

**Five-Year Review Report**

**First Five-Year Review Report  
for  
Whitehouse Waste Oil Pits**

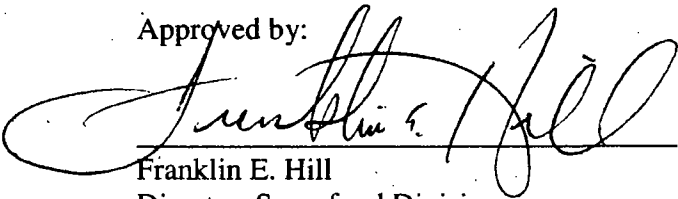
**Whitehouse  
Duval County, Florida**

November 2008

Prepared by:  
E<sup>2</sup> Inc.  
Charlottesville, Virginia  
2417 Northfield Road  
Charlottesville, VA  
22902

For:  
United States Environmental Protection Agency  
Region 4  
Atlanta, Georgia

Approved by:



Franklin E. Hill  
Director, Superfund Division

Date:

11/17/08



10534746

**First Five-Year Review Report  
for  
Whitehouse Waste Oil Pits  
Whitehouse  
Duval County, Florida**

<b>List of Acronyms</b> .....	<b>3</b>
<b>Executive Summary</b> .....	<b>5</b>
<b>Introduction</b> .....	<b>5</b>
<b>1.0 Introduction</b> .....	<b>9</b>
<b>2.0 Site Chronology</b> .....	<b>11</b>
<b>3.0 Background</b> .....	<b>12</b>
3.1 <i>Physical Characteristics</i> .....	12
3.2 <i>Land and Resource Use</i> .....	15
3.3 <i>History of Contamination</i> .....	16
3.4 <i>Initial Response</i> .....	16
3.5 <i>Basis for Taking Action</i> .....	18
<b>4.0 Remedial Actions</b> .....	<b>22</b>
4.1 <i>Remedy Selection</i> .....	22
4.2 <i>Remedy Implementation</i> .....	25
4.3 <i>Operation and Maintenance (O&amp;M)</i> .....	26
<b>5.0 Progress Since the Last Review</b> .....	<b>27</b>
<b>6.0 Five-Year Review Process</b> .....	<b>28</b>
6.1 <i>Administrative Components</i> .....	28
6.2 <i>Community Involvement</i> .....	28
6.3 <i>Document Review</i> .....	28
6.4 <i>Data Review</i> .....	32
6.5 <i>Site Inspection</i> .....	35
6.6 <i>Interviews</i> .....	36
<b>7.0 Technical Assessment</b> .....	<b>39</b>
7.1 <i>Question A: Is the remedy functioning as intended by the decision documents?</i> .....	39
7.2 <i>Question B: Are the exposure assumptions, Toxicity Data, Cleanup Levels, and Remedial Action Objectives (RAOs) Used at the Time of Remedy Selection Still Valid?</i> ....	40
7.3 <i>Question C: Has Any Other Information Come to Light That Could Call into Question the Protectiveness of the Remedy?</i> .....	41
7.4 <i>Technical Assessment Summary</i> .....	42
<b>8.0 Issues</b> .....	<b>43</b>
<b>9.0 Recommendations and Follow-up Actions</b> .....	<b>44</b>
<b>10.0 Protectiveness Statements</b> .....	<b>46</b>
<b>11.0 Next Review</b> .....	<b>47</b>

<b>Appendix A: List of Documents Reviewed .....</b>	<b>A-1</b>
<b>Appendix B: Press Notices .....</b>	<b>B-1</b>
<b>Appendix C: Interview Forms .....</b>	<b>C-1</b>
<b>Appendix D: Institutional Controls Review .....</b>	<b>D-1</b>
<b>Appendix E: Site Inspection Checklist.....</b>	<b>E-1</b>
<b>Appendix F: Photographs from Site Inspection Visit.....</b>	<b>F-1</b>
<b>Appendix G: Ground Water Monitoring Data .....</b>	<b>G-1</b>
<b>Appendix H: O&amp;M Plan Summary Table.....</b>	<b>H-1</b>

**Tables**

Table 1: Chronology of Site Events.....	11
Table 2: Contaminants of Concern and Their Remedial Goals in Ground Water, Surface Water, and Soil .....	19
Table 3: Annual O&M Costs .....	27
Table 4. Changes in Regulatory Levels Associated with Chemical-specific ARARs for the COCs in Ground Water .....	30
Table 5. Changes in Regulatory Levels Associated with Chemical-specific ARARs for the COCs in Surface Water .....	31
Table 6. Current ARARs for COCs in Soil.....	32
Table 7. Contaminant Levels Above Cleanup Goals in Ground Water.....	34
Table 8: Deed Documents from Duval County Public Records Office.....	36
Table 9: Interview Subjects .....	37
Table 10: Current Issues for the Whitehouse Waste Oil Pits Site .....	43
Table 11: Recommendations to Address Current Issues at the Whitehouse Waste Oil Pits Site .	44
Table D-1: Deed Documents for Whitehouse Waste Oil Pits from Whitehouse Public Record Office .....	D-1

**Figures**

Figure 1: Location Map for the Whitehouse Waste Oil Pits Site .....	13
Figure 2: Detailed Map of the Whitehouse Waste Oil Pits Site .....	14

## List of Acronyms

AOC	Administrative Order on Consent
ARAR	Applicable or Relevant and Appropriate Requirement
AROD	Amended Record of Decision
BFPP	Bona fide prospective purchaser
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CIC	EPA Community Involvement Coordinator
COC	Contaminant of Concern
DOJ	United States Department of Justice
FDOT	Florida Department of Transportation
EPA	United States Environmental Protection Agency
ESD	Explanation of Significant Differences
FDEP	Florida Department of Environmental Protection
FDER	Florida Department of Environmental Regulation
FYR	Five-Year Review
HI	Hazard Index
HQ	Hazard Quotient
ICs	Institutional Controls
JEA	Jacksonville Electric Authority
MCL	Maximum Contaminant Level
NCP	National Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
OU	Operable Unit
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PPA	Prospective Purchaser Agreement
PRP	Potentially Responsible Party
RA	Remedial Action
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RG	Remedial Goals
RI/FS	Remedial Investigation/Feasibility Study
RME	Reasonable Maximum Exposure
ROD	Record of Decision
RPM	EPA Remedial Project Manager
SARA	Superfund Amendments and Reauthorization Act
SCTL	Soil Cleanup Target Levels
SDWA	Safe Drinking Water Act
SFWMD	South Florida Water Management District
TBCs	To-be-considered goals/criteria
VOCs	Volatile Organic Compounds



WRAG

Whitehouse Remedial Action Group

## **Executive Summary**

### **Introduction**

The final selected remedy at the Whitehouse Waste Oil Pits Superfund Site (the Site) set forth in the 1998 Amended Record of Decision (AROD) and further clarified in the 2001 Explanation of Significant Differences (ESD) included the installation of a slurry wall to isolate contaminated soil, sludge, wetlands, sediments, and ground water; solidification and stabilization of soil layers (lifts) across the former pit area; installation of a Resource Conservation and Recovery Act (RCRA) cap over the containment area; realignment of the northeast tributary to McGirts Creek to optimize the area of ground water containment; and excavation of contaminated wetlands sediment located off the property where the waste oil pits were located with on-site disposal under the cap. The remedy also included the extension of water lines to homes adjacent to and down gradient of the Site; monitoring the natural attenuation of contaminated ground water outside of the slurry wall; installation of a permanent security fence around the containment area and installation and maintenance of appropriate storm water management control. Deed restrictions were required as part of the selected remedy to control future land and ground water use and a passive gas vent management system was required as part of the cap to prevent fires or explosions that would damage the cap, and minimize odors that travel off-site.

The original ROD, issued in 1985, required installation of a slurry wall to isolate waste; recovery and treatment of contaminated ground water within the wall; removal of contaminated sediment from the northeast tributary of McGirts Creek and placement within the wall; and construction of a surface cap over the Site to reduce the inflow of water in the walled area. With the passage of the Superfund Amendments and Reauthorization Act in 1986, EPA determined it was necessary to re-evaluate the containment remedy in the 1985 ROD. In 1992 EPA issued an amended ROD that required excavation of the contamination, among other action. However, additional investigatory work and treatability studies conducted at the Site revealed that the 1992 AROD would not be effective. The 1998 AROD and the 2001 ESD changed the final selected remedial action by requiring the stabilization of contaminants within a barrier wall, realigning the McGirts Creek tributary, extending the municipal water to residents on Mabelle Drive and Chaffee Road, installing a security fence around the Site, monitoring natural attenuation in ground water outside the containment system, and requiring deed restrictions to control future land and ground water use.

The Site is located approximately 10 miles west of downtown Jacksonville, Florida in Whitehouse, Duval County, Florida. The Site covers approximately seven acres west of Chaffee Road and is adjacent to a wetland area and to suburban residential developments. The triggering action for this statutory review is the construction commencement date of November 19, 2003.

### **Remedial Action Objectives**

The remedial action objectives (RAOs) presented as response objectives were established to address the human health concerns at the Site. The RAOs established in the 1985 ROD and adopted in the 1998 AROD address ground water, surface water, sludge, sediment, and soil. The 2001 ESD did not alter the original RAOs. The RAOs include:

- Prevent further migration of contaminated ground water into the underlying aquitard;
- Prevent contamination of the local drinking water supply;
- Reduce or eliminate migration of contamination to surface water;
- Eliminate the source sludge, treat the source sludge to a less hazardous or non-hazardous state, or contain the release of the hazardous pollutants off-site; and
- Reduce or eliminate the migration of contaminated soil and sediments.

### **Technical Assessment**

The assessment of the Site for this Five-Year Review (FYR) has found that the selected remedy is functioning in accordance with the 1998 AROD and 2001 ESD. The selected remedy is protective of human health and the environment because contamination at the Site is being contained by a vertical barrier and cap. The ground water and gas vents are monitored regularly to ensure contamination is not migrating off-site. Operation and maintenance (O&M) has occurred regularly at the Site to ensure the barrier wall and cap is properly containing contamination to the Site. At the time of this review, the Site was beginning its third year of O&M. The potential responsible parties (PRPs) are in the process of implementing deed restrictions to restrict future land and ground water use. The Site property is owned by the City of Jacksonville, which is cooperating fully with the implementation of the deed restrictions.

The selected remedy at the Site is protective of human health and the environment in the short-term because all exposure pathways that could result in unacceptable risks are being controlled. The contamination remaining on-site is being contained to the capped portion with a vertical barrier wall to prevent any migration of contaminants. The gas vent system installed in the cap is working properly, and the ground water monitoring wells are checked in accordance with the O&M plan to ensure contaminants are not migrating off-site.

For the remedy to be protective in the long-term, certain activities should be done, including:

- finalizing the deed restrictions on the property;
- ensuring the drainage opening in the fence on the west side is closed completely or made smaller to prevent Site access by trespassers;
- following up with the Florida Department of Environmental Protection (FDEP) to ensure the mound of Florida Department of Transportation soil, on the adjacent property, is contained appropriately and will not affect the remedy's proper functioning; and
- the current maximum contaminant level (MCL) associated with the arsenic ground water applicable or relevant and appropriate requirement (ARAR) should be used in future ground water sampling events and assessments of protectiveness. This is to ensure that collected data are associated with the current MCL for this contaminant of concern (COC).
- securing flush mounted wells and labeling monitoring wells

## Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name (from WasteLAN): Whitehouse Waste Oil Pits		
EPA ID (from WasteLAN): FLD980602767		
Region: 4	State: FL	City/County: Whitehouse, Duval County
SITE STATUS		
NPL status: <input checked="" type="checkbox"/> Final <input type="checkbox"/> Deleted <input type="checkbox"/> Other (specify)		
Remediation status (choose all that apply): <input type="checkbox"/> Under Construction <input type="checkbox"/> Operating <input checked="" type="checkbox"/> Complete		
Multiple OUs?: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Construction completion date: 05/04/2006	
Has site been put into reuse? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
REVIEW STATUS		
Lead agency: <input checked="" type="checkbox"/> EPA <input type="checkbox"/> State <input type="checkbox"/> Tribe <input type="checkbox"/> Other Federal Agency		
Author name: Christy Cunnington and Treat Suomi		
Author title: Associate and Project Manager	Author affiliation: E <sup>2</sup> Inc.	
Review period**: 07/01/2008 to 11/19/2008		
Date(s) of site inspection: 7/29/2008		
Type of review:		
<input checked="" type="checkbox"/> Post-SARA	<input type="checkbox"/> Pre-SARA	<input type="checkbox"/> NPL-Removal only
<input type="checkbox"/> Non-NPL Remedial Action Site	<input type="checkbox"/> NPL State/Tribe-lead	
<input type="checkbox"/> Regional Discretion		
Review number: <input checked="" type="checkbox"/> 1 (first) <input type="checkbox"/> 2 (second) <input type="checkbox"/> 3 (third) <input type="checkbox"/> Other (specify)		
Triggering action:		
<input checked="" type="checkbox"/> Actual RA Onsite Construction at OU# 1	<input type="checkbox"/> Actual RA Start at OU#	
<input type="checkbox"/> Construction Completion	<input type="checkbox"/> Previous Five-Year Review Report	
<input type="checkbox"/> Other (specify)		
Triggering action date (from WasteLAN): 11/19/2003		
Due date (five years after triggering action date): 11/19/2008		

\* ["OU" refers to operable unit.]

\*\* [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

**Issues:**

- 1) The property adjacent to the northern edge of the Site is being leased by the Florida Department of Transportation (FDOT) as a storage area for soil. As a result, a large mound of soil has accumulated next to the Site. The content of the soil is unknown, but has been cleaned up to FDOT standards. However, the soil needs to be properly contained to the adjacent property because it could affect the proper functioning of the selected remedy by causing erosion at the Site and compromising the protectiveness of the remedy. EPA is currently working on this issue with FDEP.
- 2) Some monitoring wells were found to be unlabeled and the flush mounted wells (EPA-7D, EPA-7I, and USGS-1S) on the cap were unsecured.
- 3) The fence surrounding the cap has an opening on the west side for drainage; however, due to the size of the opening potential trespassers can access the Site. Local residents have seen people riding all-terrain vehicles on the cap.
- 4) Golder Associates, Inc., the Whitehouse Remedial Action Group (WRAG) contractor, is currently using the regulatory level for arsenic set at 1998 MCL levels in ground water rather than current MCL levels for arsenic.
- 5) Deed restrictions have not been put in place to restrict future land and ground water use at the Site.

**Recommendations and Follow-up Actions:**

- 1) Continue to work with FDEP and FDOT to improve the containment of the mound of soil on the adjacent property and to take appropriate measures to protect against erosion and sedimentation to ensure that the presence of the soil will not affect the protectiveness of the remedy.
- 2) Ensure that monitoring wells are labeled and secured to provide easy identification during sampling in the future.
- 3) Either close the opening on the west side of the fence or make it smaller to prevent trespassers accessing the Site.
- 4) Inform the PRPs that there has been a change to the ARAR used for arsenic from 50 µg/L to 10 µg/L to ensure that any contaminant levels above the levels established for cleanup goals can be monitored during future ground water sampling.
- 5) Restrict future land and ground water use at the Site by implementing deed restrictions.

**Protectiveness Statement(s):**

The selected remedy at the Site is protective of human health and the environment in the short-term because all exposure pathways that could result in unacceptable risks are being controlled. The contamination remaining on-site is being contained to the capped portion with a vertical barrier wall to prevent any migration of contaminants. The gas vent system installed in the cap is working properly, and the ground water monitoring wells are checked in accordance with the O&M plan to ensure contaminants are not migrating off-site.

For the remedy to be protective in the long-term, certain activities should be done, including:

- finalizing the deed restrictions on the property;
- ensuring the drainage opening in the fence on the west side is closed completely or made smaller to prevent site access by trespassers;
- following up with the Florida Department of Environmental Protection (FDEP) to ensure the mound of Florida Department of Transportation soil, on the adjacent property, is contained appropriately and will not affect the remedy's proper functioning; and
- the current maximum contaminant level (MCL) associated with the arsenic ground water applicable or relevant and appropriate requirement (ARAR) should be used in future ground water sampling events and assessments of protectiveness. This is to ensure that collected data are associated with the current MCL for this contaminant of concern (COC).
- securing flush mounted wells and labeling monitoring wells

**Other Comments:**

None.

# **First Five-Year Review Report for Whitehouse Waste Oil Pits Superfund Site**

## **1.0 Introduction**

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy will continue to be protective of human health and the environment. The methods, findings, and conclusions of FYRs are documented in Five-Year Review Reports. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The U.S. Environmental Protection Agency (EPA) prepares FYRs pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121 and the National Contingency Plan (NCP). CERCLA § 121 states:

“If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.”

EPA interpreted this requirement further in the NCP; 40 Code of Federal Regulations (CFR) Section 300.430(f)(4)(ii), which states:

“If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such actions no less often than every five years after the initiation of the selected remedial action.”

The Florida Department of Environmental Protection (FDEP), as the support agency representing the State of Florida, has reviewed all supporting documentation and provided input to EPA during the FYR process. E<sup>2</sup> Inc., an EPA Region 4 contractor, prepared this FYR report for EPA based upon ground water information collected from 2006 through 2008 by Golder Associates (Golder), the contractor for the Whitehouse Remedial Action Group (WRAG), the PRP committee. EPA conducted the FYR from July to October 2008. WRAG is the Site’s PRP and EPA is the agency developing and implementing the remedy for the PRP and EPA-financed cleanup at the Whitehouse Waste Oil Pits Site.

This is the first FYR for the Whitehouse Waste Oil Pits Site. There is one operable unit at the Site; the remedial actions provide for remediation of contaminated soil, sediment, and ground water. The triggering action for this FYR is the construction commencement date of November

19, 2003. This is a statutory FYR, which, is required due to the fact that hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure. The next FYR is required within five years of the signature date of the present FYR. This FYR report will be placed in the Site files and the local repository at West Regional Jacksonville Public Library at 1425 Chaffee Rd S., Jacksonville, Florida 32221, upon completion. The next FYR will be required by November 2013.

## 2.0 Site Chronology

Table 1 lists the dates of significant events for the Whitehouse Waste Oil Pits Site.

**Table 1: Chronology of Site Events**

Event	Date
Discovery	January 1976
Notice Letters Issued	March 4, 1982
Hazard Ranking System Package	December 1, 1982
Proposal to National Priorities List	December 30, 1982
Initial Remediation Measure	April 30, 1983
Final Listing on National Priorities List	September 8, 1983
Preliminary Assessment Completed	October 1, 1984
Combined Remedial Investigation/Feasibility Study Completed	May 30, 1985
Technical Assistance	May 30, 1985
Record of Decision	May 30, 1985
Remedial Design Start	June 26, 1985
National Priorities List Responsible Party Search	August 15, 1985
Removal Completed	February 15, 1988
Removal Completed	May 31, 1989
Administrative Records compiled for Removal Event	May 31, 1989
Administrative Records compiled for Removal Event (Pit Study)	May 31, 1989
Technical Assistance	June 30, 1990
Ecological Risk Assessment Completed	May 15, 1991
Risk/Health Assessment Completed	May 15, 1991
Treatability Study Completed	September 16, 1991
Removal Assessment Completed	September 30, 1991
Notice Letters Issued	January 8, 1992
Remedial Design Complete	June 16, 1992
Combined Remedial Investigation/Feasibility Study Completed	June 16, 1992
Record of Decision Amendment	June 16, 1992
Removal Completed	October 29, 1992
Remedial Design/Remedial Action Negotiations Completed	April 27, 1993
Public Notice Published	July 27, 1993
Combined Remedial Investigation Feasibility Study Completed	September 24, 1998
Record of Decision Amendment	September 24, 1998
Remedial Design Start	September 25, 1998
Remedial Design Complete	September 28, 2000
Explanation of Significant Differences	July 16, 2001
Potentially Responsible Party Remedial Design Completed	September 20, 2001
Consent Decree	September 20, 2001
Remedial Design/Remedial Action Negotiations Completed	September 20, 2001
Administrative Order on Consent	November 20, 2001
Enforcement Agreement lodged by DOJ	December 17, 2001
Administrative Order on Consent	June 6, 2003
Remedial Action On-Site Construction Start	November 19, 2003
National Priorities List Responsible Party Search	October 15, 2004
Administrative Order on Consent	October 15, 2004
Preliminary Close-out Report Prepared	May 4, 2006
Operational and Functional	April 19, 2007
Potentially Responsible Party Remedial Action	September 26, 2007



### 3.0 Background

#### 3.1 Physical Characteristics

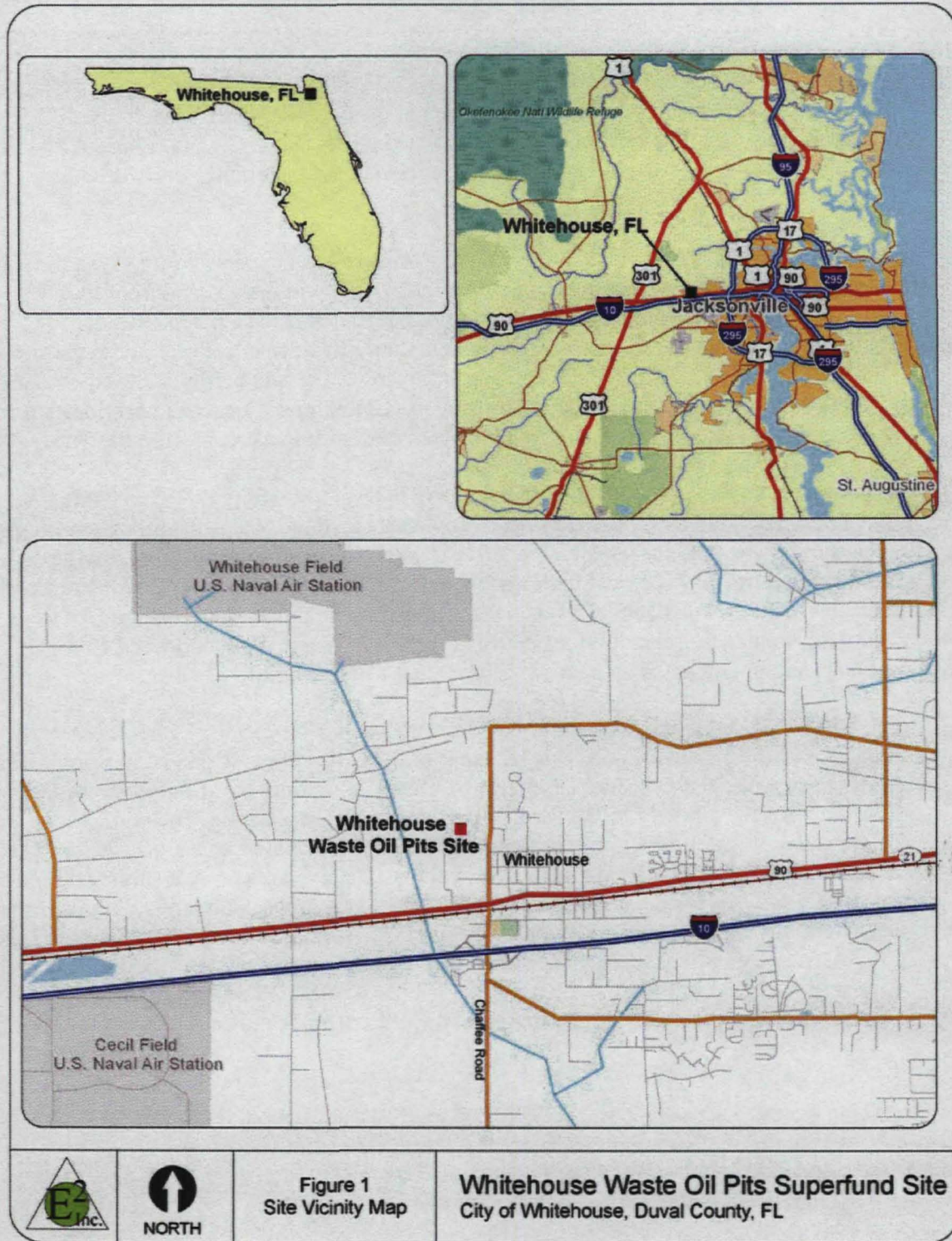
The Whitehouse Waste Oil Pits Site is located in the community of Whitehouse, approximately 10 miles west of downtown Jacksonville, Duval County, Florida. The Site occupies seven acres west of Chaffee Road, approximately 0.4 miles north of U.S. Highway 90.

The Site occupies an upland area immediately adjacent to a cypress swamp system. The southern side of the Site is bordered by open grassland, with the exception of the southwestern corner, which is bordered by a residential area. The nearest residence is about 200 feet from the southwestern Site boundary. Residents live directly to the south and east of the Site. The northern and western sides of the Site border a swamp system through which the northeast tributary of McGirts Creek runs. The stream originates from a 220-acre cypress swamp located approximately 0.5 miles upstream from the Site.

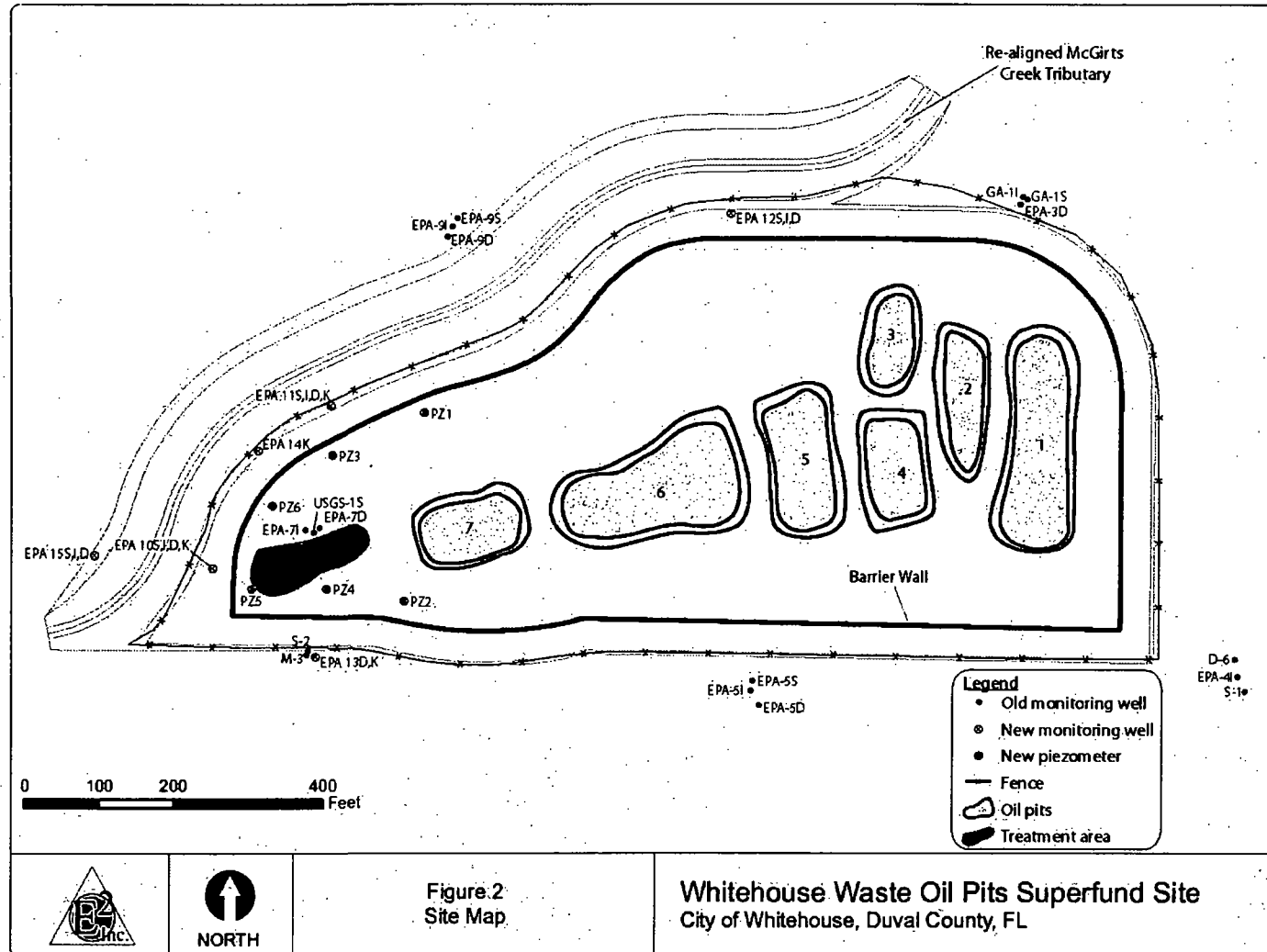
The northeast tributary of McGirts Creek flows in a southwesterly direction along the Site's northern boundary. The existing overall surface of the Site is slightly elevated because of the cap, but is otherwise relatively level. The contaminants remaining onsite are contained within a vertical barrier wall and under a cap. A fence currently surrounds the cap and barrier wall, and the fence has an opening on the west side of the Site to allow for drainage. Vegetation generally ranges from sparse grass and weed cover to saplings and young pines up to approximately 20 feet in height.

The Site is located in the McGirts Creek drainage basin. The primary surface water feature near the Site is the northeast tributary of McGirts Creek, which is the approximate northern boundary of the Site. Discharge of ground water into the tributary provides a base flow for the creek. The National Wetlands Inventory published by the U.S. Department of Interior identifies a broad-leaf deciduous wetland area along the northeast tributary, which is considered an environmentally sensitive area. Local surface drainage ultimately flows toward the southwest to McGirts Creek, approximately 1,200 feet from the Site. Previous berming and capping operations have raised the ground surface of the Site by five to nine feet above the original elevations. The present surface drainage at the Site is toward the northwest to the northeast tributary of McGirts Creek, which also receives flow from Site drainage ditches on the eastern and southern sides of the Site.

**Figure 1: Location Map for the Whitehouse Waste Oil Pits Site**



**Figure 2: Detailed Map of the Whitehouse Waste Oil Pits Site**



## *Hydrogeology*

The Surficial aquifer and the Floridan aquifer are the two aquifer systems which supply the municipal drinking water to the citizens of the city of Whitehouse, Florida and residents of Duval County. The Floridan aquifer is at a depth of approximately 525 feet below the surface and the major supplier of water to users. The total thickness of the shallow system is approximately 150 feet. The total thickness of the Floridan system is greater than 2,000 feet. It is separated from the Surficial aquifer system by the confining Hawthorn formation, which is about 350 feet thick in this area. The Surficial aquifer system can be subdivided into three parts: the water table zone, a semi-confining (aquitard) zone, and the limestone unit. The water table zone begins at 1.5 to 5 feet below land surface and is approximately 20 feet thick. The semi-confining zone exhibits a hydraulic conductivity in the  $10^{-5}$  to  $10^{-6}$  centimeter/second (cm/sec) range and is about 60 feet thick. The final zone in the Surficial system is the limestone unit, locally known as the "rock" aquifer. The flow in the "rock" aquifer under the Site is generally toward the south-southwest. Local residents obtain their water from individual wells drilled into the limestone unit or the municipal water supply. The shallow ground water contributes to local streams through a series of man-made ditches and natural drainage ways such as the northeast tributary of McGirts Creek.

### **3.2 Land and Resource Use**

The Site was operated as a repository for waste oil sludge and acidic oil re-refinery by-products by Allied Petro-Products, Inc. (Allied) from 1958 until 1968, when Allied ceased operations and filed for bankruptcy.

The city of Whitehouse, Florida is located within 0.25 miles east and southeast of the Site and is primarily composed of two-bedroom houses and mobile homes on one-half to one-acre lots. Two major highways, U.S. Highway 90 and Interstate 10, are approximately 0.5 miles south of the Site. A low-density residential area is located across McGirts Creek west and northwest of the Site. Residential homes are adjacent to the south and east Site boundary. Whitehouse Field U.S. Naval Air Station is located approximately three miles northwest of the Site; it is an outlying landing field that Navy pilots use for frequent touch and go landings to simulate aircraft carrier landings. Also, approximately three miles southwest of the Site is the former Cecil Field U.S. Naval Air Station (now a mixed-use military/civilian aviation facility called Cecil Commerce Center). The area north and northeast of the Site is largely undeveloped land that consists of pine forests and cypress swamp. While the area surrounding the Site continues to be used for residential purposes, during the Site inspection the adjacent property north of the Site was being used to store large amounts of soil. While the Site is zoned for agricultural use, there are currently no plans to reuse the Site. However, based on interviews with nearby residents, there is interest in using the Site as a model airplane flying field.

The limestone unit in the Surficial aquifer system, known locally as the "rock" aquifer, comprises the major private well water producing zone for domestic use in the area. Most residents along Mabelle Drive, located down-gradient of the Site, tapped this aquifer



with private wells and used the wells as their primary drinking water supply prior to the Site's remediation. During the Site cleanup, residents were given the option to connect to the municipal water system as a precautionary measure. All residents accepted the offer to connect to the municipal water system. Residents were able to continue using their private wells for outdoor, non-potable uses, including watering lawns and washing cars. During interviews with nearby residents for this FYR, it was discovered that some residents are using water from private wells for potable uses. Since the ground water monitoring data does not show evidence of contaminant migration, there is not a current threat to human health.

The wetlands in the realigned McGirts Creek tributary continue to be restored, although there have been some issues with invasive plant species growing in the tributary. The PRP contractor is aware of invasive plant species and is actively addressing the issue.

### **3.3 History of Contamination**

Allied Petro-Products Inc. (Allied) operated the Site as a repository for waste oil sludge and acidic oil re-refinery by-products from 1958 to 1968. The waste oil recovery process used by Allied was the acid-clay process. This process forms corrosive by-products including waste-acid tar and spent acidic clays. Allied constructed the first pits in 1958 to dispose of waste oil sludge and acid from its oil reclaiming process, and by 1968 the company had constructed and filled seven pits. Figure 2 shows the location of the original seven pits. EPA later found that the waste in the pits included acidic water from the waste oil treatment process, sludges, and waste oil containing polychlorinated biphenyls (PCBs) and heavy metals. Allied went bankrupt in 1968 and most of the property transferred to the City of Jacksonville for nonpayment of taxes. After the pits were abandoned by Allied, they remained open for several years.

In 1968, one of the pits ruptured and spilled waste into the McGirts Creek tributary and neighboring private property. The pit was backfilled following this incident. The City of Jacksonville recognized the need to take action to prevent further spreading of contamination. The Jacksonville Mosquito Control Branch began building water-oil separators with limestone filters at the Site, but was not able to finish construction due to budget issues. Wastewater from the pits continued, at times, to be released into the adjacent wetland area and the McGirts Creek tributary due to failure of the berms built during previous Site operations, resulting in contamination of surface water and sediment. Most notably, in 1976, during a dike wall reconstruction project at the Site conducted by the Jacksonville Mosquito Control Branch, an estimated 200,000 gallons of waste oil spilled on the adjacent land and creek. This spill triggered a response by EPA Region 4's Emergency Response Branch.

### **3.4 Initial Response**

On June 29, 1976, EPA Region 4's Environmental Emergency Branch was contacted by the city of Jacksonville following the 200,000-gallon oil spill that occurred during a dike wall repair by the Jacksonville Mosquito Control Branch. EPA took control of the spill

assessment and the cleanup of McGirts Creek and spent about \$200,000 under the provisions of Section 311 of the Clean Water Act. EPA also recognized the potential hazard posed by the remaining five pits and, with the assistance of the City of Jacksonville, constructed a treatment system in order to drain the pits.

After draining the water from the pits, the Mosquito Control Branch took measures to stabilize the ponds. Since the remaining viscous waste oil sludge would not support heavy construction equipment, the ponds were backfilled with selected construction debris, scrap lumber, trees, wood chips, and non-degradable wastes. A three-inch layer of automobile shredder waste was placed on top of these materials. The liquid portion of the waste oil sludge was pumped off, mixed with a stabilizing agent known as Fuller's earth, and then used as a backfill/sealer over the automobile shredder waste. This layer of Fuller's earth and oil was relatively impervious and should have prevented vertical percolation of rainwater. The Fuller's earth mixture was covered with eight to twelve inches of clean earth (mostly sand). After the project ran out of Fuller's earth, local clay was substituted as a landfill capping material.

After stabilization was completed, the Site was planted with local grasses and ditches were constructed to control drainage. Between 1976 and 1979, this system was destroyed by vandals; subsequent monitoring by the City of Jacksonville in 1979 showed the continuing release of pollutants to surface water and ground water. Following this monitoring, the City of Jacksonville covered the surface and sides of the pits and dike with six inches of low-permeability local clay, followed by twelve inches of topsoil. This cover was revegetated using local grasses. The drainage system was again modified and lined with clay to keep leachate out of the surface water and drop structures were constructed to control flow velocity and erosion. This arrangement diverted surface water away from the landfill, thus reducing the mechanism for pollutant transport. This second stabilization project was completed in the summer of 1980. As an initial remedial action, drainage was further modified to control leachate seepage into the ditches along with steps to strengthen the dikes around the pits.

The Site was proposed for listing on EPA's National Priorities List (NPL) on October 23, 1981, after monitoring results indicated the migration of Site contaminants to surface water and ground water. The NPL is a list of priority releases for long-term evaluation and remedial response, and was promulgated pursuant to section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended. The NPL list is found in the NCP (Appendix B of 40 CFR part 300). The Site's listing on the NPL was finalized on September 8, 1983. In 1983, the Florida Department of Environmental Regulation (FDER) completed a remedial investigation (RI) under a cooperative agreement with EPA. The RI characterized Site wastes and the extent of contamination. In 1985, EPA completed a feasibility study (FS) which evaluated remedial alternatives for the Site.

Potentially responsible parties (PRPs) for the Site were identified by EPA in 1989. Site PRPs include Florida East Coast Railway, David J. Joseph Company, CSX Transportation, Inc., Chevron USA, Inc., Anchor Glass Container Corporation, and the

City of Jacksonville, Florida. The PRPs formed the Whitehouse Remedial Action Group (WRAG) in September 2000 to address Site cleanup issues.

### **3.5 Basis for Taking Action**

The RI for the Site determined that there were organic compounds, including polycyclic aromatic hydrocarbons (PAHs) and PCBs, and heavy metals in ground water, surface water, sediments, and soil. A risk assessment for the Site was conducted in 1991. The risk assessment established the contaminants of concern (COCs), the current and future exposure pathways to COCs, and a risk characterization based on exposure levels. Table 2 provides a list of the ground water, surface water, and soil COCs and the remedial goals for each in 1998.

