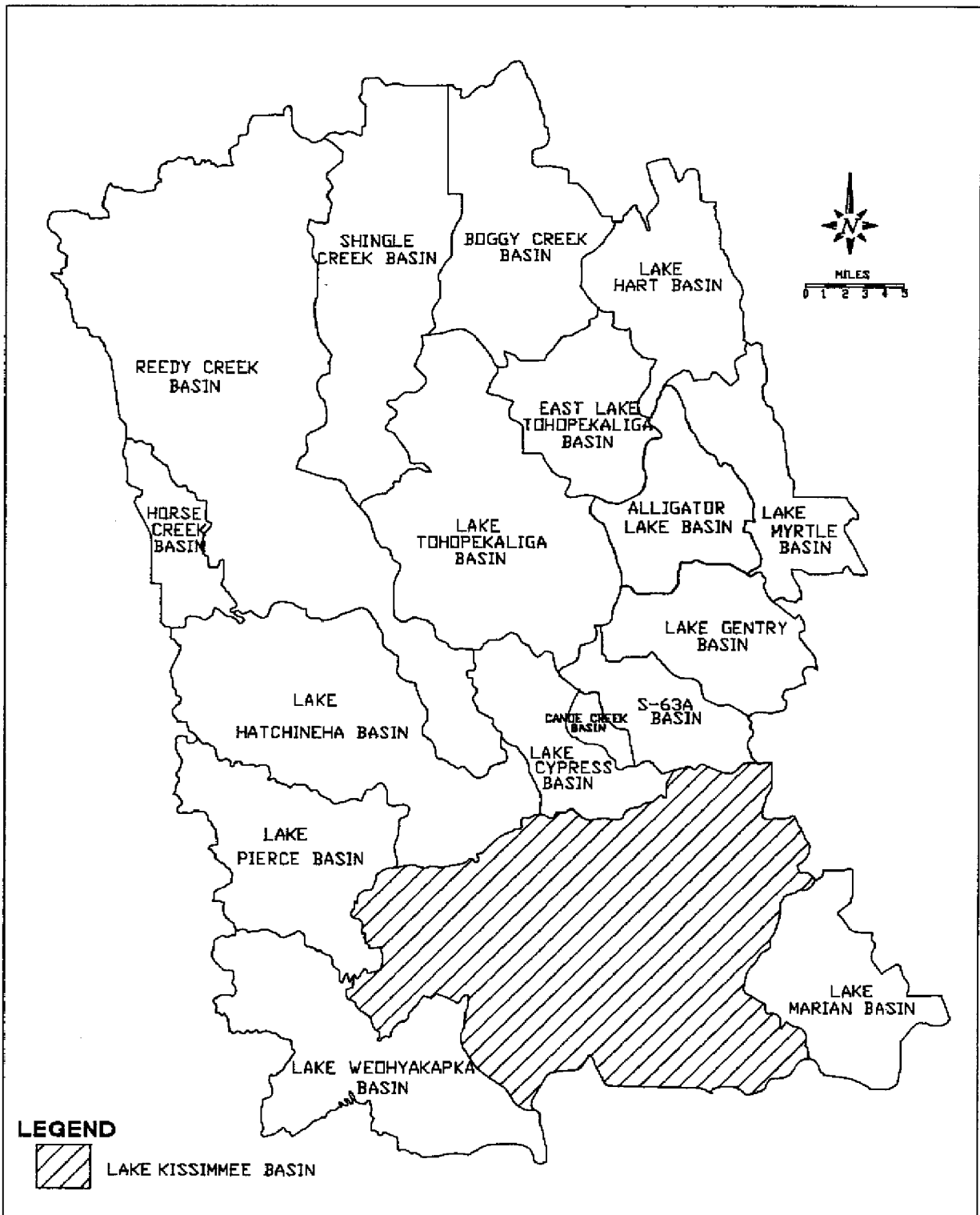
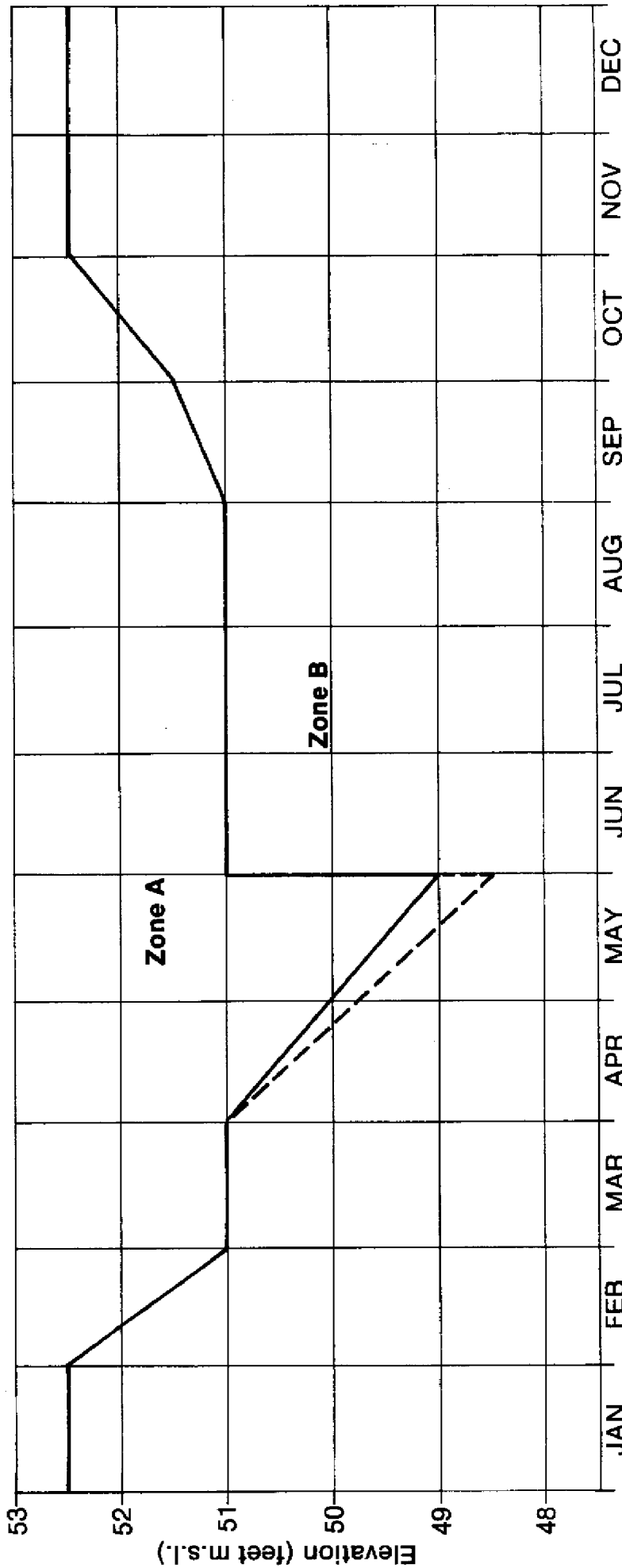