**Table 2: Contaminants of Concern and Their Remedial Goals in Ground Water, Surface Water, and Soil**

Contaminant	Ground Water Remedial Goal as of 1998 (µg/L)	Class III State Surface Water of Concern Quality Criteria as of 1998 (µg/L)	Soil Cleanup Goals (mg/kg)
<b>Inorganics</b>			
Antimony	6	4,300	42
Arsenic	50	50	32
Barium	2,000	NA <sup>a</sup>	5,262
Cadmium	5	$e^{(0.7852[\ln H]-3.49)}$ <sup>b,c</sup>	53
Chromium	100	11	526
Copper	1,300	$e^{(0.8545[\ln H]-1.465)}$ <sup>d</sup>	3,905
Lead	15	$e^{(1.273[\ln H]-4.705)}$ <sup>e</sup>	400
Manganese	50	NA	NA
Nickel	100	$e^{(0.846[\ln H]+1.1645)}$ <sup>f</sup>	2,105
Selenium	50	5	NA
Vanadium	150	NA	NA
Zinc	5,000	$e^{(0.8473[\ln H]+0.7614)}$ <sup>g</sup>	NA
<b>Organics</b>			
Acetone	1,700	NA	NA
Benzene	1	71.28	0.4
Benzo(a)pyrene	0.2	0.031	0.1
PCB 1260	NA	0.014	1
Bis(2-ethylhexyl)phthalate	6	NA	61.5
Carbon Disulfide	1,640	NA	NA
Chlorobenzene	NA	NA	42
1,4-Dichlorobenzene	NA	NA	36
Di-N-Butyl Phthalate	NA	NA	7,911
Ethylbenzene	30	NA	NA
Methyl Ethyl Ketone	8,460	NA	NA
3,4-Methylphenol	850	NA	NA
2-Methylnaphthalene	67	NA	NA
Naphthalene	1,500	NA	317
Phenol	10,000	300	47,467
Toluene	40	NA	2,000
Tetrachloroethene	NA	8.85	4
Trichloroethene	3	NA	1
Xylene	20	NA	NA

a) NA = Contaminant not included in the list of contaminants for the specified media.  
b) The metals criteria for surface water is directly related to the hardness of the water. "lnH" means the natural logarithm of total hardness expressed as µg/L of CaCO<sub>3</sub>. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L.  
c) The hardness of the water (H) will be between 25 - 400 mg/L, the contaminant will be within a range of 0.382 - 3.37 µg/L.  
d) The hardness of the water (H) will be between 25 - 400 mg/L, the contaminant will be within a range of 3.61 - 38.7 µg/L.  
e) The hardness of the water (H) will be between 25 - 400 mg/L, the contaminant will be within a range of 0.544 - 18.6 µg/L.  
f) The hardness of the water (H) will be between 25 - 400 mg/L, the contaminant will be within a range of 48.8 - 509.4 µg/L.  
g) The hardness of the water (H) will be between 25 - 400 mg/L, the contaminant will be within a range of 32.75 - 343.1 µg/L.

The human health portion of the risk assessment identified and evaluated the potential routes or pathways through which current residents, trespassers, or future residents could be exposed to Site contaminants. It was determined that "current exposure" to the



existing residents may occur through the exposure to contaminated soil during recreational activities, gardening, and children playing. It was also assumed that residents could be exposed through eating vegetables grown in contaminated soil. Children and adults trespassing on the Site could be exposed to onsite contaminated soil and surface water in Site ditches. Although residents used drinking water from the local "rock" aquifer, analytic results of private wells indicated there was no contamination above drinking water standards, so this pathway was not evaluated as a "current route" of exposure. The specific "current exposure" pathways evaluated in the risk assessment are listed below:

- ingestion and dermal absorption of soil and exposed wastes;
- dermal absorption of contaminants in surface water;
- dermal absorption of contaminants in sediments; and
- ingestion of vegetables grown in contaminated soil.

Future exposure pathways evaluated in the risk assessment include:

- dermal absorption and accidental ingestion of surface soil and exposed wastes;
- dermal absorption of contaminants in surface water;
- dermal absorption of contaminants in sediments;
- ingestion of vegetables irrigated with potentially contaminated ground water;
- vegetables grown on contaminated soil;
- intentional ingestion of ground water;
- incidental ingestion of ground water while cooking or bathing;
- dermal absorption of contaminants while showering or bathing;
- indoor inhalation of volatiles from ground water (when showering or bathing);
- outdoor inhalation of volatiles from ground water (when irrigating vegetable crops); and
- exposure to waste constituents released into ground water from an on-site landfill.

According to the risk assessment, the combined lifetime cancer risk for current exposure associated with reasonable maximum exposure (RME) contaminant exposures was  $3.5 \times 10^{-5}$ , which is within EPA's acceptable target risk range of  $10^{-4}$  to  $10^{-6}$ . Most of this risk was associated with exposures to 1,4-dichlorobenzene through the surface soil and vegetable consumption pathways. Exposures to PCBs in exposed waste accounted for the remainder of the risk, with the other current-use pathway not contributing significantly. The total cancer risk associated with the potential future exposure pathways was  $2.0 \times 10^{-6}$ , with essentially all (> 99 percent) of the risk associated to exposures to trichloroethene through the use of shallow ground water for drinking water and for showering. If an individual were to be exposed to site-related contaminants under RME conditions by all of the present-use and potential future land-use pathways, the total estimated lifetime cancer risk for all pathways would be  $3.7 \times 10^{-5}$ , which was and is acceptable today.

The total non-cancer hazard index for the combined current-use exposure pathways was 0.16, with about 81 percent of this value contributed by exposures to naphthalene through home-grown vegetables and fruits. Essentially all of the remainder of the hazard index was accounted

for by exposures to antimony and barium in surface soil. The overall hazard index value for the combined current-use exposure pathways indicated that there should be no cause for concern over the occurrence of non-cancer adverse effects under the RME exposure conditions, even if the same population is exposed by all pathways.

The combined adult hazard index for the additional future pathways was 16.9, with exposure to antimony and chromium in drinking water accounting for about 80 percent of the total hazard index value. Shallow and deep ground water used for drinking are the only two future land-use pathways that yield an exposure index greater than 1.0. In general, indexes less than 1.0 means there is a substantial degree of assurance that there will not be adverse impacts from exposure.

## 4.0 Remedial Actions

In accordance with CERCLA and the NCP, the overriding goals for any remedial action are the protection of human health and the environment and compliance with applicable or relevant and appropriate requirements (ARARs). A number of remedial alternatives were considered for the Whitehouse Waste Oil Pits Site, and final selection was made based on an evaluation of each alternative against nine evaluation criteria that are specified in Section 300.430(f)(5) of the NCP. The nine criteria include:

1. Overall Protectiveness of Human Health and the Environment
2. Compliance with ARARs
3. Long-term Effectiveness and Permanence
4. Reduction of Toxicity, Mobility or Volume of Contamination through Treatment
5. Short-term Effectiveness
6. Implementability
7. Cost
8. State Acceptance
9. Community Acceptance

### 4.1 Remedy Selection

Ground water, surface water, sediment, soil, and wetland contamination was addressed in a single operable unit (OU) for the Site. Contamination was left in the pits found on the Site and backfilled, leaving a large amount of contamination in the soil, which continued to spread into the ground water. The remedy selection and implementation are documented in three documents, the 1985 ROD, the 1992 AROD, and the 1998 AROD. The final remedy selected in the 1998 AROD was clarified in the 2001 ESD.

#### 1985 ROD

Based on the findings of the 1985 RI/FS, EPA issued a ROD on May 30, 1985, which consisted of the following components:

- installation of a slurry wall around the Site, keyed into the aquitard, isolating the waste;
- recovery and treatment of contaminated groundwater within the walled area, thus contributing to waste isolation;
- removal of contaminated sediment from the northeast tributary of McGirts Creek and placement within the isolation area; and
- construction of a surface cap over the Site to reduce the inflow of water into the walled area.

#### 1992 AROD

With the passage of the Superfund Amendments and Reauthorization Act (SARA) in 1986, EPA determined it was necessary to re-evaluate the containment remedy in the

1985 ROD and search for alternatives that provided treatment which would permanently and significantly reduce the mobility, toxicity, and volume of hazardous substances at the Site. The implementation of the 1985 ROD was put on hold. Instead, EPA conducted additional studies between 1988 and 1991. These studies included a baseline risk assessment, a supplemental feasibility study, and a treatability study in 1991 to examine a treatment train of soil washing, biological treatment, and stabilization. The studies led to EPA's issuance of an AROD on June 16, 1992 (the 1992 AROD).

The 1992 AROD summary included the following elements:

- excavation of contaminated waste pits;
- separation of construction debris, stumps, etc. from contaminated soil and steam cleaning prior to offsite disposal;
- volume reduction by soil washing;
- biotreatment to biologically degrade wash water contaminants;
- stabilization/solidification (S/S) of biotreated material exceeding cleanup criteria;
- onsite disposal of washed soils and S/S of contaminant fines and sludge;
- extraction and treatment of contaminated groundwater using activated carbon and chemical precipitation, with discharge to the northeast tributary of McGirts Creek;
- installation and maintenance of a six-inch vegetative cover over the excavated area;
- installation and maintenance of a fence around the site during remedial activities; and
- implementation of institutional controls, including deed restrictions.

Following the signing of the 1992 AROD, EPA issued special notice letters to initiate negotiations with the PRPs. Because a settlement could not be reached, EPA proceeded with a fund-lead remedial design. During the remedial design, EPA determined that additional investigatory work was needed to define the nature and quantities of waste material in the pits. In April 1994, EPA and the group of PRPs signed an administrative order on consent (AOC) whereby the PRPs known as the WRAG conducted the additional studies. Based on the results of the additional investigatory work, EPA concluded that additional treatability and feasibility studies were needed. In January 1995 the WRAG agreed to modify the AOC with EPA to perform the additional regulatory work. After completing these additional studies, the WRAG prepared and finalized the final supplemental treatability and feasibility study in July 1997 after receiving and incorporating comments from EPA.

#### 1998 AROD

The results of the additional investigatory work and treatability studies conducted at the Site indicated that the remedy outlined in the 1992 AROD would not be effective in addressing contamination at the Site. Accordingly, in 1998, EPA issued a second Amended ROD. The amended remedy selected in the 1998 AROD addressed all contaminated media at the Site by containing the on-site waste sludge, contaminated soil, wetlands, sediment, and ground water. The function of the remedy was to isolate the Site

as a source of ground water and surface water contamination and reduce the risks associated with exposure to the contaminated materials. The major components of the selected remedy included:

- in situ stabilization/solidification treatment of lifts 1 (topsoil and clay) and 2 (thin layer of shredded foam rubber and plastic overlying a layer of sawdust, wood chips, dimensional lumber, debris, and silty sand) with incorporation of a geogrid to enhance structural stability;
- installation of a vertical barrier (slurry wall or geosynthetic sheet pile wall) to isolate and contain contaminated soil, sludge, wetlands, sediment, and ground water;
- installation of a lime curtain inside the containment system to adjust ground water pH;
- construction of a low permeability cap over the contained area which meets Resource Conservation and Recovery Act (RCRA) closure requirements under 40 CFR 264.228(a)(2);
- realignment of the McGirts Creek tributary to optimize the area of ground water containment;
- extension of the municipal water supply to residents along Machelle Drive and Chaffee Road and plugging of private supply wells;
- installation of a permanent security fence around the containment area and installation and maintenance of appropriate stormwater management controls;
- monitored natural attenuation of contaminated ground water outside the containment system;
- sampling of offsite surface soil and downstream surface water and sediment during design to determine if additional measures are necessary; and
- imposition of deed restrictions to control future land and ground water use.

Once the 1998 AROD was finalized, the remedial design occurred between 1998 and 2001.

#### 2001 Explanation of Significant Differences

The primary change to the selected remedy proposed in the 2001 ESD was the deletion of the lime curtain from the interior of the ground water containment system. The lime curtain was originally conceived to provide passive treatment of low pH ground water passing through the system to raise the pH and precipitate metals before ground water seeped out of the containment wall. However, EPA determined that this calcium-based lime curtain could have adverse effects on the sodium-based slurry wall. Ground water modeling conducted during the remedial design confirmed that the slurry wall would adequately contain contaminated ground water, and natural attenuation outside the containment system would address any residual contaminants within the timeframe estimated in the 1998 AROD.

Other changes proposed in the ESD resulted primarily from the discovery of additional contamination. During the remedial design it was determined that the ground water

plume was larger than expected and therefore it was necessary to increase the size of the slurry wall and further realign the adjacent tributary. Additional off-site soil contamination in residential areas along McGirts Creek identified during the remedial design also required additional effort and expense to excavate contaminated soil and sediment and place these materials beneath the site cap. Finally, the estimated cost of the remedy increased as the scope of these and other remedy components increased, causing more work to be performed at the site than originally anticipated.

## 4.2 Remedy Implementation

### Construction

The remedial design began in September 1998 and was approved in September 2000. RA negotiations with the WRAG and EPA were completed in September 2001. In November 2003, EPA began the construction of the remedy specified in the 1998 AROD, as amended through the 2001 ESD, at the Site. The RA was conducted by the WRAG. Golder Associates, the WRAG contractor, was approved by EPA as the supervising contractor for the RA. Following mobilization, clearing and grubbing, and surveying, onsite construction began on the McGirts Creek tributary realignment.

The offsite McGirts Creek response action began in January 2004 with construction of an access road and selective clearing of trees and brush. A cofferdam and access road were constructed around a 5.7-acre wetland area, and contaminated sediment was excavated for on-site disposal. After confirmatory sampling, the wetland area was restored to the pre-existing grade using the clean cofferdam material and a blend of topsoil and wood chips from the selective clearing. A mix of wetland tree species was planted in the restored area. When hurricanes passed through the area in 2004, some mature trees were blown down and long-term flooding caused excess mortality in the planted saplings. The downed trees were removed and new trees were planted.

Solidification/stabilization of soil over the former waste oil pits began in February 2004. A continuous monolith of blended soil and concrete was constructed over a 5.4-acre area with a minimum thickness of three feet. The monolith serves as both a physical barrier to the waste and as structural support for the cap. Barrier wall construction began in May 2004. Installation of 3,100 linear feet of barrier wall to an average depth of 65 feet was completed on July 29, 2005, and quality control testing and capping of the barrier wall was completed on August 23, 2005. Construction of a multi-layer cap and cover system consisting of common fill to establish the base grade, a geonet gas vent layer, a geosynthetic clay layer, a 40-mil liner, a composite drainage layer (collectively, "the cap"), an 18-inch protective soil cover layer and a vegetated 6-inch topsoil cover (collectively, "the cover system"), a gas vent system, and drainage improvements began in August 2005. Construction of the cap was completed on January 14, 2006, and the final grades and seeding for the cap and cover system were completed on March 31, 2006. In November 2006, the cap was re-seeded because the vegetative cover did not flourish. Monitoring well installation was completed on April 28, 2006. Gas vents were installed in the cap as part of the passive gas management system to minimize odor and

prevent damage to the vegetative cap. All substantial elements of the physical construction of the remedy were completed on May 4, 2006.

Quarterly ground water monitoring data, collected as part of regular Site O&M, are used to monitor natural attenuation at the Site. If any contaminants are found to exceed cleanup goals in the monitoring data, appropriate actions will be taken to address the contamination.

#### Private Well Monitoring

Private wells on Mabelle Drive were monitored in 1998 and no wells were found to have contamination. While EPA expected the remedy to function well enough that the "rock" aquifer would not be contaminated, there was no guarantee that contaminants would not migrate off-site in the future. As a result, in 2004, a water main extension was constructed by the Jacksonville Electric Authority (JEA) to provide water service to residents along Mabelle Drive (down gradient of the Site) and portions of Chaffee Road (adjacent to the Site) on a voluntary basis and at no cost to the homeowners. All residents that were offered municipal water accepted JEA's offer. The residents were not required to abandon their private wells, but their water piping had to be modified to ensure that their well water would not enter the municipal water supply. Once the water main extension was implemented, monitoring continued at the perimeter of the Site, but private wells were no longer sampled. Residents are able to continue using their private wells for outdoor, non-potable uses, including watering lawns, and washing cars. During interviews with nearby residents, it was discovered that some residents are using water from private wells for potable uses, even though access to the municipal water supply is available. Since the ground water monitoring data does not show evidence of contaminant migration, there is not a current threat to human health.

#### Restrictions

During the remediation process, it was necessary for EPA to enter into restrictive covenants with several residents living near the Site. With the restrictive covenants in place, EPA was able ensure access to the Site to implement, facilitate, and monitor the selected remedy. The City of Jacksonville has also developed land swap agreements with residents owning small land areas adjacent to the north and northeast portions of the Site to include all of the pit lands as part of the easement that was purchased from the former Site owners in 2003. EPA and WRAG have finalizing the final land swap agreements. The City of Jacksonville is in the process of drafting deed restrictions that will be put in place to control future land and ground water use at the Site.

### **4.3 Operation and Maintenance (O&M)**

The Operation and Maintenance (O&M) Plan for the Site was approved by EPA and O&M activities began taking place in July 2006. WRAG contractor Golder Associates is responsible for conducting O&M at the Site. The O&M services include monthly monitoring of the cap, passive gas management system, stormwater management system,

wetlands planting area, Site security system, and ground water monitoring system. The ground water was also sampled and the cap was mowed on a quarterly basis. The water level of wells inside and outside of the barrier wall was monitored on a monthly basis to evaluate the performance of the selected remedy. In year two of the O&M plan, the only changes to O&M included inspection of the passive gas management system and wetlands planting area on a quarterly basis instead of a monthly basis. As part of the O&M plan and selected remedy, the vegetation on the cap and in the wetlands planting area will be maintained.

At the time of this review, the Site is in the third year of the O&M schedule, which is identical to the one established for year two. Golder Associates has monitored the Site in accordance with the O&M plan and has submitted an annual report to EPA summarizing the results. The next annual report is expected to be submitted before the end of 2008. The O&M plan summary table is provided in Appendix H.

The 1998 AROD estimated the total cost of the Site's selected remedy to be \$8.5 million, with an additional \$1.7 million in O&M costs. The O&M costs were estimated to be an annual cost of \$60,000 to maintain the barrier wall, \$40,000 for ground water monitoring, and \$5,600 for annual reports and Site inspections, along with an additional \$33,000 annually for the support team carrying out O&M each year. However, the Site's ESD estimated that the total cost of the selected remedy would be \$13 million. The increased cost was primarily due to an increase in the overall size and coverage of the selected remedy. Because the overall size and coverage of the remedy was larger, the annual estimated cost of O&M to maintain the remedy also increased. Table 3 shows the annual cost for O&M at the Site during most of this review period. The O&M cost is higher in year one of O&M because all of the management and monitoring systems were checked on a monthly basis. During year two of O&M, the wetlands and passive gas management system were only required to be checked on a quarterly basis because the wetlands were more established and a data set of the gas levels at the Site were collected. Both the wetlands and gas management system do not require much maintenance. Annual O&M reports and monthly Site progress reports are submitted by WRAG to EPA.

**Table 3: Annual O&M Costs**

Date		Total Cost Rounded to the Nearest \$1,000
From	To	
July 2006	June 2007	\$193,000
July 2007	June 2008	\$170,000

## 5.0 Progress Since the Last Review

This is the first FYR for this Site.



## **6.0 Five-Year Review Process**

### **6.1 Administrative Components**

EPA Region 4 initiated the Five-Year Review on July 1, 2008 and scheduled its completion for November 19, 2008. The Whitehouse Waste Oil Pits review team was led by EPA remedial project manager (RPM) Rusty Kestle and also included EPA community involvement coordinator (CIC) L'Tonya Spencer; contractor support was provided to EPA by E<sup>2</sup> Inc. On July 16, 2008, EPA held a scoping call with the review team to discuss the Site and items of interest as they related to the protectiveness of the remedy currently in place. A review schedule was established that consisted of:

- community notification;
- document review;
- data collection and review;
- site inspection;
- local interviews; and
- FYR Report development and review.

### **6.2 Community Involvement**

On July 29, 2008, a public notice was published in the *Florida Times Union* newspaper announcing the commencement of the FYR process for the Whitehouse Waste Oil Pits Site, providing Rusty Kestle's contact information, and inviting community participation. The press notice is available in Appendix B. The FYR report will be made available to the public once it has been finalized. Copies of this document will be placed in the designated public repository, which has moved from the Whitehouse Elementary School Media Center to the West Regional Jacksonville Public Library at 1425 Chaffee Rd S., Jacksonville, Florida 32221.

On July 29, 2008, as part of the Site inspection, E<sup>2</sup> Inc. staff visited the West Regional Library and confirmed that Whitehouse Waste Oil Pits Site documents were readily available to the public in the library. Site documents were available through 1999. Since the Site inspection, actions have been taken to include all relevant and current Site documents at the repository. Upon completion of the FYR, a public notice will be placed in the *Florida Times Union* newspaper to announce the availability of the final FYR report in the Site document repository. No citizen comments or concerns regarding cleanup activities at the Site have been received from the public to date.

### **6.3 Document Review**

This FYR included a review of the 1985 ROD, the 1992 AROD, the 1998 AROD, the 2001 ESD, remedial action reports, and recent monitoring data. A complete list of the documents reviewed can be found in Appendix A.

## ARARs Review

Section 121 (d)(2)(A) of CERCLA specifies that Superfund remedial actions must meet any federal standards, requirements, criteria, or limitations that are determined to be legally ARARs. ARARs are those standards, criteria, or limitations promulgated under federal or state law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site.

To-be-considered criteria (TBCs) are nonpromulgated advisories and not guidance that is not legally binding, but should be considered in determining the necessary level of cleanup for protection of human health or the environment. While TBCs do not have the status of ARARs, EPA's approach to determining if a remedial action is protective of human health and the environment involves consideration of TBCs along with ARARs.

Chemical-specific ARARs are specific numerical quantity restrictions on individually listed contaminants in specific media. Examples of chemical-specific ARARs include the MCLs specified under the Safe Drinking Water Act as well as the ambient water quality criteria that are enumerated under the Clean Water Act. Because there are usually numerous contaminants of potential concern for any site, various numerical quantity requirements can be ARARs. The final remedy selected for this Site was designed to meet or exceed all chemical-specific ARARs and meet location- and action-specific ARARs.

## Ground Water ARARs

The 1998 AROD established chemical-specific ARARs for 26 contaminants of concern (COCs) in ground water based on Federal Drinking Water Maximum Contaminant Levels (Federal MCLs) (40 CFR 141-143), Florida Primary and Secondary Drinking Water Maximum Contaminant Levels (Florida MCLs) (FAC 62-550), and risk-based ground water cleanup goals for the Site. This review examined the current Federal and Florida MCLs and found that the regulatory levels associated with ground water ARARs have become more stringent for arsenic (from 50 µg/l to 10 µg/l), copper (from 1,300 µg/l to 1,000 µg/l), and 2-methylnaphthalene (from 67 µg/l to 28 µg/l). The regulatory levels associated with ARARs for the remaining 23 COCs have not changed since 1998 (Table 4).

**Table 4. Changes in Regulatory Levels Associated with Chemical-specific ARARs for the COCs in Ground Water**

Contaminant	Regulatory levels associated with ARARs (µg/L) as of 1998 <sup>a</sup>	Federal MCLs (µg/L) as of 2008	Florida MCLs (µg/L) as of 2008	Regulatory levels associated with ARARs (µg/L) as of 2008 <sup>b</sup>	Changes in regulatory levels associated with ARARs
<b>Inorganics</b>					
Antimony	6	6	6	6	
Arsenic	50	10	10	10	More stringent
Barium	2,000	2,000	2,000	2,000	
Cadmium	5	5	5	5	
Chromium	100	100	100	100	
Copper	1,300 <sup>c</sup>	1,300 <sup>d</sup>	1,000 <sup>d</sup>	1,000	More stringent
Lead	15	15	15	15	
Manganese	50	-	50 <sup>d</sup>	50	
Nickel	100	-	100	100	
Selenium	50	50	50	50	
Vanadium	150 <sup>e</sup>	-	-	150	
Zinc	5,000	-	5,000 <sup>d</sup>	5,000	
<b>Organics</b>					
Acetone	1,700 <sup>e</sup>	-	-	1,700	
Benzene	1	5	1	1	
Benzo(a)pyrene	0.2	0.2	0.2	0.2	
Bis(2-ethylhexyl)phthalate	6	-	6	6	
Carbon Disulfide	1,640 <sup>e</sup>	-	-	1,640	
Ethylbenzene	30 <sup>f</sup>	-	30 <sup>d</sup>	30	
Methyl ethyl Ketone	8,460 <sup>e</sup>	-	-	8,460	
3/4-Methylphenol	850 <sup>e</sup>	-	-	850	
2-Methylnaphthalene	67 <sup>e</sup>	-	28 <sup>d</sup>	28	More stringent
Naphthalene	1,500 <sup>e</sup>	-	-	1,500	
Phenol	10,000 <sup>e</sup>	-	-	10,000	
Toluene	40 <sup>f</sup>	-	40 <sup>d</sup>	40	
Trichloroethene	3	5	3	3	
Xylene	20 <sup>f</sup>	-	20 <sup>d</sup>	20	
<p>a) The original cleanup goals are the ARARs as of 1998 based on Federal Drinking Water Maximum Contaminant Levels (Federal MCLs) (40 CFR 141-143), Florida Primary and Secondary Drinking Water Maximum Contaminant Levels (Florida MCLs) (FAC 62-550), and risk-based ground water cleanup goals for the Site (see Table 8 of the 1998 AROD, <a href="http://www.epa.gov/superfund/sites/rods/fulltext/a0498088.pdf?page=39">http://www.epa.gov/superfund/sites/rods/fulltext/a0498088.pdf?page=39</a>).</p> <p>b) ARARs as of 2008 are based on current Federal MCLs or Florida MCLs, whichever is more stringent. Source for the Federal MCLs, National Primary Drinking Water Regulations, can be found at <a href="http://www.epa.gov/safewater/contaminants/index.html">http://www.epa.gov/safewater/contaminants/index.html</a> (accessed on 8/25/2008), and source for the Florida MCLs, Florida Primary and Secondary Drinking Water Standards, can be found at <a href="http://www.dep.state.fl.us/legal/Rules/drinkingwater/62-550.pdf">http://www.dep.state.fl.us/legal/Rules/drinkingwater/62-550.pdf</a> (accessed on 8/26/2008).</p> <p>c) Treatment technique action level enforceable under Federal and State drinking water regulations.</p> <p>d) Secondary Drinking Water Standards.</p> <p>e) Risk-based ground water cleanup goals from Table 8-2 of Final Risk Assessment, September 1991.</p> <p>f) For purpose of compliance with ground water quality secondary standards, as referenced in FAC 62-520, levels of ethyl benzene exceeding 30 µg/l, toluene exceeding 40 µg/l, and xylene exceeding 20 µg/l shall be considered equivalent to exceeding the drinking water secondary standard for odor. Note that there are also Federal and Florida Primary MCLs for ethyl benzene, toluene, and xylene, but these ARARs were established in the 1998 AROD based on Florida Secondary Drinking Water Standards.</p>					

## Surface Water ARARs

The 1998 AROD established chemical-specific ARARs for 15 contaminants of concern (COCs) in surface water based on the Florida Surface Water Quality Criteria for Class III Surface Water (FAC 62-302.530). This review examined the current Florida Surface Water Quality Criteria and found that the regulatory levels associated with surface water ARARs have become more stringent for cadmium, copper, and nickel, and less stringent for zinc (Table 5). These changes in regulatory levels do not affect the protectiveness of the remedy because the remedy is functioning as designed, as demonstrated by the monitoring completed to date.

**Table 5. Changes in Regulatory Levels Associated with Chemical-specific ARARs for the COCs in Surface Water**

Contaminant	Class III State Surface Water of Concern Quality Criteria (µg/L) as of 1998	Class III State Surface Water of Concern Quality Criteria (µg/L) as of 2008	Changes in regulatory levels associated with ARARs
<b>Inorganics</b>			
Antimony	4,300	4,300	
Arsenic	50	50	
Cadmium <sup>a</sup>	$e^{(0.7852[\ln H]-3.49)}$	$e^{(0.7409[\ln H]-4.719)}$	More stringent <sup>b</sup>
Chromium	11	11	
Copper <sup>a</sup>	$e^{(0.8545[\ln H]-1.465)}$	$e^{(0.8545[\ln H]-1.702)}$	More stringent <sup>c</sup>
Lead <sup>a</sup>	$e^{(1.273[\ln H]-4.705)}$	$e^{(1.273[\ln H]-4.705)}$	
Nickel <sup>a</sup>	$e^{(0.846[\ln H]+1.1645)}$	$e^{(0.846[\ln H]+0.584)}$	More stringent <sup>d</sup>
Selenium	5	5	
Zinc <sup>a</sup>	$e^{(0.8473[\ln H]+0.7614)}$	$e^{(0.8473[\ln H]+0.884)}$	Less stringent <sup>e</sup>
<b>Organics</b>			
Benzene	71.28	71.28	
Benzo(a)pyrene	0.031	0.031	
PCB 1260	0.014	0.014	
Phenol	300	300	
Tetrachloroethene	8.85	8.85	
Trichloroethene	80.7	80.7	
<p>a) The metals criteria for surface water is directly related to the hardness of the water. "lnH" means the natural logarithm of total hardness expressed as µg/L of CaCO<sub>3</sub>. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is &lt; 25 mg/L and set at 400 mg/L if actual hardness is &gt; 400 mg/L.</p> <p>b) The hardness of the water (H) will be between 25 - 400 mg/L, the contaminant will be within a range of 0.097 - 0.756 µg/L.</p> <p>c) The hardness of the water (H) will be between 25 - 400 mg/L, the contaminant will be within a range of 2.85 - 30.5 µg/L.</p> <p>d) The hardness of the water (H) will be between 25 - 400 mg/L, the contaminant will be within a range of 27.3 - 285.1 µg/L.</p> <p>e) The hardness of the water (H) will be between 25 - 400 mg/L, the contaminant will be within a range of 37.0 - 387.8 µg/L.</p>			

## Soil ARARs

The 1998 AROD established chemical-specific ARARs for 20 contaminants of concern in soil based on risk-based soil cleanup goals calculated by EPA in the June 11, 1992 Memorandum (in the administrative record). This review did not find any evidence suggesting that any of the assumptions used in development of the risk-based soil cleanup

goals have changed since the 1998 AROD. Monitoring data to date has also validated the protectiveness of the remedy. Therefore, current ARARs for soil should remain the same as the original cleanup goals (Table 6).

**Table 6. Current ARARs for COCs in Soil**

Contaminant	Soil Cleanup Goals (mg/kg) <sup>a</sup>
<b>Inorganics</b>	
Antimony	42
Arsenic	32
Barium	5,262
Cadmium	53
Chromium	526
Copper	3,905
Lead <sup>b</sup>	400
Nickel	2,105
<b>Organics</b>	
Benzene	0.4
Benzo(a)pyrene	0.1
Bis(2-ethylhexyl)phthalate	61.5
Chlorobenzene	42
1,4-Dichlorobenzene	36
Di-N-Butyl Phthalate	7,911
Naphthalene	317
PCB 1260 <sup>b</sup>	1
Phenol	47,467
Tetrachloroethene	4
Toluene	2,000
Trichloroethene	1
a) ARARs as of 1998 were based on risk-based soil cleanup goals for the Site (see Table 8 of the 1998 AROD, <a href="http://www.epa.gov/superfund/sites/rods/fulltext/a0498088.pdf?page=39">http://www.epa.gov/superfund/sites/rods/fulltext/a0498088.pdf?page=39</a> ). These risk-based soil cleanup goals were calculated by EPA and presented in June 11, 1992 memorandum (in the administrative record).	
b) Lead soil cleanup goal was based on OSWER Directive 9355.4-12 (July 14, 1994) and PCB soil cleanup goal was based on OSWER Directive 9355.4-01 (August 1990).	

## 6.4 Data Review

### Ground Water Data

Ground water data collected within the last five years was reviewed as part of this FYR. Ground water sampling events have occurred at the Site since August 2006 when the first year of O&M began. The ground water monitoring data was collected at monitoring wells inside and outside of the barrier wall. During the first quarter, ground water was sampled for 1,4-dichlorobenzene, chlorobenzene, methylene chloride, tetrachlorethene, di-n-butyl-phthalate, and PCB-1260. The sample results verified that these contaminants were not found at detectable levels outside of the barrier wall and would not require monitoring during future sampling. The highest concentration of contaminants that were detected in Site ground water outside the containment zone above cleanup levels within the last five years is included in Table 7, along with the sampling quarter in which they

were detected. All other ground water COCs have been monitored regularly and their detected levels were below cleanup levels.

Manganese has consistently been detected in Site ground water outside the containment zone at levels above cleanup goals, which EPA has determined indicates that manganese is naturally occurring at these levels in the Site ground water. Benzo(a)pyrene was observed to be above cleanup goals in Site ground water outside the containment zone during the May 2008 sampling event. The cleanup goal for benzo(a)pyrene is 0.2 µg/l, and it was found to be 0.28 µg/l in well EPA-9S, which is located near the mound of soil north of the Site. On July 2008, well EPA-9S was re-sampled because of the elevated benzo(a)pyrene level from the May 2008 sampling event, and the concentration was 0.025 µg/l. It was determined that no further action was required at the time, but that the contaminant would be closely monitored in the upcoming November 2008 sampling event.

During the November 2007 sampling event, lead was detected in Site ground water inside the containment zone in USGS-1S at 21 µg/l, which is above the cleanup goals. Lead was also detected at levels above cleanup goals during the February and May 2008 sampling events. Filtered and unfiltered ground water samples were taken at wells with high turbidity levels, including wells EPA-7D and USGS-1S, which are located within the containment area at the Site. The results from the unfiltered sample showed elevated levels of lead at these wells, while the filtered samples showed levels of lead below cleanup goals. The high levels of lead in unfiltered samples during February 2008 were attributed to the presence of high levels of particulate matter. During May 2008 sampling elevated lead levels were detected at USGS-1S.

Arsenic was also detected in Site ground water outside the containment zone at a level of 16 µg/l (elevated levels) in well EPA-3D, which is located on the northern boundary of the Site. Arsenic was not re-sampled in July 2008 because Golder Associates used the regulatory level associated with the ARAR for arsenic from the 1998 AROD. However, arsenic will continue to be monitored during the next sampling event in November 2008 and evaluated against the current MCL for arsenic.

Ground water is the only media that is monitored at the Site because the remaining contamination in soil and sediment from the Site above cleanup goals set in the 1998 AROD is contained within a barrier wall and cap that prevents contaminant migration. Appendix G contains the ground water monitoring data for all COCs during each sampling quarter.

**Table 7. Contaminant Levels Above Cleanup Goals in Ground Water**

	<b>Manganese (µg/L)</b>	<b>Benzo(a)pyrene (µg/L)</b>	<b>Lead (µg/L)</b>	<b>Arsenic (µg/L)</b>
<b>August/September 2006</b>	530	- <sup>a</sup>	-	-
<b>November 2006</b>	390	-	-	-
<b>February 2007</b>	350	-	-	-
<b>May 2007</b>	320	-	-	-
<b>August 2007</b>	240	-	-	-
<b>November 2007</b>	250	-	21	-
<b>February 2008</b>	240	-	42	-
<b>May 2008</b>	320	0.28	36	16
<b>July 2008</b>	-	0.025 <sup>b</sup>	-	-

a) "-" indicates concentration was below cleanup goals.  
b) The concentration of benzo(a)pyrene from the July 2008 sampling event was below the cleanup goal, which is 0.2 µg/L.

## 6.5 Site Inspection

The Site inspection for this FYR was conducted on July 29, 2008. Participants included Rusty Kestle and L'Tonya Spencer from EPA, John Sykes from FDEP, Fabian Benavente and Lori Anne Hendel from Golder Associates, and Christy Cunningham and Treat Suomi from E<sup>2</sup> Inc. The purpose of the inspection was to take photographs, assess the external condition of wells, and assess the condition of the cap and barrier wall. As part of the Site inspection, EPA and E<sup>2</sup> Inc staff conducted research at Duval County Records office and visited the Site's information repository.

Representatives from EPA, FDEP, Golder Associates, and E<sup>2</sup> Inc. met at the Whitehouse Waste Oil Pits Site. During the Site inspection, participants viewed the capped portion of the Site, the monitoring wells and peizometers, the wetlands restoration, and the McGirts Creek tributary. The gate to the fence surrounding the Site was secure and had a sign identifying the Site as a Superfund site. The Site appeared to be well-maintained, and was mowed to provide access to the monitoring wells.

Overall, the Site appeared to be properly maintained, but there were a few areas that EPA noted need attention. A few of the monitoring wells were unmarked and a small group of flush-mounted monitoring wells that were not secured. The vegetative cover on the cap was growing well, with the exception of a few small areas that need to be replanted. The wetlands were also established; however, some invasive plant species were observed to be growing in the wetland area. There was no apparent evidence of trespassing, although nearby residents mentioned seeing people on the capped area using all-terrain vehicles. A large mound of soil on the property adjacent to the north of the Site was observed. Golder Associates confirmed that the property has been leased by the FDOT to store the soil, but did not have any other information about the status of the mound.

The visit to the Site repository revealed that the repository only contained Site documents through 1999. EPA noted that the Site repository should contain documents through the present. Relevant documents have since been added to the repository from 1999 to present and maintain current.

The visit to the Duval County Public Records Office revealed six easements held by EPA and a deed of ownership of a private residence adjacent to the Site. Table 8 provides a list of the documents recorded. Copies of these documents are in appendix D.



**Table 8: Deed Documents from Duval County Public Records Office**

<b>Date</b>	<b>Type of Document</b>	<b>Description</b>	<b>Book #</b>	<b>Page #</b>
2003	Easement	Provides permanent and temporary right of access to EPA to implement, facilitate, and monitor the remedial actions at the Site.	11189	1128
2003	Easement	Provides permanent and temporary right of access to EPA to implement, facilitate, and monitor the remedial actions at the Site.	11490	1024
2003	Easement	Provides permanent and temporary right of access to EPA to implement, facilitate, and monitor the remedial actions at the Site.	11112	2119
2003	Deed	A portion of a private residence adjacent to the south of the Site was purchased by the City of Jacksonville.	11314	815
2008	Easement	Provides permanent right of access to EPA to implement, facilitate, and monitor the remedial actions at the Site.	14343	61
2008	Easement	Describing the proposed boundaries for a land swap agreement between a property owner and EPA to contain land that is part of the former oil pit area at the Site.	14555	130
2008	Easement	Describing the proposed boundaries for a land swap agreement between two property owners and EPA to contain land that is part of the former oil pit area at the Site.	14555	123

**6.6 Interviews**

Interviews were conducted as part of this FYR process. The purpose of the interviews was to document the Site's status and any issues or successes with the current progress of the selected remedy. On July 29, 2008 representatives from FDEP and Golder Associates were interviewed by Christy Cunningham of E<sup>2</sup> Inc., and residents living near the Site were interviewed by L'Tonya Spencer of EPA. Overall, FDEP and Golder Associates found the status of the Site to be satisfactory and stated that the remedy is working well. The one significant concern they identified at the Site is the need to successfully conclude a land swap agreement with the previous Site owner so that institutional controls can be implemented. Nearby residents were aware of the Site and generally had no major complaints about the Site's status. Residents that live adjacent to the Site have noticed an increase in flooding from McGirts Creek because it regularly gets backed up with debris, such as tree limbs and plants. The residents had some concern about how well water is draining into McGirts Creek. Residents also noted that they have occasionally seen people riding all-terrain vehicles in the fenced portion of the Site.

**Table 9: Interview Subjects**

<b>Interview Subject</b>	<b>Affiliation</b>
John Skyes	Environmental Specialist III, FDEP
Fabian Benavente	Senior Engineer, Golder Associates
Resident 1	Lives near the Site
Resident 2	Lives near the Site
Resident 3	Lives adjacent to the Site
Residents 4 and 5	Live adjacent to the Site
Resident 6	Lives near the Site

The following are summaries of the interviews that were conducted as part of the FYR process.