FIGURE 18B. Relative Location of Lake Kissimmee Basin within the UKRW.



Releases S-65

Zone

A 3,000 cfs, up to design capacity (11,000 cfs) without exceeding design conditions downstream. When the lake is within 0.5 feet of desired stage, forecasts will then be made and releases started to bring the lake back to schedule within 15 days.

B To maintain minimum flows.

Note: - - - Use this schedule one year in three.

FIGURE 18C. Lake Kissimmee Regulation Schedule.

BIBLIOGRAPHY

- Burns, J.R. Kissimmee River Study: An Application of Spatial Analysis Methodology. U. S. Army Corps of Engineers, Jacksonville, FL.
- Central and Southern Florida Flood Control District. July 1958 (revised Sept. 1963). The Water Control Program Proposed for the Upper Kissimmee Basin. West Palm Beach, FL. Technical Memorandum.
- Central and Southern Florida Flood Control District., Planning Engineering Section. Dec. 1959. Installation of Project Works in Upper Kissimmee Area Prior to C-38. West Palm Beach, FL.
- Central and Southern Florida Flood Control District, Planning and Administrative Services Department, Planning-Engineering Section. Dec. 1959. A Study of Installation of Project Works in the Upper Kissimmee Lakes Area Prior to Completion of C-38. West Palm Beach, FL.
- Central and Southern Florida Flood Control District. March 1975. Lake Okeechobe - Kissimmee Basin Proposals for Management Actions. West Palm Beach, FL.
- Central and Southern Florida Flood Control District. Sept. 1979. Kissimmee River, Florida, Reconnaissance Report (Stage 1). West Palm Beach, FL.
- Central and Southern Florida Flood Control District. Sept. 1989. Flood Control and Other Purposes. Part II, Supplement 20 (Revised). General Design Memorandum.
- East Lake Tohopekaliga (draft). 1990. Extreme drawdown and Muck Removal Project An Aquatic Habitat and Fishery Management Program. Florida Game and Fresh Water Fish Commission, Kissimmee, FL.
- Fan, A. and S. Lin. July 1984. Water Budget for Upper Kissimmee Chain of Lakes. South Florida Water Management District, West Palm Beach, FL. Techn. Memorandum.
- Fan, A. Sept. 1986. A Routing Model for the Upper Kissimmee Chain of Lakes. South Florida Water Management District, West Palm Beach, FL. Technical Publication 86-5.
- Florida Water and Related Land Resources. 1974. Kissimmee-Everglades Area: Report on Water and Related Land Resources Availability and Use in the Kissimmee-Everglades Area. Florida Dept. of Natural Resources, Tallahassee, FL.
- HDR Engineering, Inc. June 1989. Development of a Surface Water Improvement and Management Plan for Lake Tohopekaliga/East Lake Tohopekaliga. Technical Report. Tampa, FL.
- Huber, W.C., et al. May 1976. Final Report: Environmental Resources Management Studies in the Kissimmee River Basin. Dept. of Environmental Engineering Sciences, University of Florida, Gainesville, FL.
- Lake Tohopekaliga Drawdown Study, Completion Report. July 1, 1970-June 30, 1974. Florida Game and Fresh Water Fish Commission. William Wegener and Vance Williams.
- Lane, J., T. McCann, S. T. Lin. April 1979. Floodplain Management Studies of the Shingle Creek Basin. Dept. of Environmental Regulation. Technical Series Vol. 2 No. 2. South Florida Water Management District, West Palm Beach, FL.
- MacVicar, T. K. May 1981. Frequency Analysis of Rainfall Maximums for Central and South Florida. South Florida Water Management District, West Palm Beach, FL. Technical Publication 81-3.
- Reynolds, Smith and Hills. Sept. 1974. Inventory of Existing Flooding Conditions (Flood Plain Information). Shingle Creek, Orange and Osceola Counties. Orlando, FL.
- Save Our Rivers, Water Management Lands Trust Fund, Five Year Plan-1990. South Florida Water Management District, West Palm Beach, FL.
- South Florida Water Management District Local Government Assistance Program. Nov. 1987. Data Documentation for Osceola County. West Palm Beach, FL.
- South Florida Water Management District. Jan. 1988. Boggy Creek Water Quality Management Study, Final Report. West Palm Beach, FL.
- U. S. Dept. of Agriculture, Soil Conservation Service and the Florida Dept. of Natural Resources. 1972. Florida Land and Water Resources Study in the Kissimmee-Everglades Area. U. S. Dept. of Agriculture Soil Conservation Service, Fort Worth, TX.

U.S. Dept. of Agriculture. 1973. Upper Kissimmee Basin: Soil Conservation District Planning Units. River Basin Investigations. Soil Conservation Service Appendix to Report for Kissimmee-Everglades Area. Gainesville, FL.

U. S. Army Corps of Engineers. Oct. 1956. Central and Southern Florida Project for Food Control and Other Purposes: Part II: Kissimmee River Basin and Related Areas, Supplement 5. General Design Memorandum, Kissimmee River Basin. U. S. Army Corps of Engineers, Jacksonville, FL.

U. S. Army Corps of Engineers. June 1961. Central and Southern Florida Project for Food Control and Other Purposes: Part II: Kissimmee River Basin and Related Areas, Supplement 10. Detail Design Memorandum, Canals 31 and 35 (St. Cloud and South Port Canals) and Control Structures 59 and 61. U. S. Army Corps of Engineers, Jacksonville, FL.

U. S. Army Corps of Engineers. Sept. 1962. Central and Southern Florida Project for Food Control and Other Purposes: Part II: Kissimmee River Basin and Related Areas, Supplement 14. Detail Design Memorandum, Canals 36 and 37 (Cypress-Hatchineha Canal and Hatchineha-Kissimmee Canal). U. S. Army Corps of Engineers, Jacksonville, FL.

U. S. Army Corps of Engineers. Sept. 1964. Central and Southern Florida Project for Food Control and Other Purposes: Part II: Kissimmee River Basin and Related Areas, Supplement 16. Detail Design Memorandum, Canals 33 and 34 (Alligator-Gentry Canal and Canoe Creek Canal). U. S. Army Corps of Engineers, Jacksonville, FL.

U. S. Army Corps of Engineers. July 1966. Central and Southern Florida Project for Food Control and Other Purposes: Part II: Kissimmee River Basin and Related Areas, Supplement 18. Detail Design Memorandum, Canals 29, 29A, 29B, and Control Structure 62. U. S. Army Corps of Engineers, Jacksonville, FL.

U. S. Army Corps of Engineers. Nov. 1965. Central and Southern Florida Project for Food Control and Other Purposes: Part II: Kissimmee River Basin and Related Areas, Supplement 17. Detail Design Memorandum, Canals 30 and 32, and Control Structure 57 and 58. U. S. Army Corps of Engineers, Jacksonville, FL.

U. S. Army Corps of Engineers. April 1979. Expanded Flood Plan Information: Boggy Creek Basin, Orange and Osceola Counties, Florida. Volume 1 General Report. U. S. Army Corps of Engineers, Jacksonville, FL.

U. S. Army Corps of Engineers. April 1961. Boggy Creek Basin, Orange and Osceola Counties, Florida. U. S. Army Corps of Engineers, Jacksonville, FL.

U. S. Army Corp of Engineers. August 1984. Kissimmee River Executive Summary. U. S. Army Corp of Engineers, Jacksonville, FL.

U. S. Army Corp of Engineers. August 1984. Central and Southern Florida/Kissimmee River, Florida. August 1984. Feasibility Report and Environmental Impact Statement. U. S. Army Corps of Engineers, Jacksonville, FL.

U. S. Army Corp of Engineers. Sept. 1985. Central and Southern Florida/Kissimmee River, Florida. August 1984. (Final) Feasibility Report and Environmental Impact Statement. U. S. Army Corps of Engineers, Jacksonville, FL.

VTN, Inc. Feb. 1976. Hydrologic Analysis of Flood Plain Information Report on Boggy Creek in Orange and Osceola Counties, Florida. Orlando, FL.

APPENDIX 1 - BASIC CONCEPTS

Runoff and Drainage - All the water moving in the landlocked portion of the hydrological cycle derives either directly or indirectly from precipitation, also known as rainfall. Several things can happen to rain after it falls to earth. At the beginning of a rainfall event, part of it forms the surface retention. Surface retention consists mainly of two hydrologic processes, which are interception and depression storage, and in minor proportion, evaporation during the storm (or rainfall itself). This part of the rainfall is stored on the vegetal cover as interception and, as rain continues, in surface puddles as depression storage. These components are commonly unified as initial abstractions. After this, most of the water reaching the ground surface will tend to infiltrate through the soil. As the soil becomes saturated, infiltration rate tends to decrease, and at the same time, evapotranspiration begins playing its role. The process of ET, evapotranspiration, consists of evaporation and transpiration. Evaporation is briefly defined, in this case, as the process by which water is changed into a gas and returned to the atmosphere. Transpiration is the process by which water vapor escapes from a living plant, principally the leaves, and enters the atmosphere. In field conditions it is practically impossible to differentiate between evaporation and transpiration if the ground surface is covered by vegetation. The two processes are commonly linked together and referred to as evapotranspiration.

Once infiltrating water has passed through the surface layers, it percolates downward under the influence of gravity until it reaches the saturation zone at the phreatic surface or "water table". This zone is also known as groundwater. Many soils in South Florida are sandy and underlying rock strata. Flow of water is easily accomplished through these permeable soils. When the water table level is higher than the local surface water levels, water will enter the surface water from groundwater. When the water table is lower than the local surface water level, flow is from surface water to groundwater. Usually groundwater supplements stream flow during periods of low rainfall, and surface water recharges groundwater storage during periods of high rainfall. Although subsurface flow from groundwater to surface water is important to the long term supply of water to a canal or stream (it is sometimes referred to as "base flow"), it does not make significant contributions, if at all, to streamflow during storm events of high rainfall.

In general, part of the storm rainfall retained on or above the ground surface is surface retention, which with the infiltration and evapotranspiration losses are subtracted from input rainfall resulting in the rainfall excess. This "effective" part of the original rainfall is the one capable of yielding surface runoff after routing to the basin outlet.

For the purposes of this atlas, the term drainage is used to refer to the total surface and subsurface flows entering a lake and/or canal, or a creek from their drainage basin. It is important to keep in mind that during a rain event (especially one severe enough to cause flooding), it is surface runoff that is the important contributor to this flow, and, at times, between rain events, subsurface flow from groundwater to surface water is most important.

Runoff from a drainage area is a function of several factors: how much rain has fallen and how often it has occurred, the depth to the water table, and how the land in the drainage area is utilized. The amount of recent rain, and the depth to the water table impose how much water there is in the soil. The degree to which the soil

is saturated, in turn, determines how much of the falling rain may infiltrate the soil, and thus, how much of the rain will run off to local streams.

Land use has a large influence on the amount of surface runoff entering local streams, which will convey the water to the lakes, canals or creeks. Much of the surface area in an urban development (i.e. roofs, roads, and parking lots) is considered to be impervious to water. Almost all the rain falling on impervious areas becomes surface runoff. Some water may be detained and will evaporate, but the percentage of rainfall that enters local stream by surface runoff in an urban development is usually considerable high. As a result, urban developments are subject to high stream flows during rain events, and consequently they need to be provided with drainage systems to avoid or minimize flooding damage.