Mr. John Skyes: Mr. Skyes is the environmental specialist at the Site for FDEP. Mr. Skyes finds the remedy to be functioning satisfactorily. He is not aware of any activities that have been conducted by FDEP in the last two years since he has taken over managing the Site. He has not heard about any complaints or concerns about the Site from the community. He feels that this is a low-key Site because it has been cleaned up. Mr. Skyes visits the Site at least two to four times a year. As far as FDEP is concerned, he believes the only remaining task at the Site is to implement institutional controls.

Mr. Fabian Benavente: Mr. Benavente is the senior engineer from Golder Associates (contractor for the WRAG) at the Site. Mr. Benavente believes the remedy is working well. He is not aware of any environmental issues at the Site, but does know there are still issues with the property at the Site. Mr. Benavente knows that the Site is inspected on a monthly basis and the maintenance is done as needed. He has not heard about any concerns or requests for more information about the Site. He believes it would be helpful to remind members in the community living near the Site of access agreements in case future maintenance needs to be done at the Site.

Resident 1: Resident 1 was aware of the Whitehouse Waste Oil Pits Site and did not have any major issues concerning the Site. He was not aware of any trespassing or problems with the Site. He did suggest putting an emergency exit route at the end of Mabelle Drive because it dead ends into the Site. He mentioned that an additional exit off of Mabelle Drive when hurricane evacuations were required would be helpful to people trying to leave the area because the road can get very congested with traffic. While Resident 1 is connected to the city water supply, he did mention that he occasionally uses his private well to fill his pool and water the grass. However, he does not use his private well for use in the house.

Resident 2: Resident 2 was aware of the Whitehouse Waste Oil Pits Site. He has lived near the Site since 1968. Resident 2 did not know the status of the Site and asked if the Site was cleaned up or if cleanup was still in progress. He was informed that the cleanup was still in progress. Resident 2 was not aware of any trespassing, although he has occasionally seen children that do not live on Mabelle Drive come from the direction of

the Site. Resident 2 is connected to the city water supply, but said he uses his private well for irrigation and drinking.

Resident 3: Resident 3 was aware of the Whitehouse Waste Oil Pits Site. His only concern with the Site is how often the grass gets mowed in the area near his property. He showed great interest in being allowed to mow this area. He has recently seen an increase in the number of snakes around his property and believes that keeping the grass cut will help reduce the number of snakes. Resident 3 uses the city water supply, but knows the well is hooked to a sprinkler system that may be used by renters on his property. Resident 3 would like to see the property reused as a model airplane flying field. Resident 3 has seen children trespassing on the Site using all-terrain vehicles. Other than the trespassing, Resident 3 is not aware of anything that may cause a problem at the Site.

Residents 4 and 5: Residents 4 and 5 were aware of the Whitehouse Waste Oil Pits Site. Their only complaint about the Site is that a ditch at the Site is not draining properly into McGirts Creek because it keeps getting clogged with fallen trees and limbs. This is causing part of their property to flood in heavy rain events. They have called the Florida Department of Environmental Protection at least three times this year to clean out the ditch, but it continues to get clogged with fallen trees. Residents 4 and 5 have also seen an increase in the number of snakes around their property. Other than the drainage issue, Residents 4 and 5 do not have any issues with the operation and maintenance of the Site. They have occasionally seen people trespassing onto the Site to use all-terrain vehicles.

Resident 6: Resident 6 was aware of the Whitehouse Waste Oil Pits Site, but did not know any details about the cleanup work that has been done. He wishes that Site had been cleaned up earlier, but he has not been greatly affected by its presence. He would like to see McGirts Creek be cleaned up to allow better drainage because he continues to see flooding in the area. Resident 6 is not aware of any trespassing on the Site, but has observed trucks taking dirt or fill to an area adjacent to the Site.

Appendix C contains the interview forms for the above summaries.

## 7.0 Technical Assessment

### 7.1 Question A: Is the remedy functioning as intended by the decision documents?

The selected remedy in the 1998 AROD and the 2001 ESD addresses the ground water, surface water, and soil contamination at the Site. The selected remedy uses stabilization/solidification, vertical barriers, a cap, and a fence to control the potential spread of contamination. There has not been any impacted water supply wells associated with the Site, nor is there any evidence to suggest that any water supply well ever will be impacted by the site. However, as a precaution, the municipal water supply was extended to residents who live near the Site and all of the residents agreed on a voluntary basis to be connected to the municipal water supply for their potable water. During interviews, it was noted that although all residents were connected to the municipal water supply, some residents were using water from private wells as a potable water source. As previously stated, since the ground water monitoring data does not show evidence of contaminant migration there is not a current threat to human health.

Since the remedy has been implemented, most contamination has been contained to the Site and contaminant levels remain below cleanup levels. Monitoring wells off-site and on-site have been tested quarterly. Manganese has been observed at levels between 240 and 530 µg/l since August 2006 ground water sampling. The up-gradient ground water monitoring data indicates that manganese naturally occurs at this level on the Site.

Ground water monitoring data from May 2008 did show benzo(a)pyrene levels of 0.29 µg/l (cleanup levels are 0.2 µg/l) at monitoring well EPA-9S located outside the containment zone near the mound of soil north of the Site. Well EPA-9S was re-sampled in July 2008, and showed benzo(a)pyrene levels to be below levels established in the cleanup goals. To determine if the May 2008 sampling was an anomaly, Golder Associates plans to closely monitor this well; the previous eight sampling events showed contaminant levels that were below the levels set as cleanup goals.

Lead levels were found to exceed levels set in cleanup goals inside the containment zone during November 2007, February 2008, and May 2008 sampling at wells within the containment area. The highest lead level detected during this time was 42 µg/l. It is suspected that the high lead levels may have been a result of high particulate matter in unfiltered samples.

During May 2008, arsenic was detected in the Site ground water outside of the containment zone. Arsenic was detected at 16 µg/l in well 3D to the north of the Site, which is slightly above current regulatory levels associated with the arsenic MCL. These concentrations will be monitored in future sampling events. The MCL level for arsenic changed from 50 to 10 after the 1998 AROD and the 2001 ESD was issued by EPA. Golder Associates will evaluate the levels of arsenic in the groundwater in the future against the current MCL. Since the level of arsenic only exceeded the current MCL in one well, which is north of the site, the arsenic may be naturally occurring as opposed to coming from the Site. The future sampling taken at the Site will allow EPA to evaluate

whether the arsenic is naturally occurring or if the arsenic is a result of the Site conditions. The continuing monitoring will also ensure that the remedy is functioning properly and contaminants are not migrating off-site.

In summary, arsenic is the only contaminant of concern that has been detected above current regulatory levels associated with Site cleanup goals in non-containment zone Site ground water. As previously noted, residents live directly to the south and east of the Site and not to the north of the Site where arsenic was found in levels slightly above the current MCL.

The Site is inspected on a monthly basis to ensure that the remedy continues to function properly. Ground water is monitored on a semi-annual basis, and the gas vents are checked on a quarterly basis. At the time of the Site inspection, the vegetation covering the cap was found to need re-vegetation in some areas; however, the majority of the cap had an established vegetative cover, so the cap has not been prevented from functioning as intended. The fence surrounding the cap was found to have a large opening on the west side of the Site to allow for drainage. This opening could allow easy access to the Site by trespassers and nearby residents have seen trespassers using all-terrain vehicles within the fenced area, but there was no evidence of damage to the cap or any part of the remedy. Institutional controls will need to be placed on the property to regulate future land and ground water use at the Site and to ensure that future uses will not complete an exposure pathway.

**7.2 Question B: Are the exposure assumptions, Toxicity Data, Cleanup Levels, and Remedial Action Objectives (RAOs) Used at the Time of Remedy Selection Still Valid?**

The RAOs used at the time of remedy selection are still valid at the Site. Some of the regulatory levels associated with ARARs for ground water and surface water have changed since the 1998 AROD. The regulatory levels associated with ground water ARARs for arsenic, copper, and 2-methylnaphthalene have become more stringent. The regulatory level associated with the ARAR for arsenic changed from 50  $\mu\text{g/L}$  to 10  $\mu\text{g/L}$ , the regulatory level associated with copper changed from 1,300  $\mu\text{g/L}$  to 1,000  $\mu\text{g/L}$ , and the regulatory level associated with 2-methylnaphthalene changed from 67  $\mu\text{g/L}$  to 28  $\mu\text{g/L}$ . There were no other changes observed in regulatory levels associated with ground water ARARs. The changes in regulatory levels associated with ground water ARARs do not affect the protectiveness of the remedy because the slurry wall appears to be adequately containing surface water, ground water, and soil contamination at the Site that exists above cleanup goals established for the Site in the 1998 AROD.

The standards for Florida Surface Water Quality Criteria for Class III Surface Water have changed for four chemicals. The standards for cadmium, copper, and nickel have become more stringent and the standard for zinc has become less stringent. The changes in regulatory levels associated with surface water ARARs do not affect the protectiveness of the remedy because the slurry wall appears to be adequately containing contamination at

the Site. See Table 5 above for the updated equations to calculate the regulatory levels associated with surface water ARARs.

The cleanup goals for soil remain the same as the action-specific ARARs established in the 1998 AROD because there are no new assumptions that would cause a change.

**7.3 Question C: Has Any Other Information Come to Light That Could Call into Question the Protectiveness of the Remedy?**

There is a large mound of soil located on the property adjacent to the north of the Site that was placed on the property by the FDOT and meets FDOT cleanup standards. Because of the soil's close proximity to the Site, the mound of soil needs to be contained to the adjacent property because it could cause erosion to occur at the Site, which would affect the protectiveness of the Whitehouse Waste Oil Pits Site remedy. Also, monitoring well samples taken from the EPA-9S well near the FDOT soil mound have recently shown elevated levels of benzo(a)pyrene. Golder Associates plans to closely monitor the contaminant levels in this well because there have not previously been levels above detection limits. FDEP is also working with EPA to make the adjacent property owner prevent the soil from the FDOT soil mounds from washing away and threatening to bury the adjacent monitoring wells and possibly impact surface water and/or groundwater quality. The regulatory level associated with the current ARAR for arsenic in ground water that Golder Associates is using has changed, and is more stringent than the regulatory level associated with the original arsenic ARAR from the 1998 AROD. Golder Associates will monitor the groundwater against the current MCL for arsenic.

During the Site's cleanup, residents were given the option to connect to municipal water as a precautionary measure. All residents accepted the option to connect to the municipal water supply. The current ground data currently shows that contamination is contained to the Site and using water from private wells is not an immediate threat. Residents' private wells were tested and no contamination was found in any wells. As a result, the private wells were not considered a potential exposure pathway since the Site's remedy prevents contamination from spreading to the aquifer. Residents are able to continue using their private wells for outdoor, non-potable uses, including watering lawns and washing cars. During interviews with nearby residents, it was discovered that some residents are using water from private wells for potable uses. Since the ground water monitoring data does not show evidence of contaminant migration, there is not a current threat to human health. If future monitoring at the Site indicates that contaminants are migrating, private wells should be re-sampled to ensure that residents are not exposed to contamination.

During interviews with residents living adjacent to the Site, several residents mentioned that people have been observed trespassing on the capped portion of the Site within the fenced area to ride all-terrain vehicles. In the future, use of all-terrain vehicles on the cap could affect the protectiveness of the remedy if appropriate steps are not taken to prevent trespassers from accessing the Site.

#### 7.4 Technical Assessment Summary

Based on the Site inspection, interviews, data reviewed, and the remedial components currently in place, the Whitehouse Waste Oil Pits Site remedy is protective of human health and the environment and is functioning as intended by the 1998 AROD and 2001 ESD. The Site's physical conditions remain unchanged. However, the fence opening at the west end of the Site provides easy access for trespassers, which could affect the protectiveness of the remedy if steps are not taken to restrict access to the Site. The mound of soil adjacent to the Site should be properly contained on the adjacent property to protect against erosion and to ensure that it does not affect the selected remedy. Current regulatory levels associated with ARARs should also be used when assessing protectiveness of the Site remedy to ensure that the Site remedy remains protective.

The only contaminant of concern that has been detected in Site ground water above current regulatory levels associated with Site cleanup goals outside the containment zone and which has continued to be detected in recent sampling above current regulatory levels associated with Site cleanup goals is arsenic. Arsenic has been detected at 16  $\mu\text{g/l}$ , which is slightly above current regulatory levels associated with the arsenic MCL. As previously noted, residents live directly to the south and east of the Site.

Land and ground water restrictions need to be implemented at the Site to restrict future land and ground water use at the Site as part of the selected remedy.

## 8.0 Issues

**Table 10: Current Issues for the Whitehouse Waste Oil Pits Site**

Issue	Affects Current Protectiveness	Affects Future Protectiveness
<p>The property adjacent to the northern edge of the Site is being leased by the FDOT as a storage area for soil. As a result, a large mound of soil has accumulated next to the Site. The content of the soil is unknown, but has been cleaned up to FDOT standards. However, the status of the soil needs to be properly contained to the adjacent property because it could affect the proper functioning of the selected remedy by causing erosion at the Site and compromising the protectiveness of the remedy.</p>	No	No
<p>Some monitoring wells were found to be unlabeled and the flush mounted wells (EPA-7D, EPA-7I, and USGS-1S) on the cap were unsecured.</p>	No	No
<p>The fence surrounding the cap has an opening on the west side for drainage; however, due to the size of the opening potential trespassers can access the Site. Local residents have seen people riding all-terrain vehicles on the cap.</p>	No	Yes
<p>Golder Associates, the WRAG contractor, is currently using the regulatory level for arsenic set at 1998 MCL levels in ground water rather than the current MCL levels for arsenic.</p>	No	No
<p>Deed restrictions have not been put in place to restrict future land and ground water use at the Site.</p>	No	Yes



## 9.0 Recommendations and Follow-up Actions

**Table 11: Recommendations to Address Current Issues at the Whitehouse Waste Oil Pits Site**

Issue	Recommendations/ Follow-Up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness?	
					Current	Future
The property adjacent to the northern edge of the Site is being leased by the FDOT as a storage area for soil. As a result, a large mound of soil has accumulated next to the Site. The content of the soil is unknown, but has been cleaned up to FDOT standards. However, the status of the soil needs to be properly contained to the adjacent property because it could affect the proper functioning of the selected remedy by causing erosion at the Site and compromising the protectiveness of the remedy.	Contact FDOT to improve the containment of the mound of soil on the adjacent property and to take appropriate measures to protect against erosion and sanitation to ensure that the presence of the soil will not affect the protectiveness of the remedy.	WRAG	EPA	3/31/09	No	No
Some monitoring wells were found to be unlabeled and the flush mounted wells (EPA-7D, EPA-7I, and USGS-1S) on the cap were unsecured.	Ensure that monitoring wells are labeled and to provide easy identification in the future.	WRAG	EPA	12/31/08	No	No
The fence surrounding the cap has an opening on the west side for drainage; however, due to the size of the opening potential trespassers can access the Site. Local residents have seen people riding all-terrain vehicles on the cap.	Close the opening on the west side of the fence or make it smaller to prevent trespassers from accessing the Site.	WRAG	EPA	3/31/09	No	Yes

Issue	Recommendations/ Follow-Up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness?	
					Current	Future
Golder Associates, the WRAG contractor, is currently using the regulatory level for arsenic set at 1998 MCL levels in ground water rather than the current MCL levels for arsenic.	Inform the PRPs that there has been a change to the ARAR used for arsenic from 50 µg/l to 10 µg/l to ensure that any contaminant levels above the levels established for cleanup goals can be monitored during future ground water sampling.	WRAG	EPA	12/31/08	No	No
Deed restrictions have not been put in place to restrict future land and ground water use at the Site.	Restrict future land and ground water use at the Site by implementing deed restrictions.	WRAG	EPA	3/31/09	No	Yes

## 10.0 Protectiveness Statements

The selected remedy at the Site is protective of human health and the environment in the short-term because all exposure pathways that could result in unacceptable risks are being controlled. The contamination remaining on-site is being contained to the capped portion with a vertical barrier wall to prevent any migration of contaminants. The gas vent system installed in the cap is working properly, and the ground water monitoring wells are checked in accordance with the O&M plan to ensure contaminants are not migrating off-site.

For the remedy to be protective in the long-term, certain activities should be done, including:

- finalizing the deed restrictions on the property;
- ensuring the drainage opening in the fence on the west side is closed completely or made smaller to prevent Site access by trespassers;
- following up with the Florida Department of Environmental Protection (FDEP) to ensure the mound of Florida Department of Transportation soil, on the adjacent property, is contained appropriately and will not affect the remedy's proper functioning; and
- The MCL level for arsenic changed from 50 to 10 after the 1998 AROD was issued by EPA. Golder Associates will evaluate the levels of arsenic in the groundwater in the future against the current MCL. Since the level of arsenic only exceeded the current MCL in one well which is north of the site, upgradient and outside of the groundwater containment wall, the arsenic may be naturally occurring as opposed to coming from the Site. The future sampling taken at the Site will allow EPA to evaluate whether the arsenic is naturally occurring or if the arsenic is a result of the Site conditions. The continuing monitoring will also ensure that the remedy is functioning properly and contaminants are not migrating off-site.

## 11.0 Next Review

The Whitehouse Waste Oil Pits Site is a statutory Site that requires ongoing five-year reviews. EPA should conduct the next review within five years of completion of this first FYR listed as the date of signature on the inside cover of this report. The next FYR for the Whitehouse Waste Oil Pits Superfund Site is due in five years or by November 2013.

## **Appendix A: List of Documents Reviewed**

“EPA Explanation of Significant Differences: Whitehouse Waste Oil Pits.” (OU 1). EPA/ESD/R04-01/539. July 16, 2001.

“EPA Record of Decision: Whitehouse Waste Oil Pits.” (OU 1). EPA/ROD/R04-85/003. May 30, 1985.

“EPA Record of Decision Amendment: Whitehouse Waste Oil Pits.” (OU 1). EPA/AMD/R04-92/113. June 16, 1992.

“EPA Record of Decision Amendment: Whitehouse Waste Oil Pits.” (OU 1). EPA/AMD/R04-98/088. September 24, 1998.

“Treatability Study Report: Whitehouse Waste Oil Pits Site.” USEPA Work Assignment No. 037-RDRD-0434. Prepared by Camp Dresser & McGee. October 2000.

“Feasibility for the Whitehouse Waste Oil Pits.” Prepared by Ecology and Environment, Inc. for the Florida Department of Environmental Regulation. June 1985.

“Remedial Investigation Report.” May 30, 1985.

“Preliminary Close Out Report: Whitehouse Waste Oil Pits Superfund Site.” May 4, 2006.

“Final Risk Assessment: Whitehouse Waste Oil Pits Site.” Prepared by Ebasco Services Incorporated. Volume 1. September 1991.

“Administrative Order on Consent,” prepared by U.S. EPA. November 20, 2001.

“Administrative Order on Consent,” prepared by U.S. EPA. October 15, 2004.

“NPL Site Narrative for Whitehouse Waste Oil Pits.” Federal Register Notice: September 8, 1983.

“Geosynthetic Quality Assurance of Construction of Cap: Whitehouse Waste Oil Pits.” Prepared by Golder Associates, Inc. for U.S. EPA on behalf of the Whitehouse Remedial Action Group. July 2006.

“Ready for Reuse: Whitehouse Former Industrial Property Fact Sheet.” Prepared by EPA Region 4. December 2004.

“Whitehouse Waste Oil Pits Fact Sheet.” Prepared by EPA Region 4. March 2001.

“Whitehouse Waste Oil Pits Fact Sheet.” Prepared by EPA Region 4. October 2003.

“Whitehouse Waste Oil Pits Fact Sheet.” Prepared by EPA Region 4. January 2004.

“March Monthly General Inspection, Whitehouse Waste Oil Pits.” Prepared by Golder Associates, Inc. for U.S. EPA. March 31, 2008.

“April Monthly General Inspection, Whitehouse Waste Oil Pits.” Prepared by Golder Associates, Inc. for U.S. EPA. April 31, 2008.

“May Monthly General Inspection, Whitehouse Waste Oil Pits.” Prepared by Golder Associates, Inc. for U.S. EPA. June 3, 2008.

“June Monthly General Inspection, Whitehouse Waste Oil Pits.” Prepared by Golder Associates, Inc. for U.S. EPA. July 8, 2008.

“Consent Decree Agreement,” Civil Action No.3:01-CV-1424-J-21-TEM. United States of America, Plaintiff v. City of Jacksonville, et al., Defendants. September 20, 2001.

“Whitehouse Waste Oil Pits Superfund Site, 2007 Annual Operation, Maintenance, and Monitoring Report.” Prepared by Golder Associates, Inc. for U.S. EPA. May 30, 2008.

## Appendix B: Press Notices



**U. S. Environmental Protection Agency, Region 4  
Announces a Five-Year Review  
for the Whitehouse Waste Oil Pits Superfund Site,  
Jacksonville, Duval County, FL**

**Purpose/Objective:** The U.S. Environmental Protection Agency (EPA) is conducting a Five-Year Review of the remedy for the Whitehouse Oil Pits site (Site) in Jacksonville, Florida. The purpose of the Five-Year Review is to ensure that the selected cleanup actions effectively protect human health and the environment.

**Site Background:** The Whitehouse Oil Pits site occupies approximately seven acres in Jacksonville, Florida, 10 miles west of downtown Jacksonville. Allied Petroleum disposed of contaminated acidic waste oil sludges from an oil reclaiming process in pits on the site between 1958 and 1968. Allied Petroleum went bankrupt in 1968 and The City of Jacksonville subsequently assumed ownership of the property by tax default.

In 1976, two pits released their contents, contaminating wetlands along McGirts Creek, the surficial ground water aquifer beneath the site, soil, and sediment with heavy metals, polychlorinated biphenyl compounds, semi-volatile organic compounds, and volatile organic compounds. The Record of Decision was signed in 1985. The selected remedy included soil containment and a ground water pump and treat system. The Record of Decision was amended in 1992 to require excavation and treatment of wastes in the pits. An Explanation of Significant Differences signed in 2001 identified the following major remedy components: realignment of the northeast tributary to McGirts Creek to optimize the area of ground water containment; excavation of contaminated off-site wetlands sediment with on-site disposal; installation of a vertical barrier to isolate and contain contaminated soil, sludge, and ground water; solidification/stabilization of the upper two soil lifts across the former pits area; installation of a RCRA-type cap over the vertical barrier and solidification/stabilization area; extension of water lines to homes adjacent to and down gradient of the Site; and engineering and institutional controls including fencing and deed restrictions. Construction of the remedy was completed in 2006.

**Five-Year Review Schedule:** The National Contingency Plan requires that remedial actions that result in any hazardous substances, pollutants, or contaminants remaining at the Site above levels that allow for unlimited use and unrestricted exposure be reviewed every five years to ensure protection of human health and the environment. The first of these Five-Year Reviews for this Site will be completed in November 2008.

**EPA invites community participation in the Five-Year Review process.**

The EPA is conducting this Five-Year Review to evaluate the effectiveness of the remedy and ensure that the remedy remains protective of human health and the environment. As part of the Five-Year Review process, the EPA is available to answer any questions about the Site. Community members who have questions about the Site, the Five-Year Review process, or who would like to participate in a community interview, are asked to contact the following:

Rusty Kestle, Remedial Project Manager

404-562-8819

[kestle.rusty@epa.gov](mailto:kestle.rusty@epa.gov)

L'Tonya Spencer, Community Involvement  
Coordinator

404-562-8463 / 1-800-435-9234 (Toll Free)

[spencer.l'tonya@epa.gov](mailto:spencer.l'tonya@epa.gov)

U.S. EPA - Region 4 Mailing Address

61 Forsyth Street, S.W.

Atlanta, GA 30303-8960

Online: <http://cfpub.epa.gov/supercpad/cursites/csinfo.cfm?id=0400901>



## Appendix C: Interview Forms

### Interview Form for Whitehouse Waste Oil Pits Five-Year Review (State contact)

Site Name: Whitehouse Waste Oil Pits EPA ID No.: FLD980602767  
Interviewer Name: Christy Cunnington Affiliation: E<sup>2</sup> Inc.  
Subject's Name: John Skyes Affiliation: Florida Department of Environmental Protection  
Subject's Contact Information: 850-245-8960  
Time: 11:15 a.m. Date: 7/29/08  
Type of Interview (Circle one): In Person Phone \_\_\_\_\_ Mail \_\_\_\_\_ Other \_\_\_\_\_  
Location of Interview: Whitehouse Waste Oil Pits Site

**1. How well do you believe the remedy currently in place is performing?**

So far, appears to be satisfactory.

**2. Has your office conducted any site-related activities or communications in the last five years? If so, please give purpose and results of these activities.**

Have only had the Site for two years, may need to defer to others for more input.

**3. Has the local government received any citizen complaints or inquiries regarding environmental issues at this Site?**

I don't know. Would need to ask Duval County. FDEP is not aware of any complaints or inquires.

**4. Are you comfortable with the Institutional Controls (ICs) required for the Site and their current status of implementation?**

No. ICs still need to be implemented. They are not fully implemented as far as I know.

**5. Are you aware of any events, incidents, or activities at the Site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.**

No.

**6. Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details.**

I have not heard anything regarding calls about the Site. Onsite work is complete, making it a low-key site.

**7. Have there been routine communications or activities (site visits, inspections,**

**reporting activities, etc.) conducted by your office regarding the Site? If so, please give purpose and results.**

Yes, I try to visit the Site whenever I'm in town, including when I come to visit the Coleman Evans Superfund Site. I try to make it out at least once every six months if not once a quarter. Implementing ICs is the only thing left to be done at the Site as far as the state is concerned.

**Interview Form for Whitehouse Waste Oil Pits Five-Year Review  
(PRPs and others involved with operations at the Site)**

Site Name: Whitehouse Waste Oil Pits EPA ID No.: FLD980602767

Interviewer Name: Christy Cunnington Affiliation: E<sup>2</sup> Inc.

Subject's Name: Fabian Benavente Affiliation: Golder Associates

Subject's Contact Information: 904-363-3430 Ext. 26259

Time: 11 a.m. Date: 7/29/08

Type of Interview (Circle one): In Person Phone Mail Other \_\_\_\_\_

Location of Interview: Whitehouse Waste Oil Pits Site

**1. How well do you believe the remedy currently in place is performing?**

Working well.

**2. What is the frequency of Operation & Maintenance (O&M) activities and inspections at the Site? To your knowledge has the maintenance been implemented as intended?**

O&M activities occur monthly. Maintenance is done as needed.

**3. Are you aware of any complaints or inquiries regarding environmental issues or the remedial action since implementation of the cleanup?**

There have been no complaints or inquires about environmental issues about the Site. There have been issues with the property.

**4. Should EPA do more to keep involved parties and surrounding neighbors informed of activities at the Site? By what methods?**

Not sure how involved people are, but have not heard any complaints or requests for information.

**5. Are you comfortable with the Institutional Controls (ICs) required for the Site and their current status of implementation?**

Yes.

**6. Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details.**

No. It may be good to remind people off-site of current access agreements in case any future maintenance needs to be done on the Site.

**Interview Form for Whitehouse Waste Oil Pits Five-Year Review  
(Individuals in the community)**

Site Name: Whitehouse Waste Oil Pits EPA ID No.: FLD980602767  
Interviewer Name: L'Tonya Spencer Affiliation: U.S. EPA  
Subject's Name: Resident 1 Affiliation: Nearby resident  
Time: 2 p.m. Date: 7/29/08  
Type of Interview (Circle one): In Person Phone Mail Other \_\_\_\_\_  
Location of Interview: Home of resident 1

**1. Are you aware of the former environmental issues at the Whitehouse Waste Oil Pits Site and what cleanup activities have occurred?**

Resident 1 was aware of the Site.

**2. What are your views about current site conditions, problems, or related concerns?**

Resident 1 was okay with current site conditions and was not aware of any problems.

**3. Are you aware of any events, incidents, or activities at the Site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.**

Resident 1 was not aware of any trespassing or emergency responses.

**4. Do you feel well informed about the Site's activities and progress?**

Resident 1 knew about the Site, but was not aware of all the current activities in progress.

**5. Do you have any comments, suggestions, or recommendations regarding the Site's management or operations?**

Resident 1 suggested looking into putting an emergency exit route on Machelle Drive near the Site to allow residents alternative routes when hurricane evacuations are required.

**Interview Form for Whitehouse Waste Oil Pits Five-Year Review  
(Individuals in the community)**

Site Name: Whitehouse Waste Oil Pits EPA ID No.: FLD980602767

Interviewer Name: L'Tonya Spencer Affiliation: U.S. EPA

Subject's Name: Resident 2 Affiliation: Nearby resident

Time: 2:15 p.m. Date: 7/29/08

Type of Interview (Circle one): In Person Phone Mail Other \_\_\_\_\_

Location of Interview: Home of resident 2

**1. Are you aware of the former environmental issues at the Whitehouse Waste Oil Pits Site and what cleanup activities have occurred?**

Resident 2 is aware of the Site, but did not know about the cleanup status of the Site.

**2. What are your views about current site conditions, problems, or related concerns?**

Resident 2 feels the current site conditions have not given him any trouble.

**3. Are you aware of any events, incidents, or activities at the Site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.**

Resident 2 is not aware of any trespassing.

**4. Do you feel well informed about the Site's activities and progress?**

Resident 2 was not sure if the Site had already been cleaned up or if work was still being done.

**5. Do you have any comments, suggestions, or recommendations regarding the Site's management or operations?**

No comments or suggestions.

**Interview Form for Whitehouse Waste Oil Pits Five-Year Review  
(Individuals in the community)**

Site Name: Whitehouse Waste Oil Pits EPA ID No.: FLD980602767  
Interviewer Name: L'Tonya Spencer Affiliation: U.S. EPA  
Subject's Name: Resident 3 Affiliation: Nearby resident  
Time: 2:30 p.m. Date: 7/29/08  
Type of Interview (Circle one): In Person Phone Mail Other \_\_\_\_\_  
Location of Interview: Home of resident 3

**1. Are you aware of the former environmental issues at the Whitehouse Waste Oil Pits Site and what cleanup activities have occurred?**

Resident 3 is aware of the Site and the cleanup activities that have occurred.

**2. What are your views about current site conditions, problems, or related concerns?**

Resident 3 is overall satisfied with the current status of the Site. He would like to have the grass mowed more often on the portion of the Site near his property. He believes the tall grass is contributing to an increase in the number of snakes he has seen on his property.

**3. Are you aware of any events, incidents, or activities at the Site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.**

Resident 3 has observed children using all-terrain vehicles on the Site for recreation.

**4. Do you feel well informed about the Site's activities and progress?**

Resident 3 is well informed about the Site.

**5. Do you have any comments, suggestions, or recommendations regarding the Site's management or operations?**

Resident 3 would like the grass mowed more often on a portion of the Site or be allowed to mow the grass himself. He also showed interest in the Site's reuse as a model airplane flying field.

**Interview Form for Whitehouse Waste Oil Pits Five-Year Review  
(Individuals in the community)**

Site Name: Whitehouse Waste Oil Pits EPA ID No.: FLD980602767

Interviewer Name: L'Tonya Spencer Affiliation: U.S. EPA

Subject's Name: Residents 4 and 5 Affiliation: Nearby residents

Time: 2:45 p.m. Date: 7/29/08

Type of Interview (Circle one): In Person Phone Mail Other \_\_\_\_\_

Location of Interview: Home of residents 4 and 5

**1. Are you aware of the former environmental issues at the Whitehouse Waste Oil Pits Site and what cleanup activities have occurred?**

Residents 4 and 5 are aware of the Site and the cleanup activities.

**2. What are your views about current site conditions, problems, or related concerns?**

Residents 4 and 5 are concerned about flooding on their property as a result of a ditch not draining properly into McGirts Creek. They have also seen an increase in the number of snakes on their property.

**3. Are you aware of any events, incidents, or activities at the Site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.**

Residents 4 and 5 have seen people trespassing to ride all-terrain vehicles.

**4. Do you feel well informed about the Site's activities and progress?**

Residents 4 and 5 are well informed about the Site's activities.

**5. Do you have any comments, suggestions, or recommendations regarding the Site's management or operations?**

Residents 4 and 5 would like the drainage issue with the ditch going towards McGirts Creek to be fixed to prevent flooding during heavy rain events or hurricanes.

**Interview Form for Whitehouse Waste Oil Pits Five-Year Review  
(Individuals in the community)**

Site Name: Whitehouse Waste Oil Pits      EPA ID No.: FLD980602767  
Interviewer Name: L'Tonya Spencer      Affiliation: U.S. EPA  
Subject's Name: Resident 6      Affiliation: Nearby resident  
Time: 3 p.m.      Date: 7/29/08  
Type of Interview (Circle one): In Person      Phone      Mail      Other \_\_\_\_\_  
Location of Interview: Home of resident 6

**1. Are you aware of the former environmental issues at the Whitehouse Waste Oil Pits Site and what cleanup activities have occurred?**

Resident 6 is aware of the Site, but does not know details of the cleanup activities.

**2. What are your views about current site conditions, problems, or related concerns?**

Resident 6 wishes the Site had been cleaned up sooner.

**3. Are you aware of any events, incidents, or activities at the Site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.**

Resident 6 is not aware of any trespassing.

**4. Do you feel well informed about the Site's activities and progress?**

Resident 6 does not feel well informed about the Site's activities and progress.

**5. Do you have any comments, suggestions, or recommendations regarding the Site's management or operations?**

Resident 6 recommends that McGirts Creek be cleaned up to allow water to flow properly to prevent flooding.



## Appendix D: Institutional Controls Review

**Table D-1: Deed Documents for Whitehouse Waste Oil Pits from Whitehouse Public Record Office**

<b>Date</b>	<b>Type of Document</b>	<b>Description</b>	<b>Book #</b>	<b>Page #</b>
2003	Easement	Provides permanent and temporary right of access to EPA to implement, facilitate, and monitor the remedial actions at the Site.	11189	1128
2003	Easement	Provides permanent and temporary right of access to EPA to implement, facilitate, and monitor the remedial actions at the Site.	11490	1024
2003	Easement	Provides permanent and temporary right of access to EPA to implement, facilitate, and monitor the remedial actions at the Site.	11112	2119
2003	Deed	A portion of a private residence adjacent to the south of the Site was purchased by the City of Jacksonville.	11314	815
2008	Easement	Provides permanent right of access to EPA to implement, facilitate, and monitor the remedial actions at the Site.	14343	61
2008	Easement	Describing the proposed boundaries for a land swap agreement between a property owner and EPA to contain land that is part of the former oil pit area at the Site.	14555	130
2008	Easement	Describing the proposed boundaries for a land swap agreement between two property owners and EPA to contain land that is part of the former oil pit area at the Site.	14555	123

Prepared by and Return to:  
Gregory K. Radlinski, Assistant General Counsel  
Fla. Bar No. 0166350  
Office of the General Counsel  
117 West Duval Street, Suite 480  
Jacksonville, Florida 32202

Doc# 2003212111  
Book: 11189  
Pages: 1128 - 1141  
Filed & Recorded  
07/02/2003 09:26:04 AM  
JIM FULLER  
CLERK CIRCUIT COURT  
DUVAL COUNTY  
RECORDING \$ 57.00  
TRUST FUND \$ 7.50  
TOTAL DUES \$ 70.00

**ENVIRONMENTAL PROTECTION EASEMENT  
AND  
DECLARATION OF RESTRICTIVE COVENANTS**

This Environmental Protection Easement and Declaration of Restrictive Covenants is made this 19 day of June, 2003, by and between Joe Allen Drawdy and Margaret L. Drawdy, his wife, ("Grantor"), having an address of 322 N. Chaffee Road, Jacksonville, Florida 32220, and the City of Jacksonville, a political subdivision of the State of Florida ("Grantee"), having an address of Room 1208, City Hall Annex, 220 E. Bay Street, Jacksonville, Florida 32202.

**WITNESSETH:**

**WHEREAS**, Grantor is the owner of a parcel of land located in the county of Duval, State of Florida, more particularly described on Exhibit A attached hereto and made a part hereof (the "Property"); and

**WHEREAS**, the Property is part of the Whitehouse Waste Oil Pits Superfund Site ("Site"), which the U.S. Environmental Protection Agency ("EPA"), pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9605, placed on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on September 8, 1983; and

**WHEREAS**, in a Second Amended Record of Decision dated September 24, 1998 (the "ROD") and an Explanation of Significant Differences dated July 16, 2001 (the "ESD"), the EPA Region IV Regional Administrator selected a "remedial action" for the Site, which provides, in part, for the following actions:

1. Installation of a vertical barrier (slurry wall or sheet piling) to isolate and contain the contaminated soil, sludge, wetlands, sediment and groundwater;
2. Solidification/stabilization of Lifts 1 and 2 and incorporate a geogrid to enhance the structural stability of the stabilized soil;
3. Installation of a RCRA type cap over the containment area;

14

4. Realignment of the northeast tributary to McGirts Creek to optimize the area of groundwater containment;
5. Extension of the municipal water supply to residents along Mabelle Drive and plugging of private wells;
6. Monitored natural attenuation of contaminated groundwater outside of the containment system;
7. Imposition of deed restrictions to control future land use and groundwater use;
8. Installation of a permanent security fence around the containment area and installation and maintenance of appropriate stormwater management control; and,
9. Remediation of approximately 3.6 acres of McGirts Creek floodplain.

**WHEREAS**, the parties hereto have agreed 1) to grant a permanent (parcel 105) and a temporary (parcel 805) right of access over the Property to the Grantee and the U.S. Environmental Protection Agency for purposes of implementing, facilitating and monitoring the remedial action; and 2) to impose on the Property use restrictions as covenants that will run with the land for the purpose of protecting human health and the environment; and

**WHEREAS**, Grantor wishes to cooperate fully with the Grantee, the other settling work parties, the Florida Department of Environmental Protection and the U.S. Environmental Protection Agency in the implementation of all response actions at the Site;

**NOW, THEREFORE:**

1. **Grant:** Grantor, on behalf of itself, its successors and assigns, in consideration of the Grantees and other settling work parties' (the "settling work parties" named in the Consent Decree) in compliance with the terms of the Consent Decree in the case of United States v. City of Jacksonville et al. Civ. Action No. 301-CV-1424, U. S. District Court for the Middle District of Florida, Jacksonville Division (the "Consent Decree"), and other good and valuable consideration, receipt of which is hereby acknowledged, does hereby covenant and declare that the Property shall be subject to the restrictions on use set forth below, and does give, grant and convey to the Grantee, and its assigns, with general warranties of title, i) the right to enforce said use restrictions, and ii) an environmental protection easement of the nature and character, and for the purposes hereinafter set forth, with respect to the Property.

2. **Purpose:** It is the purpose of this instrument to convey to the Grantee real property rights, which will run with the land, to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to contaminants.

3. **Restrictions on use:** The following covenants, conditions, and restrictions apply to the use of the Property, run with the land and are binding on the Grantor: (1) refrain from using the Site, including (during construction and post-construction groundwater monitoring) the staging areas for remedial action, in any manner that would interfere with or adversely affect the implementation, integrity, or protectiveness of the remedial measures to be performed pursuant to the Consent Decree referenced in Paragraph 1, above; and, (2) refrain from drilling wells of any kind within the easement without first obtaining the permission of the Grantees.

4. **Modification of restrictions:** The above restrictions may be modified, or terminated in whole or in part, in writing, by the Grantee with the concurrence of the United States Environmental Protection Agency. If requested by the Grantor, such writing will be executed by Grantee in recordable form upon receipt of the environmental regulatory agencies' concurrence.