A vegetated area can intercept and retain a significant part of the rainfall and, consequently, surface runoff will diminish. This intercepted water has an additional opportunity to evaporate or seep into the ground. Commonly, a small percentage of the rain falling on a vegetated area will enter local streams, and subsequently will produce surface runoff. For this reason, stream flows in vegetated areas are moderated compared to urban developments.

Drainage Basin - A drainage basin can be defined as a certain area that due to its topographic characteristics is able to convey the runoff produced by rainfall on it to a final location, commonly known as the outlet of the basin. If rain falls over a large area, some of the runoff from that storm will likely enter one stream, and some of it will enter other streams. It is said that those streams "drain different basins, or that they are in "different drainage basins." Thus, a drainage basin of a stream is all the land that contributes runoff to the stream or its tributaries. The boundary between drainage basins is represented by the lines of highest elevation or "divide" in a topographic map, from which water is able to establish two or more flow patterns. Usually a large drainage basin or watershed, such as in this case, the Upper Kissimmee River watershed, is divided into basins, such as the Cypress Lake basin. This creates more accurate calculations because different factors affecting each basin can be taken into consideration. Also, by subdividing a large area (watershed or basin) into basins, hydrologic results can be obtained at intermediate points of the entire basin, which, in this case, are represented at each subbasin.

Water Surface Elevation - A water surface elevation in a canal or a lake is the vertical distance from the surface of the water to some reference elevation or "datum." The GDM reports from the COE use the elevations relative to the mean sea level (m.s.l.). In the District, elevations are relative to the National Geodetic Vertical Datum (NGVD). For practical purposes m.s.l. coincides with NGVD. Water surface elevations may also be referred to as "stages."

Important water surface elevations for a control structure are the headwater (upstream) stage, and the tailwater (downstream) stage (see **Control Structures**). The difference between these stages will affect the flow through or over the structure. In general, flow increases as the difference in elevation increases.

Water surface elevations elsewhere in the canal reach are also important. Obviously, if the stage exceeds the top elevation of the canal, flooding will occur. Not as obvious is the fact that the stage in the canal may influence the water table elevation of the local groundwater (see **Runoff and Drainage**).

Water elevations or stages in the lakes are of crucial importance. These are regulated by means of the control structures strategically located on the canals or at the outlets of the lakes. These elevations should match as much as possible the values given in the regulation schedule. For most of the lake, this regulation schedule can be changed once every three years to improve environmental conditions of the lakes.

Control Structures - The structures referred to in this atlas are hydraulic works (i.e. spillways, culverts, and weirs) located in the canals to control water surface elevation (stage divide) or amount of flow (stage divide or water supply structure).

Hydraulic Analysis - The hydraulic profile of a canal is represented by a number of water surface elevations taken along its length. The water surface elevations are a function of the amount and location of the inflow to the canal, the size and shape of the canal, the roughness of the material forming the canal, and the longitudinal slope of the canal. Given the special characteristics of the area, the slopes of the canals are nearly flat. This condition characterizes the so-called subcritical flow, which is defined by regimes having low velocities and high flow depths. This regime is controlled by downstream conditions, and the downstream water surface elevation in the canal (often determined by a control structure or a lake) becomes another factor affecting the hydraulic profile of the canal. Canals are designed to convey a certain discharge without overtopping their banks. Designing a canal and its structures consists of selecting values for the factors described above for which none of the water surface elevations of the resulting hydraulic profile exceed the elevation of the banks of the canal for the design discharge. An additional elevation or "free-board" has to be added to the hydraulic profile to count as a safety requirement. Since the design discharge is given and to a large extent, the slope of the canal is determined by the topography of the area, it is the size and shape of the canal and the downstream water surface elevation that are varied to obtain an appropriate design. Because the factors that determine the water surface elevations are either known or can be reasonably estimated, it is possible to calculate the hydraulic profile of a proposed canal. In this way, an appropriate design can be selected. Also, computation of the hydraulic profile can be used to determine the flood protection provided by a canal constructed without regard to a specific design storm, or for a canal whose design specifications have been modified. For instance, increasing the cross-sectional area of a canal will, in general, allow the canal to pass a given discharge at stages lower than before enlargement. This can also be interpreted as an additional flood protection of the canal, that is, the canal can now pass the runoff from a storm more severe than the design storm.

Design Storm - The design storm for a basin is the most severe storm for which the canals, structures and/or lakes in the basin are able to handle the runoff yielded by that storm without flooding occurring in the basin. Frequently, a basin is described as having "flood protection" up to a certain design storm.

Any storm is described by the frequency with which it may occur. On a long term average, a storm of a given intensity may occur, for example, once in every ten years (i.e., the storm has a 10 percent chance of occurring in any given year). This is written as 1-10 year, and is read as one in ten years. It must be understood that a storm of a given intensity can occur at any time regardless of the frequency assigned to it.

The U. S. Army Corps of Engineers (COE) specifies a Standard Project Storm (SPS) for South Florida. The rainfall amounts for the SPS are those for a 1-100 year

storm increased by 25 percent. The storm is assumed to occur during the hurricane, or wet season, when water tables are high and soils are wet. These conditions will maximize the runoff from the storm. The SPS is intended to be reasonably characteristic of large storms that have or could occur in the Project area. The runoff from the SPS is designated the Standard Project Flood (SPF). The capacity of a canal and its structures may be given as a percentage of the SPF (e.g., 40 percent SPF). The storm that would generate this amount of runoff is given by its frequency (e.g., 1-10 years). Note that it is implicitly assumed that these storms occur for antecedent weather conditions that will maximize the runoff from the storm in the basin of interest.

A severe storm of a certain frequency may not generate the same amount of runoff in different basins of the same size even when antecedent weather conditions or water table elevations for the basins are similar. Land use in the basins will affect the relative amounts of surface runoff to be expected from the basins (see **Runoff and Drainage**). Urban areas will often have more surface runoff than will more vegetated areas.

The amount of runoff to be expected per unit area for design storms at various recurrence intervals, antecedent conditions, and land use can be found in the COE General Design Memorandums for the Project. The runoff calculated to occur for a given set of storm frequency, antecedent conditions, and land use is the design discharge.

APPENDIX 2 - GLOSSARY

Designations Given to District Works

- C-XXX** The letter C followed by a number, or a number and a letter, designates a Central and Southern Florida Flood Control Project canal. Some canals have also a proper name. For example, C-31 reads as "Canal 31", also known as the St. Cloud Canal. C-32G reads as "Canal 32G", in which G represents an specific section of the Canal 32 connecting Alligator Lake to Lake Lizzie.
- S-XXX** The letter S followed by a number designates a Central and Southern Florida Flood Control Project structure (see **Control Structures**, under **Basic Concepts**). For example, S-59 read as "Control Structure 59". S structures were built by the U.S. Army Corps of Engineers.
- G-XXX** The letter G followed by a number designates a South Florida Water Management District control structure (see **Control Structures** under **Basic Concepts**). For example, G-113 reads as "Control Structure 113". G structures were built by the District.

Terms

District

This refers to the South Florida Water Management District (formerly the Central and South Florida Flood Control District), the agency which operates and maintains the Project.

General Design Memorandum (GDM)

This is a document prepared by the U.S. Army Corps of Engineers that reports all work done preliminary to preparation of the final design of a project. In the GDM for the Central and Southern Florida Project for flood control and other purposes:

- the basins are delineated.
- a design storm is specified (commonly 10-year-return period, max. 5-day-duration) and the resulting runoff estimated for each basin.
- the flood protection to be afforded at each basin is identified.
- the size of canals, and the size and number of control structures is determined.

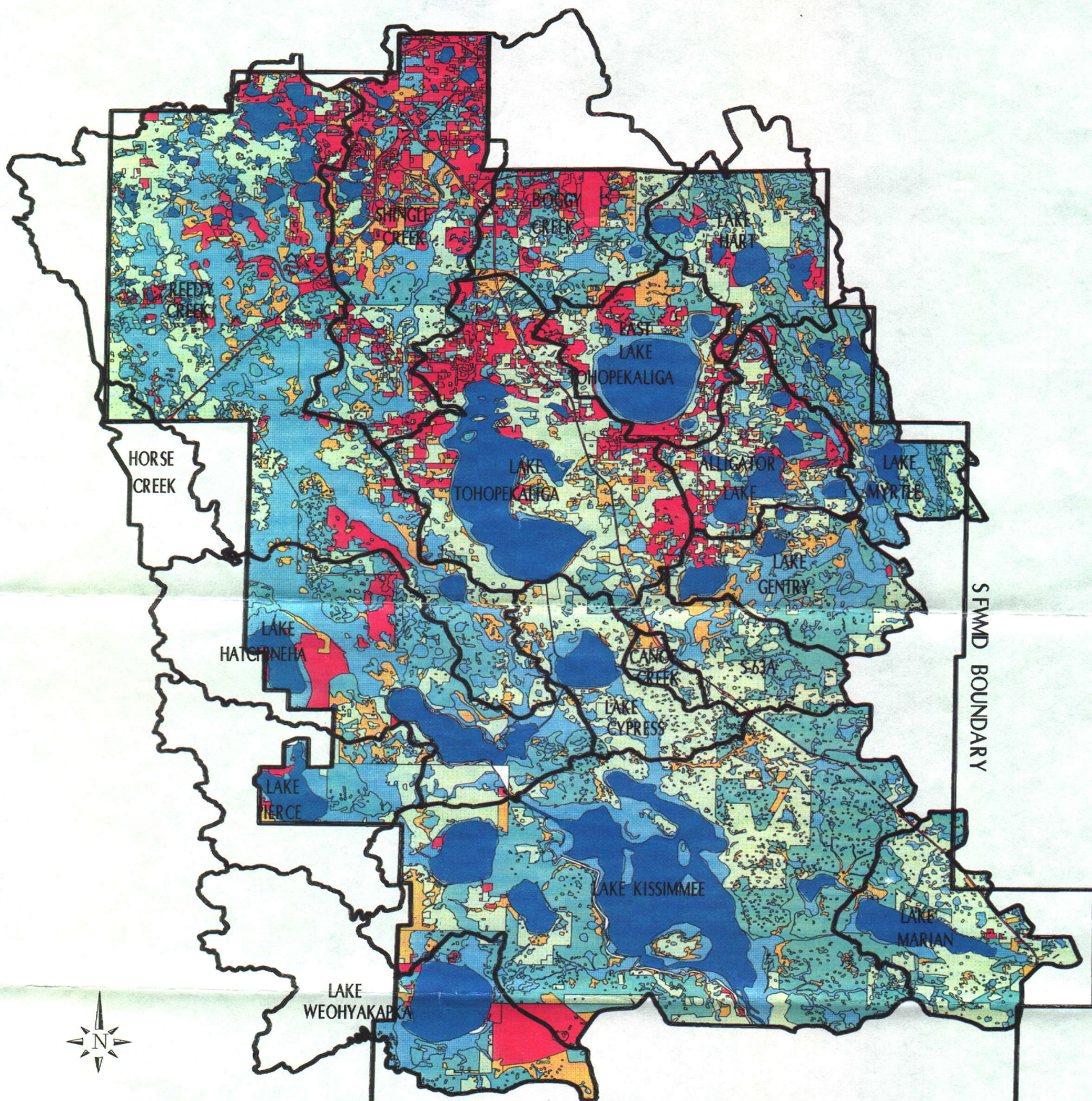
Detail Design Memorandum (DDM)

This is a document prepared by the U.S. Army Corps of Engineers that contains all final design work regarding canals and structures.

1-XXX Year

This designates the recurrence interval or return period for a design storm (see **Design Storm**, under **Basic Concepts**). For example, "1-100 year storm" reads as one in one in one-hundred year storm.