5. **Environmental Protection Easement:** Grantor hereby grants to the Grantee and the Florida Department of Environmental Protection an irrevocable, and continuing right of access at all reasonable times to the Property for purposes of:

- A. Implementing the response actions in the ROD and the ESDs as they may be, from time to time, amended;
- B. Verifying any data or information submitted to EPA.
- C. Verifying that no action is being taken on the Property in violation of the terms of this instrument or of any local, federal or state environmental laws or regulations;
- D. Monitoring response actions on the Site and conducting investigations relating to contamination on or near the Site, including, without limitation, sampling of air, water, sediments, soils, and specifically, without limitation, obtaining split or duplicate samples;
- E. Conducting periodic reviews of the remedial action, including but not limited to, reviews required by applicable statutes and/or regulations; and
- F. Implementing additional or new response actions if the Grantee and the other setting parties to the Consent Decree are required by a court, the environmental regulatory authorities, or in their sole discretion, determine that i) such actions are necessary to protect the environment because either the original remedial action has proven to be ineffective or because new technology has been developed which will accomplish the purposes of the remedial action in a significantly more efficient or cost effective manner; and, ii) the additional or new response actions will not impose any significantly greater burden on the Property or unduly interfere with the then existing uses of the Property.

6. **Reserved rights of Grantor:** Grantor hereby reserves unto itself, its successors, and assigns and the other settling parties, all rights and privileges in and to the use of the Property which are not incompatible with the restrictions, rights and easements granted herein.

7. **No limitation of access.** Nothing in this document shall limit or otherwise affect rights of the Florida Department of Environmental Protection and the U.S. Environmental Protection Agency to entry and access or their authority to take response actions under CERCLA, the NCP, or other federal or state law.

8. **No Public Access and Use:** No right of access or use by the general public to any portion of the Property is conveyed by this instrument.

9. **Notice requirement:** Grantor agrees to include in any instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases and mortgages, a notice which is in substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL PROTECTION EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS, DATED \_\_\_\_\_, 19 \_\_\_, RECORDED IN THE PUBLIC LAND RECORDS ON \_\_\_\_\_, 19 \_\_\_, IN BOOK \_\_\_\_\_, PAGE \_\_\_\_, IN FAVOR OF, AND ENFORCEABLE BY, THE CITY OF JACKSONVILLE, FLORIDA, THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE UNITED STATES OF AMERICA.

Within thirty (30) days of the date any such instrument of conveyance is executed, Grantor must provide Grantees with a certified true copy of said instrument and, if it has been recorded in the public land records, its recording reference.

10. **Administrative jurisdiction:** The federal agency having administrative jurisdiction over the interests acquired by the United States by this instrument is the U.S. Environmental Protection Agency, and the state agency with administrative jurisdiction over the interests acquired by the State of Florida is the Florida Department of Environmental Protection.

11. **Enforcement:** The Grantee, the settling parties in the litigation referenced in Paragraph 1, above, the U.S. Environmental Protection Agency and the Florida Department of Environmental Protection shall be entitled to enforce the terms of this instrument by resort to specific performance or legal process. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Enforcement of the terms of this instrument shall be discretionary, and any forbearance, delay or omission to exercise its rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver of such term or of any subsequent breach of the same or any other term, or of any of the rights under this instrument.

12. **Damages:** Grantee, the settling parties, the U.S. Environmental Protection Agency and the Florida Department of Environmental Protection shall be entitled to recover damages for violations of the terms of this instrument, or for any injury to the remedial action, to the public or to the environment protected by this instrument.

13. **Waiver of certain defenses:** Grantor hereby waives any defense of laches, estoppel, or prescription.

14. **Covenants:** Grantor hereby covenants to and with the Grantee, the settling work parties, the United States and its assigns and the State of Florida and its assigns, that the Grantor is lawfully seized in fee simple of the Property, that the Grantor has a good and lawful right and power to sell and convey it or any interest therein, that the Property is free and clear of encumbrances, except those noted on Exhibit D attached hereto, and that the Grantor will forever warrant and defend the title thereto and the quiet possession thereof.

15. **Notices:** Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor:

Mr. & Mrs. Allen Drawdy  
322 North Chaffee Road  
Jacksonville, Florida 32220

---

To Grantee (City of Jacksonville) and  
Consent Decree settlers:

Chief, Environmental Law Division  
Office of General Counsel  
City Hall-St. James, Suite 480  
117 W. Duval Street  
Jacksonville, Florida 32202

Michael Stephenson,  
Associate Regional Counsel  
U.S. Env. Protection Agency, Region IV  
61 Forsyth Street  
Atlanta, GA 30303

Office of General Counsel  
Florida Department of Env. Protection  
3900 Commonwealth Boulevard, Mail  
Station 35  
Tallahassee, Florida 32399-3000

16. **Duration of temporary easement.** This temporary easement, granted to allow access to the Site and staging construction equipment and materials, shall terminate one year after completion of construction, unless terminated earlier with the approval of the EPA.

17. **General provisions:**

A. **Controlling law:** The interpretation and performance of this instrument shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of the State of Florida.

B. **Liberal construction:** Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to effect the purpose of this instrument and the policy and purpose of CERCLA. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

C. **Severability:** If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

D. **Entire Agreement:** This instrument sets forth the entire agreement of the parties with respect to rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating thereto, all of which are merged herein.

E. **No Forfeiture:** Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

F. **Joint Obligation:** If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

G. **Successors:** The covenants, terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. The term "Grantor", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantor" and their personal representatives, heirs, successors, and assigns. The term "Grantee", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantee" and their personal representatives, heirs, successors, and assigns. The rights of the Grantee and Grantor under this instrument are freely assignable, subject to the notice provisions hereof.

H. **Termination of Rights and Obligations:** A party's rights and obligations under this instrument terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

I. **Captions:** The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

J. **Counterparts:** The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

**TO HAVE AND TO HOLD** unto the City of Jacksonville, the settling work parties, United States and the State of Florida and their successors and assigns forever.

**IN WITNESS WHEREOF**, Grantor has caused this Agreement to be signed in its name.

Executed this 19 day of June, 2003.

Jose Villar  
Witness

Joe Allen Drawdy  
Joe Allen Drawdy

Robert J. Morris  
Witness

Margaret L. Drawdy  
Margaret L. Drawdy

STATE OF FLORIDA  
COUNTY OF DUVAL

The foregoing instrument was acknowledged before me on this 19 day of JUNE, 2003, by JOE ALLEN DRAWDY + MARGARET L. DRAWDY Such person is either personally known to me or has produced a Florida driver's license as identification.

Robert J. Morris  
Print Name: ROBERT J MORRIS  
NOTARY PUBLIC, State of Florida  
Serial Number (if any): CC946646  
My Commission Expires: JUNE 18, 2004

[Notary Seal]



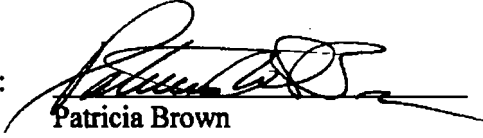
Robert J. Morris  
MY COMMISSION # CC946646 EXPIRES  
June 18, 2004  
BONDED THROUGH TROY FARM INSURANCE, INC.



This easement is accepted this 19<sup>th</sup> day of June, 2003.

CITY OF JACKSONVILLE

By:

  
Patricia Brown  
Chief, Real Estate Division  
Department of Public Works  
Room 1208, City Hall Annex  
220 E. Bay Street  
Jacksonville, Florida 32202

Attachments:	Exhibit A	-	legal description of the Property
	Exhibit B	-	identification of proposed uses and construction plans, for the Property
	Exhibit C	-	identification of existing uses of the Property
	Exhibit D	-	list of permitted title encumbrances



Advancing Quality of Life, by Design ●

1900 Corporate Square Blvd. • Jacksonville, FL 32216  
904.721.2991 • FAX: 904.861.2450

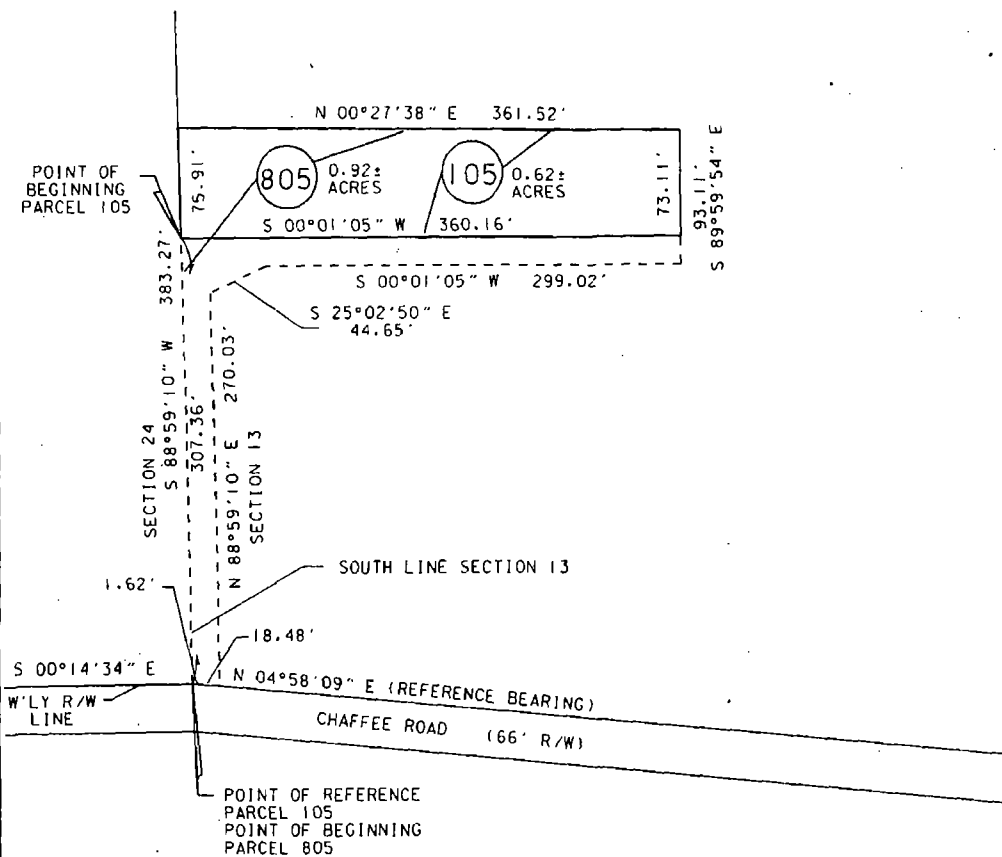
PARCEL 105

A PART OF SECTION 13, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF REFERENCE, COMMENCE AT A POINT IN THE WESTERLY RIGHT-OF-WAY LINE OF CHAFFEE ROAD (A 66.00 FOOT RIGHT-OF-WAY AS NOW ESTABLISHED) AT ITS INTERSECTION WITH THE SOUTH LINE OF SAID SECTION 13; THENCE SOUTH 88°59'10" WEST, ALONG SAID SOUTH LINE OF SECTION 13, A DISTANCE OF 307.36 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 88°59'10" WEST ALONG SAID SOUTH LINE, A DISTANCE OF 75.91 FEET; THENCE NORTH 00°27'38" EAST, LEAVING SAID SOUTH LINE, A DISTANCE OF 361.52 FEET; THENCE SOUTH 89°59'54" EAST, A DISTANCE OF 73.11 FEET; THENCE SOUTH 00°01'05" WEST, A DISTANCE OF 360.16 FEET TO THE POINT OF BEGINNING.

CONTAINING 0.62 ACRES, MORE OR LESS.

PARCELS 105 AND 805  
 BEING A PART OF SECTION 13, TOWNSHIP 2 SOUTH, RANGE 24 EAST,  
 DUVAL COUNTY, FLORIDA  
 (SEE ATTACHED FOR LEGAL DESCRIPTION)

- 1) BEARINGS SHOWN HEREON BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, WITH THE BEARING ON THE WESTERLY RIGHT OF WAY LINE OF CHAFFEE ROAD BEING S 04°58'09" W.
- 2) R/W DENOTES RIGHT OF WAY.



THIS IS A MAP ONLY AND DOES NOT PURPORT TO BE A SURVEY



Engineers  
 Planners  
 Landscape Architects  
 Surveyors

Advancing Quality of Life, by Design •  
**B.H.R., Inc.**  
 1900 Corporate Square Boulevard • Jacksonville, Florida 32216 •  
 (904) 721-2991 • Fax: (904) 723-0171  
 Certification Number LB 6739

I HEREBY CERTIFY THAT THIS MAP MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE FLORIDA BOARD OF SURVEYORS AND MAPPERS PURSUANT TO CHAPTER 472.027 OF THE FLORIDA STATUTES, AND 6IGIT-6 OF THE FLORIDA ADMINISTRATIVE CODE.

<i>Carl J. Schellhase</i>	FLA. P.S.M. CERT. NO. LS 5021
BRENDA D. CATONE	FLA. P.S.M. CERT. NO. LS 5447
JOSEPH K. LEK	FLA. P.S.M. CERT. NO. LS 6016
FIELD	N/A SIGNED JULY 25, 2002
SCALE:	1" = 100'

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

REQ. NO. 02082.01

q:\survey\duval\0725-924628over\Chaffee00105.dgn



Advancing Quality of Life, by Design ●

1900 Corporate Square Blvd. • Jacksonville, FL 32216  
904.721.2991 • FAX: 904.861.2450

PARCEL 805

BEING A PART OF SECTION 13, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF BEGINNING, COMMENCE AT A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF CHAFFEE ROAD (A 66.00 FOOT RIGHT-OF-WAY AS NOW ESTABLISHED) AT ITS INTERSECTION WITH THE SOUTH LINE OF SAID SECTION 13; THENCE SOUTH 88°59'10" WEST, LEAVING SAID WESTERLY RIGHT-OF-WAY LINE AND ALONG SAID SOUTH LINE OF SECTION 24, A DISTANCE OF 383.27 FEET; THENCE NORTH 00°27'38" EAST, LEAVING SAID SOUTH LINE, A DISTANCE OF 361.52 FEET; THENCE SOUTH 89°59'54" EAST, A DISTANCE OF 93.11 FEET; THENCE SOUTH 00°01'05" WEST, A DISTANCE OF 299.02 FEET; THENCE SOUTH 25°02'50" EAST, A DISTANCE OF 44.65 FEET; THENCE NORTH 88°59'10" EAST, A DISTANCE OF 270.03 FEET TO A POINT ON SAID WESTERLY RIGHT-OF-WAY LINE; THENCE SOUTH 04°58'09" WEST, ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 18.48 FEET TO AN ANGLE POINT IN SAID RIGHT-OF-WAY LINE; THENCE SOUTH 00°14'34" EAST, CONTINUING ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 1.62 FEET TO THE POINT OF BEGINNING.

CONTAINING 0.92 ACRES, MORE OR LESS.

## Exhibit B

### Proposed Uses and Construction Plans For the Property

The proposed uses and construction plans for the Property consist of the remedial activities and post-remediation limitations as more specifically described in the U.S. Environmental Protection Agency's September 24, 1998 Amended Record of Decision, and its July 2001 Explanation of Significant Differences, and the EPA-approved Work Plan which are on file at the Agency's Region IV offices in Atlanta, Georgia, and the site repository, the Whitehouse Elementary School, 11160 General Avenue, Whitehouse, Florida 32220. Temporary construction easements should be lifted by September 2005.

Construction Easements

Parcel No.	Owner	Existing Property Use	JaxGIS Zoning Designation	JaxGIS Landuse Designation	Property Use Listed on Duval Co. Parcel Summary	Property Notes from Property Record Cards
001472 0000	St. Regis Land Development Corp.	Vacant	Agriculture	Low Density Residential	0000 Vacant Res	
001474 0010	Richard D. Peters, Sr.	Vacant	Industrial Business Park	Low Density Residential	9600 Waste Land	
001474 0020	Richard D. Peters, Sr.	Hazardous Waste Site?	Industrial Business Park	Low Density Residential	9600 Waste Land	Hazardous Waste Site
001474 0030	Felton D. Gleaton	Mobile Home	Residential Rural	Low Density Residential	0200 Mobile Home	
001474 0040	James L. Gleaton	Vacant	Residential Rural	Low Density Residential	0000 Vacant Res	Vacant Residential
001474 0100	Eloise S. Gleaton	Vacant	Agriculture	Low Density Residential?	9900 Acrg Zoned RR or AGR	11 - 20 Acres/Vacant 1+ Acre Swamp
001477 0000	Richard D. Peters, Sr.	Hazardous Waste Site?	Industrial Business Park	Low Density Residential?	9600 Waste Land	Hazardous Waste Site
001478 0000	Joe A. Drawdy	Single Family Residence	Residential Rural	Low Density Residential	0100 Single Family	
001822 0020	Betty P. Owens	Single Family Residence	Residential Rural	Low Density Residential	0100 Single Family	
001825 0140	Ronald W. Fuller	Mobile Home	Residential Rural	Low Density Residential	0200 Mobile Home	
001839 0000	Calvin Lee	Vacant	Residential Mixed Density	Medium Density Residential	0000 Vacant Res	GB Denial 96 Parcel Located Next to Navy's Fuel Oil Dump Site
994413 0036	None recorded	Vacant?	Residential Rural	Low Density Residential	No record	
	Machelle Drive					
G:\Projects\023-26\02302603\001\Construction Easements.xls						



Book 2189, Page 1140

**Exhibit "D"**

**Permitted Title Encumbrances  
Parcels 105 and 805**

1. Mortgage from Joe Allan Drawdy, a married man joined by his wife Margaret L. Drawdy to Homecomings Financial Network, Inc., in the amount of \$80,150.00, dated May 8, 1998 and recorded May 22, 1998 in Official Records Book 8952, page 2151, thereof, now held of record by GMAC Mortgage Corporation, by virtue of an Assignment of Mortgage dated May 20, 1998 and recorded January 6, 1999, in Official Records Book 9179, page 3517.
  
2. Easement recorded in Official Records Book 6447, page 446.

Doc# 2003383447  
Book: 11490  
Pages: 1024 - 1039  
Filed & Recorded  
11/21/2003 03:24:17 PM  
JIM FULLER  
CLERK CIRCUIT COURT  
DUVAL COUNTY  
RECORDING \$ 65.00  
TRUST FUND \$ 8.50  
DEED DOC STAMP \$ 0.70

Prepared by and Return to:  
Gregory K. Radlinski, Assistant General Counsel  
Fla. Bar No. 0166350  
Office of the General Counsel  
117 West Duval Street, Suite 480  
Jacksonville, Florida 32202

**ENVIRONMENTAL PROTECTION EASEMENT  
AND  
DECLARATION OF RESTRICTIVE COVENANTS**

This Environmental Protection Easement and Declaration of Restrictive Covenants is made this 14<sup>th</sup> day of November, 2003, by and between Felton D. Gleaton a/k/a Felton Durl Gleaton and Betty Jane Gleaton a/k/a Jane B. Gleaton, his wife and Andy T. Gleaton, ("Grantors"), having an address of 358 N. Chaffee Road, Jacksonville, Florida 32220, and the City of Jacksonville, a political subdivision of the State of Florida ("Grantee"), having an address of Room 1208, City Hall Annex, 220 E. Bay Street, Jacksonville, Florida 32202.

**WITNESSETH:**

**WHEREAS**, Grantor is the owner of a parcel of land located in the county of Duval, State of Florida, more particularly described on Exhibit A attached hereto and made a part hereof (the "Property"); and

**WHEREAS**, the Property is part of the Whitehouse Waste Oil Pits Superfund Site ("Site"), which the U.S. Environmental Protection Agency ("EPA"), pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"); 42 U.S.C. § 9605, placed on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on September 8, 1983; and

**WHEREAS**, in a Second Amended Record of Decision dated September 24, 1998 (the "ROD") and an Explanation of Significant Differences dated July 16, 2001 (the "ESD"), the EPA Region IV Regional Administrator selected a "remedial action" for the Site, which provides, in part, for the following actions:

1. Installation of a vertical barrier (slurry wall or sheet piling) to isolate and contain the contaminated soil, sludge, wetlands, sediment and groundwater;
2. Solidification/stabilization of Lifts 1 and 2 and incorporate a geogrid to enhance the structural stability of the stabilized soil;
3. Installation of a RCRA type cap over the containment area;



4. Realignment of the northeast tributary to McGirts Creek to optimize the area of groundwater containment;
5. Extension of the municipal water supply to residents along Mabelle Drive and plugging of private wells;
6. Monitored natural attenuation of contaminated groundwater outside of the containment system;
7. Imposition of deed restrictions to control future land use and groundwater use;
8. Installation of a permanent security fence around the containment area and installation and maintenance of appropriate stormwater management control; and,
9. Remediation of approximately 3.6 acres of McGirts Creek floodplain.

**WHEREAS**, the parties hereto have agreed 1) to grant a permanent (parcels 106 and 109) and a temporary (parcels 806 and 806.1) right of access over the Property to the Grantee and the U.S. Environmental Protection Agency for purposes of implementing, facilitating and monitoring the remedial action; and 2) to impose on the Property use restrictions as covenants that will run with the land for the purpose of protecting human health and the environment; and

**WHEREAS**, Grantors wish to cooperate fully with the Grantee, the other settling work parties, the Florida Department of Environmental Protection and the U.S. Environmental Protection Agency in the implementation of all response actions at the Site;

**NOW, THEREFORE:**

1. **Grant:** Grantors, on behalf of itself, its successors and assigns, in consideration of the Grantees and other settling work parties' (the "settling work parties" named in the Consent Decree) in compliance with the terms of the Consent Decree in the case of United States v. City of Jacksonville et al. Civ. Action No. 301-CV-1424, U. S. District Court for the Middle District of Florida, Jacksonville Division (the "Consent Decree"), and other good and valuable consideration, receipt of which is hereby acknowledged, does hereby covenant and declare that the Property shall be subject to the restrictions on use set forth below, and does give, grant and convey to the Grantee, and its assigns, with general warranties of title, i) the right to enforce said use restrictions, and ii) an environmental protection easement of the nature and character, and for the purposes hereinafter set forth, with respect to the Property.

2. **Purpose:** It is the purpose of this instrument to convey to the Grantee real property rights, which will run with the land, to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to contaminants.

3. **Restrictions on use:** The following covenants, conditions, and restrictions apply to the use of the Property, run with the land and are binding on the Grantors: (1) refrain from using the Site, including (during construction and post-construction groundwater monitoring) the staging areas for remedial action, in any manner that would interfere with or adversely affect the implementation, integrity, or protectiveness of the remedial measures to be performed pursuant to the Consent Decree referenced in Paragraph 1, above; and, (2) refrain from drilling wells of any kind within the easement without first obtaining the permission of the Grantees.

4. **Modification of restrictions:** The above restrictions may be modified, or terminated in whole or in part, in writing, by the Grantee with the concurrence of the United States Environmental Protection Agency. If requested by the Grantors, such writing will be executed by Grantee in recordable form upon receipt of the environmental regulatory agencies' concurrence.

5. **Environmental Protection Easement:** Grantors hereby grant to the Grantee and the Florida Department of Environmental Protection an irrevocable, and continuing right of access at all reasonable times to the Property for purposes of:

- A. Implementing the response actions in the ROD and the ESDs as they may be, from time to time, amended;
- B. Verifying any data or information submitted to EPA.
- C. Verifying that no action is being taken on the Property in violation of the terms of this instrument or of any local, federal or state environmental laws or regulations;
- D. Monitoring response actions on the Site and conducting investigations relating to contamination on or near the Site, including, without limitation, sampling of air, water, sediments, soils, and specifically, without limitation, obtaining split or duplicate samples;
- E. Conducting periodic reviews of the remedial action, including but not limited to, reviews required by applicable statutes and/or regulations; and
- F. Implementing additional or new response actions if the Grantee and the other setting parties to the Consent Decree are required by a court, the environmental regulatory authorities, or in their sole discretion, determine that i) such actions are necessary to protect the environment because either the original remedial action has proven to be ineffective or because new technology has been developed which will accomplish the purposes of the remedial action in a significantly more efficient or cost effective manner; and, ii) the additional or new response actions will not impose any significantly greater burden on the Property or unduly interfere with the then existing uses of the Property.

6. **Reserved rights of Grantor:** Grantors hereby reserves unto itself, its successors, and assigns and the other settling parties, all rights and privileges in and to the use of the Property which are not incompatible with the restrictions, rights and easements granted herein.

7. **No limitation of access.** Nothing in this document shall limit or otherwise affect rights of the Florida Department of Environmental Protection and the U.S. Environmental Protection Agency to entry and access or their authority to take response actions under CERCLA, the NCP, or other federal or state law.

8. **No Public Access and Use:** No right of access or use by the general public to any portion of the Property is conveyed by this instrument.

9. **Notice requirement:** Grantors agree to include in any instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases and mortgages, a notice which is in substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL PROTECTION EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS, DATED \_\_\_\_\_, 19 \_\_\_, RECORDED IN THE PUBLIC LAND RECORDS ON \_\_\_\_\_, 19 \_\_\_, IN BOOK \_\_\_\_\_, PAGE \_\_\_\_, IN FAVOR OF, AND ENFORCEABLE BY, THE CITY OF JACKSONVILLE, FLORIDA, THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE UNITED STATES OF AMERICA.

Within thirty (30) days of the date any such instrument of conveyance is executed, Grantors must provide Grantees with a certified true copy of said instrument and, if it has been recorded in the public land records, its recording reference.

10. **Administrative jurisdiction:** The federal agency having administrative jurisdiction over the interests acquired by the United States by this instrument is the U.S. Environmental Protection Agency, and the state agency with administrative jurisdiction over the interests acquired by the State of Florida is the Florida Department of Environmental Protection.

11. **Enforcement:** The Grantee, the settling parties in the litigation referenced in Paragraph 1, above, the U.S. Environmental Protection Agency and the Florida Department of Environmental Protection shall be entitled to enforce the terms of this instrument by resort to specific performance or legal process. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Enforcement of the terms of this instrument shall be discretionary, and any forbearance, delay or omission to exercise its rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver of such term or of any subsequent breach of the same or any other term, or of any of the rights under this instrument.

12. **Damages:** Grantee, the settling parties, the U.S. Environmental Protection Agency and the Florida Department of Environmental Protection shall be entitled to recover damages for violations of the terms of this instrument, or for any injury to the remedial action, to the public or to the environment protected by this instrument.

13. **Waiver of certain defenses:** Grantors hereby waives any defense of laches, estoppel, or prescription.

14. **Covenants:** Grantors hereby covenants to and with the Grantee, the settling work parties, the United States and its assigns and the State of Florida and its assigns, that the Grantor is lawfully seized in fee simple of the Property, that the Grantor has a good and lawful right and power to sell and convey it or any interest therein, that the Property is free and clear of encumbrances, except those noted on Exhibit D attached hereto, and that the Grantor will forever warrant and defend the title thereto and the quiet possession thereof.

15. **Notices:** Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantors:

Mr. & Mrs. Felton D. Gleaton  
Mr. Andy T. Gleaton  
358 North Chaffee Road  
Jacksonville, Florida 32220

---

To Grantee (City of Jacksonville) and  
Consent Decree settlers:

Chief, Environmental Law Division  
Office of General Counsel  
City Hall-St. James, Suite 480  
117 W. Duval Street  
Jacksonville, Florida 32202

Michael Stephenson,  
Associate Regional Counsel  
U.S. Env. Protection Agency, Region IV  
61 Forsyth Street  
Atlanta, GA 30303

Office of General Counsel  
Florida Department of Env. Protection  
3900 Commonwealth Boulevard, Mail  
Station 35  
Tallahassee, Florida 32399-3000

16. **Duration of temporary easement.** This temporary easement, granted to allow access to the Site and staging construction equipment and materials, shall terminate one year after completion of construction, unless terminated earlier with the approval of the EPA.

17. **General provisions:**

A. **Controlling law:** The interpretation and performance of this instrument shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of the State of Florida.

B. **Liberal construction:** Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to effect the purpose of this instrument and the policy and purpose of CERCLA. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

C. **Severability:** If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

D. **Entire Agreement:** This instrument sets forth the entire agreement of the parties with respect to rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating thereto, all of which are merged herein.

E. **No Forfeiture:** Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

F. **Joint Obligation:** If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

G. **Successors:** The covenants, terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. The term "Grantors", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantors" and their personal representatives, heirs, successors, and assigns. The term "Grantee", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantee" and their personal representatives, heirs, successors, and assigns. The rights of the Grantee and Grantors under this instrument are freely assignable, subject to the notice provisions hereof.

H. **Termination of Rights and Obligations:** A party's rights and obligations under this instrument terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

I. **Captions:** The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

J. **Counterparts:** The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

**TO HAVE AND TO HOLD** unto the City of Jacksonville, the settling work parties, United States and the State of Florida and their successors and assigns forever.

**IN WITNESS WHEREOF**, Grantor has caused this Agreement to be signed in its name.

Executed this 14<sup>th</sup> day of November, 2003.

[Signature]  
Witness

[Signature]  
Felton D. Gleaton a/k/a Felton Durl Gleaton

[Signature]  
Witness

[Signature]  
Betty Jane Gleaton AKA Jane B. Gleaton  
Betty Jane Gleaton a/k/a Jane B. Gleaton

[Signature]  
Andy T. Gleaton AKA Andy T Gleaton

STATE OF FLORIDA  
COUNTY OF DUVAL

The foregoing instrument was acknowledged before me on this 14<sup>th</sup> day of November, 2003, by Felton D. Gleaton & Betty Jane Gleaton and Andy T. Gleaton. Such person is either personally known to me or has produced a Florida driver's license as identification.



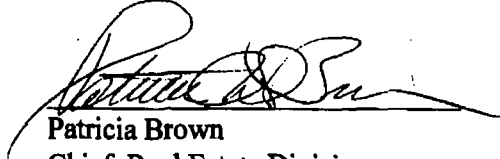
Elizabeth A. Villar  
MY COMMISSION # CC970883 EXPIRES  
September 27, 2004  
BONDED THRU TROY PAIR INSURANCE, INC.

[Signature]  
Print Name: Elizabeth A. Villar  
NOTARY PUBLIC, State of Florida  
My Commission Expires: 9/27/04

This easement is accepted this 14<sup>th</sup> day of November, 2003.

CITY OF JACKSONVILLE

By:

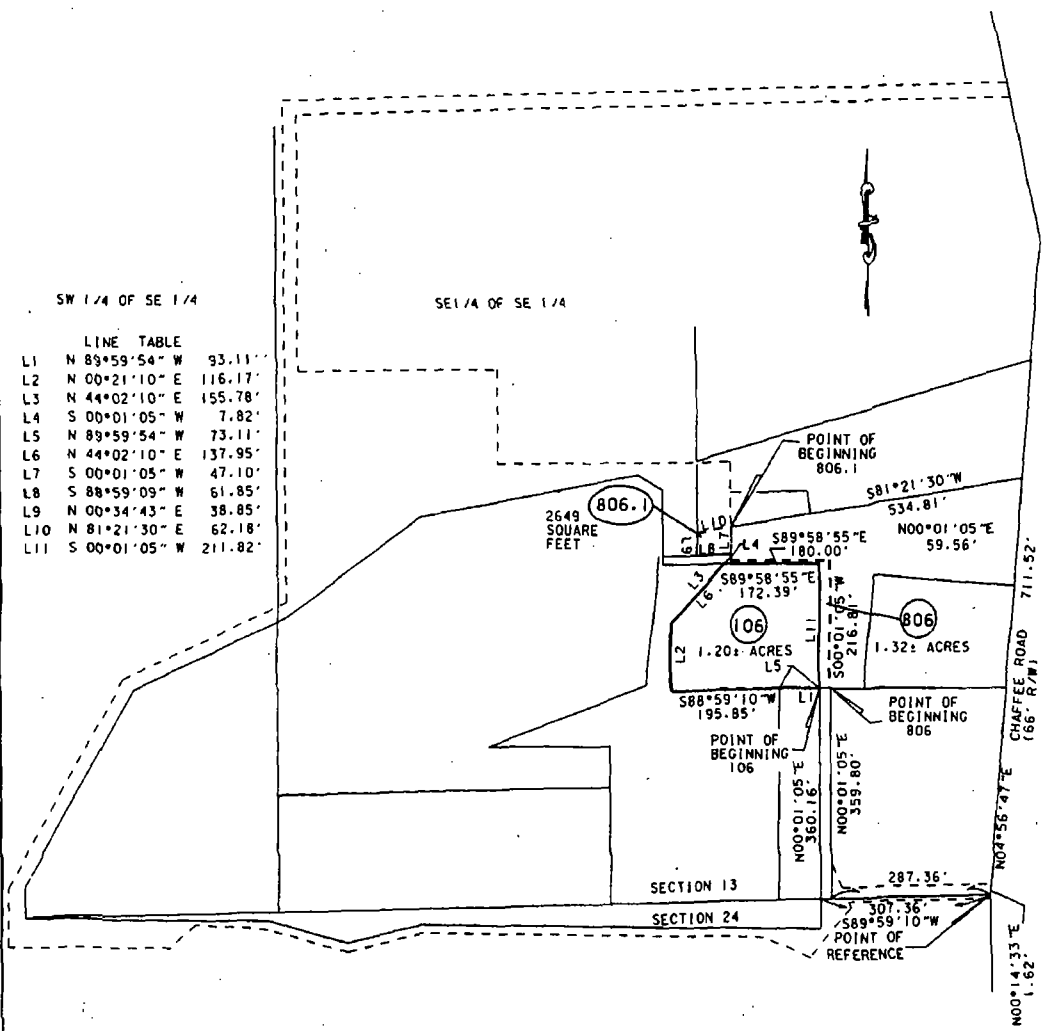


Patricia Brown  
Chief, Real Estate Division  
Department of Public Works  
Room 1208, City Hall Annex  
220 E. Bay Street  
Jacksonville, Florida 32202

- Attachments:
- Exhibit A - legal description of the Property
  - Exhibit B - identification of proposed uses and construction plans, for the Property
  - Exhibit C - identification of existing uses of the Property
  - Exhibit D - list of permitted title encumbrances

PARCEL 106, 806 AND 806.1  
 BEING A PART OF SECTION 13, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY FLORIDA  
 (SEE ATTACHED FOR LEGAL DESCRIPTIONS)

EXHIBIT "A"  
 (1055)



SW 1/4 OF SE 1/4

LINE TABLE

L1	N 89°59'54" W	93.11'
L2	N 00°21'10" E	116.17'
L3	N 44°02'10" E	155.78'
L4	S 00°01'05" W	7.82'
L5	N 89°59'54" W	73.11'
L6	N 44°02'10" E	137.95'
L7	S 00°01'05" W	47.10'
L8	S 88°59'09" W	61.85'
L9	N 00°34'43" E	38.85'
L10	N 81°21'30" E	62.18'
L11	S 00°01'05" W	211.82'

1) BEARINGS SHOWN HEREON BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, WITH THE BEARING ON THE WESTERLY RIGHT OF WAY LINE OF CHAFFEE ROAD BEING N 04°58'09" E.

THIS IS A MAP ONLY AND DOES NOT PURPORT TO BE A SURVEY

**BHR**  
 Engineers  
 Planners  
 Landscape Architects  
 Surveyors

Advancing Quality of Life, by Design •  
 B.H.R., Inc.

1900 Corporate Square Boulevard • Jacksonville, Florida 32216 •  
 (904) 721-2991 • Fax: (904) 723-0171  
 Certification Number LB 6739

I HEREBY CERTIFY THAT THIS MAP MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE FLORIDA BOARD OF SURVEYORS AND MAPPERS PURSUANT TO CHAPTER 472.027 OF THE FLORIDA STATUTES, AND 61G17-6 OF THE FLORIDA ADMINISTRATIVE CODE.

*Joseph K. Lek*

CARL J. SCHELLHASE	FLA. P.S.M. CERT. NO. LS 5021
BRENDA D. CATONE	FLA. P.S.M. CERT. NO. LS 5447
JOSEPH K. LEK	FLA. P.S.M. CERT. NO. LS 6016

FIELD \_\_\_\_\_ SIGNED JULY 25, 2002

SCALE: 1" = 250'

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER





Advancing Quality of Life, by Design ●

1900 Corporate Square Blvd. • Jacksonville, FL 32216  
904.721.2991 • FAX: 904.861.2450

EXHIBIT "F"  
(2 of 5)

PARCEL 106

A PART OF SECTION 13, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF REFERENCE, COMMENCE AT A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF CHAFFEE ROAD (A 66.00 FOOT RIGHT-OF-WAY AS NOW ESTABLISHED) AT ITS INTERSECTION WITH THE SOUTH LINE OF SAID SECTION 13; THENCE SOUTH 88°59'10" WEST, LEAVING SAID WESTERLY RIGHT-OF-WAY LINE OF CHAFFEE ROAD AND ALONG SAID SOUTH LINE OF SECTION 13, A DISTANCE OF 307.36 FEET; THENCE NORTH 00°01'05" EAST, LEAVING SAID SOUTH LINE, A DISTANCE OF 360.16 FEET TO THE POINT OF BEGINNING; THENCE NORTH 89°59'54" WEST, A DISTANCE OF 73.11 FEET; THENCE SOUTH 88°59'10" WEST, A DISTANCE OF 195.85 FEET; THENCE NORTH 00°21'10" EAST, A DISTANCE OF 116.17 FEET; THENCE NORTH 44°02'10" EAST, A DISTANCE OF 137.95 FEET; THENCE SOUTH 89°58'55" EAST, A DISTANCE OF 172.39 FEET; THENCE SOUTH 00°01'05" WEST, A DISTANCE OF 211.82 FEET TO THE POINT OF BEGINNING.

CONTAINING 1.20 ACRES, MORE OR LESS.



( 3 of 5 )

Advancing Quality of Life, by Design ●

1900 Corporate Square Blvd. • Jacksonville, FL 32216  
904.721.2991 • FAX: 904.861.2450

PARCEL 806.1

A PART OF SECTION 13, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF REFERENCE, COMMENCE AT A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF CHAFFEE ROAD (A 66.00 FOOT RIGHT-OF-WAY AS NOW ESTABLISHED) AT ITS INTERSECTION WITH THE SOUTH LINE OF SAID SECTION 13; THENCE NORTH 00°14'33" EAST ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 1.62 FEET; THENCE NORTH 04°58'09" EAST, CONTINUING ALONG SAID WESTERLY LINE OF CHAFFEE ROAD, A DISTANCE OF 711.52 FEET; THENCE SOUTH 81°21'30" WEST, LEAVING SAID WESTERLY RIGHT-OF-WAY LINE OF CHAFFEE ROAD, A DISTANCE OF 534.81 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 00°01'05" WEST, A DISTANCE OF 47.10 FEET; THENCE SOUTH 88°59'09" WEST, A DISTANCE OF 61.85 FEET; THENCE NORTH 00°34'43" EAST, A DISTANCE OF 38.85 FEET; THENCE NORTH 81°21'30" EAST, A DISTANCE OF 62.18 FEET TO THE POINT OF BEGINNING.

CONTAINING 2649 SQUARE FEET, MORE OR LESS.