LANDUSE (1986-88) IN THE UPPER KISSIMMEE RIVER WATERSHED



0 1 2 3 MILES

- | | |
|--|--|
| <ul style="list-style-type: none"> AGRICULTURE
Cropland, Pasture (Improved & Unimproved), Groves, Ornamentals, Nurseries, Sod Farms, Dairy Farms, Cattle Feed Lots URBAN AND BUILT-UP LAND
Residential, Commercial & Services, Industrial, Institutional, Transportation, Open & Others FORESTED UPLANDS
Coniferous, Non-Coniferous, Mixed Forested WETLANDS
Forested Fresh, Non-Forested Fresh, Forested Salt, Non-Forested Salt, Mixed Forested and Non-Forested Fresh | <ul style="list-style-type: none"> WATER
Water Bodies Larger than 10 Acres BARREN LAND
Beaches, Extractive, Spoil Areas, Levees RANGELAND
Grassland, Scrub and Brushland, Palmetto Prairies, Brushland |
|--|--|

Description of the Lake Wales Ridge Study Area

The Lake Wales Ridge study area encompasses about 700 square miles in Polk and Highlands Counties and includes one of the most productive citrus regions in Florida. Citrus is one of the top agricultural crops in Florida (excluding pastureland), accounting for about 75 percent of the nation's citrus production, and generating over \$1.6 billion of revenue in Florida annually. Nearly 40% of Florida's citrus acreage occurs on the sandy soils (Entisols) along the central Florida ridge systems. The most prominent of these ridge systems is the Lake Wales Ridge. Citrus land use covers about 25 percent of the study area. Polk and Highlands Counties have been among the top three citrus-producing counties statewide in Florida in recent years.








Sandy soils (entisols) in the vicinity of orange groves on Lake Wales Ridge. - [click to enlarge](#)

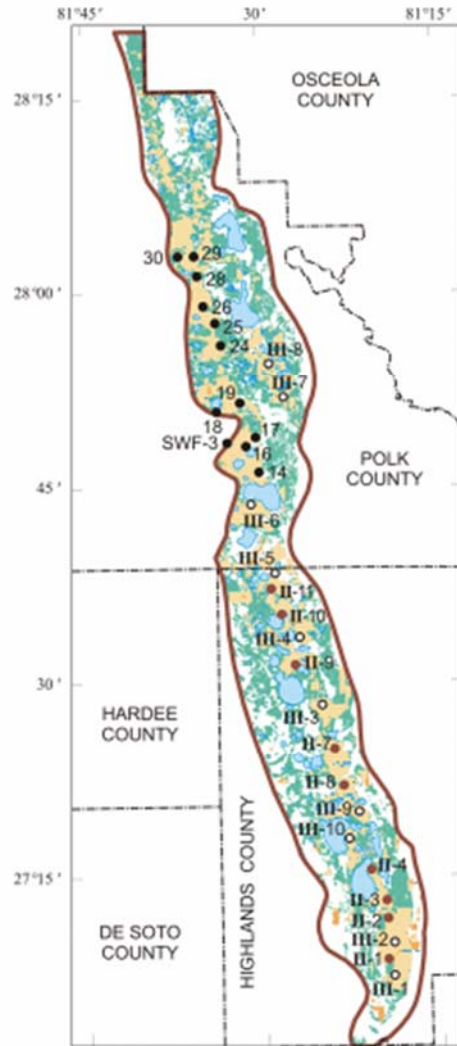
The Ridge was selected for study because it is highly vulnerable to leaching of chemicals such as pesticides and fertilizers. The sandy soils on the Ridge are well drained and contain little organic matter to adsorb, or effectively filter out, organic compounds. The long growing season in Florida necessitates multiple applications of fertilizers and pesticides, thereby increasing the potential for leaching of these chemicals compared to many locations in the United States. Seasonally high rainfall amounts and intensities in this region increase the potential for transport of contaminants into the subsurface. Groundwater is the principal source of water supply on Lake Wales Ridge, typical of most regions in Florida. Furthermore, the groundwater system in the surficial (water table) aquifer is closely linked with the numerous lakes in the region and is hydraulically connected with the underlying Upper Floridan aquifer, the primary municipal water supply for the region.

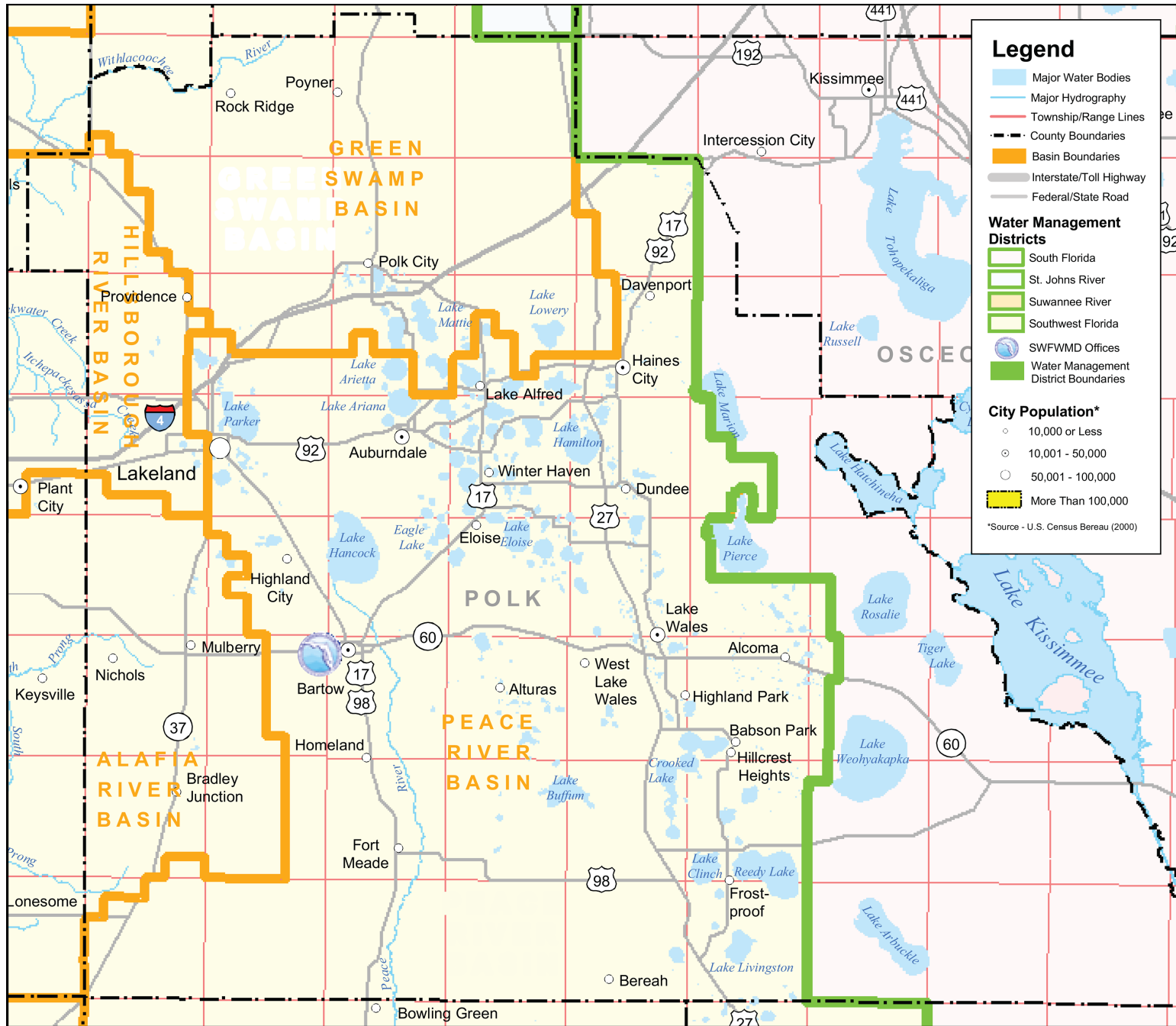


Split-spoon sample during drilling of monitoring wells typifies the uniformity of the sandy deposits on the Ridge. - [click to enlarge](#)

Lake Wales Ridge has been the focus of a number of efforts to minimize potential impacts of citrus agriculture on water resources. Citrus growers and industry representatives, the University of Florida Institute of Food and Agricultural Science (IFAS), and several state and federal agencies have partnered in related research and monitoring in this region. Results of this work have included the formation of collaborative industry-science working groups, as well as development of guidelines and regulations for application of specific agrichemicals to minimize potential transport into the subsurface, including the adoption of fertilizer best management practices developed specifically for Ridge citrus (State of Florida, 2002, Statute Title XXXV).

- EXPLANATION**
-  CITRUS ON VULNERABLE SOIL
 -  VULNERABLE SOIL
 -  CITRUS NOT ON VULNERABLE SOIL
 -  LAKE
 -  LAKE WALES RIDGE STUDY AREA
 - 30 ● PHASE I (April 1999)
 - II-11 ● PHASE II (April 2000)
 - III-7 ○ PHASE III (October 2001)
- 0 5 10 15 MILES
0 5 10 15 KILOMETERS





Southwest Florida Water Management District- Polk County, September 28, 2004

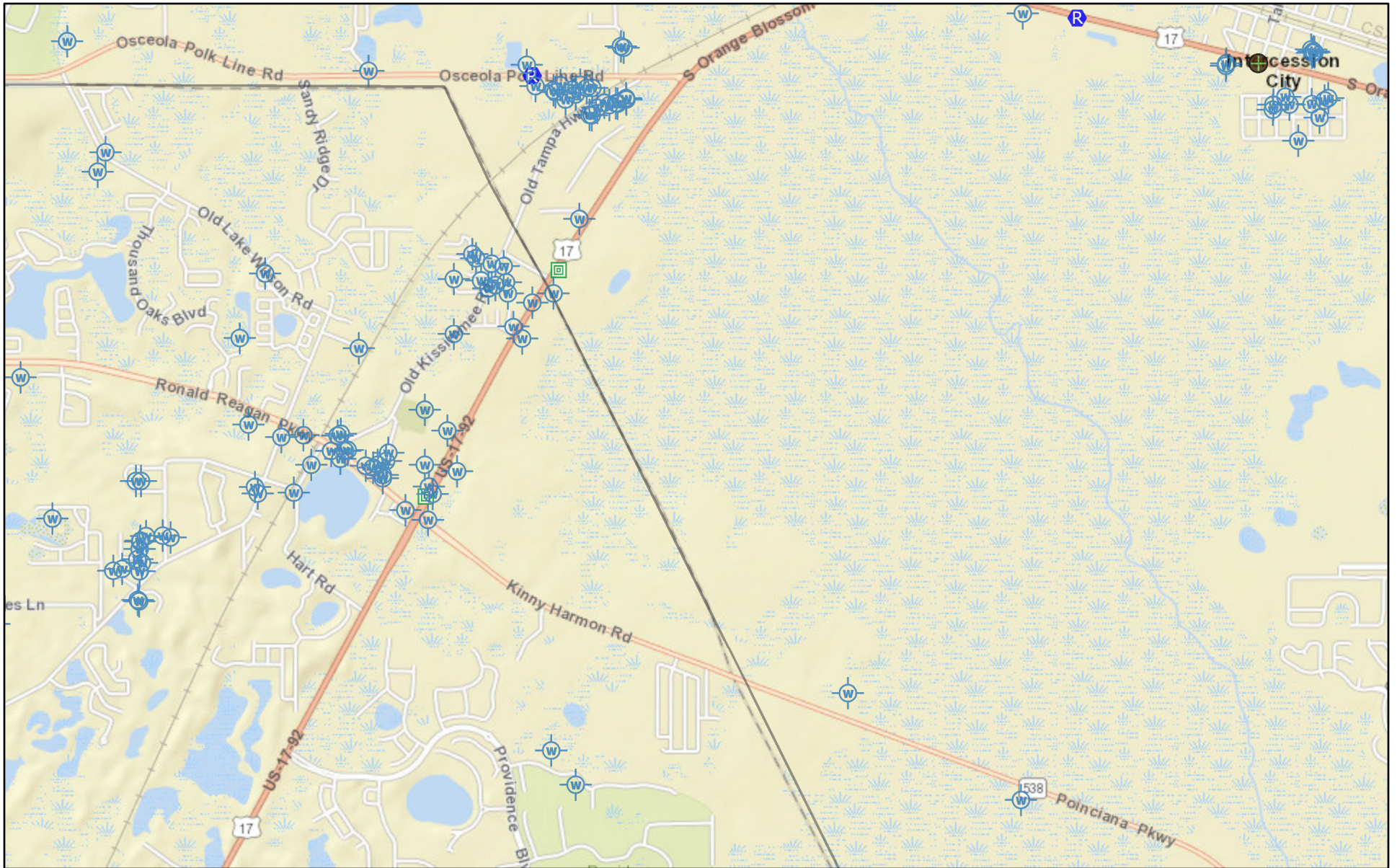
Southwest Florida Water Management District Mapping and GIS Section, *Southwest Florida Water Management District Map of Districts* (Brooksville, FL: Southwest Florida Water Management District, September 28, 2004)