Advancing Quality of Life, by Design ●

1900 Corporate Square Blvd. • Jacksonville, FL 32216  
904.721.2991 • FAX: 904.861.2450

(4 of 5)

PARCEL 806

A PART OF SECTION 13, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF REFERENCE, COMMENCE AT A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF CHAFFEE ROAD (A 66.00 FOOT RIGHT-OF-WAY AS NOW ESTABLISHED) AT ITS INTERSECTION WITH THE SOUTH LINE OF SAID SECTION 13; THENCE SOUTH 88°59'10" WEST, LEAVING SAID WESTERLY RIGHT-OF-WAY LINE OF CHAFFEE ROAD AND ALONG SAID SOUTH LINE OF SECTION 24, A DISTANCE OF 287.36 FEET; THENCE NORTH 00°01'05" EAST, LEAVING SAID SOUTH LINE, A DISTANCE OF 359.80 FEET TO THE POINT OF BEGINNING; THENCE NORTH 89°59'54" WEST, A DISTANCE OF 93.11 FEET; THENCE SOUTH 88°59'10" WEST, A DISTANCE OF 195.85 FEET; THENCE NORTH 00°21'10" EAST, A DISTANCE OF 116.17 FEET; THENCE NORTH 44°02'10" EAST, A DISTANCE OF 155.78 FEET; THENCE SOUTH 00°01'05" WEST, A DISTANCE OF 7.82 FEET; THENCE SOUTH 89°58'55" EAST, A DISTANCE OF 180.00 FEET; THENCE SOUTH 00°01'05" WEST, A DISTANCE OF 216.81 FEET TO THE POINT OF BEGINNING.

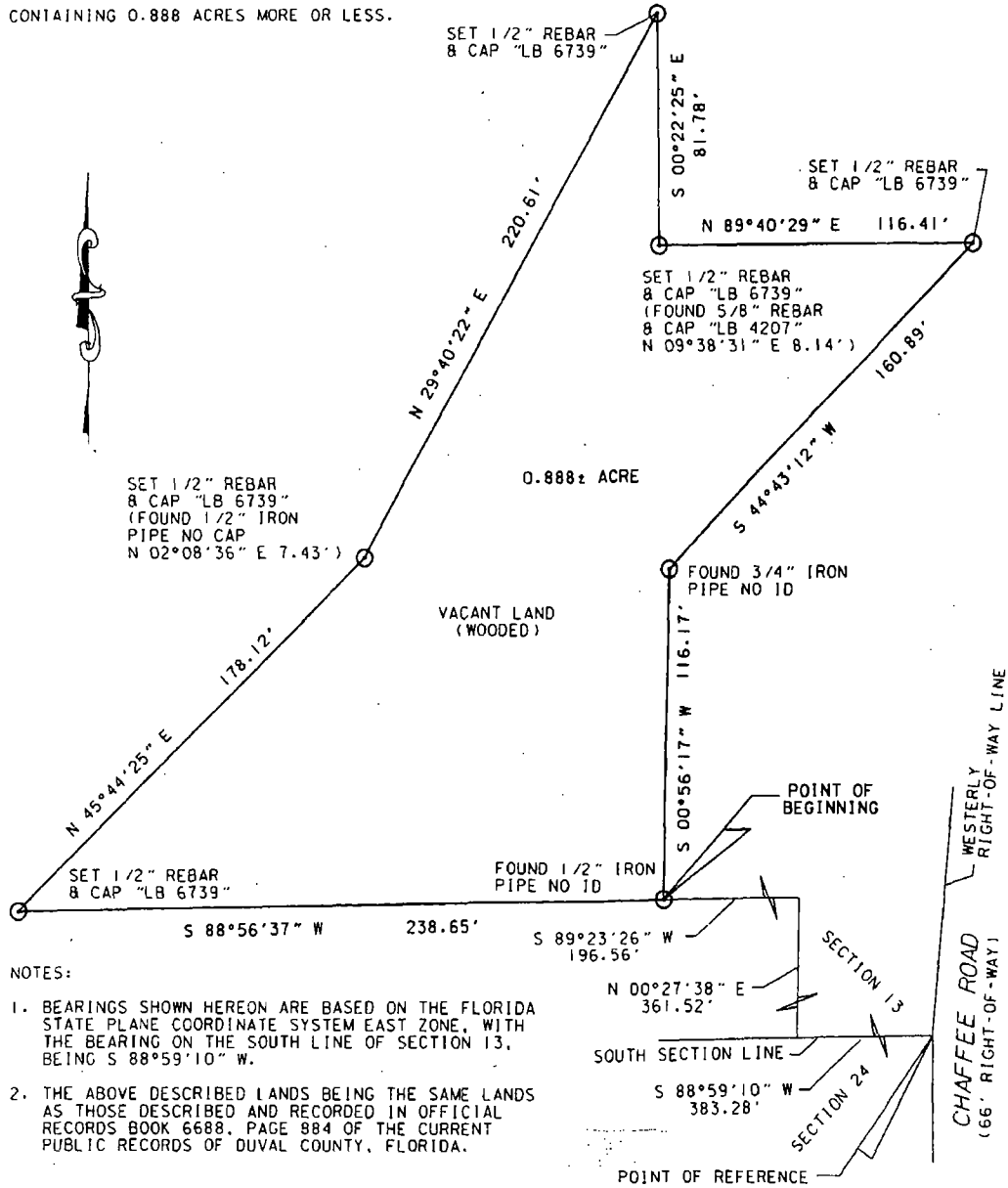
CONTAINING 1.32 ACRES, MORE OR LESS.

MAP SHOWING BOUNDARY SURVEY OF

WHITEHOUSE SUPERFUND ACQUISITION

A PART OF SECTION 13, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF REFERENCE, COMMENCE AT THE INTERSECTION OF THE WESTERLY RIGHT-OF-WAY LINE OF CHAFFEE ROAD (A 66.00 FOOT RIGHT-OF-WAY AS NOW ESTABLISHED) WITH THE SOUTH LINE OF SAID SECTION 13; THENCE SOUTH 88°59'10" WEST, ALONG SAID SECTION LINE, A DISTANCE OF 383.28 FEET; THENCE DEPARTING SAID SECTION LINE, NORTH 00°27'38" EAST, A DISTANCE OF 361.52 FEET; THENCE SOUTH 89°23'26" WEST, A DISTANCE OF 196.56 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 88°56'37" WEST, A DISTANCE OF 238.65 FEET; THENCE NORTH 45°44'25" EAST, A DISTANCE OF 178.12 FEET; THENCE NORTH 29°40'22" EAST, A DISTANCE OF 220.61 FEET; THENCE SOUTH 00°22'25" EAST, A DISTANCE OF 81.78 FEET; THENCE NORTH 89°40'29" EAST, A DISTANCE OF 116.41 FEET; THENCE SOUTH 00°56'17" WEST, A DISTANCE OF 116.70 FEET TO THE POINT OF BEGINNING.

CONTAINING 0.888 ACRES MORE OR LESS.



NOTES:

1. BEARINGS SHOWN HEREON ARE BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM EAST ZONE, WITH THE BEARING ON THE SOUTH LINE OF SECTION 13, BEING S 88°59'10" W.
2. THE ABOVE DESCRIBED LANDS BEING THE SAME LANDS AS THOSE DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 6688, PAGE 884 OF THE CURRENT PUBLIC RECORDS OF DUVAL COUNTY, FLORIDA.



Engineers  
Planners  
Landscape Architects  
Surveyors

Advancing Quality of Life, by Design •  
**B.H.R., Inc.**

1900 Corporate Square Boulevard • Jacksonville, Florida 32216 •  
(904) 721-2991 • Fax: (904) 861-2451  
Certification Number LB 6739

I HEREBY CERTIFY THAT THIS SURVEY MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE FLORIDA BOARD OF SURVEYORS AND MAPPERS PURSUANT TO CHAPTER 472.027 OF THE FLORIDA STATUTES, AND 61G17-6 OF THE FLORIDA ADMINISTRATIVE CODE.

*Joseph K. Lek*  
JOSEPH K. LEK  
BRENDA D. CATONE  
BRENDA D. CATONE  
CARL J. SCHELLHASE  
CARL J. SCHELLHASE  
FLA. P.S.M. CERT. NO. LS 5021  
FLA. P.S.M. CERT. NO. LS 5447  
FLA. P.S.M. CERT. NO. LS 6016

FIELD OCTOBER 8, 2003 SIGNED OCTOBER 10, 2003  
SCALE: 1" = 50'

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

## Exhibit B

### Proposed Uses and Construction Plans For the Property

The proposed uses and construction plans for the Property consist of the remedial activities and post-remediation limitations as more specifically described in the U.S. Environmental Protection Agency's September 24, 1998 Amended Record of Decision, and its July 2001 Explanation of Significant Differences, and the EPA-approved Work Plan which are on file at the Agency's Region IV offices in Atlanta, Georgia, and the site repository, the Whitehouse Elementary School, 11160 General Avenue, Whitehouse, Florida 32220. Temporary construction easements should be lifted by September 2005.

Construction Easements

Parcel No.	Owner	Existing Property Use	JaxGIS Zoning Designation	JaxGIS Landuse Designation	Property Use Listed on Duval Co. Parcel Summary	Property Notes from Property Record Cards
001472 0000	St. Regis Land Development Corp.	Vacant	Agriculture	Low Density Residential	0000 Vacant Res	
001474 0010	Richard D. Peters, Sr.	Vacant	Industrial Business Park	Low Density Residential	9600 Waste Land	
001474 0020	Richard D. Peters, Sr.	Hazardous Waste Site?	Industrial Business Park	Low Density Residential	9600 Waste Land	Hazardous Waste Site
001474 0030	Felton D. Gleaton	Mobile Home	Residential Rural	Low Density Residential	0200 Mobile Home	
001474 0040	James L. Gleaton	Vacant	Residential Rural	Low Density Residential	0000 Vacant Res	Vacant Residential
001474 0100	Eloise S. Gleaton	Vacant	Agriculture	Low Density Residential?	9900 Acrg Zoned RR or AGR	11 - 20 Acres/Vacant 1+ Acre Swamp
001477 0000	Richard D. Peters, Sr.	Hazardous Waste Site?	Industrial Business Park	Low Density Residential?	9600 Waste Land	Hazardous Waste Site
001478 0000	Joe A. Drawdy	Single Family Residence	Residential Rural	Low Density Residential	0100 Single Family	
001822 0020	Betty P. Owens	Single Family Residence	Residential Rural	Low Density Residential	0100 Single Family	
001825 0140	Ronald W. Fuller	Mobile Home	Residential Rural	Low Density Residential	0200 Mobile Home	
001839 0000	Calvin Lee	Vacant	Residential Mixed Density	Medium Density Residential	0000 Vacant Res	GB Denial 96 Parcel Located Next to Navy's Fuel Oil Dump Site
994413 0036	None recorded	Vacant?	Residential Rural	Low Density Residential	No record	
Machelle Drive						
G:\Projects\023-26\02302603\001\Constuction Easements.xls						

Exhibit C  
 Book 11490 Page 1036

**Exhibit "D"**

**Permitted Title Encumbrances  
Parcels 105 and 805**

1. Corrective Deed from Eloise Stuckey Gleaton to Felton D. Gleaton a/k/a Felton Durl Gleaton and Betty Jane Gleaton, his wife to correct legal descriptions in Deeds recorded in Official Records Book 6226, page 1171 and Official Records Book 8647, page 1647.
  
2. Mortgage from Felton D. Gleaton and Betty Jane Gleaton, his wife to First Federal Savings and Loan Association of Jacksonville, in the amount of \$14,000.00, dated February 6, 1976 and recorded February 11, 1976 in Official Records Book 4092, page 696.
  
3. Mortgage from Felton D. Gleaton and Betty Jane Gleaton, husband and wife a/k/a Felton Durl Gleaton and Betty Jane Gleaton, husband and wife to The Huntington National Bank, in the amount of \$29,118.36, dated September 25, 2001 and recorded October 22, 2001 in Official Records Book 10196, page 1899.

Prepared by and Return to:  
Gregory K. Radlinski, Assistant General Counsel  
Fla. Bar No. 0166350  
Office of the General Counsel  
117 West Duval Street, Suite 480  
Jacksonville, Florida 32202

Doc# 2003167488  
Book: 11112  
Pages: 2119 - 2132  
Filed & Recorded  
05/27/2003 12:55:03 PM  
JIN FULLER  
CLERK CIRCUIT COURT  
DUVAL COUNTY  
RECORDING \$ 57.00  
TRUST FUND \$ 7.50  
DEED DOC STAMP \$ 3.50

**ENVIRONMENTAL PROTECTION EASEMENT  
AND  
DECLARATION OF RESTRICTIVE COVENANTS**

This Environmental Protection Easement and Declaration of Restrictive Covenants is made this 3rd day of April, 2003, by and between Betty Patricia Owens Milton f/k/a Betty Patricia Owens, ("Grantor"), having an address of 258 Machelle Drive, Jacksonville, Florida 32220, and the City of Jacksonville, a political subdivision of the State of Florida ("Grantee"), having an address of Room 1208, City Hall Annex, 220 E. Bay Street, Jacksonville, Florida 32202.

**WITNESSETH:**

**WHEREAS**, Grantor is the owner of a parcel of land located in the county of Duval, State of Florida, more particularly described on Exhibit A attached hereto and made a part hereof (the "Property"); and

**WHEREAS**, the Property is part of the Whitehouse Waste Oil Pits Superfund Site ("Site"), which the U.S. Environmental Protection Agency ("EPA"), pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9605, placed on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on September 8, 1983; and

**WHEREAS**, in a Second Amended Record of Decision dated September 24, 1998 (the "ROD") and an Explanation of Significant Differences dated July 16, 2001 (the "ESD"), the EPA Region IV Regional Administrator selected a "remedial action" for the Site, which provides, in part, for the following actions:

1. Installation of a vertical barrier (slurry wall or sheet piling) to isolate and contain the contaminated soil, sludge, wetlands, sediment and groundwater;
2. Solidification/stabilization of Lifts 1 and 2 and incorporate a geogrid to enhance the structural stability of the stabilized soil;
3. Installation of a RCRA type cap over the containment area;



4. Realignment of the northeast tributary to McGirts Creek to optimize the area of groundwater containment;
5. Extension of the municipal water supply to residents along Mabelle Drive and plugging of private wells;
6. Monitored natural attenuation of contaminated groundwater outside of the containment system;
7. Imposition of deed restrictions to control future land use and groundwater use;
8. Installation of a permanent security fence around the containment area and installation and maintenance of appropriate stormwater management control; and,
9. Remediation of approximately 3.6 acres of McGirts Creek floodplain.

**WHEREAS**, the parties hereto have agreed 1) to grant a permanent (parcel 102) and a temporary (parcel 802) right of access over the Property to the Grantee, the Florida Department of Environmental Protection and the U.S. Environmental Protection Agency for purposes of implementing, facilitating and monitoring the remedial action; and 2) to impose on the Property use restrictions as covenants that will run with the land for the purpose of protecting human health and the environment; and

**WHEREAS**, Grantor wishes to cooperate fully with the Grantee, the other settling work parties, the Florida Department of Environmental Protection and the U.S. Environmental Protection Agency in the implementation of all response actions at the Site;

**NOW, THEREFORE:**

1. **Grant:** Grantor, on behalf of itself, its successors and assigns, in consideration of the Grantees and other settling work parties' (the "settling work parties" named in the Consent Decree) in compliance with the terms of the Consent Decree in the case of United States v. City of Jacksonville et al. Civ. Action No. 301-CV-1424, U. S. District Court for the Middle District of Florida, Jacksonville Division (the "Consent Decree"), and other good and valuable consideration, receipt of which is hereby acknowledged, does hereby covenant and declare that the Property shall be subject to the restrictions on use set forth below, and does give, grant and convey to the Grantee, and its assigns, with general warranties of title, i) the [perpetual][temporary] right to enforce said use restrictions, and ii) an environmental protection easement of the nature and character, and for the purposes hereinafter set forth, with respect to the Property.

2. **Purpose:** It is the purpose of this instrument to convey to the Grantees real property rights, which will run with the land, to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to contaminants.

3. **Restrictions on use:** The following covenants, conditions, and restrictions apply to the use of the Property, run with the land and are binding on the Grantor: (1) refrain from using the Site, including (during construction and post-construction groundwater monitoring) the staging areas for remedial action, in any manner that would interfere with or adversely affect the implementation, integrity, or protectiveness of the remedial measures to be performed pursuant to the Consent Decree referenced in Paragraph 1, above; and, (2) refrain from drilling wells of any kind within the easement without first obtaining the permission of the Grantees.

4. **Modification of restrictions:** The above restrictions may be modified, or terminated in whole or in part, in writing, by the Grantees with the concurrence of the Florida Department of Environmental Protection. If requested by the Grantor, such writing will be executed by Grantees in recordable form upon receipt of the environmental regulatory agencies' concurrence.

5. **Environmental Protection Easement:** Grantor hereby grants to the Grantees and the Florida Department of Environmental Protection an irrevocable, permanent and continuing right of access at all reasonable times to the Property for purposes of:

- A. Implementing the response actions in the ROD and the ESDs as they may be, from time to time, amended;
- B. Verifying any data or information submitted to EPA.
- C. Verifying that no action is being taken on the Property in violation of the terms of this instrument or of any local, federal or state environmental laws or regulations;
- D. Monitoring response actions on the Site and conducting investigations relating to contamination on or near the Site, including, without limitation, sampling of air, water, sediments, soils, and specifically, without limitation, obtaining split or duplicate samples;
- E. Conducting periodic reviews of the remedial action, including but not limited to, reviews required by applicable statutes and/or regulations; and
- F. Implementing additional or new response actions if the Grantee and the other setting parties to the Consent Decree are required by a court, the environmental regulatory authorities, or in their sole discretion, determine that i) such actions are necessary to protect the environment because either the original remedial action has proven to be ineffective or because new technology has been developed which will accomplish the purposes of the remedial action in a significantly more efficient or cost effective manner; and, ii) the additional or new response actions will not impose any significantly greater burden on the Property or unduly interfere with the then existing uses of the Property.

6. **Reserved rights of Grantor:** Grantor hereby reserves unto itself, its successors, and assigns and the other settling parties, all rights and privileges in and to the use of the Property which are not incompatible with the restrictions, rights and easements granted herein.

7. **No limitation of access.** Nothing in this document shall limit or otherwise affect rights of the Florida Department of Environmental Protection and the U.S. Environmental Protection Agency to entry and access or their authority to take response actions under CERCLA, the NCP, or other federal or state law.

8. **No Public Access and Use:** No right of access or use by the general public to any portion of the Property is conveyed by this instrument.

9. **Notice requirement:** Grantor agrees to include in any instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases and mortgages, a notice which is in substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL PROTECTION EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS, DATED \_\_\_\_\_, 19\_\_\_, RECORDED IN THE PUBLIC LAND RECORDS ON \_\_\_\_\_, 19\_\_\_, IN BOOK \_\_\_\_\_, PAGE \_\_\_\_\_, IN FAVOR OF, AND ENFORCEABLE BY, THE CITY OF JACKSONVILLE, FLORIDA, THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE UNITED STATES OF AMERICA.

Within thirty (30) days of the date any such instrument of conveyance is executed, Grantor must provide Grantees with a certified true copy of said instrument and, if it has been recorded in the public land records, its recording reference.

10. **Administrative jurisdiction:** The federal agency having administrative jurisdiction over the interests acquired by the United States by this instrument is the U.S. Environmental Protection Agency, and the state agency with administrative jurisdiction over the interests acquired by the State of Florida is the Florida Department of Environmental Protection.

11. **Enforcement:** The Grantee, the settling parties in the litigation referenced in Paragraph 1, above, the U.S. Environmental Protection Agency and the Florida Department of Environmental Protection shall be entitled to enforce the terms of this instrument by resort to specific performance or legal process. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Enforcement of the terms of this instrument shall be discretionary, and any forbearance, delay or omission to exercise its rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver of such term or of any subsequent breach of the same or any other term, or of any of the rights under this instrument.

12. **Damages:** Grantees, the settling parties, the U.S. Environmental Protection Agency and the Florida Department of Environmental Protection shall be entitled to recover damages for violations of the terms of this instrument, or for any injury to the remedial action, to the public or to the environment protected by this instrument.

13. **Waiver of certain defenses:** Grantor hereby waives any defense of laches, estoppel, or prescription.

14. **Covenants:** Grantor hereby covenants to and with the Grantees, the settling work parties, the United States and its assigns and the State of Florida and its assigns, that the Grantor is lawfully seized in fee simple of the Property, that the Grantor has a good and lawful right and power to sell and convey it or any interest therein, that the Property is free and clear of encumbrances, except those noted on Exhibit D attached hereto, and that the Grantor will forever warrant and defend the title thereto and the quiet possession thereof.

15. **Notices:** Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor:

Mrs. Betty P. Owens Milton  
258 Mabelle Drive  
Jacksonville, Florida 32220

---

To Grantee (City of Jacksonville) and  
Consent Decree settlers:

Chief, Environmental Law Division  
Office of General Counsel  
City Hall-St. James, Suite 480  
117 W. Duval Street  
Jacksonville, Florida 32202

Michael Stephenson,  
Associate Regional Counsel  
U.S. Env. Protection Agency, Region IV  
61 Forsyth Street  
Atlanta, GA 30303

Office of General Counsel  
Florida Department of Env. Protection  
3900 Commonwealth Boulevard, Mail  
Station 35  
Tallahassee, Florida 32399-3000

16. **Duration of temporary easement.** This temporary easement, granted to allow access to the Site and staging construction equipment and materials, shall terminate one year after completion of construction, unless terminated earlier with the approval of the EPA.

17. **General provisions:**

A. **Controlling law:** The interpretation and performance of this instrument shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of the State of Florida.

B. **Liberal construction:** Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to effect the purpose of this instrument and the policy and purpose of CERCLA. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

C. **Severability:** If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

D. **Entire Agreement:** This instrument sets forth the entire agreement of the parties with respect to rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating thereto, all of which are merged herein.

E. **No Forfeiture:** Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

F. **Joint Obligation:** If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

G. **Successors:** The covenants, terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. The term "Grantor", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantor" and their personal representatives, heirs, successors, and assigns. The term "Grantee", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantee" and their personal representatives, heirs, successors, and assigns. The rights of the Grantee and Grantor under this instrument are freely assignable, subject to the notice provisions hereof.

H. **Termination of Rights and Obligations:** A party's rights and obligations under this instrument terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

I. **Captions:** The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

J. **Counterparts:** The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

**TO HAVE AND TO HOLD** unto the City of Jacksonville, the settling work parties, United States and the State of Florida and their successors and assigns forever.

**IN WITNESS WHEREOF**, Grantor has caused this Agreement to be signed in its name.

Executed this 3<sup>rd</sup> day of April, 2003.

Betty Patricia Owens Milton f/k/a  
Betty Patricia Owens  
Betty Patricia Owens Milton f/k/a  
Betty Patricia Owens

STATE OF FLORIDA  
COUNTY OF DUVAL

The foregoing instrument was acknowledged before me on this 3<sup>rd</sup> day of April, 2003, by \_\_\_\_\_ Such person is either personally known to me or has produced a Florida driver's license as identification.

[Notary Seal]

Elizabeth Villar  
Print Name: Elizabeth Villar  
NOTARY PUBLIC, State of Florida  
Serial Number (if any): \_\_\_\_\_  
My Commission Expires: 9/27/04

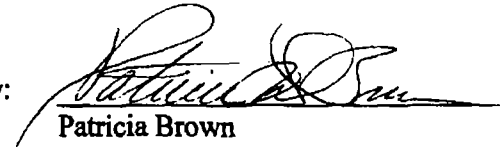


Elizabeth A. Villar  
MY COMMISSION # CC970883 EXPIRES  
September 27, 2004  
BONDED THRU TROY FAIR INSURANCE, INC.

This easement is accepted this 3<sup>RD</sup> day of APRIL, 2003.

CITY OF JACKSONVILLE

By:



Patricia Brown  
Chief, Real Estate Division  
Department of Public Works  
Room 1208, City Hall Annex  
220 E. Bay Street  
Jacksonville, Florida 32202

- Attachments:
- Exhibit A - legal description of the Property
  - Exhibit B - identification of proposed uses and construction plans, for the Property
  - Exhibit C - identification of existing uses of the Property
  - Exhibit D - list of permitted title encumbrances



Advancing Quality of Life, by Design ●

1900 Corporate Square Blvd. • Jacksonville, FL 32216  
904.721.2991 • FAX: 904.861.2450

EXHIBIT "A"

PARCEL 102

A PART OF SECTION 24, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF REFERENCE, COMMENCE AT A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF CHAFFEE ROAD (A 66.00 FOOT RIGHT-OF-WAY AS NOW ESTABLISHED) AT ITS INTERSECTION WITH THE SOUTH LINE OF SECTION 13, OF SAID TOWNSHIP AND RANGE; THENCE SOUTH 88°59'10" WEST, LEAVING SAID WESTERLY RIGHT-OF-WAY LINE AND ALONG SAID SOUTH LINE OF SECTION 13, A DISTANCE OF 1467.51 FEET TO THE POINT OF BEGINNING, SAID POINT BEING ON THE WESTERLY RIGHT-OF-WAY LINE OF MACHELLE DRIVE (A 60.00 FOOT RIGHT-OF-WAY AS NOW ESTABLISHED); THENCE SOUTH 00°02'30" WEST, ALONG SAID WESTERLY RIGHT-OF-WAY LINE OF MACHELLE DRIVE, A DISTANCE OF 10.05 FEET; THENCE NORTH 89°20'52" WEST, LEAVING SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 274.89 FEET; THENCE NORTH 00°01'05" EAST, A DISTANCE OF 2.06 FEET TO A POINT IN THE AFORESAID SOUTH LINE OF SECTION 13; THENCE NORTH 88°59'10" EAST ALONG SAID SOUTH LINE, A DISTANCE OF 274.92 TO THE POINT OF BEGINNING.

CONTAINING 1665 SQUARE FEET MORE OR LESS.



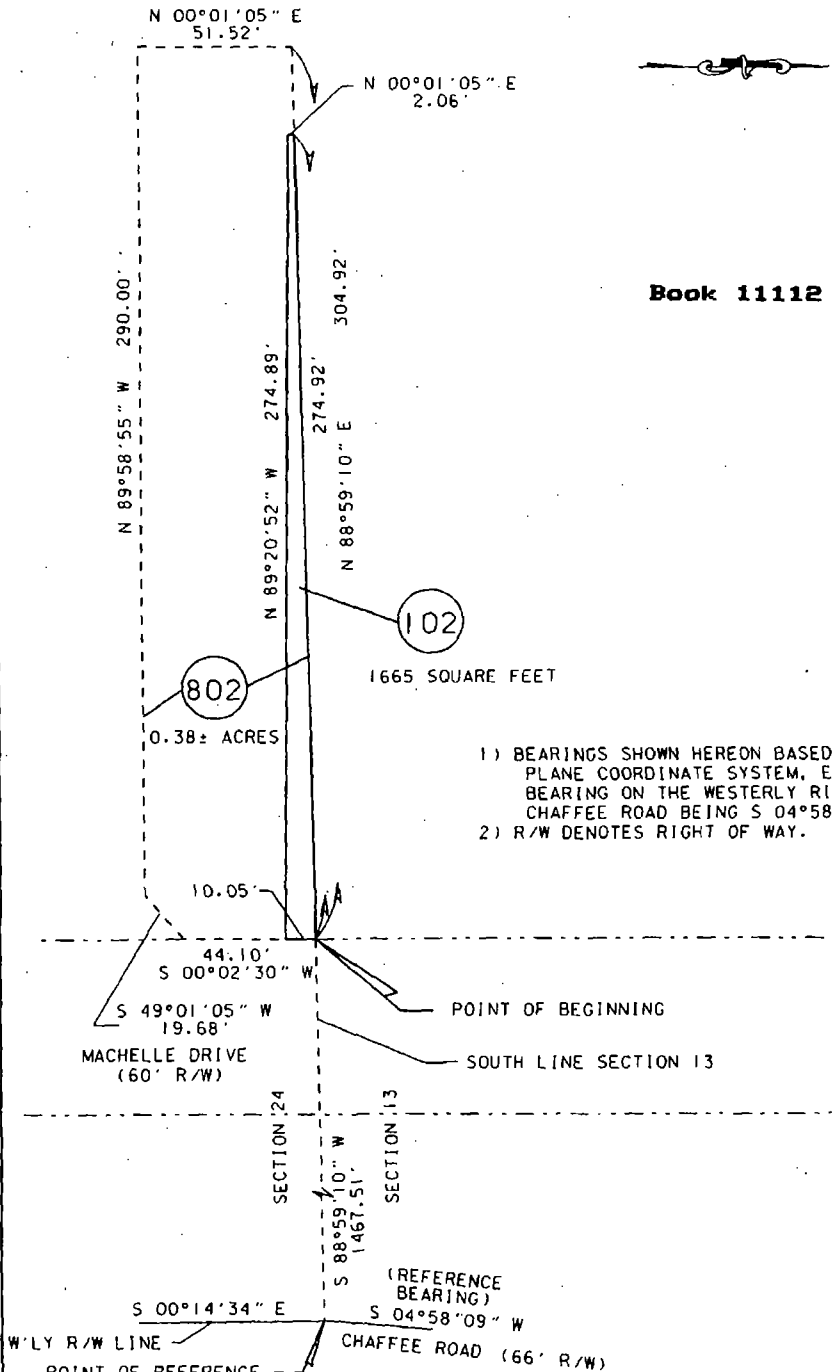
**MAP OF**

PARCELS 102 AND 802  
BEING A PART OF SECTION 24, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA  
(SEE ATTACHED FOR LEGAL DESCRIPTION)

*RE 1812-6670*

**EXHIBIT "A"**

**Book 11112 Page 2128**



- 1) BEARINGS SHOWN HEREON BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, WITH THE BEARING ON THE WESTERLY RIGHT OF WAY LINE OF CHAFFEE ROAD BEING S 04°58'09" W
- 2) R/W DENOTES RIGHT OF WAY.

**THIS IS A MAP ONLY AND DOES NOT PURPORT TO BE A SURVEY**



**Engineers  
Planners  
Landscape Architects  
Surveyors**

Advancing Quality of Life, by Design •  
**B.H.R., Inc.** 02082.01  
1900 Corporate Square Boulevard • Jacksonville, Florida 32216 •  
(904) 721-2991 • Fax: (904) 725-0171  
Certification Number LB 6739

I HEREBY CERTIFY THAT THIS MAP MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE FLORIDA BOARD OF SURVEYORS AND MAPPERS, PURSUANT TO CHAPTER 472.027 OF THE FLORIDA STATUTES, AND 6G17-6 OF THE FLORIDA ADMINISTRATIVE CODE.

*Joseph K. Lek*  

<b>CARL J. SHELLHASE</b>	FLA. P.S.M. CERT. NO. LS 5021
<b>BRENDA D. CATONE</b>	FLA. P.S.M. CERT. NO. LS 5447
<b>JOSEPH K. LEK</b>	FLA. P.S.M. CERT. NO. LS 6016

 FIELD N/A SIGNED JULY 25, 2002  
 SCALE: 1" = 50'

**NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER**

REQ. NO.



Advancing Quality of Life, by Design ●

1900 Corporate Square Blvd. • Jacksonville, FL 32216  
904.721.2991 • FAX: 904.861.2450

## EXHIBIT "A"

## PARCEL 802

A PART OF SECTION 24, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF REFERENCE, COMMENCE AT A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF CHAFFEE ROAD (A 66.00 FOOT RIGHT-OF-WAY AS NOW ESTABLISHED) AT ITS INTERSECTION WITH THE SOUTH LINE OF SECTION 13, OF SAID TOWNSHIP AND RANGE; THENCE SOUTH 88°59'10" WEST, LEAVING SAID WESTERLY RIGHT-OF-WAY LINE AND ALONG SAID SOUTH LINE OF SECTION 13, A DISTANCE OF 1467.51 FEET TO THE POINT OF BEGINNING, SAID POINT LYING ON THE WESTERLY RIGHT-OF-WAY LINE OF MACHELLE DRIVE (A 60.00 FOOT RIGHT-OF-WAY AS NOW ESTABLISHED); THENCE SOUTH 00°02'30" WEST, ALONG SAID WESTERLY RIGHT-OF-WAY LINE OF MACHELLE DRIVE, A DISTANCE OF 44.10 FEET; THENCE SOUTH 49°01'05" WEST, LEAVING SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 19.68 FEET; THENCE NORTH 89°58'55" WEST, A DISTANCE OF 290.00 FEET; THENCE NORTH 00°01'05" EAST, A DISTANCE OF 51.52 FEET TO A POINT IN THE AFORESAID SOUTH LINE OF SECTION 13; THENCE NORTH 88°59'10" EAST ALONG SAID SOUTH LINE, A DISTANCE OF 304.92 TO THE POINT OF BEGINNING.

CONTAINING 0.38 ACRES (16,448 SQUARE FEET), MORE OR LESS.

## Exhibit B

### Proposed Uses and Construction Plans For the Property

The proposed uses and construction plans for the Property consist of the remedial activities and post-remediation limitations as more specifically described in the U.S. Environmental Protection Agency's September 24, 1998 Amended Record of Decision, and its July 2001 Explanation of Significant Differences, and the EPA-approved Work Plan which are on file at the Agency's Region IV offices in Atlanta, Georgia, and the site repository, the Whitehouse Elementary School, 11160 General Avenue, Whitehouse, Florida 32220. Temporary construction easements should be lifted by September 2005.

Construction Easements

Parcel No.	Owner	Existing Property Use	JaxGIS Zoning Designation	JaxGIS Landuse Designation	Property Use Listed on Duval Co. Parcel Summary	Property Notes from Property Record Cards
001472 0000	St. Regis Land Development Corp.	Vacant	Agriculture	Low Density Residential	0000 Vacant Res	
001474 0010	Richard D. Peters, Sr.	Vacant	Industrial Business Park	Low Density Residential	9600 Waste Land	
001474 0020	Richard D. Peters, Sr.	Hazardous Waste Site?	Industrial Business Park	Low Density Residential	9600 Waste Land	Hazardous Waste Site
001474 0030	Felton D. Gleaton	Mobile Home	Residential Rural	Low Density Residential	0200 Mobile Home	
001474 0040	James L. Gleaton	Vacant	Residential Rural	Low Density Residential	0000 Vacant Res	Vacant Residential
001474 0100	Eloise S. Gleaton	Vacant	Agriculture	Low Density Residential?	9900 Acrg Zoned RR or AGR	11 - 20 Acres/Vacant 1+ Acre Swamp
001477 0000	Richard D. Peters, Sr.	Hazardous Waste Site?	Industrial Business Park	Low Density Residential?	9600 Waste Land	Hazardous Waste Site
001478 0000	Joe A. Drawdy	Single Family Residence	Residential Rural	Low Density Residential	0100 Single Family	
001822 0020	Betty P. Owens	Single Family Residence	Residential Rural	Low Density Residential	0100 Single Family	
001825 0140	Ronald W. Fuller	Mobile Home	Residential Rural	Low Density Residential	0200 Mobile Home	
001839 0000	Calvin Lee	Vacant	Residential Mixed Density	Medium Density Residential	0000 Vacant Res	GB Denial 96 Parcel Located Next to Navy's Fuel Oil Dump Site
994413 0036	None recorded	Vacant?	Residential Rural	Low Density Residential	No record	
Macheille Drive						
G:\Projects\023-26\02302603\001\Constuction Easements.xls						



Book 11112 Page 2131

Exhibit C

**Exhibit "D"**

**Permitted Title Encumbrances  
Parcels 102 and 802**

1. Mortgage from Patricia H. Owens a/k/a/ Betty Patricia Owens, a married woman to Southeast Bank, N.A., Edgewood Banking Center, in the amount of \$4,500.00, dated July 26, 1989 and recorded August 3, 1989 in Official Records Book 6743, page 382.

5 MIN. RETURN  
PHONE # 230-16 00

Book 11314 Page 815

Prepared by: Lisa Villar  
City of Jacksonville

Return to: Real Estate Division, DPW  
Room 1208, City Hall Annex  
220 East Bay Street

Project: Whitehouse Waste Oil Pits Superfund Site  
Parcel: 101  
RE #: 001825-0140

Doc# 2003280102  
Book: 11314  
Pages: 815 - 816  
Filed & Recorded  
08/25/2003 02:24:02 PM  
JIN FULLER  
CLERK CIRCUIT COURT  
DUVAL COUNTY  
RECORDING  
TRUST FUND \$ 9.00  
DEED DOC STAMP \$ 1.50  
\$ 175.00

### WARRANTY DEED

THIS INDENTURE, made this 15<sup>th</sup> day of August, 2003, by Ronald W. Fuller, owner of non-homestead property, hereinafter referred to as the "Grantor", whose address is 247 Mabelle Drive, Jacksonville, Florida 32220, to the CITY OF JACKSONVILLE, a Municipal Corporation, hereinafter referred to as the "Grantee", whose business address is 117 West Duval Street, Jacksonville, Florida, 32202.

WITNESSETH: Grantors, for and in consideration of the sum of TWENTY FIVE THOUSAND DOLLARS (\$25,000.00), receipt of which is hereby acknowledged, by these presents do grant, bargain, sell, alien, remise, release, convey, and confirm unto Grantee, its successors and assigns forever, that certain piece, parcel or tract of land in Duval County, Florida described as follows:

SEE EXHIBIT "A"

TOGETHER with all the tenements, hereditaments, and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND HOLD the same in fee simple forever. Grantors do hereby warrant the title to said land, and will defend the same against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, Grantors have caused these presents to be signed in their names the day and year above written.


Signed and Sealed in Our Presence:  
(sign) [Signature]  
(print) ROBERT J. HARRIS  
(sign) [Signature]  
(print) LISA VILLAR

GRANTORS:  
[Signature]  
RONALD W. FULLER

(2)

STATE OF FLORIDA  
COUNTY OF DUVAL

The foregoing was acknowledged before me this 15<sup>th</sup> day of August, 2003, by RONALD W. FULLER. Such persons are personally known to me or produced as identification.

 Elizabeth A. Villar  
MY COMMISSION # CC970843 EXPIRES  
September 27, 2004  
BONDED WITH TRISTAR INSURANCE, INC.

[Signature]  
NOTARY PUBLIC  
State of Florida

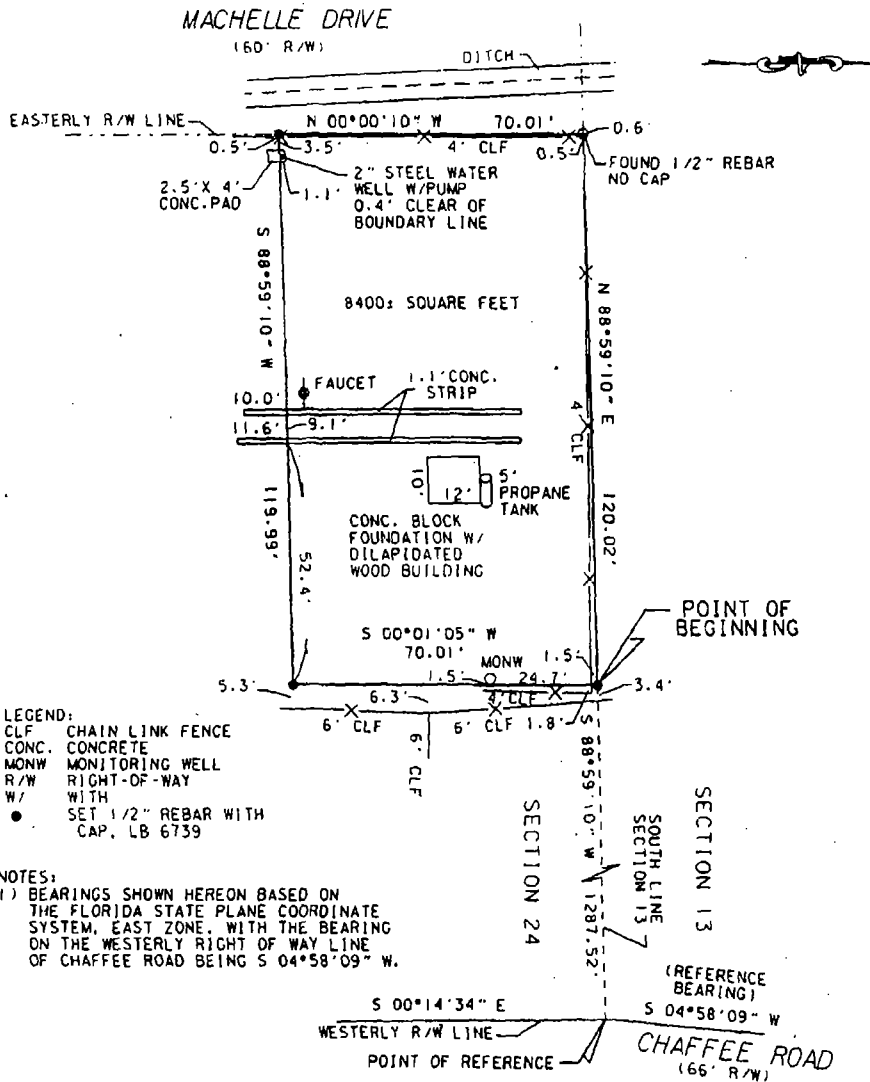
MAP SHOWING BOUNDARY SURVEY OF

FULLER PROPERTY

A PART OF SECTION 24, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF REFERENCE, COMMENCE AT A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF CHAFFEE ROAD (A 66.00 FOOT RIGHT-OF-WAY AS NOW ESTABLISHED) AT ITS INTERSECTION WITH THE SOUTHERLY LINE OF SECTION 13 OF SAID TOWNSHIP AND RANGE; THENCE SOUTH 88°59'10" WEST, LEAVING SAID WESTERLY RIGHT-OF-WAY LINE AND ALONG SAID SOUTH LINE OF SAID SECTION 13, A DISTANCE OF 1287.52 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 00°01'05" WEST, A DISTANCE OF 70.01 FEET; THENCE SOUTH 88°59'10" WEST TO ITS INTERSECTION WITH THE EASTERLY RIGHT-OF-WAY LINE OF MACHELLE DRIVE (A 60.00 FOOT RIGHT-OF-WAY AS NOW ESTABLISHED), A DISTANCE OF 119.99 FEET; THENCE NORTH 00°00'10" WEST ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 70.01 FEET TO A POINT IN THE AFORESAID SOUTH LINE OF SECTION 13; THENCE NORTH 88°59'10" EAST, ALONG SAID SOUTH LINE, A DISTANCE OF 120.02 FEET TO THE POINT OF BEGINNING.

CONTAINING 8400 SQUARE FEET, MORE OR LESS.

CERTIFIED TO:  
WHITEHOUSE REMEDIAL ACTION GROUP



- LEGEND:  
 CLF CHAIN LINK FENCE  
 CONC. CONCRETE  
 MONW MONITORING WELL  
 R/W RIGHT-OF-WAY  
 W/ WITH  
 ● SET 1/2" REBAR WITH CAP, LB 6739

NOTES:  
 1) BEARINGS SHOWN HEREON BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, WITH THE BEARING ON THE WESTERLY RIGHT OF WAY LINE OF CHAFFEE ROAD BEING S 04°58'09" W.



Engineers  
 Planners  
 Landscape Architects  
 Surveyors

Advancing Quality of Life, by Design •  
**B.H.R., Inc.**  
 1900 Corporate Square Boulevard • Jacksonville, Florida 32216 •  
 (904) 721-2991 • Fax: (904) 721-0171  
 Certification Number LB 6739

I HEREBY CERTIFY THAT THIS SURVEY MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE FLORIDA BOARD OF SURVEYORS AND MAPPERS, PURSUANT TO CHAPTER 472.027 OF THE FLORIDA STATUTES, AND 61G17-6 OF THE FLORIDA ADMINISTRATIVE CODE.

*Joseph R. Lek*  
 JOSEPH R. LEK  
 FLA. P.S.M. CERT. NO. LS 5021  
 BRENDA D. CATONE  
 FLA. P.S.M. CERT. NO. LS 5447  
 JOSEPH R. LEK  
 FLA. P.S.M. CERT. NO. LS 6018  
 FIELD JUNE 19, 2003 SIGNED JUNE 20, 2003  
 SCALE: 1" = 30'

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

REQ. NO. 02082

q:\Survey\Duval\A72a-R24e\Beavers\Chaffee\Machelle.dgn

**Prepared by and Return to:**  
Gregory K. Radlinski, Assistant General Counsel  
Fla. Bar No. 0166350  
Office of the General Counsel  
117 West Duval Street, Suite 480  
Jacksonville, Florida 32202

**ENVIRONMENTAL PROTECTION EASEMENT  
AND  
DECLARATION OF RESTRICTIVE COVENANTS**

This Environmental Protection Easement and Declaration of Restrictive Covenants is made this 7th day of January, 2008, by and between Joe A. Drawdy and Margaret L. Drawdy, ("GRANTORS"), having an address of 322 N. Chaffee Road, Jacksonville, Florida 32220, and the City of Jacksonville, a political subdivision of the State of Florida ("GRANTEE"), having an address of Room 117 West Duval Street, Jacksonville, Florida 32202.

**WITNESSETH:**

**WHEREAS**, GRANTORS are the owners of a parcel of land located in the county of Duval, State of Florida, more particularly described on Exhibit A attached hereto and made a part hereof (the "Property"); and

**WHEREAS**, the Property is part of the Whitehouse Waste Oil Pits Superfund Site ("Site"), which the U.S. Environmental Protection Agency ("EPA"), pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9605, placed on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on September 8, 1983; and

**WHEREAS**, in a Second Amended Record of Decision dated September 24, 1998 (the "ROD") and an Explanation of Significant Differences dated July 16, 2001 (the "ESD"), the EPA Region IV Regional Administrator selected a "remedial action" for the Site, which provides, in part, for the following actions:

1. Installation of a vertical barrier (slurry wall or sheet piling) to isolate and contain the contaminated soil, sludge, wetlands, sediment and groundwater;
2. Solidification/stabilization of Lifts 1 and 2 and incorporate a geogrid to enhance the structural stability of the stabilized soil;
3. Installation of a RCRA type cap over the containment area;



4. Realignment of the northeast tributary to McGirts Creek to optimize the area of groundwater containment;
5. Extension of the municipal water supply to residents along Mabelle Drive and plugging of private wells;
6. Monitored natural attenuation of contaminated groundwater outside of the containment system;
7. Imposition of deed restrictions to control future land use and groundwater use;
8. Installation of a permanent security fence around the containment area and installation and maintenance of appropriate stormwater management control; and,
9. Remediation of approximately 3.6 acres of McGirts Creek floodplain.

**WHEREAS**, the parties hereto have agreed 1) to grant a permanent right of access over the Property to the GRANTEE and the U.S. Environmental Protection Agency for purposes of implementing, facilitating and monitoring the remedial action; and 2) to impose on the Property use restrictions as covenants that will run with the land for the purpose of protecting human health and the environment; and

**WHEREAS**, Grantor wishes to cooperate fully with the GRANTEE, the other settling work parties, the Florida Department of Environmental Protection and the U.S. Environmental Protection Agency in the implementation of all response actions at the Site;

**NOW, THEREFORE:**

1. **Grant:** GRANTORS, on behalf of themselves, their successors and assigns, in consideration of the Grantees and other settling work parties' (the "settling work parties" named in the Consent Decree) in compliance with the terms of the Consent Decree in the case of United States v. City of Jacksonville et al. Civ. Action No. 301-CV-1424, U. S. District Court for the Middle District of Florida, Jacksonville Division (the "Consent Decree"), and other good and valuable consideration, receipt of which is hereby acknowledged, does hereby covenant and declare that the Property shall be subject to the restrictions on use set forth below, and does give, grant and convey to the Grantee, and its assigns, with general warranties of title, i) the right to enforce said use restrictions, and ii) a permanent environmental protection easement of the nature and character, and for the purposes hereinafter set forth, with respect to the Property.
2. **Purpose:** It is the purpose of this instrument to convey to the GRANTEE real property rights, which will run with the land, to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to contaminants.

3. **Restrictions on use:** The following covenants, conditions, and restrictions apply to the use of the Property, run with the land and are binding on the GRANTORS: (1) refrain from using the Site, including (during construction and post-construction groundwater monitoring) the staging areas for remedial action, in any manner that would interfere with or adversely affect the implementation, integrity, or protectiveness of the remedial measures to be performed pursuant to the Consent Decree referenced in Paragraph 1, above; and, (2) refrain from drilling wells of any kind within the easement without first obtaining the permission of the GRANTEE.

4. **Modification of restrictions:** The above restrictions may be modified, or terminated in whole or in part, in writing, by the GRANTEE with the concurrence of the United States Environmental Protection Agency. If requested by the GRANTORS, such writing will be executed by GRANTEE in recordable form upon receipt of the environmental regulatory agencies' concurrence.

5. **Environmental Protection Easement:** GRANTORS do hereby grant to the GRANTEE and the Florida Department of Environmental Protection an irrevocable, and continuing right of access at all reasonable times to the Property for purposes of:

- A. Implementing the response actions in the ROD and the ESDs as they may be, from time to time, amended;
- B. Verifying any data or information submitted to EPA.
- C. Verifying that no action is being taken on the Property in violation of the terms of this instrument or of any local, federal or state environmental laws or regulations;
- D. Monitoring response actions on the Site and conducting investigations relating to contamination on or near the Site, including, without limitation, sampling of air, water, sediments, soils, and specifically, without limitation, obtaining split or duplicate samples;
- E. Conducting periodic reviews of the remedial action, including but not limited to, reviews required by applicable statutes and/or regulations; and
- F. Implementing additional or new response actions if the GRANTEE and the other setting parties to the Consent Decree are required by a court, the environmental regulatory authorities, or in their sole discretion, determine that i) such actions are necessary to protect the environment because either the original remedial action has proven to be ineffective or because new technology has been developed which will accomplish the purposes of the remedial action in a significantly more efficient or cost effective manner; and, ii) the additional or new response actions will not impose any significantly greater burden on the Property or unduly interfere with the then existing uses of the Property.

6. **Reserved rights of GRANTORS:** GRANTORS do hereby reserves unto themselves, their successors, and assigns and the other settling parties, all rights and privileges in and to the use of the Property which are not incompatible with the restrictions, rights and easements granted herein.
7. **No limitation of access.** Nothing in this document shall limit or otherwise affect rights of the Florida Department of Environmental Protection and the U.S. Environmental Protection Agency to entry and access or their authority to take response actions under CERCLA, the NCP, or other federal or state law.
8. **No Public Access and Use:** No right of access or use by the general public to any portion of the Property is conveyed by this instrument.
9. **Notice requirement:** GRANTORS agree to include in any instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases and mortgages, a notice which is in substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL PROTECTION EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS, DATED \_\_\_\_\_, 19\_\_, RECORDED IN THE PUBLIC LAND RECORDS ON \_\_\_\_\_, 19\_\_, IN BOOK \_\_\_\_\_, PAGE \_\_\_\_\_, IN FAVOR OF, AND ENFORCEABLE BY, THE CITY OF JACKSONVILLE, FLORIDA, THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE UNITED STATES OF AMERICA.

Within thirty (30) days of the date any such instrument of conveyance is executed, GRANTORS must provide GRANTEE with a certified true copy of said instrument and, if it has been recorded in the public land records, its recording reference.

10. **Administrative jurisdiction:** The federal agency having administrative jurisdiction over the interests acquired by the United States by this instrument is the U.S. Environmental Protection Agency, and the state agency with administrative jurisdiction over the interests acquired by the State of Florida is the Florida Department of Environmental Protection.
11. **Enforcement:** The GRANTEE, the settling parties in the litigation referenced in Paragraph 1, above, the U.S. Environmental Protection Agency and the Florida Department of Environmental Protection shall be entitled to enforce the terms of this instrument by resort to specific performance or legal process. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Enforcement of the terms of this instrument shall be discretionary, and any forbearance, delay or omission to exercise its rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver of such term or of any subsequent breach of the same or any other term, or of any of the rights under this instrument.

12. **Damages:** GRANTEE, the settling parties, the U.S. Environmental Protection Agency and the Florida Department of Environmental Protection shall be entitled to recover damages for violations of the terms of this instrument, or for any injury to the remedial action, to the public or to the environment protected by this instrument.

13. **Waiver of certain defenses and claims:** GRANTORS hereby waive any defense of laches, estoppel, or prescription. Further, GRANTORS, for themselves and their successors and assigns, waive any claim whatsoever against the GRANTEE, the settling work parties (the GRANTEE, CSXT, Chevron-Texaco, Fla. East Coast Railway), the United States Environmental Protection Agency, the Florida Department of Environmental Protection, and their agents and assigns for any damages to real or personal property arising out of the construction of the remedial action at the Whitehouse Waste Oil Pits Superfund Site and post-construction operation and maintenance of the site, including, but not limited to, drainage and GRANTORS' on-site sewage treatment system

14. **Covenants:** GRANTORS hereby covenant to and with the GRANTEES, the settling work parties, the United States and its assigns and the State of Florida and its assigns, that the GRANTORS are lawfully seized in fee simple of the Property, that the GRANTORS have a good and lawful right and power to sell and convey it or any interest therein, that the Property is free and clear of encumbrances, except those noted on Exhibit D attached hereto, and that the GRANTORS will forever warrant and defend the title thereto and the quiet possession thereof.

15. **Notices:** Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantors:

Joe A. Drawdy  
Margaret L. Drawdy

470 North Chaffee Road  
Jacksonville, Florida 32220

To Grantee (City of Jacksonville) and  
Consent Decree settlers:

Chief, Environmental Law Division

Office of General Counsel  
City Hall-St. James, Suite 480  
117 W. Duval Street  
Jacksonville, Florida 32202

Michael Stephenson,  
Associate Regional Counsel  
U.S. Env. Protection Agency, Region IV  
61 Forsyth Street

Atlanta, GA 30300 Office of General Counsel

Florida Department of Env. Protection  
3900 Commonwealth Boulevard, Mail  
Station 35  
Tallahassee, Florida 32399-3000

16. **General provisions:**

A. **Controlling law:** The interpretation and performance of this instrument shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of the State of Florida.

B. **Liberal construction:** Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to effect the purpose of this instrument and the policy and purpose of CERCLA. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

C. **Severability:** If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

D. **Entire Agreement:** This instrument sets forth the entire agreement of the parties with respect to rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating thereto, all of which are merged herein.

E. **No Forfeiture:** Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

F. **Joint Obligation:** If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

G. **Successors:** The covenants, terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. The term "GRANTORS", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "GRANTORS" and their personal representatives, heirs, successors, and assigns. The term "GRANTEES", wherever used herein, and any pronouns used in place thereof, shall include the

persons and/or entities named at the beginning of this document, identified as "GRANTEES" and their personal representatives, heirs, successors, and assigns. The rights of the GRANTEES and GRANTORS under this instrument are freely assignable, subject to the notice provisions hereof.

H. **Captions:** The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

I. **Counterparts:** The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

**TO HAVE AND TO HOLD** unto the City of Jacksonville, the settling work parties, United States and the State of Florida and their successors and assigns forever.

**IN WITNESS WHEREOF**, Grantor has caused this Agreement to be signed in its name.

Executed this 10<sup>th</sup> day of January, 2008.

[Signature]  
Witness  
James M. Morgan

[Signature]  
Witness  
James Williams

JOE A. DRAWDY  
[Signature]  
Joe A. Drawdy

MARGARET F. DRAWDY  
[Signature]  
Margaret L. Drawdy

STATE OF FLORIDA  
COUNTY OF DUVAL

The foregoing instrument was acknowledged before me on this 10<sup>th</sup> day of January, 2008, by JOE A + MARGARET DRAWDY. Such person is either personally known to me or has produced a Florida driver's license as identification.

[Signature]  
Print Name: JAMES WILLIAMS  
NOTARY PUBLIC, State of Florida  
My Commission Expires: 9/10/2011

JOE A. DRAWDY  
D630-421-51-130-0

MARGARET L. DRAWDY  
D630-572-47-867-0



This easement is accepted this 10 day of January 2008.

CITY OF JACKSONVILLE



By:

Robert Williams  
Chief, Real Estate Division  
Department of Public Works  
10 Floor / Ed Ball Building  
214 North Hogan Street  
Jacksonville FL 32202

Accepted on behalf of the CITY  
OF JACKSONVILLE, Florida

Bob Williams, Real Estate Officer

Attachments:      Exhibit A      -      legal description of the Property

**MAP SHOWING A SKETCH AND DESCRIPTION OF:**

A PORTION OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS VOLUME 6447, PAGE 448 OF THE CURRENT PUBLIC RECORDS OF DUVAL COUNTY, FLORIDA, LYING IN THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 13, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF REFERENCE, COMMENCE AT THE CORNER COMMON TO SECTIONS 13 AND 24, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA; THENCE SOUTH 89°08'43" WEST, ALONG THE SOUTHERLY LINE OF SAID SECTION 13, A DISTANCE OF 304.18 FEET TO THE POINT OF BEGINNING.

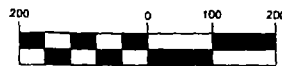
FROM SAID POINT OF BEGINNING, THENCE CONTINUE SOUTH 89°08'43" WEST, ALONG SAID SOUTHERLY LINE, 100.03 FEET; THENCE NORTH 00°35'18" EAST, 361.48 FEET; THENCE NORTH 89°58'11" EAST, 100.00 FEET; THENCE SOUTH 00°35'18" WEST, 359.98 FEET TO THE POINT OF BEGINNING.

CONTAINING 0.83 ACRES (36,073 SQUARE FEET), MORE OR LESS.

THE ABOVE DESCRIBED PARCEL CONTAINS PERMANENT EASEMENT NO. 105 PREVIOUSLY RECORDED IN OFFICIAL RECORDS VOLUME 11189, PAGE 1128 OF SAID CURRENT PUBLIC RECORDS.

CONTAINING 0.62 ACRES (29,901 SQUARE FEET), MORE OR LESS.

**GRAPHIC SCALE**

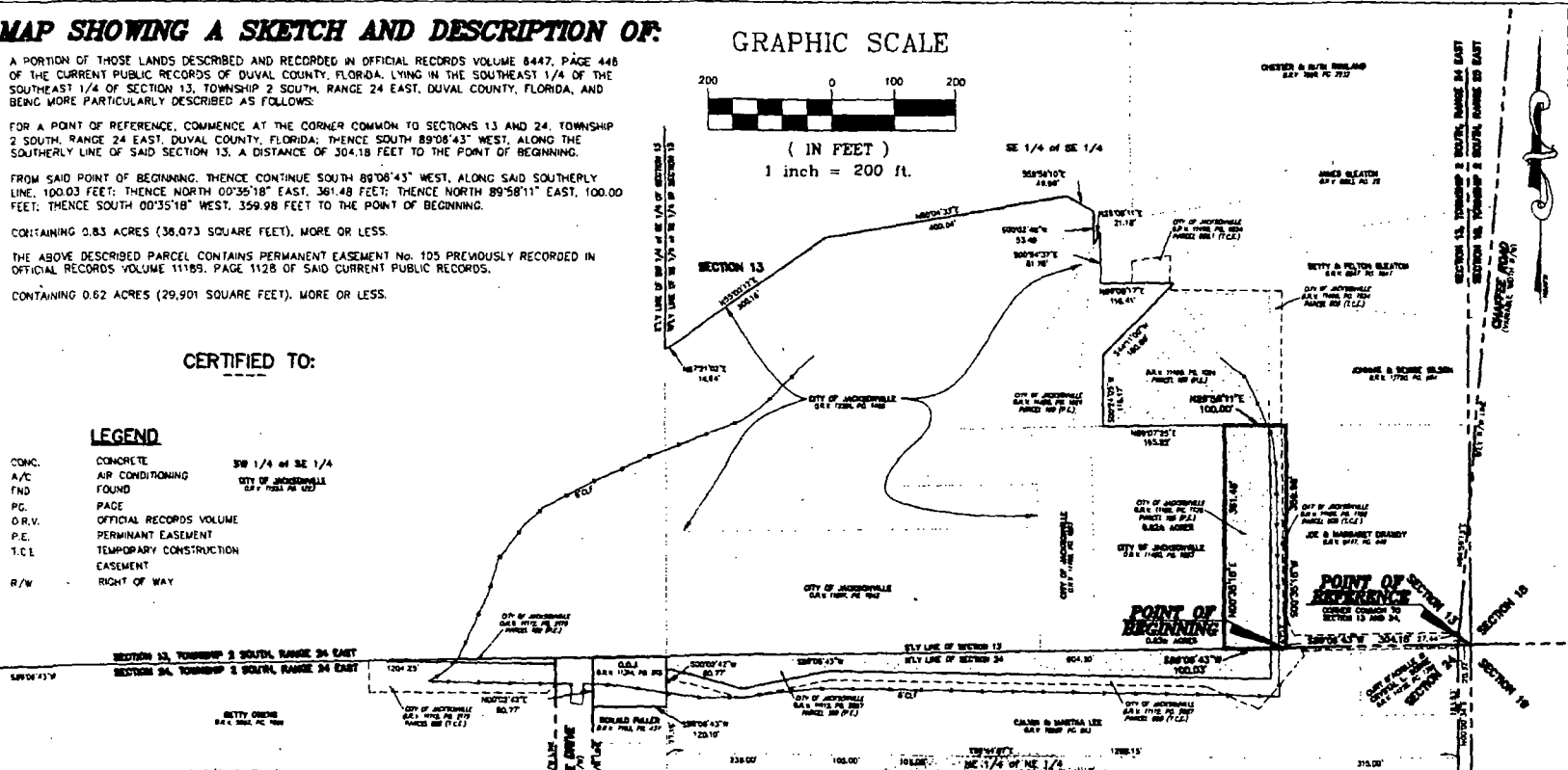


( IN FEET )  
1 inch = 200 ft.

**CERTIFIED TO:**

**LEGEND**

CONC.	CONCRETE	SW 1/4 of SE 1/4
A/C	AIR CONDITIONING	CITY OF JACKSONVILLE
FND	FOUND	OFFICIAL RECORDS VOLUME 11189, PAGE 1128
PG.	PAGE	
O.R.V.	OFFICIAL RECORDS VOLUME	
P.E.	PERMANENT EASEMENT	
T.C.L.	TEMPORARY CONSTRUCTION EASEMENT	
R/W	RIGHT OF WAY	



**SURVEY NOTES**

1. BEARINGS SHOWN HEREON ARE BASED ON THE WESTERLY RIGHT OF WAY LINE OF CHAFFEE ROAD, AS BEING NORTH 04°39'13" EAST.
2. ALL DIMENSIONS SHOWN HEREON ARE IN FEET AND IN TENTHS AND ARE BASED ON THE U.S. SURVEY FOOT.
3. A TITLE COMMITMENT HAS NOT BEEN PROVIDED.

*John E. Sherrill*  
**JOHN E. SHERRILL**  
 Florida Registration Certificate No. 6135  
 Date: 29 OCT 07  
 NOT VALID WITHOUT EMBOSSED SEAL.

**ARC SURVEYING & MAPPING, INC.**

5202 SAN JUAN AVENUE,  
 JACKSONVILLE, FLORIDA 32210  
 PHONE: 904/384-8377  
 LICENSED BUSINESS NO. 6487

DRAWN BY: JKM      DATE: 10-24-07      FIELD BOOK & PAGE:      JOB NO. 07-05-02



DEPARTMENT OF PUBLIC WORKS



June 16, 2008

Mr. & Mrs. Felton D. Gleaton  
358 N Chaffee Road  
Jacksonville, Florida 32220-1710

Ref: Land Swap Agreement (Whitehouse Oil Pit Easement)  
Real Estate # 001474-0030

Dear Mr. and Mrs. Gleaton,

The City of Jacksonville along with the State of Florida has completed its final survey of the Whitehouse Oil Pit Area, and the final survey has revealed two small area's of land that are contained within the oil pit area but not within the easement that was purchased from you in 2003. Based upon this information, the City of Jacksonville would like to propose a land swap in which the net results will be very much in you favor. I have included **Exhibit A** with this letter which shows in detail what we are proposing, and I will also explain it in this letter so it is clear what we are asking.

Exhibit A (legal and map) shows two small area's of land in orange. The area in orange located on the south west corner of your property contains 743 s/f of land in the parcel owned solely by you and your wife, and is recorded as RE # 001474-0030 in the property appraiser's records. In exchange for you and your wife giving the City this 743 s/f of land, the City of Jacksonville would like to return to you the land area in blue, which contains 6577 s/f, which in a net gain of 5,834 s/f of land to you.

The second area of land in orange is located on the property owned by Ranny E. Brewer along with you and your wife, and is recorded as RE # 001474-0035 in the property appraiser's records. This small area of land contains 311 s/f of land, for which we are proposing to return to Ranny Brewer and yourselves the land shown in pink, which contains 1,648 s/f of land, for a net gain of 1,337 s/f of land to the three of you.

As you can see this **Land Swap Agreement** is designed to be in your favor as a way of making all matters correct with the final survey. Once recorded, the new

easement will be contained with the dark black line, with all property located outside the dark black line belonging to Felton and Betty Gleaton on parcel RE # 001474-0030 and to Ranny Brewer and Felton and Betty Gleaton on parcel RE # 001474-0035. This agreement containing the new legal know as Exhibit A will replace the old legal as recorded in Book 11490 Page 1033 in the year 2003. I have included a copy of the existing easement map and legal for your review.

If you are in agreement with this Land Swap Agreement please sign and have notarize below and return to me in the self address envelope. We are requesting that you complete this activity by July 1<sup>st</sup>, 2008. If you have any question at all please feel free to call me. I can be reached at 904-255-8794 and will be happy to come to your home and go over the details with you. I can also notarize this agreement for you at the same time if you like.

In Agreement to the above terms:

FELTON D. GLEATON

Print Name  
Felton D. Gleaton

Felton D. Gleaton  
Sign Name Date

BETTY JANE GLEATON

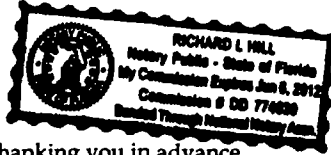
Print Name  
Betty Jane Gleaton

Betty Jane Gleaton  
Sign Name Date

Notary:

Richard L. Hill  
Name/Sign and Seal

6-24-08  
Date



Thanking you in advance,

Michael Williams

Michael Williams  
City of Jacksonville/Real Estate

# MAP SHOWING A SKETCH AND DESCRIPTION OF:

A PORTION OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS VOLUME 8847, PAGE 1847 OF THE CURRENT PUBLIC RECORDS OF DUVAL COUNTY, FLORIDA, LYING IN THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 13, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF REFERENCE, COMMENCE AT THE CORNER COMMON TO SECTIONS 13 AND 24, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA; THENCE SOUTH 89°08'43" WEST, ALONG THE SOUTHERLY LINE OF SAID SECTION 13, A DISTANCE OF 304.18 FEET; THENCE NORTH 00°35'18" EAST, 359.98 FEET TO THE POINT OF BEGINNING.

FROM SAID POINT OF BEGINNING, THENCE SOUTH 89°56'11" WEST, 100.00 FEET; THENCE SOUTH 89°07'25" WEST, 195.82 FEET; THENCE NORTH 00°24'05" EAST, 116.17 FEET; THENCE NORTH 44°11'00" EAST, 180.89 FEET; THENCE SOUTH 51°22'27" EAST, 150.00 FEET; THENCE SOUTH 25°57'48" EAST, 150.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 1.04 ACRES (45,223 SQUARE FEET), MORE OR LESS.

THE ABOVE DESCRIBED PARCEL CONTAINS PERMANENT EASEMENT NO. 106 PREVIOUSLY RECORDED IN OFFICIAL RECORDS VOLUME 11490, PAGE 1024 OF SAID CURRENT PUBLIC RECORDS. UPON RECORDING OF THIS DOCUMENT ALL EXISTING EASEMENTS ARE TO BE VACATED.

CERTIFIED TO:

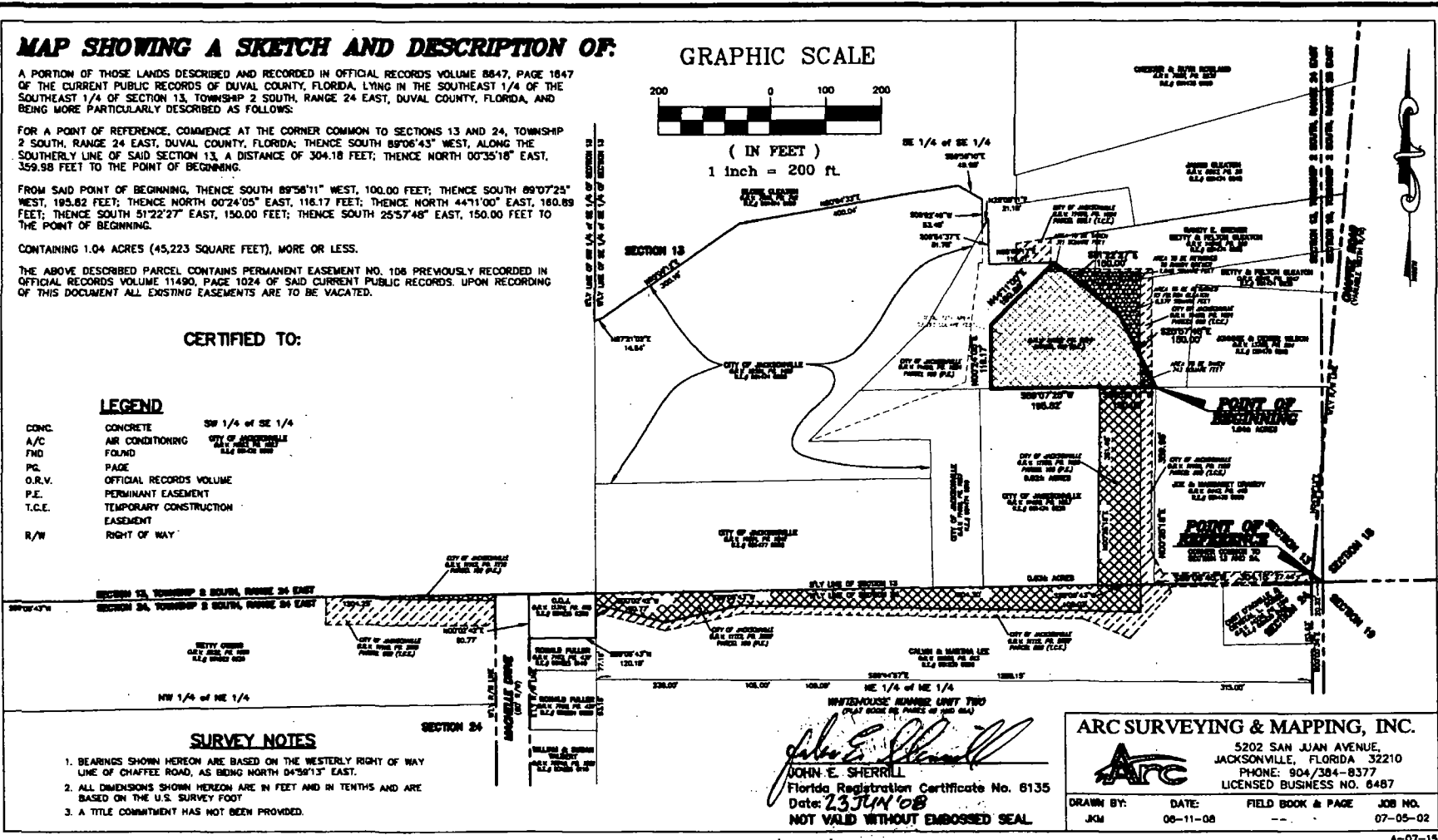
### LEGEND

CONC.	CONCRETE	SW 1/4 of SE 1/4
A/C	AIR CONDITIONING	CITY OF JACKSONVILLE
FND	FOUND	NEW FIELD NO. 207
PG.	PAGE	844 WHICH SHW
O.R.V.	OFFICIAL RECORDS VOLUME	
P.E.	PERMANENT EASEMENT	
T.C.E.	TEMPORARY CONSTRUCTION EASEMENT	
R/W	RIGHT OF WAY	

### GRAPHIC SCALE



( IN FEET )  
1 inch = 200 ft.



### SURVEY NOTES

1. BEARINGS SHOWN HEREON ARE BASED ON THE WESTERLY RIGHT OF WAY LINE OF CHAFFEE ROAD, AS BEING NORTH 04°39'13" EAST.
2. ALL DIMENSIONS SHOWN HEREON ARE IN FEET AND IN TENTHS AND ARE BASED ON THE U.S. SURVEY FOOT
3. A TITLE COMMITMENT HAS NOT BEEN PROVIDED.

*John E. Sherrill*  
**JOHN E. SHERRILL**  
 Florida Registration Certificate No. 6135  
 Date: 23 JUN '08  
 NOT VALID WITHOUT EMBOSSED SEAL

### ARC SURVEYING & MAPPING, INC.

**ARC**  
 5202 SAN JUAN AVENUE,  
 JACKSONVILLE, FLORIDA 32210  
 PHONE: 904/384-8377  
 LICENSED BUSINESS NO. 6487

DRAWN BY:	DATE:	FIELD BOOK & PAGE	JOB NO.
JCM	08-11-08		07-05-02

DEPARTMENT OF PUBLIC WORKS



June 16, 2008

Ranny E. Brewer  
Felton D. and Betty Jane Gleaton  
370 N Chaffee Road  
Jacksonville, Florida 32220-1710

Ref: Land Swap Agreement (Whitehouse Oil Pit Easement)  
Real Estate # 001474-0035

Dear Ranny Brewer and Mr. and Mrs. Gleaton,

The City of Jacksonville along with the State of Florida has completed its final survey of the Whitehouse Oil Pit Area, and the final survey has revealed two small area's of land that are contained within the oil pit area but not within the easement that was purchased from the owner in 2003. Based upon this information, the City of Jacksonville would like to propose a land swap in which the net results will be very much in you favor. I have included **Exhibit A** with this letter which shows in detail what we are proposing, and I will also explain it in this letter so it is clear what we are asking.

Exhibit A (legal and map) shows two small area's of land in orange. The area in orange located on the south west corner of Felton D. Gleaton property contains 743 s/f of land in the parcel owned solely by Felton and Betty Gleaton, and is recorded as RE # 001474-0030 in the property appraiser's records. In exchange for the Gleaton's giving the City this 743 s/f of land, the City of Jacksonville would like to return to them the land area in blue, which contains 6577 s/f, which in a net gain of 5,834 s/f of land to them.

The second area of land in orange is located on the property owned by yourself along with Mr. and Mrs. Felton D. Gleaton, and is recorded as RE # 001474-0035 in the property appraiser's records. This small area of land contains 311 s/f of land, for which we are proposing to return to you and the Gleaton's the land shown in pink, which contains 1,648 s/f of land, for a net gain of 1,337 s/f of land to the three of you.

As you can see this **Land Swap Agreement** is designed to be in your favor as a way of making all matters correct with the final survey. Once recorded, the new easement will be contained within the dark black line, with all property located outside the dark black line belonging to Felton and Betty Gleaton on parcel RE #

001474-0030 and to Ranny Brewer and Felton and Betty Gleaton on parcel RE # 001474-0035. This agreement containing the new legal know as Exhibit A will replace the old legal as recorded in Book 11490 Page 1033 in the year 2003. I have included a copy of the existing easement map and legal for your review.

If the three of you are in agreement with this Land Swap Agreement please sign and have notarize below and return to me in the self address envelope. We are requesting that you complete this activity by July 1<sup>st</sup>, 2008. If you have any question at all please feel free to call me. I can be reached at 904-255-8794 and will be happy to come to your home and go over the details with you. I can also notarize this agreement for you at the same time if you like.

In Agreement to the above terms:

Ranny E. Brewer  
Print / Ranny E. Brewer

Ranny E. Brewer 6/24/08  
Sign / Ranny E. Brewer Date

FELTON D. GLEATON  
Print / Felton D. Gleaton

Felton D. Gleaton  
Sign / Felton D. Gleaton Date

BETTY JANE GLEATON  
Print / Betty Jane Gleaton

Betty Jane Gleaton  
Sign / Betty Jane Gleaton Date

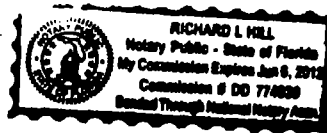
Notary:

Richard L. Hill  
Name / Sign and Seal

6-24-2008  
Date

Thanking you in advance,

Michael Williams  
Michael Williams  
Real Estate / City of Jacksonville



**MAP SHOWING A SKETCH AND DESCRIPTION OF:**

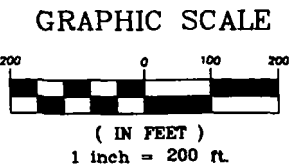
A PORTION OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS VOLUME 8847, PAGE 1647 OF THE CURRENT PUBLIC RECORDS OF DUVAL COUNTY, FLORIDA, LYING IN THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 13, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF REFERENCE, COMMENCE AT THE CORNER COMMON TO SECTIONS 13 AND 24, TOWNSHIP 2 SOUTH, RANGE 24 EAST, DUVAL COUNTY, FLORIDA; THENCE SOUTH 89°06'43" WEST, ALONG THE SOUTHERLY LINE OF SAID SECTION 13, A DISTANCE OF 304.18 FEET; THENCE NORTH 00°35'18" EAST, 359.98 FEET TO THE POINT OF BEGINNING.

FROM SAID POINT OF BEGINNING, THENCE SOUTH 89°58'11" WEST, 100.00 FEET; THENCE SOUTH 89°07'25" WEST, 195.82 FEET; THENCE NORTH 00°24'05" EAST, 116.17 FEET; THENCE NORTH 44°1'00" EAST, 160.89 FEET; THENCE SOUTH 51°22'27" EAST, 150.00 FEET; THENCE SOUTH 25°57'48" EAST, 150.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 1.04 ACRES (45,223 SQUARE FEET), MORE OR LESS.