Downloaded from *Maps ETC*, on the web at <http://etc.usf.edu/maps> [map #11725]

APPENDIX E

Osceola County and Polk County Wellfield Maps

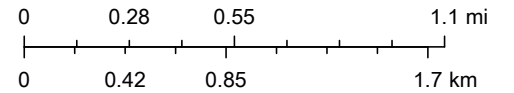
FL DOH EH Water Printout



February 12, 2019

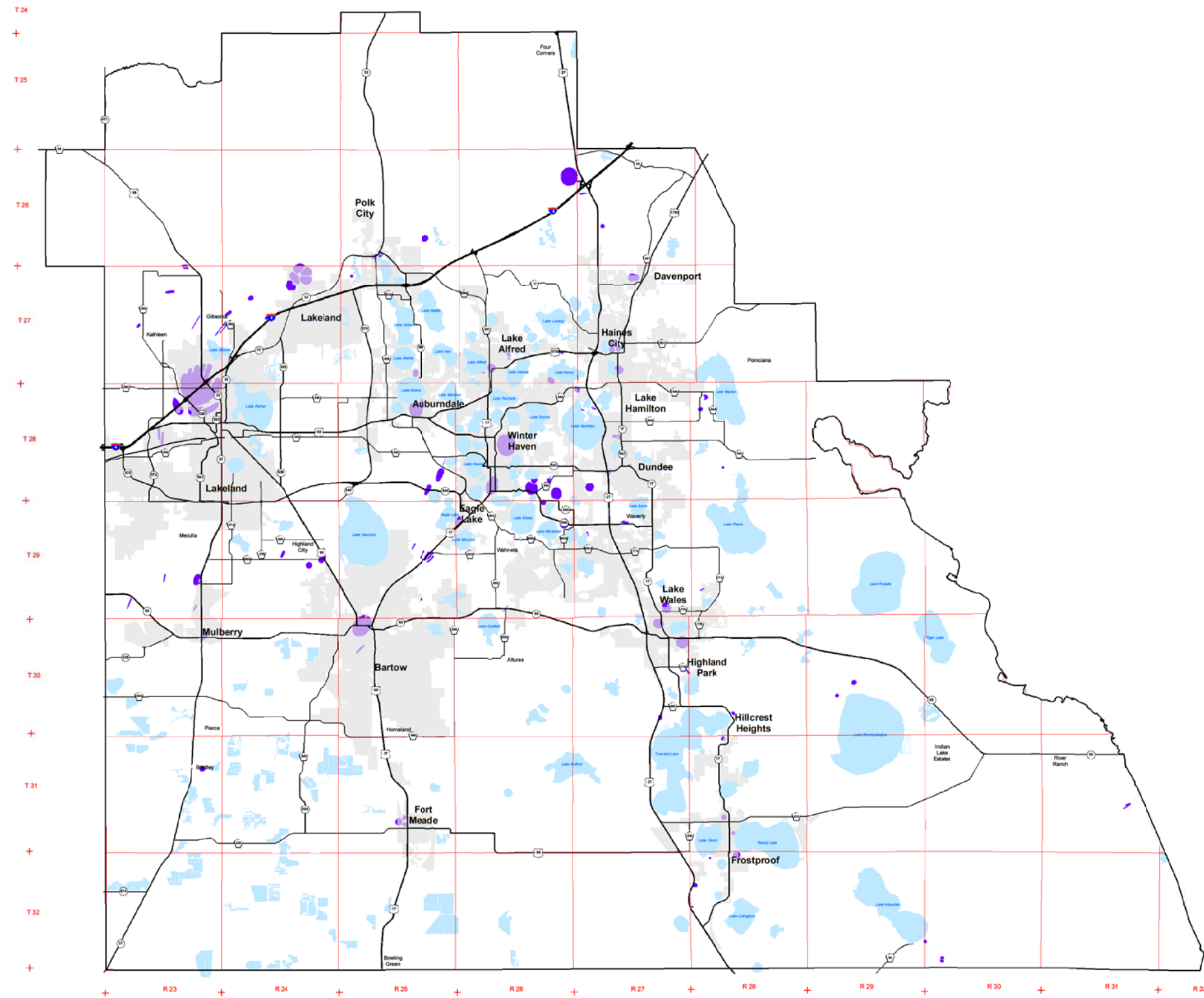
- Limited Use ■ Commercial ⊕ Well Locations
- ⊕ Community ⊕ Registered County Boundaries

1:36,112



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan,


FL DOH
 FL DOH











2030 COMPREHENSIVE PLAN MAP SERIES

Wellfield-Protection Districts

Legend

 Wellfield Protection Districts

Data Source: Polk County BoCC 2005 Model
Data Date: Adopted 2007

-  Interstate
-  US Highway
-  State Highway
-  County Highway
-  Waterbodies
-  Municipalities
-  County Boundary
-  Township Range



CPMS Disclaimer:
THIS IS ONE MAP OF THE "POLK COUNTY COMPREHENSIVE PLAN MAP SERIES". IT MUST BE INTERPRETED IN CONJUNCTION WITH THE OTHER MAPS OF THE SERIES AND THE OBJECTIVES AND POLICIES OF THE "POLK COUNTY COMPREHENSIVE PLAN" AS ADOPTED AND AMENDED BY THE POLK COUNTY BOARD OF COUNTY COMMISSIONERS.

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COMPREHENSIVE PLAN

POLK COUNTY, FLORIDA

August 4, 2010

GENERALIZED

RESOURCE-PROTECTION

DISTRICTS



POLK COUNTY BOARD OF COUNTY COMMISSIONERS
Prepared by: IT/GIS Division
CPMS Managed by: Growth Management Department

Map Document: (S:\IT_GIS_CPMS\MO2010_CPMS_WellfieldProtectionDistricts.mxd)
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