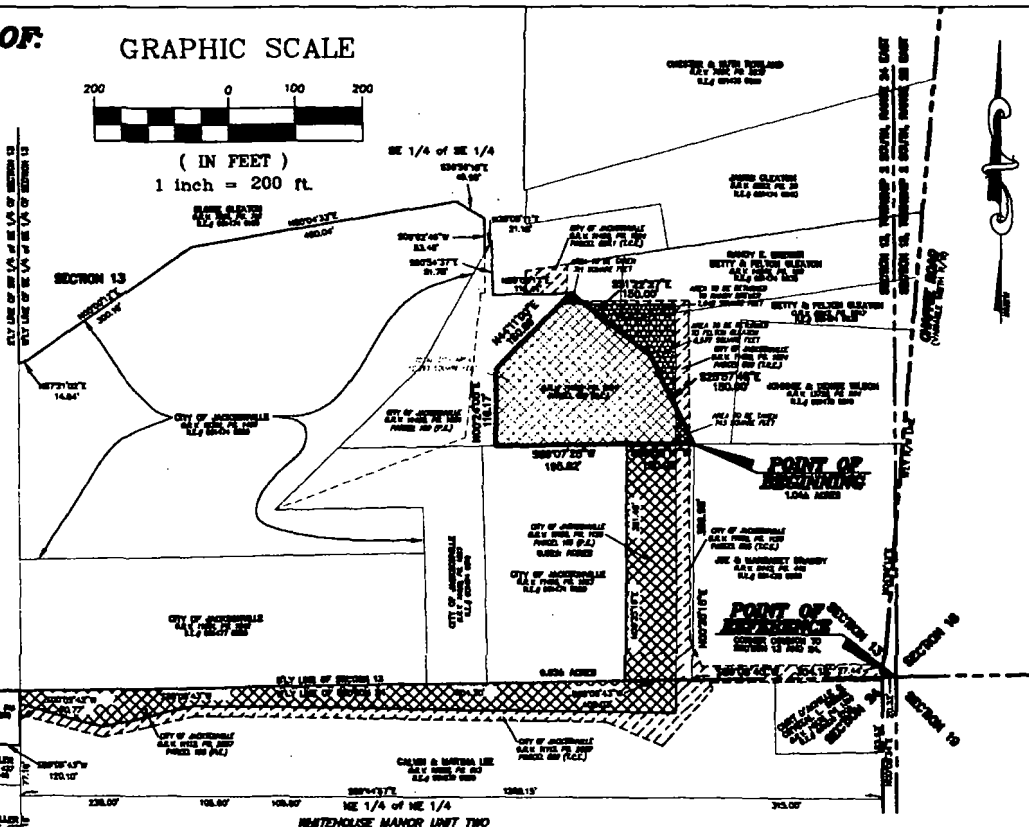
THE ABOVE DESCRIBED PARCEL CONTAINS PERMANENT EASEMENT NO. 108 PREVIOUSLY RECORDED IN OFFICIAL RECORDS VOLUME 11490, PAGE 1024 OF SAID CURRENT PUBLIC RECORDS. UPON RECORDING OF THIS DOCUMENT ALL EXISTING EASEMENTS ARE TO BE VACATED.



CERTIFIED TO:

**LEGEND**

CONC.	CONCRETE	SW 1/4 of SE 1/4
A/C	AIR CONDITIONING	CITY OF JACKSONVILLE
FND	FOUND	
PG.	PAGE	
O.R.V.	OFFICIAL RECORDS VOLUME	
P.E.	PERMANENT EASEMENT	
T.C.E.	TEMPORARY CONSTRUCTION EASEMENT	
R/W	RIGHT OF WAY	



**SURVEY NOTES**

1. BEARINGS SHOWN HEREON ARE BASED ON THE WESTERLY RIGHT OF WAY LINE OF CHAFFEE ROAD, AS BEING NORTH 04°58'13" EAST.
2. ALL DIMENSIONS SHOWN HEREON ARE IN FEET AND IN TENTHS AND ARE BASED ON THE U.S. SURVEY FOOT.
3. A TITLE COMMITMENT HAS NOT BEEN PROVIDED.

*John E. Sharrill*  
**JOHN E. SHARRILL**  
 Florida Registration Certificate No. 6135  
 Date: 23 July 08  
 NOT VALID WITHOUT EMBOSSED SEAL.

**ARC SURVEYING & MAPPING, INC.**  
 5202 SAN JUAN AVENUE,  
 JACKSONVILLE, FLORIDA 32210  
 PHONE: 904/384-8377  
 LICENSED BUSINESS NO. 6487

**ARC**

DRAWN BY: JOM      DATE: 06-11-08      FIELD BOOK & PAGE: ---      JOB NO.: 07-05-02



3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency Florida Department of Environmental Protection  
 Contact John Sykes Environmental 07/29/2008 850-245-8960  
 Name Title Date Phone No.

Problems; suggestions;  Report attached \_\_\_\_\_

Agency \_\_\_\_\_  
 Contact \_\_\_\_\_ mm/dd/yyyy \_\_\_\_\_  
 Name Title Date Phone No.

Problems; suggestions;  Report attached \_\_\_\_\_

Agency \_\_\_\_\_  
 Contact \_\_\_\_\_ mm/dd/yyyy \_\_\_\_\_  
 Name Title Date Phone No.

Problems; suggestions;  Report attached \_\_\_\_\_

Agency \_\_\_\_\_  
 Contact \_\_\_\_\_ mm/dd/yyyy \_\_\_\_\_  
 Name Title Date Phone No.

Problems; suggestions;  Report attached \_\_\_\_\_

Agency \_\_\_\_\_  
 Contact \_\_\_\_\_ mm/dd/yyyy \_\_\_\_\_  
 Name Title Date Phone No.

Problems; suggestions;  Report attached \_\_\_\_\_

4. **Other interviews** (optional)  Report attached


**III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)**

1. **O&M Documents**
- |  |   |  |   |
|--|---|--|---|
| <input type="checkbox"/> O&M manual        | <input checked="" type="checkbox"/> Readily available | <input type="checkbox"/> Up to date            | <input type="checkbox"/> N/A            |
| <input type="checkbox"/> As-built drawings | <input type="checkbox"/> Readily available            | <input type="checkbox"/> Up to date            | <input checked="" type="checkbox"/> N/A |
| <input type="checkbox"/> Maintenance logs  | <input checked="" type="checkbox"/> Readily available | <input checked="" type="checkbox"/> Up to date | <input type="checkbox"/> N/A            |

Remarks: \_\_\_\_\_



2.	<b>Site-Specific Health and Safety Plan</b>	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
	<input type="checkbox"/> Contingency plan/emergency response plan	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks: _____				
3.	<b>O&amp;M and OSHA Training Records</b>	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks: _____				
4.	<b>Permits and Service Agreements</b>			
	<input type="checkbox"/> Air discharge permit	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> Effluent discharge	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> Waste disposal, POTW	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> Other permits _____			
Remarks: _____				
5.	<b>Gas Generation Records</b>	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks: _____				
6.	<b>Settlement Monument Records</b>	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				
7.	<b>Groundwater Monitoring Records</b>	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks: _____				
8.	<b>Leachate Extraction Records</b>	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				
9.	<b>Discharge Compliance Records</b>			
	<input type="checkbox"/> Air	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> Water (effluent)	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				
10.	<b>Daily Access/Security Logs</b>	<input type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks: _____				
<b>IV. O&amp;M COSTS</b>				
1.	<b>O&amp;M Organization</b>			
	<input type="checkbox"/> State in-house	<input type="checkbox"/> Contractor for State		
	<input type="checkbox"/> PRP in-house	<input checked="" type="checkbox"/> Contractor for PRP		
	<input type="checkbox"/> Federal Facility in-house	<input type="checkbox"/> Contractor for Federal Facility		
	<input type="checkbox"/> Other _____			



1. **Implementation and enforcement**

Site conditions imply ICs not properly implemented  Yes  No  N/A  
 Site conditions imply ICs not being fully enforced  Yes  No  N/A

Type of monitoring (e.g., self-reporting, drive by) \_\_\_\_\_  
 Frequency \_\_\_\_\_  
 Responsible party/agency \_\_\_\_\_

Contact _____	_____	<u>mm/dd/yyyy</u> _____	_____
Name	Title	Date	Phone no.

Reporting is up-to-date  Yes  No  N/A  
 Reports are verified by the lead agency  Yes  No  N/A  
 Specific requirements in deed or decision documents have been met  Yes  No  N/A  
 Violations have been reported  Yes  No  N/A

Other problems or suggestions:  Report attached  
 \_\_\_\_\_

---

2. **Adequacy**  ICs are adequate  ICs are inadequate  N/A  
 Remarks: A land swap agreement is in the process of being finalized. Once finalized, ICs and land use restrictions can be put in place.

---

**D. General**

1. **Vandalism/trespassing**  Location shown on site map  No vandalism evident  
 Remarks: No vandalism is evident, but nearby residents have observed people using all-terrain vehicles on the Site.

2. **Land use changes on site**  N/A  
 Remarks: \_\_\_\_\_

3. **Land use changes off site**  N/A  
 Remarks: The adjacent property to the north of the Site has recently been accepting a large amount of soil, which Golder was told is from the FDOT. The soil is said to be cleaned up to FDOT standards. However, the standards may not meet the Site requirements.

---

**VI. GENERAL SITE CONDITIONS**

**A. Roads**  Applicable  N/A

1. Roads damaged  Location shown on site map  Roads adequate  N/A  
 Remarks: \_\_\_\_\_

**B. Other Site Conditions**  
 Remarks: \_\_\_\_\_

---

**VII. LANDFILL COVERS**  Applicable  N/A

**A. Landfill Surface**

1.	<b>Settlement (Low spots)</b>	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Settlement not evident
	Arial extent _____		Depth _____
	Remarks: _____		
2.	<b>Cracks</b>	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Cracking not evident
	Lengths _____	Widths _____	Depths _____
	Remarks: _____		
3.	<b>Erosion</b>	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Erosion not evident
	Arial extent _____		Depth _____
	Remarks: _____		
4.	<b>Holes</b>	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Holes not evident
	Arial extent _____		Depth _____
	Remarks: _____		
5.	<b>Vegetative Cover</b>	<input type="checkbox"/> Grass	<input type="checkbox"/> Cover properly established
	<input type="checkbox"/> No signs of stress	<input type="checkbox"/> Trees/Shrubs (indicate size and locations on a diagram)	
	Remarks: _____		
6.	<b>Alternative Cover</b> (armored rock, concrete, etc.)	<input type="checkbox"/> N/A	
	Remarks: _____		
7.	<b>Bulges</b>	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Bulges not evident
	Arial extent _____		Height _____
	Remarks: _____		
8.	<b>Wet Areas/Water Damage</b>	<input type="checkbox"/> Wet areas/water damage not evident	
	<input type="checkbox"/> Wet areas	<input type="checkbox"/> Location shown on site map	Arial extent _____
	<input type="checkbox"/> Ponding	<input type="checkbox"/> Location shown on site map	Arial extent _____
	<input type="checkbox"/> Seeps	<input type="checkbox"/> Location shown on site map	Arial extent _____
	<input type="checkbox"/> Soft subgrade	<input type="checkbox"/> Location shown on site map	Arial extent _____
	Remarks: _____		
9.	<b>Slope Instability</b>	<input type="checkbox"/> Slides	<input type="checkbox"/> Location shown on site map
	<input type="checkbox"/> No evidence of slope instability		
	Arial extent _____		
	Remarks: _____		
<b>B. Benches</b>			
	<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A	
(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)			
1.	<b>Flows Bypass Bench</b>	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> N/A or okay
	Remarks: _____		

2.	<b>Bench Breached</b>	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> N/A or okay
Remarks: _____			
3.	<b>Bench Overtopped</b>	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> N/A or okay
Remarks: _____			
<b>C. Letdown Channels</b> <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A			
(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)			
1.	<b>Settlement</b> (Low spots)	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> No evidence of settlement
Aerial extent _____		Depth _____	
Remarks: _____			
2.	<b>Material Degradation</b>	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> No evidence of degradation
Material type _____		Aerial extent _____	
Remarks: _____			
3.	<b>Erosion</b>	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> No evidence of erosion
Aerial extent _____		Depth _____	
Remarks: _____			
4.	<b>Undercutting</b>	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> No evidence of undercutting
Aerial extent _____		Depth _____	
Remarks: _____			
5.	<b>Obstructions</b>	Type _____	<input checked="" type="checkbox"/> No obstructions
<input type="checkbox"/> Location shown on site map		Aerial extent _____	
Size _____			
Remarks: _____			
6.	<b>Excessive Vegetative Growth</b>	Type _____	
<input type="checkbox"/> No evidence of excessive growth			
<input checked="" type="checkbox"/> Vegetation in channels does not obstruct flow			
<input type="checkbox"/> Location shown on site map		Aerial extent _____	
Remarks: _____			
<b>D. Cover Penetrations</b> <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A			
1.	<b>Gas Vents</b>	<input type="checkbox"/> Active	<input checked="" type="checkbox"/> Passive
<input checked="" type="checkbox"/> Properly secured/locked		<input checked="" type="checkbox"/> Functioning	<input type="checkbox"/> Routinely sampled
<input checked="" type="checkbox"/> Good condition			
<input type="checkbox"/> Evidence of leakage at penetration		<input type="checkbox"/> Needs Maintenance	<input type="checkbox"/> N/A
Remarks: _____			

2.	<b>Gas Monitoring Probes</b>	<input type="checkbox"/> Properly secured/locked	<input type="checkbox"/> Functioning	<input type="checkbox"/> Routinely sampled	<input type="checkbox"/> Good condition
		<input type="checkbox"/> Evidence of leakage at penetration	<input type="checkbox"/> Needs Maintenance	<input checked="" type="checkbox"/> N/A	
	Remarks: _____				
3.	<b>Monitoring Wells (within surface area of landfill)</b>	<input checked="" type="checkbox"/> Properly secured/locked	<input checked="" type="checkbox"/> Functioning	<input checked="" type="checkbox"/> Routinely sampled	<input checked="" type="checkbox"/> Good condition
		<input type="checkbox"/> Evidence of leakage at penetration	<input type="checkbox"/> Needs Maintenance	<input type="checkbox"/> N/A	
	Remarks: <u>With the exception of a group of flush-mounted wells on the cap, all of the monitoring wells are secured.</u>				
4.	<b>Extraction Wells Leachate</b>	<input type="checkbox"/> Properly secured/locked	<input type="checkbox"/> Functioning	<input type="checkbox"/> Routinely sampled	<input type="checkbox"/> Good condition
		<input type="checkbox"/> Evidence of leakage at penetration	<input type="checkbox"/> Needs Maintenance	<input checked="" type="checkbox"/> N/A	
	Remarks: _____				
5.	<b>Settlement Monuments</b>	<input type="checkbox"/> Located	<input type="checkbox"/> Routinely surveyed	<input checked="" type="checkbox"/> N/A	
	Remarks: _____				
<b>E. Gas Collection and Treatment</b>		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A		
1.	<b>Gas Treatment Facilities</b>	<input type="checkbox"/> Flaring	<input type="checkbox"/> Thermal destruction	<input type="checkbox"/> Collection for reuse	
		<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs Maintenance		
	Remarks: _____				
2.	<b>Gas Collection Wells, Manifolds and Piping</b>	<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs Maintenance		
	Remarks: _____				
3.	<b>Gas Monitoring Facilities (e.g., gas monitoring of adjacent homes or buildings)</b>	<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs Maintenance	<input type="checkbox"/> N/A	
	Remarks: _____				
<b>F. Cover Drainage Layer</b>		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A		
1.	<b>Outlet Pipes Inspected</b>	<input type="checkbox"/> Functioning	<input type="checkbox"/> N/A		
	Remarks: _____				
2.	<b>Outlet Rock Inspected</b>	<input type="checkbox"/> Functioning	<input type="checkbox"/> N/A		
	Remarks: _____				
<b>G. Detention/Sedimentation Ponds</b>		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A		
1.	<b>Siltation</b>	Area extent _____	Depth _____	<input type="checkbox"/> N/A	
	<input type="checkbox"/> Siltation not evident				
	Remarks: _____				

2.	<b>Erosion</b>	Area extent _____	Depth _____
	<input type="checkbox"/> Erosion not evident		
	Remarks: _____		
3.	<b>Outlet Works</b>	<input type="checkbox"/> Functioning	<input type="checkbox"/> N/A
	Remarks: _____		
4.	<b>Dam</b>	<input type="checkbox"/> Functioning	<input type="checkbox"/> N/A
	Remarks: _____		
<b>H. Retaining Walls</b>		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
1.	<b>Deformations</b>	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Deformation not evident
	Horizontal displacement _____		Vertical displacement _____
	Rotational displacement _____		
	Remarks: _____		
2.	<b>Degradation</b>	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Degradation not evident
	Remarks: _____		
<b>I. Perimeter Ditches/Off-Site Discharge</b>		<input checked="" type="checkbox"/> Applicable	<input type="checkbox"/> N/A
1.	<b>Siltation</b>	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Siltation not evident
	Area extent _____		Depth _____
	Remarks: _____		
2.	<b>Vegetative Growth</b>	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> N/A
	<input checked="" type="checkbox"/> Vegetation does not impede flow		
	Area extent _____		Type _____
	Remarks: _____		
3.	<b>Erosion</b>	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Erosion not evident
	Area extent _____		Depth _____
	Remarks: _____		
4.	<b>Discharge Structure</b>	<input type="checkbox"/> Functioning	<input checked="" type="checkbox"/> N/A
	Remarks: _____		
<b>VIII. VERTICAL BARRIER WALLS</b>		<input checked="" type="checkbox"/> Applicable	<input type="checkbox"/> N/A
1.	<b>Settlement</b>	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Settlement not evident
	Area extent _____		Depth _____
	Remarks: _____		

2.	<b>Performance Monitoring</b>	Type of monitoring <u>The water level inside and outside of the barrier wall is monitored regularly.</u>
	<input type="checkbox"/> Performance not monitored	
	Frequency _____	<input type="checkbox"/> Evidence of breaching
	Head differential _____	
	Remarks: _____	
<b>IX. GROUNDWATER/SURFACE WATER REMEDIES</b> <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A		
<b>A. Groundwater Extraction Wells, Pumps, and Pipelines</b> <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A		
1.	<b>Pumps, Wellhead Plumbing, and Electrical</b>	
	<input type="checkbox"/> Good condition	<input type="checkbox"/> All required wells properly operating <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A
	Remarks: _____	
2.	<b>Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances</b>	
	<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs Maintenance
	Remarks: _____	
3.	<b>Spare Parts and Equipment</b>	
	<input type="checkbox"/> Readily available	<input type="checkbox"/> Good condition <input type="checkbox"/> Requires upgrade <input type="checkbox"/> Needs to be provided
	Remarks: _____	
<b>B. Surface Water Collection Structures, Pumps, and Pipelines</b> <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A		
1.	<b>Collection Structures, Pumps, and Electrical</b>	
	<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs Maintenance
	Remarks: _____	
2.	<b>Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances</b>	
	<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs Maintenance
	Remarks: _____	
3.	<b>Spare Parts and Equipment</b>	
	<input type="checkbox"/> Readily available	<input type="checkbox"/> Good condition <input type="checkbox"/> Requires upgrade <input type="checkbox"/> Needs to be provided
	Remarks: _____	
<b>C. Treatment System</b> <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A		



<p>1. <b>Treatment Train</b> (Check components that apply)</p> <p> <input type="checkbox"/> Metals removal                      <input type="checkbox"/> Oil/water separation                      <input type="checkbox"/> Bioremediation  <input type="checkbox"/> Air stripping                              <input type="checkbox"/> Carbon adsorbers  <input type="checkbox"/> Filters _____  <input type="checkbox"/> Additive (e.g., chelation agent, flocculent) _____  <input type="checkbox"/> Others _____  <input type="checkbox"/> Good condition                      <input type="checkbox"/> Needs Maintenance  <input type="checkbox"/> Sampling ports properly marked and functional  <input type="checkbox"/> Sampling/maintenance log displayed and up to date  <input type="checkbox"/> Equipment properly identified  <input type="checkbox"/> Quantity of groundwater treated annually _____  <input type="checkbox"/> Quantity of surface water treated annually _____  Remarks: _____ </p>
<p>2. <b>Electrical Enclosures and Panels</b> (properly rated and functional)</p> <p> <input checked="" type="checkbox"/> N/A                      <input type="checkbox"/> Good condition                      <input type="checkbox"/> Needs Maintenance  Remarks: _____ </p>
<p>3. <b>Tanks, Vaults, Storage Vessels</b></p> <p> <input checked="" type="checkbox"/> N/A                      <input type="checkbox"/> Good condition                      <input type="checkbox"/> Proper secondary containment                      <input type="checkbox"/> Needs Maintenance  Remarks: _____ </p>
<p>4. <b>Discharge Structure and Appurtenances</b></p> <p> <input checked="" type="checkbox"/> N/A                      <input type="checkbox"/> Good condition                      <input type="checkbox"/> Needs Maintenance  Remarks: _____ </p>
<p>5. <b>Treatment Building(s)</b></p> <p> <input checked="" type="checkbox"/> N/A                      <input type="checkbox"/> Good condition (esp. roof and doorways)                      <input type="checkbox"/> Needs repair  <input type="checkbox"/> Chemicals and equipment properly stored  Remarks: _____ </p>
<p>6. <b>Monitoring Wells</b> (pump and treatment remedy)</p> <p> <input type="checkbox"/> Properly secured/locked                      <input type="checkbox"/> Functioning                      <input type="checkbox"/> Routinely sampled                      <input type="checkbox"/> Good condition  <input type="checkbox"/> All required wells located                      <input type="checkbox"/> Needs Maintenance                      <input checked="" type="checkbox"/> N/A  Remarks: _____ </p>
<p><b>D. Monitoring Data</b></p>
<p>1. <b>Monitoring Data</b></p> <p> <input checked="" type="checkbox"/> Is routinely submitted on time                      <input checked="" type="checkbox"/> Is of acceptable quality </p>
<p>2. <b>Monitoring data suggests:</b></p> <p> <input checked="" type="checkbox"/> Groundwater plume is effectively contained                      <input type="checkbox"/> Contaminant concentrations are declining </p>

<b>E. Monitored Natural Attenuation</b>			
1.	<b>Monitoring Wells</b> (natural attenuation remedy)		
	<input type="checkbox"/> Properly secured/locked	<input checked="" type="checkbox"/> Functioning	<input checked="" type="checkbox"/> Routinely sampled
	<input type="checkbox"/> All required wells located	<input type="checkbox"/> Needs Maintenance	<input type="checkbox"/> Good condition
			<input type="checkbox"/> N/A
Remarks: _____			
<b>X. OTHER REMEDIES</b>			
If there are remedies applied at the site and not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.			
<b>XI. OVERALL OBSERVATIONS</b>			
<b>A.</b>	<b>Implementation of the Remedy</b>		
	Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.). <u>Some monitoring wells were unable to be developed or do not have adequate water levels for sampling.</u>		
<b>B.</b>	<b>Adequacy of O&amp;M</b>		
	Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. _____		
<b>C.</b>	<b>Early Indicators of Potential Remedy Problems</b>		
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future. _____		
<b>D.</b>	<b>Opportunities for Optimization</b>		
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. _____		

**Appendix F: Photographs from Site Inspection Visit**

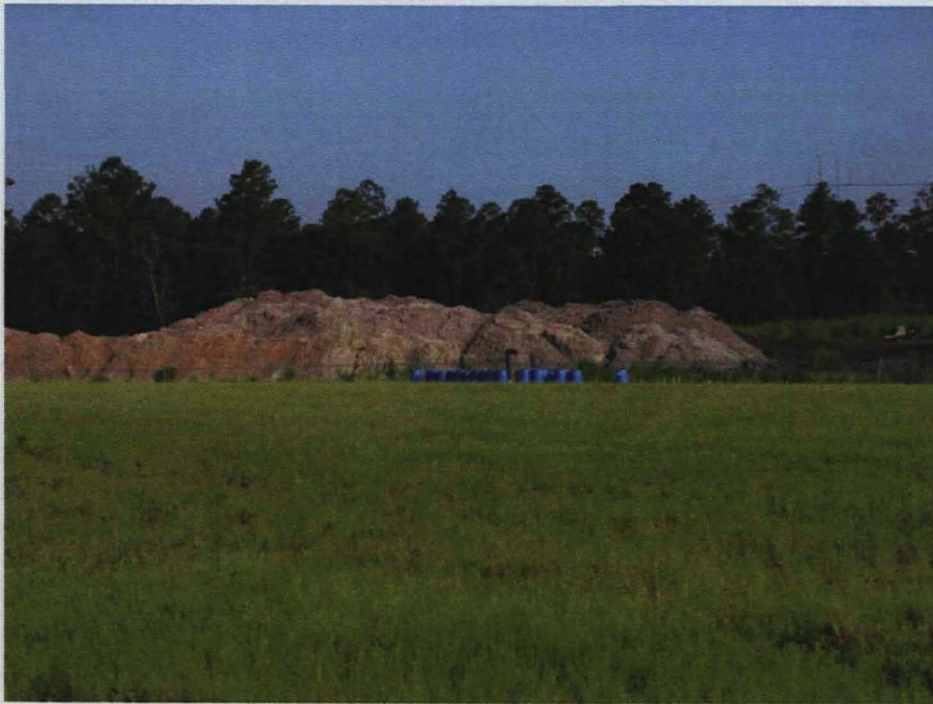


Grass covering the cap at the Site.



Area of the cap in the process of being revegetated.





Large mound of soil on the adjacent property north of the Site.



Monitoring wells showed elevated levels of PAHs and are located next to the mound of soil.





Cattails, an invasive plant species, growing in the wetlands restoration area.



Cables used to fix monitoring wells where the hinges have broken.





Fence opening for the drainage area where trespassers can enter the Site.



The sign posted on the Site gate identifying the Whitehouse Waste Oil Pits Superfund site.





Residences located adjacent to the southern edge of the Site.



Debris located outside of the fence surrounding the cap on the northeast corner of the Site.

**Appendix G: Ground Water Monitoring Data**



**TABLE 8**  
**VOLATILE ORGANIC ANALYTICAL RESULTS - AUGUST/SEPTEMBER 2006**  
**2007 OM&M Report**  
**Whitehouse Waste Oil Pits Site**  
**Jacksonville, Florida**

Sample ID	Sample Date	1,4-Dichlorobenzene (µg/l)	Acetone (µg/l)	Benzene (µg/l)	Carbon Disulfide (µg/l)	Chlorobenzene (µg/l)	Ethylbenzene (µg/l)	Methylene Chloride (µg/l)	Methyl ethyl Ketone (µg/l)	Tetrachloroethen e (µg/l)	Toluene (µg/l)	Trichloroethene (µg/l)	Xylenes (µg/l)
<b>GW Clean-up Goal (µg/l)</b>		NA	1700	1	1640	NA	30	NA	8460	NA	40	3	20
EPA-10D	9/6/2006	0.30 U	0.71 U	0.30 U	0.41 U	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
EPA-10I	8/30/2006	0.30 U	3.0	0.30 U	0.41 U	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
EPA-10K	8/30/2006	0.30 U	2.0	0.30 U	0.490	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.30	0.43 U	0.25 U
EPA-10S	8/30/2006	0.30 U	5.0	0.30 U	0.490	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.30	0.43 U	0.25 U
EPA-11D	9/6/2006	0.30 U	0.71 U	0.30 U	0.54	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.44	0.43 U	0.25 U
EPA-11I	8/29/2006	0.30 U	0.71 U	0.30 U	0.41 U	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
EPA-11K	8/29/2006	0.30 U	0.71 U	0.30 U	0.41 U	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	1.5	0.43 U	0.25 U
EPA-11K-DUP	8/29/2006	0.30 U	0.71 U	0.30 U	0.41 U	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	1.6	0.43 U	0.25 U
EPA-12D	9/6/2006	0.30 U	3.6	0.30 U	1.0	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.51	0.43 U	0.25 U
EPA-12J	8/29/2006	0.30 U	0.71 U	0.49	0.41 U	0.31 U	0.73	0.21 U	0.25 U	0.43 U	0.29 U	1.2	1.5
EPA-13D	9/5/2006	0.30 U	0.71 U	0.30 U	2.9	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
EPA-13K	9/5/2006	0.30 U	0.71 U	0.30 U	0.41 U	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
EPA-14K	8/30/2006	0.30 U	0.71 U	0.30 U	0.41 U	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
EPA-15D	9/5/2006	0.30 U	0.71 U	0.30 U	9.3	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
EPA-15I	9/5/2006	0.30 U	0.71 U	0.30 U	3.2	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
EPA-3D	9/1/2006	0.31	0.71 U	0.30 U	0.54	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
EPA-4I	8/31/2006	0.30 U	0.71 U	0.30 U	0.620	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
EPA-5D	9/6/2006	0.30 U	0.71 U	0.30 U	0.41 U	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
EPA-5I	8/31/2006	0.30 U	0.71 U	0.30 U	0.41 U	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
EPA-5S	8/31/2006	0.30 U	3.0	0.30 U	0.41 U	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
EPA-9D	9/1/2006	0.30 U	0.71 U	0.30 U	0.54	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
EPA-9I	8/31/2006	0.30 U	4.7	0.30 U	0.41 U	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
EPA-9S	8/31/2006	0.30 U	8.3	0.30 U	0.41 U	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
GA-1I	9/1/2006	0.30 U	0.71 U	0.30 U	0.54	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
GA-1S	9/1/2006	0.30 U	0.71 U	0.30 U	0.50	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
M-3	9/5/2006	0.30 U	0.71 U	0.30 U	2.6	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U
S-2	9/5/2006	0.30 U	0.71 U	0.30 U	14	0.31 U	0.27 U	0.21 U	0.25 U	0.43 U	0.29 U	0.43 U	0.25 U

**Notes:**

Groundwater Clean-up Goals are those listed in Table 3 of the Amended Record of Decision (USEPA, 1998)

NA - Groundwater clean-up goal for this Site was not established in the AROD (USEPA, 1998)

µg/l - Micrograms per liter

U - The compound was analyzed for but not detected.

Volatile Organic Analysis performed by USEPA method SW-846 8260B

Prepared by: KMG  
Checked by: KLS  
Reviewed by: CFB

**TABLE 9**  
**SEMIVOLATILE ORGANIC ANALYTICAL RESULTS - AUGUST/SEPTEMBER 2006**  
 2007 OM&M Report  
 Whitehouse Waste Oil Pits Site  
 Jacksonville, Florida

Sample ID	Sample Date	2-Methylnaphthalene (µg/l)	3,4-Methylphenol (µg/l)	Benzo(a)pyrene (µg/l)	Bis(2-ethylhexyl) Phthalate (µg/l)	Di-n-butyl Phthalate (µg/l)	Naphthalene (µg/l)	Phenol (µg/l)	PCB-1260 (µg/l)
GW Clean-up Goal (µg/l)		67	850	0.2	6	NA	1500	10000	NA
EPA-10D	9/6/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-10I	8/30/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-10K	8/30/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-10S	8/30/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-11D	9/6/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-11I	8/29/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-11K	8/29/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-11K-DUP	8/29/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-12D	9/6/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-12I	8/29/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-13D	9/5/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-13K	9/5/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-14K	8/30/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-15D	9/5/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-15I	9/5/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-3D	9/1/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-4I	8/31/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-5D	9/6/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-5I	8/31/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-5S	8/31/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-9D	9/1/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-9I	8/31/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
EPA-9S	8/31/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
GA-1I	9/1/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
GA-1S	9/1/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
M-3	9/5/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U
S-2	9/5/2006	1.2 U	6.2 U	0.023 U	0.74 U	0.75 U	1.6 U	1.4 U	0.052 U

**Notes:**

Groundwater Clean-up Goals are those listed in Table 3 of the Amended Record of Decision (USEPA, 1998)

µg/l - micrograms per liter

U - The compound was analyzed for but not detected.

Semi-volatile organic analysis performed by USEPA Method SW-846 8270C.

PCB analysis performed by USEPA method SW-846 8082.

Prepared by: KMG  
 Checked by: KLS  
 Reviewed by: CFB

**TABLE 10**  
**METALS ANALYTICAL RESULTS - AUGUST/SEPTEMBER 2006**  
**2007 OM&M Report**  
**Whitehouse Waste Oil Pits Site**  
**Jacksonville, Florida**

Sample ID	Sample Date	Antimony (mg/l)	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Manganese (mg/l)	Nickel (mg/l)	Selenium (mg/l)	Vanadium (mg/l)	Zinc (mg/l)
<b>GW Clean-up Goal (µg/l)</b>		<b>0.005</b>	<b>0.05</b>	<b>2</b>	<b>0.005</b>	<b>0.10</b>	<b>1.3</b>	<b>0.015</b>	<b>0.05</b>	<b>0.1</b>	<b>0.05</b>	<b>0.15</b>	<b>5</b>
EPA-10D	9/6/2006	0.0026 U	0.0038 U	0.032	0.00010	0.00071	0.0082	0.0019 U	0.027	0.0016 U	0.0043 U	0.0051	0.010
EPA-10I	8/30/2006	0.0026 U	0.0038 U	0.19	0.00029	0.00030 U	0.0065	0.0019 U	<b>0.53</b>	0.0016 U	0.0043 U	0.0019	0.013
EPA-10K	8/30/2006	0.0026 U	0.0038 U	0.041	0.000099	0.00065	0.0032	0.0019 U	<b>0.663</b>	0.0016 U	0.0043 U	0.0015	0.0074
EPA-10S	8/30/2006	0.0026 U	0.0038 U	0.24	0.000056	0.0018	0.0021	0.0019 U	<b>0.2</b>	0.0042	0.0043 U	0.0066	0.031
EPA-11D	9/6/2006	0.0026 U	0.0038 U	0.041	0.00010	0.00043	0.016	0.0019 U	0.030	0.0016 U	0.0043 U	0.0038	0.012
EPA-11I	8/29/2006	0.0026 U	0.0038 U	0.061	0.000079	0.00030 U	0.0049	0.0019 U	<b>0.056</b>	0.0016 U	0.0043 U	0.00098	0.013
EPA-11K	8/29/2006	0.0026 U	0.0038 U	0.079	0.000051 U	0.0017	0.0065	0.0019 U	<b>0.24</b>	0.0016 U	0.0043 U	0.0020	0.0062
EPA-11K-DUP	8/29/2006	0.0026 U	0.0038 U	0.080	0.000051 U	0.002	0.0083	0.0019 U	<b>0.24</b>	0.0016 U	0.0043 U	0.0020	0.015
EPA-12D	9/6/2006	0.0026 U	0.0038 U	0.038	0.000083	0.0033	0.016	0.0019 U	0.050	0.0016 U	0.0043 U	0.016	0.018
EPA-12I	8/29/2006	0.0026 U	0.0038 U	0.025	0.00019	0.00067	0.0090	0.0019 U	<b>0.13</b>	0.0019	0.0043 U	0.0023	0.0025
EPA-13D	9/5/2006	0.0026 U	0.0038 U	0.030	0.000087	0.00032	0.0087	0.0019 U	0.027	0.0016 U	0.0043 U	0.0021	0.021
EPA-13K	9/5/2006	0.0026 U	0.0038 U	0.038	0.000051 U	0.0015	0.0069	0.0019 U	0.050	0.0016 U	0.0043 U	0.0025	0.017
EPA-14K	8/30/2006	0.0026 U	0.0038 U	0.08	0.000051 U	0.0015	0.0018	0.0019 U	<b>0.12</b>	0.0016 U	0.0043 U	0.0015	0.0063
EPA-15D	9/5/2006	0.0026 U	0.0038 U	0.053	0.00015	0.00043	0.0093	0.0019 U	0.045	0.0016 U	0.0043 U	0.0018	0.010
EPA-15I	9/5/2006	0.0026 U	0.0038 U	0.097	0.000051 U	0.0012	0.010	0.0019 U	<b>0.11</b>	0.0016 U	0.0043 U	0.0027	0.013
EPA-3D	9/1/2006	0.0026 U	0.0038 U	0.044	0.000088	0.0015	0.0022	0.0019 U	0.046	0.0016 U	0.0043 U	0.0340	0.043
EPA-4I	8/31/2006	0.0026 U	0.0038 U	0.11	0.000051 U	0.00085	0.0031	0.0019 U	<b>0.33</b>	0.0041	0.0043 U	0.0048	0.016
EPA-5D	9/6/2006	0.0026 U	0.0038 U	0.028	0.00015	0.00021	0.010	0.0019 U	0.024	0.0016 U	0.0043 U	0.0026	0.017
EPA-5I	8/31/2006	0.0026 U	0.0038 U	0.041	0.000051 U	0.00098	0.0055	0.0019 U	0.017	0.0016 U	0.0043 U	0.0011	0.0040
EPA-5S	8/31/2006	0.0026 U	0.0038 U	0.060	0.000087	0.0034	0.0055	0.0022	0.031	0.0016 U	0.0043 U	0.0050	0.13
EPA-9D	9/1/2006	0.0026 U	0.0038 U	0.033	0.00018	0.00088	0.0054	0.0019 U	0.042	0.0016 U	0.0043 U	0.0018	0.017
EPA-9I	8/31/2006	0.0026 U	0.0054	0.046	0.000051 U	0.0078	0.0028	0.0019 U	0.0059	0.0016 U	0.0043 U	0.0010	0.0045
EPA-9S	8/31/2006	0.0026 U	0.0038 U	0.14	0.00028	0.0010	0.0050	0.0019 U	0.012	0.0060	0.0043 U	0.0038	0.0016 U
GA-1I	9/1/2006	0.0026 U	0.0038 U	0.14	0.000051 U	0.00045	0.00096 U	0.0019 U	0.0043	0.0016 U	0.012	0.0021	0.0055
GA-1S	9/1/2006	0.0026 U	0.0038 U	0.072	0.000051 U	0.0011	0.00096 U	0.0019 U	<b>0.064</b>	0.0016 U	0.0089	0.0028	0.038
M-3	9/5/2006	0.0026 U	0.0038 U	0.21	0.00018	0.0025	0.0067	0.0019 U	<b>0.14</b>	0.0029	0.0043 U	0.0030	0.023
S-2	9/5/2006	0.0026 U	0.0038 U	0.032	0.000051 U	0.0011	0.0057	0.0019 U	<b>0.11</b>	0.0016 U	0.0043 U	0.0023	0.0028

Notes:  
 Groundwater Clean-up Goals are those listed in Table 3 of the Amended Record of Decision (USEPA, 1998)  
 mg/l - milligrams per liter  
 U - The compound was analyzed for but not detected.  
 Metals analyzed by USEPA Methods SW-846 6010B or 6020, as appropriate.  
 Results in bold face exceed the groundwater clean-up goal.

Prepared by: KMG  
 Checked by: KLS  
 Reviewed by: CFB

TABLE 11  
VOLATILE ORGANIC ANALYTICAL RESULTS - NOVEMBER 2006  
2007 OM&M Report  
Whitehouse Waste Oil Pits Site  
Jacksonville, Florida

Sample ID	Sample Date	Acetone (µg/l)	Benzene (µg/l)	Carbon Disulfide (µg/l)	Ethylbenzene (µg/l)	Methyl ethyl Ketone (µg/l)	Toluene (µg/l)	Trichloroethene (µg/l)	Xylenes (µg/l)
GW Clean-up Goal (µg/l)		1700	1	1640	30	8460	40	3	20
EPA-10D	11/16/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-10I	11/16/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-10I-DUP	11/16/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-10K	11/16/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-10S	11/16/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-11D	11/16/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-11I	11/16/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-11K	11/16/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-12D	11/17/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-12I	11/17/2006	6.1	0.43	0.14 U	0.47	2.0 U	0.22 U	0.96	1.6
EPA-13D	11/17/2006	8.0	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-13K	11/17/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-14K	11/17/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-15D	11/16/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-15I	11/16/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-3D	11/20/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-4I	11/21/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-5D	11/20/2006	9.6	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-5I	11/20/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-5S	11/20/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-7D	11/21/2006	22	0.42 U	0.28 U	0.54 U	4.0 U	0.44 U	0.44 U	1.4 U
EPA-9D	11/20/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-9I	11/20/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-9S	11/20/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
GA-1I	11/20/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
GA-1S	11/20/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
M-3	11/17/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
S-2	11/17/2006	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
S-2-DUP	11/17/2006	10	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
USGS-1S	11/21/2006	2.3 U	0.42 U	0.28 U	0.54 U	4.0 U	0.44 U	0.44 U	1.4 U

Notes:  
Groundwater Clean-up Goals are those listed in Table 3 of the Amended Record of Decision (USEPA, 1998)  
µg/l - Micrograms per liter  
U - The compound was analyzed for but not detected.  
Volatile Organic Analysis performed by USEPA method SW-846 8260B

Prepared by: KMG  
Checked by: KLS  
Reviewed by: CFB

TABLE 12

## SEMIVOLATILE ORGANIC ANALYTICAL RESULTS - NOVEMBER 2006

2007 OM&M Report  
Whitehouse Waste Oil Pits Site  
Jacksonville, Florida

Sample ID	Sample Date	2-Methylnaphthalene (µg/l)	3,4-Methylphenol (µg/l)	Benzo(a)pyrene (µg/l)	Bis(2-ethylhexyl) Phthalate (µg/l)	Naphthalene (µg/l)	Phenol (µg/l)
<b>GW Clean-up Goal (µg/l)</b>		67	850	0.2	6	1500	10000
EPA-10D	11/16/2006	1.2 U	6.2 U	0.023 U	0.84	1.6 U	1.4 U
EPA-10I	11/16/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-10I-DUP	11/16/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-10K	11/16/2006	1.2 U	6.2 U	0.023 U	0.98	1.6 U	1.4 U
EPA-10S	11/16/2006	1.2 U	6.2 U	0.023 U	1.0	1.6 U	1.4 U
EPA-11D	11/16/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-11I	11/16/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-11K	11/16/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-12D	11/17/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-12I	11/17/2006	1.2 U	6.2 U	0.023 U	1.1	1.6 U	1.4 U
EPA-13D	11/17/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-13K	11/17/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-14K	11/17/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-15D	11/16/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-15I	11/16/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-3D	11/20/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-4I	11/21/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-5D	11/20/2006	1.2 U	6.2 U	0.023 U	1.5	1.6 U	1.4 U
EPA-5I	11/20/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-5S	11/20/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-7D	11/21/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-9D	11/20/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-9I	11/20/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
EPA-9S	11/20/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
GA-1I	11/20/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
GA-1S	11/20/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
M-3	11/17/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
S-2	11/17/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
S-2-DUP	11/17/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
USGS-1S	11/21/2006	1.2 U	6.2 U	0.023 U	0.74 U	1.6 U	1.4 U
<b>Notes:</b> Groundwater Clean-up Goals are those listed in Table 3 of the Amended Record of Decision (USEPA, 1998) µg/l - micrograms per liter U - The compound was analyzed for but not detected. Semi-volatile organic analysis performed by USEPA Method SW-846 8270C.							

Prepared by: KMG  
Checked by: KLS  
Reviewed by: CFB

TABLE 13  
 METALS ANALYTICAL RESULTS - NOVEMBER 2006  
 2007 OM&M Report  
 Whitehouse Waste Oil Pits Site  
 Jacksonville, Florida

Sample ID	Sample Date	Antimony (mg/l)	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Manganese (mg/l)	Nickel (mg/l)	Selenium (mg/l)	Vanadium (mg/l)	Zinc (mg/l)
<b>GW Clean-up Goal (ug/l)</b>		<b>0.005</b>	<b>0.05</b>	<b>2</b>	<b>0.005</b>	<b>0.10</b>	<b>1.3</b>	<b>0.015</b>	<b>0.05</b>	<b>0.1</b>	<b>0.05</b>	<b>0.15</b>	<b>5</b>
EPA-10D	11/16/2006	0.0026 U	0.0038 U	0.034	0.00021	0.0016	0.0016	0.0019 U	0.027	0.0016 U	0.0043 U	0.0030	0.020
EPA-10I	11/16/2006	0.0026 U	0.0038 U	0.19	0.00033	0.0011	0.0036	0.0019 U	<b>0.39</b>	0.0016 U	0.0043 U	0.0016	0.025
EPA-10I-DUP	11/16/2006	0.0026 U	0.0038 U	0.190	0.00033	0.00085	0.0033	0.0019 U	<b>0.37</b>	0.0016 U	0.0043 U	0.0017	0.023
EPA-10K	11/16/2006	0.0026 U	0.0038 U	0.044	0.00014	0.0014	0.0022	0.0019 U	<b>0.86</b>	0.0016 U	0.0043 U	0.0015	0.021
EPA-10S	11/16/2006	0.0026 U	0.0038 U	0.035	0.00024	0.00097	0.0014	0.0019 U	<b>0.26</b>	0.0016 U	0.0043 U	0.0057	0.045
EPA-11D	11/16/2006	0.0026 U	0.0038 U	0.044	0.00031	0.0013	0.0033	0.0019 U	0.030	0.0016 U	0.0043 U	0.0014	0.021
EPA-11I	11/16/2006	0.0026 U	0.0038 U	0.057	0.000086	0.0010	0.00096 U	0.0019 U	<b>0.10</b>	0.0016 U	0.0043 U	0.00070	0.017
EPA-11K	11/16/2006	0.0026 U	0.0038 U	0.093	0.00012	0.0016	0.0016	0.0019 U	<b>0.22</b>	0.0016 U	0.0043 U	0.0012	0.017
EPA-12D	11/17/2006	0.0026 U	0.0038 U	0.045	0.00049	0.0059	0.0037	0.0019 U	<b>0.065</b>	0.0016 U	0.0043 U	0.018	0.025
EPA-12I	11/17/2006	0.0026 U	0.0038 U	0.026	0.00031	0.0011	0.0018	0.0019 U	<b>0.15</b>	0.0016 U	0.0043 U	0.0019	0.015
EPA-13D	11/17/2006	0.0026 U	0.0038 U	0.031	0.00026	0.0016	0.0026	0.0019 U	0.027	0.0016 U	0.0043 U	0.00072	0.020
EPA-13K	11/17/2006	0.0026 U	0.0038 U	0.043	0.00022	0.0019	0.0030	0.0019 U	<b>0.067</b>	0.0016 U	0.0043 U	0.0016	0.021
EPA-14K	11/17/2006	0.0026 U	0.0038 U	0.097	0.00015	0.0017	0.0015	0.0019 U	<b>0.13</b>	0.0016 U	0.0043 U	0.00075	0.015
EPA-15D	11/16/2006	0.0026 U	0.0038 U	0.053	0.00020	0.00084	0.0028	0.0019 U	0.039	0.0016 U	0.0043 U	0.00055 U	0.019
EPA-15I	11/16/2006	0.0026 U	0.0038 U	0.110	0.00015	0.0012	0.0021	0.0019 U	<b>0.14</b>	0.0016 U	0.0043 U	0.00057	0.017
EPA-3D	11/20/2006	0.0026 U	0.0038 U	0.053	0.00022	0.0030	0.0049	0.0019 U	<b>0.51</b>	0.0016 U	0.0043 U	0.0033	0.063
EPA-4I	11/21/2006	0.0026 U	0.0038 U	0.13	0.000051 U	0.0014	0.0027	0.0019 U	<b>0.30</b>	0.0029	0.0043 U	0.0040	0.021
EPA-5D	11/20/2006	0.0026 U	0.0038 U	0.028	0.00017	0.012	0.00096 U	0.0019 U	0.022	0.0016 U	0.0043 U	0.0010	0.019
EPA-5I	11/20/2006	0.0026 U	0.0038 U	0.041	0.000059	0.0012	0.00096 U	0.0019 U	0.015	0.0016 U	0.0043 U	0.00074	0.036
EPA-5S	11/20/2006	0.0026 U	0.0038 U	0.044	0.000093	0.0013	0.00096 U	0.0019 U	0.025	0.0016 U	0.0043 U	0.0019	0.084
EPA-7D	11/21/2006	0.0026 U	0.0038 U	0.035	0.000051 U	0.0051	0.0033	0.0019 U	<b>0.10</b>	0.0016 U	0.0043 U	0.018	0.020
EPA-9D	11/20/2006	0.0026 U	0.0038 U	0.035	0.00021	0.0017	0.0010	0.0019 U	0.044	0.0016 U	0.0043 U	0.0012	0.017
EPA-9I	11/20/2006	0.0026 U	0.0040	0.047	0.000074	0.0012	0.031	0.0019 U	0.0038	0.012	0.0043 U	0.00055 U	0.015
EPA-9S	11/20/2006	0.0026 U	0.0038 U	0.15	0.000051 U	0.0018	0.00096 U	0.0019 U	0.013	0.0051	0.0043 U	0.0029	0.075
GA-1I	11/20/2006	0.0026 U	0.0038 U	0.14	0.000055	0.0012	0.00096 U	0.0019 U	0.0034	0.0016 U	0.0043 U	0.0014	0.0025
GA-1S	11/20/2006	0.0026 U	0.0038 U	0.12	0.000051 U	0.0016	0.00096 U	0.0019 U	0.041	0.0036	0.0043 U	0.0025	0.016
M-3	11/17/2006	0.0026 U	0.0038 U	0.19	0.00022	0.0024	0.00096 U	0.0019 U	<b>0.16</b>	0.0028	0.0043 U	0.00120	0.028
S-2	11/17/2006	0.0026 U	0.0038 U	0.030	0.00017	0.0020	0.00096 U	0.0019 U	<b>0.14</b>	0.0016 U	0.0043 U	0.00093	0.014
S-2-DUP	11/17/2006	0.0026 U	0.0038 U	0.030	0.00017	0.0020	0.00096 U	0.0019 U	<b>0.12</b>	0.0016 U	0.0043 U	0.00094	0.0073
USGS-1S	11/21/2006	0.0026 U	0.0038 U	0.11	0.000051 U	0.0012	0.0065	0.0019 U	<b>0.20</b>	0.0016 U	0.0043 U	0.0060	0.025

Notes:  
 Groundwater Clean-up Goals are those listed in Table 3 of the Amended Record of Decision (USEPA, 1998)  
 mg/l - milligrams per liter  
 U - The compound was analyzed for but not detected.  
 Metals analyzed by USEPA Methods SW-846 6010B or 6020, as appropriate.  
 Results in bold face exceed the groundwater clean-up goal.

Prepared by: KMG  
 Checked by: KLS  
 Reviewed by: CFB

TABLE 14  
VOLATILE ORGANIC ANALYTICAL RESULTS - FEBRUARY 2007  
2007 OM&M Report  
Whitehouse Waste Oil Pits Site  
Jacksonville, Florida

Sample ID	Sample Date	Acetone (µg/l)	Benzene (µg/l)	Carbon Disulfide (µg/l)	Ethylbenzene (µg/l)	Methyl ethyl Ketone (µg/l)	Toluene (µg/l)	Trichloroethene (µg/l)	Xylenes (µg/l)
GW Clean-up Goal (µg/l)		1780	1	1640	30	8460	40	3	20
EPA-10D	02/22/2007	2.2 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-10I	02/22/2007	3.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-10K	02/22/2007	2.7 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-10S	02/22/2007	2.1 U	0.21 U	0.43 I	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-11D	02/23/2007	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-11I	02/23/2007	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-11K	02/23/2007	3.9 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-12D	02/20/2007	1.1 U	0.21 U	2.1	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-12I	02/20/2007	8.7	0.31	0.14 U	0.51	2.0 U	0.22 U	0.56 I	1.71
EPA-12I-DUP	02/20/2007	10	0.29 I	0.14 U	0.41 I	2.0 U	0.22 U	0.49 I	1.61
EPA-13D	02/21/2007	8.8	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-13K	02/21/2007	5.3	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-14K	02/21/2007	6.4	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-15D	02/19/2007	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-15I	02/19/2007	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-3D	02/20/2007	6.5	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-4I	02/20/2007	6.4	0.21 U	2.1	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-5D	02/22/2007	3.8 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-5D-DUP	02/22/2007	4.6 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-5I	02/22/2007	2.3 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-5S	02/22/2007	2.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-7D	02/23/2007	3.6 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-9D	02/21/2007	9.4	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-9I	02/21/2007	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
EPA-9S	02/21/2007	6.2	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
GA-1I	02/20/2007	1.1 U	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
GA-1S	02/20/2007	9.1	0.21 U	1.6	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
M-3	02/21/2007	9.5	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
S-2	02/21/2007	9.7	0.21 U	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U
USGS-1	02/23/2007	3.1 U	0.68 I	0.14 U	0.27 U	2.0 U	0.22 U	0.22 U	0.72 U

## Notes:

Groundwater Clean-up Goals are those listed in Table 3 of the Amended Record of Decision (USEPA, 1998)

µg/l - Micrograms per liter

U - The compound was analyzed for but not detected.

Volatile Organic Analysis performed by USEPA method SW-846 8260B

Prepared by: KMG  
Checked by: KLS  
Reviewed by: CFB

TABLE 15

SEMIVOLATILE ORGANIC ANALYTICAL RESULTS - FEBRUARY 2007  
 2007 OM&M Report  
 Whitehouse Waste Oil Pits Site  
 Jacksonville, Florida

Sample ID	Sample Date	2-Methylnaphthalene (µg/l)	Benzo(a)pyrene (µg/l)	Bis(2-ethylhexyl) Phthalate (µg/l)	3,4-Methylphenol (µg/l)	Naphthalene (µg/l)	Phenol (µg/l)
GW Clean-up Goal (µg/l)		67	0.2	6	850	1500	10000
EPA-10D	02/22/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-10I	02/22/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-10K	02/22/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-10S	02/22/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-11D	02/23/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-11I	02/23/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-11K	02/23/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-12D	02/20/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-12I	02/20/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-12I-DUP	02/20/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-13D	02/21/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-13K	02/21/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-14K	02/21/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-15D	02/19/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-15I	02/19/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-3D	02/20/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-4I	02/20/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-5D	02/22/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-5D-DUP	02/22/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-5I	02/22/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-5S	02/22/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-7D	02/23/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-9D	02/21/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-9I	02/21/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-9S	02/23/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
GA-1I	02/20/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
GA-1S	02/20/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
M-3	02/21/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
S-2	02/21/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
USGS-1	02/23/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U

## Notes:

Groundwater Clean-up Goals are those listed in Table 3 of the Amended Record of Decision (USEPA, 1998)

µg/l - micrograms per liter

U - The compound was analyzed for but not detected.

Semi-volatile organic analysis performed by USEPA Method SW-846 8270C.

Prepared by: KMG  
 Checked by: KLS  
 Reviewed by: CFB



**TABLE 16**  
**METALS ANALYTICAL RESULTS - FEBRUARY 2007**  
 2007 OM&M Report  
 Whitehouse Waste Oil Pits Site  
 Jacksonville, Florida

Sample ID	Sample Date	Antimony (mg/l)	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Manganese (mg/l)	Nickel (mg/l)	Selenium (mg/l)	Vanadium (mg/l)	Zinc (mg/l)
<b>GW Clean-up Goal (mg/l)</b>		0.006	0.05	2	0.005	0.1	1.3	0.015	0.05	0.1	0.05	0.15	5
EPA-10D	02/22/2007	0.00045 U	0.0009 U	0.035	0.00021 U	0.0056 U	0.0019 U	0.00014 U	0.031	0.0016	0.00081 U	0.015	0.015
EPA-10I	02/22/2007	0.00058 I	0.002	0.2	0.00072 U	0.0028 U	0.0013 U	0.00014 U	<b>0.29</b>	0.00077 I	0.00081 U	0.005	0.013
EPA-10K	02/22/2007	0.00045 U	0.0009 U	0.05	0.00072 U	0.0035 U	0.0012 U	0.00014 U	0.055	0.00015 I	0.00081 U	0.0098	0.0079
EPA-10S	02/22/2007	0.00054 I	0.0009 U	0.047	0.00017 I	0.0036 U	0.0016 U	0.0038	0.066	0.0014	0.00081 U	0.0096	0.041
EPA-11D	02/23/2007	0.00045 U	0.0009 U	0.044	0.00072 U	0.0028 U	0.0011 U	0.00014 U	0.033	0.000094 U	0.00081 U	0.010 U	0.016 U
EPA-11I	02/23/2007	0.00045 U	0.0009 U	0.054	0.00072 U	0.0028 U	0.0087 U	0.00014 U	0.039	0.00012 I	0.00081 U	0.0039 U	0.0092 U
EPA-11K	02/23/2007	0.00045 U	0.0009 U	0.094	0.00072 U	0.0032 U	0.0007 U	0.00014 U	0.19	0.000094 U	0.00081 U	0.010 U	0.0094 U
EPA-12D	02/20/2007	0.00045 U	0.0048	0.047	0.00072 U	0.0047	0.00052 I	0.00072 U	76	0.0034	0.0012 I	0.017	0.025
EPA-12I	02/20/2007	0.00045 U	0.0019	0.027	0.00072 U	0.0051 I	0.0044 U	0.00018 U	0.18	0.0026	0.00081 U	0.0023 U	0.015 J
EPA-12I-DUP	02/20/2007	0.00045 U	0.0017	0.029	0.00072 U	0.0042 U	0.0012 J	0.00067 U	0.18	0.0022	0.00081 U	0.0023 U	0.030 J
EPA-13D	02/21/2007	0.00045 U	0.0009 U	0.02	0.00072 U	0.001 U	0.00044 U	0.00014 U	0.017	0.00053 U	0.00081 U	0.005 U	0.01
EPA-13K	02/21/2007	0.00045 U	0.001	0.04	0.00072 U	0.0016 U	0.00044 U	0.00014 U	0.036	0.0006 U	0.00081 U	0.0049 U	0.012
EPA-14K	02/21/2007	0.00045 U	0.001	0.1	0.00072 U	0.0015 U	0.00044 U	0.00014 U	0.14	0.000094 U	0.00081 U	0.0029 U	0.0073 U
EPA-15D	02/19/2007	0.00045 U	0.0009 U	0.05	0.00072 U	0.0017 U	0.0063 U	0.00014 U	0.039	0.000094 U	0.00081 U	0.0079	0.0072
EPA-15I	02/19/2007	0.00075	0.0009 U	0.13	0.00072 U	0.0033 U	0.0017 U	0.00035 I	0.15	0.00064 I	0.00081 U	0.011	0.015
EPA-3D	02/20/2007	0.00045 U	0.0009 U	0.04	0.00072 U	0.0014 I	0.0014	0.00094	0.048	0.00085 I	0.00081 U	0.0037 I	0.045
EPA-4I	02/20/2007	0.00045 U	0.0016	0.15	0.00072 U	0.0057 I	0.00051 I	0.00039 U	0.29	0.0043	0.00081 U	0.0025 I	0.044
EPA-5D	02/22/2007	0.00045 U	0.0009 U	0.025	0.00072 U	0.0025 U	0.00073 U	0.00014 U	0.022	0.000094 U	0.00081 U	0.0023 U	0.013
EPA-3D-DUP	02/22/2007	0.00045 U	0.0009 U	0.036	0.00072 U	0.0031 I	0.0011 U	0.00014 U	0.023	0.0016 I	0.00081 U	0.0058 J	0.008
EPA-5I	02/22/2007	0.00045 U	0.0009 U	0.04	0.00072 U	0.0029 U	0.00083 U	0.00014 U	0.015	0.00077 I	0.00081 U	0.0023 U	0.016
EPA-5S	02/22/2007	0.00096	0.0009 U	0.063	0.00072 U	0.0036 U	0.0022 U	0.00029 I	0.035	0.0012	0.00081 U	0.0058	0.25
EPA-7D	02/23/2007	0.00045 U	0.0009 U	0.038	0.00072 U	0.0033 U	0.001 U	0.00025 I	0.065	0.00071 I	0.00081 U	0.0035 U	0.0087 U
EPA-9D	02/21/2007	0.00045 U	0.0009 U	0.033	0.00072 U	0.0012 U	0.00044 U	0.00014 U	0.043	0.000094 U	0.00081 U	0.0045 U	0.019
EPA-9I	02/21/2007	0.00045 U	0.0009 U	0.047	0.00072 U	0.0014 U	0.00044 U	0.00014 U	0.0025 U	0.000094 U	0.00081 U	0.0066 U	0.001 U
EPA-9S	02/21/2007	0.00045 U	0.0014	0.092	0.00017	0.0043 U	0.00087 U	0.00014 U	0.1	0.008	0.00081 U	0.0088 U	0.12
GA-1I	02/20/2007	0.00045 U	0.0009 U	0.13	0.00072 U	0.0042 U	0.00044 U	0.00025 U	0.0034	0.001	0.00081 U	0.0023 U	0.019
GA-1S	02/20/2007	0.00045 U	0.0009 U	0.19	0.00013 I	0.0011 I	0.00044 U	0.00033 U	0.35	0.0065	0.00081 U	0.0023 U	0.17
M-3	02/21/2007	0.00045 U	0.0009 U	0.17	0.00072 U	0.0017 U	0.00044 U	0.00029 I	0.2	0.004	0.00081 U	0.0088 U	0.015
S-2	02/21/2007	0.00062	0.0009 U	0.056	0.00072 U	0.0012 U	0.00064 U	0.00014 U	0.15	0.000094 U	0.00081 U	0.0035 U	0.0031 U
USGS-1	02/23/2007	0.00048 I	0.0009 U	0.11	0.00072 U	0.0026 U	0.0014 U	0.00014 U	0.25	0.00047 I	0.00081 U	0.0048 U	0.010 U

Notes:  
 Groundwater Clean-up Goals are those listed in Table 3 of the Amended Record of Decision (USEPA, 1998)  
 mg/l - milligrams per liter  
 U - The compound was analyzed for but not detected.  
 Metals analyzed by USEPA Methods SW-846 6010B or 6020, as appropriate.  
 Results in bold face exceed the groundwater clean-up goal.

Prepared by: KMG  
 Checked by: KLS  
 Reviewed by: CFB

TABLE 17  
VOLATILE ORGANIC ANALYTICAL RESULTS - MAY 2007  
2007 OM&M Report  
Whitehouse Waste Oil Pits Site  
Jacksonville, Florida

Sample ID	Sample Date	2-Butanone (MEK) (µg/l)	Acetone (µg/l)	Benzene (µg/l)	Carbon Disulfide (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	Toluene (µg/l)	Trichloroethene (µg/l)
GW Cleanup Goal (µg/l)		8,460	1,700	1	1,640	30	20	40	3
EPA-10D	05/23/2007	2.0 U	3.2 I	0.23 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
EPA-10I	05/23/2007	2.0 U	1.1 U	0.23 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
EPA-10K	05/23/2007	2.0 U	1.1 U	0.23 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
EPA-10S	05/23/2007	2.0 U	4.2 I	0.23 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
EPA-11D	05/24/2007	2.0 U	1.1 U	0.23 U	0.62 I	0.27 U	0.49 U	0.22 U	0.22 U
EPA-11I	05/24/2007	2.0 U	1.1 U	0.23 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
EPA-11K	05/24/2007	2.0 U	1.1 U	0.23 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
EPA-12D	05/25/2007	2.0 U	1.1 U	0.21 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
EPA-12D-DUP	05/25/2007	2.0 U	1.1 U	0.21 U	8.3 J	0.27 U	0.49 U	0.22 U	0.22 U
EPA-12I	05/24/2007	2.0 U	4.2 I	0.36 I	0.14 U	0.27 U	0.49 U	0.22 U	0.58 I
EPA-13D	05/22/2007	2.0 U	4.4 I	0.23 U	1.0	0.27 U	0.49 U	0.22 U	0.22 U
EPA-13K	05/22/2007	2.0 U	1.1 U	0.23 U	10	0.27 U	0.49 U	0.22 U	0.22 U
EPA-14K	05/25/2007	2.0 U	1.1 U	0.21 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
EPA-15D	05/21/2007	2.0 U	7.8	0.21 U	0.59 I	0.27 U	0.49 U	0.22 U	0.22 U
EPA-15I	05/21/2007	2.0 U	1.1 U	0.21 U	4.4	0.27 U	0.49 U	0.22 U	0.22 U
EPA-3D	05/22/2007	2.0 U	1.1 U	0.21 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
EPA-3D-DUP	05/22/2007	2.0 U	6.3 J	0.23 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
EPA-4I	05/22/2007	2.0 U	1.1 U	0.23 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
EPA-5D	05/22/2007	2.0 U	1.1 U	0.21 U	2.8	0.27 U	0.49 U	0.22 U	0.22 U
EPA-5I	05/22/2007	2.0 U	1.1 U	0.23 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
EPA-5S	05/22/2007	2.0 U	4.3 I	0.21 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
EPA-7D	05/25/2007	2.0 U	1.1 U	0.21 U	1.0	0.27 U	0.49 U	0.22 U	0.22 U
EPA-9D	05/21/2007	2.0 U	1.1 U	0.21 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
EPA-9I	05/21/2007	2.0 U	1.1 U	0.21 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
EPA-9S	05/21/2007	2.0 U	5.2	0.21 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
GA-1I	05/22/2007	2.0 U	1.1 U	0.21 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
GA-1S	05/22/2007	2.0 U	1.1 U	0.21 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
M-3	05/22/2007	2.0 U	1.1 U	0.23 U	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U
S-2	05/22/2007	2.0 U	5.6	0.23 U	1.9	0.27 U	0.49 U	0.22 U	0.22 U
USGS-1S	05/24/2007	2.0 U	3.6 I	0.48 I	0.14 U	0.27 U	0.49 U	0.22 U	0.22 U

## Notes:

Groundwater Clean-up Goals are those listed in Table 3 of the Amended Record of Decision (USEPA, 1998)

µg/l - Micrograms per liter

U - The compound was analyzed for but not detected.

Volatile Organic Analysis performed by USEPA method SW-846 8260B

UJ - The analyte was not detected and the detection limit should be considered estimated.

J - The analyte was detected and is considered an estimated value.

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

Prepared by: KMG  
Checked by: KLS  
Reviewed by: CFB

TABLE 18

**SEMIVOLATILE ORGANIC ANALYTICAL RESULTS - MAY 2007**  
**2007 OM&M Report**  
**Whitehouse Waste Oil Pits Site**  
**Jacksonville, Florida**

Sample ID	Sample Date	2-Methylnaphthalene (µg/l)	Benzo(a)pyrene (µg/l)	Bis(2-ethylhexyl) Phthalate (µg/l)	3,4-methylphenol (µg/l)	Naphthalene (µg/l)	Phenol (µg/l)
<b>GW Cleanup Goals (µg/l)</b>		<b>67</b>	<b>0.2</b>	<b>6</b>	<b>850</b>	<b>1,500</b>	<b>10,000</b>
EPA-10D	05/23/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-10I	05/23/2007	1.2 U	0.023 U	0.75 U	6.3 U	1.6 U	1.4 U
EPA-10K	05/23/2007	1.2 U	0.023 U	0.75 U	6.3 U	1.6 U	1.4 U
EPA-10S	05/23/2007	1.2 U	0.023 U	0.75 U	6.3 U	1.6 U	1.4 U
EPA-11D	05/24/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-11I	05/24/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-11K	05/24/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-12D	05/25/2007	1.2 U	0.023 U	0.75 U	6.3 U	1.6 U	1.4 U
EPA-12D-DUP	05/25/2007	1.2 U	0.023 U	0.75 U	6.3 U	1.6 U	1.4 U
EPA-12I	05/24/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-13D	05/22/2007	1.2 U	0.023 U	0.75 U	6.3 U	1.6 U	1.4 U
EPA-13K	05/22/2007	1.2 U	0.024 U	0.75 U	6.3 U	1.6 U	1.4 U
EPA-14K	05/25/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-15D	05/21/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-15I	05/21/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-3D	05/22/2007	1.2 U	0.023 U	0.75 U	6.3 U	1.6 U	1.4 U
EPA-3D-DUP	05/22/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-4I	05/22/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-5D	05/22/2007	1.2 U	0.023 U	0.75 U	6.3 U	1.6 U	1.4 U
EPA-5I	05/22/2007	1.2 U	0.023 U	0.75 U	6.3 U	1.6 U	1.4 U
EPA-5S	05/22/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-7D	05/25/2007	1.2 U	0.023 U	1.2 I	6.3 U	1.6 U	1.4 U
EPA-9D	05/21/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-9I	05/21/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
EPA-9S	05/21/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
GA-1I	05/22/2007	1.2 U	0.023 U	0.75 U	6.3 U	1.6 U	1.4 U
GA-1S	05/22/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
M-3	05/22/2007	1.2 U	0.023 U	0.74 U	6.2 U	1.6 U	1.4 U
S-2	05/22/2007	1.2 U	0.023 U	0.75 U	6.3 U	1.6 U	1.4 U
USGS-1S	05/24/2007	1.2 U	0.024 U	0.89 I	6.4 U	1.6 U	1.4 U

**Notes:**

Groundwater Clean-up Goals are those listed in Table 3 of the Amended Record of Decision (USEPA, 1998)

µg/l - Micrograms per liter

U - The compound was analyzed for but not detected.

Semi-Volatile Organic Analysis performed by USEPA method SW-846 8270C

UJ - The analyte was not detected and the detection limit should be considered estimated.

J - The analyte was detected and is considered an estimated value.

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

Prepared by: KMG  
 Checked by: KLS  
 Reviewed by: CFB

TABLE 19  
 METALS ANALYTICAL RESULTS - MAY 2007  
 2007 OM&M Report  
 Whitehouse Waste Oil Pits Site  
 Jacksonville, Florida

Sample ID	Sample Date	Antimony (mg/l)	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Manganese (mg/l)	Nickel (mg/l)	Selenium (mg/l)	Vanadium (mg/l)	Zinc (mg/l)
GW Clean-up Goal (mg/l)		0.006	0.05	2	0.005	0.1	1.3	0.015	0.05	0.1	0.05	0.15	5
EPA-10D	05/23/2007	0.00045 U	0.00090 U	0.03	0.00072 U	0.00084 I	0.00044 U	0.00014 U	0.023	0.00094 U	0.00081 U	0.0023 U	0.0079
EPA-10I	05/23/2007	0.00045 U	0.002	0.17	0.00072 U	0.00067 I	0.00082	0.00025 I	0.21	0.00094 U	0.0043 I	0.0023 U	0.015
EPA-10K	05/23/2007	0.00045 U	0.0012	0.043	0.00095 I	0.00095 I	0.00044 U	0.00014 U	0.047	0.00094 U	0.0011 I	0.0023 U	0.017
EPA-10S	05/23/2007	0.00045 U	0.00090 U	0.045	0.00021 I	0.00083 I	0.00044 U	0.062	0.093	0.0016	0.00081 U	0.0072	0.039
EPA-11D	05/24/2007	0.00045 U	0.0011	0.05	0.00015 I	0.0014 I	0.00044 U	0.0011	0.035	0.00094 U	0.00081 U	0.0023 U	0.015 U
EPA-11I	05/24/2007	0.00045 U	0.00090 U	0.051	0.00091 I	0.0013 I	0.00044 U	0.00051 U	0.033	0.00094 U	0.00081 U	0.0023 U	0.014 U
EPA-11K	05/24/2007	0.00045 U	0.00090 U	0.11	0.00072 U	0.0014 I	0.00044 U	0.00014 U	0.2	0.00094 U	0.00081 U	0.0023 U	0.0085 U
EPA-12D	05/25/2007	0.00045 U	0.0044	0.05	0.00072 U	0.0051	0.00044 U	0.00041 I	0.077	0.00036 I	0.0017 I	0.018	0.014 U
EPA-12D-DUP	05/25/2007	0.00045 U	0.0043	0.048	0.00072 U	0.0049	0.00044 U	0.00037 I	0.073	0.00083 I	0.0017 I	0.018	0.016 U
EPA-12I	05/24/2007	0.00045 U	0.0017 U	0.031	0.00072 U	0.00075 I	0.00044 U	0.00014 U	0.18	0.0017	0.0016 U	0.0023 U	0.013 U
EPA-13D	05/22/2007	0.00045 U	0.00090 U	0.028	0.00072 U	0.0067	0.00044 U	0.00014 U	0.027	0.00094 U	0.00081 U	0.0023 U	0.024
EPA-13K	05/22/2007	0.00045 U	0.00090 U	0.04	0.00034 I	0.0078	0.00050 I	0.00053 I	0.044	0.00044 I U	0.00081 U	0.0023 U	0.018
EPA-14K	05/25/2007	0.00045 U	0.00090 U	0.096	0.00072 I	0.01 I	0.00044 U	0.00014 U	0.11	0.00094 U	0.00081 U	0.0023 U	0.0041 U
EPA-15D	05/21/2007	0.00063 U	0.00090 U	0.046	0.00072 U	0.006 U	0.00044 U	0.00014 U	0.032	0.00094 U	0.00081 U	0.0023 U	0.012
EPA-15I	05/21/2007	0.00064 U	0.00090 U	0.12	0.00072 U	0.0069 U	0.00051 I	0.00014 U	0.18	0.00032 U	0.00081 U	0.0023 U	0.011
EPA-3D	05/22/2007	0.00097 U	0.00090 U	0.05	0.00072 U	0.007	0.64 I	0.00014 U	0.047	0.00094 U	0.00081 U	0.0023 U	0.018
EPA-3D-DUP	05/22/2007	0.00050 U	0.00090 U	0.049	0.00072 U	0.0069	0.00072	0.00014 U	0.046	0.00094 U	0.00081 U	0.015 J	0.016
EPA-4I	05/22/2007	0.00047 U	0.00090 U	0.14	0.00072 U	0.0072	0.00089	0.00014 I	0.29	0.0050 U	0.00081 U	0.0023 U	0.024
EPA-5D	05/22/2007	0.00047 U	0.00090 U	0.024	0.00072 U	0.0069	0.00047 I	0.00014 U	0.022	0.00094 U	0.00081 U	0.0023 U	0.016
EPA-5I	05/22/2007	0.00056 U	0.00090 U	0.047	0.0024	0.0076	0.0035	0.002	0.038	0.0036 U	0.00081 U	0.032 J	0.012
EPA-5S	05/22/2007	0.00067 U	0.00090 U	0.054	0.00072 U	0.0068	0.00060 I	0.00014 I	0.026	0.0012 U	0.00081 U	0.045 J	0.15
EPA-7D	05/25/2007	0.00045 U	0.0013	0.034	0.00072 U	0.0014 I	0.00044 U	0.00014 I	0.063	0.00044 I	0.0016 I	0.0046	0.0090 U
EPA-9D	05/21/2007	0.00068 U	0.00090 U	0.033	0.00072 U	0.0067 U	0.00061 I	0.00014 U	0.044	0.00094 U	0.00081 U	0.0023 U	0.015
EPA-9I	05/21/2007	0.00072 U	0.00090 U	0.047	0.00072 U	0.0069 U	0.00044 U	0.00014 U	0.042 U	0.34 I U	0.00081 U	0.011 J	0.0094
EPA-9S	05/21/2007	0.00066 U	0.00096 I	0.099	0.00072 U	0.0072 U	0.00045 I	0.00014 U	0.018	0.0064	0.00081 I	0.0023 U	0.018
GA-1I	05/22/2007	0.00061 U	0.00090 U	0.13	0.00072 U	0.0067	0.00044 U	0.00014 U	0.044 U	0.0010 U	0.00081 U	0.0023 U	0.0085
GA-1S	05/22/2007	0.00060 U	0.00090 U	0.056	0.00072 U	0.0072	0.00044 U	0.00014 U	0.039	0.0020 U	0.00081 U	0.0023 U	0.033
M-3	05/22/2007	0.00068 U	0.00090 U	0.16	0.00012 I	0.0071	0.00053 I	0.00050 I	0.32	0.0061 U	0.00081 U	0.024 J	0.02
S-2	05/22/2007	0.00097 U	0.00090 U	0.064	0.00072 U	0.0066	0.00046 I	0.00014 U	0.12	0.00062 U	0.00081 U	0.021 J	0.023
USGS-1S	05/24/2007	0.00045 U	0.0016	0.11	0.00072 U	0.00071 I	0.00044 U	0.00014 U	0.28	0.00094 U	0.008	0.0023 U	0.016 U

Notes:  
 Groundwater Clean-up Goals are those listed in Table 3 of the Amended Record of Decision (USEPA, 1998)  
 µg/l - Micrograms per liter  
 U - The compound was analyzed for but not detected.  
 Metals Analysis performed by USEPA method SW-846 6010B/6020  
 UJ - The analyte was not detected and the detection limit should be considered estimated.  
 J - The analyte was detected and is considered an estimated value.  
 I - The reported value is between the method detection limit and the practical quantitation limit.  
 Results in bold face exceed the groundwater clean-up goal.

Prepared by: KMG  
 Checked by: KLS  
 Reviewed by: CFB





**TABLE 2**  
**OPERATION MAINTENANCE AND MONITORING SUMMARY**  
**2007 OM&M Report**  
**Whitehouse Waste Oil Pits Site**  
**Jacksonville, Florida**

Site Feature/ Task	Year 5 of Post-Closure												Year 6 of Post-Closure											
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Closure Cap																								
Inspect Toe Drain/ Perimeter Ditch Junctions <sup>1</sup>							*		*			*							*		*			*
Bush-hog Cap Vegetative Cover				*			*		*			*				*			*		*			*
Survey of Settlement Monuments																								
Passive Gas Management System																								
Gas and OVA Monitoring							*					*							*					*
Confirm Piping Network Has Suitable Cover							*					*							*					*
Stormwater Management System																								
Inspection of Letdown Swales and Perimeter Ditch <sup>1,2</sup>	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Culvert Inspection	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Remove Deposited Sediments in Swales and Ditches													*	*	*	*	*	*	*	*	*	*	*	*
Created Wetlands Planting Area																								
Site Inspections for Plant Viability and Nuisance Species																								
Plant Maintenance and Nuisance Species Eradication																								
Read and Record Water Levels on Site Staff Gages																								
Annual Report Preparation and Submittal to EPA, Region IV																								
Groundwater Monitoring System																								
Measuring and Recording Piezometer Groundwater Levels	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Monitoring Wells Sampling							*					*							*				*	*

<sup>1</sup> Inspection should occur after each significant rainfall event (4-inches or more)

<sup>2</sup> Stormwater system components shall be maintained as needed.

**TABLE 2**  
**OPERATION MAINTENANCE AND MONITORING SUMMARY**  
 2007 OM&M Report  
 Whitehouse Waste Oil Pits Site  
 Jacksonville, Florida

Site Feature/ Task	Years 7 through 30 of Post-Closure											
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
<b>Closure Cap</b>												
Inspect Toe Drain/ Perimeter Ditch Junctions <sup>1</sup>							*		*			*
Bush-hog Cap Vegetative Cover				*			*		*			*
Survey of Settlement Monuments												
<b>Passive Gas Management System</b>												
Gas and OVA Monitoring						*						
Confirm Piping Network Has Suitable Cover						*						*
<b>Stormwater Management System</b>												
Inspection of Letdown Swales and Perimeter Ditch <sup>1,2</sup>						*						*
Culvert Inspection	*	*	*	*	*	*	*	*	*	*	*	*
Remove Deposited Sediments in Swales and Ditches												
<b>Created Wetlands Planting Area</b>												
Site Inspections for Plant Viability and Nuisance Species												
Plant Maintenance and Nuisance Species Eradication												
Read and Record Water Levels on Site Staff Gages												
Annual Report Preparation and Submittal to EPA, Region IV												
<b>Groundwater Monitoring System</b>												
Measuring and Recording Piezometer Groundwater Levels	*	*	*	*	*	*	*	*	*	*	*	*
Monitoring Wells Sampling						*						

<sup>1</sup> Inspection should occur after each significant rainfall event (4-inches or more)

<sup>2</sup> Stormwater system components shall be maintained as needed.

Prepared by: KMG  
 Checked by: KLS  
 Reviewed by: CFB